Prospectus dated April 25, 2018

SPRINGER NATURE

Prospectus

for the public offering

of

112,999,554 newly issued ordinary bearer shares with no-par value (*Stückaktien*) from a capital increase against contribution in cash to be resolved by an extraordinary shareholders' meeting of the Issuer on or about May 3, 2018

and of

18,983,925 existing ordinary bearer shares with no-par value (*Stückaktien*) from the holdings of the Selling Shareholder, with the number of shares to be actually placed with investors to be decided by the Selling Shareholder in consultation with the Joint Global Coordinators on the date of pricing (upsize option)

and of

13,198,347 existing ordinary bearer shares with no-par value (*Stückaktien*) from the holdings of Selling Shareholder in connection with a possible over-allotment, with the total number of such shares not exceeding 10% of the final number of newly issued shares and existing shares actually placed in the offering

and at the same time for the

admission to trading on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (*Prime Standard*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*)

of

up to 112,999,554 newly issued ordinary bearer shares with no-par value (*Stückaktien*) to be placed with investors in this offering plus two shares to be issued in connection with the dissolution of certain financing instruments, in each case from a capital increase against contribution in cash to be resolved by an extraordinary shareholders' meeting of the Issuer on or about May 3, 2018

and

190,000,000 existing ordinary bearer shares with no-par value (*Stückaktien*) (existing share capital), each such share with a notional value of €1.00 and full dividend rights from January 1, 2018

of

Springer Nature AG & Co. KGaA
Price Range: €10.50 – €14.50

International Securities Identification Number (ISIN): DE000SPG1003
German Securities Code (*Wertpapierkennnummer, WKN*): SPG100
Common Code: 094555779
Ticker Symbol: SPG

Joint Global Coordinators and Joint Bookrunners

J.P. Morgan **Morgan Stanley**

Joint Bookrunners

BNP PARIBAS **BofA Merrill Lynch** **Credit Suisse** **Goldman Sachs International** **Société Générale Corporate & Investment Banking**

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I. SUMMARY OF THE PROSPECTUS

*Summaries are made up of disclosure requirements known as elements (“**Elements**”). These Elements are numbered in Sections A – E (A.1 – E.7). This summary contains all the Elements required to be included in a summary for this type of security and issuer. Because some Elements are not required to be addressed, there may be gaps in the numbering sequence of the Elements. Even though an Element may be required to be inserted in the summary because of the type of security and issuer, it is possible that no relevant information can be given regarding the Element. In such cases, the summary includes a short description of the Element with the words “not applicable.”*

A – Introduction and Warnings

A.1 Warnings.

This summary should be read as an introduction to this prospectus.

The investor should base any decision to invest in the securities on the review of this prospectus as a whole.

In case a claim relating to the information contained in this prospectus is brought before a court, the plaintiff investor might, under the national legislation of the member states of the European Economic Area, have to bear the costs of translating this prospectus before the legal proceedings are initiated.

Springer Nature AG & Co. KGaA, Berlin, Germany (the “**Issuer**” and, together with its fully consolidated subsidiaries, the “**Group**”, “**Springer Nature**”, or “**we**”, “**us**” or “**our**”), together with J.P. Morgan Securities plc, London, United Kingdom (“**J.P. Morgan**”), Morgan Stanley & Co. International plc, London, United Kingdom (“**Morgan Stanley**” and, together with J.P. Morgan, the “**Joint Global Coordinators**”), and together with BNP PARIBAS, Paris, France (“**BNP PARIBAS**”), Merrill Lynch International, London, United Kingdom (“**BofA Merrill Lynch**”), Credit Suisse Securities (Europe) Limited, London, United Kingdom (“**Credit Suisse**”), Goldman Sachs International, London, United Kingdom (“**Goldman Sachs**”), and Société Générale Corporate & Investment Banking, Paris, France (“**Société Générale**” and, together with BNP PARIBAS, BofA Merrill Lynch, Credit Suisse, Goldman Sachs and the Joint Global Coordinators, the “**Joint Bookrunners**” or the “**Underwriters**”), have assumed responsibility for the content of this summary and its German translation pursuant to Section 5 para. 2b No. 4 of the German Securities Prospectus Act (*Wertpapierprospektgesetz*). Those persons who have assumed responsibility for the summary, including any translation thereof, or for the issuing (*von denen der Erlass ausgeht*), can be held liable but only if this summary is misleading, inaccurate or inconsistent when read together with the other parts of this prospectus or if it does not provide, when read together with the other parts of this prospectus, all necessary key information.

A.2 Consent regarding the subsequent use of the prospectus.

Not applicable. Consent by the Issuer regarding the use of this prospectus for a subsequent resale or final placement of the Issuer’s shares by financial intermediaries has not been granted.

B – Issuer

B.1 Legal and commercial name.

The Issuer’s legal name is “Springer Nature AG & Co. KGaA”. The Issuer primarily operates under the commercial name “Springer Nature”.

B.2 Domicile, legal form, legislation under which the issuer operates, country of incorporation.

The Issuer has its registered office at Heidelberger Platz 3, 14197 Berlin, Germany, and is registered in the commercial register of the local court of Charlottenburg, Germany (*Amtsgericht Charlottenburg*), under the number HRB 195463 B. The Issuer is a partnership limited by shares (*Kommanditgesellschaft auf Aktien*) incorporated in Germany and is governed by the laws of Germany.

B.3 **Current operations and principal business activities and principal markets in which the issuer competes.**

We are, by our own estimate, one of the leading publishers of research, educational and professional content. We sell content in the form of journals, books and databases primarily to academic and governmental institutions, corporate customers and individuals. Created through a merger of Springer Science+Business Media S.A. (“**Springer**”) and the Macmillan Science and Education business (“**MSE**”) in 2015, we combined Springer’s scale with Nature’s top quality to become the number one publisher in terms of citations per article of English language journals (*Source: Journal Citation Reports, Clarivate Analytics, 2017 (“**JCR 2016**”)*). We have historically benefited from stable, reliable and resilient revenues. Our innovation-driven approach has positioned us to benefit from the significant growth potential in our industry.

Our core market, research, is characterized by fundamental growth trends. Research and development spending in the OECD countries and China increased between 2009 and 2015 by a compound annual average of 4.4% (*Source: OECD, “Main Science and Technology Indicators” Volume 2016, Issue 2, 2017*), significantly outpacing the growth of GDP in these regions. The number of researchers and universities also increased significantly. These trends resulted in increased demand on scientists and researchers to publish, resulting in an increase in article output at a compound annual growth rate of 5.0% between 2005 and 2016 (*Source: JCR 2016*). These growth trends favor large, established publishers in the relevant markets, as they would generally be best positioned to benefit from economies of scale.

We report our results in three reportable segments, Research, Education and Professional. Our largest segment, Research, focuses on the publication of academic journals, databases and books in the areas of science, technology and medicine (“**Academic Research**”) which, although not indicated, by convention usually also covers humanities and social sciences (HSS) and is intended to do so in this prospectus. Our Research segment is characterized by a range of established, well respected titles, including our flagship Nature journals, and in 2016 was the market leader by number of top 50-ranked journals by impact factor (*Source: JCR 2016*), an important metric for measuring a journal’s influence in the research community. Approximately two million unique editors and peer reviewers contributed to the publications of our Research segment in 2017. By leveraging the unique position of the Nature brand and focusing on growth sectors, our Research segment has continued to successfully launch new journal titles in a very competitive market, and has expanded its strong position in the open access market, which has been one of the growth drivers in the industry. Furthermore, we are the largest publisher of English language academic books by number of titles (*Source: OC&C Strategy Consultants, “OC&C Market Report”, March 26, 2018 (“**OC&C Report**”)*). Within our books business, we benefit from our focus on digital content delivery and generated 53.0% of our books revenues in 2017 through digital formats compared with an industry average of 27% (*Source: OC&C Report*). In 2016, our Research segment was, by our own estimate, the market leader in open access by number of open access articles published. Further, we seek to benefit from cooperation with partners. This cooperation with partners includes our long-standing business relationship with Digital Science & Research Ltd, a subsidiary of Georg von Holtzbrinck GmbH & Co. KG (together with its consolidated subsidiaries, the “**Holtzbrinck Publishing Group**”), one of our indirect shareholders, with respect to software for the simplification and streamlining of the research process. For the year ended December 31, 2017, our Research segment contributed €1,162.2 million, or 71.0%, of our revenues.

Our Education segment specializes in the publication of books and materials for language learning, curricula and, to a smaller extent, higher education in more than 100 countries. In our language learning business, we focus primarily on Spain and Latin America, while our main school publishing markets are Southern Africa, India and Australia. Our Professional segment focuses on publications for road safety education matters, the medical and health industry and business information.

Our operations support all stages of the academic publishing process. We coordinate the peer review process for journal submissions, select the texts for publication in our products, edit the content and secure copyrights. Our key operations as publisher usually comprise the production of journals and books, which includes pre-publishing services such as typesetting, pre-press services and, in the case of physical journals and books, printing. Depending on the product type, we distribute our products through different channels. To enhance the use of these distribution channels, we employ sales and marketing teams that create awareness of our products and establish and maintain contact with existing and future customers. Our fulfillment operations encompass, among other things, order processing, delivery, warehousing and customer services. We have also continuously focused on streamlining our operations, for example by standardizing workflows, automating typesetting and centralizing purchasing and supplies.

We have been a leading academic publishing company for 175 years. Springer was founded in 1842 in Berlin. Over the last 30 years, we have transformed through a number of acquisitions and mergers, such as the merger between Springer and Kluwer N.V.'s Kluwer Academic Publishers business in 2004 and the acquisitions of Rendement Uitgeverij B.V., a Netherlands-based publisher of business/work-related magazines and material, in 2006, BioMed Central Limited, a pioneer in the open access market, in 2008 and Kluwer N.V.'s Wolters Kluwer Health business in 2011. The roots of MSE date back to 1843, when Macmillan Publishers was founded in London and in 1869 launched the journal Nature, which has become the world's most cited scientific journal (*Source: JCR 2016*). MSE was created in 2012 and merged with Springer in 2015 to become Springer Nature.

Our Strengths

We believe that the following strengths have driven our growth in the past and will continue to distinguish us from other competitors in the future:

- Stable growth market: Our operations focus on the highly attractive Academic Research market.
- Strong leadership: Strategic focus on research, with a high-quality brand portfolio, global scale and favorable positioning to benefit from strong growth in the open access publishing market.
- Attractive returns: We deliver stable revenue growth exceeding broader market growth, attractive profitability and significant cash generation through a highly predictable financial model.
- Solid growth strategy focused on six key pillars.

Our Strategy

The key elements of our strategy include:

- Capitalize on our leading position in open access.
- Launch new products in our core product portfolio.
- Expand author and researcher services.
- Continuous process improvement and innovation.
- Drive cost efficiency.
- Selectively pursue M&A opportunities.

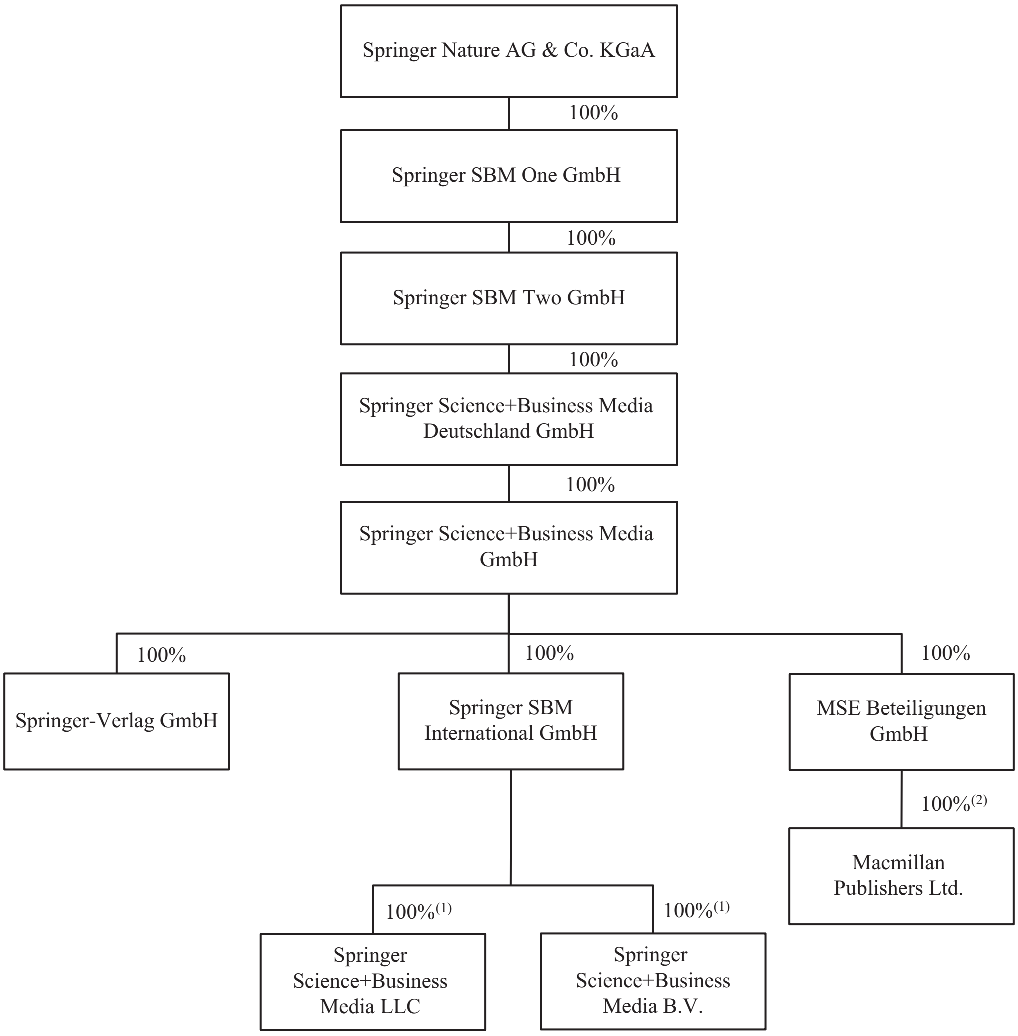
B.4a **Most significant recent trends affecting the issuer and the industry in which it operates.**

We believe that we and the industry in which we operate are affected by the following recent trends:

- Open access models fundamentally change the traditional principle of subscribers of journals and eBooks paying subscription fees in order to access academic content. Under open access models, authors pay an article processing charge ("**APC**") to the relevant publisher for the publication of their work. Under so-called "gold" open access models, publications are made available at no cost to users immediately, while under "green" open access models, content that is initially published in a traditional subscription medium is made freely available in an open access publication only after a so-called "embargo" period. We believe that an industry shift towards the open access model will lead to an increasing number of open access publications on platforms such as ours, and it will also lead to higher revenues from APCs.
- E–piracy is a fundamental factor for the development of our markets. These websites make content freely available to users and bypass publishers' paywalls. The use of e–piracy websites is becoming increasingly popular in the scientific community, as these websites combine the works that have been published by several publishers on a single platform. Works we publish may therefore be made accessible on such e–piracy websites, which could reduce demand for paid access to our products.
- Content aggregators provide content from various publishers. These companies then sell such content to smaller institutions. The bundling and redistribution of content through aggregators may negatively affect the margins of publishers. However, they also allow publishers to access smaller institutions without significant sales force expansion. As this trend continues, further content we offer may be made available through content aggregators, and could lead to lower margins or a slowed expansion or decline of our customer base.

B.5 Description of the group and the issuer's position within the group.

The Issuer is the parent company of our Group. The Issuer's business is conducted by its various subsidiaries. The following chart provides an overview of the Group (in simplified form) as of the date of this prospectus:



Springer Nature AG & Co. KGaA
100%
Springer SBM One GmbH
100%
Springer SBM Two GmbH
100%
Springer Science+Business Media Deutschland GmbH
100%
Springer Science+Business Media GmbH
100%
100%
100%
Springer-Verlag GmbH
Springer SBM International GmbH
MSE Beteiligungen GmbH
100%(2)
Macmillan Publishers Ltd.
100%(1)
100%(1)
Springer Science+Business Media LLC
Springer Science+Business Media B.V.

(1) Indirectly wholly-owned through Springer SBM International GmbH.

(2) Indirectly wholly-owned through MSE Beteiligungen GmbH.

B.6 Persons who, directly or indirectly, have a (notifiable) interest in the issuer's capital and voting rights.

The following tables set forth the direct and indirect shareholders of the Issuer immediately prior to, and their expected shareholding upon completion of, the offering of (i) 112,999,554 newly issued ordinary bearer shares with no–par value (*Stückaktien*) from a capital increase against contribution in cash (the "**IPO Capital Increase**") to be resolved by an extraordinary shareholders' meeting of the Issuer on or about May 3, 2018 (the "**New Shares**"), with the final number of New Shares being set at the date of pricing with a view to achieving the targeted gross proceeds of €1,186,495,327.00, (ii) 18,983,925 existing ordinary bearer shares with no-par value (*Stückaktien*) from the holdings of Springer Science+Business Media GP Acquisition S.C.A. (the "**Selling Shareholder**") (the "**Secondary Shares**"), with the number of Secondary Shares to be actually placed with investors, if any, to be decided by the Selling Shareholder in consultation with the Joint Global Coordinators on the date of pricing (the "**Upsize Option**"), and (iii) 13,198,347 existing ordinary bearer shares with no-par value (*Stückaktien*) from the holdings of the Selling Shareholder in connection with a possible over-allotment, which may not exceed 10% of the final number of New Shares and Secondary Shares actually placed in the Offering (the "**Over-Allotment Shares**", and together with the New Shares and Secondary Shares, the "**Offer Shares**"), each such share representing a notional value of €1.00 and with full dividend rights from January 1, 2018 (the "**Offering**"). The information shown is based on the Issuer's best knowledge.

		Controlling shareholder of the Issuer, in %				
			upon implementation of the IPO Capital Increase and completion of the Offering at the mid-point of the price range			
			placement of no Secondary Shares		placement of all Secondary Shares	
Indirect Shareholders	Direct Shareholders	immediately prior to the Offering	without exercise of Greenshoe Option	full exercise of Greenshoe Option	without exercise of Greenshoe Option	full exercise of Greenshoe Option
Monika Schoeller[1] Christiane Schoeller[1] Dr. Stefan von Holtzbrinck[1]	GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart, Germany[1]	53.00	38.15[2]	38.15[2]	38.15[2]	38.15[2]
BC Partners Holdings Limited, Guernsey, United Kingdom[3]	Springer Science+Business Media GP Acquisition S.C.A., Luxembourg, Luxembourg[3]	47.00	31.34[4]	28.01[5]	24.68[6]	20.68[7]
–	Free float	–	30.51[8]	33.84[9]	37.17[10]	41.17[11]
–	**Total**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

[1] GvH Vermögensverwaltungsgesellschaft XXXIII mbH (“**GvH 33**”) is a wholly owned indirect subsidiary of Georg von Holtzbrinck GmbH & Co. KG. Its general partner, Verlagsgruppe Georg von Holtzbrinck GmbH, is jointly controlled by Dr. Stefan von Holtzbrinck and Monika Schoeller Familiengesellschaft mbH & Co. KG. Monika Schoeller Familiengesellschaft mbH & Co. KG is, in turn, ultimately controlled by Monika Schoeller and Christiane Schoeller. The voting rights of GvH Vermögensverwaltungsgesellschaft XXXIII mbH in the Issuer are accordingly attributed to Dr. Stefan von Holtzbrinck, Monika Schoeller and Christiane Schoeller, the ultimate controlling shareholders of Georg von Holtzbrinck GmbH & Co. KG.

[2] The percentage shown assumes placement of 94,919,626 New Shares (*i.e.*, the number of shares required to achieve the targeted gross proceeds of €1,186.5 million) and acquisition of 8,000,000 Offer Shares by GvH 33. At the low end of the price range set for the Offering within which purchase orders may be placed of €10.50 to €14.50 per Offer Share (the “**Price Range**”) and placement of 112,999,554 New Shares (*i.e.*, the number of shares required to achieve the targeted gross proceeds of €1,186.5 million), the percentage would amount to 36.38% (taking into account the acquisition of 9,523,809 Offer Shares by GvH 33). At the high end of the Price Range and placement of 81,827,263 New Shares (*i.e.*, the number of shares required to achieve the targeted gross proceeds of €1,186.5 million), the percentage would amount to 39.58% (taking into account the acquisition of 6,896,551 Offer Shares by GvH 33).

[3] Springer Science+Business Media GP Acquisition S.C.A. is a majority owned and controlled indirect subsidiary of BC Partners Holdings Limited. The voting rights of Springer Science+Business Media GP Acquisition S.C.A. in the Issuer are accordingly attributed to BC Partners Holdings Limited. The economic interests in Springer Science+Business Media GP Acquisition S.C.A. are held by funds that are advised by BC Partners Holdings Limited, EQT Partners AB and GIC (sovereign fund of the Government of Singapore), as well as by other investment companies, including companies in which management holds shares.

[4] Based on the assumptions described in footnote 2 above, the percentage would amount to 29.47% at the low end of the Price Range and 32.85% at the high end of the Price Range.

[5] Based on the assumptions described in footnote 2 above, the percentage would amount to 25.74% at the low end of the Price Range and 29.84% at the high end of the Price Range.

[6] Based on the assumptions described in footnote 2 above, the percentage would amount to 23.21% at the low end of the Price Range and 25.87% at the high end of the Price Range.

[7] Based on the assumptions described in footnote 2 above, the percentage would amount to 18.85% at the low end of the Price Range and 22.16% at the high end of the Price Range.

[8] Based on the assumptions described in footnote 2 above, the percentage would amount to 34.15% at the low end of the Price Range and 27.57% at the high end of the Price Range.

[9] Based on the assumptions described in footnote 2 above, the percentage would amount to 37.88% at the low end of the Price Range and 30.57% at the high end of the Price Range.

[10] Based on the assumptions described in footnote 2 above, the percentage would amount to 40.42% at the low end of the Price Range and 34.55% at the high end of the Price Range.

[11] Based on the assumptions described in footnote 2 above, the percentage would amount to 44.77% at the low end of the Price Range and 38.26% at the high end of the Price Range.

Different voting rights, if any, of the issuer’s major shareholders.

Each share in the Issuer carries one vote at the Issuer’s shareholders’ meeting. There are no restrictions on voting rights and our existing shareholders, *i.e.*, the Selling Shareholder and GvH 33 (GvH 33 together with the Selling Shareholder, the “**Existing Shareholders**”) do not have different voting rights.

Direct or indirect control over the issuer and nature of such control.

GvH 33 currently directly controls 53.00% of the voting rights in the Issuer. Therefore, GvH 33, and ultimately its controlling shareholders Dr. Stefan von Holtzbrinck, Monika Schoeller and Christiane Schoeller, are considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

The Selling Shareholder currently directly controls 47.00% of the voting rights in the Issuer. Therefore, the Selling Shareholder, and ultimately its controlling shareholder BC Partners Holdings Limited ("**BC Partners**"), are considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

Based on the offer structure contemplated in this prospectus, GvH 33, immediately upon completion of the Offering, would hold more than 30% of the voting rights in the Issuer. Therefore, upon completion of the Offering, GvH 33 and its ultimately controlling shareholders, Dr. Stefan von Holtzbrinck, Monika Schoeller and Christiane Schoeller, will be considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

Based on the offer structure contemplated in this prospectus and depending on the number of Offer Shares actually placed in the Offering, the Selling Shareholder, immediately upon completion of the Offering, could also hold more than 30% of the voting rights in the Issuer. In this case, upon completion of the Offering, the Selling Shareholder, and ultimately its controlling shareholder BC Partners, would be considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*). For example, if the price per Offer Share (the "**Offer Price**") were set at €12.50 per Offer Share, 94,919,626 New Shares would need to be issued to achieve the targeted gross proceeds from the Offering of €1,186.5 million. If, at such Offer Price, the Upsize Option and the Greenshoe Option (as defined below in E.3) were not exercised, the Selling Shareholder would hold 31.34% of the voting rights in the Issuer and accordingly would be considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

B.7 Selected key historical financial information.

The financial information contained in the following tables is taken or derived from the Issuer's audited consolidated financial statements as of and for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 and the Issuer's internal reporting system. The audited consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union ("**IFRS**") and the additional requirements of German commercial law pursuant to Section 315e (1) or Section 315a (1) of the German Commercial Code (*Handelsgesetzbuch*).

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart, office Berlin, Germany, has audited in accordance with Section 317 of the German Commercial Code (*Handelsgesetzbuch*) and German generally accepted standards for financial statement audits and issued an unqualified auditor's report with respect to our German language consolidated financial statements and our German language unconsolidated financial statements as of and for the year ended December 31, 2017 and an unqualified audit opinion with respect to our German language consolidated financial statements as of and for the years ended December 31, 2016 and December 31, 2015, respectively. The audited unconsolidated financial statements have been prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (*Handelsgesetzbuch*). The aforementioned audited consolidated financial statements and unconsolidated financial statements of the Issuer and the respective independent auditor's reports as well as audit opinions thereon are included in this prospectus.

Where financial information in the following tables is labelled "audited", this means that it has been taken from the applicable audited financial statements mentioned above. The label "unaudited" is used in the following tables to indicate financial information that has not been taken from the audited financial statements mentioned above but rather was taken from the Issuer's internal reporting system, or has been calculated based on figures from the sources mentioned before. Financial information presented in the text and tables below is shown in millions of euro (€ million) and is commercially rounded to one digit after the decimal point. Changes, including percentage changes, are calculated based on the numbers as presented in this prospectus and commercially rounded to one digit after the decimal point. As a result of rounding effects, the aggregated figures in the tables may differ from the totals shown and the aggregated percentages may not exactly equal 100%. In addition, rounded totals and subtotals in the tables may vary marginally from unrounded figures indicated elsewhere in this prospectus. Furthermore, in those tables, these rounded figures may not add up exactly to the totals contained in those tables.

Financial information presented in parentheses denotes the negative of such number presented. In respect of financial information set out in this prospectus, a dash ("–") signifies that the relevant figure is not available, while a zero ("0.0") signifies that the relevant figure is available but has been rounded to or equals zero.

Consolidated Statement of Profit or Loss

	For the year ended December 31,		
	2017	**2016**	**2015**
		(audited) **(in € million)**	
Revenues	1,637.2	1,624.7	1,470.7
Other operating income	74.8	82.8	58.3
Internal costs capitalized[1]	41.5	43.4	28.6
Change in inventories[1]	(1.0)	(4.3)	(20.1)
Cost of materials	(179.6)	(204.8)	(197.3)
Royalty and license fees	(125.7)	(118.4)	(119.4)
Personnel costs	(541.6)	(514.4)	(457.1)
Other operating expenses	(386.8)	(393.8)	(365.6)
Income from associates and other investments	3.0	1.4	1.2
Gains/losses from the disposal of businesses/investments	(0.8)	2.1	0.0
Earnings before interest, taxes, depreciation and amortization (EBITDA)	**521.0**	**518.7**	**399.3**
Amortization and impairment of intangible assets	(369.2)	(253.3)	(243.3)
Depreciation and impairment of property, plant and equipment[2]	(17.4)	(16.8)	(16.4)
Result from operations	**134.4**	**248.6**	**139.6**
Financial expenses	(400.9)	(439.1)	(388.8)
Financial income	204.2	88.3	69.3
Financial result	**(196.7)**	**(350.8)**	**(319.5)**
Earnings before taxes	**(62.3)**	**(102.2)**	**(179.9)**
Income taxes	(4.3)	(20.6)	36.0
Net result for the period	**(66.6)**	**(122.8)**	**(143.9)**
Net result attributable to:			
Owners of the parent	(68.2)	(122.5)	(141.6)
Non-controlling interests	1.6	(0.3)	(2.3)

[1] Our consolidated statement of profit or loss has been prepared using the total cost method (nature of expense) according to which the entire income within a certain reporting period is contrasted with the entire expenses, which includes income from internal costs capitalized as well as expenses/income from change in inventories. Internal costs capitalized represents costs associated with the development of self-developed software and internal costs for content creation. These costs are included in the expense items of the consolidated statement of profit or loss and relate, in particular, to cost of materials and personnel costs. To the extent such costs can be capitalized in the consolidated statement of financial position as other intangible assets, they are accounted in the consolidated statement of profit or loss in the line item internal costs capitalized in order to offset the recorded expense impact. Change in inventories represents the change in inventories at the end of the reporting period compared to the end of the relevant preceding reporting period.

[2] Shown as depreciation of property, plant and equipment in the Issuer's audited consolidated financial statements as of and for the year ended December 31, 2016 and December 31, 2015.

Consolidated Statement of Financial Position

	As of December 31,		
	2017	2016	2015
		(audited) (in € million)	
Assets			
Goodwill	1,253.2	1,330.0	1,346.9
Other intangible assets	3,573.7	3,923.4	4,154.5
Property, plant and equipment	153.0	155.2	173.0
Investments in associates	25.9	20.3	7.6
Financial assets	2.3	4.2	5.3
Other non-current assets	6.9	8.7	12.5
Deferred tax assets	8.4	7.6	8.5
Non-current assets	**5,023.4**	**5,449.4**	**5,708.3**
Inventories	63.2	73.7	84.2
Trade receivables	416.9	464.5	477.3
Income tax receivables	19.2	16.1	10.2
Other current assets	64.1	65.2	91.3
Cash and cash equivalents	122.8	97.0	117.3
Current assets	**686.2**	**716.5**	**780.3**
Total assets	**5,709.6**	**6,165.9**	**6,488.6**
Equity and liabilities			
Share capital	0.1	0.1	0.1
Capital reserves	748.7	771.2	771.2
Retained earnings/other accumulated equity	(766.6)	(561.4)	(206.1)
Net result for the period attributable to owners of the parent	(68.2)	(122.5)	(141.6)
Shareholders' equity	**(86.0)**	**87.4**	**423.6**
Non-controlling interests	2.3	(4.2)	(2.3)
Equity	**(83.7)**	**83.2**	**421.3**
Liabilities to shareholders	1,032.7	955.2	882.3
Provisions for pensions and other long-term employee benefits	261.9	265.8	215.2
Interest-bearing loans and borrowings	2,976.2	3,097.0	3,058.6
Finance lease liabilities	0.4	6.1	7.0
Other long-term provisions and non-current liabilities	17.3	22.4	17.0
Deferred tax liabilities	732.2	825.3	898.3
Long-term provisions and non-current liabilities	**5,020.7**	**5,171.8**	**5,078.4**
Interest-bearing loans and borrowings	71.8	83.8	77.4
Finance lease liabilities	6.5	1.3	1.3
Provisions	18.8	28.5	34.7
Trade payables	130.3	134.4	127.1
Income tax payables	51.0	26.5	24.3
Other current liabilities	202.9	315.9	347.6
Deferred income	291.3	320.5	376.5
Short-term provisions and current liabilities	**772.6**	**910.9**	**988.9**
Total equity and liabilities	**5,709.6**	**6,165.9**	**6,488.6**

Consolidated Statement of Cash Flows Data

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Net cash from operating activities	444.8	402.2	341.7
Net cash from investing activities	(189.4)	(177.1)	(110.2)
Net cash from financing activities	(222.6)	(245.7)	(175.3)
Change in cash and cash equivalents	32.8	(20.6)	56.2
Cash and cash equivalents at beginning of the period	97.0	117.3	66.9
Cash and cash equivalents at end of the period	122.8	97.0	117.3

Segment Information

The following table presents Springer Nature's segment information for the periods indicated:

	For the year ended December 31,	
	2017	2016
	(audited) (in € million)	
Research		
Revenues	1,162.2	1,142.4
EBITDA	**433.4**	**430.5**
Gains/losses from the disposal of businesses/investments	–	(1.4)
Adjustments (exceptional items)[1]	24.0	32.5
Adjusted EBITDA	**457.4**	**461.6**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(12.9)	(13.2)
Amortization and impairment of intangible assets (excluding amortization and impairment fair value adjustments recognized in connection with business combinations)	(141.4)	(122.0)
Adjusted operating income	**303.1**	**326.4**
Education		
Revenues	272.8	278.3
EBITDA	**43.2**	**48.0**
Gains/losses from the disposal of businesses/investments	2.3	(0.3)
Adjustments (exceptional items)[1]	3.9	2.7
Adjusted EBITDA	**49.4**	**50.4**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(2.3)	(2.0)
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	(15.4)	(12.5)
Adjusted operating income	**31.7**	**35.9**

	For the year ended December 31,	
	2017	2016
	(audited) (in € million)	
Professional		
Revenues	203.7	204.8
EBITDA	**43.0**	**41.0**
Gains/losses from the disposal of businesses/investments	–	–
Adjustments (exceptional items)[1]	1.1	2.1
Adjusted EBITDA	**44.1**	**43.1**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(0.8)	(0.8)
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	(3.6)	(3.7)
Adjusted operating income	**39.7**	**38.6**
Consolidation/other[2]		
Revenues	(1.5)	(0.8)
EBITDA	**1.4**	**(0.8)**
Gains/losses from the disposal of businesses/investments	(1.5)	(0.4)
Adjustments (exceptional items)[1]	–	(0.1)
Adjusted EBITDA	**(0.1)**	**(1.3)**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	–	–
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	–	–
Adjusted operating income	**(0.1)**	**(1.3)**
Group		
Revenues	1,637.2	1,624.7
EBITDA	**521.0**	**518.7**
Gains/losses from the disposal of businesses/investments	0.8	(2.1)
Adjustments (exceptional items)[1] [3]	29.0	37.2
Adjusted EBITDA	**550.8**	**553.8**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(16.0)	(16.0)
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	(160.4)	(138.2)
Adjusted operating income	**374.4**	**399.6**
Depreciation and impairment of property, plant and equipment on fair value adjustments recognized in connection with business combinations	(1.4)	(0.8)
Amortization and impairment of intangible assets on fair value adjustments recognized in connection with business combinations	(208.8)	(115.1)
Gains/losses from the disposal of businesses/investments	(0.8)	2.1
Adjustments (exceptional items)[1] [3]	(29.0)	(37.2)
Result from operations	**134.4**	**248.6**

[1] Adjustments (exceptional items) relate to effects occurring outside the ordinary course of business or non-recurring effects, such as the integration and restructuring of businesses or business units, as well as to other exceptional or non-recurring business transactions or events.

[2] Consolidation/other includes the effects from eliminating transactions between the segments as well as profit or loss relating to discontinued operations.

(3) In the year ended December 31, 2017, exceptional items relate to (i) expenses resulting from restructuring and integration measures, acquisition projects, group structure and financing projects as well as litigations of €39.2 million, (ii) income from the indemnification agreement between former and current shareholders of Springer Nature of €11.2 million and (iii) preparatory costs in respect of the Offering of €1.0 million. In the year ended December 31, 2016 exceptional items related to (i) expenses related to the acquisition of the MSE business of €1.7 million, (ii) expenses resulting from integration-related measures following the acquisition of the MSE business of €13.8 million, (iii) expenses for restructuring measures of €11.4 million and (iv) non-recurring costs and income and expenses for other corporate projects, such as relocation of offices, and litigations of €10.3 million.

Significant changes to the issuer's financial condition and operating results during and subsequent to the period covered by the historical key financial information.

The following material changes in our financial condition and operating results occurred in the years ended December 31, 2017, 2016 and 2015:

Years Ended December 31, 2017 and December 31, 2016

Revenues increased by 0.8% from €1,624.7 million in 2016 to €1,637.2 million in 2017 primarily due to an increase in revenues in our Research segment driven by strong online subscription sales and an increase in the number of articles published in our open access journals.

EBITDA improved by 0.4% from €518.7 million in 2016 to €521.0 million in 2017 as an increase in revenues and a decrease in cost of materials were nearly offset by an increase in personnel costs. Our EBITDA margin, which corresponds to the ratio of EBITDA to revenues, was 31.9% in 2016 and 31.8% in 2017.

Years Ended December 31, 2016 and December 31, 2015

Revenues increased by 10.5% from €1,470.7 million in 2015 to €1,624.7 million in 2016. The increase was due to the consolidation and full-year impact of MSE for 2016, versus only eight months of MSE operations being reflected in our results for 2015. In addition to effects from the MSE acquisition, revenues from the sale of journals/journal content benefited from an increase in APCs related to our open access journals. This increase was attributable to higher submissions, in particular to some flagship journals, the introduction of new open access journals and the conversion of some hybrid journals into full open access journals. Adjusting for the effects of the MSE acquisition, print book revenues decreased in 2016 compared to 2015. This decrease was partially offset by an increase in online book revenues, primarily due to the sale of eBook packages. Adjusting for the effects of the MSE acquisition, advertisement revenues remained stable in 2016 compared to 2015.

EBITDA improved by 29.9% from €399.3 million in 2015 to €518.7 million in 2016 due to an acquisition-driven increase in revenues that was only partially offset by an increase in personnel costs and other operating expenses. Our EBITDA margin improved from 27.2% in 2015 to 31.9% in 2016, in part due to the impact of integration projects.

Recent Developments

On February 15, 2018, we acquired an additional stake of 30% in Research Square AJE LLC bringing the total share up to 60% for a preliminary contribution of USD 15.2 million. The U.S. based business primarily offers language and manuscript editing and translation services to authors of scientific content.

On February 16, 2018, we acquired all shares in a German-based congress business with 11 employees located in Germany, for a preliminary purchase price of €12.0 million.

In April 2018, several publishers, including us, entered into a cooperation agreement with ResearchGate GmbH ("**ResearchGate**"). ResearchGate is an online platform for members of the scientific community to share work, ask and answer questions and find collaborators. This agreement governs the cooperation between ResearchGate and publishers with respect to user education about rights in relation to copyright protected content. Furthermore, ResearchGate will continue to remove copyright-infringing content from its platform upon request by publishers such as us. In addition, we will gain more insights into content usage on the ResearchGate platform.

In connection with the Offering, the Issuer rearranged its external financing structure and entered into various financing agreements on April 12, 2018. Together with the net proceeds from the Offering, the drawings under these financing agreements will be used to repay remaining amounts outstanding under the existing senior credit agreement the Issuer entered into in 2013 through its subsidiary Springer Science+Business Media Deutschland GmbH as lead borrower (the "**Senior Credit Agreement**"). The fees related to this refinancing are expected to amount to €13 million.

Based on preliminary numbers and adjusted for foreign exchange effects, revenues and adjusted EBITDA in the three months ended March 31, 2018 developed in line with our expectations and the typical seasonal patterns of our business.

In our Research segment, realized institutional renewals are phased somewhat negatively compared to the three months ended March 31, 2017, but fully in line with expectations. The overall status of institutional contract renewals is in line with prior year patterns, with negotiations with a French consortium being the only noteworthy renewal situation that is delayed for non-administrative reasons. Underlying revenues development shows solid growth across all institutional product categories. Trade and eCommerce revenues grew in the three months ended March 31, 2018 and also open access APC revenues grew in line with expectations. Likewise, healthcare revenues showed solid underlying growth.

In our Education segment, the underlying development was positive in the three months ended March 31, 2018. Revenues development saw slightly different regional trends, with our operations in Latin America making a positive contribution and our operations in India making a negative contribution, resulting in overall net underlying growth.

In our Professional segment, in the three months ended March 31, 2018, underlying development was above full year growth rate expectations.

Except as described above, between December 31, 2017 and the date of this prospectus, there have been no material changes to the Issuer's or the Group's financial position, financial performance or cash flows, or in the Issuer's or the Group's trading position.

B.8 Selected key pro forma financial information.

Not applicable. The Issuer has not prepared pro forma financial information for inclusion in this prospectus.

B.9 Profit forecast or estimate.

Not applicable. No profit forecast or estimate is being presented by the Issuer.

B.10 Qualifications in the audit report on the historical financial information.

Not applicable. The independent auditor's reports or audit opinions on the historical financial statements included in this prospectus have been issued without qualification.

B.11 Insufficiency of the issuer's working capital for its present requirements.

Not applicable. The Issuer is of the opinion that the Group is in a position to meet the payment obligations that become due within at least the next twelve months from the date of this prospectus.

C – Securities

C.1	**Type and class of the securities being offered and/or admitted to trading.**	This Offering consisting of: • 112,999,554 New Shares; • 18,983,925 Secondary Shares; with the number of Secondary Shares to be actually placed with investors to be decided by the Selling Shareholder in consultation with the Joint Global Coordinators on the date of pricing; and • 13,198,347 Over-Allotment Shares. The total number of Over-Allotment Shares will not exceed 10% of the final number of New Shares and Secondary Shares actually placed in the Offering. For the purpose of admission to trading on the regulated market (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and the simultaneous admission to the sub-segment of the regulated market with additional post admission obligations (*Prime Standard*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), this prospectus relates to up to 112,999,554 New Shares, two shares to be issued in connection with the dissolution of certain financing instruments as described in more detail under "*C.3 The number of shares issued and fully paid"* below and 190,000,000 of the Issuer's ordinary bearer shares with no-par value (*Stückaktien*) (the Issuer's share capital as of the date of this prospectus), each such share representing a notional value of €1.00. Following registration of the IPO Capital Increase and issuance of two new shares as described above, it is expected that the Issuer's share capital will be divided into up to 302,999,556 ordinary bearer shares with no-par value (*Stückaktien*). All securities being offered and to be admitted to trading are ordinary bearer shares with no-par value (*Stückaktien*).
	Security identification number.	International Securities Identification Number (ISIN): DE000SPG1003 German Securities Identification Number (WKN): SPG100 Common Code: 094555779 Ticker Symbol: SPG
C.2	**Currency.**	Euro.
C.3	**The number of shares issued and fully paid.**	As of the date of this prospectus, the share capital of the Issuer amounts to €190,000,000.00 and is divided into 190,000,000 ordinary bearer shares with no-par value (*auf den Inhaber lautende Stückaktien (Stammaktien)*) that have been issued. The share capital has been fully paid up. Concurrently with the registration of the IPO Capital Increase, the Existing Shareholders will contribute and assign a shareholder loan, a vendor loan and class B preferred shares (*Vorzugsgeschäftsanteile*) in Springer SBM One GmbH ("**SSBM One**") with an aggregate value of €977.8 million, together with an aggregate cash payment of €2.00 to the Issuer against issuance of two new shares of the Issuer. The €2.00 cash payment will lead to a corresponding increase of share capital, the value of these financing instruments will be reflected in the Issuer's free capital reserves as a contractual premium (*schuldrechtliches Agio*) within the meaning of Section 272 para. 2 no. 1 German Commercial Code (*Handelsgesetzbuch*) and the Existing Shareholders will thereby dissolve their respective financing instruments. The contribution and assignment of these financing instruments will lead to an increase of our equity, turning the Group's equity from negative €83.7 million as of December 31, 2017 into a positive number at the time of such contribution and assignment. The Issuer's shareholders' meeting will resolve to increase the Issuer's current share capital of €190,000,000.00 against a contribution in cash by €2.00 concurrently with the IPO Capital Increase. It is expected that the

		consummation of the capital increase will be registered with the commercial register of the local court (*Amtsgericht*) of Charlottenburg, Germany, on May 8, 2018. As a consequence of the planned dissolution of these financing instruments, concurrently with the registration of the IPO Capital Increase, two shares of the Issuer will be issued.
	Notional value.	Each Issuer's share represents a notional share of €1.00 in the Issuer's share capital.
C.4	**A description of the rights attached to the securities.**	Each share in the Issuer carries one vote at the Issuer's shareholders' meeting. There are no restrictions on voting rights and the Existing Shareholders do not have different voting rights. The Issuer's shares carry full dividend rights from January 1, 2018.
C.5	**A description of any restrictions on the free transfer-ability of the securities.**	The Issuer's shares are freely transferable in accordance with the legal requirements for ordinary bearer shares. There are no prohibitions on disposals or restrictions with respect to the transferability of the Issuer's shares.
C.6	**Application for admission to trading on a regulated market and identity of regulated markets where the securities are to be traded.**	The Issuer will apply for admission of its shares to trading on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and, simultaneously, to the sub-segment thereof with additional post-admission obligations (*Prime Standard*) on or about April 26, 2018. The listing approval for the Issuer's shares is expected to be granted on May 8, 2018. Trading in the Issuer's shares on the Frankfurt Stock Exchange is planned to commence on May 9, 2018.
C.7	**Dividend policy.**	A dividend payment will be made in accordance with applicable laws, and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements. In respect of the year ending December 31, 2018, the Issuer is targeting a dividend payment of €110 million, payable in 2019. Thereafter, the Issuer intends to pay an annual dividend to its shareholders in the amount of approximately 50% of the Group's net result for the period, adjusted for deferred taxes and amortization expenses concerning acquisition-related intangible assets referring to fair value adjustments recognized in connection with business combinations. Our future ability to pay dividends may be limited by the terms of any existing and future debt or preferred securities.
D – Risks		
		Prospective investors should carefully consider the risk factors set out below, together with the other information contained in this prospectus, before making an investment decision with respect to investing in shares in the Issuer. The occurrence of any of these risks, individually or together with other circumstances, could have a material adverse effect on the business, results of operations and financial position of the Issuer or the Group. The sequence of risk factors set out below is not a statement about the probability of occurrence, degree or importance of the individual risks. The risk factors are based on assumptions that could turn out to be incorrect. Furthermore, other risks, facts or circumstances not presently known to the Issuer could prove to be important and could have a material adverse effect on the business, results of operations and financial position of the Issuer. The value of the shares in the Issuer could decline as a result of the occurrence of any of these risks, and investors could lose all or part of their investments.

D.1 Key information on the key risks that are specific to the issuer or its industry.

Risks Relating to our Market and Business

- The development of the Internet and other industry trends as well as regulatory developments have diminished and may continue to diminish the value that we create as an intermediary between providers and users of academic, educational and professional content, negatively affecting our business model.
- A decline in renewal rates for subscriptions in our Research segment may negatively affect our revenues and results of operations.
- Lower institutional and government expenditure and general economic conditions in our markets may lead to lower demand for our products and services in our Research segment, which may negatively affect our revenues and results of operations.
- We may not be able to increase our revenues in our Research segment if we fail to monetize content growth.
- Any changes to our sales and pricing models may lead to negative publicity and may negatively affect our results of operations.
- Increased utilization of open access models may reduce demand for subscription-based Academic Research journals, and the APCs for our author-paid open access model may decline or not fully compensate for such demand reduction.
- Any failure to attract and retain a large number of high quality editors, editorial board members, and peer reviewers will significantly negatively impact our operations.
- Questions about the integrity of the peer review process may negatively affect the reputation of our journals.
- Any failure to enter into and maintain co-publishing and distribution agreements with third parties at satisfactory economic terms may negatively affect our revenues and results of operations.
- The widespread use of file sharing platforms, including e-piracy, could negatively affect our revenue models.
- A decrease in the impact factor of our journals may negatively affect our business.
- Our Education segment may be adversely affected by the increased availability of used textbooks and textbook rentals, parallel importing, self-produced materials as well as changes in the public tender business and as a result of the mandatory review process concerning educational and social content in some countries; furthermore, a decrease in the level of government expenditure may adversely affect our Education segment.
- Our Professional segment may be adversely affected by demand fluctuations due to cyclical spending of our customers, broader structural changes and the availability of free or low-cost online content.
- The increasing importance of e-distribution channels may put downward pressure on our e-product pricing, result in insolvencies of subscription agents and therefore negatively affect our results of operations.
- A deterioration of our brands and reputation, for example due to our compliance with government orders to limit the distribution of our content, would negatively affect our ability to remain a trusted source of information and our relationship with customers and contributors.
- We heavily rely on the Internet and our IT systems, in particular our electronic databases and platforms, and any failures or disruptions may

adversely affect our ability to serve our customers; unauthorized breaches of our cybersecurity systems by third-parties could adversely affect our business.

- Our business models, products and services may not be fully protected by intellectual property rights, our intellectual property rights may be infringed or challenged by third parties or we may infringe third parties' intellectual property rights or be faced with claims regarding infringements with regard to the use of intellectual property.
- Following the merger of Springer and MSE's academic and education business, we may be unable to successfully implement the planned reorganization and restructuring of our business; the integration is still ongoing and there can be no assurance that it will yield the expected benefits.
- The success of our business relies on the experience and talent of our senior management and on our ability to recruit and retain key employees.
- We are dependent on third parties for a wide array of services, including services relating to operations, IT systems and administration, and services provided by affiliates of one of our Existing Shareholders.
- We may be adversely affected by leverage and debt service obligations, including restrictions on our business and financial flexibility under our financing agreements, and adequate financing may not be available to fund or support our working capital or may only be available on less commercially satisfactory terms in the future; we may also be negatively affected by public ratings of rating agencies.

Legal, Regulatory and Tax Risks

- We may be directly or indirectly adversely affected by changes in legislation and regulation as well as the implications of potential economic sanctions.
- We are subject to regulation regarding the use of personal customer data, and breaches of security systems or other unauthorized access or misappropriation of such data could adversely affect our reputation and business operations.
- We are subject to tax risks, especially as a result of changes in tax law or its interpretation and application or as a result of tax audits detrimental to us.
- We are and may become involved in litigation, which may adversely affect our financial position and results of operations.
- Antitrust or competition-related claims or investigations could result in changes to how we do business, and defending such claims could be costly.

D.3 Key risks specific to the securities.

Risks Relating to the Offering, the Listing and the Shareholder Structure

- Our Existing Shareholders will continue to exercise substantial influence over the Issuer following the completion of the offering, and the interests of our Existing Shareholders might conflict with the interests of our other shareholders.
- Georg von Holtzbrinck GmbH & Co. KG, one of our indirect Existing Shareholders, may engage in business activities that overlap with our business and may compete with us.

- Future sales or market expectations of sales of a large number of shares by our Existing Shareholders or other shareholders could cause the share price to decline.
- Future capital increases could lead to substantial dilution in the value of the Issuer's shares and the control rights of the shareholders' interests in the Issuer.
- Insufficient distribution or transfer of profits from the Issuer's subsidiaries and its debt covenants may limit the Issuer's ability to pay dividends.
- The Issuer will face additional administrative requirements and incur higher ongoing costs as a result of the initial public offering.

E – Offer

E.1 The total net proceeds.

The Issuer targets gross proceeds of approximately €1,186.5 million, which is the amount of gross proceeds the Issuer would receive if all 112,999,554 New Shares were placed at the low end of the Price Range. If the final Offer Price exceeds the low end of the Price Range, the Issuer will reduce the number of New Shares with a view to keeping the gross proceeds attributable to the Issuer at approximately €1,186.5 million. Accordingly, the number of New Shares would amount to 112,999,554 New Shares at the low end, 94,919,626 New Shares at the mid-point and 81,827,263 New Shares at the high end of the Price Range.

Assuming an Offer Price at the low end, mid-point and high end of the Price Range and that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively), the gross proceeds from the Offering will amount to €1,524.4 million, €1,566.2 million and €1,607.9 million, respectively. The Issuer will only receive the proceeds of the Offering resulting from the sale of the New Shares. The Issuer will not receive any proceeds from the sale of the Secondary Shares, if any, or the Over-Allotment Shares.

The gross proceeds to the Selling Shareholder depend on if and the extent to which Secondary Shares are sold pursuant to the Upsize Option and the Offer Price. Assuming full exercise of the Upsize Option and full exercise of the Greenshoe Option (as defined below in E.3), *i.e.,* 13,198,347 shares subject to the Greenshoe Option at the low end of the Price Range, 11,390,355 shares at the mid-point of the Price Range and 10,081,118 shares at the high end of the Price Range, the Issuer estimates that at the low end, mid-point and high end of the Price Range gross proceeds attributable to the Selling Shareholder would amount to €337.9 million, €379.7 million and €421.4 million, respectively.

The costs of the Issuer and the Selling Shareholder related to the Offering of the Offer Shares and listing of the Issuer's entire share capital consist of commissions payable to the Underwriters and other expenses related to the Offering. The commissions payable to the Underwriters depend on the gross proceeds from the Offering and consist of a base fee of 1.25% of the gross proceeds from the Offering and a discretionary fee of 1.00% of the gross proceeds from the Offering. The other expenses related to the Offering are essentially fixed.

Assuming an Offer Price at the low end, mid-point and high end of the Price Range and that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively), and assuming further full exercise of the Greenshoe Option and full payment of the discretionary fee of up to €15.2 million, €15.7 million and €16.1 million, at the low end, mid-point and high end of the Price Range, respectively, the commission payable to the Underwriters will amount to €34.3 million, €35.2 million and €36.2 million, respectively. Thereof, €26.7 million, €26.7 million and €26.7 million are attributable to the placement of the New Shares and will be borne by the

Issuer, €4.5 million, €5.3 million and €6.2 million are attributable to the placement of the Secondary Shares and will be borne by the Selling Shareholder and the remaining €3.1 million, €3.2 million and €3.3 million, respectively, are attributable to the placement of the Over-Allotment Shares and will be borne by the Selling Shareholder.

The other costs related to the Offering are estimated to total €12.0 million and will be split between the Issuer on the one hand and the Existing Shareholders on the other hand according to the number of New Shares on the one hand and the number of Secondary Shares and, to the extent the Greenshoe Option is exercised, the number of Over-Allotment Shares on the other hand placed in the Offering. The cost to be borne by the Existing Shareholders will be split according to their shareholding in the Issuer as of the date of this prospectus (*i.e.*, 53% of the cost will be borne by GvH 33 and 47% by the Selling Shareholder). Assuming an Offer Price at the low end, mid-point and high end of the Price Range and that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively) and assuming further full exercise of the Greenshoe Option, €9.3 million, €9.1 million and €8.9 million are attributable to the placement of the New Shares and will be borne by the Issuer, €0.7 million, €0.9 million and €1.0 million are attributable to the placement of the Secondary Shares and will be borne by the Selling Shareholder and the remaining €0.5 million, €0.5 million and €0.5 million, respectively, are attributable to the placement of the Over-Allotment Shares and will be borne by the Selling Shareholder. Finally, €1.4 million, €1.5 million and €1.7 million will be borne by GvH 33.

Based on the commissions and costs described above and assuming that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively) and assuming further full exercise of the Greenshoe Option and full payment of the discretionary fee, the Issuer estimates that at the low end, mid-point and high end of the Price Range, net proceeds attributable to the Issuer would amount to approximately €1,150.5 million, €1,150.7 million and €1,150.9 million, respectively, and net proceeds attributable to the Selling Shareholder would amount to approximately €329.1 million, €369.8 million and €410.5 million, respectively.

Estimate of the total expenses of the offering and listing, including estimated expenses charged to the investor by the issuer.

The costs of the Issuer and the Existing Shareholders related to the Offering of the Offer Shares and listing of the Issuer's entire share capital, including underwriting and placement commissions payable to the Underwriters, are expected to total approximately €47.2 million at the mid-point of the price range (assuming placement of 125,293,906 Offer Shares, full exercise of the Greenshoe Option (as defined below in E.3) and payment of the discretionary fee in full). Of the total cost, the Selling Shareholder will bear approximately €9.9 million GvH 33 will bear €1.6 million and the Issuer will bear the remaining €35.8 million.

Investors will not be charged expenses by the Issuer, the Selling Shareholder or the Underwriters. Investors will have to bear customary transaction and handling fees charged by their brokers or other financial institutions through which they hold their securities.

E.2a Reasons for the offering.

The Issuer intends to list its shares on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange with simultaneous admission to the sub-segment of the regulated market with additional post admission obligations (*Prime Standard*) to achieve better access to the capital markets. The Issuer also intends to pursue the Offering to receive the proceeds from the placement of the New Shares to optimize its financing structure.

The Selling Shareholder intends to pursue the Offering to partially use the proceeds resulting from the sale of the Secondary Shares, if any, subject to the exercise of the Upsize Option, and the Over-Allotment Shares to pay for the

		class B preferred shares (*Vorzugsgeschäftsanteile*) in SSBM One it acquired from GvH 33 prior to the registration of the IPO Capital Increase in connection with the dissolution of financing instruments (the "**One B Shares**"). Furthermore, the Selling Shareholder intends to divest its stake in the Issuer and to ensure sufficient free float and trading liquidity in the Issuer's shares.
	Use of proceeds.	The Senior Credit Agreement provides for, among others, term loans of approximately €1.98 billion and $1.29 billion. As of December 31, 2017, the aggregate carrying amount outstanding under these term loans was €3.01 billion. The Issuer intends to use the portion of the net proceeds of the Offering accruing to the Issuer to reduce its obligations under these term loans and a shareholder loan of €80 million provided by GvH 33 as lender. After application of the net proceeds, the Issuer expects €2.01 billion to remain outstanding under the Senior Credit Agreement. The Issuer intends to repay the remaining amounts outstanding under the Senior Credit Agreement by using expected cash inflows from a new senior credit agreement entered into by the Issuer and certain of its subsidiaries, as borrowers, on April 12, 2018.
	Estimated net amount of the proceeds.	The Issuer expects to receive gross proceeds of approximately €1,186.5 million in the Offering and net proceeds of approximately €1,150.7 million at the mid-point of the price range.
E.3	**Offer conditions.**	The Offering consists of an initial public offering ("**IPO**") in Germany and the Grand Duchy of Luxembourg ("**Luxembourg**") and private placements in certain jurisdictions outside Germany and Luxembourg. In the United States of America ("**United States**"), the Offer Shares will be offered and sold only to persons reasonably believed to be qualified institutional buyers as defined in Rule 144A under the United States Securities Act of 1933, as amended (the "**Securities Act**"). Outside the United States, the Offer Shares will be offered and sold only in offshore transactions in compliance with Regulation S under the Securities Act.
	Offer Period.	The period during which investors may submit purchase orders for the Offer Shares is expected to begin on April 26, 2018 while the period during which subscription offers may be submitted via the subscription functionality *DirectPlace* of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) in the XETRA trading system, or the trading system replacing such trading system, for the collection and settlement of subscription offers (the "**Subscription Functionality**") will commence on April 27, 2018 with both periods expected to end on May 8, 2018 (the "**Offer Period**"). On the last day of the Offer Period, offers to purchase may be submitted (i) until 12:00 noon (Central European Summer Time) ("**CEST**") by retail investors (natural persons), including investors who want to submit subscription offers via the Subscription Functionality and (ii) until 14:00 (CEST) by institutional investors. Retail investors (natural persons) may submit purchase orders for the public offering in Germany and Luxembourg during the Offer Period at the branch offices of the Underwriters. Purchase orders must be denominated in full euro amounts or euro cent figures of 25, 50, or 75 cents except for orders placed through the Subscription Functionality. Investors who want to submit subscription offers for the Offer Shares through the Subscription Functionality must submit them to their respective depositary bank during the Offer Period. Multiple purchase orders are permitted.
	Offer Price.	The Offer Price and the final number of Offer Shares (including the final number of Secondary Shares, if any) placed in the Offering (*i.e.,* the result of the Offering) are expected to be set on May 8, 2018. After the Offer Price has been set, the Offer Shares will be allotted to investors on the basis of the offers to purchase then available. The Offer Price and the final number of Offer Shares are expected to be published on or about May 8, 2018 by means of an ad hoc release on an electronic information dissemination system and on the Issuer's website.

The number of Secondary Shares to be actually placed will be determined by the Selling Shareholder in consultation with the Joint Global Coordinators on the date of pricing, depending on market demand and using the order book prepared during the book building process.

Should the placement volume prove insufficient to satisfy all orders placed at the placement price, the Underwriters reserve the right to reject orders, or to accept them in part only.

Delivery and Payment.

The delivery of the Offer Shares against payment of the Offer Price is expected to take place on May 11, 2018. The Offer Shares will be made available to the shareholders as co-ownership interests in the Global Share Certificate.

Stabilization Measures, Over-Allotment and Greenshoe Option.

In connection with the placement of the Offer Shares, J.P. Morgan, acting for the account of the Underwriters, will act as stabilization manager (the "**Stabilization Manager**") and may, as Stabilization Manager, and acting in accordance with legal requirements (Article 5 para. 4 and 5 of the Market Abuse Regulation (EU) No 596/2014 in conjunction with Articles 5 through 8 of the Commission Delegated Regulation (EU) 2016/1052), make over-allotments and take stabilization measures to support the market price of the Issuer's shares and thereby counteract any selling pressure.

The Stabilization Manager is under no obligation to take any stabilization measures. Therefore, stabilization may not necessarily occur and may cease at any time. Such measures may be taken from the date when trading in the shares of the Issuer is commenced on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and must be terminated no later than 30 calendar days after this date (the "**Stabilization Period**").

Under the possible stabilization measures, investors may, in addition to the New Shares and Secondary Shares, be allocated up to 13,198,347 Over-Allotment Shares as part of the allocation of the Offer Shares. For the purpose of such a potential over-allotment, the Stabilization Manager, for the account of the Underwriters, will be provided with 13,198,347 existing shares from the holdings of the Selling Shareholder in the form of a securities loan. The total number of Over-Allotment Shares will not exceed 10% of the final number of New Shares and Secondary Shares, if any, actually placed in the Offering. The number of New Shares depends on the Offer Price; the number of Secondary Shares depends on the extent to which the Upsize Option is exercised, if at all, by the Selling Shareholder in consultation with the Joint Global Coordinators. The Selling Shareholder will grant the Underwriters an option to acquire all or a portion of the shares borrowed under the securities loan at the Offer Price less agreed fees and commissions (the "**Greenshoe Option**"). The Greenshoe Option may be exercised only during the Stabilization Period.

The Stabilization Manager, for the account of the Underwriters, is entitled to exercise the Greenshoe Option to the extent Over-Allotments were initially made; the number of shares is to be reduced by the number of shares held by the Stabilization Manager as of the date on which the Greenshoe Option is exercised and that were acquired by the Stabilization Manager in the context of stabilization measures.

Within one week of the end of the Stabilization Period, the Stabilization Manager will ensure adequate public disclosure as to whether stabilization was undertaken, the date on which stabilization started and last occurred, and the price range within which stabilization was carried out, for each of the dates during which stabilization transactions were carried out and the trading venue(s) on which the stabilization transactions were carried out, where applicable.

E.4 **Interests material to the issue/offer including conflicting interests.**

The Underwriters act for the Issuer and the Existing Shareholders on the Offering and coordinate the structuring and execution of the Offering. Upon successful implementation of the Offering, the Underwriters will receive a commission. As a result of these contractual relationships, the Underwriters have a financial interest in the success of the Offering.

Furthermore, in connection with the Offering, each of the Underwriters and any of their respective affiliates, acting as an investor for their own account, may acquire shares in the Offering and in that capacity may retain, purchase or sell for its own account such shares or related investments and may offer or sell such shares or other investments otherwise than in connection with the Offering. In addition, certain of the Underwriters or their affiliates may enter into financing arrangements (including swaps or contracts for differences) with investors in connection with which Underwriters (or their affiliates) may from time to time acquire, hold or dispose of shares in the Issuer.

Some of the Underwriters or their affiliates have, and may from time to time in the future continue to have, business relations with our Group or may perform services for our Group in the ordinary course of business.

The Selling Shareholder will receive the proceeds from the sale of the Secondary Shares, if and to the extent the Upsize Option is exercised, and the exercise of the Greenshoe Option (after deduction of fees and expenses). Assuming full exercise of the Upsize Option at the mid-point of the Price Range, and after deducting fees and expenses to be paid by the Selling Shareholder in connection with the Offering, the proceeds to the Selling Shareholder from the Offering would amount to approximately €369.8 million, or 24.3% of the total net proceeds from the Offering. Accordingly, the Selling Shareholder has an interest in the success of the offering at the best possible terms.

GvH 33 committed to invest a total amount of €100 million under and as part of the Offering. Based on an Offer Price at the mid-point of the Price Range, the total number of Offer Shares purchased by GvH 33 would be 8,000,000 Offer Shares, which represent approximately 6.4% of the Offer Shares, assuming that all 125,293,906 Offer Shares are placed. GvH 33 has been guaranteed full allocation of its Offer Shares. This investment could result in a conflict of interest. The investment may conflict with GvH 33's general interest in a high Offer Price and high valuation of its stake in the Issuer, as the investment may create an interest of GvH 33 in a low Offer Price.

E.5 **Name of the person or entity offering to sell the security.**

The Offer Shares are being offered for sale by the Underwriters.

Lock-up agreement: the parties involved; and indication of the period of the lock-up.

In the underwriting agreement, the Issuer agreed with each Underwriter that, during the period commencing on April 25, 2018 and ending 180 days after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) (currently expected to take place on May 9, 2018), to the extent legally permissible, without the prior written consent of the Joint Global Coordinators, which may not be unreasonably withheld or delayed, the Issuer will not, and will not agree to:

- announce or effect an increase of the share capital of the Issuer from authorized capital;
- propose to its general meeting an increase of the share capital; or
- announce, effect or propose the issue of securities with conversion or option rights on shares of the Issuer or economically similar transactions.

For the period commencing on April 25, 2018 until the date which, with regard to the Selling Shareholder, falls six months, with regard to GvH 33, falls 18 months after the first day of trading of the Issuer's shares on the Frankfurt

Stock Exchange (*Frankfurter Wertpapierbörse*) (currently expected to take place on May 9, 2018), the Existing Shareholders undertook in writing that they will not, without the prior written consent of the Joint Global Coordinators,

- offer, pledge, allot, distribute, sell, contract to sell, sell any option or contract to purchase, purchase any option to sell, grant any option, right or warrant to purchase, transfer or otherwise dispose of, directly or indirectly (including, but not limited to, the issuance or sale of any securities exchangeable into shares of the Issuer), any shares of the Issuer;
- cause or approve, directly or indirectly, the announcement, execution or implementation of any increase in the share capital of the Issuer or a direct or indirect placement of shares of the Issuer;
- propose, directly or indirectly, any increase in the share capital of the Issuer to any meeting of the shareholders for resolution, or vote in favor of such a proposed increase;
- cause or approve, directly or indirectly, the announcement, execution or proposal of any issuance of financial instruments constituting options or warrants convertible into shares of the Issuer; or
- enter into or perform any transaction economically equivalent to those described in the first bullet above, in particular, the issue of options or conversion rights on shares of the Issuer.

The foregoing shall not apply to (i) transfers to affiliates or shareholders of the Existing Shareholders or transfers to the other Existing Shareholder, provided that the relevant transferee(s) agree(s) towards the Joint Global Coordinators to be bound by the same lock-up undertaking, (ii) the granting of mortgages, pledges, liens, or charges or other legal or equitable security (the "**Security Interest**") over or in respect of shares to or for the benefit of one or more of the Underwriters as margin loan lender in connection with any margin loan facility, (iii) transfers or disposals of any shares pursuant to any enforcement of any Security Interest over shares granted to or for the benefit of one or more of the Underwriters as margin loan lender in connection with any margin loan facility, (iv) transfers or disposals of shares to a third party by or for the benefit of one or more of the Underwriters as margin loan lender following the enforcement of any Security Interest over the shares granted to or for the benefit of the relevant margin loan lender and (v) transfers or disposals of shares acquired after the date of this prospectus (except for Offer Shares acquired by GvH 33 in the Offering). In the case of shares held by GvH 33, "Security Interest" shall include any loan facility (including a margin loan), but such loan facility shall be limited to a number of shares that corresponds to the number of Offer Shares acquired by GvH 33 in the Offering, it being understood that in case of any transfer or disposal of shares in connection with or pursuant to the enforcement of such Security Interest (other than in connection with a margin loan), the relevant transferee(s) shall agree towards the Joint Global Coordinators to be bound by the same lock-up undertaking.

The members of the management board of the general partner of the Issuer (the "**Management Board**") currently do not hold shares in the Issuer. However, due to their participation in a management participation program set up by the Selling Shareholder, they may participate in the proceeds from sales of shares in the Issuer by the Selling Shareholder. The relevant arrangements provide that members of the Management Board may only receive cash payments corresponding to up to 25% of their economic interest in the Issuer held through the management participation program as part of the IPO. The remaining interest held by members of the Management Board and not sold in the IPO is subject to a two-year lock-up from the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), provided, however, that a total of 50% of their original interest less any sales made as part of the IPO may be sold from the date that falls one year after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). Any proceeds that – net of taxes – exceed such threshold are required to be reinvested in shares in the Issuer, which will be subject to the lock up described above.

Further, two members of the Management Board that will purchase Offer Shares in the Offering in a total amount of €0.65 million, have, with respect to these Offer Shares, entered into lock-up agreements with the Joint Global Coordinators that are similar to the agreements of the Existing Shareholders except for the margin loan option, which is not included in the Management Board lock-up described above. The lock-up agreements of the two members of the Management Board will expire two years after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), provided, however, that each such member may sell up to 50% of the Offer Shares acquired in the Offering following the first anniversary of the lock-up agreement.

E.6 Amount and percentage of immediate dilution resulting from the offering.

According to its audited consolidated financial statements as of and for the year ended December 31, 2017, the net book value of the Issuer as of December 31, 2017 corresponds to negative €83.7 million (total assets of €5,709.6 million less long-term provisions and non-current liabilities of €5,020.7 million and short-term provisions and current liabilities of €772.6 million). The net book value per share (equity per share), which corresponds to the net book value divided by the number of outstanding Issuer's shares immediately prior to the Offering, would amount to negative €0.44 per Issuer's share based on 190,000,000 outstanding Issuer's shares immediately prior to the Offering.

The dilutive effect of the Offering is illustrated in the table below demonstrating the amount by which the Offer Price at the low end, mid-point and high end of the Price Range exceeds the net book value per share attributable to shareholders after completion of the Offering assuming the below-described steps of the Offering had taken place on December 31, 2017. In this respect, the net book value attributable to shareholders as of December 31, 2017 is adjusted for the effects of the Offering, assuming (i) the execution of the IPO Capital Increase for 112,999,554 New Shares at the low end, 94,919,626 New Shares at the mid-point and 81,827,263 New Shares at the high end of the Price Range and (ii) an increase in the net book value attributable to shareholders at the low end of the Price Range by €1,150.5 million, at the mid-point of the Price Range by €1,150.7 million and at the high end of the Price Range by €1,150.9 million. The assumed increase is based on the expected net proceeds not considering any tax effects. The adjusted net book value attributable to shareholders is expressed as a per share figure, assuming 302,999,554, 284,919,626 and 271,827,263 outstanding shares of the Issuer at the low end, mid-point and high end of the Price Range, respectively, upon completion of the Offering (this per share figure being referred to as the "**Post-IPO Equity attributable to Shareholders per Share**").

	As of December 31, 2017		
	Low End	**Mid-Point**	**High End**
	(in € million, unless otherwise indicated)		
Offer price per share (in €)	10.50	12.50	14.50
Total gross proceeds to the Issuer	1,186.5	1,186.5	1,186.5
Estimated total costs of the Offering to be borne by the Issuer (including underwriting and placement commissions payable to the Underwriters and assuming further payment in full of the discretionary fee)	36.0	35.8	35.6
Total net proceeds to the Issuer	1,150.5	1,150.7	1,150.9
Equity per share as of December 31, 2017 (assuming 190,000,000 outstanding shares of the Issuer immediately prior to the Offering) (in €)	(0.44)	(0.44)	(0.44)
Post-IPO Equity attributable to Shareholders per Share (in €)	3.52	3.74	3.93
Amount by which the Offer Price per share exceeds the Post-IPO Equity attributable to Shareholders per Share (immediate dilution to the new shareholders of the Issuer per share) (in €)	6.98	8.76	10.57
Percentage by which the Offer Price per share exceeds the Post-IPO Equity attributable to Shareholders per Share (in %)	66.5	70.0	72.9

	As of December 31, 2017		
	Low End	Mid-Point	High End
	(in € million, unless otherwise indicated)		
Amount by which the Post-IPO Equity attributable to Shareholders per Share exceeds the net book value per share immediately prior to the Offering (immediate accretion to the Existing Shareholders of the Issuer per share) (in €)	3.96	4.19	4.37
Percentage by which the Post-IPO Equity attributable to Shareholders per Share exceeds the net book value per share immediately prior to the Offering (in %)	n/a[(1)]	n/a[(1)]	n/a[(1)]

(1) As the net book value per share attributable to shareholders prior to the Offering is a negative number, while the Post-IPO Equity attributable to Shareholders per Share is a positive number, the indication of a percentage by which the Post-IPO Equity attributable to Shareholders per Share exceeds the net book value per share immediately prior to the Offering is not meaningful.

Each of the New Shares will have the same voting rights as the Issuer's existing shares.

Prior to the Offering, the Existing Shareholders held 100% of the voting rights of the outstanding shares. Upon completion of the Offering (including exercise of the Upsize Option as well as of the Greenshoe Option in full), the aggregate voting rights held by the Existing Shareholders would amount to 55.2%, 58.8% and 61.7% (taking into account the acquisition of 9,523,809, 8,000,000, and 6,896,551 Offer Shares by GvH 33) at the low end, mid-point and high end of the Price Range, respectively.

E.7	**Estimated expenses charged to the investor.**	Not applicable. Investors will not be charged expenses by the Issuer, the Selling Shareholder or the Underwriters.

II. ZUSAMMENFASSUNG DES PROSPEKTS

*Zusammenfassungen bestehen aus geforderten Angaben, die als Punkte („**Punkte**") bezeichnet sind. Diese Punkte sind in den Abschnitten A – E (A.1 – E.7) fortlaufend nummeriert. Diese Zusammenfassung enthält alle Punkte, die für die vorliegende Art von Wertpapier und Emittent in eine Zusammenfassung aufzunehmen sind. Da einige Punkte nicht behandelt werden müssen, können in der Nummerierungsreihenfolge Lücken auftreten. Selbst wenn ein Punkt wegen der Art des Wertpapiers und des Emittenten in die Zusammenfassung aufgenommen werden muss, ist es möglich, dass in Bezug auf diesen Punkt keine relevanten Informationen gegeben werden können. In solchen Fällen enthält die Zusammenfassung eine kurze Beschreibung des Punkts mit dem Hinweis „Entfällt".*

A – Einleitung und Warnhinweise

A.1 Warnhinweise.

Diese Zusammenfassung sollte als Einleitung zu diesem Prospekt verstanden werden.

Der Anleger sollte jede Entscheidung zu einer Anlage in die Wertpapiere auf die Prüfung dieses gesamten Prospekts stützen.

Für den Fall, dass vor einem Gericht Ansprüche auf Grund in diesem Prospekt enthaltener Informationen geltend gemacht werden, könnte der als Kläger auftretende Anleger in Anwendung der einzelstaatlichen Rechtsvorschriften der Mitgliedstaaten des Europäischen Wirtschaftsraums die Kosten für die Übersetzung dieses Prospekts vor Prozessbeginn zu tragen haben.

Die Springer Nature AG & Co. KGaA, Berlin, Deutschland (die „**Emittentin**" und gemeinsam mit ihren voll konsolidierten Tochtergesellschaften, der „**Konzern**", „**Springer Nature**" bzw. „**wir**", „**uns**" oder „**unsere**"), zusammen mit J.P. Morgan Securities plc, London, Vereinigtes Königreich („**J.P. Morgan**"), Morgan Stanley & Co. International plc, London, Vereinigtes Königreich („**Morgan Stanley**", zusammen mit J.P. Morgan die „**Joint Global Coordinators**") und zusammen mit BNP PARIBAS, Paris, Frankreich („**BNP PARIBAS**"), Merrill Lynch International, London, Vereinigtes Königreich („**BofA Merrill Lynch**"), Credit Suisse Securities (Europe) Limited, London, Vereinigtes Königreich („**Credit Suisse**"), Goldman Sachs International, London, Vereinigtes Königreich („**Goldman Sachs**") und Société Générale Corporate & Investment Banking, Paris, Frankreich („**Société Générale**", und zusammen mit BNP PARIBAS, BofA Merrill Lynch, Credit Suisse, Goldman Sachs und den Joint Global Coordinators die „**Joint Bookrunners**" oder die „**Konsortialbanken**"), haben nach § 5 Abs. 2b Nr. 4 des Wertpapierprospektgesetzes die Verantwortung für den Inhalt dieser Zusammenfassung und ihrer deutschen Übersetzung übernommen. Diese Personen, die Verantwortung für die Zusammenfassung einschließlich etwaiger Übersetzungen derer übernommen haben oder von denen der Erlass ausgeht, können haftbar gemacht werden, jedoch nur für den Fall, dass diese Zusammenfassung irreführend, unrichtig oder widersprüchlich ist, wenn sie zusammen mit den anderen Teilen dieses Prospekts gelesen wird, oder sie, wenn sie zusammen mit den anderen Teilen dieses Prospekts gelesen wird, nicht alle erforderlichen Schlüsselinformationen vermittelt.

A.2 Angabe über spätere Verwendung des Prospekts.

Entfällt. Eine Zustimmung der Emittentin zur Verwendung dieses Prospekts für eine spätere Weiterveräußerung oder endgültige Platzierung der Aktien der Emittentin durch Finanzintermediäre wurde nicht erteilt.

B – Emittentin

B.1 Juristische und kommerzielle Bezeichnung.

Die juristische Bezeichnung der Emittentin lautet „Springer Nature AG & Co. KGaA". Die Emittentin betreibt ihre Geschäfte hauptsächlich unter der kommerziellen Bezeichnung „Springer Nature".

B.2	**Sitz und Rechtsform der Emittentin, anwendbares Recht, Land der Gründung.**	Die Emittentin hat ihren satzungsmäßigen Sitz am Heidelberger Platz 3, 14197 Berlin, Deutschland, und ist im Handelsregister des Amtsgerichts Charlottenburg, Deutschland, unter HRB 195463 B eingetragen. Die Emittentin ist eine Kommanditgesellschaft auf Aktien (KGaA), die in Deutschland gegründet wurde und deutschem Recht unterliegt.
B.3	**Derzeitige Geschäfts- und Haupttätigkeit sowie Hauptmärkte, auf denen die Emittentin vertreten ist.**	Wir sind nach eigener Einschätzung einer der führenden Verlage für Forschungs-, Bildungs- und Fachinhalte. Wir bieten Inhalte in Form von Zeitschriften, Büchern und Datenbanken vorwiegend für wissenschaftliche und staatliche Einrichtungen, Unternehmen und Einzelpersonen an. Durch den Zusammenschluss von Springer Science+Business Media S.A. („**Springer**“) und Macmillan Science and Education („**MSE**“) im Jahr 2015 haben wir die Reichweite von Springer mit den hohen Qualitätsstandards von Nature zusammengeführt und wurden so, gemessen an der Anzahl der Zitierungen je Artikel, zum führenden Verlag für Zeitschriften in englischer Sprache (*Quelle: Journal Citation Reports, Clarivate Analytics, 2017 („**JCR 2016**“)*). In der Vergangenheit konnten wir beständige, verlässliche und nachhaltige Umsatzerlöse erzielen. Durch unseren innovativen Ansatz haben wir die Grundlage geschaffen, um vom erheblichen Wachstumspotential unserer Branche zu profitieren. Research als unser Hauptgeschäftsbereich ist von grundlegenden Wachstumstrends geprägt. Die Forschungs- und Entwicklungsausgaben (*R&D*) in OECD-Staaten und in China sind im Zeitraum von 2009 bis 2015 jährlich durchschnittlich um 4,4% gewachsen (*Quelle: OECD, „Main Science and Technology Indicators“, Volume 2016, Issue 2, 2017*), und damit bedeutend schneller als das BIP dieser Regionen, angestiegen. Auch die Zahl der Forscher und Universitäten ist erheblich gestiegen. Diese Trends führten zu erhöhtem Veröffentlichungsdruck für Wissenschaftler und Forscher, was wiederum eine Zunahme an Veröffentlichungen mit einer jährlichen Wachstumsrate von 5,0% im Zeitraum von 2005 bis 2016 zur Folge hatte (*Quelle: JCR 2016*). Diese Wachstumstrends begünstigen große, etablierte Verlage in den jeweiligen Märkten, da diese grundsätzlich am besten von Skaleneffekten profitieren können. Wir stellen unsere Ergebnisse in drei Berichtsegmenten dar: Research, Education und Professional. Unser größtes Segment, Research, konzentriert sich auf die Veröffentlichung wissenschaftlicher Zeitschriften, Datenbanken und Bücher in den Bereichen Wissenschaft, Technik und Medizin („**Wissenschaftliche Forschung**“), wovon normalerweise, wenngleich nicht notwendigerweise, gewohnheitsmäßig – und so auch in diesem Prospekt – auch Geistes- und Sozialwissenschaften (HSS) erfasst sind. Unser Segment Research zeichnet sich durch eine Reihe etablierter, anerkannter Titel aus, darunter unser Aushängeschild, die Nature Zeitschriften, und war 2016 Marktführer im Hinblick auf die Anzahl an Zeitschriften unter den Top 50 der Zeitschriften mit dem höchsten Einflussfaktor (*impact factor*) (*Quelle: JCR 2016*), einer wichtigen Messgröße für den Einfluss einer Zeitschrift in der Wissenschaft. Im Jahr 2017 haben ungefähr zwei Millionen individuelle Redakteure und unabhängige Fachgutachter (*peer reviewer*) zu den Veröffentlichungen unseres Segments Research beigetragen. Durch den intensiven Einsatz der Markenstellung von Nature und die Fokussierung auf Wachstumsbereiche, konnte unser Segment Research weiterhin neue Zeitschriften erfolgreich auf den wettbewerbsintensiven Markt bringen und die starke Stellung im Open-Access-Markt, einem der Wachstumstreiber der Branche, ausbauen. Des Weiteren sind wir, gemessen an der Titelanzahl, der größte Verlag für englischsprachige wissenschaftliche Bücher (*Quelle: OC&C Strategy Consultants, „OC&C Market Report“, 26. März 2018 („**OC&C Report**“)*). In unserem Geschäft mit Büchern profitieren wir von unserem Fokus auf die digitale Bereitstellung von Inhalten und erwirtschafteten 2017

53,0% unserer Umsatzerlöse bei Büchern mit digitalen Formaten im Vergleich zu einem Branchendurchschnitt von 27% (*Quelle: OC&C Report*). Im Jahr 2016 war unser Segment Research nach eigener Einschätzung der Open-Access-Marktführer, gemessen an der Anzahl der veröffentlichten Open-Access-Beiträge. Außerdem haben wir es uns zum Ziel gesetzt, von Kooperationen mit Partnern zu profitieren. Diese Kooperationen mit Partnern erfasst auch unsere langjährige Geschäftsbeziehung zu Digital Science & Research Ltd, ein Tochterunternehmen der Georg von Holtzbrinck GmbH & Co. KG (zusammen mit ihren konsolidierten Tochtergesellschaften, die „**Holtzbrinck Publishing Group**"), einer unserer indirekten Aktionäre, und zwar hinsichtlich Software zur Vereinfachung und Straffung von Forschungsprozessen. Im Jahr 2017 trug unser Segment Research €1.162,2 Mio. bzw. 71,0% zu unseren Umsatzerlösen bei.

Unser Segment Education ist auf die Veröffentlichung von Büchern und Materialien zum Erlernen von Sprachen, für Lehrpläne und, in geringerem Umfang, Hochschulen in über 100 Ländern spezialisiert. Unser Geschäft mit Fremdspracheninhalten konzentriert sich hauptsächlich auf Spanien und Süd- und Mittelamerika, während der Markt unseres Geschäfts mit Schulbildung hauptsächlich den Süden Afrikas, Indien und Australien umfasst. Unser Segment Professional konzentriert sich auf den Fachbereich Verkehrssicherheit, den Gesundheitssektor und Wirtschaftsinformationen.

Wir unterstützen sämtliche Phasen des wissenschaftlichen Veröffentlichungsprozesses. Wir koordinieren den unabhängigen Begutachtungsprozess (*peer review process*) für Beiträge in Zeitschriften, wählen Texte zur Veröffentlichung in unseren Produkten aus, bearbeiten deren Inhalt und sichern Urheberrechte. Unsere Hauptätigkeit als Verlag liegt vorwiegend in der Herstellung von Zeitschriften und Büchern, worunter das Schriftsetzen, sonstige Druckvorstufendienstleistungen und, bei gedruckten Zeitschriften und Büchern, das Drucken als der Veröffentlichung vorgelagerte Leistungen fallen. Je nach Produktart greifen wir auf verschiedene Vertriebswege zurück. Zur Verbesserung dieser Vertriebswege setzen wir Vertriebsabteilungen ein, die auf unsere Produkte aufmerksam machen und mit bestehenden und zukünftigen Kunden in Kontakt treten und diese Kontakte pflegen. Zur Auftragsabwicklung gehören unter anderem die Verarbeitung von Aufträgen, Lieferung, Lagerhaltung und der Kundenservice. Wir sind außerdem stetig darauf bedacht, unsere Tätigkeit zu rationalisieren, wie etwa durch die Standardisierung von Arbeitsabläufen, automatisches Schriftsetzen und die Zentralisierung von Einkäufen und Lieferungen.

Seit 175 Jahren sind wir ein führender Wissenschaftsverlag. Springer wurde im Jahr 1842 in Berlin gegründet. Während der vergangenen 30 Jahre haben wir uns durch eine Reihe von Übernahmen und Zusammenschlüssen verändert, so zum Beispiel durch den Zusammenschluss von Springer mit der Sparte Kluwer Academic Publishers von Kluwer N.V. im Jahr 2004 sowie die Übernahmen von Rendement Uitgeverij B.V., ein Verlag für berufsbezogene Zeitschriften und Materialien mit Sitz in den Niederlanden, im Jahr 2006, von BioMed Central Limited, ein Vorreiter im Open-Access-Markt, im Jahr 2008 sowie der Sparte Wolters Kluwer Health von Kluwer N.V. im Jahr 2011. Die Ursprünge von MSE gehen zurück ins Jahr 1842, als Macmillan Publishers in London gegründet wurde, und im Jahr 1869 brachte MSE die Zeitschrift Nature heraus, die zur meistzitierten Wissenschaftszeitschrift der Welt wurde (*Quelle: JCR 2016*). MSE entstand im Jahr 2012 und schloss sich mit Springer im Jahr 2015 zu Springer Nature zusammen.

Unsere Stärken

Wir halten unsere folgenden Stärken für unsere Wachstumstreiber der Vergangenheit und glauben, dass wir uns hierdurch auch zukünftig von anderen Wettbewerbern abheben werden:

- Stabiler Wachstumsmarkt: Unser operativer Fokus liegt auf dem hochattraktiven Markt für Wissenschaftliche Forschung.
- Starke Führungsposition: Strategischer Fokus auf Forschung mit einem hochwertigen Markenangebot, weltweit agierend und einer vorteilhaften Position, um vom starken Wachstum im Open-Access-Verlagsmarkt zu profitieren.
- Attraktive Rendite: Wir bieten beständiges Wachstum, attraktive Profitabilität und bedeutende Cash-Generierung aufgrund eines in hohem Maße vorhersehbaren Finanzmodells.
- Solide Wachstumsstrategie mit Fokus auf sechs wichtige Pfeiler.

Unsere Strategie

Zu den wesentlichen Elementen unser Strategie gehören:

- Profitieren von unserer führenden Position im Bereich Open Access.
- Neue Produkte in unserem Kernproduktportfolio lancieren.
- Dienstleistungen für Autoren und Forscher ausbauen.
- Ständige Prozessverbesserung und -innovation.
- Vorantreiben von Kosteneffizienz.
- Selektiv M&A-Gelegenheiten nutzen.

B.4a **Wichtigste jüngste Trends, die sich auf die Emittentin und die Branche, in der sie tätig ist, auswirken.**

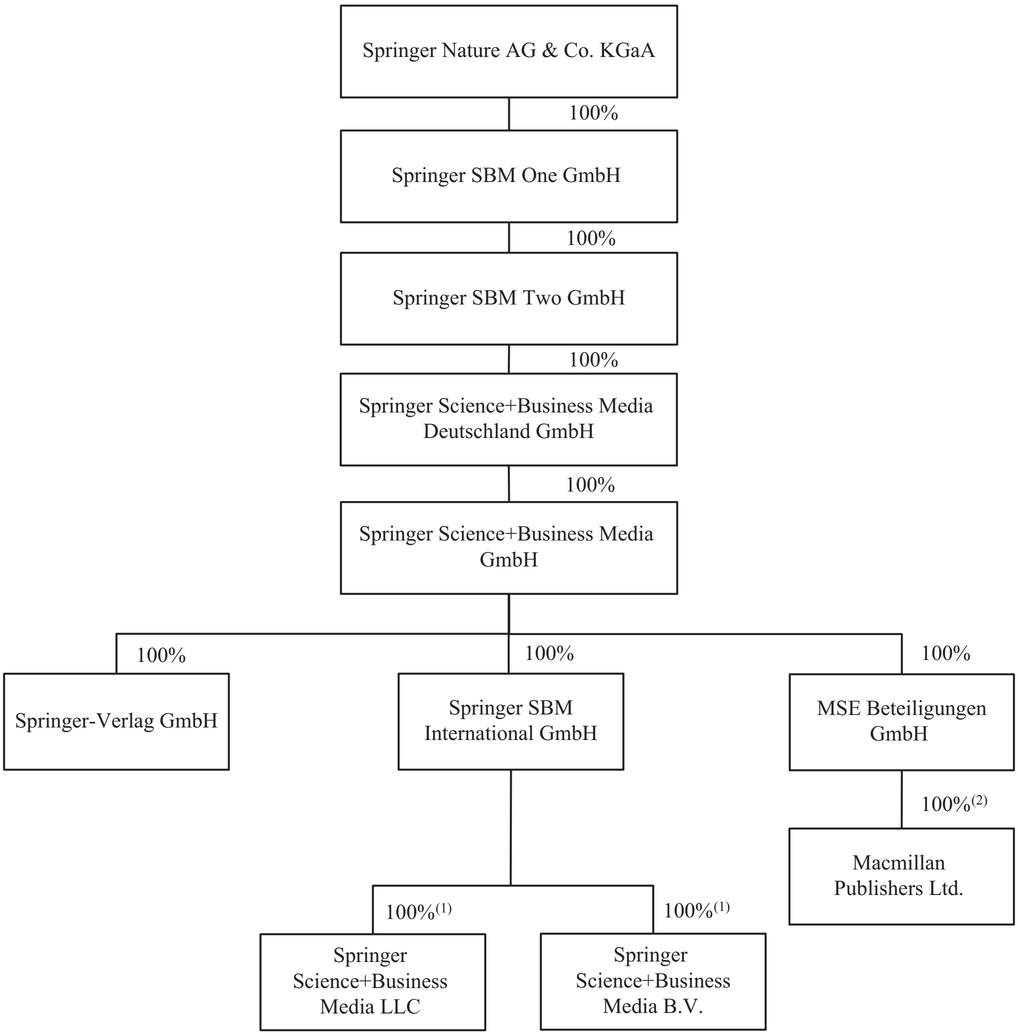
Wir glauben, dass folgende Trends sich auf uns und die Branche, in der wir tätig sind, auswirken:

- Open-Access-Modelle stellen eine grundlegende Änderung des herkömmlichen Prinzips dar, wonach Abonnenten von Zeitschriften und eBooks für den Zugang zu wissenschaftlichen Inhalten Gebühren zahlen. Bei Open-Access-Modellen entrichten Autoren für die Veröffentlichung ihrer Arbeit eine Publikationsgebühr (*article processing charge*) („**APC**") an den jeweiligen Verleger. Bei sogenannten „goldenen" Open-Access-Modellen sind die Werke sofort kostenlos verfügbar, während bei „grünen" Open-Access-Modellen der Inhalt für Abonnenten zunächst in einem traditionellen Medium veröffentlicht wird und erst nach einer sogenannten „Embargozeit" in einer Open-Access-Veröffentlichung kostenlos zugänglich gemacht wird. Wir gehen davon aus, dass ein Branchenwandel hin zum Open-Access-Modell zu einer wachsenden Anzahl an Open-Access-Veröffentlichungen auf Plattformen wie der unseren und auch zu höheren Umsatzerlösen aus APCs führen wird.
- E-Piracy ist ein zentraler Faktor für die Entwicklung unserer Märkte. Diese Webseiten machen Inhalte kostenlos zugänglich und umgehen die Bezahlschranken der Verlage. Die Nutzung von e-Piracy-Webseiten erfreut sich wachsender Beliebtheit unter Wissenschaftlern, denn diese Webseiten stellen Werke, die von verschiedenen Verlagen veröffentlicht wurden, auf einer Plattform zusammen. Werke, die wir veröffentlichen, können daher auf solchen e-Piracy-Webseiten zugänglich gemacht werden und die Nachfrage nach bezahltem Zugang zu unseren Produkten verringern.
- Aggregatoren von Inhalten (*content aggregators*) stellen Inhalte verschiedener Verleger zur Verfügung. Diese Unternehmen verkaufen

diese Inhalte anschließend an kleinere Einrichtungen. Die Zusammenstellung und Weitergabe von Inhalten durch Aggregatoren von Inhalten (*content aggregators*) kann die Marge von Verlagen beeinträchtigen. Sie ermöglichen es Verlagen jedoch auch, kleinere Einrichtungen ohne eine wesentliche Vergrößerung ihres Vertriebspersonals zu erreichen. Mit der Weiterentwicklung dieses Trends könnten mehr von uns angebotene Inhalte durch Aggregatoren von Inhalten (*content aggregators*) verfügbar gemacht werden und dies könnte zu niedrigeren Margen oder zu einer verlangsamten Erweiterung oder zu einem Rückgang unseres Kundenstamms führen.

B.5 **Beschreibung des Konzerns und der Stellung der Emittentin innerhalb dieses Konzerns.**

Die Emittentin ist die Muttergesellschaft des Konzerns. Die Geschäftstätigkeit der Emittentin wird durch ihre verschiedenen Tochtergesellschaften betrieben. Im folgenden Schaubild ist eine Übersicht (in vereinfachter Form) des Konzerns zum Datum dieses Prospektes dargestellt:


Springer Nature AG & Co. KGaA
100%
Springer SBM One GmbH
100%
Springer SBM Two GmbH
100%
Springer Science+Business Media Deutschland GmbH
100%
Springer Science+Business Media GmbH
100%
100%
100%
Springer-Verlag GmbH
Springer SBM International GmbH
MSE Beteiligungen GmbH
100%(2)
Macmillan Publishers Ltd.
100%(1)
100%(1)
Springer Science+Business Media LLC
Springer Science+Business Media B.V.

(1) Mittelbare hundertprozentige Beteiligung durch Springer SBM International GmbH.
(2) Mittelbare hundertprozentige Beteiligung durch MSE Beteiligungen GmbH.

B.6 **Personen, die eine (meldepflichtige) direkte oder indirekte Beteiligung am Eigenkapital der**

Die nachfolgende Tabelle enthält die mittelbaren und unmittelbaren Aktionäre der Emittentin unmittelbar vor dem Angebot von (i) 112.999.554 neu ausgegebenen auf den Inhaber lautenden Stammaktien ohne Nennbetrag (Stückaktien) aus einer am oder um den 3. Mai 2018 durch eine außerordentliche Hauptversammlung der Emittentin beschlossenen Barkapitalerhöhung (die „**IPO Kapitalerhöhung**“) (die „**Neuen Aktien**“), wobei die gesamte Anzahl der

Emittentin und den Stimmrechten halten.

Neuen Aktien am Tag der Preissetzung mit Blick auf die Erreichung der angestrebten Bruttoerlöse in Höhe von €1.186.495.327,00, festgelegt wird, (ii) 18.983.925 bestehenden auf den Inhaber lautenden Stammaktien ohne Nennbetrag (Stückaktien) aus dem Bestand von Springer Science+Business Media GP Acquisition S.C.A. (der „**Veräußernde Aktionär**") (die „**Sekundären Aktien**"), wobei ob und gegebenenfalls die Anzahl der Sekundären Aktien, die tatsächlich bei Investoren platziert werden sollen, vom Veräußernden Aktionär in Abstimmung mit den Joint Global Coordinators am Tag der Preissetzung festgelegt wird (die „**Upsize-Option**") und (iii) 13.198.347 bestehenden auf den Inhaber lautenden Stammaktien ohne Nennbetrag (Stückaktien) aus dem Bestand des Veräußernden Aktionärs in Zusammenhang mit einer möglichen Mehrzuteilung, die 10% der gesamten Anzahl der im Rahmen des Angebots tatsächlich platzierten Neuen Aktien und Sekundären Aktien nicht übertreffen werden (die „**Mehrzuteilungsaktien**" und, zusammen mit den Neuen Aktien und den Sekundären Aktien, die „**Angebotsaktien**"), jeweils mit einem anteiligen Betrag des Grundkapitals von €1,00 und mit voller Dividendenberechtigung ab dem 1. Januar 2018 (das „**Angebot**"). Die dargestellten Angaben werden auf Grundlage des besten Wissens der Emittentin gemacht.

		Beherrschende Aktionäre der Emittentin, in %				
			nach Eintragung der IPO Kapitalerhöhung und Durchführung des Angebots zum Mittelwert der Preisspanne			
			keine Platzierung von Sekundären Aktien		Platzierung aller Sekundären Aktien	
Mittelbare Aktionäre	Unmittelbare Aktionäre	unmittelbar vor dem Angebot	ohne Ausübung der Greenshoe Option	vollständige Ausübung der Greenshoe Option	ohne Ausübung der Greenshoe Option	vollständige Ausübung der Greenshoe–Option
Monika Schoeller[1] Christiane Schoeller[1] Dr. Stefan von Holtzbrinck[1]	GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart, Deutschland[1]	53,00	38,15[2]	38,15[2]	38,15[2]	38,15[2]
BC Partners Holdings Limited, Guernsey, Vereinigtes Königreich[3]	Springer Science+ Business Media GP Acquisition S.C.A., Luxembourg, Luxemburg[3]	47,00	31,34[4]	28,01[5]	24,68[6]	20,68[7]
–	Streubesitz	–	30,51[8]	33,84[9]	37,17[10]	41,17[11]
–	**Insgesamt**	**100,00**	**100,00**	**100,00**	**100,00**	**100,00**

[1] GvH Vermögensverwaltungsgesellschaft XXXIII mbH („**GvH 33**") ist eine hundertprozentige Tochter der Georg von Holtzbrinck GmbH & Co. KG. Deren persönlich haftende Gesellschafterin Verlagsgruppe Georg von Holtzbrinck GmbH wird gemeinsam durch Dr. Stefan von Holtzbrinck sowie durch Monika Schoeller Familiengesellschaft mbH & Co. KG beherrscht. Monika Schoeller Familiengesellschaft mbH & Co. KG wird wiederum mittelbar durch Monika Schoeller und Christiane Schoeller beherrscht. Die Stimmrechte der GvH Vermögensverwaltungsgesellschaft XXXIII mbH an der Emittentin sind entsprechend Dr. Stefan von Holtzbrinck, Monika Schoeller und Christiane Schoeller, den mittelbar beherrschenden Gesellschaftern der Georg von Holtzbrinck GmbH & Co. KG, zuzurechnen.

[2] Die dargestellten Prozentsätze, stehen unter der Annahme, dass 94.919.626 Neue Aktien (d.h. die Anzahl an Aktien, die notwendig ist, um die angestrebten Bruttoerlöse von €1.186,5 Mio. zu erzielen) platziert werden und GvH 33 8,000,000 Angebotsaktien erwirbt. Zum Mindestwert der Preisspanne (festgelegt für das Angebot, innerhalb derer Kauforders von €10,50 bis 14,50 je Angebotsaktie platziert werden können (die „**Preisspanne**")) und bei Platzierung von 112.999.554 Neuen Aktien (d.h. die Anzahl an Aktien, die notwendig ist, um die angestrebten Bruttoerlöse von €1.186,5 Mio. zu erzielen) läge der Prozentsatz bei 36,38% (unter Berücksichtigung eines Erwerbs von 9.523.809 Angebotsaktien durch GvH 33). Zum Höchstwert der Preisspanne und bei Platzierung von 81.827.263 Neuen Aktien (d.h. die Anzahl an Aktien, die notwendig ist, um die angestrebten Bruttoerlöse von €1.186,5 Mio. zu erzielen) läge der Prozentsatz bei 39,58% (unter Berücksichtigung eines Erwerbs von 6.896.551 Angebotsaktien durch GvH 33).

[3] Springer Science+Business Media GP Acquisition S.C.A. ist eine mittelbare Tochter im Mehrheitsbesitz und kontrolliert von BC Partners Holdings Limited. Die Stimmrechte der Springer Science+Business Media GP Acquisition S.C.A. an der Emittentin sind entsprechend BC Partners Holdings Limited zuzurechnen. Das wirtschaftliche Interesse an Springer Science+Business Media GP Acquisition S.C.A. liegt bei Fonds, die von BC Partners Holdings Limited, EQT Partners AB und GIC (Fonds des Staats Singapur) beraten werden, soweit bei weiteren Kapitalbeteiligungsgesellschaften, einschließlich solcher, an denen der Vorstand Aktien hält.

(4) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 29,47% zum Mindestwert der Preisspanne und 32,85% zum Höchstwert der Preisspanne.

(5) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 25,74% zum Mindestwert der Preisspanne und 29,84% zum Höchstwert der Preisspanne.

(6) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 23,21% zum Mindestwert der Preisspanne und 25,87% zum Höchstwert der Preisspanne.

(7) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 18,85% zum Mindestwert der Preisspanne und 22,16% zum Höchstwert der Preisspanne.

(8) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 34,15% zum Mindestwert der Preisspanne und 27,57% zum Höchstwert der Preisspanne.

(9) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 37,88% zum Mindestwert der Preisspanne und 30,57% zum Höchstwert der Preisspanne.

(10) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 40,42% zum Mindestwert der Preisspanne und 34,55% zum Höchstwert der Preisspanne.

(11) Unter den in Fußnote 2 oben dargestellten Annahmen läge der Prozentsatz bei 44,77% zum Mindestwert der Preisspanne und 38,26% zum Höchstwert der Preisspanne.

Unterschiedliche Stimmrechte der Großaktionäre der Emittentin.

Jede Aktie der Emittentin berechtigt zu einer Stimme in der Hauptversammlung der Emittentin. Es bestehen keine Stimmrechtsbeschränkungen und unsere bestehenden Aktionäre, d.h. der Veräußernde Aktionär und GvH 33 (GvH 33 gemeinsam mit dem Veräußernden Aktionär die „**Bestehenden Aktionäre**") haben keine unterschiedlichen Stimmrechte.

Unmittelbare oder mittelbare Beherrschung der Emittentin und Art der Beherrschung.

GvH 33 kontrolliert derzeit 53,00% der Stimmrechte an der Emittentin. Daher gelten GvH 33, und mittelbar ihre beherrschenden Gesellschafter Dr. Stefan von Holtzbrinck, Monika Schoeller und Christiane Schoeller, gemäß des deutschen Wertpapiererwerbs- und Übernahmegesetzes als kontrollierende Gesellschafter der Emittentin.

Der Veräußernde Aktionär kontrolliert derzeit 47,00% der Stimmrechte an der Emittentin. Daher gelten der Veräußernde Aktionär, und mittelbar sein beherrschender Gesellschafter BC Partners Holdings Limited („**BC Partners**"), gemäß des deutschen Wertpapiererwerbs- und Übernahmegesetzes als kontrollierende Gesellschafter der Emittentin.

Basierend auf der beabsichtigten Angebotsstruktur, wie sie in diesem Prospekt dargestellt ist, wird GvH 33 nach dem Angebot über 30% der Stimmrechte an der Emittentin halten. Daher gelten GvH 33 und mittelbar ihre beherrschenden Gesellschafter, Dr. Stefan von Holtzbrinck, Monika Schoeller und Christiane Schoeller, mit Durchführung des Angebots als kontrollierende Gesellschafter der Emittentin gemäß des deutschen Wertpapiererwerbs- und Übernahmegesetzes.

Basierend auf der beabsichtigten Angebotsstruktur und abhängig von der Anzahl der im Rahmen des Angebots tatsächlich platzierten Angebotsaktien, könnte der Veräußernde Aktionär nach dem Angebot ebenfalls über 30% der Stimmrechte an der Emittentin halten. In diesem Fall würde der Veräußernde Aktionär und mittelbar sein beherrschender Gesellschafter BC Partners nach dem Angebot als kontrollierender Gesellschafter der Emittentin gemäß des deutschen Wertpapiererwerbs- und Übernahmegesetzes gelten. Wenn beispielsweise der Preis je Angebotsaktie (der **„Angebotspreis**") bei €12,50 je Angebotsaktie festgelegt wird, würden 94.919.626 Neue Aktien ausgegeben werden müssen, um die angestrebten Bruttoerlöse aus dem Angebot von €1.186,5 Mio. zu erzielen. Wenn bei diesem Angebotspreis die Upsize Option und die Greenshoe Option (wie unten in E.3 definiert) nicht ausgeübt werden, würde der Veräußernde Aktionär 31,34% der Stimmrechte an der Emittentin halten und würde entsprechend als kontrollierender Gesellschafter der Emittentin gemäß des deutschen Wertpapiererwerbs- und Übernahmegesetzes gelten.

B.7	**Ausgewählte wesentliche historische Finanzinformationen.**	Die in den nachfolgenden Tabellen enthaltenen Finanzinformationen wurden den geprüften Konzernabschlüssen der Emittentin für die zum 31. Dezember 2017, 31. Dezember 2016 und zum 31. Dezember 2015 endenden Geschäftsjahre sowie dem internen Berichtswesen der Emittentin entnommen oder aus diesen abgeleitet. Die geprüften Konzernabschlüsse wurden in Übereinstimmung mit den International Financial Reporting Standards, wie sie in der Europäischen Union anzuwenden sind, („**IFRS**") und den ergänzend nach § 315e Abs. 1 bzw. § 315a Abs. 1 des Handelsgesetzbuches anzuwendenden handelsrechtlichen Vorschriften erstellt. Die Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart, Niederlassung Berlin, hat unseren in deutscher Sprache erstellten Konzernabschluss und unseren in deutscher Sprache erstellten Jahresabschluss für das zum 31. Dezember 2017 endende Geschäftsjahr nach § 317 des Handelsgesetzbuches unter Beachtung der deutschen Grundsätze ordnungsmäßiger Abschlussprüfung geprüft und diese jeweils mit einem uneingeschränkten Bestätigungsvermerk des unabhängigen Abschlussprüfers versehen. Die Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft hat ferner unsere in deutscher Sprache erstellten Konzernabschlüsse für die zum 31. Dezember 2016 und zum 31. Dezember 2015 endenden Geschäftsjahre nach § 317 des Handelsgesetzbuches unter Beachtung der deutschen Grundsätze ordnungsmäßiger Abschlussprüfung geprüft und jeweils mit einem uneingeschränkten Bestätigungsvermerk versehen. Der geprüfte Jahresabschluss wurde in Übereinstimmung mit den deutschen Rechnungslegungsgrundsätzen des Handelsgesetzbuches erstellt. Die vorhergenannten geprüften Konzernabschlüsse und Jahresabschluss der Emittentin und die jeweiligen Bestätigungsvermerke des unabhängigen Abschlussprüfers sowie die Bestätigungsvermerke sind in diesem Prospekt enthalten. Die Kennzeichnung von Finanzinformationen in den folgenden Tabellen mit „geprüft" bedeutet, dass diese den entsprechenden oben angeführten geprüften Abschlüssen entnommen wurden. Mit der Kennzeichnung „ungeprüft" werden in den folgenden Tabellen Finanzinformationen bezeichnet, die nicht den oben angeführten geprüften Abschlüssen entnommen wurden, sondern dem internen Berichtswesen der Emittentin entnommen wurden oder auf Grundlage von Zahlen aus den vorhergenannten Quellen berechnet wurden. Die im nachfolgendem Text und untenstehenden Tabellen aufgeführten Finanzinformationen werden in Mio. Euro (€ Mio.) dargestellt und auf eine Dezimalstelle hinter dem Komma kaufmännisch gerundet. Veränderungen, einschließlich prozentualer Veränderungen, werden auf Grundlage der Zahlen, wie sie in diesem Prospekt dargestellt sind, berechnet und anschließend auf eine Nachkommastelle kaufmännisch gerundet. Aufgrund von Rundungseffekten kann die Addition von Zahlen in den Tabellen von den angegebenen Summen in den Tabellen abweichen und die zusammengerechneten Prozentsätze ergeben möglicherweise nicht genau 100%. Zudem können die gerundeten Summen und Zwischensummen in den Tabellen leicht von den nicht gerundeten Zahlen, die an anderer Stelle in diesem Prospekt ausgewiesen sind, abweichen. Weiterhin ergibt die Addition dieser gerundeten Zahlen in den Tabellen möglicherweise nicht genau die in den Tabellen aufgeführte Summe. Bei in Klammern gesetzten Finanzinformationen in der Darstellung von Zahlen handelt es sich um negative Zahlen. In Bezug auf den Ausweis von Finanzinformationen in diesem Prospekt bedeutet ein Bindestrich („–"), dass die jeweilige Zahl nicht verfügbar ist, wohingegen eine Null („0,0") bedeutet, dass die jeweilige Zahl zwar verfügbar ist, aber auf Null gerundet wurde oder gleich Null ist.

Konzern-Gewinn- und Verlustrechnung

	Für das zum 31. Dezember endende Geschäftsjahr		
	2017	**2016**	**2015**
		(geprüft) **(in € Millionen)**	
Umsatzerlöse	1.637,2	1.624,7	1.470,7
Sonstige betriebliche Erträge	74,8	82,8	58,3
Aktivierte Eigenleistungen[1]	41,5	43,4	28,6
Veränderung der Vorräte[1]	(1,0)	(4,3)	(20,1)
Materialaufwand	(179,6)	(204,8)	(197,3)
Honorar- und Lizenzaufwand	(125,7)	(118,4)	(119,4)
Personalaufwand	(541,6)	(514,4)	(457,1)
Sonstige betriebliche Aufwendungen	(386,8)	(393,8)	(365,6)
Erträge aus assoziierten Unternehmen und sonstigen Beteiligungsgesellschaften	3,0	1,4	1,2
Gewinne/Verluste aus dem Verkauf von Geschäftsbereichen/ Beteiligungsverkäufen	(0,8)	2,1	0,0
Ergebnis vor Zinsen, Steuern und Abschreibungen (EBITDA)	**521,0**	**518,7**	**399,3**
Abschreibungen und Wertminderungen auf immaterielle Vermögenswerte	(369,2)	(253,3)	(243,3)
Abschreibungen und Wertminderungen auf Sachanlagen[2]	(17,4)	(16,8)	(16,4)
Betriebsergebnis	**134,4**	**248,6**	**139,6**
Finanzaufwendungen	(400,9)	(439,1)	(388,8)
Finanzerträge	204,2	88,3	69,3
Finanzergebnis	**(196,7)**	**(350,8)**	**(319,5)**
Ergebnis vor Steuern	**(62,3)**	**(102,2)**	**(179,9)**
Steuern vom Einkommen und vom Ertrag	(4,3)	(20,6)	36,0
Periodenergebnis	**(66,6)**	**(122,8)**	**(143,9)**
Vom Periodenergebnis entfallen auf:			
Eigentümer des Mutterunternehmens	(68,2)	(122,5)	(141,6)
Anteile ohne beherrschenden Einfluss	1,6	(0,3)	(2,3)

[1] Unsere Konzern-Gewinn- und Verlustrechnung ist nach dem Gesamtkostenverfahren aufgestellt, bei dem die gesamten Erträge innerhalb eines Berichtszeitraums den gesamten Aufwendungen gegenübergestellt werden, worunter auch Erträge aus aktivierten Eigenleistungen sowie Aufwendungen/Erträge aus der Veränderung der Vorräte fallen. Aktivierte Eigenleistungen betreffen die Kosten für die Entwicklung selbsterstellter Software und die internen Kosten für die Erstellung von Inhalten. Diese Kosten sind in den Aufwandsposten der Konzern-Gewinn- und Verlustrechnung enthalten und beziehen sich insbesondere auf den Materialaufwand und den Personalaufwand. Soweit diese Kosten in der Konzernbilanz als sonstige immaterielle Vermögenswerte aktivierungsfähig sind, werden sie in der Konzern-Gewinn- und Verlustrechnung im Posten Aktivierte Eigenleistungen ausgewiesen, um die Effekte aus den erfassten Aufwendungen auszugleichen. Veränderung der Vorräte betrifft die Veränderung der Vorräte zum Ende des Berichtszeitraums im Vergleich zum Ende des vorhergehenden Berichtszeitraums.

[2] Ausgewiesen als Abschreibungen auf Sachanlagen in den geprüften Konzernabschlüssen der Emittentin für die zum 31. Dezember 2016 und 31. Dezember 2015 endenden Geschäftsjahre.

Konzernbilanz

	Zum 31. Dezember		
	2017	2016	2015
		(geprüft) (in € Millionen)	
Aktiva			
Geschäfts- oder Firmenwert	1.253,2	1.330,0	1.346,9
Sonstige immaterielle Vermögenswerte	3.573,7	3.923,4	4.154,5
Sachanlagen	153,0	155,2	173,0
Anteile an assoziierten Unternehmen	25,9	20,3	7,6
Finanzielle Vermögenswerte	2,3	4,2	5,3
Sonstige langfristige Vermögenswerte	6,9	8,7	12,5
Latente Steueransprüche	8,4	7,6	8,5
Langfristige Vermögenswerte	**5.023,4**	**5.449,4**	**5.708,3**
Vorräte	63,2	73,7	84,2
Forderungen aus Lieferungen und Leistungen	416,9	464,5	477,3
Forderungen aus laufenden Steuern vom Einkommen und vom Ertrag	19,2	16,1	10,2
Sonstige kurzfristige Vermögenswerte	64,1	65,2	91,3
Zahlungsmittel und Zahlungsmitteläquivalente	122,8	97,0	117,3
Kurzfristige Vermögenswerte	**686,2**	**716,5**	**780,3**
Bilanzsumme	**5.709,6**	**6.165,9**	**6.488,6**
Passiva			
Gezeichnetes Kapital	0,1	0,1	0,1
Kapitalrücklage	748,7	771,2	771,2
Gewinnrücklage/kumuliertes übriges Eigenkapital	(766,6)	(561,4)	(206,1)
Auf Eigentümer des Mutterunternehmens entfallendes Periodenergebnis	(68,2)	(122,5)	(141,6)
Eigenkapital der Eigentümer des Mutterunternehmens	**(86,0)**	**87,4**	**423,6**
Anteile ohne beherrschenden Einfluss	2,3	(4,2)	(2,3)
Eigenkapital	**(83,7)**	**83,2**	**421,3**
Verbindlichkeiten gegenüber Gesellschaftern	1.032,7	955,2	882,3
Rückstellungen für Pensionen und andere langfristig fällige Leistungen an Arbeitnehmer	261,9	265,8	215,2
Verzinsliche Darlehen	2.976,2	3.097,0	3.058,6
Verbindlichkeiten aus Finanzierungsleasing	0,4	6,1	7,0
Sonstige langfristige Rückstellungen und langfristige Verbindlichkeiten	17,3	22,4	17,0
Latente Steuerschulden	732,2	825,3	898,3
Langfristige Rückstellungen und Verbindlichkeiten	**5.020,7**	**5.171,8**	**5.078,4**
Verzinsliche Darlehen	71,8	83,8	77,4
Verbindlichkeiten aus Finanzierungsleasing	6,5	1,3	1,3
Rückstellungen	18,8	28,5	34,7
Verbindlichkeiten auf Lieferungen und Leistungen	130,3	134,4	127,1
Verbindlichkeiten aus laufenden Steuern vom Einkommen und vom Ertrag	51,0	26,5	24,3
Sonstige kurzfristige Verbindlichkeiten	202,9	315,9	347,6
Passive Rechnungsabgrenzungsposten	291,3	320,5	376,5
Kurzfristige Rückstellungen und Verbindlichkeiten	**772,6**	**910,9**	**988,9**
Bilanzsumme	**5.709,6**	**6.165,9**	**6.488,6**

Daten aus der Konzern-Kapitalflussrechnung

	Für das zum 31. Dezember endende Geschäftsjahr		
	2017	2016	2015
		(geprüft) (in € Millionen)	
Cashflows aus der betrieblichen Tätigkeit	444,8	402,2	341,7
Cashflows aus der Investitionstätigkeit	(189,4)	(177,1)	(110,2)
Cashflows aus der Finanzierungstätigkeit	(222,6)	(245,7)	(175,3)
Veränderung der Zahlungsmittel und Zahlungsmitteläquivalente	32,8	(20,6)	56,2
Zahlungsmittel und Zahlungsmitteläquivalente zu Beginn der Periode	97,0	117,3	66,9
Zahlungsmittel und Zahlungsmitteläquivalente zum Ende der Periode	122,8	97,0	117,3

Segmentinformationen

Die untenstehende Tabelle zeigt die Segmentinformationen von Springer Nature für die jeweils dargestellten Zeiträume:

	Für das zum 31. Dezember endende Geschäftsjahr	
	2017	2016
	(geprüft) (in € Millionen)	
Research		
Umsatzerlöse	1.162,2	1.142,4
EBITDA	**433,4**	**430,5**
Gewinne/Verluste aus dem Verkauf von Geschäftsbereichen/ Beteiligungsverkäufen	–	(1,4)
Bereinigungen (außerordentliche Posten)[1]	24,0	32,5
Bereinigtes EBITDA	**457,4**	**461,6**
Abschreibungen und Wertminderungen auf Sachanlagen (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	(12,9)	(13,2)
Abschreibungen und Wertminderungen auf immaterielle Vermögenswerte (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	(141,4)	(122,0)
Bereinigtes Betriebsergebnis	**303,1**	**326,4**
Education		
Umsatzerlöse	272,8	278,3
EBITDA	**43,2**	**48,0**
Gewinne/Verluste aus dem Verkauf von Geschäftsbereichen/ Beteiligungsverkäufen	2,3	(0,3)
Bereinigungen (außerordentliche Posten)[1]	3,9	2,7
Bereinigtes EBITDA	**49,4**	**50,4**
Abschreibungen und Wertminderungen auf Sachanlagen (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	(2,3)	(2,0)
Abschreibungen und Wertminderungen auf immaterielle Vermögenswerte (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	(15,4)	(12,5)
Bereinigtes Betriebsergebnis	**31,7**	**35,9**

	Für das zum 31. Dezember endende Geschäftsjahr	
	2017	2016
	(geprüft) (in € Millionen)	
Professional		
Umsatzerlöse	203,7	204,8
EBITDA	**43,0**	**41,0**
Gewinne/Verluste aus dem Verkauf von Geschäftsbereichen/ Beteiligungsverkäufen	–	–
Bereinigungen (außerordentliche Posten)[1]	1,1	2,1
Bereinigtes EBITDA	**44,1**	**43,1**
Abschreibungen und Wertminderungen auf Sachanlagen (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen Reserven im Zusammenhang mit Unternehmenszusammenschlüssen)	(0,8)	(0,8)
Abschreibungen und Wertminderungen auf immaterielle Vermögenswerte (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	(3,6)	(3,7)
Bereinigtes Betriebsergebnis	**39,7**	**38,6**
***Konzernfunktion/Sonstige*[2]**		
Umsatzerlöse	(1,5)	(0,8)
EBITDA	**1,4**	**(0,8)**
Gewinne/Verluste aus dem Verkauf von Geschäftsbereichen/ Beteiligungsverkäufen	(1,5)	(0,4)
Bereinigungen (außerordentliche Posten)[1]	–	(0,1)
Bereinigtes EBITDA	**(0,1)**	**(1,3)**
Abschreibungen und Wertminderungen auf Sachanlagen (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	–	–
Abschreibungen und Wertminderungen auf immaterielle Vermögenswerte (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	–	–
Bereinigtes Betriebsergebnis	**(0,1)**	**(1,3)**
Konzern		
Umsatzerlöse	1.637,2	1.624,7
EBITDA	**521,0**	**518,7**
Gewinne/Verluste aus dem Verkauf von Geschäftsbereichen/ Beteiligungsverkäufen	0,8	(2,1)
Bereinigungen (außerordentliche Posten)[1][3]	29,0	37,2
Bereinigtes EBITDA	**550,8**	**553,8**
Abschreibungen und Wertminderungen auf Sachanlagen (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	(16,0)	(16,0)
Abschreibungen und Wertminderungen auf immaterielle Vermögenswerte (ausgenommen Abschreibungen und Wertminderungen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen)	(160,4)	(138,2)
Bereinigtes Betriebsergebnis	**374,4**	**399,6**
Abschreibungen und Wertminderungen Sachanlagen auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen	(1,4)	(0,8)
Abschreibungen und Wertminderungen immaterielle Vermögenswerte auf Fair-Value-Anpassungen im Zusammenhang mit Unternehmenszusammenschlüssen	(208,8)	(115,1)
Gewinne/Verluste aus dem Verkauf von Geschäftsbereichen/ Beteiligungsverkäufen	(0,8)	2,1
Bereinigungen (außerordentliche Posten)[1][3]	(29,0)	(37,2)
Betriebsergebnis	**134,4**	**248,6**

[1] Bereinigungen (außerordentliche Posten) beziehen sich auf Effekte außerhalb des normalen Geschäftsverlauf oder Einmaleffekte wie die Integration und Restrukturierung von Unternehmen oder Unternehmensteilen sowie andere außergewöhnliche oder nicht wiederkehrende Geschäftsvorfälle oder Ereignisse.

(2) Konzernfunktion/Sonstige erfasst die Effekte aus der Eliminierung konzerninterner Transaktionen sowie Gewinne oder Verluste im Zusammenhang aus nicht fortgeführten Geschäftsbereichen.

(3) Im Geschäftsjahr 2017 betrafen die außerordentlichen Posten (i) Aufwendungen in Verbindung mit Restrukturierungs- und Integrationsmaßnahmen, Akquisitionsvorhaben, Konzernstruktur- und Finanzierungsprojekten sowie Rechtsstreitigkeiten in Höhe von €39,2 Mio., (ii) Erträge aus der Entschädigungsvereinbarung zwischen ehemaligen und derzeitigen Gesellschaftern von Springer Nature in Höhe von €11,2 Mio. und (iii) Aufwendungen für die Vorbereitung des Angebots in Höhe von €1,0 Mio. Im Geschäftsjahr 2016 betreffen die außerordentlichen Posten (i) Aufwendungen im Zusammenhang mit dem Erwerb des MSE-Geschäfts in Höhe von €1,7 Mio., (ii) Aufwendungen im Zusammenhang mit integrationsbezogenen Maßnahmen infolge des Erwerbs des MSE-Geschäfts in Höhe von €13,8 Mio., (iii) Aufwendungen für Restrukturierungsmaßnahmen in Höhe von €11,4 Mio. und (iv) einmalige Kosten und Erträge sowie Aufwendungen für andere Unternehmensprojekte, wie Standortverlagerungen, und Rechtsstreitigkeiten in Höhe von €10,3 Mio.

Wesentliche Änderungen der Finanzlage und des Betriebsergebnisses der Emittentin in oder nach dem von den wesentlichen historischen Finanzinformationen abgedeckten Zeitraum.

Die folgenden wesentlichen Änderungen unserer Finanz- und Ertragslage traten in den zum 31. Dezember 2017, 2016 und 2015 endenden Geschäftsjahren ein:

Zum 31. Dezember 2017 und 31. Dezember 2016 endende Geschäftsjahre

Die Umsatzerlöse sind um 0,8% von €1.624,7 Mio. im Jahr 2016 auf €1.637,2 Mio. im Jahr 2017 gestiegen, hauptsächlich aufgrund eines Anstiegs der Umsatzerlöse im Segment Research durch starke Verkaufszahlen bei Online-Abonnements und durch eine Zunahme der Veröffentlichungen in Open-Access-Zeitschriften.

Das EBITDA hat sich um 0,4% von €518,7 Mio. im Jahr 2016 auf €521,0 Mio. im Jahr 2017 verbessert, da der Anstieg der Umsatzerlöse und der gesunkene Materialaufwand durch den gestiegenen Personalaufwand nahezu ausgeglichen wurde. Unsere EBITDA-Marge, welche dem Verhältnis des EBITDA zu den Umsatzerlösen entspricht, betrug 31,9% im Jahr 2016 und 31,8% im Jahr 2017.

Zum 31. Dezember 2016 und 31. Dezember 2015 endende Geschäftsjahre

Die Umsatzerlöse sind um 10,5% von €1.470,7 Mio. im Jahr 2015 auf €1.624,7 Mio. im Jahr 2016 gestiegen. Dieser Anstieg beruht auf der Konsolidierung und der Einbeziehung von MSE für das gesamte Jahr 2016 im Gegensatz zur lediglich achtmonatigen Berücksichtigung des MSE-Geschäfts in unseren Ergebnissen im Jahr 2015. Zu den Auswirkungen der Übernahme von MSE kam hinzu, dass die Umsatzerlöse aus dem Verkauf von Zeitschriften/Zeitschrifteninhalten von einer Steigerung der APCs im Zusammenhang mit unseren Open-Access-Zeitschriften profitierten. Diese Erhöhung lässt sich zurückführen auf gestiegene Einreichungen, insbesondere bei einigen unserer bedeutendsten Zeitschriften, sowie die Einführung neuer Open-Access-Zeitschriften als auch die Umstellung einiger Zeitschriften vom Hybridformat auf reines Open-Access-Format. Nach der Bereinigung um die Auswirkungen der Übernahme von MSE sind die Umsatzerlöse aus gedruckten Büchern 2016 gegenüber 2015 zurückgegangen. Dieser Rückgang wurde teilweise durch einen Anstieg der Umsatzerlöse aus eBooks ausgeglichen, vor allem durch den Verkauf von eBook-Paketen. Nach der Bereinigung um die Auswirkungen der Übernahme von MSE sind die Umsatzerlöse aus Werbung 2016 gegenüber 2015 stabil geblieben.

Das EBITDA hat sich um 29,9% von €399,3 Mio. im Jahr 2015 auf €518,7 Mio. im Jahr 2016 verbessert aufgrund eines durch die Übernahme bedingten Anstiegs der Umsatzerlöse, der nur teilweise durch einen Anstieg des Personalaufwands und sonstiger betrieblicher Aufwendungen ausgeglichen wurde. Unsere EBITDA-Marge verbesserte sich von 27,2% im Jahr 2015 auf 31,9% im Jahr 2016, was teilweise auf Integrationsprojekte zurückzuführen ist.

Neueste Entwicklungen

Am 15. Februar 2018 haben wir für einen vorläufigen Betrag von USD 15,2 Mio. einen weiteren Anteil in Höhe von 30 % an Research Square AJE LLC erworben, womit unser Anteil insgesamt auf 60 % stieg. Das in den Vereinigten Staaten ansässige Unternehmen bietet Autoren von wissenschaftlichen Inhalten vorwiegend Sprach- und Manuskriptbearbeitungs- und -übersetzungsdienstleistungen an.

Am 16. Februar 2018 haben wir für einen vorläufigen Kaufpreis von €12 Mio. sämtliche Anteile an einem in Deutschland ansässigen Unternehmen aus dem Kongressgeschäft erworben, das über elf Mitarbeiter in Deutschland verfügt.

Im April 2018 schlossen diverse Verlagshäuser, darunter auch wir, mit ResearchGate GmbH („**Research Gate**") einen Kooperationsvertrag. ResearchGate ist eine Online-Plattform für Mitglieder der Wissenschaftsgemeinschaft, um ihre Arbeit zu teilen, Fragen zu stellen und zu beantworten und Mitarbeiter zu finden. Dieser Vertrag regelt die Zusammenarbeit zwischen ResearchGate und Verlagshäusern hinsichtlich einer Nutzerschulung betreffend ihrer Rechte bezüglich urheberrechtlich geschützter Inhalte. Zudem entfernt ResearchGate auch weiterhin auf Anfrage von Verlagshäusern wie uns Urheberrechtsverletzungen von seiner Plattform. Darüber hinaus erhalten wir weitere Einblicke in die Nutzung von Inhalten auf der ResearchGate Plattform.

Im Zusammenhang mit dem Angebot hat die Emittentin ihre Fremdfinanzierungsstruktur umgestellt und am 12. April 2018 verschiedene Finanzierungsvereinbarungen abgeschlossen. Zusammen mit den Nettoerlösen aus dem Angebot werden die Ziehungen unter diesen Finanzierungsvereinbarungen genutzt, um die Beträge zurückzuführen, die unter dem bestehenden vorrangigen Darlehensvertrag (*senior credit agreement*) bestehen, den die Emittentin im Jahr 2013 durch ihre Tochtergesellschaft Springer Science+Business Media Deutschland GmbH als Hauptdarlehensnehmer eingegangen ist (das „**Senior Credit Agreement**"). Die mit dieser Finanzierung verbundenen Gebühren werden voraussichtlich €13 Mio. betragen.

Basierend auf vorläufigen Zahlen und bereinigt um Wechselkurseffekte entwickelten sich die Umsatzerlöse und das bereinigte EBITDA in dem zum 31. März 2018 endenden Dreimonatszeitraum innerhalb unserer Erwartungen und der üblichen saisonalen Verläufe unseres Geschäfts.

In unserem Segment Research entwickeln sich die realisierten Verlängerungen mit Institutionen negativ verglichen mit den zum 31. März 2017 endenden Dreimonatszeitraum, liegen jedoch vollständig im Rahmen der Erwartungen. Der Gesamtstatus der Vertragsverlängerungen mit Institutionen liegt im Rahmen der Vorjahresmuster, wobei die Verhandlungen mit einem französischen Konsortium die einzige nennenswerte Verlängerungssitutation darstellt, die sich aufgrund nicht-verwaltungstechnischer Gründe verzögert. Die Entwicklung der zugrundeliegenden Umsatzerlöse weist solides Wachstum über sämtliche Produktkategorien für Institutionen hinweg auf. Die Umsatzerlöse im Handel und eCommerce stiegen in dem zum 31. März 2018 endenden Dreimonatszeitraum, zudem stiegen die Umsatzerlöse von Open Access APCs im Rahmen der Erwartungen. Die Umsatzerlöse im Bereich Gesundheitswesen (*Healthcare*) wiesen ebenfalls solides zugrundeliegendes Wachstum auf.

		In unserem Segment Education war die zugrunde liegende Entwicklung in den zum 31. März 2018 endenden Dreimonatszeitraum positiv. Die Entwicklung der Umsatzerlöse entwickelte sich je nach Region unterschiedlich, wobei unsere Tätigkeiten in Lateinamerika einen positiven Beitrag und unsere Tätigkeiten in Indien einen negativen Beitrag leisteten, was insgesamt zu einem zugrundeliegenden Nettowachstum führte. In unserem Segment Professional lag die zugrundeliegende Entwicklung oberhalb der erwarteten jährlichen Wachstumsrate. Mit Ausnahme der obigen Ausführungen gab es zwischen dem 31. Dezember 2017 und dem Datum dieses Prospekts keine wesentlichen Änderungen der Finanzlage, der finanziellen Leistungsfähigkeit oder der Cashflows bzw. der Handelsposition der Emittentin oder des Konzerns.
B.8	**Ausgewählte wesentliche Pro-forma-Finanzinformationen.**	Entfällt. Die Emittentin hat keine in diesen Prospekt einzubeziehenden Pro-forma-Finanzinformationen erstellt.
B.9	**Gewinnprognosen oder -schätzungen.**	Entfällt. Die Emittentin hat keine Gewinnprognose oder -schätzung abgegeben.
B.10	**Beschränkungen im Bestätigungsvermerk zu den historischen Finanzinformationen.**	Entfällt. Die Bestätigungsvermerke des unabhängigen Abschlussprüfers bzw. Bestätigungsvermerke zu den in diesem Prospekt enthaltenen Abschlüssen wurden uneingeschränkt erteilt.
B.11	**Geschäftskapital der Emittentin zur Erfüllung bestehender Anforderungen nicht ausreichend.**	Entfällt. Die Emittentin ist der Ansicht, dass der Konzern in der Lage ist, sämtliche Zahlungsverpflichtungen zu erfüllen, die mindestens in den kommenden zwölf Monaten, beginnend mit dem Datum dieses Prospekts, fällig werden.
C – Wertpapiere		
C.1	**Art und Gattung der angebotenen und zum Handel zuzulassenden Wertpapiere.**	Das Angebot besteht aus: • 112.999.554 Neuen Aktien; • 18.983.925 Sekundären Aktien, wobei die Anzahl der Sekundären Aktien, die tatsächlich bei Investoren platziert werden, vom Veräußernden Aktionär in Abstimmung mit den Joint Global Coordinators am Tag der Preissetzung festgelegt wird; und • 13.198.347 Mehrzuteilungsaktien. Die gesamte Anzahl der Mehrzuteilungsaktien wird 10% der finalen Anzahl an Neuen Aktien und Sekundären Aktien, die im Rahmen des Angebotes tatsächlich platziert werden, nicht übertreffen. Zum Zwecke der Zulassung zum Handel am regulierten Markt der Frankfurter Wertpapierbörse und der zeitgleichen Zulassung zum Untersegment des regulierten Markts mit weiteren Zulassungsfolgepflichten (*Prime Standard*) der Frankfurter Wertpapierbörse, bezieht sich dieser Prospekt auf bis zu 112.999.554 Neue Aktien, zwei Aktien, die im Zusammenhang mit der unter „*C.3 Zahl der ausgegebenen und voll eingezahlten Aktien*“ näher beschriebenen Auflösung gewisser Finanzierungsinstrumente ausgegeben werden, und 190.000.000 auf den Inhaber lautende Stammaktien ohne Nennbetrag (Stückaktien) der Emittentin (das Grundkapital der Emittentin zum Datum dieses Prospekts), wobei jede einer solchen Aktie einen Nennbetrag von €1,00 aufweist. Es wird erwartet, dass das Grundkapital der Emittentin im Anschluss an die Eintragung der IPO Kapitalerhöhung und Ausgabe von zwei Aktien wie oben beschrieben in bis zu 302.999.556 auf den Inhaber lautende Stammaktien ohne Nennbetrag (Stückaktien) aufgeteilt sein wird.

		Alle angebotenen und zum Handel zuzulassenden Wertpapiere sind auf den Inhaber lautende Stammaktien ohne Nennbetrag (*Stückaktien*).
Wertpapierkennung.		International Securities Identification Number (ISIN): DE000SPG1003 Wertpapierkennnummer (WKN): SPG100 Common Code: 094555779 Börsenkürzel: SPG
C.2	**Währung.**	Euro.
C.3	**Zahl der ausgegebenen und voll eingezahlten Aktien.**	Zum Datum dieses Prospekts beträgt das Grundkapital der Emittentin €190.000.000,00 und ist in 190.000.000 auf den Inhaber lautende Stammaktien ohne Nennbetrag (Stückaktien) eingeteilt, die alle ausgegeben wurden. Das Grundkapital ist vollständig eingezahlt. Die Bestehenden Aktionäre werden bei der Eintragung der IPO Kapitalerhöhung im Gegenzug für die Ausgabe von zwei neuen Aktien der Emittentin ein Gesellschafterdarlehen, ein Verkäuferdarlehen sowie Vorzugsgeschäftsanteile (*class B preferred shares*) der Springer SBM One GmbH („**SSBM One**") mit einem Gesamtwert von €977,8 Mio., zusammen mit einer Barzahlung an die Emittentin von insgesamt €2,00 einbringen. Die Einbringung von €2,00 wird zu einer entsprechenden Erhöhung des Grundkapitals führen, der Wert dieser Finanzierungsinstrumente wird in der Kapitalrücklage der Emittentin als schuldrechtliches Agio im Sinne des § 272 Abs. 2 Nr. 1 des Handelsgesetzbuches berücksichtigt, wodurch die Bestehenden Aktionäre die jeweiligen Finanzierungsinstrumente auflösen werden. Die Einbringung dieser Finanzierungsinstrumente wird daher zu einem Anstieg unseres Eigenkapitals führen, wodurch das Konzern-Eigenkapital von negativ €83,7 Mio. zum 31. Dezember 2017 im Zeitpunkt dieser Einbringung positiv wird. Daher wird die Hauptversammlung der Emittentin beschließen, das gegenwärtige Grundkapital der Emittentin von €190.000.000,00 durch eine Barkapitalerhöhung um €2,00 zeitgleich mit der IPO Kapitalerhöhung zu erhöhen. Es wird davon ausgegangen, dass die Durchführung der Kapitalerhöhung im Handelsregister des Amtsgerichts Charlottenburg, Deutschland, am 8. Mai 2018 eingetragen wird. Aufgrund der geplanten Auflösung dieser Finanzierungsinstrumente bei Eintragung der IPO Kapitalerhöhung werden zwei Aktien der Emittentin ausgegeben.
	Nennwert.	Jede Aktie der Emittentin stellt einen anteiligen Betrag des Grundkapitals der Emittentin von €1,00 dar.
C.4	**Mit den Wertpapieren verbundene Rechte.**	Jede Aktie der Emittentin berechtigt zu einer Stimme in der Hauptversammlung der Emittentin. Es bestehen keine Stimmrechtsbeschränkungen und die Bestehenden Aktionäre haben keine unterschiedlichen Stimmrechte. Die Aktien der Emittentin sind ab dem 1. Januar 2018 vollständig dividendenberechtigt.
C.5	**Beschreibung aller etwaigen Beschränkungen für die freie Übertragbarkeit der Wertpapiere.**	Die Aktien der Emittentin sind gemäß den gesetzlichen Bestimmungen für auf den Inhaber lautende Stammaktien frei übertragbar. Die Satzung der Emittentin schränkt die freie Veräußerung oder Übertragbarkeit der Aktien nicht ein.
C.6	**Antrag auf Zulassung der Wertpapiere zum Handel an einem geregelten Markt und Nennung aller geregelten Märkte, an denen die**	Die Emittentin wird die Zulassung der Aktien der Emittentin zum regulierten Markt mit gleichzeitiger Zulassung zum Teilbereich des regulierten Marktes mit weiteren Zulassungsfolgepflichten (*Prime Standard*) an der Frankfurter Wertpapierbörse am oder um den 26. April 2018 beantragen. Der Zulassungsbeschluss für die Aktien der Emittentin wird voraussichtlich am 8. Mai 2018 erteilt. Der Handel mit den Aktien

Wertpapiere gehandelt werden sollen.

der Emittentin an der Frankfurter Wertpapierbörse wird voraussichtlich am 9. Mai 2018 beginnen.

C.7 Dividendenpolitik.

Dividenden werden in Übereinstimmung mit geltendem Recht ausgeschüttet und dies wird unter anderem vom Geschäftsergebnis, der Finanzlage, den vertraglichen Beschränkungen und dem Kapitalbedarf der Emittentin abhängen. Die Emittentin zielt darauf ab, im Jahr 2019 eine Dividendenzahlung von €110 Mio. für das zum 31. Dezember 2018 endende Geschäftsjahr vorzunehmen. Künftig hat die Emittentin vor, eine jährliche Dividende von ungefähr 50% des Periodenergebnisses des Konzerns, bereinigt um latente Steuern und Abschreibungen bezüglich übernahmebezogener immaterieller Vermögenswerte, die aufgedeckte stille Reserven im Zusammenhang mit Unternehmenserwerben betreffen, an ihre Aktionäre auszuzahlen. Unsere zukünftige Fähigkeit, Dividenden zu zahlen, kann durch die Bedingungen bestehender und zukünftiger Verbindlichkeiten und genussscheinähnlicher Wertpapiere beschränkt sein.

D – Risiken

Mögliche Anleger sollten die nachfolgend beschriebenen Risiken sowie alle sonstigen in diesem Prospekt enthaltenen Informationen vor der Entscheidung über eine Anlage in Aktien der Emittentin sorgfältig prüfen. Die folgenden Risiken könnten allein oder zusammen mit weiteren Risiken und Unwägbarkeiten, die uns derzeit nicht bekannt sind oder die wir derzeit als unwesentlich erachten, erhebliche beeinträchtigende Auswirkungen auf die Geschäfts-, Finanz- und Ertragslage der Emittentin oder des Konzerns haben. Die Reihenfolge, in der die Risikofaktoren dargestellt sind, stellt weder eine Aussage über die Eintrittswahrscheinlichkeit noch über die Bedeutung und Höhe oder das Ausmaß der jeweiligen Risiken dar.

Die Risikofaktoren beruhen auf Annahmen, die sich als falsch herausstellen könnten. Darüber hinaus könnten sich andere Risiken, Tatsachen oder Umstände, die der Emittentin derzeit nicht bekannt sind, als wichtig erweisen oder einen wesentlichen nachteiligen Effekt auf die Geschäfts-, Finanz- und Ertragslage der Emittentin haben. Der Marktpreis der Aktien der Emittentin könnte sinken, sofern sich eines dieser Risiken verwirklichen sollte; in diesem Fall könnten Anleger ihre Anlage ganz oder teilweise verlieren.

D.1 Schlüsselrisiken, die den Investitionen der Emittentin und ihrer Branche eigen sind.

Risiken im Zusammenhang mit unserem Markt und unserer Geschäftstätigkeit

- Die Entwicklung des Internet und sonstige branchenspezifische sowie regulatorische Entwicklungen haben den Mehrwert, den wir als Intermediär zwischen Anbietern und Nutzern von wissenschaftlichen Inhalten, Lehrinhalten und fachlichen Inhalten schaffen, verringert und könnten diesen Mehrwert auch zukünftig verringern.
- Ein Rückgang der Verlängerungsquoten für Abonnements im Segment Research könnte unsere Umsatzerlöse und Ertragslage beeinträchtigen.
- Geringere Ausgaben von Regierungen und Institutionen sowie die allgemeinen wirtschaftlichen Rahmenbedingungen in unseren Märkten könnten zu geringerer Nachfrage nach unseren Produkten und Dienstleistungen im Segment Research führen, was unsere Umsatzerlöse und Ertragslage beeinträchtigen könnte.
- Wir könnten nicht in der Lage sein, unsere Umsatzerlöse in unserem Segment Research zu steigern, sofern wir es nicht schaffen, die

Erweiterung unseres inhaltlichen Angebots in höhere Umsatzerlöse umzusetzen.

- Änderungen unseres Vertriebs- und Preismodells könnten in der Öffentlichkeit negativ wahrgenommen werden und unsere Ertragslage beeinträchtigen.
- Eine verstärkte Nutzung von Open-Access-Modellen könnte die Nachfrage nach Abonnements von Zeitschriften für Wissenschaftliche Forschung mindern und die APCs für unser von Autoren bezahltes Open-Access-Modell könnten sich rückläufig entwickeln oder diese Nachfrageminderung nicht vollumfänglich ausgleichen.
- Jegliches Versäumnis, eine große Anzahl hochqualifizierter Redakteure, Mitglieder redaktioneller Beiräte und unabhängiger Fachgutachter (*peer reviewer*) zu finden und an uns zu binden könnte sich signifikant negativ auf unsere operative Tätigkeit auswirken.
- Fragen nach der Zuverlässigkeit des unabhängigen Begutachtungsprozesses (*peer review process*) könnten das Ansehen unserer Zeitschriften beeinträchtigen.
- Jegliches Versäumnis, Verträge über Zusammenarbeit bei Veröffentlichungen (*co-publishing agreements*) und Vertriebsvereinbarungen mit Dritten zu wirtschaftlich zufriedenstellenden Bedingungen abzuschließen oder beizubehalten, könnte unsere Umsatzerlöse und Ertragslage beeinträchtigen.
- Die weitverbreitete Nutzung von Filesharing-Plattformen, einschließlich E-Piracy, könnte unser Erlösmodell beeinträchtigen.
- Ein sinkender Einflussfaktor (*impact factor*) unserer Zeitschriften könnte unsere Geschäftstätigkeit beeinträchtigen.
- Unser Segment Education könnte aufgrund der zunehmenden Verfügbarkeit gebrauchter Lehrbücher und des Verleihs von Lehrbüchern, sowie aufgrund von Parallelimporten, selbstproduzierten Materialien sowie Änderungen im Geschäft mit öffentlichen Ausschreibungen und gesetzlich vorgeschriebenen Überprüfungsverfahren von Lehr- und Sozialinhalten in einigen Ländern beeinträchtigt werden; außerdem könnte einen Rückgang staatlicher Ausgaben unser Segment Education beeinträchtigen.
- Unser Segment Professional könnte aufgrund des zyklischen Ausgabeverhaltens unserer Kunden durch Nachfrageschwankungen, durch grundlegende strukturelle Veränderungen und die Verfügbarkeit von kostenlosen oder kostengünstigen Online-Inhalten beeinträchtigt werden.
- Die zunehmende Bedeutung elektronischer Vertriebswege könnte in nachteiliger Weise Druck auf unsere Preisgestaltung für elektronische Produkte ausüben, zu Insolvenzen unserer Abonnement-Vertriebsagenturen führen und auf diese Weise unsere Ertragslage beeinträchtigen.
- Eine Verschlechterung unserer Markennamen und unseres Ansehens, zum Beispiel aufgrund der Befolgung staatlicher Anweisungen zur Beschränkung der Verbreitung unserer Inhalte, würde unsere Fähigkeit, eine vertrauenswürdige Informationsquelle zu sein, und unser Verhältnis gegenüber Kunden und Autoren beeinträchtigen.
- Wir hängen stark vom Internet und unseren IT-Systemen, insbesondere unseren elektronischen Datenbanken und Plattformen, ab; Ausfälle oder Unterbrechungen könnten unsere Fähigkeit, Kunden

zu bedienen, beeinträchtigen; unbefugte Verletzungen unserer Datensicherheits-systeme durch Dritte könnten unsere Geschäftstätigkeit beeinträchtigen.

- Unsere Geschäftsmodelle, Produkte und Dienstleistungen könnten nicht vollumfänglich von geistigen Eigentumsrechten geschützt sein und unsere geistigen Eigentumsrechte könnten durch Dritte verletzt oder angefochten werden; wir könnten die Rechte am geistigen Eigentum Dritter verletzen oder Ansprüchen ausgesetzt sein, die sich auf Verletzungen geistigen Eigentums beziehen.
- Nach dem Zusammenschluss von Springer und des Wissenschafts- und Bildungsgeschäfts von MSE könnten wir nicht mehr in der Lage sein, die beabsichtigte Neuorganisation und Umstrukturierung unserer Geschäftsaktivitäten erfolgreich umzusetzen; die Integration dauert noch an und es besteht keine Gewissheit, dass sie die erwarteten Vorteile hervorbringt.
- Der Erfolg unserer Geschäftstätigkeit hängt von der Erfahrung und dem Können unserer Führungsebene sowie unserer Fähigkeit, Schlüsselmitarbeiter anzuwerben und an uns zu binden, ab.
- Bei einer großen Bandbreite von Dienstleistungen hängen wir von Dritten ab, einschließlich Dienstleistungen für Betriebsabläufe, IT-Systeme und Verwaltung, sowie bei Dienstleistungen, die von mit einem unserer Bestehenden Aktionäre verbundenen Unternehmen erbracht werden.
- Wir könnten durch den Verschuldungsgrad und Rückzahlungsverpflichtungen, einschließlich Beschränkungen unserer Geschäftstätigkeit sowie finanziellen Flexibilität aufgrund unserer Finanzierungsvereinbarungen, beeinträchtigt werden. Zudem könnten zukünftig keine ausreichenden Finanzmittel zur Verfügung stehen, um unsere Betriebsmittel zu finanzieren oder zu stärken oder dies könnte nur zu wirtschaftlich weniger zufriedenstellenden Bedingungen möglich sein; zudem könnten wir durch öffentliche Ratings von Ratingagenturen beeinträchtigt werden.

Rechtliche, regulatorische und steuerliche Risiken

- Wir könnten unmittelbar oder mittelbar durch Änderungen der Gesetzeslage und Regulierung sowie durch Auswirkungen möglicher wirtschaftlicher Sanktionen beeinträchtigt werden.
- Wir unterliegen Vorgaben hinsichtlich der Nutzung von persönlichen Kundendaten und zudem könnten Verletzungen unserer Sicherheitssysteme oder sonstiger unberechtigter Zugang hierzu oder die unberechtigte Nutzung von Daten unser Ansehen und unsere Geschäftstätigkeit beeinträchtigen.
- Wir unterliegen Steuerrisiken, insbesondere infolge von Veränderungen der Steuergesetze oder deren Auslegung und Anwendung oder aufgrund von für uns nachteiligen Steuerprüfungen.
- Wir sind und könnten an Rechtsstreitigkeiten beteiligt sein, die unsere Finanz- und Ertragslage beeinträchtigen könnten.
- Kartellrechtliche oder wettbewerbsbezogene Ansprüche oder Untersuchungen könnten zu Änderungen unserer Geschäftstätigkeit führen; die Abwehr dieser Ansprüche könnte mit hohen Kosten verbunden sein.

D.3 Schlüsselrisiken, die den Wertpapieren eigen sind.

Schlüsselrisiken im Zusammenhang mit dem Angebot, der Zulassung und der Gesellschaftsstruktur

- Unsere Bestehenden Aktionäre werden nach Vollzug des Angebots weiterhin wesentlichen Einfluss auf die Emittentin ausüben, und die Interessen unserer Bestehenden Aktionäre könnten mit denen unserer anderen Aktionäre in Konflikt geraten.
- Georg von Holtzbrinck GmbH & Co. KG, einer unserer Bestehenden Aktionäre, könnte in Geschäftsaktivitäten eintreten, die sich mit unserem Geschäft überschneiden, und mit uns konkurrieren.
- Zukünftige Verkäufe oder Markterwartungen bezüglich des Verkaufs einer großen Aktienanzahl durch unsere Bestehenden Aktionäre oder andere Aktionäre könnten dazu führen, dass der Aktienkurs sinkt.
- Zukünftige Kapitalerhöhungen könnten zu einer erheblichen Verwässerung des Werts der Aktien der Emittentin und der Kontrollrechte der Aktionäre an der Emittentin führen.
- Eine unzureichende Ausschüttung oder Übertragung von Gewinnen der Tochtergesellschaften der Emittentin sowie ihre verschuldungsbezogenen Vertragsabreden (*debt covenants*) könnten die Fähigkeit der Emittentin zur Dividendenzahlung einschränken.
- Infolge des Börsengangs kommt auf die Emittentin weiterer Verwaltungsaufwand zu und ihr werden höhere laufende Kosten entstehen.

E – Angebot

E.1 Gesamtnettoerlöse.

Die Emittentin strebt Bruttoerlöse von ungefähr €1.186,5 Mio. an, was den Bruttoerlösen entspricht, welche die Emittentin im Falle einer Platzierung sämtlicher 112.999.554 Neuen Aktien zum Mindestwert der Preisspanne erzielen würde. Sofern der finale Angebotspreis den Mindestwert der Preisspanne überschreitet, wird die Emittentin die Anzahl der Neuen Aktien verringern, mit dem Ziel, dass die der Emittentin zufließenden Bruttoerlöse ungefähr €1.186,5 Mio. betragen. Die Anzahl der Neuen Aktien beliefe sich demnach auf 112.999.554 Neue Aktien zum Mindestwert, 94.919.626 Neue Aktien zum Mittelwert und 81.827.263 Neue Aktien zum Höchstwert der Preisspanne.

Unter der Annahme eines Angebotspreises zum Mindest-, Mittel- und Höchstwert der Preisspanne und einer Platzierung der maximalen Anzahl an Angebotsaktien (145.181.826, 125.293.906 bzw. 110.892.306 Angebotsaktien zum Mindest-, Mittel- und Höchstwert der Preisspanne), wird der Bruttoerlös aus dem Angebot €1.524,4 Mio., €1.566,2 Mio. bzw. €1.608,9 Mio. betragen. Die Emittentin erhält lediglich die Erlöse des Angebots, die aus dem Verkauf der Neuen Aktien stammen. Die Emittentin erhält keine Erlöse aus dem Verkauf der Sekundären Aktien, sofern vorhanden, oder der Mehrzuteilungsaktien.

Der Bruttoerlös für den Verkaufenden Aktionär hängt sowohl davon ab, ob und in welchem Umfang Sekundäre Aktien entsprechend der Upsize-Option und dem Angebotspreis verkauft werden als auch von dem Angebotspreis. Unter der Annahme der vollumfänglichen Ausübung der Upsize-Option und der vollumfänglichen Ausübung der Greenshoe Option (wie unten in E.3 definiert), d.h. 13.198.347 Aktien vorbehaltlich der Greenshoe Option zum Mindestwert der Preisspanne, 11.390.355 Aktien zum Mittelwert der Preisspanne und 10.081.118 Aktien zum Höchstwert der Preisspanne, geht die Emittentin davon aus, dass der auf den Verkaufenden Aktionär entfallende Bruttoerlös zum Mindest-, Mittel- und Höchstwert der Preisspanne rund €337,9 Mio., €379,7 Mio. bzw. €421,4 Mio. betragen wird.

Die mit dem Angebot der Angebotsaktien und der Börsennotierung des gesamten Grundkapitals der Emittentin zusammenhängenden Kosten der Emittentin und des Verkaufenden Aktionärs bestehen aus an die Konsortialbanken zu zahlende Provisionen und sonstigen mit dem Angebot zusammenhängenden Aufwendungen. Die an die Konsortialbanken zu zahlenden Provisionen bestimmen sich nach den Bruttoerlösen und bestehen aus einem Grundentgelt in Höhe von 1,25 % des Bruttoerlöses aus dem Angebot und aus einem ermessensabhängigen Entgelt in Höhe von 1,00 % des Bruttoerlöses aus dem Angebot. Weitere mit dem Angebot zusammenhängende Kosten sind im Wesentlichen fixe Kosten.

Unter der Annahme eines Angebotspreises zum Mindest-, Mittel- und Höchstwert der Preisspanne und einer Platzierung der maximalen Anzahl an Angebotsaktien (145.181.826, 125.293.906 bzw. 110.892.306 Angebotsaktien zum Mindest-, Mittel- und Höchstwert der Preisspanne) und unter der weiteren Annahme der vollumfänglichen Ausübung der Greenshoe Option sowie einer vollumfänglichen Zahlung des ermessensabhängigen Entgelts von bis zu €15,2 Mio., €15,7 Mio. bzw. €16,1 Mio. zum Mindest-, Mittel- bzw. Höchstwert der Preisspanne, beträgt die an die Konsortialbanken zu zahlende Provision €34,3 Mio., €35,2 Mio. bzw. €36,2 Mio. Hiervon entfallen €26,7 Mio., €26,7 Mio. bzw. €26,7 Mio. auf die Platzierung der Neuen Aktien und werden von der Emittentin getragen, €4,5 Mio., €5,3 Mio. bzw. €6,2 Mio. entfallen auf die Platzierung der Sekundären Aktien und werden vom Veräußernden Aktionär getragen und die verbleibenden €3,1 Mio., €3,2 Mio. bzw. €3,3 Mio. entfallen auf die Platzierung der Mehrzuteilungsaktien und werden vom Veräußernden Aktionär getragen.

Die weiteren mit dem Angebot zusammenhängenden Kosten werden auf insgesamt €12,0 Mio. geschätzt und zwischen der Emittentin einerseits und den Bestehenden Aktionären andererseits entsprechend der Anzahl der im Rahmen des Angebots platzierten Neuen Aktien einerseits und der Anzahl der Sekundären Aktien und, soweit die Greenshoe Option ausgeübt wird, der Anzahl der Mehrzuteilungsaktien andererseits aufgeteilt. Die von den Bestehenden Aktionären zu tragenden Kosten werden entsprechend ihrer Beteiligung an der Emittentin zum Datum dieses Prospekts aufgeteilt (d.h. 53 % der Kosten werden von GvH 33 und 47 % vom Veräußernden Aktionär getragen). Unter der Annahme eines Angebotspreises zum Mindest-, Mittel- und Höchstwert der Preisspanne und der Platzierung der maximalen Anzahl an Angebotsaktien (145.181.826, 125.293.906 bzw. 110.892.306 Angebotsaktien zum Mindest-, Mittel- bzw. Höchstwert der Preisspanne), und unter der weiteren Annahme einer vollumfänglichen Ausübung der Greenshoe Option, entfallen €9,3 Mio., €9,1 Mio. und €8,9 Mio. auf die Platzierung der Neuen Aktien und werden von der Emittentin getragen, €0,7 Mio., €0,9 Mio. bzw. €1,0 Mio. entfallen auf die Platzierung der Sekundären Aktien und werden vom Veräußernden Aktionär getragen und die verbleibenden €0,5 Mio., €0,5 Mio. bzw. €0,5 Mio. entfallen auf die Platzierung der Mehrzuteilungsaktien und werden vom Veräußernden Aktionär getragen. Letztlich werden €1,4 Mio., €1,5 Mio. und €1,7 Mio. von GvH 33 getragen.

Auf Grund der oben dargestellten Provisionen und Kosten und unter der Annahme, dass die maximale Anzahl an Angebotsaktien platziert wird (145.181.826, 125.293.906 bzw. 110.892.306 Angebotsaktien zum Mindest-, Mittel- und Höchstwert der Preisspanne) und unter der weiteren Annahme der vollumfänglichen Ausübung der Greenshoe Option sowie einer vollumfänglichen Zahlung des ermessensabhängigen Entgelts, schätzt die Emittentin, dass die auf sie entfallenden Nettoerlöse zum Mindest-, Mittel- und Höchstwert der Preisspanne €1.150,5 Mio., €1.150,7 Mio. bzw. €1.150,9 Mio. betragen würden und die auf den Verkaufenden Aktionär entfallenden Nettoerlöse ungefähr €329,1 Mio., €369,8 Mio. bzw. €410,5 Mio. betragen würden.

	Geschätzte Gesamtkosten des Angebots und der Börsennotierung, einschließlich der geschätzten Kosten, die dem Anleger von der Emittentin in Rechnung gestellt werden.	Die der Emittentin und den Bestehenden Aktionären durch das Angebot der Angebotsaktien und der Börsennotierung des gesamten Grundkapitals der Emittentin entstehenden Kosten, einschließlich Konsortial- und Platzierungsprovisionen, die an die Konsortialbanken gezahlt werden, werden sich voraussichtlich auf insgesamt €47,2 Mio. zum Mittelwert der Preisspanne (unter der Annahme einer Platzierung von 125.293.906 Angebotsaktien und einer vollständigen Ausübung der Greenshoe-Option (wie in E.3 definiert) und vollständiger Zahlung der ermessensabhängigen Gebühr) belaufen. Von diesen Gesamtkosten werden der Veräußernde Aktionär ungefähr €9,9 Mio., GvH 33 €1,6 Mio. und die Emittentin €35,8 Mio. tragen. Anlegern werden von der Emittentin, dem Veräußernden Aktionär oder den Konsortialbanken keine Kosten in Rechnung gestellt. Anleger müssen die üblichen Transaktions- und Abwicklungskosten tragen, die ihnen ihre depotführenden Broker oder Finanzinstitute in Rechnung stellen.
E.2a	**Gründe für das Angebot.**	Die Emittentin beabsichtigt die Zulassung ihrer Aktien zum regulierten Markt der Frankfurter Wertpapierbörse mit gleichzeitiger Zulassung zum Teilbereich des regulierten Marktes mit weiteren Zulassungsfolgepflichten (*Prime Standard*), um einen verbesserten Zugang zum Kapitalmarkt zu erlangen. Die Emittentin beabsichtigt außerdem, mit den Erlösen der Platzierung der Neuen Aktien ihre Finanzstruktur zu optimieren. Der Veräußernde Aktionär beabsichtigt, das Angebot durchzuführen, um die Erlöse aus dem Verkauf der Sekundären Aktien, sofern vorhanden, abhängig von der Ausübung der Upsize-Option, und der Mehrzuteilungsaktien teilweise dazu zu verwenden, die B Vorzugsgeschäftsanteile (*class B preferred shares*) an SSBM One, die er von der GvH 33 vor der Eintragung der IPO Kapitalerhöhung im Zusammenhang mit der Auflösung von Finanzierungsinstrumenten erworben hat (die „**One B-Anteile**"), zu bezahlen. Weiterhin beabsichtigt der Veräußernde Aktionär, seinen Anteil an der Emittentin teilweise zu veräußern und einen ausreichenden Streubesitz und Handelsliquidität der Aktien der Emittentin sicherzustellen.
	Zweckbestimmung der Erlöse.	Das Senior Credit Agreement sieht unter anderem befristete Darlehen über ungefähr €1,98 Mrd. und U.S. Dollar 1,29 Mrd. vor. Der noch ausstehende Gesamtbuchwert dieser befristeten Darlehen lag zum 31. Dezember 2017 bei €3,01 Mrd. Die Emittentin beabsichtigt, mit dem ihr erwachsenden Anteil an den Nettoerlösen aus dem Angebot ihre Verbindlichkeiten aus diesen befristeten Darlehen und einem von GvH 33 als Darlehensgeber gewährten Gesellschafterdarlehen über €80 Mio. zu reduzieren. Die Emittentin erwartet, dass nach Verwendung der Nettoerlöse €2,01 Mrd. unter dem Senior Credit Agreement ausstehen. Die Emittentin beabsichtigt, diese unter dem Senior Credit Agreement ausstehenden Beträge zurückzuführen, indem sie die erwarteten Zuflüsse aus einem neuen vorrangigen Darlehensvertrag (*senior credit agreement*) benutzt, den die Emittentin sowie einige ihrer Tochtergesellschaften als Darlehensnehmer am 12. April 2018 eingegangen sind.
	Geschätzte Nettoerlöse.	Die Emittentin rechnet damit, ungefähr €1.186,5 Mio. an Bruttoerlösen und ungefähr €1.150,7 Mio. an Nettoerlösen zum Mittelwert der Preisspanne zu erhalten.
E.3	**Angebotskonditionen.**	Das Angebot besteht aus einem öffentlichen Angebot („**IPO**") in Deutschland und im Großherzogtum Luxemburg („**Luxemburg**") sowie aus Privatplatzierungen in bestimmten Rechtsordnungen außerhalb Deutschlands und Luxemburgs. In den Vereinigten Staaten von Amerika (die „**Vereinigte Staaten**"), werden die Angebotsaktien ausschließlich Personen, von denen vernünftigerweise angenommen werden kann, dass sie qualifizierte institutionelle Anleger im Sinne von Rule 144A gemäß des

U.S. Securities Act von 1933 in jeweils geltender Fassung (der „**Securities Act**") sind, angeboten und an diese verkauft. Außerhalb der Vereinigten Staaten werden die Angebotsaktien nur im Rahmen von Offshore-Geschäften im Sinne der Regulation S gemäß dem Securities Act angeboten und verkauft.

Angebotszeitraum.

Der Zeitraum, in dem Anleger ihre Kaufangebote für die Angebotsaktien abgeben können, beginnt voraussichtlich am 26. April 2018, während der Zeitraum, in dem Kaufangebote über die Zeichnungsfunktionalität *DirectPlace* der Frankfurter Wertpapierbörse im XETRA-Handelssystem, oder das Handelssystem, das dieses Handelssystem ersetzt, für die Sammlung und das Settlement von Zeichnungsangeboten (die „**Zeichnungsfunktionalität**") unterbreitet werden können, am 27. April 2018 beginnt, und endet jeweils voraussichtlich am 8. Mai 2018 (der „**Angebotszeitraum**"). Am letzten Tag des Angebotszeitraums können Kaufangebote (i) von Privatanlegern (natürliche Personen), einschließlich Anlegern, die Kaufangebote über die Zeichnungsfunktionalität abgeben, bis 12:00 Uhr (Mitteleuropäische Sommerzeit) („**MESZ**") und (ii) von institutionellen Anlegern bis 14:00 Uhr MESZ abgegeben werden. Während des Angebotszeitraums können Privatanleger (natürliche Personen) Kaufangebote für das öffentliche Angebot in Deutschland und Luxemburg bei Zweigstellen der Konsortialbanken abgeben. Abgesehen von Angeboten, die über die Zeichnungsfunktionalität abgegeben werden, müssen Kaufangebote in vollen Eurobeträgen oder Eurocentbeträgen von 25, 50 oder 75 Eurocent abgegeben werden. Anleger, die Zeichnungsangebote für die Angebotenen Aktien über die Zeichnungsfunktionalität abgeben wollen, müssen diese während des Angebotszeitraums ihren jeweiligen Depotbanken vorlegen. Mehrfache Kaufangebote sind zulässig.

Angebotspreis.

Der Angebotspreis und die finale Anzahl an Angebotsaktien (einschließlich der finalen Anzahl an Sekundären Aktien, sofern vorhanden, die bei Investoren platziert werden sollen), die im Rahmen des Angebots platziert werden sollen (d.h. das Ergebnis des Angebots), werden voraussichtlich am 8. Mai 2018 festgelegt. Nach Festlegung des Angebotspreises werden die Angebotsaktien den Anlegern aufgrund dann vorhandener Kaufangebote zugeteilt. Der Angebotspreis und die finale Anzahl der Angebotsaktien werden voraussichtlich am oder um den 8. Mai 2018 mittels einer Ad-hoc-Meldung über ein elektronisches Informationsverbreitungssystem sowie auf der Webseite der Emittentin veröffentlicht.

Die Anzahl der Sekundären Aktien, die tatsächlich platziert werden, wird durch den Veräußernden Aktionär in Abstimmung mit den Joint Global Coordinators abhängig von der Marktnachfrage und unter Benutzung des Orderbuchs, das während des Bookbuilding geführt wird, am Tag der Preissetzung festgelegt.

Sollte sich das Platzierungsvolumen als unzureichend erweisen, um alle zum Angebotspreis platzierten Angebote zu bedienen, behalten sich die Konsortialbanken das Recht vor, Angebote zurückzuweisen oder nur teilweise anzunehmen.

Lieferung und Abrechnung.

Die Angebotsaktien werden voraussichtlich am 11. Mai 2018 gegen Zahlung des Angebotspreises geliefert. Die Angebotsaktien werden den Aktionären als Miteigentumsanteile an den Globalurkunden, die Aktien der Emittentin vertreten, zur Verfügung gestellt.

Stabilisierungsmaßnahmen, Mehrzuteilung und Greenshoe-Option.

Im Zusammenhang mit der Platzierung der Angebotsaktien handelt J.P. Morgan für Rechnung der Konsortialbanken als Stabilisierungsmanager (der „**Stabilisierungsmanager**") und kann als

Stabilisierungsmanager gemäß der rechtlichen Bestimmungen (Artikel 5 Abs. 4 und 5 der Marktmissbrauchsverordnung (EU) Nr. 596/2014 in Verbindung mit Artikel 5 bis 8 der delegierten Verordnung der Kommission (EU) 2016/1052) Mehrzuteilungen vornehmen und Stabilisierungsmaßnahmen ergreifen, um den Marktpreis der Aktien der Emittentin zu stützen und dadurch einem möglichen Verkaufsdruck entgegenzuwirken.

Der Stabilisierungsmanager ist zu Stabilisierungsmaßnahmen nicht verpflichtet. Folglich muss eine Stabilisierung nicht zwingend erfolgen und kann jederzeit beendet werden. Solche Maßnahmen können ab dem Zeitpunkt der Aufnahme des Börsenhandels der Aktien der Emittentin am regulierten Markt der Frankfurter Wertpapierbörse vorgenommen werden und sind spätestens 30 Kalendertage nach diesem Zeitpunkt einzustellen (der „**Stabilisierungszeitraum**“).

Mit Blick auf mögliche Stabilisierungsmaßnahmen können Anlegern zusätzlich zu den Neuen Aktien und den Sekundären Aktien bis zu 13.198.347 Mehrzuteilungsaktien als Teil der Zuteilung der Angebotsaktien zugeteilt werden. Zum Zwecke einer solchen möglichen Mehrzuteilung werden dem Stabilisierungsmanager für Rechnung der Konsortialbanken 13.198.347 bestehende Aktien aus dem Aktienbesitz des Veräußernden Aktionärs in Form eines Wertpapierdarlehens zur Verfügung gestellt. Die Gesamtzahl der Mehrzuteilungsaktien wird dabei 10% der finalen Anzahl der im Rahmen des Angebots tatsächlich platzierten Neuen Aktien und Sekundären Aktien, sofern vorhanden, nicht übersteigen. Die Anzahl der Neuen Aktien hängt vom Angebotspreis ab; die Anzahl der Sekundären Aktien hängt davon ab, ob und in welchem Umfang die Upsize-Option durch den Veräußernden Aktionär in Abstimmung mit den Joint Global Coordinators ausgeübt wird. Der Veräußernde Aktionär wird den Konsortialbanken eine Option zum Erwerb sämtlicher oder eines Teils der Aktien, die unter dem Wertpapierdarlehen geliehen worden sind, zum Angebotspreis abzüglich der vereinbarten Gebühren und Provisionen einräumen (die „**Greenshoe Option**“). Die Greenshoe Option darf nur während des Stabilisierungszeitraums ausgeübt werden.

Der Stabilisierungsmanager ist berechtigt, die Greenshoe Option im Umfang der ursprünglichen Mehrzuteilung auf Rechnung der Konsortialbanken auszuüben; die Aktienanzahl ist um die Anzahl der Aktien zu vermindern, die vom Stabilisierungsmanager am Tag der Ausübung der Greenshoe Option gehalten werden und die von diesem im Zusammenhang mit Stabilisierungsmaßnahmen erworben wurden.

Binnen einer Woche nach Ablauf des Stabilisierungszeitraums wird der Stabilisierungsmanager eine angemessene öffentliche Bekanntmachung darüber, ob Stabilisierungsmaßnahmen vorgenommen wurden, wann mit Stabilisierungsmaßnahmen begonnen wurde und wann diese zuletzt vorgenommen wurden, sowie die Preisspanne, innerhalb derer die Stabilisierungsmaßnahmen durchgeführt wurden, in Bezug auf jeden Zeitpunkt und Handelsplatz, an dem Stabilisierungsmaßnahmen vorgenommen wurden, in angemessener Form sicherstellen.

E.4 **Wesentliche Interessen an der Emission/dem Angebot, einschließlich Interessenkonflikten.**

Die Konsortialbanken handeln bei dem Angebot für die Emittentin und die Bestehenden Aktionäre und koordinieren Strukturierung und Durchführung des Angebots. Nach erfolgreicher Durchführung des Angebots erhalten die Konsortialbanken eine Provision. Aufgrund dieser vertraglichen Beziehung haben die Konsortialbanken ein finanzielles Interesse an einem erfolgreichen Angebot.

Im Zusammenhang mit dem Angebot kann darüber hinaus jede Konsortialbank und jede jeweilige Tochtergesellschaft als Anleger auf eigene Rechnung Aktien aus dem Angebot erwerben und in dieser

Eigenschaft diese Aktien und damit verbundene Finanzanlagen auf eigene Rechnung erwerben, behalten oder veräußern und diese Aktien oder sonstige Finanzanlagen außerhalb des Angebots anbieten oder verkaufen. Zudem können bestimmte Konsortialbanken und ihre Tochtergesellschaften mit Anlegern Finanzierungsvereinbarungen (einschließlich Tausch- (*swaps*) und Differenzgeschäfte (*contracts for difference*)) eingehen, aufgrund derer die Konsortialbanken (und ihre Tochtergesellschaften) gelegentlich Aktien der Emittentin erwerben, behalten oder über diese verfügen können.

Einige der Konsortialbanken bzw. mit ihnen verbundene Unternehmen unterhalten Geschäftsbeziehungen zu unserem Konzern und könnten dies auch weiterhin gelegentlich tun oder Dienstleistungen zugunsten unseres Konzerns im Rahmen ihres gewöhnlichen Geschäftsbetriebs erbringen.

Der Veräußernde Aktionär wird die Erlöse aus dem Angebot der Sekundären Aktien, sofern und soweit die Upsize-Option ausgeübt wird, und der Ausübung der Greenshoe-Option (abzüglich von Gebühren und Aufwendungen) erhalten. Unter der Annahme einer vollumfänglichen Ausübung der Upsize-Option zum Mittelwert der Preisspanne und nach Abzug der Gebühren und Aufwendungen, die vom Veräußernden Aktionär im Zusammenhang mit dem Angebot zu zahlen sind, würden sich die dem Veräußernden Aktionär zufließenden Erlöse aus dem Angebot auf ungefähr €369,8 Mio. bzw. 24,3% des gesamten Nettoerlöses aus dem Angebot belaufen. Dementsprechend hat der Veräußernde Aktionär ein Interesse am Erfolg des Angebots zu bestmöglichen Bedingungen.

GvH 33 hat sich verpflichtet, einen Betrag von insgesamt €100 Mio. im Rahmen und als Teil des Angebots zu investieren. Auf Grundlage eines Angebotspreises zum Mittelwert der Preisspanne würde die Anzahl von Angebotsaktien, die GvH 33 erwerben würde, bei 8.000.000 Angebotsaktien liegen, was, unter der Annahme der Platzierung sämtlicher 125.293.906 Angebotsaktien, rund 6,4 % der Angebotsaktien entspricht. GvH 33 wurde eine vollständige Zuteilung ihrer Angebotsaktien garantiert. Dieses Investment könnte zu einem Interessenkonflikt führen. Das Investment könnte mit dem grundsätzlichen Interesse von GvH 33 an einem hohen Angebotspreis und einer hohen Bewertung von dessen Anteil an der Emittentin in Widerspruch treten, da das Investment bei GvH 33 zu einem Interesse an einem niedrigen Angebotspreis führen könnte.

E.5 Name der Person/des Unternehmens, die/das das Wertpapier zum Verkauf anbietet.

Die Angebotsaktien werden von den Konsortialbanken zum Verkauf angeboten.

Lock-up-Vereinbarung: Die beteiligten Parteien und die Lock-up-Frist.

Im Konsortialvertrag hat die Emittentin mit den Konsortialbanken vereinbart, soweit rechtlich zulässig, ohne die vorherige schriftliche Zustimmung der Joint Global Coordinators, die nicht unbillig verweigert oder verzögert werden darf, innerhalb eines Zeitraums beginnend am 25. April 2018 und endend 180 Tage nach dem ersten Handelstag der Aktien der Emittentin an der Frankfurter Wertpapierbörse (derzeit für den 9. Mai 2018 erwartet), keine

- Erhöhung des Grundkapitals der Emittentin aus genehmigten Kapital anzukündigen oder zu bewirken;
- Erhöhung des Grundkapitals der Hauptversammlung vorzuschlagen; bzw.
- Ausgabe von Wertpapieren mit Wandel- oder Optionsrechten auf Aktien der Emittentin oder Handlungen mit vergleichbarem wirtschaftlichem Effekt anzukündigen, zu bewirken oder vorzuschlagen.

Für den Zeitraum, der am 25. April 2018 beginnt, bis zu dem Datum, das, hinsichtlich des Veräußernden Aktionärs sechs Monate, hinsichtlich GvH 33 18 Monate nach dem ersten Handelstag der Aktien der Emittentin an der Frankfurter Wertpapierbörse (derzeit für den 9. Mai 2018 erwartet) endet, haben sich die Bestehenden Aktionäre verpflichtet, dass sie nicht ohne vorherige schriftliche Zustimmung der Joint Global Coordinators,

- Aktien der Emittentin anbieten, verpfänden, zuteilen, verteilen, verkaufen, sich zum Verkauf von Aktien der Emittentin verpflichten, eine Option auf Aktien der Emittentin verkaufen oder sich zum Kauf von Aktien vertraglich verpflichten, eine Option zum Verkauf von Aktien erwerben, eine Option oder ein Recht bzw. Bezugsrecht zum Erwerb von Aktien gewähren, Aktien übertragen oder anderweitig (direkt oder indirekt) über Aktien der Emittentin verfügen werden (einschließlich, aber nicht beschränkt hierauf, die Ausgabe oder der Verkauf von Wertpapieren, die in Aktien der Emittentin umgetauscht werden können);
- die Bekanntmachung, Durchführung oder Umsetzung einer Kapitalerhöhung des Grundkapitals der Emittentin oder eine direkte oder indirekte Platzierung von Aktien der Emittentin direkt oder indirekt veranlassen oder bestätigen werden;
- eine Kapitalerhöhung des Grundkapitals der Emittentin, direkt oder indirekt, einer Hauptversammlung der Emittentin zur Abstimmung vorschlagen oder zugunsten einer solchen vorgeschlagenen Kapitalerhöhung abstimmen werden;
- eine Bekanntmachung, Durchführung oder einen Vorschlag zur Ausgabe von Finanzinstrumenten, die Optionsrechte oder wandelbare Bezugsrechte auf Aktien der Emittentin begründen, direkt oder indirekt veranlassen oder bestätigen werden; oder
- eine Transaktion eingehen oder vornehmen werden, die wirtschaftlich den Transaktionen, die im ersten Gliederungspunkt beschrieben sind, entsprechen, insbesondere die Ausgabe von Optionen oder Wandlungsrechten auf Aktien der Emittentin.

Diese Vereinbarung ist nicht anwendbar auf (i) Übertragungen an Beteiligungsgesellschaften oder Gesellschafter der Bestehenden Aktionäre oder Übertragungen an den jeweils anderen Bestehenden Aktionär, vorausgesetzt, dass der entsprechende Übertragungsempfänger gegenüber den Joint Global Coordinators erklärt, an dieselben Verpflichtungen gebunden zu sein, (ii) die Gewährung von Hypotheken, Pfandrechten oder Pfändungsrechten oder sonstigen rechtlichen oder billigkeitsrechtlichen Sicherheiten (das „**Sicherungsrecht**“) über oder in Bezug auf Aktien an oder zugunsten von einer oder mehrerer der Konsortialbanken als Darlehensgeber eines wertpapierbesicherten Darlehens in Zusammenhang mit einer wertpapierbesicherten Darlehensfazilität, (iii) Übertragungen oder Veräußerungen von Aktien entsprechend der Durchsetzung eines Sicherungsrechts an Aktien, das an oder zugunsten von einer oder mehrerer der Konsortialbanken als Darlehensgeber eines wertpapierbesicherten Darlehens in Zusammenhang mit einer wertpapierbesicherten Darlehensfazilität, (iv) Übertragungen oder Veräußerungen von Aktien an einen Dritten durch oder zugunsten von einer oder mehrerer der Konsortialbanken als Darlehensgeber eines wertpapierbesicherten Darlehens im Anschluss an die Durchsetzung eines Sicherungsrechts an Aktien, das an oder zugunsten des jeweiligen Darlehensgeber eines wertpapierbesicherten Darlehens gewährt wurde, sowie (v) Übertragungen oder Veräußerungen von Aktien, die nach dem Datum dieses Prospekts erworben werden (ausgenommen der Angebotsaktien, die GvH 33 im Rahmen dieses Angebots erworben hat). Für diese von GvH 33 gehaltenen Aktien schließt der Begriff „Sicherungsrecht“ jede Kreditfazilität (einschließlich wertpapierbesicherter Darlehen) ein, vorausgesetzt, dass diese Kreditfazilität auf eine Anzahl von Aktien beschränkt ist, die der Anzahl der Aktien entspricht, die GvH 33 im Rahmen dieses Angebots erworben hat, wobei Einverständnis darüber herrscht, dass im Falle einer Übertragung oder Veräußerung von Aktien in Verbindung mit oder entsprechend der Durchsetzung eines Sicherungsrechts (ausgenommen eines solchen in Zusammenhang mit einem wertpapierbesicherten Darlehen) der entsprechende Übertragungsempfänger gegenüber den Joint Global Coordinators erklären muss, an dieselben Verpflichtungen gebunden zu sein.

Die Mitglieder des Vorstands der persönlich haftenden Gesellschafterin der Emittentin (der „**Vorstand**“) halten zurzeit keine Aktien der Emittentin. Aufgrund ihrer Beteiligung an einem durch den Veräußernden Aktionär eingerichteten Management-Beteiligungsprogramm können sie jedoch an den Erlösen aus der Veräußerung der Aktien der Emittentin durch den Veräußernden Aktionär beteiligt werden. Die entsprechenden Vereinbarungen sehen vor, dass Mitglieder des Vorstands lediglich Barzahlungen, die bis zu 25% ihrer wirtschaftlichen Beteiligung an der Emittentin, die durch das Management-Beteiligungsprogramm gehalten wird, entsprechen, in Verbindung mit dem IPO erhalten. Die verbleibende Beteiligung der Mitglieder des Vorstands, die nicht im Rahmen des IPO veräußert wurde, unterfällt einem zweijährigen Lock-Up beginnend mit dem ersten Handelstag der Aktien der Emittentin an der Frankfurter Wertpapierbörse, wobei jedoch insgesamt 50% ihrer ursprünglichen Beteiligung, abzüglich der als Teil des IPO erfolgten Verkäufe, ab dem Tag, der ein Jahr nach dem ersten Handelstag der Aktien der Emittentin an der Frankfurter Wertpapierbörse liegt, veräußert werden darf. Jegliche Erlöse, die – abzüglich Steuern – diese Schwelle überschreiten, sind in Aktien der Emittentin zu reinvestieren, die dem oben beschriebenen Lock-Up unterfallen.

Zudem haben zwei Mitglieder des Vorstands, die Angebotsaktien im Rahmen des Angebots für einen Gesamtbetrag von €0,65 Millionen erwerben werden, Lock-up-Vereinbarungen mit den Joint Global Coordinators abgeschlossen, die mit Ausnahme der Option betreffend wertpapierbesicherte Darlehen, die nicht im Vorstands-Lock-up vorgesehen ist, substantiell ähnlich zu den oben beschriebenen Vereinbarungen der Bestehenden Aktionäre sind. Die Lock-up-Vereinbarungen der zwei Mitglieder des Vorstands werden zwei Jahre nach dem ersten Handelstag der Aktien der Emittentin an der Frankfurter Wertpapierbörse auslaufen, wobei jedoch jedes dieser Mitglieder bis zu 50% der im Rahmen des Angebots erworbenen Angebotsaktien nach Ablauf des ersten Jahrestags der Lock-Up-Vereinbarung veräußern darf.

E.6 **Betrag und Prozentsatz der aus dem Angebot resultierenden unmittelbaren Verwässerung.**

Gemäß dem geprüften Konzernabschluss für das zum 31. Dezember 2017 endende Geschäftsjahr, entspricht der Nettobuchwert der Emittentin zum 31. Dezember 2017 negativ €83,7 Mio. (Bilanzsumme €5.709,6 Mio. abzüglich langfristiger Rückstellungen und Verbindlichkeiten von €5.020,7 Mio. und kurzfristiger Rückstellungen und Verbindlichkeiten von €772,6 Mio.). Der Nettobuchwert je Aktie (Eigenkapital je Aktie), der dem Nettobuchwert geteilt durch die Anzahl der ausstehenden Aktien der Emittentin unmittelbar vor dem Angebot entspricht, würde negativ €0,44 je Aktie der Emittentin betragen auf Grundlage von 190.000.000 ausstehenden Aktien der Emittentin unmittelbar vor dem Angebot.

Die verwässernde Wirkung des Angebots ist in der untenstehenden Tabelle dargestellt, die den Betrag veranschaulicht, um den der Angebotspreis zum Mindest-, Mittel- und Höchstwert der Preisspanne den auf die Aktionäre entfallenden Nettovermögenswert je Aktie nach Abschluss des Angebots übersteigt, unter der Annahme, dass die unten beschriebenen Schritte des Angebots am 31. Dezember 2017 vorgenommen worden wären. Vor diesem Hintergrund wurde der auf die Aktionäre am 31. Dezember 2017 entfallende Nettobuchwert um die Auswirkungen aus dem Angebot angepasst unter der Annahme, dass (i) die IPO Kapitalerhöhung für 112.999.554 Neue Aktien zum Mindestwert, für 94.919.626 Neue Aktien zum Mittelwert und für 81.827.263 Neue Aktien zum Höchstwert der Preisspanne durchgeführt wird und (ii) sich der auf die Aktionäre entfallende Nettobuchwert zum Mindestwert der Preisspanne um €1.150,5 Mio., zum Mittelwert der Preisspanne um €1.150,7 Mio. und zum Höchstwert der Preisspanne um €1.150,9 Mio. erhöht. Die angenommene Erhöhung beruht auf dem erwarteten Nettoerlös ohne Berücksichtigung von Steuereffekten. Der bereinigte auf die Aktionäre entfallende Nettobuchwert ist als eine Kennzahl je Aktie unter der Annahme von 302.999.554, 284.919.626 bzw. 271.827.263 ausstehenden Aktien der Emittentin zum Mindestwert, zum Mittelwert bzw. zum Höchstwert der Preisspanne nach Durchführung des Angebots dargestellt (diese Kennzahl je Aktie wird als „**auf die Aktionäre entfallendes Eigenkapital je Aktie nach dem Angebot**“ bezeichnet.

	Zum 31. Dezember 2017		
	Mindestwert	**Mittelwert**	**Höchstwert**
	(in € Millionen, sofern nicht anders angegeben)		
Angebotspreis je Aktie (in €)	10,50	12,50	14,50
Gesamter Bruttoerlös der Emittentin	1.186,5	1.186,5	1.186,5
Auf die Emittentin entfallende geschätzte Gesamtkosten des Angebots (einschließlich an die Konsortialbanken zu zahlender Banken- und Platzierungsprovisionen und unter der Annahme vollständiger Zahlung der Ermessensgebühr)	36,0	35,8	35,6
Gesamter Nettoerlös der Emittentin	1.150,5	1.150,7	1.150,9
Eigenkapital je Aktie zum 31. Dezember 2017 (unter der Annahme 190.000.000 ausstehender Aktien der Emittentin unmittelbar vor dem Angebot) (in €)	(0,44)	(0,44)	(0,44)
Auf die Aktionäre entfallendes Eigenkapital je Aktie nach dem Angebot (in €)	3,52	3,74	3,93
Betrag, um den der Angebotspreis je Aktie das auf die Aktionäre entfallende Eigenkapital je Aktie nach dem Angebot übersteigt (unmittelbare Verwässerung der neuen Aktionäre der Emittentin pro Aktie) (in €)	6,98	8,76	10,57
Prozentsatz, um den der Angebotspreis je Aktie das auf die Aktionäre entfallende Eigenkapital je Aktie nach dem Angebot übersteigt (in %)	66,5	70,0	72,9
Betrag, um den das auf die Aktionäre entfallende Eigenkapital je Aktie nach dem Angebot den Nettobuchwert je Aktie unmittelbar vor dem Angebot übersteigt (unmittelbarer Wertzuwachs der Bestehenden Aktionäre der Emittentin je Aktie) (in €)	3,96	4,19	4,37
Prozentsatz, um den das auf die Aktionäre entfallende Eigenkapital je Aktie nach dem Angebot den Nettobuchwert je Aktie unmittelbar vor dem Angebot übersteigt (in %)	entfällt[1]	entfällt[1]	entfällt[1]

[1] Da der auf die Aktionäre vor dem Angebot entfallende Nettobuchwert je Aktie negativ ist, wohingegen das auf die Aktionäre entfallende Eigenkapital je Aktie nach dem Angebot positiv ist, ist die Angabe eines Prozentsatzes, um den das auf die Aktionäre entfallende Eigenkapital je Aktie nach dem Angebot den Nettobuchwert je Aktie vor dem Angebot übersteigt, nicht aussagekräftig.

		Alle Neuen Aktien haben dieselben Stimmrechte wie die bestehenden Aktien der Emittentin. Vor dem Angebot halten die Bestehenden Aktionäre 100% der Stimmrechte der ausstehenden Aktien. Nach Durchführung des Angebots (einschließlich der vollumfänglichen Ausübung der Upsize-Option und der Greenshoe Option) werden die Bestehenden Aktionäre 55,2%, 58,8% bzw. 61,7% der zusammengerechneten Stimmrechte (unter Berücksichtigung eines Erwerbs von 9.523.809, 8.000.000 bzw. 6.896.551 Angebotsaktien durch GvH 33) zum Mindestwert, zum Mittelwert bzw. zum Höchstwert der Preisspanne halten.
E.7	**Schätzung der Ausgaben, die dem Anleger von der Emittentin in Rechnung gestellt werden.**	Entfällt. Anlegern werden von der Emittentin, dem Veräußernden Aktionär oder den Konsortialbanken keine Kosten in Rechnung gestellt.

1. RISK FACTORS

*Prospective investors should carefully consider the risk factors set out below, together with the other information contained in this Prospectus, before making an investment decision with respect to investing in shares in Springer Nature AG & Co. KGaA, Berlin, Germany (hereinafter, also the "**Issuer**" and, together with its fully consolidated subsidiaries, "**we**", "**us**", "**our**", the "**Group**" or "**Springer Nature**"). The occurrence of any of these risks, individually or together with other circumstances, could have a material adverse effect on the business, results of operations and financial position of the Issuer or the Group. The sequence of risk factors set out below is not a statement about the probability of occurrence, degree or importance of the individual risks.*

The risk factors are based on assumptions that could turn out to be incorrect. Furthermore, other risks, facts or circumstances not presently known to the Issuer could prove to be important and could have a material adverse effect on the business, results of operations and financial position of the Issuer. The value of the shares in the Issuer could decline as a result of the occurrence of any of these risks, and investors could lose all or part of their investments.

1.1 Risks Relating to our Market and Business

1.1.1 The development of the Internet and other industry trends as well as regulatory developments have diminished and may continue to diminish the value that we create as an intermediary between providers and users of academic, educational and professional content, negatively affecting our business model.

Springer Nature, which was created through the merger of Springer Science+Business Media S.A. ("**Springer**") and the Macmillan Science and Education business ("**MSE**") held by Georg von Holtzbrinck GmbH & Co. KG (together with its consolidated subsidiaries, the "**Holtzbrinck Publishing Group**") in 2015, is a leading scientific publishing company, focusing on research, education and professional content. Through our Research segment, we primarily publish journals and books and operate databases to disseminate academic research to libraries, (semi-)governmental institutions and researchers. Our Education segment publishes books and materials for language learning, curricula and, to a smaller extent, higher education. Our Professional segment focuses on road safety education, the health industry and business information publications.

The adoption of new technologies may change the way scientific, technical and medical ("**Academic Research**") content is published and disseminated to users. This development could disrupt our industry and adversely affect our business model. Our value proposition is related to the critical role we perform as an intermediary between creators of content, such as authors of academic articles, and users of content, such as libraries, academic institutions, (semi-)governmental institutions and researchers. In our Research segment, authors submit articles for consideration to one of our publications. We seek to provide quality assurance through our independent, impartial review process. If an article is accepted for publication, we enter into a contract with the relevant author in which the author grants, to the extent legally permissible, a license to publish the work. We then perform pre-publishing services, such as typesetting, and print or electronically distribute the relevant publication to subscribers.

The development of the Internet has affected, and may continue to affect, our current business model. It may enable authors to disseminate their work in electronic form without the need for an intermediary such as us, making them less dependent on our services and know-how in the fields of sales, printing and distribution. The Internet has also enabled members of the scientific community to publish their work through peer-to-peer knowledge sharing networks or on open access platforms, which may serve as alternative sources to our printed and electronic publications. Furthermore, the Internet has facilitated the extensive use of file-sharing platforms, which could increase the dissemination of illegally reproduced copies of our publications. Despite our ongoing efforts to take recourse against e-piracy platforms, users' reliance on libraries, one of our main customer groups in the Research segment, could be reduced as a result of the availability of our materials through unauthorized sources. Furthermore, websites which aggregate and index scholarly articles found online may link to copies of our publications that are not hosted, licensed or authorized for use by us. We may seek to take action against these websites to protect our intellectual property rights; however, there can be no assurance that any such efforts will be successful.

Our role as an intermediary may also come under pressure due to regulatory developments affecting our rights in the content that we publish. Changes in the legal framework in any of the jurisdictions in which we operate may mean that the licenses to publish granted to us or the copyright assigned to us by an author do not give us an exclusive right to market the relevant content. For example, recent changes in German law permit public libraries that neither directly nor indirectly serve commercial purposes to transmit journal articles and excerpts encompassing up to 10% of a work to users for non-commercial use. Further, public initiatives in many established markets have called for academic research to be made available to the public at no cost, which has led to the development of so-called "open access" models. Under some open access models, authors may grant free public access to their work after a relatively short period following publication of the relevant article in a traditional Academic Research subscription journal. Any change in law or policy which reduces or eliminates our exclusive right to the content we publish could affect the demand for our products or the price we are able to charge for subscriptions to our journals.

Our Education and Professional segments may be similarly affected by trends toward self-publication and open access. For example, demand for our Education segment products could be adversely affected by the decision of certain educational authorities to produce and publish their own educational materials. Furthermore, our Education segment faces increasing competition from self-production of learning materials by teaching staff. These developments could undermine our value proposition and reduce, or even eliminate, demand for our products and services. In our Professional segment, our role as intermediary is challenged by the increasing availability of online content that is made available either free of charge or through models that impose charges for additional features (so-called "freemium" content).

These and other factors may lead to a disintermediation of our industry or otherwise negatively affect our value proposition, which could jeopardize our business model as it currently exists.

1.1.2 A decline in renewal rates for subscriptions in our Research segment may negatively affect our revenues and results of operations.

In 2017, the majority of our revenues came from our Research segment and was derived from subscriptions for journals, databases and eBooks. The main customers in this segment are academic research libraries and private or (semi-)governmental institutions. Subscription arrangements with these customer groups predominantly have multi-year terms, typically two to three years for journals and one year for eBooks. Upon expiration, we typically offer customers the opportunity to renew their subscriptions at an increased price. For 2017, renewal rates have averaged at 97% for journals and 87% for eBooks. Renewal rates in 2015 and 2016 were on similar levels. Our eBook business is not only characterized by lower renewal rates than our journals, it is also more dependent on the budgets of libraries. Some eBook subscriptions are funded by special "e-funding" budgets, which are one-off in nature and therefore may not be renewed. Our ability to renew these subscriptions and contracts will have an important impact on our business, and a decline in renewal rates or in the willingness of customers to accept proposed price increases would negatively affect our revenues and results of operations.

1.1.3 Lower institutional and government expenditure and general economic conditions in our markets may lead to lower demand for our products and services in our Research segment, which may negatively affect our revenues and results of operations.

Slowing growth or uncertainty in the global economy could adversely impact our future financial performance. Customers in our Research segment, particularly academic research libraries and (semi-)governmental institutions, depend on government financing, which may be curtailed in the event of a significant deterioration in global or regional economic conditions. In an unfavorable economic environment, corporate customers may launch cost savings initiatives or reduce their advertising expenditure, which could negatively impact our results of operations. In the last several years, our business has benefited from a relatively stable economic environment of steady growth accompanied by low unemployment, low inflation and interest rates near zero in most developed economies. While the current global economic environment continues to be generally favorable, inflation shows signs of increasing in developed economies, including in the United States of America ("**United States**" or "**U.S.**") and Europe, and central banks have begun to tighten monetary policy and to increase interest rates, which could negatively affect regional and global economic growth. Strength in certain economies has been offset by weakness in others, as growth in a number of emerging economies has slowed, in some cases significantly. There remains concern of slowing growth rates and relatively high levels of debt in China.

Geopolitical risk around the world has increased, and with it the risk of economic downturn. For example, in the European Union (the "**EU**"), the decision by the government of the United Kingdom (the "**U.K.**") to withdraw from the EU, following the result of an advisory referendum held in June 2016, has created uncertainty that could increasingly weigh on the U.K. and European economies. In the event of a significant economic downturn, public finances could come under pressure and corporate budgets could be cut. Cost-cutting, reduced spending or reduced activity by any of our customer segments may lead to a potential reduction in demand for our products and increased pricing pressure. A small number of our subscription contracts grant customers an early termination right under exigent circumstances, such as a loss of funding. With respect to these contracts, an economic downturn that leads to budget constraints could result in our customers attempting to cancel these contracts early, as a result of which our revenues and results of operations could be adversely affected.

1.1.4 We may not be able to increase our revenues in our Research segment if we fail to monetize content growth.

In order to grow our business, amongst other factors such as usage increase, we seek to increase the volume and variety of content offered to our customers. For example, with regard to our book publishing business, we aim to achieve content growth by increasing the number of newly published titles. Prices for our print books are adjusted annually. The pricing of our eBooks subject collection depends on the increase in the number of titles compared to the previous year and the market perception. More content typically increases value for our library customers and correlates with increased usage, enabling us to raise prices. For example, in 2017 the number of articles in our subscription-based journals increased by 2%. This content growth was one of the factors that has enabled us to achieve price increases of 2.5% to 4.0% per year in the past. With respect to our journals, such increase in content is also a significant price driver. However, we may not be successful in increasing the amount of content offered to our customers and, even if we are successful, our customers may resist proposed price increases. Furthermore, as an increase in content typically results in an increase in our costs, any failure to generate sufficient additional revenues from any new content we develop will negatively affect our profitability.

1.1.5 Any changes to our sales and pricing models may lead to negative publicity and may negatively affect our results of operations.

Sales and pricing models of the Academic Research industry have recently been subject to public criticism. There is continued debate in government, academic and library communities, which are the principal customers for our Academic Research content, regarding to what extent such content should be funded instead through fees charged to authors or authors' funders and/or made freely available. Some of these debated models, if widely adopted, could adversely affect our revenues from paid subscriptions. Furthermore, our failure to adopt certain of these proposals could result in adverse publicity. For example, one of our competitors recently bundled premium journals with less popular titles as part of a single subscription package in a so-called "all or nothing" deal. Reacting to this pricing model, members of the scientific community launched the "Cost of Knowledge" petition, criticizing large commercial Academic Research publishers for the pricing of academic journal subscriptions, including this "all or nothing" deal. Signatories of the petition threatened that they would not publish, act as peer reviewers or do editorial work for journals published by this competitor. The "Cost of Knowledge" petition is still developing and gaining support among members of the scientific community. While we were not directly named in this petition, similar criticism regarding our sales and pricing models could arise and could lead to discontent among our customers and the academic community. In addition, some publishers (including us) offer some of their journals in so-called "Big Deal" subscriptions, whereby for a flat fee subscribers are granted access to several journals at a discounted rate compared to the aggregated single unit prices. This pricing model originated in response to a development of increasing individual print subscription prices, which contributed to a decline in print circulation. The "Big Deal" also takes advantage of electronic distribution and as it provides greater electronic access against a marginally higher rate and thereby restores content access. However, this pricing model has also been subject to criticism among members of the scientific community due to its lock-in effect, which makes a customer dependent on a vendor for products and unable to switch to another vendor without incurring significant costs, and its character similar to the "all or nothing" deal. Such criticism could be exacerbated as a result of the increased public scrutiny following our initial public offering.

In response to a need for constant adaptation of pricing models, so-called "offset deals" have emerged in some of our markets. Under an "offset deal", in exchange for a centrally paid reading and publishing fee (including article processing charges, or "**APC**s", in respect of open access publications), a participating institution in the relevant country gains access to subscription journals, while at the same time offering their researchers the opportunity to publish their articles under an open access model. "Offset deals" have become a common feature in our markets in Europe. In Germany a group of approximately 200 universities and research institutions collectively agreed to refuse renewal of their subscription contracts with one of our competitors in 2017. The institutions formed a consortium for the purpose of negotiating an "offset deal". As part of the discussions in Germany, we agreed to a one-year extension of consortium members' subscriptions that will expire on December 31, 2018 and we are in discussions to investigate the possibility of an "off-set deal" from January 1, 2019 onwards. Furthermore, we are currently in negotiations with a French consortium of higher education instructions. In connection with the ongoing negotiations, we decided not to suspend access to our publications by members of the consortium if the relevant subscription expired, resulting in a revenue shortfall for us. If we do not enter into an agreement with the French consortium on satisfactory terms or at all, we may not recover the revenue shortfall. We may not be able to meet customer demands for new pricing models, and the acceptance by publishers of unfavorable terms would result in significant changes to our pricing model and have a material adverse effect on our margins and results of operations.

The materialization of any of these risks could negatively affect our reputation and results of operations.

1.1.6 Increased utilization of open access models may reduce demand for subscription-based Academic Research journals, and the APCs for our author-paid open access model may decline or not fully compensate for such demand reduction.

Under our traditional subscription model, the subscribers of journals, databases and eBooks pay us for access to this content. In turn, we remunerate owners of journal intellectual property rights or eBook authors and editors for their content contributions. Open access inverts this model by making publications available online, typically free of charge to users. In most cases, authors in turn pay an APC, for the publication of their work in one of our open access publications. In 2017, 27% of all research articles published by Springer Nature was published on an open access basis.

The open access market comprises two distinct models, typically referred to as the "gold" and "green" open access models. Under the "gold" open access model, publications are made immediately available at no cost to users. Such "gold" open access publications may be published in pure open access journals or so-called "hybrid" journals, which contain a portion of open access articles that are available for free, while access to all of its other articles requires a subscription. In contrast, under the "green" open access model, publications are made freely available on institutional or funder repositories only after a time delay (or "embargo" period) of typically six to eighteen months following publication in a traditional subscription-based publication. The works made publicly available for free under the "green" open access model are not final versions, and correspond to the original author manuscripts. As a result, final editorial changes are not reflected and the page numbers differ from the published version in the relevant journal, making the version that is publicly available for free not citable.

In response to initiatives advocating free access to taxpayer-funded research papers and articles, or to policies of certain funding institutions, authors may increasingly opt to publish their articles in "gold" open access publications instead of traditional subscription-based publications. A trend towards "gold" open access models could decrease the quality and the depth of content available for our traditional Academic Research subscription publications and may negatively impact our revenues generated from traditional subscriptions. While a decline in traditional subscription-based revenues may be offset in part by APCs earned under "gold" open access, such APCs may not be sufficient to compensate for the loss in traditional Academic Research subscription revenues.

We may also experience cancellations of subscriptions as a result of "green" open access. The embargo period, after which "green" open access content becomes freely available, may not offer sufficient incentive to pay for the relevant content, and our customers may decide to cancel the relevant subscriptions. Our existing customers may therefore use publications available under this "green" open access model as a substitute for our traditional products. A potential shortening or elimination of the relevant embargo periods could result in an increasing number of customers cancelling their journal subscriptions with us. Any such cancellations could materially adversely affect our results of operations.

Compared to traditional publishers, open access publishers face lower barriers to entry. For example, pure open access market participants do not require a sizeable sales force. Furthermore, the technical equipment required for open access publishing, such as hardware and software, is becoming less expensive. While the offerings of new and smaller competitors may be of lower quality, an increase in these offerings may nevertheless lead to a reduction in demand for our subscription-based offerings. New competitors in the open access market may also gain market share, resulting in a weakening of our market position. Furthermore, increased competition in the open access market could put downward pressure on the APCs, thereby adversely affecting margins we earn in the open access business. If any of these risks were to materialize, our investments in the open access business model would not yield the expected returns, and our results could be materially adversely affected.

1.1.7 Any failure to attract and retain a large number of high quality editors, editorial board members, and peer reviewers may significantly negatively impact our operations.

We create value through performing a peer review process, which is intended to act as a quality assurance mechanism for the content we publish. We aim to control the quality of our peer review process by retaining reviewers with significant experience and reputation in the relevant field. Our reviewers seek to determine whether an article submitted by an author is suitable for publication in the relevant journal either with our without revision. Preserving the integrity and quality of our peer review processes depends upon our ability to find and retain a sufficient number of competent independent academics to review submissions. This risk could be exacerbated due to the growing markets in which we operate, as an increase in article output could result in an even higher demand for academics to review submissions. Sourcing or retaining appropriate reviewers for our peer review process may become more difficult in the future, as the number of qualified academic reviewers is limited and may not grow sufficiently in the future. Furthermore, most peer reviewers are not bound to publishers by exclusivity agreements which increases the risk that our peer reviewers will devote some of their time to publications of our competitors.

An inability to source or retain an appropriate number of high quality editors, editorial board members, and peer reviewers, or the retention of peer reviewers with limited or outdated experience in the relevant field, may negatively affect the quality of the peer review process. For example, in December 2017, members of the editorial board of the Journal of Molecular Medicine informed us that they will no longer provide editorial services to us as a reaction to our efforts to reorganize elements of the operational setup of this journal. Furthermore, we may not be able to source or retain a sufficient number of individuals to provide peer review services due to boycotts related to current or any future limitation of our content provided in certain countries, including China, in order to comply with local laws and regulation. These circumstances may in turn lead to a substantial reduction in the overall number of submissions to our journals and potential reputational harm.

1.1.8 Questions about the integrity of the peer review process may negatively affect the reputation of our journals.

Safeguarding the integrity of the peer review process is central to our value proposition. Our Springer Nature Research Integrity Group aims at maintaining these high integrity standards. However, this integrity may be undermined by a variety of factors, such as attempts by authors to manipulate the peer review process in order to have their research published in a well-regarded journal, which could help them to progress in their field and to secure funding for their research. For example, in 2016 approximately 200 Iran based authors submitted papers in a coordinated effort to manipulate our publication process. As part of our internal investigations and following a notice of a whistle blower, our research integrity teams identified various instances of research and publishing misconduct issues, including plagiarism, peer review manipulation and authorship manipulation. These instances included identical responses from different authors about different articles given in the peer review process, as well as providing wrong e-mail addresses during the submission process. Following an informal hearing of the authors of the articles, we retracted several of the published papers. Furthermore, in 2017 we retracted 107 published articles on tumor biology authored by Chinese researchers. In connection with all of these articles unethical means to secure publication were used. We cannot guarantee that we will be able to identify all instances of academic misconduct or manipulations, or that previously published articles will not come under academic scrutiny. Any failure to maintain the integrity of our editorial standards, including our peer review process, may lead to significant damage to our brand or reputation, could adversely affect our ability to attract authors, editors and peer reviewers and may lead to a loss of customers.

1.1.9 Any failure to enter into and maintain co-publishing and distribution agreements with third parties at satisfactory economic terms may negatively affect our revenues and results of operations.

In addition to publishing our own journals, we also enter into co-publishing and distribution arrangements. In the case of co-publishing, we are not the sole publisher, but instead publish the relevant journal together with another person, such as an academic society. In the case of distribution arrangements, we do not act as publisher and do not own the brand of the relevant publication media, but enter into agreements with publishers pursuant to which we distribute their content to our customer base. For example, we have entered into distribution arrangements giving us the right to publish English translations of certain works that were originally published in another language.

These co-publishing and distribution arrangements have historically been based upon a share of revenues model with our contracting counterparties, which may lead to disputes concerning the amount or proportion of revenues to be shared with our counterparties. More recently, we have entered into contracts that require us to make fixed payments to our counter parties irrespective of the revenues we generate from the relevant works. These fixed payment arrangements result in us bearing the economic risks related to the sale of the relevant publication. For example, we may not be able to distribute the relevant publication at such a margin as anticipated by us and the revenues generated by sales of the publication may be insufficient to offset required payments under the distribution agreement.

Co-publishing or distribution agreements are typically entered into for a specific term and can relate to a considerable number of journals in a single deal. Upon expiration of the relevant agreements, we may not be able to reach an agreement with the relevant contracting parties concerning the extension of these agreements. For example, at the end of the existing term in 2021, we may not be successful in renewing our co-publishing agreement with Pleiades Publishing, Inc. and Pleiades Publishing Ltd. ("**Pleiades**") that relates to our distribution of a total of approximately 180 Pleiades journals. Any failure to renew this distribution agreement or our other our co-publishing or distribution agreements or any termination of such agreements by the other contracting parties may negatively impact our revenues and results of operations.

1.1.10 The widespread use of file sharing platforms, including e-piracy, could negatively affect our revenue models.

The dissemination of Academic Research content in digital form has become increasingly prevalent, including through online platforms that enable researchers to share information and ideas and to store downloaded articles on their own computers and subsequently share them. These platforms may be available at low to no cost for users. Customers may migrate from our products and services to such content sharing networks and may therefore opt not to renew their contracts with us, which may negatively affect our business model and results of operations.

The use of file sharing platforms may lead to an increase in the illegal distribution of copyrighted material via e-piracy websites. Certain e-piracy websites, including SciHub, have recently become popular among many researchers. Such websites make large volumes of Academic Research journals and books accessible free of charge. These websites have grown in popularity in the scientific community as they often combine works published by several publishers on a single platform, thereby making unauthorized content accessible in a convenient way for users. E-piracy websites typically allow users to access content through proxies and thereby bypass publishers' paywalls. We believe that our subscription customers access SciHub in parallel, but not as a replacement to, our traditional subscription services. To our knowledge the availability of our content through these aggregators has not resulted in subscription terminations. However, given that a parallel use of our offerings and SciHub will lead to a decline in the usage rates for our offerings, we cannot guarantee that our subscription customers will not decide to forgo our subscription products in favor of these alternatives. SciHub has also created replicas of several publishers' websites, including those of Springer Nature brands, leading to user confusion. We may decide to increase our legal efforts concerning file sharing platforms, such as SciHub. For example, we may, alone or together with other publishers, file civil law actions against file sharing platforms, which may lead to negative publicity and, as a consequence, may negatively affect our reputation, revenues and results of operation. Furthermore, we may be exposed to an increase in "domain squatting". Domain squatting refers to actions by third parties who register or use Internet domain names with bad faith intent. For example, third parties may register or use a misspelled domain name with the intention to profit from an increase in website visits due to the goodwill of the affected trademark. In case of any violations, we pursue an active approach and routinely issue and enforce take-down notices on a website level as well as on a content level. This enforcement action is carried out by our internal departments as well as by third party providers, which issue automatically generated notices. For example, in 2017 we issued approximately two million content level related take-down notices. However, despite our efforts, illicit Internet-based activities may adversely affect our revenues.

1.1.11 A decrease in the impact factor of our journals may negatively affect our business.

One of the core drivers for submissions of articles to, and sales of, journals is the so-called impact factor. The impact factor measures the frequency of an average journal article's citation over a given period, and is commonly used to evaluate the relative importance of a journal within its field. The impact factor is relevant to authors deciding in which journal they intend to publish, to researchers deciding which articles to read and to funding institutions for research evaluation purposes. The impact factor is published in the Clarivate Journal Citation Reports database. Historically, a considerable share of our Academic Research journals has been listed in the Clarivate Journal Citation Reports. Currently, 21 of our publications are included among the top 50 journals in the Clarivate Journal Citation Report. According to the 2016 Clarivate Journal Citation Reports for active English-language journals, approximately 6.1% of our publications had an impact factor above five. Some research institutions and funders may require research to be published in journals with an impact factor of greater than five. The share of journals in our portfolio with an impact factor above five may decrease, which may impede the ability of our journals to attract high-profile submissions and may in turn lead to a decrease in revenues.

While our journals are currently among the most highly ranked journals in terms of impact factor, we cannot guarantee that our journals will maintain these rankings or that the impact factor of our journals will exceed that of competing journals. Furthermore, there can be no assurance that impact factor will not be replaced by other metrics, such as measures that reflect views or mentions in social media, as the primary measure of importance for scholarly publishing. A decrease in the importance of the traditional impact factor would affect the way scholarly communities make their research funding, purchasing, publishing or usage decisions. Any such decrease in the prominence of impact factor could also be to the detriment of traditionally highly-ranked journals, where we have a strong position, which in turn could negatively affect our business, financial condition and results of operations.

1.1.12 Our Education segment may be adversely affected by the increased availability of used textbooks and textbook rentals, parallel importing, self-produced materials as well as changes in the public tender business and as a result of the mandatory review process concerning educational and social content in some countries; furthermore, a decrease in the level of government expenditure may adversely affect our Education segment.

In our Education segment, we are active in publishing books and materials for language learning, curriculum and higher education. The increasing availability of used text books and text book rentals poses a significant risk to our Education segment. The sale of used books and rental of books provides a lower cost option for customers who do not feel that they need to own a new copy. The used and rental markets are particularly substantial with respect to our Education segment, as purchasers are generally students or other individual customers who only need use of the book for a limited time. We do not participate in the used or rental markets, and sales of used books and rental of books compete with sales of our new products, thereby potentially impacting our revenues in these segments. The growing used and rental book market has already led to declines in sales in Spain and Poland, even exceeding declines in global purchasing rates in the Education segment. Further growth in the used and rental textbook markets could result in additional losses of revenues. In addition, we face increasing threats to our business due to imports of our products in the Education segment from another country without our permission. These parallel imports could lead to declines in our Education segment's revenues.

In some markets, including India, Spain and Poland, our results have been negatively impacted by governments creating and publishing educational materials themselves. Furthermore, teaching staff may also produce or compile learning materials for their own use in schools and higher education and publish these materials for free, for example through online peer-to-peer platforms. Any such publication activities could reduce demand for our products in the Education segment.

We are experiencing changes in the Education segment regarding our business with government tenders, a type of procurement process that is open to all qualified bidders. The rules and procedures that must be followed to qualify for a government tender (so-called "pre-qualification criteria") may be modified in the future. For example, in South Africa we currently face the risk of changing pre-qualification criteria in connection with the Black Economic Empowerment program. The Black Economic Empowerment program was launched by the South African government to provide economic opportunities to certain previously disadvantaged groups. For tenderers to pre-qualify, tenderers must have outsourced a specific volume of the contracts that are up for tender to black owned small or micro enterprises. We may not be able to meet these Black Economic Empowerment pre-qualification criteria in the future and accordingly our eligibility to qualify for these tenders may be impacted. We may be negatively affected by similar changes to the rules and procedures in the government tender process in any of our markets.

Some of the products we offer in our Education segment, including textbooks for use in primary and secondary education ("**K-12**") are required to undergo a review process by the relevant local authorities before they may be sold. This evaluation and adoption process typically involves a review of the educational and social content contained in the materials, and the review standards vary significantly by relevant market. In the event that a work does not comply with the relevant standards, it must be revised or may not be sold. We may be negatively affected if our products need to be revised in order to comply with these standards and/or are not approved by the relevant authorities. This could lead to declines in revenues in our Education segment.

Some of the customers of our Education segment, such as K–12 institutions or higher education institutions, rely on government financing, which may be curtailed in the event of a significant deterioration in global or regional economic conditions. In case of an unfavorable economic environment, our customers in the Education segment may therefore not be able to obtain funding to purchase educational materials, which could lead to declines in revenues in our Education segment.

1.1.13 Our Professional segment may be adversely affected by demand fluctuations due to cyclical spending of our customers, broader structural changes and the availability of free or low-cost online content.

Our Professional segment publishes tailored information and provides services for several professional markets in Europe. Our Professional segment operates in the professional road safety education market, the professional medicine market and the market for professional business information. Our Professional segment serves a variety of customers, including small and medium-size enterprises as well as professional individuals such as businessmen, physicians and dentists, driving schools and logistics companies. Revenues in this segment are primarily derived from print-based advertisements. They also include revenue streams from journals, books, learning materials, marketing and promotional materials and electronic sales.

Spending by customers of our Professional segment is cyclical and depends on general economic conditions, trends in our customers' specific markets and cycles or special circumstances in our customers' businesses. Cyclical spending may lead to demand fluctuations in the Professional segment. Our Professional segment customers spend significantly less in times of economic slowdown or recession as such macroeconomic trends typically put downward pressure on their available financing. For example, economic developments in the healthcare industry may lead to spending constraints, which could lead to a declining number of participants in medical congresses and comparable events and consequently lower print volumes for publications prepared for such events. In addition, the business of pharmaceutical companies typically follows certain cycles, for example depending on the expiration of patents for specific drugs. Such cycles impact the timing of market launches of newly developed drugs, which in turn affects the revenues we generate from advertisements related to these drugs. Furthermore, demand from customers in our Professional segment may be affected by one-off incidents. For example, recent administrative and court proceedings led to cost-cutting measures by automotive companies that resulted in a decline in advertising sales for publications targeting the professional road safety education market.

We may also be adversely affected by broader structural changes within our customers' industries. For example, as part of our Professional segment offering we provide reprints of healthcare-related articles. A shift in the pharmaceutical industry from drugs marketed to the general practitioner towards specialist drugs may translate into declining numbers of journal reprints addressed to general practitioners. With respect to our offerings for driving schools, the number of customers may decrease due to a shift from local driving schools to online training centers. Furthermore, changes in the regulatory environment could lead to demand fluctuations. For example, laws and regulations affecting our giveaway policy to medical professionals reduced the number of publications we distributed to practitioners and the demand for advertising in such publications, thereby adversely affecting our revenues.

We are also exposed to threats from online content made available either free of charge, or through "freemium" models, which provide content at no cost but impose charges for additional features. The widespread offering of free content through the Internet has reduced our customers' willingness to pay for content over time, reducing demand for our products. For example, in our professional road safety education business we have experienced a migration of customers from some of our products to online content that is accessible to identified users free of charge. Such shifts in customer behavior resulting from the availability of no- or low-cost alternative content could significantly impact the financial performance of the affected business, and adversely affect our revenues.

1.1.14 Our business may be adversely affected if we are unable to successfully develop and introduce new products and business models.

The publishing markets are evolving rapidly. In order to meet customers' needs, to attract high-quality submissions by authors and to maintain a strong position in our markets, we must be able to timely and cost-effectively anticipate and respond to customers' evolving needs, industry trends and technological changes. Accordingly, our growth strategy involves developing new products and business models, including services, applications and functions.

The development of new products and business models carries uncertainties. The development process may not yield satisfactory results, preventing us from launching new products and business models. Even if we are able to launch new products and business models, the innovation may not be accepted by customers to the extent expected by us or may not yield the expected returns. Furthermore, as our competitors enhance their offerings, they could offer a broader array of products and services that could be regarded as more cost-effective or as having greater functionality or performance than our offerings, which could diminish the relative value of some of our products or services or could even render them obsolete. For example, as part of our initiatives in the open access market, we made investments into improving the speed of processing, transferring and accepting submissions. Should our competitors be able to introduce superior processes, our investments would be rendered obsolete. For example in our Education segment, a delay in the roll-out of our new learning management system could negatively affect our reputation in the market for education materials. As we are selling several courses for delivery through this system, such delay may negatively affect our reputation with respect to our ability to deliver digital products efficiently. Any failure to develop our offerings at least as quickly and effectively as our competitors could negatively affect our results of operations.

The risks associated with the development and introduction of new products and business models are especially relevant with regard to the digital marketplace, where demand for new products such as innovative technology has generally resulted in short lead times to produce products meeting customer specifications. These particularities increase the risk that our products may contain defects of any kind, which may only become apparent following their introduction to market. These circumstances could result in liability, loss of revenues or harm to our reputation.

1.1.15 We operate in competitive markets, and we may not be able to keep abreast of new technological development and business models that may gain acceptance to the detriment of traditional business models.

The markets in which we operate are competitive and continue to experience significant changes in the areas of technological developments, business models and trade channels. As a consequence, our customers' needs are evolving continuously. Our main competitors are established companies with substantial financial resources, recognized brands, technological expertise and market experience. In addition, we compete with smaller and sometimes newer companies, which may be able to address customer needs faster than established companies in our industry. We may also face increased competition from Internet-based companies. Such companies could threaten some of our business by providing more in-depth or cheaper offerings directly to customers. They could combine with traditional competitors to enhance their business models. They could also extract part of our content and monetize data traffic in order to advertise their websites.

In the Research segment, market participants compete for a portion of the budgets of academic libraries, corporate customers and other customers as well as, with respect to open access journals, authors. Journal publishers compete for high-quality articles and papers of relevant Academic Research content, as a journal's subject matter, perceived quality and its editorial board are distinguishing factors in this competitive environment. We expect competition in the Research segment to increase due to technological developments. For example, competitors could offer digital propositions with a customer-centric approach which would fragment the publishing value chain. Such technological disruptions may adversely affect our results of operations and cash flows.

In the Education segment, our major competitors currently focus on the business-to-customer (B2C) market, while our Education segment focuses on the business-to–business ("**B2B**") market. In the future, our competitors could form alliances among themselves, which may enable them to further penetrate the B2B market, which may increase competition for our Education segment. We may also compete with smaller companies focusing on the market for primary and secondary education ("K-12" companies). Some of our competitors have compliance policies and procedures in place that are less developed than our governance standards. This circumstance may be beneficial to them as it may provide them with a higher degree of operational flexibility, for example in connection with acquiring new and maintaining existing customers. An increase in competition by "K-12" companies may negatively affect our results of operations and cash flows. Furthermore, as a result of the relocation of our Education segment's headquarters from Oxford to London in 2016, our Education segment was faced with high turnover in its central editorial staff. As a result, our Education segment's central editorial teams are currently not as experienced as other editorial teams within Springer Nature, which may negatively affect our ability to compete effectively in the education publishing market.

In the Professional segment, we face increasing competition due to ongoing market consolidation in our target industries as well as migration towards e-products. We expect that market consolidation will lead to a reduction of overall advertising sales due to pricing pressure and concentration in the media agency space and due to the concentration of media spending in the leading publications in each field. Our Professional segment currently holds leading positions in sales, market penetration and brand recognition with respect to all of our major markets. However, we may not be able to maintain these strong positions in the face of increased competition, and competitors could take on market share, which could in turn reduce our advertising sales and negatively affect our results of operations and cash flows.

Competitive markets in general may also require us to reduce the price of some of our products and services, even as our costs of production increase, for example, due to an increase in the content we provide. Coordination among libraries prior to their renewal discussions, including in Germany, France and the U.K., may result in pricing pressure concerning the publications of our Research segment. We may also face competitive pricing pressure in the books market as our competitors may target specific industries with aggressively priced product bundles in order to gain market share. In addition, competition may lead us to increase the level of our capital investments. If we are unable or unwilling to reduce our product pricing or increase our capital expenditure, we may lose market share, and our results of operations and cash flows could be materially adversely affected.

1.1.16 The increasing importance of e-distribution channels may put downward pressure on our e-product pricing, result in insolvencies of subscription agents and therefore negatively affect our results of operations.

We rely in large part on third-party distributors and representatives to market our products to consumers, including e-distribution channels, such as Amazon. We expect that e-distribution channels will become increasingly relevant as a distribution channel for books and journals. E-distribution channels provide advantages for customers, including lower cost of purchases, a broader offer range, and greater convenience during the purchase process. E-distribution channels make pricing more transparent by allowing customers to easily compare prices among sellers, and have created a substantial market for used books. The increasing prevalence of e-distribution channels has also facilitated the illegal distribution of our copyrighted material. The significance of e-distribution channels may also put downward pressure on the pricing of our products. Our revenues generated by eBooks may not fully offset a related reduction of print book revenues. As a higher value-added tax rate is typically applied to eBooks than to print books, eBooks tend to offer a less attractive value proposition to customers. In order to promote our eBooks we therefore adjust our pricing of eBooks and effectively incur such value-added tax. These circumstances could negatively affect our results of operations.

E-distribution channels will create changes and challenges in the traditional trade channels market. As a result of these issues, some traditional market participants may go out of business which could negatively affect our results of operations. With respect to our books business, this may lead to increased inventory returns. With respect to the journal subscription business, we may be exposed to insolvencies of subscription agents that have collected payments from our subscribers. Such subscription agents may become insolvent before we received the payments which they have collected. The loss of one or more of our distributors or subscription agents, or their failure to effectively promote our products or otherwise perform in their functions in the expected manner could adversely affect our ability to bring new products to market and impact our revenues.

1.1.17 A deterioration of our brands and reputation, for example due to our compliance with government orders to limit the distribution of our content, would negatively affect our ability to remain a trusted source of information and our relationship with customers and contributors.

The strength and integrity of our brands and reputation are vital to our business in various ways. They determine our ability to remain a trusted source of information and are relevant as to whether we will be able to attract and retain high-quality customers and contributors. A high-quality portfolio and outstanding editorial staff are vital for maintaining our reputation. This is critical for the purpose of selling subscription journals, books and other products and for generating advertising revenues. Consequently, we must maintain and protect the proprietary nature of our brands and scientific reputation in order to support our market positions.

The reputation of our publications could suffer in the future, or we may not be able to maintain the high-quality of our books and journals. For example, members of the scientific community may prefer to publish their work with non-profit publishers. This risk may increase following our initial public offering. Our reputation as a publisher in general may suffer due to negative publicity related to any limitation of content. For example, in China a recently launched online petition calls upon academics to no longer provide peer review services to publishers which have limited their content. This petition has led to negative publicity and may negatively affect our brand reputation.

Furthermore, in the Research segment, our non-branded journals and parts of our books portfolio may face declining demand due to perceived suboptimal quality of the content and a subsequent deterioration of reputation. With respect to our highly ranked journals, we may not be able to continue to secure contributions from renowned authors and other content providers. Any failure by us to maintain the strengths of our brands and our reputation may have a material adverse effect on our results of operations.

1.1.18 We may be unable to increase our revenues to the extent necessary to compensate for increasing personnel costs.

Personnel costs accounted for nearly half of our expenses in 2017. In 2017, our average number of full-time equivalent employees was 12,621. The development of personnel costs depends on various factors, including the general development of personnel costs at our core locations of operations as a result of market factors or government-mandated wage increases. For example, our publishing services business in India comprised on average 4,723 full-time equivalent employees in 2017. Average wage rates in India have increased over the last decade and may continue to increase as the economic conditions in India continue to improve. Any acceleration of this trend, in India or elsewhere, would lead to a significant increase in our expenses. We may be unable to raise product prices or otherwise increase our revenues to the extent necessary to compensate for increasing personnel costs, which would negatively affect our results of operations.

1.1.19 *We are exposed to risks stemming from our global operations, and the expansion in new geographic regions presents new risks specific to these regions.*

Our Group operates globally. We have offices and representatives in more than 50 countries on all five continents, including significant operations in emerging markets, and serve customers in more than 180 countries. In accordance with our international growth strategy, we have increased our global presence through investment abroad over the last several years, including in our sales force and editorial teams. Some of our country-level operations perform tasks that are critical for our Group, such as our Indian subsidiary, which performs pre-publishing services for the Academic Research business, and a partner in the Philippines that performs a substantial amount of our administrative processes.

Our global footprint carries inherent risks, which may adversely affect our business and ability to grow further. Such risks may include instability of international economies and governments, exposure to adverse government action, changes in a specific country's or region's political and cultural climate or economic condition and policies affecting trade and investment in other jurisdictions. For example, in order to avoid limitations on our ability to operate in China we recently limited access to some of our content in order to comply with specific changing local regulations. As a consequence, we faced criticism outside China from academics who advocated unlimited access to this information. Such criticism included the launch of an online petition that called for peer reviewers to boycott providing peer review services until we confirmed that our publications are fully accessible in China. Until February 2018, approximately 1,200 individuals signed this petition online. Such practices, even if required by the local law of the relevant jurisdiction, may lead to reputational damage in the future or boycotts which may adversely impact our operating performance and/or revenues.

We may face logistical and management challenges relating to varying business cultures, less established institutions and procedures, languages, compliance and potential restrictions on repatriation of earnings. As of December 31, 2017, approximately $50-60 million in cash that could not easily or cost-effectively be transferred to Germany (so-called "trapped cash") was held in several of our foreign subsidiaries, including in China, South Africa and India.

We are exposed to varying laws and regulations, including intellectual property protection laws. Further, it may be difficult to effectively enforce contractual provisions in certain countries. We may also experience difficulties due to unclear approval and payment processes and procedures in some jurisdictions, making a timely and full collection of payments uncertain. In addition, we also face the risk that the intention of the parties as reflected in the terms of our customer contracts may conflict with interpretations of these terms based on local laws and business practices in a manner that is adverse to us.

We may find it difficult to ensure compliance of our local employees, local business activities and local partners with applicable regulatory and internal standards. Some of our employees may fail to abide by such regulatory and internal standards, for example, with respect to anti-bribery and other principled business conduct. For example, in 2011, following an inquiry by the U.K. Serious Fraud Office, the U.K. High Court ordered Macmillan Publishers Limited to pay approximately £11 million for improper payments related to a bidding process for a World Bank-funded education project to supply textbooks in East and West Africa. Furthermore, an external monitor was appointed. Macmillan Publishers Limited was debarred from World Bank-funded tender processes for three years. Besides our employees, we require our suppliers to comply with our guidelines of ethical business conduct. However, some of our suppliers may not adhere to our requirements or may not comply with such standards. In addition, new regulations such as the Modern Slavery Act in the U.K. have increased the scope of responsibility to protect against misconduct and corruption risk posed by third parties, and imposed duties to exercise reasonable due diligence over supplier activities. Any breach of applicable codes of ethics and business conduct either by our employees or suppliers could harm our relationship with customers or contributors, and could result in criminal or civil penalties under relevant laws or regulations.

1.1.20 *We heavily rely on the Internet and our IT systems, in particular our electronic databases and platforms, and any failures or disruptions may adversely affect our ability to serve our customers; unauthorized breaches of our cybersecurity systems by third-parties could adversely affect our business.*

We rely heavily on computer-based networks to rapidly handle large quantities of data and transactions. The successful operation of our business thus depends on the capacity, reliability and security of our systems and of the Internet. Our main datacenters and connection points are located in our IT facilities in Dordrecht and Rotterdam. Outages or significant failure, disruption, cyber-breach or interruption may cause our systems to operate slowly or interrupt service. We may need to apply updates to migrate from our IT systems, including our global fulfillment system, content production and content management systems and accounting system. Such migration updates may lead to transitional system errors. Additionally, certain of our IT systems are operated or maintained by third parties. For example, Springer MPLS Cloud, which forms the core of our internal network, is managed and maintained externally. Our third party IT providers may experience technical problems, network breaches or other disruptions in the future that could in turn negatively affect our systems. The occurrence of any of these risks may adversely impact our product, network and operational performance and may lead to a loss of revenues.

We also rely on databases and content hosting platforms. For example, our systems include the Springer Link database, which is fed by our internally developed repository system and its fulfillment system. We provide our customers access to journals, books and publications as well as other data through these databases and platforms. Our online activities expose us to persons who may try to breach data security systems or otherwise gain unauthorized access to our databases. Breaches of our cybersecurity may result in the misappropriation of information for potentially fraudulent purposes. We have experienced such activities regarding our systems in the past (such as Distributed Denial of Service (DDoS) attacks), and expect an increasing risk of breaches of our cybersecurity systems in the future. As persons seeking to gain unauthorized access to our systems use techniques that change frequently, we may be unable to anticipate or protect against such breaches or otherwise unauthorized access. Any such unauthorized access may lead to an unintentional disclosure of, or unauthorized access to, customer, vendor, employee or other sensitive data or information. Unauthorized breaches of our systems may also cause us to incur additional costs associated with, among other things, enhancing security or responding to occurrences, lost sales, violations of privacy or other laws, penalties or litigation. In addition, our reputation could be damaged following such unauthorized access to our databases and platforms by third-parties. For example, our customers and suppliers may lose confidence in our security measures, which may have an adverse effect on our business.

Much of our business is also conducted online and accordingly we are dependent upon access to and uninterrupted operation of the Internet and related platforms. Infrastructure failures, service outages at third-party providers or increased government regulation may impair our ability to effectively use the Internet. We also face significant increases in our use of power and data storage. This may result in a shortage of capacity and increased costs. This in turn may affect our ability to store, handle and deliver data and services to customers. We, either directly or through our external IT providers, may not be able to avoid failures or interruptions and we may not be able to continuously accommodate accelerated growth of peak volumes.

1.1.21 We may lose sensitive information, including due to the use of non-corporate software.

We may lose sensitive information due to the use of non-corporate software and data-sharing solutions, including the use of private e-mail addresses for work-related purposes. For example, following the merger between Springer and MSE, we engaged in a number of projects to standardize and harmonize the hard- and software used in our Group. During the transition phase, our IT systems suffered certain operational stability and reliability issues. As a result of these issues, some of our employees resorted to the use of private resources, including personal devices and email addresses, for work-related purposes. The use of personal devices and accounts raises the risks of unintended or unauthorized access and use of sensitive or proprietary data. In addition, our company-issued portable devices are not encrypted. In the event of a physical loss, sensitive, confidential or personal data may therefore be compromised. Any unintended disclosure of sensitive information could have a material adverse impact on our reputation. In some cases, a loss or unintended disclosure of sensitive data could make us subject to criminal penalties and civil liability under the General Data Protection Regulation (GDPR).

1.1.22 Our business models, products and services may not be fully protected by intellectual property rights, our intellectual property rights may be infringed or challenged by third parties or we may infringe third parties' intellectual property rights or be faced with claims regarding infringements with regard to the use of intellectual property.

Our content offerings are based on intellectual property, which we deliver through a variety of media, including through online database access and software applications. We rely primarily on trademark, copyright and other intellectual property laws to establish and protect proprietary rights in our brands, products and services. In particular, copyright protects our exclusive right to publish work in many countries for specified periods. Such periods differ but are generally the author's life plus 50 or 70 years. The copyright involved is held either in our name, in the name of the author and/or editor of the work, or in the name of the sponsoring professional society or institution. In most jurisdictions, copyright protection may not only cover individual articles but also the selection of compilation by the editor. We must therefore acquire licenses from editors in addition to acquiring copyrights or licenses from authors. The separate copyright held by an editor has led to a dispute in one case, and similar disputes may arise in the future. In addition, differing copyright laws in the various jurisdictions in which we operate could create additional risks for us in protecting our proprietary rights in our content. For example, laws in the EU protect non-copyrightable databases that have been built with substantial investment. Such protection lasts for 15 years. However, in the United States only copyrightable databases that are original works of authorship are protected by laws.

We rely on our ability to protect our intellectual property rights in order to continue to achieve the expected results of operations. Third parties may copy, infringe or otherwise profit from our proprietary rights without authorization. The Internet may facilitate these activities. Furthermore, we conduct business in countries in which it is uncertain whether and to what extent intellectual property rights can be effectively enforced. Some of our rights may also be challenged, withdrawn or invalidated by third parties. Furthermore, uncertainty surrounding future laws in the U.K. following Brexit may make it more difficult or costly for us to appropriately protect intellectual property rights. Our financial results may be adversely affected if our or our authors', editors' or other copyright holders' intellectual property rights are not fully protected.

We have entered into publishing contracts with individual authors, editors of journals, books, book series and other copyright holders. We also have co-publishing and/or distribution agreements in place with academic and professional societies to publish and distribute their journals and books. Such contracts may not always provide for a complete transfer of rights. They may give rise to statutory claims by people claiming intellectual property rights with respect to our content. These claims may result in infringement proceedings, re-negotiation of contracts and/or settlement payments. Furthermore, we may be subject to claims in connection with infringement of the rights of others and may be party to claims to determine the scope and validity of the intellectual property rights of others.

In some regions, including the Middle East, there is an increasing trend of municipal-owned enterprises requesting the transfer of connected intellectual property rights when orders are put out for tender. In our Education segment we currently do not participate in these tenders. However, if we were to participate in such tenders in the future, we may not be willing or able to provide for the complete transfer of intellectual rights if demanded.

With regard to the Springer Book Archives, we have sought to update or amend underlying contracts with relevant copyright holders to provide for our use of eBooks in online databases. This may also apply to other products and services, including online journal archives. In some cases, certain rights of use may not have been correctly transferred to us. Certain authors or content providers and other people claiming intellectual property rights with respect to our content have challenged our right to publish their work or the form of publication. We may continue to face such challenges, some of which may be successful. This may require us to spend significant sums for litigation, payment of damages or royalties, re-branding or re-engineering services or acquisition of licenses to third-party intellectual property. The materialization of any of these risks may have a material adverse effect on our business, financial position and results of operations.

1.1.23 Following the merger of Springer and MSE's academic and education business, we may be unable to successfully implement the planned reorganization and restructuring of our business; the integration is still ongoing and there can be no assurance that it will yield the expected benefits.

In May 2015, Springer Nature was created through the merger of Springer and MSE. The integration and reorganization of both businesses started in 2015 and is still ongoing. We have not yet realized all of the benefits we had originally expected from the merger and we cannot guarantee that, once completed, our reorganization and integration efforts will yield the expected cost savings and efficiencies. Completing the integration of Springer and MSE remains a time-consuming exercise and resources and capabilities diverted to realizing targeted merger benefits may affect our capacity to monetize market opportunities or to respond to threats to our business.

With regard to the integration, some projects have been completed, including the integration of our sales organization. However, there are still major integration work streams under way. For example, the migration of our Nature branded journals is still ongoing. Also, the integration of our financial systems (SAP) has not been completed. We may decide to postpone the integration of these systems pending the upgrade of our SAP systems to a more current version.

Our editorial systems are still fragmented, and our sales teams still operate the separate former systems of Springer and MSE, which results in a dual system landscape. This may lead to duplicative and inefficient processes and may also increase potential for error. The integration and harmonization of these different systems will therefore continue to be a major project for the Group in the coming years. As part of the integration, we seek to migrate our existing customers from their Springer and/or MSE licenses purchased prior to the merger to a (single) Springer Nature license. Any delay or failure of this migration could negatively affect our financial performance. Furthermore, our procurement processes and ongoing supplier management are still subject to integration. In this context we have outsourced some of our activities to third-party providers in an effort to increase profitability, but also as a reaction to the ongoing e-migration in the Academic Research industry. These outsourced activities related to trade receivables, accounts payable and credit collection activities, as well as logistics and warehousing. However, these third-party providers may operate poorly or even fail to perform, which may negatively affect our financial performance.

Efforts to integrate our IT systems following the merger of Springer and MSE are also ongoing and, pending completion of these integration projects, our IT landscape is still fragmented. Due to such fragmentation, we currently do not have a single source for data collection and distribution, which may negatively affect our ability to deliver accurate regular reporting on several issues, including financial information, following the offering. Existing systems that are to be discontinued are not being upgraded or expanded, as a result of which some of our systems are currently operating at full capacity. In some instances, we have initiated manual workarounds in order to address capacity and/or compatibility issues. However, only a limited number of our employees have the know-how necessary to implement such workarounds. An increase in employee turnover could therefore limit our ability to maintain our systems, particularly during periods of high usage, which may impact our network and operational performance and may have an adverse effect on our business. In addition, capacity constraints may negatively affect the performance of our systems which could lead to slowdowns. We may therefore not able to meet the service levels agreed to under currently existing agreements with our database customers.

We also carried out several reorganization and restructuring programs following the merger. These included office reorganizations in the United States, the U.K., and Germany. As part of our reorganization efforts within the Education segment, we brought formerly autonomous publishing segments under one brand. We also reorganized our German-language imprints and programs in the areas of technology, medicine and business accordingly. However, such restructuring efforts involve costs, for example related to severance payments, and these efforts also distract Management's attention from the business. In addition, certain of these programs involve jurisdictions with various regulations that may delay or partially hinder a restructuring and lead to higher costs than expected by us. This may negatively affect our financial performance.

1.1.24 We may not be able to identify suitable acquisition targets or to fully derive the anticipated benefits from previous and future acquisitions, joint ventures, investments or divestitures.

We have acquired, invested in or disposed of, and in the future may seek to acquire, invest in or dispose of, various companies and businesses, some of which may be material or transformative for our business.

We may not be able to identify suitable opportunities for attractive acquisitions, joint ventures or investments in the future. In addition, competition for acquisitions, joint ventures or investments in the Academic Research industry has increased. Such increased competition may increase the cost of any future acquisitions or even cause us to refrain from pursuing acquisition opportunities. Even if we find suitable acquisition targets, we may not obtain relevant regulatory approvals for such transactions, such as required clearances from competent competition authorities.

We may not derive the anticipated benefits from existing or future acquisitions, joint ventures or investments. This may be due to various reasons, many of which are outside our control. Integrating an acquired business may lead to unforeseen difficulties. For example, achieving the expected returns and synergies from existing or future acquisitions depends on our ability to integrate the acquired target into our business efficiently and effectively. Such integration will involve employees, administrative functions, operating systems and procedures as well as information technology systems of our business and the target's business. Integration could also take longer than anticipated. It may require a disproportionate amount of our management's attention and financial and other resources. Integration efforts could also detract us from the resources remaining for our pre-existing businesses. We may also not be able to evaluate material risks associated with acquisitions and we may be unable to maintain or improve the historical financial performance of the target. In case of acquisitions of companies with profit margins below ours, our profit margins may decline or be diluted. If acquired businesses do not perform as expected, we may be required to write-down goodwill recognized in connection with the acquisition of these businesses.

Our existing acquisitions, joint ventures or investments have been principally funded through debt. In the future it may be difficult to obtain financing on terms considered acceptable by us. Further, covenants in our existing and future financing facilities may restrict our ability to undertake any further acquisitions.

Besides acquisitions, joint ventures or investments, we also dispose of businesses or assets that no longer fit with our strategy or business portfolio. We expend management resources and costs to complete such divestitures. Any failures or delays in completing divestitures could have an adverse effect on our financial results and the ability to execute our strategy. In connection with certain disposals we have granted vendor loans to the acquirers. There can be no guarantee that the outstanding amounts on such loans will be paid in full at maturity. As of December 31, 2017, the outstanding portions of vendor loans relating to past divestitures amounted to less than €2 millions.

1.1.25 The success of our business relies on the experience and talent of our senior management and on our ability to recruit and retain key employees.

We rely upon the contributions of our senior management and other key personnel. This includes employees in charge of editorial tasks, sales and IT, as well as employees that service our customers and maintain client relationships, and those in charge of management and operations. Our future success will depend on our ability to recruit, motivate and retain high quality and experienced management and key employees across all of our businesses. Competition for skilled employees for typical corporate functions, including IT, is high and a limited number of suitably qualified personnel may be available on the recruiting market. Furthermore, due to a relatively high level of employment in certain of our markets, for example in New York and London, competition for professionals has intensified. In addition, our brand may not be as well-known among potential applicants as the brands of other potential employers, making our recruitment process dependent on the ability to raise awareness of Springer Nature. The ongoing integration following the merger between Springer and MSE ties up employee capacities during the integration process while, at the same time, the ongoing integration may also make it difficult for us to retain some of our key employees. For example, we are currently experiencing high employee turnover in our Education segment and open access business, putting additional pressure on our recruiting efforts.

Many of our key employees have a variable remuneration component in their service agreements with us, which is tied to sales or EBITDA. In case of declining profits it may be difficult for us to retain such employees or to attract suitable replacements based on such compensation models.

Furthermore, a significant portion of our operations and a substantial number of our employees are located in the U.K., including members of our senior management and other key personnel. We currently employ approximately 250 full-time equivalents holding non-U.K. passports in the U.K. and approximately 100 U.K. citizens (full-time equivalents) in EU member states other than the U.K. Following the U.K.'s formal withdrawal from the EU, cross-border labor and freedom of movement may be limited, which could adversely affect our ability to continuously recruit and retain employees for our locations in the U.K. and U.K. citizens for our locations in the other EU member states While we seek to proactively mitigate a potential shortage of qualified employees in the U.K. through the set-up of an additional European operation hub in Berlin, non-U.K. employees currently working in our offices in the U.K. may not be willing to relocate and we may not be able to find sufficient employees that meet our requirements in Berlin. Brexit negotiations could also have an adverse impact on staff morale in the U.K. and the EU.

1.1.26 We are dependent on third parties for a wide array of services, including services relating to operations, IT systems and administration, and services provided by affiliates of one of our existing shareholders.

We rely on third parties as providers for a wide array of services, including pre-publishing and printing services, logistics/warehousing, distribution, IT and telecommunications, and customer service/order fulfillment, as well as certain administrative, finance and accounting functions. Such involvement of third parties carries risk. For example, some of our third-party providers may seek to increase fees for their services. Others may not offer us the opportunity to renew our existing agreements with them. As a consequence, we may not be able to renegotiate commercially satisfactory arrangements with such providers, and may be forced to find substitutes or alternative sources of equivalent content or service. We may not be able to find an alternative provider offering products and services of the quality we require at a competitive price in a timely manner or at all.

As part of the ongoing integration following the merger between Springer and MSE, we have outsourced some of our activities regarding procurement and supplier management. Involving third parties carries risk with regard to the quality of their products and services. We are unable to directly and immediately control the quality of our outsourced products and services. If our third-party providers deliver poor quality products or services, experience general operational issues or become insolvent, we may be faced with delays in our publishing activities. For example, some of our key suppliers are currently operating at full capacity, including providers of pre-press services. We may therefore need to expand our supplier base. However, the onboarding process for new suppliers may take time, which may negatively affect our operating performance if we experience supply constraints.

We are exposed to potential misconduct by third parties, including printers and sales agents. Such third parties may not comply with applicable regulatory and internal standards. For example, they could operate business practices involving bribery and corruption, or face allegations regarding such misconduct. While we enter into agreements requiring these vendors to comply with our internal policies, we cannot guarantee that we will be able to monitor, identify or mitigate such activities by such third parties.

We rely on the IT systems of third-party providers, including systems of our outsourcing partners for logistics/warehousing and distribution. We have encountered difficulties relating to IT systems of third-party providers in the past. For example, in 2011 the IT systems of one of our outsourcing partners could not initially distinguish between stock purchased from publishers and stock stored in the third-party's warehouse. We therefore had to buy back all affected goods and use up a provision for returned books. We have implemented quality-control measures regarding the IT systems of our third-party providers including undertaking a due diligence process prior to entering into relevant third-party agreements. We also ensure that our agreements provide for appropriate technical, security and data protection provisions, and we conduct ongoing checks during the contract period. However, we do not exercise control over the IT systems of our third-party providers and we cannot assure that similar issues with respect to their IT systems will not occur in the future.

We also rely on services provided by affiliates of one of our existing shareholders. For example, we have entered into agreements with Holtzbrinck Publishing Group on an arm's-length basis in the past. This includes our partnership with Digital Science & Research Ltd ("**Digital Science**"), an entity of the Holtzbrinck Publishing Group, which develops and markets programs that help authors share their supplementary data and provides tools to measure readership and reuse of content. Our existing shareholders are generally free to pursue opportunities outside Springer Nature, including opportunities that compete directly or indirectly with us. Therefore, we cannot guarantee that Digital Science or other companies affiliated with our existing shareholders will provide us services in the future, and may even face direct competition from such companies.

1.1.27 Our business is subject to operational risks that may disrupt our business and for which we may not be adequately insured.

Our business is subject to operational risks and any materialization of these risks may disrupt our business. Operational risks include risks from external events and process risks in connection with our core business and internal as well as external supporting processes. Many supporting processes are specific to Academic Research publishing. They include content acquisition, organization of peer review processes, quality assurance, storage, indexation, sales and licensing processes, the organization and management of access rights as well as digital content production. A disruption of any of our internal and external processes as a result of outside factors beyond our control may result in delays and additional costs for us. For example, in 2016 our operations in South Africa were negatively affected by paper shortage caused by output reductions of two of the major local paper mills.

In order to mitigate certain of these operational risks we have obtained several insurance policies for our ongoing business operations. These cover losses such as bodily injury and property damages. To some extent they also cover contractual liability for claims arising from our publishing activities, such as defamation, libel, slander, infringement of trademark or copyright and plagiarism. In each case insurance is subject to applicable caps and certain deductibles and limitations. However, we may suffer damages for which we have either insufficient coverage or no coverage at all. We also may not be able to maintain adequate or commercially satisfactory insurance policies in the future, and to the extent coverage for a given risk is not available on terms we deem to be commercially acceptable, we may opt to forgo such coverage.

1.1.28 We may be adversely affected by leverage and debt service obligations, including restrictions on our business and financial flexibility under the financing agreements, and adequate financing may not be available to fund or support our working capital or may only be available on less commercially satisfactory terms in the future; we may also be negatively affected by public ratings of rating agencies.

Our external financing consists primarily of senior loans, a working-capital facility and other sources. Our lenders are mainly institutional investors. The borrowers under the vast majority of these loans are our subsidiaries. As of the date of this prospectus, we are also financed by a shareholder loan issued by Springer Science+Business Media GP Acquisition S.C.A. (the "**Selling Shareholder**") to our fully-consolidated subsidiary Springer SBM One GmbH. In addition, we are financed by a shareholder loan provided by GvH Vermögensverwaltungsgesellschaft XXXIII mbH ("**GvH 33**" and, together with the Selling Shareholder, the "**Existing Shareholders**"). We aim to disentangle our financing from that of our shareholders and accordingly we intend to restructure our financing following the listing of our shares. Such restructuring is expected to include the prepayment of outstanding amounts under certain of our existing finance agreements, including our euro and U.S. dollar denominated senior credit agreement, and the repayment of others at maturity.

Our financing agreements contain customary covenants, which may affect our operating flexibility. These include financial covenants relating to, among other things, ratios relating to our indebtedness, restrictions on disposal, mergers or corporate restructurings, the granting of security, dividend payments, distributions, share purchases, the granting of loans, acquisitions and joint ventures and financial indebtedness. In addition, the terms of these agreements provide that any lender may cancel its commitments and declare its participation in all outstanding utilizations due and payable upon the occurrence of certain transactions deemed to constitute a change of control or a sale of all or substantially all of our assets. While we believe that we are currently materially compliant with the terms of our financing arrangements, we may be unable to meet these covenants, and they may not be satisfied in the future. Our financing agreements also provide that lenders may terminate their commitments and accelerate repayment of amounts outstanding if a borrower fails to pay interest or principal on such amounts when due. Lenders may rely on such provisions to call the amounts owed by us prior to maturity, and we cannot guarantee that we will have access to sufficient funds to effect such repayment. In this case, this could have a material adverse effect on our business, financial position and results of operations.

Our leverage and significant debt-service obligations may restrict our business and financial flexibility. Furthermore, financing for our activities may not be available in the amounts that we require in order to fund our working capital needs, or may only be available on less commercially satisfactory terms in the future. For example, the amount of cash available for acquisition financing could be limited. A significant increase in our net indebtedness could also result in changes in the terms on which credit is extended. We are also subject to the risk of future disruptions or closures in the international capital markets, which could prevent us from accessing financing to fund our capital expenditure requirements or refinancing needs, or from doing so on commercially acceptable terms.

Any future debt instruments may be publicly rated by rating agencies, including Moody’s, Standard & Poor’s and Fitch. Such ratings are subject to revision, suspension or withdrawal at any time, including as a consequence of an increase in our debt levels following an acquisition. However, the revision of ratings may also be due to developments outside our control, including changes in the macroeconomic environment. Our debt ratings could be downgraded following any such review, in which case our borrowing costs may increase and our access to capital may be adversely affected.

1.1.29 We have significant funding obligations for pension and post-retirement benefit arrangements that are affected by factors outside of our control.

We operate various forms of pension plans and post-retirement benefit arrangements for current and former employees and their surviving dependents. They are determined by the legal, tax and economic situation of the relevant country and include defined contribution and defined benefit schemes. A significant number of these plans exist in Germany. However, there are further defined benefit plans in Japan, Switzerland, the U.K. and the United States. Some of the defined benefit plans are funded via external funds, others are unfunded. In addition, we also operate other long-term employee benefits, such as long-service and old-age part-time plans in Germany.

We have significant funding obligations in connection to our pension and post-retirement benefit arrangements. These obligations are affected by factors outside our control. However, we have built up provisions for pensions and other long-term employee benefits, which amounted to €261.9 million as of December 31, 2017. The largest portion of this provision relates to unfunded plans. These provisions are calculated actuarially using the projected unit credit method. They depend on the employees’ period of service and relevant salary. The method assumes increasing salary costs and relies on biometric calculations, prevailing long-term capital market interest rates and assumptions about future salary and pension increases. The long-term rates of return for our pension plans and post-retirement benefit arrangements are determined by evaluations of historical investment returns as well as input from investment advisors. With regard to our funding obligations we need to make assumptions in respect of future compensation levels, expected mortality, inflation, interest rates, the expected long-term rate of return on the assets available to fund the plans, the expected social security costs and medical cost trends, along with the discount rate to measure obligations. We review these assumptions as of the respective reporting dates to determine whether they are appropriate given current economic conditions. However, significant differences in results or changes in the underlying assumptions may materially affect our pension and post-retirement arrangement obligations and related future expenses.

1.1.30 We may be subject to impairment losses that would reduce our reported assets and profit.

Goodwill and other intangible assets account for a substantial portion of our total assets. We regularly perform impairment tests concerning these assets. As of December 31, 2017, goodwill and other intangible assets amounted to 85% of our total assets. These tests take into account a large number of factors, including the development of the economic environment for our industries and in our markets, as well as legal, regulatory, competitive, contractual and other external factors. Any unfavorable development in these factors, may lead to significant impairment charges. Further, assumptions and projections play an important role in carrying out our impairment tests. While we believe that these assumptions and projections were reasonable at the time when they were made, there can be no assurance that they accurately reflect actual developments. Any unfavorable deviation may lead to significant impairment charges in the future.

1.1.31 A change in general interest rate levels and currency exchange rates may increase our financing costs and may impact the discount rate applied to our pension and post-retirement benefit arrangements funding obligations.

Most of our financial debt is variable rate debt and we are therefore exposed to interest rate risk. Our interest expenses are subject to change in line with interest rate fluctuations on international capital markets. A potential increase in interest rates cannot be excluded, which would increase our debt service costs and could adversely affect our results of operations. We attempt to manage our interest rate risk by entering into interest rate hedging contracts. As of December 31, 2017, 42% of our outstanding nominal amounts of the variable interest rate senior loans were hedged. However, we may not be able to enter, or may only be able to enter at significantly higher costs, into extensions or renegotiations of these hedging instrument in the future. Furthermore, we are exposed to the risk that hedging counterparties will not perform their obligations under these agreements.

In addition, some of our credit facilities are denominated in U.S. dollars, leaving us subject to fluctuations in foreign currency exchange rates. A change in the U.S. dollar exchange rate therefore leads to adjustments of the liability and interest expense, which is presented in euro in our consolidated financial statements. Some of our hedge contracts are also denominated in U.S. dollar.

Furthermore, changes in the general interest rate levels may also impact provisions for our pension and post-retirement benefit arrangements funding obligations. Pursuant to IAS 19, the present value of such obligations is determined by discounting the estimated future cash outflows. Interest rates of high-grade corporate bonds denominated in the currency of the benefit and with comparable maturities are used in connection with such determination. However, a decrease in the applicable discount rate may negatively affect our equity.

1.1.32 Exchange rate fluctuations carry transaction and translation risks, which may have a negative impact on our reported revenues, cash flows and earnings.

We are active in countries outside the Eurozone and are therefore exposed to exchange rate fluctuations as we receive currencies for our products and services, which are then converted into the currencies required to repay our obligations. As our operations outside the Eurozone expand, we expect such exposure to increase. The Euro/U.S. dollar exchange rate is the most relevant for us. In the past, our U.S. dollar denominated revenues were significantly higher than our U.S. dollar denominated expenses, exposing us to currency exchange risks. In order to offset such risk, we borrowed U.S. dollar-denominated debt, the interest expenses and repayments on which help to partially match the U.S. dollar cash inflows from our operating businesses. However, we may not always be in a position to borrow in U.S. dollars in a sufficient amount to generate payments in U.S. dollars matching the cash inflows from our operating businesses. Certain amounts subject to foreign currency transaction risk not covered by this hedging relationship were hedged individually. Furthermore, not all transaction risks arising from non-euro cash flows are hedged. However, we hedge against exchange rate fluctuations with regard to our most relevant non-euro cash flows, which include U.S. dollar, British pound sterling, and Japanese yen.

We may not be able to hedge these transaction risks on commercially satisfactory terms in the future. In the case of future hedging agreements, our costs may increase due to an increase in macroeconomic risks. In addition, our hedging counterparties may default on their obligations under these arrangements. Furthermore, there can be no assurance that we will be able to hedge these risks in the future at acceptable cost or at all. The materialization of any of these risks may adversely impact our revenues, cash flows and earnings.

As our consolidated financial statements are expressed in euro, we translate income and expenses into euro. However, our income and expenses are denominated in a variety of currencies. As a result, we are also exposed to translational risks from exchange rate fluctuations, as our income and expenses are reported in the relevant local currency and then translated at the applicable currency exchange rate into euro. Our consolidated financial statements are therefore subject to fluctuations in exchange rates used for the translation of financial information of our businesses whose operational currencies are not the euro. Such translation could lead to significant changes in our reported financial results from period to period.

1.2 Legal, Regulatory and Tax Risks

1.2.1 We may be directly or indirectly adversely affected by changes in legislation and regulation as well as the implications of potential economic sanctions.

We may be impacted by legislative and regulatory changes, including changes as to how courts interpret relevant legislation and regulations. In particular, legislative and regulatory changes in copyright law and related rights may affect our business. For example, a law providing for far-reaching copyright exemptions in Germany was promulgated on September 1, 2017 and came into force on March 1, 2018. It will supersede our contractual agreements and will permit public libraries that neither directly nor indirectly serve commercial purposes to transmit excerpts encompassing up to 10% of a work, or journal articles in their entirety to users for non-commercial use. The law does not restrict the number of journal articles that may be transmitted in this manner, or the location of users. As a result of these changes, renewals of site-licenses and individual subscriptions from German libraries may decrease. Furthermore, the law introduces certain exceptions under which fixed percentages of protected works may be used without permission from the rights holder. For example, teaching institutions will be allowed to make available 15% of a work or journal articles in their entirety through their intranet networks. Although our current site licenses and policies covered many of the cases provided for in this new law even before its promulgation, we may nonetheless be negatively affected by these exceptions as increased dissemination of our content within and among institutions pursuant to these exceptions could result in subscription cancellations. In addition, legislators may opt to curtail copyright protection or mandate publishers to grant access to published works to the general or scientific public. Furthermore, government-imposed "embargos" for author manuscripts published under "green" open access model may change. Legislators may also allow others to publish the works or prohibit publishers from determining the price of their books and eBooks. Such changes may have a material adverse effect on our revenues.

Following a decision of the European Court of Justice, in 2016 in the so-called "Martin Vogel Case" the German Supreme Court (*Bundesgerichtshof*) halted the practice of distribution of copyright levies which, for example, resulted from private copies or usage in libraries, by collecting societies (VG Wort) established in Germany. With regard to scientific books, the distribution of such levies was formally split between the right holders and publishers in equal parts. However, following the decision of the European Court of Justice in the so-called "Reprobel Case" in 2015, the German Supreme Court ruled that such distribution violates law as these distributions may only be made to the rights holders. Publishers typically have no such position under German law. In response, the German legislature created an interim solution whereby publishers may ask authors for their voluntary approval that distributions will be split in accordance with past practice. While we received voluntary approvals from some of our authors, there can be no assurance that some or all of those authors will not withdraw their approvals or that authors will continue granting us such voluntary approvals in the future.

In recent years, laws and regulations relating to communications, privacy and data protection, e-commerce, direct marketing and digital advertisement and the use of public records have become more prevalent. Furthermore, there is a trend of increasing so-called "data nationalism" in connection with data protection laws in countries such as Russia and China, which includes efforts at a national or regional level to regulate the flow of data across borders or to create incentives to localize data processing and storage. It is uncertain in what form such laws and regulations will be adopted. It is also uncertain how courts will construe such laws. Such changes in the legal and regulatory regimes in our markets may adversely affect us. Existing and proposed legislation and regulation may also increase our cost. This includes price maintenance laws in Europe and antitrust or competition laws in Europe and the United States, or divergent national and international standards for the protection of copyright and data protection.

If the United Nations, the United States or the EU impose economic sanctions or boycotts on certain countries, we may be unable to distribute our products and services in the affected countries and our business could be negatively affected. In addition, many international banks are conservative in their policies towards processing transactions in connection with sanctioned or boycotted countries. As a result, we may experience difficulties in receiving payments for our products and services. With regard to our Professional segment, changes to laws and regulations may affect our giveaway policy to medical professionals, including print and online content, thereby impacting an important distribution channel for our products and potentially adversely affecting our advertising revenues.

We may be subject to fines or penalties as well as reputational harm for any violations of compliance with applicable laws and regulations. We also rely on data from public records and governmental authorities, and our businesses may be negatively affected if changes in the laws regulating access to public records were to restrict the use of such data.

Changes in the laws, regulations, administrative actions and policies with which our customers from different industries must comply may indirectly affect our business. A portion of publishing subscription revenues in our Research and Professional segment relies on the pharmaceutical industry. Therefore, changes in government health policies could adversely affect pharmaceutical companies. For example, policies on the use of generic drugs or reimbursement prices could change. Any such change would adversely affect pharmaceutical companies and in turn lead to reduced spending by such companies on our subscription-based products. This may have a negative impact on our revenues. The reprints market in general is declining and certain jurisdictions have also barred the distribution of reprints of pharmaceutical articles relating to off label uses of a drug. Therefore, articles that may be reprinted refer to research in which the drug is used according to its label indication. In addition, the market for drug marketing may experience a higher degree of regulation. This would in turn reduce the number of potential reprints for publishers. Should any of the industries that comprise our principal customer groups become subject to additional laws or regulations restricting the use or distribution of our content, our business may be adversely affected.

1.2.2 We are subject to regulation regarding the use of personal customer data, and breaches of security systems or other unauthorized access or misappropriation of such data could adversely affect our reputation and business operations.

We are increasingly required to comply with laws and regulations relating to privacy and data protection in the jurisdictions in which we operate. Laws and regulations relating to communications, privacy and data protection, e-commerce, direct marketing and digital advertising and the use of public records have become more prevalent in recent years and may become stricter in the future. In addition, enforcement of penalties and liability due to violations of these laws and regulations has increased in recent years. For example, in May 2016, the EU adopted the General Data Protection Regulation (GDPR). The GDPR will take automatic effect in all member states on May 25, 2018. Major changes include increased criminal penalties and extended civil liability with a reversal of the burden of proof of compliance onto the data controller. There are also extensive documentation obligations and considerably higher transparency requirements, which affect not only initial data collection but also monitoring and investigations. We may not have prepared for these changes to the extent necessary, and our preparations may not yield the expected results.

In general, it is uncertain in what form new laws and regulations regarding the use of personal customer data will be adopted and how courts will construe these. However, the need to comply with privacy and data protection legislation is a significant control, operational and reputational risk. Such changes may affect us in a number of ways. Privacy and data protection laws may restrict our ability to collect and use personal information relating to customers and third parties in the future, including its marketing use. In addition, we could be affected through potential litigation relating to the alleged misuse of personal data. This may adversely affect our business.

As we rely on third parties to maintain databases in some cases, we seek to ensure that such parties comply with applicable data protection regulations. However, we are exposed to the risk that our data could be wrongfully appropriated, lost or disclosed, or processed in breach of data protection regulations. We could therefore face liability under data protection laws. For example, liability could arise if we or any third-party service provider on which we rely fail to transmit customer information securely, or if any such loss of personal customer data were otherwise to occur. This may also result in the loss of the goodwill of our customers and deter potential new customers.

1.2.3 We are subject to tax risks, especially as a result of changes in tax law or its interpretation and application or as a result of tax audits detrimental to us.

We operate in many countries worldwide, and our earnings are therefore subject to taxation in many different jurisdictions and at different rates. Changes in tax laws or uncertainty over their application and interpretation may adversely affect our results. Changes in tax laws related to Brexit could negatively affect our tax situation. Such circumstances may also adversely affect our effective tax rate or require adjustments with respect to prior years as a result of tax authority audits.

Legislation and regulation aimed at reducing the deductibility of financial interest has increased our base of taxable profits. This particularly affects our activities in key jurisdictions such as Germany and the United States. Such legislation and regulation is likely to become more restrictive. As a consequence, tax laws that apply to us may also be amended by the relevant authorities. This may adversely affect our results.

Tax authorities may change their interpretations of relevant tax laws and regulations. Further, tax authorities may not agree with the tax positions we have taken. We cannot rule out that tax authorities may take the position that some of our tax loss carry forwards have lapsed, for example, due to changes in our shareholder structure or due to arrangements among some of our shareholders.

We are subject to tax audits by tax authorities on a regular basis. As a result of current or future tax audits or other similar review actions, additional taxes could be assessed.

1.2.4 *We are and may become involved in litigation, which may adversely affect our financial position and results of operations.*

We may become involved in legal actions and claims arising in the ordinary course of business. This includes litigation alleging infringement of intellectual property rights, employment matters, breach of contract and other commercial matters. For example, we have had material disputes relating to one of our distribution agreements with Pleiades, which were finally settled in April 2016 following a claim issued by Pleiades in 2012. There can be no guarantee that we will not have similar material disputes in the future, which may lead to a decrease in the number of the journals we distribute which could adversely affect our operations. The resolution of any legal proceeding could have a material adverse effect on our financial position and results of operations.

We significantly depend on technology in connection with managing digital access rights, storing, updating and connecting different types of content. We also rely on technology related to search functions within content, content databases and related functionalities as well as rights related to such technologies. While we do not own any patents, we may be exposed to patent-related claims, for example as a result of allegations that we infringe upon third parties' patents. We also regularly face claims related to intellectual property, including trademarks and copyright matters, which have not been material to the Group, individually or in the aggregate. However, we cannot assure that we will be successful in prosecuting or defending intellectual property claims, or that certain claims, if adversely determined, will not materially impact our results. In addition, our customers could be sued for allegedly infringing a third party's patent in connection with using one of our products or services. Furthermore, we may be exposed to class actions or similar legal proceedings in the future.

We may incur significant legal fees and other expenses in defending ourselves or our customers against any such claims or for related settlements. We may decide to settle a claim if we believe it is more efficient than to proceed to trial. If a case proceeds to trial, responding to the claims made, regardless of their validity, may also be time consuming for management and key employees. Settlements or adverse final decision may require us to compensate third parties. Such compensation could be significant and include payment of either a lump sum or, in the case of intellectual property infringement claims, ongoing license fees in order to be able to continue selling the affected product or service. A court may also prevent or enjoin us from continuing to provide the affected product or service.

1.2.5 *We may be subject to corporate co-determination, which may lead to conflicts of interest within our supervisory board*

We may be subject to corporate co-determination pursuant to German co-determination regulations. If co-determination regulations apply to us, our supervisory board would need to include employee representatives in addition to those of our shareholders. Representation of employees on the supervisory board may lead to conflicts of interest, for example, with regard to any adjustment of our operations. Any such conflicts of interest may delay the decision making process in the supervisory board, which could prevent us from acting swiftly and may negatively affect our business and results of operations.

1.2.6 *Antitrust or competition-related claims or investigations could result in changes to how we do business, and defending such claims could be costly.*

We are subject to antitrust and competition laws and regulations in jurisdictions where we operate. Such laws and regulations seek to prevent and prohibit anti-competitive activity. This includes merger control relating to acquisitions and the prevention of abuses of dominant market position. We may be subject to antitrust or competition-related investigations and claims in the future, including allegations regarding agreements or concerted practices for market sharing, fixing of prices or other commercial conditions. We could also be affected by potential investigations and claims against publishing associations of which we were or currently are a member. We may be subject to fines or other penalties if we are found to have violated antitrust or competition laws or regulations. For example, we faced an antitrust investigation by the European Commission in 2011 regarding the potential engagement of several publishers and Apple in anti-competitive practices affecting the sale of electronic books in the European Economic Area. We are currently not exposed to any material antitrust or competition investigations. In addition, we may be compelled to change the way we offer a particular product or service or a particular business model following such investigation or claim. The time and expense associated with such investigations and defending against potential claims could be substantial, and could have a material adverse effect on our business, financial position and results of operations.

1.3 Risks Relating to the Offering, the Listing and the Shareholder Structure

1.3.1 Our Existing Shareholders will continue to exercise substantial influence over the Issuer following the completion of the Offering, and the interests of our Existing Shareholders might conflict with the interests of our other shareholders.

Upon completion of the offering, and taking into account an order by GvH 33 for offer shares in a total amount of €100 million, the Existing Shareholders will continue to hold at least approximately 55.2% of the Issuer's share capital. This assumes a complete implementation of the capital increase against contribution in cash to be resolved by an extraordinary shareholders' meeting of the Issuer on or about May 3, 2018 (the "**IPO Capital Increase**") at the low end of the price range and full exercise of both the upsize option and the greenshoe option. As a consequence, the Existing Shareholders, solely through the exercise of their votes, will be able to adopt shareholders' resolutions that require a simple majority. For example, the Existing Shareholders could determine the use of balance sheet profits, resolve certain material capital measures, and set dividend policy. They will also be able to control the composition of the supervisory board and, indirectly, of the management board. Certain resolutions require consent of at least three-fourths of the share capital represented at the time the resolution is adopted, including the creation of authorized or contingent capital, amendments to the corporate objects, mergers, divestures and changes in corporate structure. If, due to a potentially low shareholder meeting attendance by our other shareholders, at least three quarters of the share capital represented are then held by the Existing Shareholders, they could implement such resolutions through the exercise of their votes. Furthermore, the Existing Shareholders could prevent a general shareholders' meeting from adopting any resolutions if they attend the meeting and vote against such proposal.

As a consequence, conflicts of interest and differences of opinion could arise between the Existing Shareholders and our other shareholders. As our Existing Shareholders have a majority of voting rights in the general shareholders' meeting, they could assert their interests against the will of other shareholders. For example, this could arise if we intend to carry out a capital increase. The Existing Shareholders could be unable to fully participate in such measure, but at the same time want to prevent their dilution. Even the possibility of exercising their influence could have material adverse effects on the price of the Issuer's shares, and could make it difficult for us to raise new capital in the future.

1.3.2 Georg von Holtzbrinck GmbH & Co. KG, one of our indirect Existing Shareholders, may engage in business activities that overlap with our business and may compete with us.

Upon completion of the offering, and taking into account an order by GvH 33 for offer shares in a total amount of €100 million, Georg von Holtzbrinck GmbH & Co. KG will continue to indirectly hold at least approximately 36.4% of the Issuer's share capital. This assumes the issuance of 112,999,554 New Shares (*i.e.,* such number of New Shares as is required to achieve the targeted gross proceeds of €1,186.5 million at the low end of the price range). As Holtzbrinck Publishing Group may in principle compete with Springer Nature in the future, its interest may conflict with those of our other shareholders, and differences of opinion could arise. Such conflicts of interests and differences of opinion may arise in various circumstances, including in cases where the business activities of Holtzbrinck Publishing Group overlap with those of Springer Nature. This potential business overlap may be exacerbated should Holtzbrinck Publishing Group grow its existing business activities or enter into new business activities which compete with our own. Such overlap could also arise in case Springer Nature decides to pursue a shift in its strategic positioning and business priorities.

In 2018, Springer Nature and Holtzbrinck Publishing Group entered into a business opportunities agreement with the intention to reduce and mitigate potential conflicts of interests. The agreement requires Holtzbrinck Publishing Group to present certain business opportunities in the area of the business of Springer Nature to us. Pursuant to this agreement, we may elect to pursue these business opportunities. However, the business opportunities agreement does not encompass all potential conflicts of interest and differences of opinion between Holtzbrinck Publishing Group and Springer Nature, and conflicts could arise in individual cases due to differing interpretations of the business opportunities agreement, or in respect of issues outside the scope of this agreement. Any such conflicts could have a material adverse effect on our business and on the price of the Issuer's shares, and could make it difficult for us to raise new capital in the future.

1.3.3 Future sales or market expectations of sales of a large number of shares by our Existing Shareholders or other shareholders could cause the share price to decline.

Upon completion of the offering, and taking into account an order by GvH 33 for offer shares in a total amount of €100 million, our Existing Shareholders will continue to hold at least approximately 55.2% of the Issuer's share capital. This assumes a complete implementation of the IPO Capital Increase at the low end of the price range and full exercise of both the upsize option and the greenshoe option. However, the Issuer's share price could fall substantially if one of our Existing Shareholders sells its shares after expiration of the selling restrictions in the relevant lock-up agreement or at an earlier date. The Issuer's share price could also fall substantially if such sale is anticipated by the capital market. The same applies if other significant shareholders sell their shares in the Issuer in the market or even if such sales are anticipated. In addition, the sale or market expectation of a sale of a large number of shares on the part of the Existing Shareholders or other of our significant shareholders could make it difficult for the Issuer to raise capital on favorable terms.

1.3.4 The Issuer's shares have not yet been publicly traded, and there is no guarantee that a liquid market will develop or continue following the initial public offering.

So far there has not been any public trading in the Issuer's shares. The offer price will be set by the Issuer and our Existing Shareholders. Setting the offer price will involve a bookbuilding process in consultation with the Joint Global Coordinators. There is no guarantee that the offer price will correspond to the price at which the shares are subsequently listed. In addition, a liquid market in the shares may not develop and may not even become established after this offering. Furthermore, following the offering our Existing Shareholders will continue to hold at least approximately 55.2% of the Issuer's share capital, assuming complete implementation of the IPO Capital Increase at the low end of the price range and exercise of the upsize and greenshoe options in full and taking into account an order by GvH 33 for offer shares in a total amount of €100 million. This will limit the number of free float shares in the Issuer and may therefore adversely affect the development and maintenance of a liquid market in the shares. As a consequence, investors may not be able to sell their shares either at the offer price, or at a higher price or at all.

1.3.5 The price and trading volume of the Issuer's shares could fluctuate significantly, and investors could lose all or part of their investments.

After the completion of the offering, the price of the Issuer's share price may be subject to substantial fluctuations. This could in particular arise due to changes in actual or forecasted operating results, changes in profit forecasts or failure to meet profit expectations of investors and securities analysts. In addition, such fluctuations could occur should investors reassess the Issuer's shares with regard to the success and the effects of the offering and our business strategy, or the related risks, changes in the general economic conditions, changes in the shareholder structure as well as other factors. Furthermore, external factors may impact our revenues and earnings and may lead to fluctuations in the Issuer's share price. Such factors may include changing demand in the publishing markets, monetary or interest rate policy measures by central banks, regulatory changes, or other external factors outside our control. These factors include the seasonal influences on our business, which generally peaks in the fourth quarter. For example, while activity in our books business is spread out over the fiscal year, it is concentrated in the last quarter, starting in September. However, sales in our Education segment are driven by the academic year of our customers and therefore vary depending on the local market. There may be pressure on the price of the Issuer's shares due to general fluctuations on the market, including for shares of other companies in the industry we operate in, or a general deterioration in capital markets. Such fluctuations are not necessarily based on our business operations or earnings prospects.

1.3.6 Capital markets may not be familiar with the legal form of a partnership limited by shares (Kommanditgesellschaft auf Aktien, KGaA) which could adversely affect the market price of the Issuer's shares.

We are organized in the legal form of a partnership limited by shares (*Kommanditgesellschaft auf Aktien, KGaA*). However, only a few listed companies in Germany are organized in such legal form. The legal form of a partnership limited by shares is unknown in many countries and capital markets are not familiar with such legal form. In particular, foreign investors may not be familiar with our legal form. For example, our legal form could be perceived as leading to a concentrated control over the Issuer exercised by our Existing Shareholders. The unfamiliarity of the capital markets with our legal form as well as other factors, including our complex corporate structure, may adversely affect the Issuer's share price.

1.3.7 Future capital increases could lead to substantial dilution in the value of the Issuer's shares and the control rights of the shareholders' interests in the Issuer.

With respect to any future capital increase there is a risk that shareholders who do not exercise their subscription rights will subsequently no longer hold the same percentage of voting and dividend rights in the Issuer and will therefore be economically diluted. This may occur even in case of a capital increase by way of a rights issue. Some investors could be precluded from participating in a rights offering. A shareholder may also fail to exercise its voting rights. Consequently, its share would be diluted in proportion to the percentage the capital increase represents in relation to our existing registered share capital.

Pursuant to the German Stock Corporation Act (*Aktiengesetz*) the general shareholders' meeting may in certain cases adopt a resolution on a capital increase to the exclusion of the shareholders' subscription rights. This would require a qualified majority. In such case, affected shareholders could not prevent the dilution of their shares unless they purchased additional shares on the secondary market. However, additional purchasing on a stock exchange may occur only at a higher price.

1.3.8 The Offering might not be completed, in which case investors could lose security commissions paid and be exposed to risks from any short selling of the shares.

Pursuant to the underwriting agreement, the underwriters may terminate the offering under certain circumstances. In this case, the offering will not take place. Any allocations to investors that have already occurred will be invalid and investors will not have a claim for delivery of the Issuer's shares. Claims with regard to any subscription fees and costs incurred in connection with the subscription are governed solely by the legal relationship between the investor and the institution with which the investor has submitted its offer to purchase.

If an investor has engaged in short selling of the shares in the Issuer, such investor bears a risk of not being able to fulfil its delivery obligations

1.3.9 Insufficient distribution or transfer of profits from the Issuer's subsidiaries and its debt covenants may limit the Issuer's ability to pay dividends.

In accordance with the German Stock Corporation Act (*Aktiengesetz*), the general shareholders' meeting resolves on the payment of dividends on the recommendation of the general partner and the supervisory board. Such decision is based on the balance sheet profit. Balance sheet profit is determined on a standalone basis in accordance with the German Commercial Code (*Handelsgesetzbuch*) and the German Stock Corporation Act (*Aktiengesetz*). Therefore, the annual financial profit or loss must be adjusted with the profit/loss carry forward from the previous financial year as well as any withdrawals or contributions made to reserves. However, certain reserves must be established by law. They therefore have to be deducted when calculating the balance sheet profit available for distribution. However, the Issuer primarily functions as a holding company. We may therefore only generate income dependent on the ability of our operating subsidiaries to generate income and transfer profits. In addition, we may only pay dividends dependent on the transferability of profits and distributable reserves of such subsidiaries. Our existing financing agreements include and the future financing agreements may include debt covenants that may restrict the amount of cash available for the payment of dividends.

1.3.10 The Issuer will face additional administrative requirements and incur higher ongoing costs as a result of the initial public offering.

After completion of the offering, we will for the first time be subject to the legal requirements for publicly listed German corporations. Such requirements include periodic financial reporting and other public disclosure of information. We will also be obliged to host regular calls with securities and industry analysts, and comply with other disclosure obligations. We may not be capable of responding to these obligations without difficulties or inefficiencies. This may also cause significant additional expenditures or expose us to legal, regulatory or civil costs or penalties. In addition, the preparation, convening and conduct of general shareholders' meetings and regular shareholder communication will incur substantial expenses. Management will need to devote time to these additional requirements. Such requirements could also entail substantially increased time commitments and costs for the accounting, controlling and legal departments and other administrative functions. We may not be able to handle the additional demands placed on us by becoming a publicly listed company. We may also not be able to handle any costs resulting therefrom. This may have a material adverse effect on our business, results of operations and financial position.

2. GENERAL INFORMATION

2.1 Responsibility Statement

Springer Nature AG & Co. KGaA (the "**Issuer**" and, together with its fully consolidated subsidiaries, the "**Group**", "**Springer Nature**", or "**we**", "**us**" or "**our**"), with its registered office at Heidelberger Platz 3, 14197 Berlin, Germany, a partnership limited by shares (*Kommanditgesellschaft auf Aktien*) governed by the laws of the Federal Republic of Germany ("**Germany**") and registered with the commercial register (*Handelsregister*) of the local court (*Amtsgericht*) of Charlottenburg, Germany, under the number HRB 195463 B, together with J.P. Morgan Securities plc, London, United Kingdom ("**J.P. Morgan**"), Morgan Stanley & Co. International plc, London, United Kingdom ("**Morgan Stanley**" and, together with J.P. Morgan, the "**Joint Global Coordinators**"), and together with BNP PARIBAS, Paris, France ("**BNP PARIBAS**"), Merrill Lynch International, London, United Kingdom ("**BofA Merrill Lynch**"), Credit Suisse Securities (Europe) Limited, London, United Kingdom ("**Credit Suisse**"), Goldman Sachs International, London, United Kingdom ("**Goldman Sachs**"), and Société Générale Corporate & Investment Banking, Paris, France ("**Société Générale**" and, together with BNP PARIBAS, BofA Merrill Lynch, Credit Suisse, Goldman Sachs and the Joint Global Coordinators, the "**Joint Bookrunners**" or the "**Underwriters**") have assumed responsibility for the contents of this prospectus pursuant to Section 5 para. 4 of the German Securities Prospectus Act (*Wertpapierprospektgesetz*), and declare that the information contained in this prospectus is, to the best of their knowledge, correct and contains no material omissions.

If any claims are asserted before a court of law based on the information contained in this prospectus, the investor appearing as plaintiff may have to bear the costs of translating this prospectus prior to the commencement of the court proceedings pursuant to the national legislation of the member states of the European Economic Area (the "**EEA**").

The information in this prospectus will not be updated subsequent to the date hereof except for any significant new event or significant error or inaccuracy relating to the information contained in this prospectus that may affect an assessment of the securities and occurs or comes to light following the approval of this prospectus but before the completion of the public offering or admission of the securities to trading, whichever is later. These updates must be disclosed in a prospectus supplement in accordance with Section 16 (1) sentence 1 of the German Securities Prospectus Act (*Wertpapierprospektgesetz*).

2.2 Purpose of this Prospectus

This prospectus relates to the offering of 145,181,826 ordinary bearer shares of the Issuer with no-par value (*Stückaktien*), each such share representing a notional value of €1.00 and with full dividend rights from January 1, 2018 (the "**Offering**"), consisting of:

- 112,999,554 newly issued ordinary bearer shares with no–par value (*Stückaktien*) from a capital increase against contribution in cash (the "**IPO Capital Increase**") to be resolved by an extraordinary shareholders' meeting of the Issuer on or about May 3, 2018 (the "**New Shares**");
- 18,983,925 existing ordinary bearer shares with no-par value (*Stückaktien*) from the holdings of Springer Science+Business Media GP Acquisition S.C.A. (the "**Selling Shareholder**") (the "**Secondary Shares**"), with the number of Secondary Shares to be actually placed with investors, if any, to be decided by the Selling Shareholder in consultation with the Joint Global Coordinators on the date of pricing (the "**Upsize Option**"); and
- 13,198,347 existing ordinary bearer shares with no-par value (*Stückaktien*) from the holdings of the Selling Shareholder in connection with a possible over-allotment (the "**Over-Allotment Shares**", and together with the New Shares and Secondary Shares, the "**Offer Shares**"), with the total number of Over-Allotment Shares not exceeding 10% of the final number of New Shares and Secondary Shares actually placed in the Offering.

This prospectus relates to the admission to trading on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) (*Prime Standard*) of:

- 190,000,000 ordinary bearer shares with no-par value (*Stückaktien*) (the Issuer's entire share capital prior to the IPO Capital Increase); and

- up to 112,999,554 newly issued ordinary bearer shares with no-par value (*Stückaktien*) to be placed with investors in this Offering and two shares to be issued in connection with the dissolution of certain financing instruments (for more information, see "*15.1.1 Current and Future Share Capital; Shares*").

The Offering consists of an initial public offering ("**IPO**") in Germany and the Grand Duchy of Luxembourg ("**Luxembourg**") and private placements in certain jurisdictions outside Germany and Luxembourg. In the United States of America ("**United States**" or "**U.S.**"), the Offer Shares will be offered and sold only to persons reasonably believed to be qualified institutional buyers ("**Qualified Institutional Buyers**" or "**QIBs**") as defined in Rule 144A ("**Rule 144A**") under the United States Securities Act of 1933, as amended (the "**Securities Act**"). Outside the United States, the Offer Shares will be offered and sold only in offshore transactions in compliance with Regulation S under the Securities Act ("**Regulation S**").

This prospectus has been approved solely by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht*) ("**BaFin**"). BaFin has approved this prospectus after having performed an assessment of the completeness of the prospectus, including an assessment of the coherence and comprehensibility of the information presented.

2.3 Forward-looking Statements

This prospectus contains forward-looking statements. A forward-looking statement is any statement that does not relate to historical facts or events or to facts or events as of the date of this prospectus. This applies, in particular, to statements in this prospectus containing information on our future earnings capacity, plans and expectations regarding our business growth and profitability, and the general economic conditions to which we are exposed. The words "intends", "plans", "predicts", "projects", "forecasts", "targets", "will" or "expects" may be an indication of forward-looking statements.

The forward-looking statements in this prospectus are subject to risks and uncertainties, as they relate to future events, and are based on estimates and assessments made to the best of the Issuer's present knowledge. These forward-looking statements are based on assumptions, uncertainties and other factors, the occurrence or non-occurrence of which could cause the Issuer's actual results, including the financial condition and profitability of our Group, to differ materially from or fail to meet the expectations expressed or implied in the forward-looking statements. These expressions can be found in several sections in this prospectus, particularly in the sections entitled "*1. Risk Factors*", "*10. Management's Discussion and Analysis of Financial Condition and Results of Operations*", "*11. Markets and Competition*", and "*12. Business Description*" and "*23. Recent Developments and Outlook*", and wherever information is contained in this prospectus regarding our intentions, beliefs, or current expectations relating to its future financial condition and results of operations, plans, liquidity, business outlook, growth, strategy and profitability, investments and capital expenditure requirements, expectations as to future growth in demand for our products and services as well as the economic and regulatory environment to which we are subject.

In light of these uncertainties and assumptions, it is possible or even likely that the future events mentioned in this prospectus will not occur or materialize as suggested herein. In addition, the forward-looking estimates and forecasts reproduced in this prospectus from third-party reports could prove to be inaccurate (for more information on the third-party sources used in this prospectus, see "*2.4 Sources of Market Data*"). Actual results, performance or events may differ materially from those in such statements. For a description of the risks that could influence our forward-looking statement, see "*1. Risk Factors*".

Moreover, it should be noted that all forward-looking statements only speak as of the date of this prospectus and that neither the Issuer nor any of the Underwriters assumes any obligation, except as required by law, to update any forward-looking statement or to conform any such statement to actual events or developments.

2.4 Sources of Market Data

To the extent not otherwise indicated, the information contained in this prospectus on the market environment, market developments, growth rates, market trends and competition in the markets in which the Group operates are based on the Issuer's assessments.

The following sources were used in the preparation of this prospectus:

- The Economist Intelligence Unit, "Industries in 2018 – A special report from The Economist Intelligence Unit", 2018 ("**EIU**");
- 2016 Journal Citation Reports, Clarivate Analytics, 2017 ("**JCR 2016**");

- OC&C Market Report as prepared by OC&C Strategy Consultants, March 26, 2018 ("**OC&C Report**");
- OECD, "Main Science and Technology Indicators" Volume 2016", Issue 2, 2017 ("**OECD**");
- OpenAIRE, "Towards a competitive and sustainable open access publishing market in Europe", February 2017 ("**OpenAIRE**"); and
- Outsell Report, "2016 Library Market Size, Share, Forecast, and Trends", May 5, 2016 ("**Outsell**").

It should be noted in particular that reference has been made in this prospectus to information concerning markets and market trends, which was obtained from the above-mentioned sources. The Issuer has accurately reproduced such information and, as far as it is aware and able to ascertain from information published by such third parties, no facts have been omitted that would render the reproduced information inaccurate or misleading. Nevertheless, prospective investors are advised to consider this data with caution. For example, market studies are often based on information or assumptions that may be inaccurate or inappropriate, and their methodology is inherently predictive and speculative.

Irrespective of the assumption of responsibility for the content of this prospectus by the Issuer and the Underwriters (see "*2.1 Responsibility Statement*"), neither the Issuer nor the Underwriters have independently verified the figures, market data or other information on which third parties have based their studies. Accordingly, the Issuer and the Underwriters make no representation or warranty as to the accuracy of any such information from third-party studies included in this prospectus. Prospective investors should note that the Issuer's own estimates and statements of opinion and belief are not always based on studies of third parties.

2.5 Documents Available for Inspection

For the period during which this prospectus is valid, the following documents will be available for inspection during regular business hours at the Issuer's offices at Heidelberger Platz 3, 14197 Berlin, Germany (tel. +49 (0)30 827 870).

- the Issuer's current articles of association (the "**Articles of Association**");
- the Issuer's (prior to its changes in legal form and name, Springer Nature GmbH) audited consolidated financial statements prepared in accordance with the International Financial Reporting Standards as adopted by the EU ("**IFRS**") and the additional requirements of commercial law pursuant to Section 315e (1) of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2017;
- the Issuer's (prior to its changes in legal form and name, Springer SBM Zero GmbH) audited consolidated financial statements prepared in accordance with IFRS and the additional requirements of commercial law pursuant to Section 315a (1) of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2016;
- the Issuer's (prior to its changes in legal form and name, Springer SBM Zero GmbH) audited consolidated financial statements prepared in accordance with IFRS and the additional requirements of commercial law pursuant to Section 315a (1) of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended and December 31, 2015; and
- the Issuer's (prior to its changes in legal form and name, Springer Nature GmbH) audited unconsolidated financial statements prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2017.

The above documents are also available on the Issuer's website (www.springernature.com) under the Investor Relations section. The unconsolidated financial statements referred to above are also published in the German Federal Gazette (*Bundesanzeiger*).

The Issuer's future consolidated and unconsolidated financial statements will be available on the Issuer's website and from the paying agent designated in this prospectus (see "*14.8 Announcements, Paying Agent*").

2.6 Presentation of Figures

Where financial information in the tables in this prospectus is labelled "audited", this means that it has been taken from audited financial statements mentioned above in "*2.5 Documents Available for Inspection*". The audited consolidated financial statements have been prepared in accordance with IFRS and the additional requirements of commercial law pursuant to Section 315e (1) or Section 315a (1) of the German Commercial Code (*Handelsgesetzbuch*). The label "unaudited" is used in this prospectus to indicate financial information that has not been taken from the audited financial statements mentioned above in "*2.5 Documents Available for Inspection*" but was taken either from the Issuer's internal reporting system, or is based on calculations of these figures from the sources mentioned before.

Financial information presented in the text and tables in this prospectus is shown in millions of euro (€ million) and is commercially rounded to one digit after the decimal point. Changes, including percentage changes, are calculated based on the numbers as presented in this prospectus and commercially rounded to one digit after the decimal point. As a result of rounding effects, the aggregated figures in the tables may differ from the totals shown and the aggregated percentages may not exactly equal 100%. In addition, rounded totals and subtotals in the tables may vary marginally from unrounded figures indicated elsewhere in this prospectus. Furthermore, in those tables, these rounded figures may not add up exactly to the totals contained in those tables.

Financial information presented in parentheses denotes the negative of such number presented. A dash ("–") means that the relevant figure is not available, while a zero ("0.0") means that the relevant figure has been rounded to or equals zero.

2.7 Presentation of Financial Information

2.7.1 Application of IFRS and the German Commercial Code (Handelsgesetzbuch)

The Issuer prepared its consolidated financial statements as of and for the years ended December 31, 2017, 2016 and 2015 in accordance with IFRS and the additional requirements of commercial law pursuant to Section 315e (1) or Section 315a (1) of the German Commercial Code (*Handelsgesetzbuch*). The Issuer's unconsolidated financial statements as of and for the year ended December 31, 2017 were prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (*Handelsgesetzbuch*). Such German language consolidated financial statements and German language unconsolidated financial statements were audited by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft in accordance with Section 317 of the German Commercial Code (*Handelsgesetzbuch*) and German generally accepted standards for financial statement audits, as stated in the German language independent auditor's reports (*Bestätigungsvermerke des unabhängigen Abschlussprüfers*) with respect to the consolidated financial statements and unconsolidated financial statements as of and for the year ended December 31, 2017 and the German language audit opinions (*Bestätigungsvermerke*) with respect to the consolidated financial statements as of and for the years ended December 31, 2016 and December 31, 2015.

2.7.2 Non-IFRS Financial Measures

This prospectus contains non-IFRS financial measures and ratios, including underlying growth, adjusted EBITDA, adjusted operating income, capital expenditure, adjusted pre-tax unlevered free cash flow and core working capital that are not required by, or presented in accordance with, IFRS. We present non-IFRS financial measures because they are used by management in monitoring our business and because we believe that they and similar measures are frequently used by securities analysts, investors and other interested parties in evaluating companies in our industry.

Underlying growth, adjusted EBITDA, adjusted operating income, capital expenditure, adjusted pre-tax unlevered free cash flow and core working capital are alternative performance measures as defined in the guidelines issued by the European Securities and Markets Authority (ESMA) on October 5, 2015 on alternative performance measures. Specifically, we use

- Underlying growth to show the development of revenues and adjusted EBITDA, adjusted for foreign exchange effects and changes in business scope (the effects of acquisitions and dispositions of businesses), which we believe are not reflective of the operational business performance. Underlying growth corresponds to reported growth adjusted for foreign exchange effects and changes in business scope. To eliminate foreign exchange effects, the currency conversion for the years ended December 31, 2016 and December 31, 2017 is conducted using the closing exchange rates as of December 31, 2016 for each currency and applying these exchange rates for all foreign currency transactions included in revenues and adjusted EBITDA. The resulting foreign exchange effects are the difference between the period-to-period change in reported revenues and adjusted EBITDA and the period-to-period change of revenues and adjusted EBITDA based on the currency conversion with constant closing exchange rates as of December 31, 2016, each calculated as percentages. To eliminate changes in business scope, the effects from acquisitions and dispositions of businesses occurred in the years ended December 31, 2016 and December 31, 2017 are eliminated in revenues and adjusted EBITDA for the years ended December 31, 2016 and December 31, 2017 applying the same constant closing exchange rates as of December 31, 2016, respectively. The resulting change in business scope effects are the difference between the period-to-period change of revenues and adjusted EBITDA based on constant exchange rates and the period-to-period change of revenues and adjusted EBITDA based on constant exchange rates and constant business scope, each calculated as percentages;

- Adjusted EBITDA to present our operating performance adjusted for non-operating items related to acquisitions/dispositions and other effects that we deem to be non-recurring calculated as EBITDA adjusted for gains/losses from disposal of businesses/investments and adjustments (exceptional items) relating to effects occurring outside the ordinary course of business or non-recurring effects, such as the integration and restructuring of businesses or business units, as well as to other exceptional or non-recurring business transactions or events;
- Adjusted operating income to present our operating performance including the effects of amortization, depreciation and impairment, but excluding depreciation, amortization and impairment on acquisition related assets. We define adjusted operating income as adjusted EBITDA less amortization and impairment of intangible assets and depreciation and impairment of property, plant and equipment, but excluding amortization, depreciation and impairment on fair value adjustments recognized in connection with business combinations;
- Capital expenditure to show the investments we make into intangible assets and property, plant and equipment calculated as cash paid for investments in intangible assets and cash paid for investments in property, plant and equipment;
- Adjusted pre-tax unlevered free cash flow as an indicator of the net cash flows generated by our business without taking into account any tax effects calculated as adjusted EBITDA, non-cash expenses and income, change in non-current provisions and long-term receivables, change in core working capital, change in other assets and liabilities, capital expenditure and cash paid for investment in content; and
- Core working capital as a measure of operating liquidity available to our business. We calculate core working capital as trade receivables and inventories less trade payables and deferred income.

The definitions of the non-IFRS financial measures may not be comparable to other similarly titled measures of other companies and have limitations as analytical tools and should not be considered in isolation or as a substitute for analysis of our operating results as reported under IFRS. Non-IFRS measures and ratios such as adjusted pre-tax unlevered free cash flow and core working capital are not measurements of our performance or liquidity under IFRS and should not be considered as alternatives to result for the period or any other performance measures derived in accordance with IFRS or any other generally accepted accounting principles or as alternatives to cash flow from operating, investing or financing activities.

2.7.3 Presentation of Currency and Exchange Rates

The amounts set forth in this prospectus in "**€**" refer to the single currency of the participating member states in the third stage of the European Monetary Union pursuant to the Treaty on the Functioning of the EU. Fluctuations in the exchange rate between the € and the other currencies will affect the amounts received by owners of the shares in such other currencies upon conversion of dividends, if any, paid in euro on the shares.

The amounts set forth in this prospectus in "**$**" or "**U.S. dollar**" refer to the legal currency of the United States of America.

The functional currency of the Issuer is the € and we present our financial statements in €.

The table below sets forth period end, average, high and low exchange rates of U.S. dollars per euro for each year indicated. Yearly averages are computed using the noon buying rate for the euro in New York City for cable transfers in foreign currencies as certified for customs purposes by the Federal Reserve Bank of New York on the last business day of each month during the period indicated.

Year Ended December 31,	Period end	Average	High	Low
2013	1.3779	1.3303	1.3816	1.2774
2014	1.2101	1.3210	1.3927	1.2101
2015	1.0859	1.1032	1.2015	1.0524
2016	1.0552	1.1029	1.1516	1.0375
2017	1.2022	1.1396	1.2041	1.0416

The table below sets forth period high and low exchange rates of U.S. dollars per euro as announced by the Federal Reserve Bank of New York for each month indicated and for the period from April 1, 2018 through April 16, 2018.

Month	High	Low
October 2017	1.1847	1.1580
November 2017	1.1936	1.1577
December 2017	1.2022	1.1725
January 2018	1.2488	1.1922
February 2018	1.2482	1.2211
March 2018	1.2440	1.2216
April 1, 2018 to April 16, 2018	1.2384	1.2230

The European Central Bank reference rate of April 24, 2018 was $1.2213 per €1.00. The above rates may differ from the actual rates used in the preparation of the consolidated financial statements and other financial information appearing in this prospectus.

3. THE OFFERING

3.1 Subject Matter of the Offering

This prospectus relates to the Offering of 145,181,826 ordinary bearer shares of the Issuer with no-par value (*Stückaktien*), each such share representing a notional value of €1.00 and with full dividend rights from January 1, 2018, consisting of:

- 112,999,554 New Shares;
- 18,983,925 Secondary Shares and
- 13,198,347 Over-Allotment Shares.

The number of Secondary Shares to be actually placed with investors will be decided by the Selling Shareholder in consultation with the Joint Global Coordinators on the date of pricing. The Selling Shareholder will make up to 13,198,347 Over-Allotment Shares available to J.P. Morgan as stabilization manager (the "**Stabilization Manager**"), acting for the account of the Underwriters, in the form of a securities loan to cover potential over-allotments (the "**Over-Allotment**"). The total number of Over-Allotment Shares will not exceed 10% of the final number of New Shares and Secondary Shares, if any, actually placed in the Offering. The number of New Shares depends on the price per Offer Share (the "**Offer Price**"); the number of Secondary Shares depends on the extent to which the Upsize Option is exercised, if at all, by the Selling Shareholder in consultation with the Joint Global Coordinators. The Selling Shareholder will grant the Underwriters an option to acquire all or a portion of the shares borrowed under the securities loan at the Offer Price less agreed fees and commissions (the "**Greenshoe Option**"). For more information, see "*3.8 Stabilization Measures, Over-Allotments and Greenshoe Option*".

The Offering consists of an IPO in Germany and Luxembourg and private placements in certain jurisdictions outside Germany and Luxembourg. In the United States, the Offer Shares will be offered and sold only to QIBs as defined in, and in reliance on, Rule 144A or pursuant to another available exemption from, or in transactions not subject to, the registration requirements of the Securities Act. Outside the United States, the Offer Shares will be offered and sold only in offshore transactions in compliance with Regulation S.

As part of the Offering, GvH 33 committed to invest a total amount of €100 million. Based on an Offer Price at the mid-point of the price range set for the Offering within which purchase orders may be placed of €10.50 to €14.50 per Offer Share (the "**Price Range**"), the total number of Offer Shares purchased by GvH 33 would be 8,000,000 Offer Shares.

The IPO Capital Increase to issue the New Shares, which is expected to be resolved by an extraordinary shareholders' meeting on May 3, 2018, and is expected to be registered with the commercial register of the local court (*Amtsgericht*) of Charlottenburg on May 8, 2018, would result in a capital increase of the Issuer's share capital of up to €112,999,554. The share capital of the Issuer represented by the Offer Shares that are the subject of the Offering (including potential Over-Allotments) will total €145,181,826.00 at the low end of the Price Range, €125,293,906.00 at the mid-point of the Price Range and €110,892,306.00 at the high end of the Price Range. Thus, at the low end, mid-point and high end of the Price Range, approximately 47.9%, 44.0% and 40.8% of the Issuer's outstanding share capital (after effectuation of the issuance of all New Shares and assuming that 13,198,347, 11,390,355 or 10,081,118 Over-Allotment Shares are placed at the low end, mid-point or high end of the Price Range, respectively) will be offered (approximately 43.6%, 40.0% and 37.1% without the Over-Allotment Shares).

Immediately prior to the Offering, all of the Issuer's outstanding share capital (190,000,000 shares) was held by the Selling Shareholder and GvH Vermögensverwaltungsgesellschaft XXXIII mbH ("**GvH 33**" and together with the Selling Shareholder, the "**Existing Shareholders**") (see "*13. Shareholder Information*"). Following completion of the Offering and assuming full placement of the Offer Shares, *i.e.*, including placement of all Secondary Shares offered, and full exercise of the Greenshoe Option (as defined in "*3.8 Stabilization Measures, Over-Allotments and Greenshoe Option*"), the Selling Shareholder will hold, at the low end, mid-point and high end of the Price Range approximately 18.9%, 20.7% and 22.2% and, taking into account an order by GvH 33 for Offer Shares in a total amount of €100 million, GvH 33 will hold approximately 36.4%, 38.2% and 39.6% of the Issuer's share capital, respectively. Subject to the exercise of the Greenshoe Option, the Selling Shareholder will receive the proceeds from the sale of the Secondary Shares, if and to the extent the Upsize Option is exercised, and the Over-Allotment Shares (after deduction of fees and commissions). The Issuer will receive only the proceeds of the Offering resulting from the sale of the New Shares (after deduction of fees and commissions) but will not receive any proceeds from the sale of the Secondary Shares or the Over-Allotment Shares from the holdings of the Selling Shareholder.

The Underwriters are acting in the following capacities: J.P. Morgan and Morgan Stanley are acting as the Joint Global Coordinators and BofA Merrill Lynch, Goldman Sachs, Credit Suisse, BNP PARIBAS and Société Générale are, together with the Joint Global Coordinators, acting as Joint Bookrunners.

3.2 Price Range, Offer Period, Offer Price and Allotment

The Price Range set for the Offering is €10.50 to €14.50 per Offer Share.

The period during which investors may submit purchase orders for the Offer Shares is expected to begin on April 26, 2018 while the period during which subscription offers may be submitted via the subscription functionality *DirectPlace* of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) in the XETRA trading system, or the trading system replacing such trading system, for the collection and settlement of subscription offers (the "**Subscription Functionality**") will commence on April 27, 2018 with both periods expected to end on May 8, 2018 (the "**Offer Period**"). On the last day of the Offer Period, offers to purchase may be submitted (i) until 12:00 noon (Central European Summer Time) ("**CEST**") by retail investors (natural persons), including investors who want to submit subscription offers through the Subscription Functionality, and (ii) until 14:00 (CEST) by institutional investors. Retail investors (natural persons) may submit purchase orders for the public offering in Germany and Luxembourg during the Offer Period at the branch offices of the Underwriters or through the Subscription Functionality. Purchase orders must be denominated in full euro amounts or euro cent figures of 25, 50, or 75 cents except for orders placed through the Subscription Functionality. Multiple purchase orders are permitted.

Retail investors (natural persons) who want to submit subscription offers for the Offer Shares through the Subscription Functionality must submit them to their respective depositary bank. This requires that the depositary bank (i) has been admitted as a trading participant to the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) or has access to trading on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) via an accredited trading participant; (ii) is connected to XETRA; and (iii) is authorized and able to use the Subscription Functionality according to the Terms and Conditions of Deutsche Börse AG for use of the XETRA subscription functionality (such depositary bank, the "**Trading Participant**").

Upon the investor's request, the Trading Participant will submit a subscription offer on behalf of the investor via the Subscription Functionality. Baader Bank Aktiengesellschaft, Börsenstraße 1, 60313 Frankfurt, Germany ("**Baader Bank**"), in its capacity as order book manager will collect the purchase offers of the Trading Participants in the order book until the end of the Offer Period. At the end of the Offer Period, Baader Bank, in its capacity as order book manager will close the order book.

Investors in Luxembourg whose depositary bank is not a Trading Participant may instruct a Trading Participant via their depositary bank to submit a subscription offer through the Subscription Functionality and execute it after acceptance by Baader Bank together with the depositary bank of the investor.

Subject to the publication of a supplement to this prospectus, if required, the Issuer, the Selling Shareholder and the Joint Bookrunners reserve the right to decrease the total number of Offer Shares, to increase or decrease the upper limit and/or the lower limit of the Price Range and/or to extend or shorten the Offer Period.

Reductions in the number of Offer Shares, changes to the Price Range or the extension or shortening of the Offer Period will not invalidate any offers to purchase that have already been submitted. If such change requires the publication of a supplement to this prospectus, investors who submitted purchase orders before the supplement is published shall have the right, under the German Securities Prospectus Act (*Wertpapierprospektgesetz*), to withdraw these offers to purchase within two business days of the publication of the supplement. Instead of withdrawing the offers to purchase placed prior to the publication of the supplement, investors may change their orders or place new limited or unlimited offers to purchase within two business days of the publication of the supplement.

Any changes to the terms of the Offering will be published by means of electronic media (such as Reuters or Bloomberg) and, if required by the Market Abuse Regulation (EU) No 596/2014 or the German Securities Prospectus Act, as an ad hoc release via an electronic information dissemination system, on the Issuer's website and as a supplement to this prospectus. In such case, investors who have submitted offers to purchase will not be notified individually. Under certain conditions, the Joint Global Coordinators, on behalf of the Underwriters, may terminate the underwriting agreement, dated on or about April 25, 2018, among the Issuer, the Selling Shareholder and the Underwriters (the "**Underwriting Agreement**"), even after commencement of trading (*Aufnahme des Handels*) of the Issuer's shares on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). If the Underwriting Agreement is terminated, the Offering will not take place, in which case any allotments already made to investors will be invalidated and investors will have no claim for delivery. Claims with respect to subscription fees already paid and costs incurred by an investor in connection with the subscription will be governed solely by the legal relationship between the investor and the financial intermediary to which the investor submitted its purchase order. Investors who engage in short-selling bear the risk of being unable to satisfy their delivery obligations. See "*18.6 Termination/ Indemnification*".

The Offer Price and the final number of Offer Shares placed in the Offering (including the final number of Secondary Shares, if any) will be set jointly by the Issuer, the Selling Shareholder and the Joint Global Coordinators. The price will be set on the basis of the purchase orders submitted by investors, and retail investors (natural persons), which have submitted subscription offers via the Subscription Functionality, during the Offer Period that have been collated in the order book prepared during a book building process. These orders will be evaluated according to the prices offered and the investment horizons of the respective investors. This method of setting the number of shares that will be placed at the Offer Price is, in principle, aimed at maximizing proceeds. Consideration will also be given to whether the Offer Price and the number of shares to be placed allow for the reasonable expectation that the share price will demonstrate steady performance in the secondary market given the demand for the Issuer's shares as reflected in the order book. Attention will be paid not only to the prices offered by investors and the number of investors wanting shares at a particular price, but also to the composition of the group of shareholders in the Issuer that would result at a given price, and expected investor behavior. The Issuer, the Selling Shareholder will not specifically charge any expenses and taxes related to the Offering to investors.

The number of Secondary Shares to be actually placed will be determined by the Selling Shareholder in consultation with the Joint Global Coordinators, on the date of pricing, depending on market demand and using the order book prepared during the bookbuilding process.

The placement price and the final number of Offer Shares placed in the Offering (*i.e.,* the result of the Offering) are expected to be set on May 8, 2018. After the Offer Price has been set, the Offer Shares will be allotted to investors on the basis of the offers to purchase then available. The Offer Price and the final number of Offer Shares (that is, the result of the Offering) are expected to be published on or about May 8, 2018 by means of an ad hoc release on an electronic information dissemination system and on the Issuer's website. Investors who have placed orders to purchase Offer Shares with one of the Underwriters can obtain information from that Underwriter about the Offer Price and the number of Offer Shares allotted to them on the business day following the setting of the Offer Price. Retail investors who have submitted subscription offers via the Subscription Functionality may liaise with their respective depositary banks to obtain information as to the number of allocated Offer Shares. As commencement of trading (*Aufnahme des Handels*) of the Issuer's shares on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) is expected to take place on the first business day following the setting of the Offer Price, investors may not have obtained information about the number of Offer Shares allotted to them at the time of commencement of trading. Book-entry delivery of the allotted Offer Shares against payment of the Offer Price is expected to take place two business days after commencement of stock exchange trading. Should the placement volume prove insufficient to satisfy all orders placed at the placement price, the Underwriters reserve the right to reject orders, or to accept them in part only.

3.3 Expected Timetable for the Offering

The following is the expected timetable for the Offering, which may be extended or shortened:

April 25, 2018 . . . . . . Approval of this prospectus by the BaFin

Publication of the approved prospectus on the Issuer's website (www.springernature.com)

Notification of the approved prospectus to the Luxembourg Commission for the Supervision of the Financial Sector (*Commission de Surveillance du Secteur Financier*)

April 26, 2018 . . . . . . Commencement of the Offer Period

Application for admission of the Issuer's shares to trading on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange and, simultaneously, to the sub-segment thereof with additional post-admission obligations (*Prime Standard*)

April 27, 2018 . . . . . . Commencement of the Offer Period (for investors who want to submit subscription offers through the Subscription Functionality)

May 8, 2018	Registration of the consummation of the capital increase with the commercial register and creation of the New Shares to be delivered on the date of the settlement (May 11, 2018) Admission decision to be issued by the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) Close of the Offer Period for subscription offers by retail investors (including via the Subscription Functionality) at 12:00 (noon) (CEST) and for institutional investors at 2:00 pm (CEST) Determination of the Offer Price and final number of shares allocated Publication of the results of the Offering in the form of an ad-hoc release on an electronic information dissemination system and on the Issuer's website (www.springernature.com)
May 9, 2018	Commencement of trading in the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*)
May 11, 2018	Book-entry delivery of the Offer Shares against payment of the Offer Price (settlement and closing)

The prospectus will be published on the Issuer's website at www.springernature.com (section: Investor Relations). Printed copies of this prospectus and any supplements thereto are available at the Issuer's office at Springer Nature AG & Co. KGaA, Heidelberger Platz 3, 14197 Berlin, Germany (tel. +49 (0)30 827 870).

Information on the Issuer's website (www.springernature.com) and information accessible via the Issuer's website is neither part of nor incorporated by reference into this prospectus.

3.4 Information on the Shares

3.4.1 Current and Future Share Capital; Form of the Shares

As of the date of this prospectus, the share capital of the Issuer amounts to €190,000,000.00 and is divided into 190,000,000 ordinary bearer shares with no-par value (*auf den Inhaber lautende Stückaktien (Stammaktien)*) that have been issued. The share capital has been fully paid up.

In connection with and for the purpose of the Offering, it is expected that the Issuer will issue up to 112,999,554 New Shares pursuant to the IPO Capital Increase.

Concurrently with the registration of the IPO Capital Increase, the Existing Shareholders will contribute and assign a shareholder loan, a vendor loan and class B preferred shares (*Vorzugsgeschäftsanteile*) in Springer SBM One GmbH ("**SSBM One**") with an aggregate value of €977.8 million together with an aggregate cash payment of €2.00 to the Issuer against issuance of two new shares of the Issuer. The €2.00 cash payment will lead to a corresponding increase of share capital, the value of the financing instruments will be reflected in the Issuer's free capital reserves as a contractual premium (*schuldrechtliches Agio*) within the meaning of Section 272 para. 2 no. 1 German Commercial Code (*Handelsgesetzbuch*) and thereby dissolve their respective financing instruments. The contribution and assignment of these financing instruments will lead to an increase of our equity, turning the Group's equity from negative €83.7 million as of December 31, 2017 into a positive number at the time of such contribution and assignment. The Issuer's shareholders' meeting will resolve to increase the Issuer's current share capital of €190,000,000.00 against a contribution in cash by €2.00 concurrently with the IPO Capital Increase. It is expected that the consummation of the capital increase will be registered with the commercial register of the local court (*Amtsgericht*) of Charlottenburg, Germany, on May 8, 2018. As a consequence of the planned dissolution of these financing instruments, concurrently with the registration of the IPO Capital Increase, two shares of the Issuer will be issued. For more information, see "*15.1.1 Current and Future Share Capital; Shares*".

Upon registration of the consummation of the IPO Capital Increase and issuance of two new shares as described in the preceding paragraph, the Issuer's outstanding share capital will amount to up to €302,999,556.00 and be divided into up to 302,999,556 ordinary bearer shares with no-par value (*Stückaktien*).

3.4.2 Certification of the Shares

As of the date of this prospectus, all of the Issuer's shares are ordinary bearer shares (*Inhaberaktien*) with no-par value (*Stückaktien*). The Issuer's shares will be represented by one or more global share certificates (the "**Global Share Certificate**"), which will be deposited with Clearstream Banking Aktiengesellschaft, Mergenthalerallee 61, 65760 Eschborn, Germany ("**Clearstream Banking AG**").

Section 8 para. 1 of the Articles of Association excludes, to the extent legally permissible and not required by the rules and procedures of a stock exchange on which the Issuer's shares are admitted for trading, the right of the shareholders to receive share certificates. The Issuer is entitled to issue share certificates representing individual shares (individual share certificates) or several shares (global share certificates). The shareholders shall have no claim to the issuance of dividend or renewal coupons. Section 8 para. 1 of the Articles of Association provides that form and content of share certificates are determined by the Issuer's general partner (the "**General Partner**") with the approval of the supervisory board of the Issuer (the "**Supervisory Board**").

3.4.3 Voting Rights

Each share in the Issuer carries one vote at the Issuer's shareholders' meeting. There are no restrictions on voting rights and the Issuer's existing shareholders do not have different voting rights.

3.4.4 Dividend and Liquidation Rights

The Offer Shares carry full dividend rights from January 1, 2018. In the event of the Issuer's liquidation, any proceeds will be distributed to the holders of the Issuer's shares in proportion to their interest in the Issuer's share capital.

3.4.5 Delivery and Settlement

The delivery of the Offer Shares against payment of the Offer Price is expected to take place on May 11, 2018. The Offer Shares will be made available to the shareholders as co-ownership interests in the Global Share Certificate.

At the shareholder's option, the Offer Shares purchased in the Offering will be credited either to a securities deposit account maintained by a German bank with Clearstream Banking AG or to a securities account of a participant in Euroclear Bank S.A./N.V., 1, Boulevard du Roi Albert II, 1210 Brussels, Belgium ("**Euroclear**"), as the operator of the Euroclear system, or to Clearstream Banking S.A., 42, Avenue John F. Kennedy, L-1855 Luxembourg-Kirchberg, Luxembourg.

3.4.6 ISIN/WKN/Common Code/Ticker Symbol

International Securities Identification Number (ISIN)	DE000SPG1003
German Securities Code (Wertpapierkennnummer, WKN)	SPG100
Common Code	094555779
Trading Symbol	SPG

3.5 Transferability of the Shares; Lock-up

The Issuer's shares are freely transferable in accordance with the legal requirements for ordinary bearer shares. Except for the restrictions set forth in "*3.9 Lock-up Agreement, Limitations on Disposal*" and "*18.7 Selling Restrictions*", there are no prohibitions on disposals or restrictions with respect to the transferability of the Issuer's shares.

3.6 Existing Shareholders

The following table sets forth the Issuer's Existing Shareholders as well as the number of shares held as of the date of this prospectus:

Existing Shareholders	Number of existing shares
GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart, Germany	100,700,000
Springer Science+Business Media GP Acquisition S.C.A., Luxembourg	89,300,000

GvH 33 committed to invest a total amount of €100 million under and as part of the Offering. Based on an Offer Price at the mid-point of the Price Range, the total number of Offer Shares purchased by GvH 33 would be 8,000,000 Offer Shares, which represent approximately 6.4% of the Offer Shares, assuming that all 125,293,906 Offer Shares are placed. GvH 33 has been guaranteed full allocation of its Offer Shares. The Offer Shares acquired by GvH 33 will be subject to an 18-month as described in more detail in "*3.9 Lock-up Agreement, Limitations on Disposal*".

Taking into account the Offer Shares to be acquired by GvH 33 as described above, it is expected that the Existing Shareholders will continue to hold approximately 65.5% of the Issuer's outstanding share capital upon completion of the Offering, assuming placement of 94,919,626 New Shares, no exercise of the Upsize Option, placement of 11,390,355 Over-Allotment Shares at the mid-point of the Price Range and full exercise of the Greenshoe Option. Assuming placement of 94,919,626 New Shares, placement of 18,983,925 Secondary Shares, *i.e.*, assuming full exercise of the Upsize Option, placement of 11,390,355 Over-Allotment Shares at the mid-point of the Price Range and full exercise of the Greenshoe Option, the shareholding of the Existing Shareholders will drop to approximately 58.8% of the Issuer's outstanding share capital upon completion of the Offering.

For further details on the ownership structure of the Issuer, see "*13. Shareholder Information*".

3.7 Allotment Criteria

The allotment of Offer Shares to private investors and institutional investors will be decided by the Issuer after consultation with the Joint Global Coordinators. The decision ultimately rests with the Issuer. Allotments will be made on the basis of the quality of the individual investors, such as the expected investment horizon and expected trading behavior of the investor, and individual orders and other important allotment criteria to be determined by the Issuer after consultation with the Joint Global Coordinators.

Under the management service agreements of the members of the Management Board, each member has the option to purchase Offer Shares in a total amount corresponding to 100% of the relevant member's annual fixed gross salary on a guaranteed allocation basis (*garantierte Zuteilung*) as part of the Offering. Members of the Management Board who elect to purchase Offer Shares under this option will not receive a discount on such purchase to the Offer Price. Two members of the Management Board have elected to purchase Offer Shares under this option and will be allocated Offer Shares in a total amount of €0.65 million, with the final number of Offer Shares to be allocated depending on the Offer Price. Shares so purchased are subject to a staggered 24-month lock-up. For a description of the management service agreements see "*16.4.3 Management Service Agreements*".

GvH 33 committed to invest a total amount of €100 million under and as part of the Offering. Based on an Offer Price at the mid-point of the Price Range, the total number of Offer Shares purchased by GvH 33 would be 8,000,000 Offer Shares, which represent approximately 6.4% of the Offer Shares, assuming that all 125,293,906 Offer Shares are placed. GvH 33 has been guaranteed full allocation of its Offer Shares. The Offer Shares acquired by GvH 33 will be subject to an 18-month as described in more detail in "*3.9 Lock-up Agreement, Limitations on Disposal*".

3.8 Stabilization Measures, Over-Allotments and Greenshoe Option

In connection with the placement of the Offer Shares, J.P. Morgan, acting for the account of the Underwriters, will act as stabilization manager (the "**Stabilization Manager**") and may, as Stabilization Manager, and acting in accordance with legal requirements (Article 5 para. 4 and 5 of the Market Abuse Regulation (EU) No 596/2014 in conjunction with Articles 5 through 8 of the Commission Delegated Regulation (EU) 2016/1052), make Over-Allotments and take stabilization measures to support the market price of the Issuer's shares and thereby counteract any selling pressure.

The Stabilization Manager is under no obligation to take any stabilization measures. Therefore, stabilization may not necessarily occur and may cease at any time. Such measures may be taken on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) from the date when trading in the shares of the Issuer is commenced on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and must be terminated no later than 30 calendar days after this date (the "**Stabilization Period**").

Stabilization transactions aim at supporting the market price of the Issuer's shares during the Stabilization Period. These measures may result in the market price of the Issuer's shares being higher than would otherwise have been the case. Moreover, the market price may temporarily be at an unsustainable level.

Under the possible stabilization measures, investors may, in addition to the New Shares and Secondary Shares, be allocated up to 13,198,347 Over-Allotment Shares as part of the allocation of the Offer Shares. For the purpose of such a potential Over-Allotment, the Stabilization Manager, for the account of the Underwriters, will be provided with 13,198,347 existing shares from the holdings of the Selling Shareholder in the form of a securities loan. The total number of Over-Allotment Shares will not exceed 10% of the final number of New Shares and Secondary Shares, if any, actually placed in the Offering. The number of New Shares depends on the Offer Price; the number of Secondary Shares actually placed in the Offering depends on the extent to which the

Selling Shareholder in consultation with the Joint Global Coordinators exercises the Upsize Option, if at all, on the date of pricing. This decision will depend on market demand and using the order book prepared during the bookbuilding process. The Selling Shareholder will grant the Underwriters the Greenshoe Option, *i.e.,* an option to acquire up to 13,198,347 additional Issuer's shares at the Offer Price less agreed fees and commissions, for the sole purpose of enabling the Stabilization Manager to perform its redelivery obligation under the securities loan with the Selling Shareholder. The Greenshoe Option may be exercised only during the Stabilization Period.

The Stabilization Manager, for the account of the Underwriters, is entitled to exercise the Greenshoe Option to the extent Over-Allotments were initially made; the number of shares is to be reduced by the number of shares held by the Stabilization Manager as of the date on which the Greenshoe Option is exercised and that were acquired by the Stabilization Manager in the context of stabilization measures.

Within one week of the end of the Stabilization Period, the Stabilization Manager will ensure adequate public disclosure as to whether stabilization was undertaken, the date on which stabilization started and last occurred, and the price range within which stabilization was carried out, for each of the dates during which stabilization transactions were carried out and the trading venue(s) on which the stabilization transactions were carried out, where applicable.

Exercise of the Greenshoe Option will be disclosed to the public promptly, together with all appropriate details, including in particular the date of exercise of the Greenshoe Option and the number and nature of securities involved in accordance with Article 8 of the Commission Delegated Regulation (EU) 2016/1052.

3.9 Lock-up Agreement, Limitations on Disposal

In the Underwriting Agreement, the Issuer agreed with each Underwriter that, during the period commencing on April 25, 2018 and ending 180 days after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) (currently expected to take place on May 9, 2018), to the extent legally permissible, without the prior written consent of the Joint Global Coordinators, which may not be unreasonably withheld or delayed, the Issuer will not, and will not agree to:

- announce or effect an increase of the share capital of the Issuer from authorized capital;
- propose to its general meeting an increase of the share capital; or
- announce, effect or propose the issue of securities with conversion or option rights on shares of the Issuer or economically similar transactions.

For the period commencing on April 25, 2018 until the date which, with regard to the Selling Shareholder, falls six months, with regard to GvH 33, falls 18 months after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) (currently expected to take place on May 9, 2018), the Existing Shareholders undertook in writing that they will not, without the prior written consent of the Joint Global Coordinators,

- offer, pledge, allot, distribute, sell, contract to sell, sell any option or contract to purchase, purchase any option to sell, grant any option, right or warrant to purchase, transfer or otherwise dispose of, directly or indirectly (including, but not limited to, the issuance or sale of any securities exchangeable into shares of the Issuer), any shares of the Issuer;
- cause or approve, directly or indirectly, the announcement, execution or implementation of any increase in the share capital of the Issuer or a direct or indirect placement of shares of the Issuer;
- propose, directly or indirectly, any increase in the share capital of the Issuer to any meeting of the shareholders for resolution, or vote in favor of such a proposed increase;
- cause or approve, directly or indirectly, the announcement, execution or proposal of any issuance of financial instruments constituting options or warrants convertible into shares of the Issuer; or
- enter into or perform any transaction economically equivalent to those described in the first bullet above, in particular, the issue of options or conversion rights on shares of the Issuer.

The foregoing shall not apply to (i) transfers to affiliates or shareholders of the Existing Shareholders or transfers to the other Existing Shareholder, provided that the relevant transferee(s) agree(s) towards the Joint Global Coordinators to be bound by the same lock-up undertaking, (ii) the granting of mortgages, pledges, liens, or charges or other legal or equitable security (the "**Security Interest**") over or in respect of shares to or for the benefit of one or more of the Underwriters as margin loan lender in connection with any margin loan facility, (iii) transfers or disposals of any shares pursuant to any enforcement of any Security Interest over shares granted to or for the benefit of one or more of the Underwriters as margin loan lender in connection with any margin loan facility, (iv) transfers or disposals of shares to a third party by or for the benefit of one or more of the Underwriters as margin loan lender following the enforcement of any Security Interest over the shares granted to or for the benefit of the relevant margin loan lender and (v) transfers or disposals of shares acquired after the date of this prospectus (except for Offer Shares acquired by GvH 33 in the Offering). In the case of these shares held by GvH 33, "Security Interest" shall include any loan facility (including a margin loan), but such loan facility shall be limited to a number of shares that corresponds to the number of Offer Shares acquired by GvH 33 in the Offering, it being understood that in case of any transfer or disposal of shares in connection with or pursuant to the enforcement of such Security Interest (other than in connection with a margin loan), the relevant transferee(s) shall agree towards the Joint Global Coordinators to be bound by the same lock-up undertaking.

The members of the management board of the general partner (the "**Management Board**") currently do not hold shares in the Issuer. However, due to their participation in a management participation program set up by the Selling Shareholder, they may participate in the proceeds from sales of shares in the Issuer by the Selling Shareholder. The relevant arrangements provide that members of the Management Board may only receive cash payments corresponding to up to 25% of that economic interest in the Issuer held through the management participation program as part of the IPO. The remaining interest held by members of the Management Board and not sold in the IPO is subject to a two-year lock-up from the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), provided, however, that a total of 50% of their original interest less any sales made as part of the IPO may be sold from the date that falls one year after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). Any proceeds that – net of taxes – exceed such threshold are required to be reinvested in shares in the Issuer, which will be subject to the lock up described above. Further, two members of the Management Board that will purchase Offer Shares in the Offering in a total amount of €0.65 million, have, with respect to these Offer Shares, entered into lock-up agreements with the Joint Global Coordinators that are substantially similar to the agreements of the Existing Shareholders described above, except for the margin loan option, which is not included in the Management Board lock-up. The lock-up agreements of the two members of the Management Board will expire two years after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), provided, however, that each such member may sell up to 50% of the Offer Shares acquired in the Offering following the first anniversary of the lock-up agreement.

3.10 Admission to the Frankfurt Stock Exchange and Commencement of Trading

The Issuer will apply for admission of its shares to trading on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) and, simultaneously, to the sub-segment thereof with additional post-admission obligations (*Prime Standard*) on or about April 26, 2018. The listing approval for the Issuer's shares is expected to be granted on May 8, 2018. Trading in the Issuer's shares on the Frankfurt Stock Exchange is planned to commence on May 9, 2018.

3.11 Designated Sponsors

J.P. Morgan and Morgan Stanley have been mandated as designated sponsors of the Issuer's shares traded on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). Pursuant to the designated sponsor agreement between the relevant designated sponsor and the Issuer, each designated sponsor will, among other things, place limited buy and sell orders for the Issuer's shares in the electronic trading system of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*) during regular trading hours. This is intended to achieve greater liquidity in the market for the Issuer's shares.

3.12 Interests of Parties Participating in the Offering

The Underwriters act for the Issuer and the Existing Shareholders on the Offering and coordinate the structuring and execution of the Offering. Upon successful implementation of the Offering, the Underwriters will receive a commission, and the size of this commission depends on the results of the Offering. As a result of these contractual relationships, the Underwriters have a financial interest in the success of the Offering at the best possible terms.

Furthermore, in connection with the Offering, each of the Underwriters and any of their respective affiliates may take up a portion of the Offer Shares in the Offering as a principal position and in that capacity may retain, purchase or sell for its own account such shares or related investments and may offer or sell such shares or other investments otherwise than in connection with the Offering. In addition, certain of the Underwriters or their affiliates may enter into financing arrangements (including swaps or contracts for differences) with investors in connection with which Underwriters (or their affiliates) may from time to time acquire, hold or dispose of shares in the Issuer. None of the Underwriters intend to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

Some of the Underwriters or their affiliates have, and may from time to time in the future continue to have, business relations with our Group or may perform services for our Group in the ordinary course of business for which they have received or may receive customary fees and commissions.

The Selling Shareholder will receive the proceeds from the sale of the Secondary Shares, if and to the extent the Upsize Option is exercised, and the proceeds from the exercise of the Greenshoe Option, if any (after deduction of fees and commissions). Assuming full exercise of the Upsize Option at the mid-point of the Price Range, and after deducting fees and expenses to be paid by the Selling Shareholder in connection with the Offering, the proceeds to the Selling Shareholder from the Offering would amount to approximately €369.8 million, or 24.3% of the total net proceeds from the Offering (see "*4. Proceeds of the Offering and Costs of the Offering and Listing*"). Accordingly, the Selling Shareholder has an interest in the success of the Offering at the best possible terms.

GvH 33 committed to invest a total amount of €100 million under and as part of the Offering. Based on an Offer Price at the mid-point of the Price Range, the total number of Offer Shares purchased by GvH 33 would be 8,000,000 Offer Shares, which represent approximately 6.4% of the Offer Shares, assuming that all 125,293,906 Offer Shares are placed. GvH 33 has been guaranteed full allocation of its Offer Shares. GvH 33 committed to invest a total amount of €100 million under and as part of the Offering. Based on an Offer Price at the mid-point of the Price Range, the total number of Offer Shares purchased by GvH 33 would be 8,000,000 Offer Shares, which represent approximately 6.4% of the Offer Shares, assuming that all 125,293,906 Offer Shares are placed. GvH 33 has been guaranteed full allocation of its Offer Shares. This investment could result in a conflict of interest. The investment may conflict with GvH 33's general interest in a high Offer Price and high valuation of its stake in the Issuer, as the investment may create an interest of GvH 33 in a low Offer Price.

Other than the interests described above, there are no material interests, in particular no material conflicts of interest, with respect to the Offering.

4. PROCEEDS OF THE OFFERING AND COSTS OF THE OFFERING AND LISTING

The Issuer targets gross proceeds of €1,186,495,327.00, which is the amount of gross proceeds the Issuer would receive if all 112,999,554 New Shares were placed at the low end of the Price Range. If the final offer price exceeds the low end of the Price Range, the Issuer will reduce the number of New Shares with a view to keeping the gross proceeds attributable to the Issuer at approximately €1,186.5 million. Accordingly, the number of New Shares would amount to 112,999,554 New Shares at the low end, 94,919,626 New Shares at the mid-point and 81,827,263 New Shares at the high end of the Price Range.

Assuming an Offer Price at the low end, mid-point and high end of the Price Range and that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively), the gross proceeds from the Offering will amount to €1,524.4 million, €1,566.2 million and €1,607.9 million, respectively. The Issuer will only receive the proceeds of the Offering resulting from the sale of the New Shares. The Issuer will not receive any proceeds from the sale of the Secondary Shares, if any, or the Over-Allotment Shares.

The gross proceeds to the Selling Shareholder depend on if and the extent to which Secondary Shares are sold pursuant to the Upsize Option and the Offer Price. Assuming full exercise of the Upsize Option and full exercise of the Greenshoe Option, i.e., 13,198,347 shares subject to the Greenshoe Option at the low end of the Price Range, 11,390,355 shares at the mid-point of the Price Range and 10,081,118 shares at the high end of the Price Range, the Issuer estimates that at the low end, mid-point and high end of the Price Range gross proceeds attributable to the Selling Shareholder would amount to €337.9 million, €379.7 million and €421.4 million, respectively.

The costs of the Issuer and the Selling Shareholder related to the Offering of the Offer Shares and listing of the Issuer's entire share capital consist of commissions payable to the Underwriters and other expenses related to the Offering. The commissions payable to the Underwriters depend on the gross proceeds from the Offering and consist of a base fee of 1.25% of the gross proceeds from the Offering and a discretionary fee of 1.00% of the gross proceeds from the Offering. The other expenses related to the Offering are essentially fixed.

Assuming an Offer Price at the low end, mid-point and high end of the Price Range and that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively), and assuming further full exercise of the Greenshoe Option and full payment of the discretionary fee of up to €15.2 million, €15.7 million and €16.1 million, at the low end, mid-point and high end of the Price Range, respectively, the commission payable to the Underwriters will amount to €34.3 million, €35.2 million and €36.2 million, respectively. Thereof, €26.7 million, €26.7 million and €26.7 million are attributable to the placement of the New Shares and will be borne by the Issuer, €4.5 million, €5.3 million and €6.2 million are attributable to the placement of the Secondary Shares and will be borne by the Selling Shareholder and the remaining €3.1 million, €3.2 million and €3.3 million, respectively, are attributable to the placement of the Over-Allotment Shares and will be borne by the Selling Shareholder.

The other costs related to the Offering are estimated to total €12.0 million and will be split between the Issuer on the one hand and the Existing Shareholders on the other hand according to the number of New Shares on the one hand and the number of Secondary Shares and, to the extent the Greenshoe Option is exercised, the number of Over-Allotment Shares on the other hand placed in the Offering. The cost to be borne by the Existing Shareholders will be split according to their shareholding in the Issuer as of the date of this prospectus (*i.e.*, 53% of the cost will be borne by GvH 33 and 47% by the Selling Shareholder), as described in more detail in "*13.4 DT III Agreement*". Assuming an Offer Price at the low end, mid-point and high end of the Price Range and that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively) and assuming further full exercise of the Greenshoe Option, €9.3 million, €9.1 million and €8.9 million are attributable to the placement of the New Shares and will be borne by the Issuer, €0.7 million, €0.9 million and €1.0 million are attributable to the placement of the Secondary Shares and will be borne by the Selling Shareholder and the remaining €0.5 million, €0.5 million and €0.5 million, respectively, are attributable to the placement of the Over-Allotment Shares and will be borne by the Selling Shareholder. Finally, €1.4 million, €1.5 million and €1.7 million will be borne by GvH 33.

Based on the commissions and costs described above and assuming that the maximum number of Offer Shares is placed (145,181,826, 125,293,906 or 110,892,306 Offer Shares at the low end, mid-point or high end of the Price Range, respectively) and assuming further full exercise of the Greenshoe Option and full payment of the discretionary fee, the Issuer estimates that at the low end, mid-point and high end of the Price Range, net proceeds attributable to the Issuer would amount to approximately €1,150.5 million, €1,150.7 million and €1,150.9 million, respectively, and net proceeds attributable to the Selling Shareholder would amount to approximately €329.1 million, €369.8 million and €410.5 million, respectively.

The costs of the Issuer and the Existing Shareholders related to the Offering of the Offer Shares and listing of the Issuer's entire share capital, including underwriting and placement commissions payable to the Underwriters, are expected to total approximately €47.2 million at the mid-point of the price range (assuming placement of 125,293,906 Offer Shares, full exercise of the Greenshoe Option and payment of the discretionary fee in full). Of the total costs, the Selling Shareholder will bear approximately €9.9 million, GvH 33 will bear €1.6 million and the Issuer will bear the remaining €35.8 million.

Investors will not be charged expenses by the Issuer, the Selling Shareholder or the Underwriters. Investors will have to bear customary transaction and handling fees charged by their brokers or other financial institutions through which they hold their securities.

5. REASONS FOR THE OFFERING AND LISTING AND USE OF PROCEEDS

The Issuer intends to list its shares on the regulated market segment (*regulierter Markt*) of the Frankfurt Stock Exchange with simultaneous admission to the sub-segment of the regulated market with additional post-admission obligations (*Prime Standard*) to achieve better access to the capital markets. The Issuer also intends to pursue the Offering to receive the proceeds from the placement of the New Shares to optimize its financing structure.

In 2013, through its subsidiary Springer Science+Business Media Deutschland GmbH as lead borrower, the Issuer entered into a senior credit agreement, last amended on November 30, 2017 (the "**Senior Credit Agreement**"). The Senior Credit Agreement provides for, among others, term loans of approximately €1.98 billion and $1.29 billion. As of December 31, 2017, the aggregate carrying amount outstanding under these term loans was €3.01 billion. While the Senior Credit Agreement contains a change-of-control clause, it does not require the Issuer to repay its obligations under the Senior Credit Agreement in the event of an initial public offering of the Issuer's shares. However, the Issuer intends to use the net proceeds of the Offering accruing to the Issuer to reduce its obligations under these term loans and a shareholder loan of €80 million provided by GvH 33 as lender (the "**Shareholder Loan II**"). After application of the net proceeds, the Issuer expects €2.01 billion to remain outstanding under the Senior Credit Agreement. The Issuer intends to repay the remaining amounts outstanding under the Senior Credit Agreement with borrowings under a new senior credit agreement entered into by the Issuer and certain of its subsidiaries, as borrowers, on April 12, 2018. For further information on the Senior Credit Agreement, the Shareholder Loan II, other material financing agreements and the new senior credit agreement, see "*12.8.1 Financing Agreements*" and "*12.8.3 Post-IPO Facility Agreement*", respectively.

The Selling Shareholder intends to partially use the net proceeds resulting from the sale of the Secondary Shares, if any, subject to the exercise of the Upsize Option, and the Over-Allotment Shares to pay for the class B preferred shares (*Vorzugsgeschäftsanteile*) in SSBM One it acquired from GvH 33 prior to the registration of the IPO Capital Increase in connection with the dissolution of financing instruments (the "**One B Shares**") (for more information, see "*15.1.1 Current and Future Share Capital; Shares*"). Furthermore, the Selling Shareholder intends to divest its stake in the Issuer and to ensure sufficient free float and trading liquidity in the Issuer's shares.

6. DIVIDEND POLICY; RESULTS AND DIVIDENDS PER SHARE; USE OF PROFITS

6.1 General Provisions Relating to Profit Allocation and Dividend Payments

The shareholders' share of the Issuer's profits is determined based on their respective interests in the Issuer's share capital. The New Shares will have the same participation in the profits as the existing shares.

With regard to a partnership limited by shares (*Kommanditgesellschaft auf Aktien*), the amounts and distributions of dividends on shares for a given fiscal year are generally determined by a process in which the general partner (or general partners) of the Issuer and the supervisory board of the Issuer submit a joint proposal for the distribution of dividends, which is then adopted by a resolution of the shareholders who participate in the Issuer's share capital (*Grundkapital*), who are excluded from the management of the Issuer and not personally liable for the Issuer's debts (*Kommanditaktionäre*), in the annual general shareholders' meeting held within the first eight months of the subsequent fiscal year. Due to the majority interest they will hold in the Issuer, certain shareholders will be in a position to influence the Issuer's dividend policy (see "*1. Risk Factors*"). Dividends resolved during the annual general shareholders' meeting are payable on the first working day after such meeting.

Under German law, dividends can only be resolved upon and paid if the unconsolidated financial statements of the Issuer, which are prepared in accordance with the German Commercial Code (*Handelsgesetzbuch*) show distributable profits (*Bilanzgewinn*). The unconsolidated financial statements of the Issuer are approved by the general shareholders' meeting with the consent of the general partner (or general partners) of the Issuer. In contrast to the Issuer's consolidated financial statements, which are prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e (1) or Section 315a (1) of the German Commercial Code (*Handelsgesetzbuch*), the unconsolidated financial statements are prepared in accordance with the accounting principles of the German Commercial Code and other applicable German law. These accounting regulations differ from IFRS in material respects. When determining the distributable profit, net income or loss for the year (*Jahresüberschuss/-fehlbetrag*) must be reduced by profit/loss carry-forwards (*Gewinn-/Verlustvorträge*) from the prior fiscal year and releases of or allocations to reserves. Certain reserves are required to be set up by law, and amounts mandatorily allocated to these reserves in the given fiscal year must be deducted when calculating the distributable profit. Subject to certain statutory restrictions, the general shareholders' meeting is entitled to transfer additional amounts to the reserves or carry them forward.

Dividends resolved by the general shareholders' meeting are due and payable immediately after the relevant general shareholders' meeting, unless provided otherwise in the dividend resolution, in compliance with the rules of the respective clearing system. Dividends resolved by the general shareholders' meeting on or after January 1, 2018 will be due and payable on the third business day following the resolution of the general shareholders' meeting. Clearstream Banking Aktiengesellschaft will transfer the dividends to the shareholders' custodian banks for crediting to their accounts and German custodian banks are under an obligation to distribute the funds to their customers. Shareholders using a custodian bank located outside Germany must inquire at their respective bank regarding the terms and conditions applicable in their case. Notifications of any distribution of dividends resolved upon are published in the German Federal Gazette (*Bundesanzeiger*) immediately after the general shareholders' meeting. To the extent dividends can be distributed by the Issuer in accordance with the German Commercial Code (*Handelsgesetzbuch*) and corresponding decisions are taken, there are no restrictions on shareholder rights to receive dividends.

Any dividends not claimed within the past three years become time-barred. If dividend payment claims expire, the Issuer becomes the beneficiary of the dividends. Generally, withholding tax (*Kapitalertragsteuer*) is withheld from dividends paid. For more information on the taxation of dividends, see "*19.3. Taxation of Dividends of Shareholders with a Tax Residence in Germany*", "*19.4 Taxation of Dividends of Shareholders without a Tax Residence in Germany*" and "*20.1.2 Taxation of Dividend Income*").

6.2 Dividend Policy and Earnings per Share

A dividend payment will be made in accordance with applicable laws, and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements. In respect of the year ending December 31, 2018, the Issuer is targeting a dividend payment of €110 million; payable in 2019. Thereafter, the Issuer intends to pay an annual dividend to its shareholders in the amount of approximately 50% of the Group's net result for the period adjusted for deferred taxes and amortization expenses concerning acquisition-related intangible assets referring to fair value adjustments recognized in connection with business combinations. Our future ability to pay dividends may be limited by the terms of any existing and future debt or preferred securities.

No distributions of profits or reserves were made to our shareholders in any of the years ended December 31, 2015 and December 31, 2016, as we reported a negligible profit for the year in 2015 and a loss for the year in 2016 and no reserves were dissolved in 2015 or 2016. In the Issuer's unconsolidated financial statements as of and for the year ended December 31, 2017, the Issuer's capital reserves were partly dissolved in an amount of €32.1 million to cover the net loss for the year 2017 of €1.3 million, the loss carry forward from 2016 of €0.8 million and to show accumulated profits of €30.0 million for 2017. Of the accumulated profits for 2017, €20 million are to be distributed to the Existing Shareholders, with the remaining €10 million being carried forward. For information on the contractual arrangements between the Issuer and the Existing Shareholders concerning the €20 million dividend payment, see "*13.4 DT III Agreement*".

7. CAPITALIZATION AND INDEBTEDNESS; STATEMENT ON WORKING CAPITAL

The following tables set forth, on an unaudited basis, (i) the Group's actual capitalization and indebtedness as of February 28, 2018, derived from the Issuer's internal reporting system prior to the implementation of the Offering, (ii) the adjustments for the capital increase by way of conversion of capital reserves and the adjustments for the dissolution of financing instruments, (iii) the adjustments for the Offering and intended use of proceeds and (iv) the sum of (i) through (iii). The adjustments in (iii) are based on the assumptions that the Offering had taken place on February 28, 2018 at the mid-point of the Price Range, that 94,919,626 New Shares and all Secondary Shares had been placed and that the Greenshoe Option is exercised in full and do not reflect any tax effects.

Investors should read these tables in conjunction with "*9. Selected Consolidated Financial Information*", "*10. Management's Discussion and Analysis of Financial Condition and Results of Operations*", and the audited consolidated financial statements as of and for the year ended December 31, 2017, including the notes thereto, which are included in this prospectus, beginning on page F-2.

7.1 Capitalization

	As of February 28, 2018 (i)	**Adjustments for the capital increase by way of conversion of capital reserves and dissolution of financing instruments (ii)[1]**	**Adjustments for the Offering and intended use of proceeds (iii)[2]**	**Total (iv)[3]**
		(in €million) **(unaudited)**		
Total current debt[4]	**830.8**	**–**	**–**	**830.8**
Thereof guaranteed	–	–	–	0.0
Thereof secured[5]	61.9	–	–	61.9
Thereof unguaranteed/unsecured	768.9	–	–	768.9
Total non-current debt[6]	**5,208.5**	**(969.8)**	**(1,150.7)**	**3,088.0**
Thereof guaranteed	–	–	–	–
Thereof secured[5]	2,967.4	–	(1,070.1)	1,897.3
Thereof unguaranteed/unsecured	2,241.1	(969.8)	(80.6)	1,190.7
Total shareholder's equity[7]	**(86.1)**	**969.8**	**1,147.8**	**2,031.5**
Share capital	0.1	190.0	94.9	285.0
Legal reserve[8]	748.6	779.8	1,052.9	2,581.3
Other reserves[9]	(834.8)	**–**	**–**	(834.8)
Total[10]	**5,953.2**	–	**(2.9)**	**5,950.4**

[1] Reflects (a) the increase of the Issuer's share capital from €100,000.00 by €189,900,000.00 to €190,000,000.00 by way of conversion of capital reserves and (b) the dissolution of financing instruments as described in "*3.4.1. Current and Future Share Capital; Form of the Shares*".

[2] Reflects (a) the inflow of the net proceeds from the Offering of approximately €1,150.7 million, based on estimated expenses related to the Offering and commissions payable to the Underwriters in a total amount of approximately €35.8 million, (b) the application of the net proceeds to partially repay the term loans under the Senior Credit Agreement and a shareholder loan provided by GvH 33 as lender and (c) a dividend payment of €20 million to our Existing Shareholders net of a contribution by the Existing Shareholders into the Issuer's free capital reserves of €17.1 million resulting in a net payment of €2.9 million, with such €2.9 million being the difference between the €20 million dividend claim and the expenses of the Offering to be borne by the Existing Shareholders at the mid-point of the Price Range under the DT III Agreement as described in more detail under "*13.4 DT III Agreement*". The adjustments in this column are based on the assumption that the Offering had taken place on February 28, 2018 and do not reflect any tax effects.

[3] Shows our capitalization as adjusted to reflect the increase of the Issuer's share capital and the dissolution of financing instruments as described in footnote (1) above as well as the effects of the Offering and the application of the proceeds therefrom as described in footnote (2) above.

[4] Referred to as short-term provisions and current liabilities in the Issuer's consolidated statement of financial position.

[5] Securities provided relate to share pledges, asset pledges (mainly IP) and pledges of the trade receivables.

[6] Referred to as long-term provisions and non-current liabilities in the Issuer's consolidated statement of financial position.

[7] Shareholder's equity presented is the sum of (i) share capital and capital reserves each as of February 28, 2018 each as referred to in the Issuer's consolidated statement of financial position and (ii) retained earnings/other accumulated equity and net result for the period attributable to owners of the parent each as of December 31, 2017 each as shown in the Issuer's audited consolidated financial statements as of and for the year ended December 31, 2017.

[8] Referred to as capital reserves in the Issuer's consolidated statement of financial position.

[9] Sum of retained earnings/other accumulated equity and net result for the period attributable to owners of the parent each as of December 31, 2017 each as shown in the Issuer's audited consolidated financial statements as of and for the year ended December 31, 2017. Other reserves does not include other comprehensive loss for the period (after taxes)

attributable to owners of the parent or net result for the period attributable to owners of the parent for the two months ended February 28, 2018 as the Issuer did not prepare a consolidated statement of profit or loss and consolidated statement of comprehensive income for the two months ended February 28, 2018 for the purpose of the capitalization statement.

(10) Sum of (i) total current debt, total non-current debt each as of February 28, 2018 and (ii) shareholder's equity which partly consists of items as of December 31, 2017 as described in footnote (7) above.

7.2 Indebtedness

	As of February 28, 2018 (i)	Adjustments for the capital increase by way of conversion of capital reserves and dissolution of financing instruments (ii)[1]	Adjustments for the Offering and intended use of proceeds (iii)[2]	As adjusted to reflect the effects of the Offering (iv)[3]
		(in €million) (unaudited)		
A. Cash[4]	98.2	–	(2.9)	95.3
B. Cash equivalents	–	–	–	–
C. Trading securities	–	–	**–**	**–**
D. Liquidity (A)+(B)+(C)	**98.2**	–	**(2.9)**	**95.3**
E. Current financial receivables	–	–	–	–
F. Current bank debt[5]	61.9	–	–	61.9
G. Current portion of non-current debt[6]	35.0	–	–	35.0
H. Other current financial debt[7]	8.6	–	–	8.6
I. Current Financial Debt (F)+(G)+(H)	**105.5**	**–**	**–**	**105.5**
J. Net current financial indebtedness (I)-(E)-(D)	**7.3**	**–**	**2.9**	**10.2**
K. Non-current bank loans[8]	2,967.4	–	(1,070.1)	1,897.3
L. Bonds issued	–	–	–	–
M. Other non-current loans[9]	1,211.7	(969.8)	(80.6)	161.3
N. Non-current financial liabilities (K)+(L)+(M)	**4,179.1**	**(969.8)**	**(1,150.7)**	**2,058.6**
O. Net financial indebtedness (J)+(N)	**4,186.4**	**(969.8)**	**(1,147.8)**	**2,068.8**

[1] Reflects (a) the increase of the Issuer's share capital from €100,000.00 by €189,900,000.00 to €190,000,000.00 by way of conversion of capital reserves and (b) the dissolution of financing instruments as described in "*3.4.1 Current and Future Share Capital; Form of the Shares*".

[2] Reflects (a) the inflow of the net proceeds from the Offering of approximately €1,150.7 million, based on estimated expenses related to the Offering and commissions payable to the Underwriters in a total amount of approximately €35.8 million, (b) the application of the net proceeds to partially repay the term loans under the Senior Credit Agreement and a shareholder loan provided by GvH 33 as lender and (c) a dividend payment of €20 million to our Existing Shareholders net of a contribution by the Existing Shareholders into the Issuer's free capital reserves of €17.1 million resulting in a net payment of €2.9 million, with such €2.9 million being the difference between the €20 million dividend claim and the expenses of the Offering to be borne by the Existing Shareholders at the mid-point of the Price Range under the DT III Agreement as described in more detail under "*13.4 DT III Agreement*". The adjustments in this column are based on the assumption that the Offering had taken place on February 28, 2018 and do not reflect any tax effects.

[3] Shows our indebtedness as adjusted to reflect the effects of the Offering and the application of the proceeds therefrom as described in footnote (2) above.

[4] Referred to as cash and cash equivalents in the Issuer's consolidated statement of financial position.

[5] Referred to as current interest-bearing loans and borrowings in the Issuer's consolidated statement of financial position.

[6] Referred to as current finance lease liabilities in the Issuer's consolidated statement of financial position.

[7] Other current financial debt includes the net market values of the interest rate hedges and the market value of the embedded floor component.

[8] Referred to as non-current interest-bearing loans and borrowings in the Issuer's consolidated statement of financial position.

[9] Other non-current loans includes liabilities to shareholders and non-current finance lease liabilities as referred to in the Issuer's consolidated statement of financial position.

7.3 Indirect and Contingent Indebtedness

As of December 31, 2017, indirect and contingent indebtedness included guarantees and securities of €24.5 million and contingent payment obligations under journal content contribution agreement. The remaining term of these journal content contribution agreement varies between two to five years. We expect payment obligations of €52.1 million in 2018, decreasing obligations for 2019 and slightly increasing obligations for the following years. There was no significant change in indirect and contingent indebtedness between December 31, 2017 and February 28, 2018.

7.4 Statement on Working Capital

The Issuer is of the opinion that the Group is in a position to meet the payment obligations that become due within at least the next twelve months from the date of this prospectus.

8. DILUTION

According to its audited consolidated financial statements as of and for the year ended December 31, 2017, the net book value of the Issuer as of December 31, 2017 corresponds to negative €83.7 million (total assets of €5,709.6 million less long-term provisions and non-current liabilities of €5,020.7 million and short-term provisions and current liabilities of €772.6 million). The net book value per share (equity per share), which corresponds to the net book value divided by the number of outstanding Issuer's shares immediately prior to the Offering, would amount to negative €0.44 per Issuer's share based on 190,000,000 outstanding Issuer's shares immediately prior to the Offering.

The dilutive effect of the Offering is illustrated in the table below demonstrating the amount by which the Offer Price at the low end, mid-point and high end of the Price Range exceeds the net book value per share attributable to shareholders after completion of the Offering assuming the below described steps of the Offering had taken place on December 31, 2017. In this respect, the net book value attributable to shareholders as of December 31, 2017 is adjusted for the effects of the Offering, assuming (i) the execution of the IPO Capital Increase for 112,999,554 New Shares at the low end, 94,919,626 New Shares at the mid-point and 81,827,263 New Shares at the high end of the Price Range and (ii) an increase in the net book value attributable to shareholders at the low end of the Price Range by €1,150.5 million, at the mid-point of the Price Range by €1,150.7 million and at the high end of the Price Range by €1,150.9 million. The assumed increase is based on the expected net proceeds not considering any tax effects. The adjusted net book value attributable to shareholders is expressed as a per share figure, assuming 302,999,554, 284,919,626 and 271,827,263 outstanding shares of the Issuer at the low end, mid-point and high end of the Price Range, respectively, upon completion of the Offering (this per share figure being referred to as the "**Post-IPO Equity attributable to Shareholders per Share**").

	As of December 31, 2017		
	Low End	Mid-Point	High End
	(in € million, unless otherwise indicated)		
Offer price per share (in €)	10.50	12.50	14.50
Total gross proceeds to the Issuer	1,186.5	1,186.5	1,186.5
Estimated total costs of the Offering to be borne by the Issuer (including underwriting and placement commissions payable to the Underwriters and assuming further payment in full of the discretionary fee)	36.0	35.8	35.6
Total net proceeds to the Issuer	1,150.5	1,150.7	1,150.9
Equity per share as of December 31, 2017 (assuming 190,000,000 outstanding shares of the Issuer immediately prior to the Offering) (in €)	(0.44)	(0.44)	(0.44)
Post-IPO Equity attributable to Shareholders per Share (in €)	3.52	3.74	3.93
Amount by which the Offer Price per share exceeds the Post-IPO Equity attributable to Shareholders per Share (immediate dilution to the new shareholders of the Issuer per share) (in €)	6.98	8.76	10.57
Percentage by which the Offer Price per share exceeds the Post-IPO Equity attributable to Shareholders per Share (in %)	66.5	70.0	72.9
Amount by which the Post-IPO Equity attributable to Shareholders per Share exceeds the net book value per share immediately prior to the Offering (immediate accretion to the Existing Shareholders of the Issuer per share) (in €)	3.96	4.19	4.37
Percentage by which the Post-IPO Equity attributable to Shareholders per Share exceeds the net book value per share immediately prior to the Offering (in %)	n/a[1]	n/a[1]	n/a[1]

[1] As the net book value per share attributable to shareholders prior to the Offering is a negative number while the Post-IPO Equity attributable to Shareholders per Share is a positive number, the indication of a percentage by which the Post-IPO Equity attributable to Shareholders per Share exceeds the net book value per share immediately prior to the Offering is not meaningful.

Each of the New Shares will have the same voting rights as the Issuer's existing shares. For further information, see "*13.3 Controlling Interest*".

Prior to the Offering, the Existing Shareholders held 100% of the voting rights of the outstanding shares. Upon completion of the Offering (including exercise of the Upsize Option as well as of the Greenshoe Option in full), the aggregate voting rights held by the Existing Shareholders would amount to 55.2%, 58.8% and 61.7% (taking into account the acquisition of 9,523,809, 8,000,000, and 6,896,551 Offer Shares by GvH 33) at the low end, mid-point and high end of the Price Range, respectively.

9. SELECTED CONSOLIDATED FINANCIAL INFORMATION

The financial information contained in the following tables is taken or derived from the Issuer's audited consolidated financial statements as of and for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 and the Issuer's internal reporting system. The audited consolidated financial statements have been prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e (1) or Section 315a (1) of the German Commercial Code (Handelsgesetzbuch).

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart, office Berlin, Germany, has audited in accordance with Section 317 of the German Commercial Code (Handelsgesetzbuch) and German generally accepted standards for financial statement audits and issued an unqualified independent auditor's report with respect to our German language consolidated financial statements and our German language unconsolidated financial statements as of and for the year ended December 31, 2017 and an unqualified audit opinion with respect to our German language consolidated financial statements as of and for the years ended December 31, 2016 and December 31, 2015, respectively. The audited unconsolidated financial statements have been prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (Handelsgesetzbuch). The aforementioned audited consolidated financial statements and unconsolidated financial statements of the Issuer and the respective independent auditor's reports as well as audit opinions thereon are included in this prospectus.

Where financial information in the following tables is labelled "audited", this means that it has been taken from the applicable audited financial statements mentioned above. The label "unaudited" is used in the following tables to indicate financial information that has not been taken from the audited financial statements mentioned above but rather was taken from the Issuer's internal reporting system, or has been calculated based on figures from the sources mentioned before. Financial information presented in the text and tables below is shown in millions of euro (€ million) and is commercially rounded to one digit after the decimal point. Changes, including percentage changes, are calculated based on the numbers as presented in this prospectus and commercially rounded to one digit after the decimal point. As a result of rounding effects, the aggregated figures in the tables may differ from the totals shown and the aggregated percentages may not exactly equal 100%. In addition, rounded totals and subtotals in the tables may vary marginally from unrounded figures indicated elsewhere in this prospectus. Furthermore, in those tables, these rounded figures may not add up exactly to the totals contained in those tables.

Financial information presented in parentheses denotes the negative of such number presented. In respect of financial information set out in this prospectus, a dash ("–") signifies that the relevant figure is not available, while a zero ("0.0") signifies that the relevant figure is available but has been rounded to or equals zero.

The following selected financial information should be read together with sections "2.7 Presentation of Financial Information", "10. Management's Discussion and Analysis of Net Assets, Financial Condition and Results of Operations" and the consolidated financial statements including the related notes contained elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that should be expected in the future.

9.1 Consolidated Statement of Profit or Loss

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Revenues	1,637.2	1,624.7	1,470.7
Other operating income	74.8	82.8	58.3
Internal costs capitalized[1]	41.5	43.4	28.6
Change in inventories[1]	(1.0)	(4.3)	(20.1)
Cost of materials	(179.6)	(204.8)	(197.3)
Royalty and license fees	(125.7)	(118.4)	(119.4)
Personnel costs	(541.6)	(514.4)	(457.1)
Other operating expenses	(386.8)	(393.8)	(365.6)
Income from associates and other investments	3.0	1.4	1.2
Gains/losses from the disposal of businesses/investments	(0.8)	2.1	0.0
Earnings before interest, taxes, depreciation and amortization (EBITDA)	**521.0**	**518.7**	**399.3**
Amortization and impairment of intangible assets	(369.2)	(253.3)	(243.3)
Depreciation and impairment of property, plant and equipment[2]	(17.4)	(16.8)	(16.4)
Result from operations	**134.4**	**248.6**	**139.6**
Financial expenses	(400.9)	(439.1)	(388.8)
Financial income	204.2	88.3	69.3
Financial result	**(196.7)**	**(350.8)**	**(319.5)**
Earnings before taxes	**(62.3)**	**(102.2)**	**(179.9)**
Income taxes	(4.3)	(20.6)	36.0
Net result for the period	**(66.6)**	**(122.8)**	**(143.9)**
Net result attributable to:			
Owners of the parent	(68.2)	(122.5)	(141.6)
Non-controlling interests	1.6	(0.3)	(2.3)

[1] Our consolidated statement of profit or loss has been prepared using the total cost method (nature of expense) according to which the entire income within a certain reporting period is contrasted with the entire expenses, which includes income from internal costs capitalized as well as expenses/income from change in inventories. Internal costs capitalized represents costs associated with the development of self-developed software and internal costs for content creation. These costs are included in the expense items of the consolidated statement of profit or loss and relate, in particular, to cost of materials and personnel costs. To the extent such costs can be capitalized in the consolidated statement of financial position as other intangible assets, they are accounted in the consolidated statement of profit or loss in the line item internal costs capitalized in order to offset the recorded expense impact. Change in inventories represents the change in inventories at the end of the reporting period compared to the end of the relevant preceding reporting period.

[2] Shown as depreciation of property, plant and equipment in the Issuer's audited consolidated financial statements as of and for the year ended December 31, 2016 and December 31, 2015.

9.2 Consolidated Statement of Financial Position

	As of December 31,		
	2017	2016	2015
		(audited) (in € million)	
Assets			
Goodwill	1,253.2	1,330.0	1,346.9
Other intangible assets	3,573.7	3,923.4	4,154.5
Property, plant and equipment	153.0	155.2	173.0
Investments in associates	25.9	20.3	7.6
Financial assets	2.3	4.2	5.3
Other non-current assets	6.9	8.7	12.5
Deferred tax assets	8.4	7.6	8.5
Non-current assets	**5,023.4**	**5,449.4**	**5,708.3**
Inventories	63.2	73.7	84.2
Trade receivables	416.9	464.5	477.3
Income tax receivables	19.2	16.1	10.2
Other current assets	64.1	65.2	91.3
Cash and cash equivalents	122.8	97.0	117.3
Current assets	**686.2**	**716.5**	**780.3**
Total assets	**5,709.6**	**6,165.9**	**6,488.6**
Equity and liabilities			
Share capital	0.1	0.1	0.1
Capital reserves	748.7	771.2	771.2
Retained earnings/other accumulated equity	(766.6)	(561.4)	(206.1)
Net result for the period attributable to owners of the parent	(68.2)	(122.5)	(141.6)
Shareholders' equity	**(86.0)**	**87.4**	**423.6**
Non-controlling interests	2.3	(4.2)	(2.3)
Equity	**(83.7)**	**83.2**	**421.3**
Liabilities to shareholders	1,032.7	955.2	882.3
Provisions for pensions and other long-term employee benefits	261.9	265.8	215.2
Interest-bearing loans and borrowings	2,976.2	3,097.0	3,058.6
Finance lease liabilities	0.4	6.1	7.0
Other long-term provisions and non-current liabilities	17.3	22.4	17.0
Deferred tax liabilities	732.2	825.3	898.3
Long-term provisions and non-current liabilities	**5,020.7**	**5,171.8**	**5,078.4**
Interest-bearing loans and borrowings	71.8	83.8	77.4
Finance lease liabilities	6.5	1.3	1.3
Provisions	18.8	28.5	34.7
Trade payables	130.3	134.4	127.1
Income tax payables	51.0	26.5	24.3
Other current liabilities	202.9	315.9	347.6
Deferred income	291.3	320.5	376.5
Short-term provisions and current liabilities	**772.6**	**910.9**	**988.9**
Total equity and liabilities	**5,709.6**	**6,165.9**	**6,488.6**

9.3 Consolidated Statement of Cash Flows Data

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Net cash from operating activities	444.8	402.2	341.7
Net cash from investing activities	(189.4)	(177.1)	(110.2)
Net cash from financing activities	(222.6)	(245.7)	(175.3)
Change in cash and cash equivalents	32.8	(20.6)	56.2
Cash and cash equivalents at beginning of the period	97.0	117.3	66.9
Cash and cash equivalents at end of the period	122.8	97.0	117.3

9.4 Segment Information

The following table presents Springer Nature's segment information for the periods indicated:

	For the year ended December 31,	
	2017	2016
	(audited) (in € million)	
Research		
Revenues	1,162.2	1,142.4
EBITDA	**433.4**	430.5
Gains/losses from the disposal of businesses/investments	–	(1.4)
Adjustments (exceptional items)[1]	24.0	32.5
Adjusted EBITDA	**457.4**	**461.6**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(12.9)	(13.2)
Amortization and impairment of intangible assets (excluding amortization and impairment fair value adjustments recognized in connection with business combinations)	(141.4)	(122.0)
Adjusted operating income	**303.1**	**326.4**
Education		
Revenues	272.8	278.3
EBITDA	**43.2**	**48.0**
Gains/losses from the disposal of businesses/investments	2.3	(0.3)
Adjustments (exceptional items)[1]	3.9	2.7
Adjusted EBITDA	**49.4**	**50.4**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(2.3)	(2.0)
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	(15.4)	(12.5)
Adjusted operating income	**31.7**	**35.9**
Professional		
Revenues	203.7	204.8
EBITDA	**43.0**	**41.0**
Gains/losses from the disposal of businesses/investments	–	–
Adjustments (exceptional items)[1]	1.1	2.1
Adjusted EBITDA	**44.1**	**43.1**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(0.8)	(0.8)
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	(3.6)	(3.7)
Adjusted operating income	**39.7**	**38.6**

	For the year ended December 31,	
	2017	2016
	(audited) (in € million)	
Consolidation/other[2]		
Revenues	(1.5)	(0.8)
EBITDA	**1.4**	**(0.8)**
Gains/losses from the disposal of businesses/investments	(1.5)	(0.4)
Adjustments (exceptional items)[1]	–	(0.1)
Adjusted EBITDA	**(0.1)**	**(1.3)**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	–	–
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	–	–
Adjusted operating income	**(0.1)**	**(1.3)**
Group		
Revenues	1,637.2	1,624.7
EBITDA	**521.0**	**518.7**
Gains/losses from the disposal of businesses/investments	0.8	(2.1)
Adjustments (exceptional items)[1] [3]	29.0	37.2
Adjusted EBITDA	**550.8**	**553.8**
Depreciation and impairment of property, plant and equipment (excluding depreciation and impairment on fair value adjustments recognized in connection with business combinations)	(16.0)	(16.0)
Amortization and impairment of intangible assets (excluding amortization and impairment on fair value adjustments recognized in connection with business combinations)	(160.4)	(138.2)
Adjusted operating income	**374.4**	**399.6**
Depreciation and impairment of property, plant and equipment on fair value adjustments recognized in connection with business combinations	(1.4)	(0.8)
Amortization and impairment of intangible assets on fair value adjustments recognized in connection with business combinations	(208.8)	(115.1)
Gains/losses from the disposal of businesses/investments	(0.8)	2.1
Adjustments (exceptional items)[1] [3]	(29.0)	(37.2)
Result from operations	**134.4**	**248.6**

[1] Adjustments (exceptional items) relate to effects occurring outside the ordinary course of business or non-recurring effects, such as the integration and restructuring of businesses or business units, as well as to other exceptional or non-recurring business transactions or events.

[2] Consolidation/other includes the effects from eliminating transactions between the segments as well as profit or loss relating to discontinued operations.

[3] In the year ended December 31, 2017, exceptional items related to (i) expenses resulting from restructuring and integration measures, acquisition projects, group structure and financing projects as well as litigations of €39.2 million, (ii) income from the indemnification agreement between former and current shareholders of Springer Nature of €11.2 million and (iii) preparatory costs in respect of the Offering in 2018 of €1.0 million. In the year ended December 31, 2016 exceptional items related to (i) expenses related to the acquisition of the MSE business of €1.7 million, (ii) expenses resulting from integration-related measures following the acquisition of the MSE business of €13.8 million, (iii) expenses for restructuring measures of €11.4 million and (iv) non-recurring costs and income and expenses for other corporate projects, such as relocation of offices, and litigations of €10.3 million.

9.5 Additional Performance Indicators

The following table presents core working capital as of the dates indicated:

	As of December 31,		
	2017	**2016**	**2015**
	(audited, unless otherwise indicated) **(in € million)**		
Trade receivables	416.9	464.5	477.3
+ Inventories	63.2	73.7	84.2
– Trade payables	(130.3)	(134.4)	(127.1)
– Deferred income	(291.3)	(320.5)	(376.5)
Core working capital (unaudited)	**58.5**	**83.3**	**57.9**

The following table presents our free cash flow for the periods indicated:

	For the year ended December 31,	
	2017	**2016**
	(audited, unless otherwise indicated) **(in € million)**	
EBITDA	**521.0**	**518.7**
Gains/losses from the disposal of businesses/investments	0.8	(2.1)
Adjustments (exceptional items)	29.0	37.2
Adjusted EBITDA	**550.8**	**553.8**
Non-cash expenses and income	(15.1)	(5.3)
Change in non-current provisions and long-term receivables	(15.1)	(16.7)
Change in inventories	*(1.0)*	*6.1*
Change in trade receivables	*28.8*	*2.4*
Change in trade payables	*2.4*	*8.7*
Change in deferred income	*(12.5)*	*(46.8)*
Change in core working capital (unaudited)	17.7	(29.6)
Change in other assets and liabilities	(16.8)	(12.6)
Cash paid for investments in intangible assets	*(31.9)*	*(27.0)*
Cash paid for investments in property, plant and equipment	*(20.0)*	*(17.6)*
Capital expenditure (unaudited)	(51.9)	(44.6)
Cash paid for investment in content	(136.4)	(137.4)
Adjusted pre-tax unlevered free cash flow (unaudited)	**333.2**	**307.6**

9.6 Underlying Growth

The following table presents revenues and adjusted EBITDA for our segments and the Group for the years ended December 31, 2017 and 2016 and provides information on the reported growth and the underlying growth. Underlying growth corresponds to reported growth adjusted for foreign exchange effects and changes in business scope. To eliminate foreign exchange effects, the currency conversion for the years ended December 31, 2016 and December 31, 2017 is conducted using the closing exchange rates as of December 31, 2016 for each currency and applying these exchange rates for all foreign currency transactions included in revenues and adjusted EBITDA. The resulting foreign exchange effects are the difference between the period-to-period change in reported revenues and adjusted EBITDA and the period-to-period change of revenues and adjusted EBITDA based on the currency conversion with constant closing exchange rates as of December 31, 2016, each calculated as percentages. To eliminate changes in business scope, the effects from acquisitions and dispositions of businesses occurred in the years ended December 31, 2016 and December 31, 2017 are eliminated in revenues and adjusted EBITDA for the years ended December 31, 2016 and December 31, 2017 applying the same constant closing exchange rates as of December 31, 2016, respectively. The resulting change in business scope effects are the difference between the period-to-period change of revenues and adjusted EBITDA based on constant exchange rates and the period-to-period change of revenues and adjusted EBITDA based on constant exchange rates and constant business scope, each calculated as percentages.

	For the year ended December 31,					
	2017	2016	Reported Growth	Foreign Exchange Effects	Change in Business Scope	Underlying Growth
	(audited, unless otherwise indicated) (in € million)			(unaudited) (in %)		
Revenues						
Research	1,162.2	1,142.4	1.7	(1.4)	(0.1)	3.2
Education	272.8	278.3	(2.0)	(1.7)	(1.7)	1.4
Professional	203.7	204.8	(0.5)	0.0	(0.5)	0.0
Consolidation/other	(1.5)	(0.8)	n/a	n/a	n/a	n/a
Group	**1,637.2**	**1,624.7**	**0.8**	**(1.2)**	**(0.5)**	**2.5**
Adjusted EBITDA						
Research	457.4	461.6	(0.9)	(2.1)	0.4	0.8
Education	49.4	50.4	(2.0)	(11.1)	1.7	7.4
Professional	44.1	43.1	2.3	(0.7)	(0.9)	3.9
Consolidation/other	(0.1)	(1.3)	n/a	n/a	n/a	n/a
Group	**550.8**	**553.8**	**(0.5)**	**(2.6)**	**0.4**	**1.7**

10. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The financial information contained in the following tables is taken or derived from the Issuer's audited consolidated financial statements as of and for the years ended December 31, 2017, December 31, 2016 and December 31, 2015 and the Issuer's audited unconsolidated financial statements as of and for the year ended December 31, 2017 as well as the Issuer's internal reporting system. The audited consolidated financial statements have been prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e (1) or Section 315a (1) of the German Commercial Code (Handelsgesetzbuch). The audited unconsolidated financial statements have been prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (Handelsgesetzbuch).

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart, office Berlin, Germany, has audited in accordance with Section 317 of the German Commercial Code (Handelsgesetzbuch) and German generally accepted standards for financial statement audits and issued an unqualified independent auditor's report with respect to our German language consolidated financial statements and our German language unconsolidated financial statements as of and for the year ended December 31, 2017 and an unqualified audit opinion with respect to our German language consolidated financial statements as of and for the years ended December 31, 2016 and December 31, 2015, respectively. The aforementioned audited consolidated financial statements and unconsolidated financial statements of the Issuer and the respective independent auditor's reports as well as audit opinions thereon are included in this prospectus.

Where financial information in the following tables is labelled "audited", this means that it has been taken from the applicable audited financial statements mentioned above. The label "unaudited" is used in the following tables to indicate financial information that has not been taken from the audited financial statements mentioned above but rather was taken from the Issuer's internal reporting system, or has been calculated based on figures from the sources mentioned before. Financial information presented in the text and tables below is shown in millions of euro (€ million) and is commercially rounded to one digit after the decimal point. Changes, including percentage changes, are calculated based on the numbers as presented in this prospectus and commercially rounded to one digit after the decimal point. As a result of rounding effects, the aggregated figures in the tables may differ from the totals shown and the aggregated percentages may not exactly equal 100%. In addition, rounded totals and subtotals in the tables may vary marginally from unrounded figures indicated elsewhere in this prospectus. Furthermore, in those tables, these rounded figures may not add up exactly to the totals contained in those tables.

Financial information presented in parentheses denotes the negative of such number presented. In respect of financial information set out in this prospectus, a dash ("–") signifies that the relevant figure is not available, while a zero ("0.0") signifies that the relevant figure is available but has been rounded to or equals zero.

Certain information in the discussion and analysis set forth below and elsewhere in this prospectus includes forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed in these forward-looking statements. See "1. Risk Factors" and "2. General Information" for a discussion of important factors that could cause actual results to differ materially from the results described in the forward-looking statements contained in this prospectus. This discussion and analysis should also be read in conjunction with the financial statements described above, including the notes thereto, and financial information appearing in "2.7 Presentation of Financial Information" and "9. Selected Consolidated Financial Information".

Some of the measures used in this prospectus are not measurements of financial performance under IFRS, but have been prepared on the basis of IFRS amounts, and should not be considered as an alternative to net cash flow from operating activities as a measure of liquidity or as an alternative to net result for the period as indicators of our operating performance or any other measures of performance derived in accordance with IFRS. For a discussion of certain non-IFRS measures used in this section and elsewhere in the prospectus, see "2.7.2 Non-IFRS Financial Measures".

10.1 Overview

We are, by our own estimate, one of the leading publishers of research, educational and professional content. We sell content in the form of journals, books and databases primarily to academic and governmental institutions, corporate customers and individuals. Created through a merger of Springer and MSE in 2015, we combined Springer's scale with Nature's top quality to become the number one publisher in terms of citations per article for English language journals (*Source: JCR 2016)*. We have historically benefited from stable, reliable and resilient revenues. Our innovation-driven approach has positioned us to benefit from the significant growth potential in our industry.

Our core market, research, is characterized by fundamental growth trends. Research and development spending in the OECD countries and China increased between 2009 and 2015 by a compound annual average of 4.4% (*Source: OECD; EIU*), significantly outpacing the growth of GDP in these regions. The number of researchers and universities also increased significantly. These trends resulted in increased demand on scientists and researchers to publish, resulting in an increase of article output at a compound annual growth rate ("**CAGR**") of 5.0% over the same period (*Source: JCR 2016*). These growth trends favor large, established publishers in the relevant markets, as they would generally be best positioned to benefit from economies of scale.

We report our results in three reportable segments, Research, Education and Professional. Our largest segment, Research, focuses on the publication of academic journals, databases and books in the areas of science, technology and medicine ("**Academic Research**") which, although not indicated, by convention usually also covers humanities and social sciences (HSS) and is intended to do so in this prospectus. Our Research segment is characterized by a range of established, well respected titles, including our flagship Nature journals, and in 2016 was the market leader by number of top 50-ranked journals by impact factor (*Source: JCR 2016*), an important metric for measuring a journal's influence in the research community. Approximately two million unique editors and peer reviewers contributed to the publications of our Research segment in 2017. By leveraging the unique position of the Nature brand and focusing on growth sectors, our Research segment has continued to successfully launch new journal titles in a very competitive market, and has expanded its strong position in the open access market, which has been one of the growth drivers in the industry. Furthermore, we are the largest publisher of English language academic books by number of titles (*Source: OC&C Report*). Within our books business, we benefit from our focus on digital content delivery and generated 53.0% of our books revenues in 2017 through digital formats compared with an industry average of 27% (*Source: OC&C Report*). In 2016, our Research segment was, by our own estimate, the market leader in open access by number of open access articles published. Further, we seek to benefit from cooperation with partners. This cooperation with partners includes our long-standing business relationship with Digital Science & Research Ltd ("**Digital Science**"), a subsidiary of Georg von Holtzbrinck GmbH & Co. KG (together with its consolidated subsidiaries, the "**Holtzbrinck Publishing Group**"), with respect to software for the simplification and streamlining of the research process. For the year ended December 31, 2017, our Research segment contributed €1,162.2 million, or 71.0%, of our revenues.

Our Education segment specializes in the publication of books and materials for language learning, curricula and, to a smaller extent, higher education in more than 100 countries. In our language learning business, we focus primarily on Spain and Latin America, while our main school publishing markets are Southern Africa, India and Australia. Our Professional segment focuses on publications for road safety education matters, the medical and health industry and business information.

Our operations support all stages of the academic publishing process. We coordinate the peer review process for journal submissions, select the texts for publication in our products, edit the content and secure copyrights. Our key operations as publisher usually comprise the production of journals and books, which includes pre-publishing services such as typesetting, pre-press services and, in the case of physical journals and books, printing. Depending on the product type, we distribute our products through different channels. To enhance the use of these distribution channels, we employ sales and marketing teams that create awareness of our products and establish and maintain contact with existing and future customers. Our fulfillment operations encompass, among other things, order processing, delivery, warehousing and customer services. We have also continuously focused on streamlining our operations, for example by standardizing workflows, automating typesetting and centralizing purchasing and supplies.

We have been a leading academic publishing company for 175 years. Springer was founded in 1842 in Berlin. Over the last 30 years, we have transformed through a number of acquisitions and mergers, such as the merger between Springer and Kluwer N.V.'s Kluwer Academic Publishers business in 2004 and the acquisitions of Rendement Uitgeverij B.V. ("**Rendement**"), a Netherlands-based publisher of business/work-related magazines and material, in 2006, BioMed Central Limited ("**BioMed Central**"), a pioneer in the open access market, in 2008 and Kluwer N.V.'s Wolters Kluwer Health business in 2011. The roots of MSE date back to 1843, when Macmillan Publishers was founded in London and in 1869 launched the journal Nature, which has become the world's most cited scientific journal (*Source: JCR 2016*). MSE was created in 2012 and merged with Springer in 2015 to become Springer Nature.

Our operational set-up is reflected in our financial performance. In 2017, our revenues were €1,637.2 million. Our adjusted EBITDA was €550.8 million in 2017, while our net result for the period was negative €66.6 million in 2017. Our largest segment, Research, accounted for 71.0% of revenues and 83.0% of adjusted EBITDA in 2017.

10.2 Key Factors Affecting our Results of Operations

The following section discusses the external factors and factors resulting from our operating activities that we believe materially affect our results of operations and financial position, and that had a material effect on our business development for the years ended December 31, 2017, December 31, 2016 and December 31, 2015, as well up to the date of this Prospectus, and that may continue to have such an effect in the future. For a discussion of certain factors that may adversely affect our financial position and results of operations, see the risk factors set out in the section headed "*1. Risk Factors*" in this Prospectus.

10.2.1 Resilient Revenues

Historically, our revenues have been relatively unaffected by economic cycles. Customers of our Research segment typically depend on their ability to deliver "must have" content, *i.e.,* information that is critical to users' work and career development. This "must have" content includes highly-ranked journals, including a large number of journals in our portfolio, that our customers do not consider substitutable due to the differentiated nature of the content and lack of overlap among journals. The non-substitutable nature of our published journal content results in a high share of subscription-based revenues in our Research segment. In 2017, subscriptions and contracted sales accounted for 63% of revenues of our Research segment. Changes in our operating model, including as a result of a shift from subscription-based services, could materially impact our results of operations.

The majority of revenues in our Education segment are derived from the so-called open market segment, *i.e.,* the segment where the purchasing decision is made by teachers or private individuals, while our business related to central purchasing decisions taken by a government only accounts for a relatively small portion of our Education segment's sales. Teachers and private individuals have historically exhibited high customer loyalty, which has helped to lessen the impact of short-term fluctuations on our Education segment's revenues. Sales based on central purchasing decisions taken by a government are impacted by changes in the level of available government funding.

Going forward, we will focus product development and sales/marketing strategies on targeting the open market of schools, teachers and learners in markets that are large and show underlying growth trends in demography and spending in the educational sector. Through this focus we expect to further reduce volatility and provide the basis for medium-term growth.

Our Professional segment has the highest exposure to economic cycles, as advertising, which is characterized by cyclical spending patterns, accounts for approximately one quarter of the segment revenues.

10.2.2 Significant Growth in the Academic Research Market

Our largest segment, Research, which contributed 71.0% of our revenues and 83.0% of our adjusted EBITDA in 2017, operates in the Academic Research market. Favorable fundamental trends have resulted in attractive growth of the Academic Research market. Spending on research and development activities in the OECD countries and China increased by a compound annual average of 4.4% between 2009 and 2015 (*Source: OECD; EIU*). The research community has also expanded, as evidenced by an increase in the number of researchers by 2.2% per year from 2009 to 2014 (*Source: MSTI 2017*). In parallel, scientific output increased, with journal articles published increasing at an annual average of 5.0% between 2005 and 2016 (*Source: JCR 2016*). From OC&C's analysis of multiple sources, academic library spending on academic and scientific content increased at a CAGR of 1.7% between 2011 and 2016 (*Source: OC&C Report*), outpacing, for example, the average GDP growth of the United States and the Eurozone. A larger number of researchers and higher article volumes tend to result in higher usage of our products. The growth in this core market has increased demand for our Research products and has helped to support price increases.

10.2.3 Pricing

Funding available to customers in the Research segment, such as libraries, is typically limited and based on annual budgets. Libraries use a significant portion of their available financial resources for purchasing content. In their purchasing decisions, libraries seek to secure as much "must have" content as possible at an acceptable price, leading to competition among Academic Research publishers for a share of libraries' budgets.

As our portfolio comprises a high relative share of unique, “must have” content, we have historically been successful in renewing our existing contracts with libraries and in entering into new contracts with newly created institutions.

When subscription contracts are up for renewal, we typically seek to increase prices. Librarians typically base the price they are willing to pay for content on the volume, *i.e.,* the number of relevant articles they will get, and the usage of these articles by library users. The higher the volume and the higher the usage of the articles covered by the relevant subscriptions, the more librarians are generally willing to pay for such subscription. Further, we constantly seek to enlarge our offering and provide additional content, which positions us well to motivate price increases. During the periods under review, usage increased faster than subscription revenues. Subscription revenues per download based on full-text downloads via SpringerLink was €2.05 in 2017.

Our Education and Professional segments do not benefit from their content or products being of a unique nature. Accordingly, these segments are exposed to greater pricing pressure. For example, in our Education segment, parallel imports and increasing importance of markets for used books have negatively affected our ability to increase our sales prices. In our Professional segment, the emergence of so-called “freemium” models, which provide content at no cost but impose charges for additional features, and the offering of free content through the Internet, have limited our ability to increase prices.

10.2.4 Increasing Number of Offset Deals

During the periods under review, so-called “offset deals” have further gained ground. Under an “offset deal”, a consortium of institutions located in the relevant country gains access to journals in exchange for a lump sum, which is comprised of a readership fee covering access to non-open access content and a publication fee covering article processing charges (“**APCs**”) of a pre-determined number of articles authored by researchers at those institutions. These articles are then made freely available on an open access basis around the world. We have entered into offset deals in a number of countries, including in the United Kingdom, the Netherlands, Sweden and Austria. While these offset deals may not always be as economically attractive as individual contracts, they allow us to capture a large number of customers with a single contract.

10.2.5 Increasing Share in Revenues from Open Access

Under traditional subscription models, the users of journals and eBooks pay for access to content. In the case of eBooks, we in turn pay authors and editors for their contributions. Open access models inverse this model. Publications are made available online, typically free of charge, and authors generally pay us an APC to have their work published in one of our open access publications.

Springer Nature was one of the first academic publishers to actively embrace the opportunities offered by open access, which provides us additional opportunities to generate revenues, as open access publications are funded by authors and/or their funders or the relevant research institutions, not libraries. Accordingly, revenues stemming from APCs are in the short- to medium-term supplementary to the subscription business, not cannibalistic. Some of our journals are among the open access journals with the highest impact factor, providing us with the ability to charge higher APCs for these journals than for journals with average impact factors.

While non-profit open access publishers are increasingly entering the market, putting pressure on the pricing of APCs, open access models are expected to grow much faster than the rest of the market, due to growing publishing volumes and a growing number of journals. Initiatives advocating free access to taxpayer-funded research papers and articles and policies of certain funding institutions have led to an increasing number of authors opting to publish their articles in open access publications instead of traditional subscription-based publications.

10.2.6 Trend towards e-Publishing

Increasing penetration of the Internet has decreased demand for printed journals and books and increased demand for digital content such as e-journals and eBooks. An increase in the sale of eBooks typically also leads to an increasing share of direct sales and package deals, as eBooks, contrary to print books, are typically not sold as individual titles. The increase in e-publishing has also led to a reduction in some of our variable expenses, such as printing, binding and distribution expenses.

Given the minimal direct cost involved with fulfilling a specific eBook order, eBooks – such as digital products in general – tend to have a higher margin than print products, meaning that a higher share of eBooks tends to positively affect our overall margin. eBooks have, however, led to increasing pressure on the pricing of print books.

In our Professional segment, the Internet has led to increasing competition from "freemium" providers, such as insurance companies that provide driving school materials for free in order to receive contact information of persons that just turned 18 and are set to start their independent lives.

10.2.7 Seasonality

The performance of our segments is subject to seasonal fluctuations. In our Research segment, contracts with customers typically expire as of December 31 of the relevant year. Contract renewals are intended to start on January 1 of the following year. While a significant number of contracts are actually entered into on or before January 1, contract negotiations may not be finished or the contracts may not be signed for other reasons by that date. As we only start realizing revenues and EBITDA contributions once the relevant subscription contract is actually entered into, the fact that a portion of our subscription contracts are only entered into after January 1 typically results in lower revenues and EBITDA contribution in the first quarter of a given year than in the other three quarters of that year. With respect to cash flows, as contracts are typically paid for in advance, the contract cycle leads to strong cash inflows in December and the first months of the following year. Depending on whether the payments are actually made before or after the change of the calendar year, we observe significant variances in our reported cash and cash equivalents as of December 31.

Further, our Education business is also subject to seasonal fluctuation, as materials are typically purchased when a new academic year starts, which is typically in August/September in the Northern hemisphere and January in the Southern hemisphere. While the majority of our Education segment's business is generated through customers whose academic year starts in August/September, our production of education materials is spread evenly out over the year, resulting in inventories in our Education segment increasing in the first half of a calendar year and decreasing down in the second half.

10.2.8 Large Fixed Operating Cost Base

Personnel costs and administration expenses/fees, including information technology expenses account for the majority of our operating expenses. These expenses are largely fixed over the short to medium term. Our large fixed cost base means that our costs only react very slowly to demand fluctuations. Accordingly, while an increase in revenues will typically result in a disproportionate increase in results from operations, a decrease in revenues will have a disproportionately negative impact on our results from operations.

10.2.9 Exchange Rate Effects

As we operate globally with significant operations and business outside the Eurozone, we are exposed to foreign exchange rate fluctuations in various currencies, including currency transaction and currency translation risk. To the extent that these currency exposures are not hedged, period-to-period changes in the exchange rates may affect our revenues, results and cash flows and may cause fluctuations in the reported value of our assets and liabilities, including currency derivatives.

The euro/U.S. dollar exchange rate is the most relevant exchange rate for us. In 2017, more than 30% of our revenues were denominated in U.S. dollars. In order to mitigate the impact of euro/U.S. dollar exchange rate fluctuations, we incurred financial debt denominated in U.S. dollars. The nominal values of our U.S. dollar-denominated debt was structured such that the corresponding interest and amortization payments approximately equal the amount of operating cash inflows in U.S. dollars, which reduces the structural currency risk that could arise from currency imbalances in cash flows significantly.

With respect to costs for the development of self-developed software and internal costs for content creation, we incur a significant portion of these costs in British pound sterling. Accordingly, a weakening of the British pound sterling compared to the euro will typically lead to lower cost contributions to internal costs capitalized and vice versa. For example, in 2017, our internal cost capitalized decreased mainly due to a weakening of the British pound sterling compared to the euro.

Furthermore, our consolidated financial statements are subject to movements in exchange rates used for the translation of the financial information of businesses whose functional currencies are not the euro. Period-to-period changes in the exchange rates may affect, for example, our revenues and net result position as well as our equity position.

10.2.10 Interest Rate Effects

Changes in interest rates affect our financial position and results as nearly all of our financial debt has variable interest rates. As we have agreed to floors on our lending rates under the senior credit agreement, any fluctuation of the base interest rates in the U.S. dollar and euro markets above the relevant floors of 1.0% and 0.5%, respectively, will impact our interest expense. However, as the relevant floors are treated as embedded instruments and valued separately, changes in interest rates that also affect the fair market value of the embedded floor component have an impact on our other financial income or other financial expense. Furthermore, negative interest rates have an adverse impact on our results given the fact that interest rate swaps are not floored at 0.0%.

Changes in interest rates also have an impact on our pension provisions. These provisions are calculated using models based on assumptions concerning, among other things, prevailing long-term capital market interest rates. An increase or decrease in the relevant interest rates would, therefore, also affect our provisions for pension obligations.

10.2.11 Ongoing Merger-Related Integration

Springer Nature was created through a merger of Springer and MSE in 2015. As of the date of this prospectus, identified merger cost synergies have to a large extent been realized. The projects completed to date focused on the integration, harmonization and standardization of our products and services. These projects contributed to the improvement of our EBITDA margin from 27.2% in 2015 to 31.8% in 2017. We continue, however, to identify areas in which we can deliver higher quality at lower cost. Current projects include the integration of our procurement processes and supplier management, the defragmentation and harmonization of systems used by our editorial and sales teams, the introduction of SAP in former MSE entities and the harmonization of our IT landscape. We currently expect our merger integration projects to be completed within the next twelve months.

10.2.12 Intangible Assets / Impairment

As of December 31, 2017, goodwill and other intangible assets accounted for 84.5% of our total assets. Goodwill resulted primarily from the acquisition of Springer by Springer Science+Business Media Deutschland GmbH, an indirect subsidiary of the Issuer, in 2013. The acquisition of MSE in 2015 resulted in an increase in goodwill of €60.5 million.

Other intangible assets were identified, measured and recognized mainly in connection with the purchase price allocation after the acquisition of Springer in 2013 and the establishment of Springer Nature in 2015. These other intangible assets mainly relate to publishing rights concerning academic journals and specialist journals, customer relationships/subscriptions in the journal and books business, the “Springer” and “Nature” brands and the exclusive right to use the “Macmillan” brand.

Intangible assets that do not have an indefinite life are subject to regular amortization. Goodwill and other intangible assets with an indefinite life are subject to regular impairment testing on an annual basis, in which the carrying amount is compared to the present value of expected cash flows related to the cash generating unit to which goodwill has been allocated. In 2017, we recorded an impairment loss of €15.2 million related to goodwill and €78.7 million related to the right to use the Macmillan brand, primarily due to adjustments in the growth outlook for our education business and increased discount rates.

10.2.13 Pension Plans

We operate various pension plans for current and former employees and, depending on the plan, their surviving dependents. These plans include defined benefit plans and defined contribution plans. The defined benefit plans are either funded by plan assets, such as external investment funds or pension liability insurance, or they are unfunded. We recognize provisions for the difference between our obligations under defined benefit plans and the fair value of the plan assets. We do not recognize provisions in respect of our defined contribution plans.

Our defined benefit plans relate mainly to the United Kingdom and Germany. These pension plans are closed to new entrants. In the United Kingdom, our pension plans are largely funded by plan assets. The German pension plans are not funded by plan assets. In the periods under review, defined benefit obligations increased due to a decrease in discount rates, while plan assets remained largely stable, leading to an increase in provisions for pension obligations.

10.2.14 Accounting Standard Changes

While there were no significant accounting standard changes during the periods under review, the introduction of IFRS 16 concerning the recognition, measurement, presentation and disclosure of leases will have a significant impact on our assets and liabilities, and results of operations. We intend to apply IFRS 16 with effect as from January 1, 2018. IFRS 16 will lead to an increase of our reported EBITDA. If we had adopted IFRS 16 as of January 1, 2017 using the modified retrospective approach with the same accounting methods (underlying lease classes, calculation of discount rate as of December 31, 2016), the consolidated statement of financial position, our consolidated statement of profit or loss and our consolidated statement of cash flows would be affected as follows:

Consolidated Statement of Profit or Loss	**For the year ended December 31, 2017**	**IFRS 16 adjustments**	**As adjusted for the year ended December 31, 2017**
		(audited) **(in € million)**	
Cost of materials	(179.6)	32.1	(147.5)
Earnings before interest, taxes, depreciation and amortization (EBITDA)	**521.0**	**32.1**	**553.1**
Depreciation and impairment of property, plant and equipment	(17.4)	(27.1)	(44.5)
Result from operations	**134.4**	**5.0**	**139.4**
Financial expense	(400.9)	(8.8)	(409.7)
Income taxes	(4.3)	0.9	(3.4)
Net result for the period	**(66.6)**	**(2.9)**	**(69.5)**

Consolidated Statement of Financial Position	**As of December 31, 2017**	**IFRS 16 adjustments**	**As adjusted as of December 31, 2017**
		(audited) **(in € million)**	
Assets			
Property, plant and equipment	153.0	178.4	331.4
Deferred tax assets	8.4	1.1	9.5

Consolidated Statement of Financial Position	**As of December 31, 2017**	**IFRS 16 adjustments**	**As adjusted as of December 31, 2017**
		(audited) **(in € million)**	
Equity and liabilities			
Finance lease liabilities (non-current)	0.4	162.5	162.9
Deferred tax liabilities	732.2	0.2	732.4
Finance lease liabilities (current)	6.5	26.8	33.3
Deferred income	291.3	(7.1)	284.2

Consolidated Statement of Cash Flows	**For the year ended December 31, 2017**	**IFRS 16 adjustments**	**As adjusted for the year ended December 31, 2017**
		(audited) **(in € million)**	
Net result for the period	**(66.6)**	**(2.9)**	**(69.5)**
Financial expenses	400.9	8.8	409.7
Income taxes	4.3	(0.9)	3.3
Result from operations	**134.4**	**5.0**	**139.4**
Depreciation and impairment of property, plant and equipment	17.4	27.1	44.5
Net cash from operating activities	**444.8**	**32.1**	**476.9**
Cash repayment of finance lease liabilities	(1.4)	(32.1)	(33.5)
Net cash from financing activities	**(222.6)**	**(32.1)**	**(254.7)**

For more information on IFRS 16 and other accounting standard changes, such as the introduction of IFRS 15, see "*10.13 Changes in Accounting Standards*" and the notes to our financial statements on p. F-9 et seq.

10.3 Comparability

Our financial results for 2016 and 2015 are not fully comparable, as we engaged in a number of acquisitions in 2015 as described in more detail below. The contributions of these acquisitions to revenues, income, expenses and results are only reflected in our consolidated statement of profit or loss and our consolidated statement of cash flows for a portion of 2015 since the respective acquisition dates.

On December 23, 2014, BC Partners reached an agreement with Holtzbrinck Publishing Group to merge Springer and MSE. The transaction closed on May 5, 2015. The transaction was accounted for under the acquisition method in line with IFRS 3, with the Issuer (then: Springer SBM Zero GmbH) being the acquirer and MSE being the acquiree. MSE has been consolidated since May 5, 2015 and contributed €483.5 million to revenues and €92.5 million to EBITDA in 2015. Had MSE been consolidated for the full year 2015, it would have contributed €666.9 million to revenues and €98.6 million to EBITDA in 2015.

Further, we acquired J.B. Metzler Verlag GmbH as of August 1, 2015, DriversCoach GmbH as of August 13, 2015 and some assets in the area of healthcare publishing in the Netherlands as of August 25, 2015. The acquisition costs for these acquisitions were €6.2 million, including contingent consideration relating to earn-out provisions of €1.1 million. The earn-out obligations become payable if certain predefined performance measures are on average met during the period 2017 to 2019. Since their initial consolidation, these three businesses contributed €5.8 million to revenues and €1.3 million to EBITDA in 2015. Had the three businesses been consolidated for the full year 2015, they would have contributed €14.6 million to revenues.

10.4 Results of Operations

The following table shows financial information taken from the Issuer's consolidated statement of profit or loss for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Revenues	1,637.2	1,624.7	1,470.7
Other operating income	74.8	82.8	58.3
Internal costs capitalized[1]	41.5	43.4	28.6
Change in inventories[1]	(1.0)	(4.3)	(20.1)
Cost of materials	(179.6)	(204.8)	(197.3)
Royalty and license fees	(125.7)	(118.4)	(119.4)
Personnel costs	(541.6)	(514.4)	(457.1)
Other operating expenses	(386.8)	(393.8)	(365.6)
Income from associates and other investments	3.0	1.4	1.2
Gains/losses from the disposal of businesses/investments	(0.8)	2.1	0.0
Earnings before interest, taxes, depreciation and amortization (EBITDA)	**521.0**	**518.7**	**399.3**
Amortization and impairment of intangible assets	(369.2)	(253.3)	(243.3)
Depreciation and impairment of property, plant and equipment[2]	(17.4)	(16.8)	(16.4)
Result from operations	**134.4**	**248.6**	**139.6**
Financial expenses	(400.9)	(439.1)	(388.8)
Financial income	204.2	88.3	69.3
Financial result	**(196.7)**	**(350.8)**	**(319.5)**
Earnings before taxes	**(62.3)**	**(102.2)**	**(179.9)**
Income taxes	(4.3)	(20.6)	36.0
Net result for the period	**(66.6)**	**(122.8)**	**(143.9)**
Net result attributable to:			
Owners of the parent	(68.2)	(122.5)	(141.6)
Non-controlling interests	1.6	(0.3)	(2.3)

[1] Our consolidated statement of profit or loss has been prepared using the total cost method (nature of expense) according to which the entire income within a certain reporting period is contrasted with the entire expenses, which includes income from internal costs capitalized as well as expenses/income from change in inventories. Internal costs capitalized represents costs associated with the development of self-developed software and internal costs for content creation. These costs are included in the expense items of the consolidated statement of profit or loss and relate, in particular, to cost of materials and personnel costs. To the extent such costs can be capitalized in the consolidated statement of financial position as other intangible assets, they are accounted in the consolidated statement of profit or loss in the line

item internal costs capitalized in order to offset the recorded expense impact. Change in inventories represents the change in inventories at the end of the reporting period compared to the end of the relevant preceding reporting period.

(2) Shown as depreciation of property, plant and equipment in the Issuer's audited consolidated financial statements as of and for the year ended December 31, 2016 and December 31, 2015.

10.4.1 Revenues

We generate revenues primarily from the sale of print or online subscriptions for journals or magazines, APCs, print books, eBooks and advertisements; these revenues are partially offset by discounts and allowances for returns.

The following table shows our revenues for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Revenues from the sale of:			
Journals/journal content	861.2	886.6	766.2
Books/book content	566.3	561.6	527.2
Advertisements	83.8	85.9	80.1
Other revenues[1]	144.4	124.8	106.3
Discounts and allowances	(18.5)	(14.2)	(9.1)
Total revenues	**1,637.2**	**1,624.7**	**1,470.7**

[1] Other revenues mainly include revenues related to consultancy, congresses/seminars, author services and custom publishing.

The following table shows a geographical market breakdown of our revenues based on customer location for the years ended December 31, 2017 and December 31, 2016:

	For the year ended December 31,	
	2017	2016
	(audited) (in € million)	
Germany	256.6	244.2
Europe, Middle East, Africa (excluding Germany)	552.8	528.7
Americas	513.5	540.9
Asia-Pacific	314.3	310.9
Total revenues	**1,637.2**	**1,624.7**

10.4.1.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Revenues increased by 0.8% from €1,624.7 million in 2016 to €1,637.2 million in 2017 primarily due to an increase in revenues in our Research segment driven by strong online subscription sales and an increase in the number of articles published in our open access journals. On an underlying basis, *i.e.*, adjusted for foreign exchange effects and changes in business scope, revenue increased by 2.5% in 2017 compared to 2016.

10.4.1.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Revenues increased by 10.5% from €1,470.7 million in 2015 to €1,624.7 million in 2016. The increase was due to the consolidation and full-year impact of MSE for 2016, versus only eight months of MSE operations being reflected in our results for 2015.

In addition to effects from the MSE acquisition, revenues from the sale of journals/journal content benefited from an increase in APCs related to our open access journals. This increase was attributable to higher submissions, in particular to some flagship journals, the introduction of new open access journals and the conversion of some hybrid journals into full open access journals. Adjusting for the effects of the MSE acquisition, print book revenues decreased in 2016 compared to 2015. This decrease was partially offset by an increase in online book revenues, primarily due to the sale of eBook packages. Adjusting for the effects of the MSE acquisition, advertisement revenues remained stable in 2016 compared to 2015.

10.4.2 Other Operating Income

Other operating income represents currency exchange gains, income from the release of provisions and other liabilities and sundry operating income. The following table shows our other operating income for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	For the year ended December 31,		
	2017	**2016**	**2015**
		(audited) **(in € million)**	
Currency exchange gains[(1)]	33.6	42.6	28.0
Income from the release of provisions and other liabilities	8.4	7.9	4.7
Sundry operating income[(2)]	32.8	32.3	25.6
Total other operating income	**74.8**	**82.8**	**58.3**

[(1)] Currency exchange gains includes realized currency exchange gains from transactions incurred during the year and gains from the year-end valuation of subsidiaries' trade receivables and payables denominated in currencies other than the functional currency.

[(2)] Sundry operating income includes mainly income related to written-off bad debts, rental income and income from services rendered. In 2017, sundry operating income in the amount of €11.2 million related to an indemnification agreement between former and current shareholders. Sundry operating income includes income from transitional services rendered to the Holtzbrinck Publishing Group of €1.5 million in 2017, €5.3 million in 2016 and €10.8 million in 2015.

10.4.2.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Other operating income decreased by 9.7% from €82.8 million in 2016 to €74.8 million in 2017, mainly due to lower currency exchange gains as the strengthening of the U.S. dollar compared to the euro in 2016 did not recur in 2017.

10.4.2.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Other operating income increased by 42.0% from €58.3 million in 2015 to €82.8 million in 2016, mainly due to an increase in currency exchange gains related to the strengthening of the U.S. dollar compared to the euro and an increase in sundry operating income. These increases include effects related to the MSE acquisition.

10.4.3 Internal Costs Capitalized

Internal costs capitalized comprise the capitalized internal costs for the development of self-developed software and internal costs for content creation.

10.4.3.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Internal costs capitalized decreased by 4.4% from €43.4 million in 2016 to €41.5 million in 2017, mainly due to foreign exchange effects due to a weakening of the British pound sterling compared to the euro.

10.4.3.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Internal costs capitalized increased by 51.7% from €28.6 million in 2015 to €43.4 million in 2016, mainly due to the consolidation and full-year impact of MSE for 2016, versus only eight months of MSE operations being reflected in our results for 2015. Further, internal costs capitalized related to the development of databases and platforms increased in 2016 compared to 2015.

10.4.4 Cost of Materials

Cost of materials represents expenses for purchased services as well as raw materials and supplies. The following table shows our cost of materials for the years ended December 31, 2017, 2016 and 2015:

	For the year ended December 31,		
	2017	**2016**	**2015**
		(audited) **(in € million)**	
Purchased services[1]	131.8	156.4	169.9
Raw materials and supplies	47.8	48.4	27.4
Total cost of materials	**179.6**	**204.8**	**197.3**

[1] Purchased services mainly contain costs for printing and binding as well as pre-publishing costs.

10.4.4.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Cost of materials decreased by 12.3% from €204.8 million in 2016 to €179.6 million in 2017. This decrease was driven in part by a decrease in purchased services related to productivity gains, procurement efficiencies and cost-measures in areas outside our sales to institutions. Foreign exchange effects also contributed to the decrease in cost of materials. As a percentage of revenues, cost of materials decreased from 12.6% in 2016 to 11.0% in 2017.

10.4.4.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Cost of materials increased by 3.8% from €197.3 million in 2015 to €204.8 million in 2016. This increase was primarily driven by an increase in costs for raw materials and supplies by 76.6% from €27.4 million in 2015 to €48.4 million in 2016 as a result of MSE being included in our results for the full year 2016, versus only eight months of MSE operations being reflected in our results for 2015. As a percentage of revenues, cost of materials decreased from 13.4% in 2015 to 12.6% in 2016 due to the realization of cost synergies following the merger between Springer and MSE, lower print book volumes in Research and a higher share of pre-publishing costs of books being capitalized.

10.4.5 Royalty and License Fees

Royalty and license fees are comprised of fixed book royalties and royalties on sales paid for acquired and licensed content, which includes payments to authors of books and payments for society owned journals.

10.4.5.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Royalty and license fees increased by 6.2% from €118.4 million in 2016 to €125.7 million in 2017, due to changes in the revenue mix leading to a higher share of book sales, extraordinary royalties and reclassifications. As a percentage of revenues, royalty and license fees increased from 7.3% in 2016 to 7.7% in 2017.

10.4.5.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Royalty and license fees decreased by 0.8% from €119.4 million in 2015 to €118.4 million in 2016, due to a shift from variable to fixed book royalties and reclassifications, resulting in more book royalties being capitalized. In addition, the decline was driven in part by changes in our Research journal portfolio and the renegotiation of certain contracts. As a percentage of revenues, royalty and license fees decreased from 8.1% in 2015 to 7.3% in 2016.

10.4.6 Personnel Costs

Personnel costs represent the main operating expense within the Springer Nature Group and comprise wages and salaries, state social security contributions, pensions and similar expenses and other employee benefits.

The following table shows our personnel costs for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Wages and salaries	441.0	424.0	375.7
State social security contributions	57.0	53.2	52.9
Pension and similar expenses	21.5	18.1	15.8
Other employee benefits	22.1	19.1	12.7
Total personnel costs	**541.6**	**514.4**	**457.1**

10.4.6.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Personnel costs increased by 5.3% from €514.4 million in 2016 to €541.6 million in 2017, mainly due to an increase in the average number of employees (full-time equivalents) in our Research segment driven by subscription journal launches and volume growth in our open access business. Expansion of IT resources and salary increases also contributed to the increase. As a percentage of revenues, personnel costs increased from 31.7% in 2016 to 33.1% in 2017.

10.4.6.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Personnel costs increased by 12.5% from €457.1 million in 2015 to €514.4 million in 2016. This increase was mainly due to an increase in wages and salaries, which rose by 12.9% from €375.7 million in 2015 to €424.0 million in 2016 as a result of an increase in the average headcount due to the consolidation and full-year impact of MSE for 2016, versus only eight months of MSE operations being reflected in our results for 2015. An increase in the average wages and salaries per hour also contributed to the overall increase in personnel expenses.

As a percentage of revenues, personnel costs increased only slightly from 31.1% in 2015 to 31.7% in 2016, as an increase in average wages and salaries per hour was offset by higher volumes and prices for our products and services.

10.4.7 Other Operating Expenses

Other operating expenses comprise administrative expenses and fees, marketing and sales costs, rent and building costs, currency exchange losses and sundry expenses.

The following table shows our other operating expenses for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Administrative expenses and fees[(1)]	146.7	147.9	148.4
Marketing and sales costs	96.5	89.3	80.6
Rent and building costs	51.7	54.1	41.1
Currency exchange losses[(2)]	41.6	36.5	35.9
Sundry expenses[(3)]	50.3	66.0	59.6
Total other operating expenses	**386.8**	**393.8**	**365.6**

[(1)] Administrative expenses and fees mainly consist of expenses relating to information technology, travel costs and consulting fees.

[(2)] Currency exchange losses include realized currency exchange losses from transactions incurred during the year and losses from the year-end valuation of subsidiaries' trade receivables and trade payables denominated in currencies other than the functional currency.

[(3)] Sundry expenses mainly consist of allowances for doubtful trade receivables, cost for temporary staff and purchased services, as well as other taxes. Sundry expenses include expenses for services rendered by the Holtzbrinck Publishing Group under transitional service agreements in the amount of €3.4 million in 2017, €8.4 million in 2016 and €11.6 million in 2015.

10.4.7.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Other operating expenses decreased by 1.8% from €393.8 million in 2016 to €386.8 million in 2017. The decrease was primarily due to a decrease in sundry expenses that was only partially offset by increases in marketing and sales costs and currency exchange losses. As a percentage of revenues, other operating expenses decreased from 24.2% in 2016 to 23.6% in 2017.

10.4.7.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Other operating expenses increased by 7.7% from €365.6 million in 2015 to €393.8 million in 2016. This increase was mainly driven by increases in rent and building costs and marketing and sales costs due to MSE being consolidated for the full year 2016 compared to only about 8 months in 2015. Administrative fees and expenses remained nearly constant, as the effects of the full-year inclusion of MSE in 2016 were offset by the non-recurrence of merger-related expenses incurred in 2015. As a percentage of revenues, other operating expenses decreased from 24.9% in 2015 to 24.2% in 2016.

10.4.8 Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA)

10.4.8.1 *Comparison of the Years Ended December 31, 2017 and 2016*

EBITDA improved by 0.4% from €518.7 million in 2016 to €521.0 million in 2017 as an increase in revenues and a decrease in cost of materials were nearly offset by an increase in personnel costs. Our EBITDA margin, which corresponds to the ratio of EBITDA to revenues, was 31.9% in 2016 and 31.8% in 2017.

Adjusted for gains/losses from the disposal of businesses/investments and exceptional items, our adjusted EBITDA decreased slightly from €553.8 million in 2016 to €550.8 million in 2017. On an underlying basis, *i.e.*, adjusted for foreign exchange effects and changes in business scope, adjusted EBITDA increased by 1.7% in 2017 compared to 2016.

10.4.8.2 *Comparison of the Years Ended December 31, 2016 and 2015*

EBITDA improved by 29.9% from €399.3 million in 2015 to €518.7 million in 2016 due to the positive impact of the full-year inclusion of MSE in 2016 on revenues that was only partially offset by an increase in personnel costs and other operating expenses. Our EBITDA margin improved from 27.2% in 2015 to 31.9% in 2016, in part due to the impact of integration projects.

10.4.9 Amortization and Impairment of Intangible Assets

Amortization and impairment of intangible assets includes amortization of other intangible assets and as well as impairment losses recognized for other intangible assets and goodwill.

The following table shows amortization of other intangible assets and impairment of goodwill and other intangible assets for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	For the year ended December 31,		
	2017	**2016**	**2015**
	(audited, unless otherwise indicated) (in € million)		
Amortization of other intangible assets	268.5	249.2[1]	228.1[2]
Impairment of goodwill and other intangible assets	100.7	4.1[1]	15.2[2]
Amortization and impairment of intangible assets	**369.2**	**253.3**	**243.3**

[1] Taken from the Issuer's audited consolidated financial statements as of and for the year ended December 31, 2017.

[2] Unaudited.

10.4.9.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Expenses for amortization and impairment of intangible assets increased by 45.8% from €253.3 million in 2016 to €369.2 million in 2017 due to an increase in impairment of goodwill and other intangible assets driven by the impairment losses of €15.2 million related to goodwill and €78.7 million related to the right to use the Macmillan brand mentioned above.

10.4.9.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Expenses for amortization and impairment of intangible assets increased by 4.1% from €243.3 million in 2015 to €253.3 million due to an increase in amortization of other intangible assets driven by the acquisition of MSE. This increase was partially offset by a decrease in expenses for impairment of goodwill and other intangible assets, as an impairment charge of €11.0 million in 2015 related to goodwill of the Healthcare business unit and the papers business did not recur in 2016.

10.4.10 Depreciation and Impairment of Property, Plant and Equipment

Items included in property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives.

10.4.10.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Depreciation and impairment of property, plant and equipment increased by 3.6% from €16.8 million in 2016 to €17.4 million in 2017 due to an impairment loss of €0.6 million for a premise in Namibia.

10.4.10.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Depreciation of property, plant and equipment increased by 2.4% from €16.4 million in 2015 to €16.8 million in 2016. The increase was primarily due to the consolidation and full-year impact of MSE for 2016, versus only eight months of MSE operations being reflected in our results for 2015.

10.4.11 Result from Operations

10.4.11.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Result from operations declined by 45.9% from €248.6 million in 2016 to €134.4 million in 2017 due to an increase in expenses for amortization and impairment of intangible assets driven primarily by an impairment loss of €78.7 million related to the right to use the Macmillan brand.

Adjusting result from operations for (i) amortization and impairment of intangible assets on fair value adjustments recognized in connection with business combinations, (ii) depreciation and impairment of property, plant and equipment on fair value adjustments recognized in connection with business combinations, (iii) gains/losses from the disposal of businesses/investments and (iv) exceptional items, adjusted operating income decreased from €399.6 million in 2016 to €374.4 million in 2017 due to an increase in amortization expenses.

10.4.11.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Result from operations improved by 78.1% from €139.6 million in 2015 to €248.6 million in 2016 due to a strong improvement in EBITDA against only slight increases in amortization, depreciation and impairment expenses.

10.4.12 Financial Result

The financial result represents financial expense, which is broken down into interest expenses and other financial expenses, and financial income, which is broken down into interest income and other financial income.

The following table shows our financial result for the years ended December 31, 2017, December 31, 2016 and December 31, 2015:

	For the year ended December 31,		
	2017	**2016**	**2015**
		(audited) **(in € million)**	
Interest expenses[(1)]	(235.8)	(257.7)	(276.6)
Other financial expenses[(2)]	(165.1)	(181.4)	(112.2)
Financial expenses	**(400.9)**	**(439.1)**	**(388.8)**
Interest income[(3)]	4.4	5.4	4.7
Other financial income[(4)]	199.8	82.9	64.6
Financial income	**204.2**	**88.3**	**69.3**
Financial result	**(196.7)**	**(350.8)**	**(319.5)**

[1] Interest expenses mainly comprise interest expenses relating to financial liabilities, interest rate hedging transactions and the application of the effective interest method as well as the net interest expense relating to our pension obligations.

[2] Other financial expenses are comprised of (i) expenses from measuring the fair value of financial instruments, (ii) losses from the year-end measurement of subsidiaries' financial liabilities carried in other currencies than the functional currency of the respective subsidiary, (iii) realized currency exchange losses from financing activities during the year, (iv) losses from marking the Springer Nature Group's financial derivatives to market and (v) other financing-related costs.

[3] Interest income mainly includes interest income from funds, income from loan receivables and other interest income.

[4] Other financial income includes (i) gains from the year-end valuation of subsidiaries' financial debt incurred in other currencies than the functional currency of the respective subsidiary, (ii) gains from the market valuation of the Springer Nature Group's financial derivatives and (iii) realized currency exchange gains from intra-group financing activities incurred during the year.

10.4.12.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Our financial result improved by 43.9% from a loss of €350.8 million in 2016 to a loss of €196.7 million in 2017, due to a decrease in financial expenses and an increase in financial income.

The decrease in financial expenses was primarily due to a decrease in interest expenses as a result of the refinancing of private high-yield bonds with senior bonds in 2016 and 2017. Other financial expenses decreased due to a decrease in other financing-related costs and a decrease in realized currency exchange losses that were only partially offset by increases in expenses from measuring the fair value of financial instruments, and losses for the year-end measurement of subsidiaries' financial liabilities carried in other currencies than the functional currency of the respective subsidiary.

Other financial income increased primarily due to gains from the market valuation of financial derivatives. Realized currency exchange gains from intra-group financing activities and gains from the year-end valuation of subsidiaries' financial debt incurred in other currencies than the functional currency of the respective subsidiary also contributed to the increase.

10.4.12.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Our financial result deteriorated by 9.8% from a loss of €319.5 million in 2015 to a loss of €350.8 million in 2016, due to an increase in financial expenses that was only partially offset by an increase in financial income.

The increase in other financial expenses was due to an increase in expenses from measuring the fair value of financial instruments from €46.8 million in 2015 to €75.6 million in 2016, an increase in losses from the year-end measurement of subsidiaries' financial liabilities carried in other currencies than the functional currency from €24.4 million in 2015 to €63.6 million in 2016, an increase in other financing-related costs from €6.0 million in 2015 to €25.8 million in 2016 and an increase in losses from marking the Springer Nature Group's financial derivatives to market from €0.0 million in 2015 to €1.6 million in 2016. Realized currency exchange losses from financing activities decreased from €35.0 million in 2015 to €14.8 million in 2016. Other financing-related costs of €21.0 million in 2016 related to the refinancing of a portion of our private high-yield bonds with senior bonds at a lower interest rate.

Other financial income increased due to an increase in gains from the market valuation of the Springer Nature Group's financial derivatives from €18.7 million in 2015 to €40.5 million in 2016 that was only partially offset by a decrease in gains from the year-end valuation of subsidiaries' financial debt incurred in other currencies than the functional currency of the respective subsidiary, from €43.5 million in 2015 to €42.3 million in 2016, and a decrease in realized currency exchange gains from intra-group financing activities incurred during the year from €2.4 million in 2015 to €0.1 million in 2016.

10.4.13 Earnings before Taxes

10.4.13.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Earnings before taxes improved by 39.0% from a loss of €102.2 million in 2016 to a loss of €62.3 million in 2017, as a decrease in result from operations was more than offset by an improvement in financial result.

10.4.13.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Earnings before taxes improved by 43.2% from a loss of €179.9 million in 2015 to a loss of €102.2 million in 2016 due to a strong improvement in results from operations that was only partially offset by a deterioration in the financial result.

10.4.14 Income Taxes

Income taxes represent current income taxes and deferred income taxes. The following table shows the income taxes for the years ended December 31, 2017, 2016 and 2015:

	For the year ended December 31,		
	2017	**2016**	**2015**
		(audited) **(in € million)**	
Current income taxes	(71.9)	(58.4)	(33.6)
Deferred taxes	67.6	37.8	69.6
Total income taxes	**(4.3)**	**(20.6)**	**36.0**

10.4.14.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Total income taxes improved from an expense of €20.6 million in 2016 to an expense of €4.3 million in 2017, as an increase in current income taxes expense was more than offset by an increase in income from deferred taxes related primarily to an increase in tax loss carry forwards.

10.4.14.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Total income taxes changed from an income of €36.0 million in 2015 to an expense of €20.6 million in 2016, due to a 73.8% increase in current income taxes from €33.6 million in 2015 to €58.4 million in 2016 driven by MSE being consolidated for the full year 2016. This increase in expenses was compounded by a 45.7% decrease in income from deferred taxes from €69.6 million in 2015 to €37.8 million in 2016 driven by a decrease in deferred taxes due to tax loss carry forwards and due to temporary differences.

10.4.15 Net Result for the Period

10.4.15.1 *Comparison of the Years Ended December 31, 2017 and 2016*

Net result for the period improved by 45.8% from a loss of €122.8 million in 2016 to a loss of €66.6 million in 2017 due to an improvement in earnings before taxes and in expenses for income taxes.

10.4.15.2 *Comparison of the Years Ended December 31, 2016 and 2015*

Net result for the period improved by 14.7% from a loss of €143.9 million in 2015 to a loss of €122.8 million in 2016 due to a significant improvement in earnings before taxes that was only partially offset by a change in income taxes from income tax income to income tax expenses.

10.5 Segment Discussion

Our Group comprises three reportable segments, Research, Education and Professional.

Segment reporting with comparative numbers for the year ended December 31, 2016 was introduced in our consolidated financial statements as of and for the year ended December 31, 2017. Accordingly, no segment information is available for the year ended December 31, 2015.

10.5.1 Research

The following table presents revenues, EBITDA, adjusted EBITDA and adjusted operating income for our segment Research for the years ended December 31, 2017 and December 31, 2016:

	For the year ended December 31,	
	2017	**2016**
	(audited) **(in € million)**	
Revenues	1,162.2	1,142.4
EBITDA	433.4	430.5
Adjusted EBITDA[(1)]	457.4	461.6
Adjusted operating income[(2)]	303.1	326.4

[(1)] Adjusted EBITDA corresponds to EBITDA adjusted for gains/losses from the disposal of businesses/investments and exceptional items. Exceptional items included in our 2017 and 2016 results are primarily merger and integration related items in the area of information technology and system integration, general reorganization expenses and other non-recurring and exceptional items.

[(2)] Adjusted operating income corresponds to adjusted EBITDA less amortization, depreciation and impairment (excluding amortization, depreciation and impairment on fair value adjustments recognized in connection with business combinations).

10.5.1.1 Revenues

Revenues of our Research segment increased by 1.7% from €1,142.4 million in 2016 to €1,162.2 million in 2017 due to solid growth in institutional sales driven by subscription renewals, successful upsells and new product launches as well as an increase in open access sales leading to higher total APC.

Reported growth was negatively affected by foreign exchange effects, mainly related to a weakening of the U.S. dollar versus the euro. Adjusting for foreign exchange effects and changes in business scope, the underlying growth of revenues from 2016 to 2017 was 3.2%.

The following table shows the revenues split for our Research segment by revenues streams:

	For the year ended December 31,	
	2017	**2016**
	(unaudited, unless otherwise indicated) **(in € million)**	
Institutional sales[(1)]	608.6	605.8
eBook package sales	100.5	94.7
Trade and eCommerce sales[(2)]	130.7	126.7
Article processing charges	122.7	113.6
Healthcare	79.3	76.2
Other (including consolidation)[(3)]	120.4	125.4
Total Research revenues[(4)]	**1,162.2**	**1,142.4**

[(1)] Institutional sales includes sales of print subscriptions, journal print sale surcharges, online subscriptions, online subscription compact, online journal archives, journal licenses, journal article deposits, online book archives, book licenses and book pay-per-view deposits. Institutional sales are made directly to higher education institutions, government research centers and corporations across the world and also via consortia that act as representatives of groups of these entities.

[(2)] Trade and eCommerce sales includes revenues from journal document delivery, print books, single online books, bulk books, eRetail revenues and book pay-per-view delivery.

[(3)] Other includes individual subscriptions/content sales, institutional, publisher and author services, other Nature brand/product extensions as well as advertising and publishing partnership revenues.

[(4)] Audited.

On an underlying basis, the revenues streams developed in 2017 when compared with 2016 as follows:

- Institutional sales and eBook sales, which accounted together for 61.0% of revenues of our Research segment in 2017, increased moderately, due to continued high renewal rates of eJournal licensing contracts, license value increases on the majority of renewed contracts as well as higher revenues from upsells and from the acquisition of new customers. New journal launches, in particular under the Nature brand, and the launch and relaunch of database products also contributed to this increase. These increases in institutional subscription and license revenues were partially offset by a decrease in institutional print subscriptions and one-off journal archive sales effected in 2016 that did not recur in 2017. Higher institutional eBook sales also contributed to the increase.

- Trade and eCommerce sales, which accounted for 11.2% of revenues of our Research segment in 2017, increased significantly, due to an increase in sales of single print books and eBooks, driven by a strong publication title frontlist, due to positive impacts of the integration of sales and fulfillment operations of Springer and MSE and growth in eRetail and sales by our webshops.
- Open access APC revenues, which accounted for 10.6% of revenues of our Research segment in 2017, increased strongly driven by higher submissions of articles.
- Healthcare, which accounted for 6.8% of revenues of our Research segment in 2017, grew strongly, driven by our inScience and Medical communication activities.
- Other revenues, which accounted for 10.4% of revenues of our Research segment in 2017, declined slightly on an underlying basis, as new products and services did not fully compensate for declines in individual subscription and copy sales and advertising revenues.

10.5.1.2 *EBITDA, Adjusted EBITDA*

EBITDA of our Research segment increased by 0.7% from €430.5 million in 2016 to €433.4 million in 2017. The EBITDA margin decreased slightly from 37.7% in 2016 to 37.3% in 2017 due to expenses related to product and process innovation, a decline in certain high margin product sales, integration-related effects and redundancy costs.

Adjusted for gains/losses from the disposal of businesses/investments and exceptional items, adjusted EBITDA decreased by 0.9% from €461.6 million in 2016 to €457.4 million in 2017 due to expenses related to product and process innovation, a decline in certain high margin product sales, integration-related effects and cost redundancies. Adjusting for foreign exchange effects and changes in business scope, the underlying growth of adjusted EBITDA from 2016 to 2017 was 0.8%.

10.5.2 Education

The following table presents revenues, EBITDA, adjusted EBITDA and adjusted operating income for our segment Educational for the years ended December 31, 2017 and December 31, 2016:

	For the year ended December 31,	
	2017	**2016**
	(audited) (in € million)	
Revenues	272.8	278.3
EBITDA	43.2	48.0
Adjusted EBITDA[(1)]	49.4	50.4
Adjusted operating income[(2)]	31.7	35.9

[(1)] Adjusted EBITDA corresponds to EBITDA adjusted for gains/losses from the disposal of businesses/investments and exceptional items. Exceptional items included in 2017 and 2016 are primarily merger and integration and general reorganization related expenses and other non-recurring and exceptional items.

[(2)] Adjusted operating income corresponds to adjusted EBITDA less amortization, depreciation and impairment (excluding amortization, depreciation and impairment on fair value adjustments recognized in connection with business combinations).

10.5.2.1 *Revenues*

Revenues of our Education segment decreased by 2.0% from €278.3 million in 2016 to €272.8 million in 2017 due to negative foreign exchange effects, the discontinuation of our Hong Kong-based publishing services/supply unit, temporary effects due to the deferral of certain third-party revenues and the loss of government orders in Latin America. Adjusting for foreign exchange effects and changes in business scope, the underlying growth of revenues from 2016 to 2017 was 1.4%.

10.5.2.2 *EBITDA, Adjusted EBITDA*

EBITDA of our Education segment decreased by 10.0% from €48.0 million in 2016 to €43.2 million in 2017 due to negative exchange rate developments, which were partially offset by strong operating performance in India and positive effects from cost saving measures. The EBITDA margin decreased slightly from 17.2% in 2016 to 15.8% in 2017.

Adjusted for gains/losses from the disposal of businesses/investments and exceptional items, adjusted EBITDA decreased by 2.0% from €50.4 million in 2016 to €49.4 million in 2017. Adjusting for foreign exchange effects and changes in business scope, the underlying growth of adjusted EBITDA from 2016 to 2017 was 7.4%.

10.5.3 Professional

The following table presents revenues, EBITDA, adjusted EBITDA and adjusted operating income for our segment Professional for the years ended December 31, 2017 and December 31, 2016:

	For the year ended December 31,	
	2017	**2016**
	(audited) **(in € million)**	
Revenues	203.7	204.8
EBITDA	43.0	41.0
Adjusted EBITDA[(1)]	44.1	43.1
Adjusted operating income[(2)]	39.7	38.6

(1) Adjusted EBITDA corresponds to EBITDA adjusted for gains/losses from the disposal of businesses/investments and exceptional items. Exceptional items included in 2017 and 2016 are primarily restructuring related expenses and other non-recurring and exceptional items.

(2) Adjusted operating income corresponds to adjusted EBITDA less amortization, depreciation and impairment (excluding amortization, depreciation and impairment on fair value adjustments recognized in connection with business combinations).

10.5.3.1 *Revenues*

Revenues of our Professional segment decreased by 0.5% from €204.8 million in 2016 to €203.7 million in 2017 due to changes in business scope. Adjusting for foreign exchange effects and changes in business scope, revenues in our Professional segments were stable in 2017 when compared with 2016.

10.5.3.2 *EBITDA, Adjusted EBITDA*

EBITDA of our Professional segment increased by 4.9% from €41.0 million in 2016 to €43.0 million in 2017. The EBITDA margin increased slightly from 20.0% in 2016 to 21.1% in 2017. These increases were mainly due to successful cost management initiatives and the successful integration and development of Dutch healthcare publishing assets that were acquired in August 2015.

Adjusted for gains/losses from the disposal of businesses/investments and exceptional items, adjusted EBITDA increased by 2.3% from €43.1 million in 2016 to €44.1 million in 2017. Adjusting for foreign exchange effects and changes in business scope, the underlying growth of adjusted EBITDA from 2016 to 2017 was 3.9%.

10.6 Assets

The following table provides an overview of our assets as of December 31, 2017, December 31, 2016 and December 31, 2015:

	As of December 31,		
	2017	2016	2015
		(audited) (in € million)	
Goodwill	1,253.2	1,330.0	1,346.9
Other intangible assets	3,573.7	3,923.4	4,154.5
Property, plant and equipment	153.0	155.2	173.0
Investments in associates	25.9	20.3	7.6
Financial assets	2.3	4.2	5.3
Other non-current assets	6.9	8.7	12.5
Deferred tax assets	8.4	7.6	8.5
Non-current assets	**5,023.4**	**5,449.4**	**5,708.3**
Inventories	63.2	73.7	84.2
Trade receivables	416.9	464.5	477.3
Income tax receivables	19.2	16.1	10.2
Other current assets	64.1	65.2	91.3
Cash and cash equivalents	122.8	97.0	117.3
Current assets	**686.2**	**716.5**	**780.3**
Total assets	**5,709.6**	**6,165.9**	**6,488.6**

10.6.1 Non-Current Assets

10.6.1.1 *December 31, 2017 Compared to December 31, 2016*

Non-current assets decreased by 7.8% from €5,449.4 million as of December 31, 2016 to €5,023.4 million as of December 31, 2017. This decrease was primarily due to a decrease in other intangible assets, which accounted for the majority of our non-current and total assets as of both reporting dates. The decrease in other intangible assets in 2017 was mainly due to amortization of €268.4 million, net negative currency translation differences of €173.3 million and impairments, primarily related to the right to use the Macmillan brand as described above.

10.6.1.2 *December 31, 2016 Compared to December 31, 2015*

Non-current assets decreased by 4.5% from €5,708.3 million as of December 31, 2015 to €5,449.4 million as of December 31, 2016. This decrease was primarily due to a decrease in other intangible assets mainly due to amortization of €249.3 million and net negative currency translation differences of €152.8 million that were only partially offset by additions to other intangible assets of €175.8 million relating to co-publishing rights, eBook database content, self-developed software and acquired software.

10.6.2 Current Assets

10.6.2.1 *December 31, 2017 Compared to December 31, 2016*

Current assets decreased by 4.2% from €716.5 million as of December 31, 2016 to €686.2 million as of December 31, 2017 primarily due to a decrease in trade receivables driven by foreign exchange effects and the positive impact of post-merger integration efforts following the merger with MSE which led to a decrease in invoicing cycle delays. These process improvements and the resulting earlier payments by customers contributed to the increase in cash and cash equivalents.

10.6.2.2 *December 31, 2016 Compared to December 31, 2015*

Current assets decreased by 8.2% from €780.3 million as of December 31, 2015 to €716.5 million as of December 31, 2016 due to a decrease in other current assets driven by decreases in receivables from related parties and prepaid expenses, a decrease in inventories driven by lower finished goods and merchandise and raw materials and supplies and a decrease in trade receivables.

10.7 Liabilities

The following table provides an overview of our liabilities as of December 31, 2017, December 31, 2016 and December 31, 2015:

	As of December 31,		
	2017	2016	2015
	(audited, unless otherwise indicated) (in € million)		
Liabilities to shareholders	1,032.7	955.2	882.3
Provisions for pensions and other long-term employee benefits	261.9	265.8	215.2
Interest-bearing loans and borrowings	2,976.2	3,097.0	3,058.6
Finance lease liabilities	0.4	6.1	7.0
Other long-term provisions and non-current liabilities	17.3	22.4	17.0
Deferred tax liabilities	732.2	825.3	898.3
Long-term provisions and non-current liabilities	**5,020.7**	**5,171.8**	**5,078.4**
Interest-bearing loans and borrowings	71.8	83.8	77.4
Finance lease liabilities	6.5	1.3	1.3
Provisions	18.8	28.5	34.7
Trade payables	130.3	134.4	127.1
Income tax payables	51.0	26.5	24.3
Other current liabilities	202.9	315.9	347.6
Deferred income	291.3	320.5	376.5
Short-term provisions and current liabilities	**772.6**	**910.9**	**988.9**
Total provisions and liabilities (unaudited)	**5,793.3**	**6,082.7**	**6,067.3**

10.7.1 Long-Term Provisions and Non-Current Liabilities

10.7.1.1 *December 31, 2017 Compared to December 31, 2016*

Long-term provisions and non-current liabilities decreased by 2.9% from €5,171.8 million as of December 31, 2016 to €5,020.7 million as of December 31, 2017. This decrease was mainly due to a decrease of deferred tax liabilities as a result of the U.S. Tax Cuts and Jobs Act of 2017 and a decrease in non-current interest-bearing loans and borrowings due to foreign exchange effects. An increase in liabilities to shareholders, mainly as a result of fair value adjustments, had a partially offsetting effect.

10.7.1.2 *December 31, 2016 Compared to December 31, 2015*

Long-term provisions and non-current liabilities increased by 1.8% from €5,078.4 million as of December 31, 2015 to €5,171.8 million as of December 31, 2016. This increase was mainly due to capitalized interest on liabilities to shareholders and the refinancing of a €420.0 million private high yield bond with new senior debt of €419.2 million in 2016. In addition, provisions for pensions and other long-term employee benefits increased due to an increase in defined benefit obligations in the United Kingdom and Germany driven by a decrease in the underlying discount rates.

10.7.2 Short-Term Provisions and Current Liabilities

10.7.2.1 *December 31, 2017 Compared to December 31, 2016*

Short-term provisions and current liabilities decreased by 15.2% from €910.9 million as of December 31, 2016 to €772.6 million as of December 31, 2017 due to a decrease in other current liabilities driven by decreases in liabilities related to derivative financial instruments and a decrease in deferred income.

10.7.2.2 *December 31, 2016 Compared to December 31, 2015*

Short-term provisions and current liabilities decreased by 7.9% from €988.9 million as of December 31, 2015 to €910.9 million as of December 31, 2016 due to a decrease in deferred income and other current liabilities driven by decreases in liabilities related to derivative financial instruments and personnel-related liabilities that were only partially offset by an increase in current interest-bearing loans and borrowings and trade payables.

10.8 Equity

The following table provides an overview of our equity as of December 31, 2017, December 31, 2016 and December 31, 2015:

	As of December 31,		
	2017	2016	2015
		(audited) (in € million)	
Share capital	0.1	0.1	0.1
Capital reserves	748.7	771.2	771.2
Retained earnings/other accumulated equity	(766.6)	(561.4)	(206.1)
Net result for the period attributable to owners of the parent	(68.2)	(122.5)	(141.6)
Shareholders' equity	**(86.0)**	**87.4**	**423.6**
Non-controlling interests	2.3	(4.2)	(2.3)
Equity	**(83.7)**	**83.2**	**421.3**

10.8.1 December 31, 2017 Compared to December 31, 2016

Equity changed from positive €83.2 million as of December 31, 2016 to negative €83.7 million as of December 31, 2017 due to a net loss for the period of €66.6 million and other comprehensive loss for the period (after taxes) of €107.3 million in 2016.

10.8.2 December 31, 2016 Compared to December 31, 2015

Equity decreased by 80.3% from €421.3 million as of December 31, 2015 to €83.2 million as of December 31, 2016 due to a net loss for the period of €122.8 million and other comprehensive loss for the period (after taxes) of €213.8 million in 2016.

10.9 Liquidity and Capital Resources

Our primary source of liquidity is net cash from operating activities as well as loans and borrowings from financial institutions, institutional investors and related parties. Short-term liquidity needs are financed through existing cash balances or by drawings under our revolving credit facility. We also use currency swaps on a case-by-case basis to close liquidity gaps in individual currencies using available funds.

10.9.1 Consolidated Statement of Cash Flows

	For the year ended December 31,		
	2017	2016	2015
		(audited) (in € million)	
Net result for the period	**(66.6)**	**(122.8)**	**(143.9)**
Financial expenses	400.9	439.1	388.8
Financial income	(204.2)	(88.3)	(69.3)
Income taxes	4.3	20.6	(36.0)
Result from operations	**134.4**	**248.6**	**139.6**
Amortization and impairment of intangible assets	369.2	253.3	243.3
Depreciation and impairment of property, plant and equipment[1]	17.4	16.8	16.4
Earnings before interest, taxes, depreciation and amortization (EBITDA)	**521.0**	**518.7**	**399.3**
Non-cash expenses and income	(15.1)	(5.3)	16.6
Change in non-current provisions and long-term receivables	(15.1)	(16.7)	(4.2)
Change in inventories	(1.0)	6.1	37.1
Change in trade receivables	28.8	2.4	(127.2)
Change in trade payables	2.4	8.7	7.2
Change in deferred income	(12.5)	(46.8)	19.0
Change in other assets and liabilities	(16.8)	(12.6)	27.1
Income tax payments	(46.9)	(52.3)	(33.2)
Net cash from operating activities	**444.8**	**402.2**	**341.7**
Cash paid for investments in intangible assets	(31.9)	(27.0)	(23.1)
Cash paid for investment in content[2]	(136.4)	(137.4)	(102.0)
Cash paid for investments in property, plant and equipment	(20.0)	(17.6)	(19.5)
Cash paid for investments in financial assets	(0.0)	(0.0)	(1.0)
Cash paid for acquired businesses	(5.4)	(12.3)	(5.8)
Cash and cash equivalents acquired	0.0	–	39.4
Proceeds from divestiture of businesses	2.2	2.2	4.9
Proceeds from disposal of non-current assets	1.2	–	–
Proceeds from disposal of property, plant and equipment	–	6.1	2.0
Proceeds from disposal of intangible assets	–	0.0	2.8
Proceeds from disposal of other financial assets	–	–	0.2
Cash received/(paid) for available-for-sale financial instruments	0.6	8.9	(8.1)
Net change in loans granted	0.3	0.0	–
Net cash from investing activities	**(189.4)**	**(177.1)**	**(110.2)**
Interest paid (including financing-related fees)	(173.2)	(216.8)	(206.6)
Interest received	4.0	5.0	5.2
Cash paid and received for interest	(169.2)	(211.8)	(201.4)
Cash repayment of financial liabilities to third parties	(536.3)	(620.9)	(552.3)
Cash repayments and other payments to shareholders	–	–	(257.1)
Cash received from borrowing financial liabilities from third parties	486.4	589.8	757.0
Cash received from shareholder loans	–	–	80.0
Capital increases	–	–	0.0
Cash paid for dividends paid to non-controlling interests	(2.1)	(1.5)	(0.1)
Cash repayment of finance lease liabilities	(1.4)	(1.3)	(1.4)
Net cash from financing activities	**(222.6)**	**(245.7)**	**(175.3)**
Change in cash and cash equivalents	32.8	(20.6)	56.2
Net foreign exchange difference	(7.0)	0.3	(5.8)
Cash and cash equivalents at beginning of the period	**97.0**	**117.3**	**66.9**
Cash and cash equivalents at end of the period	**122.8**	**97.0**	**117.3**

[1] Shown as depreciation of property, plant and equipment in the Issuer's audited consolidated financial statements as of and for the years ended December 31, 2016 and December 31, 2015.

[2] In 2017 and 2016, cash paid for investment in content included contractually agreed minimum royalty payments under journal co-publishing agreements (2017: €56.0 million, 2016: €66.8 million), cash paid for pre-publishing costs of print and digital front-list publications (2017: €49.6 million, 2016: €41.8 million), cash paid for other database products (2017: €5.7 million, 2016: €7.4 million) and cash paid for product development in our Education segment (2017: €25.1 million, 2016: €21.4 million).

10.9.1.1 *Cash Flow from Operating Activities*

10.9.1.1.1 Comparison of the Years Ended December 31, 2017 and 2016

Net cash from operating activities increased from a cash inflow of €402.2 million in 2016 to a cash inflow of €444.8 million in 2017. This increase was due to a decrease in working capital in 2017 that was only partially offset by a decrease in EBITDA net of non-cash expenses and income.

10.9.1.1.2 Comparison of the Years Ended December 31, 2016 and 2015

Net cash from operating activities increased from a cash inflow of €341.7 million in 2015 to a cash inflow of €402.2 million in 2016. This increase was due to an increase in EBITDA net of non-cash expenses and income that was only partially offset by an increase in personnel costs and other operating expenses. Changes in working capital supported the increase in net cash from operating activities, as working capital increased in 2015 and decreased in 2016. Changes in deferred income, other assets and liabilities and higher income tax payments partially offset these developments.

10.9.1.2 *Cash Flow from Investing Activities*

10.9.1.2.1 Comparison of the Years Ended December 31, 2017 and 2016

Net cash from investing activities changed from a cash outflow of €177.1 million in 2016 to a cash outflow of €189.4 million in 2017 due to lower proceeds from available-for-sale financial instruments and from disposal of non-current assets that were only partially offset by lower cash paid for acquired businesses.

10.9.1.2.2 Comparison of the Years Ended December 31, 2016 and 2015

Net cash from investing activities changed from a cash outflow of €110.2 million in 2015 to a cash outflow of €177.1 million in 2016 due to higher cash paid for investment in content, cash paid for acquired businesses and for investments in intangible assets and lower cash inflows from cash and cash equivalents acquired.

10.9.1.3 *Cash Flow from Financing Activities*

10.9.1.3.1 Comparison of the Years Ended December 31, 2017 and 2016

Net cash from financing activities changed from a cash outflow of €245.7 million in 2016 to a cash outflow of €222.6 million in 2017 due to a decrease in cash outflows related to cash paid and received for interest as a result of the refinancing of private high yield bonds with senior bonds in 2016 and 2017.

10.9.1.3.2 Comparison of the Years Ended December 31, 2016 and 2015

Net cash from financing activities changed from a cash outflow of €175.3 million in 2015 to a cash outflow of €245.7 million in 2016 due to lower cash received from borrowing financial liabilities from third parties and from shareholder loans and higher cash repayment of financial liabilities to third parties. These changes were only partially offset by a decrease in cash repayments and other payments to shareholders.

10.9.2 Capital Expenditure

10.9.2.1 *Major Capital Expenditure in 2015, 2016 and 2017*

In 2015, our capital expenditure, which we define as the sum of cash paid for investments in intangible assets and cash paid for investments in property, plant and equipment, was €42.6 million, consisting of €23.1 million of cash paid for investments in intangible assets and €19.5 million of cash paid for investments in property, plant and equipment. Our capital expenditure in 2015 mainly related to investments into the development of software and the acquisition of a property in Heidelberg. Cash from operating activities was the main source of financing.

In 2016, our capital expenditure was €44.6 million and mainly related to investments into the development of software and the acquisition of hardware and office equipment due to the relocation of some offices following the merger between Springer and MSE. Cash from operating activities was the main source of financing.

In 2017, our capital expenditure was €51.9 million and mainly related to investment in refurbishment and expansion of offices in London and investment aimed at completing projects in the areas of systems integration and workflow system development. Cash from operating activities was the main source of financing.

10.9.2.2 *Major Capital Expenditure since December 31, 2017 and Major Ongoing Capital Expenditure*

As of the date of this prospectus, there are no principal investments that are in progress.

10.9.2.3 *Future Capital Expenditure and Planned Capital Expenditure*

As of the date of this prospectus, our Management Board has not made material commitments on future capital expenditure.

10.9.3 Financial Liabilities

The table below summarizes effective interest rate, carrying amount and remaining term of our financial indebtedness:

		As of December 31, 2017						
			Remaining term in years					
	Effective interest rate	Carrying amount	< 1 to 1	>1 to 2	>2 to 3	>3 to 5	>5	Total
	(in %)				(in € million)			
Shareholder loan instruments[1]	n/a	511.6	–	–	–	–	511.6	511.6
Shareholder loan – BCP	n/a	440.5	–	–	–	440.5	–	440.5
Shareholder loan – GvH 33	n/a	80.6	–	–	–	–	80.6	80.6
Liabilities to shareholders		**1,032.7**	**–**	**–**	**–**	**440.5**	**592.2**	**1,032.7**
Senior loans	5.2	3,008.3	32.1	32.1	32.1	2,912.0	–	3,008.3
Revolving credit facility	2.3	34.0	34.0	–	–	–	–	34.0
Other financial liabilities	0.0	5.7	5.7	–	–	–	–	5.7
Interest-bearing loans and borrowings		**3,048.0**	**71.8**	**32.1**	**32.1**	**2,912.0**	**–**	**3,048.0**
Total		**4,080.7**	**71.8**	**32.1**	**32.1**	**3,352.5**	**592.2**	**4,080.7**

[1] Shareholder loan instruments represent preference shares of €407.2 million that were issued by a subsidiary of the Issuer to GvH 33 on May 5, 2015. Utilization of the preference shares was limited by contractual obligations, so as to give them the structural equivalence of the shareholder loan – BCP. For more information on the shareholder loans and the shareholder loan instruments, see "*15.1.1 Current and Future Share Capital; Shares.*"

10.10 Contingent Liabilities and Other Financial Obligations

As of December 31, 2017, December 31, 2016 and December 31, 2015, we had contingent liabilities relating to co-publishing agreements. Under these agreements, we acquire content and distribute and sell it in certain agreed upon territories. The agreements require that we pay minimum royalties that are subject to final adjustment based on quantity, quality and usage of acquired content. The remaining term of these agreements varies between two and five years. As of December 31, 2017, we expect payment obligations under these contingent liabilities of €52.1 million in 2018, lower obligations in 2019 and slightly increasing obligations for the following years. There were no other contingent liabilities.

Guarantees and securities decreased from €37.6 million as of December 31, 2015 to €35.9 million as of December 31, 2016 and further to €24.5 million as of December 31, 2017. Guarantees to secure day-to-day banks services, such as cash pool activities and overdraft facilities, accounted for the majority of our obligations under guarantee arrangements.

Further, we had obligations from operating leases. The majority of the multi-year lease contracts related to office space. The remainder represented leases for company cars, office equipment and IT infrastructure. Obligations from operating leases increased from €170.8 million as of December 31, 2015 to €210.8 million as of December 31, 2016. In 2017, obligations from operating leases decreased to €205.3 million as of December 31, 2017.

The following table summarizes the maturity structure of our operating lease payments. The values shown in the table are nominal values.

	As of December 31,		
	2017	2016	2015
		(audited) (in € million)	
Less than 1 year	29.7	32.9	32.6
1 to 5 years	91.1	95.8	81.4
More than 5 years	84.4	82.1	56.8
Total operating lease payments	**205.3**	**210.8**	**170.8**

10.11 Quantitative and Qualitative Disclosure of Market and Other Risks

For more information on quantitative and qualitative disclosure of market and other risks, please see the notes to our consolidated financial statements included in pages F-42 et seq.

10.11.1 Exchange Rate Risk

We are exposed to risks in various currencies. Foreign currency exchange rate exposure is partly balanced by having operating costs in the countries in which we are selling our products and services.

Another central measure aimed at offsetting exchange rate risk consists of our split of debt tranches into euro and U.S. dollar denominated sub-tranches. We have taken up financial debt denominated in U.S. dollars, which leads to interest and regular debt repayments in U.S. dollars. The nominal values of the loans are structured such that the corresponding interest and amortization payments approximately equal the amount of operating cash inflows in U.S. dollars, which reduces the structural currency risk that could arise from currency imbalances in cash flows significantly.

The following table summarizes the nominal amounts, the fair values as of December 31, 2017, 2016 and 2015 and the gains and losses recognized for the forward exchange contracts in each of the periods. The nominal amounts represent the total of all underlying selling amounts.

	Nominal value	Fair value	Gains/losses
		(audited) (in € million)	
December 31, 2017	82.0	5.0	(2.6)
December 31, 2016	128.9	(0.8)	(1.4)
December 31, 2015	37.0	(0.3)	1.2

Another risk arises from Group entities with functional currencies other than the euro. The income and expenses of these Group entities were translated into euro using the annual average rate, while assets and liabilities were translated into euro using the closing rate in order to include them in the consolidated financial statements. Changes in the exchange rates may affect, for example, our revenues and net result as well as our equity position.

Our exposure to changes in the fair value of our monetary assets and liabilities depends mainly on the movement in the exchange rate of the U.S. dollar against the euro. The positive exchange rate effect from financial assets and liabilities denominated in U.S. dollars in each of our subsidiaries on our net result before taxes for 2017 is €33.3 million (2016: €39.3 million; 2015: €35.3 million) in the case that the U.S. dollar depreciates by 5.0% against the euro with all other variables held constant. The effect on cash flow is substantially less significant because of the natural hedge relationship through the financing in U.S. dollars.

Based on historic experience and management estimates, a +/- 5 cents change in the euro/U.S. dollar exchange rate would result in a change of approximately +/- €18 million to €20 million in reported revenues and a change of approximately +/- €10 million to €11 million in adjusted EBITDA.

10.11.2 Interest Rate Risk

We are exposed to interest rate risk as our financial debt is subject to variable interest rates. More specifically, as we have agreed to a 0.5%/1.0% floor on our lending rates, any fluctuation of the base interest rates in the U.S. dollar and euro markets above 1.0% and 0.5%, respectively, impact our interest expense. Furthermore, negative interest rates have an adverse impact on our result as well given the fact that interest rate swaps are not floored at 0.0%.

To mitigate the risk resulting from movements in interest rates, we entered into payer swaps (*i.e.,* we pay a fixed rate and receive a variable interest rate) to hedge the floating interest rate loans. As of December 31, 2017, 41.6% of the outstanding nominal amounts of the senior loans (€1,252.0 million; December 31, 2016: €1,347.8 million; December 31, 2015: €1,334.9 million) were hedged at an average fixed hedge rate of 1.96% (December 31, 2016: 1.96%; December 31, 2015:1.30%). These hedges will mature in September 2018. In addition to the already outstanding payer swaps, two new swaps were concluded in 2017 with a nominal amount of €403.3 million. The average hedge rate is 1.34%. These will only come into effect at the end of September 2018 maturing in June 2023. Hence, the hedge ratio will decrease to approximately 14% in the three months ended September 30, 2018.

10.11.3 Credit Risk

The maximum exposure resulting from credit risks is the total of carrying amounts of each class of financial assets as of the relevant reporting date. Our credit risk is, however, mainly the default of customers with open accounts receivable balances. We manage our credit risk from trade receivables based on internal guidelines, *e.g.*, internal limits for each customer and customers with large outstanding or overdue trade receivables are monitored regularly.

An amount of €371.0 million as of December 31, 2017 (December 31, 2016: €420.1 million; December 31, 2015: €455.2 million) of our trade receivables related mainly to the research and education businesses, with a customer base that comprises to a large extent public administrations, universities, companies, wholesalers and agencies with strong credit ratings.

A further component of credit risk management is the constant monitoring of countries (and customers in the respective countries) with political instability and/or under financial distress. Management had no evidence with respect to other given loans that any impairment was necessary.

10.11.4 Liquidity Risk

Liquidity risk for us is the risk of not being able to meet financial obligations in full when these become due for payment. The primary sources of liquidity are the operating businesses, external borrowings and borrowings from related parties.

We manage our liquidity by pooling and aggregating funds from Group entities. Short-term liquidity needs are financed through existing cash balances or by drawing on the revolver. As of December 31, 2017, €13.0 million (December 31, 2016: €13.0 million; December 31, 2015: €13.0 million) of the revolver was earmarked for letters of credit and other purposes in context of the operational business and was not available for liquidity drawings. Furthermore, two ancillary facilities with a total amount of €16.0 million as of December 31, 2017 (December 31, 2016: €16.0 million; December 31, 2015: €16.0 million) are in place in order to facilitate efficient cash management. Those facilities can be used as overdraft facilities but also for other operational purposes like guarantees.

We use foreign currency exchange swaps to efficiently close liquidity gaps in individual currencies using the available funds.

10.12 Significant Accounting Policies

The preparations of our consolidated financial statements in accordance with IFRS require management to make judgements, estimates and assumptions that affect the reported amounts of revenues, income, expenses, assets and liabilities, and the accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amounts of assets or liabilities affected in future periods.

The following judgements made by management in the process of applying our accounting policies have the most significant impact on the amounts recognized in the consolidated financial statements. For more information on our accounting policies, please see please see the notes to our consolidated financial statements included in pages F-15 et seq.

10.12.1 Revenue Recognition

Revenues from the sale of products are recognized when the significant risks and rewards of ownership of the goods are transferred to the customer, the sales price is determinable and receipt of payment can be assumed.

Print subscription revenues for journals/magazines are recognized at the time the journal/magazine is dispatched to the customer. Subscription revenues for academic journals, for which the content is made available electronically to the customer, are recognized *pro rata temporis* over the period of the subscription.

If discounts are granted to customers and the customer settles the invoice within the period the discount relates to, the amount deducted by the customer is recorded as a sales deduction. Revenues are also stated net of allowances and corrections for expected returns.

Interest income and expenses are allocated to the period they relate to. Dividends are recognized in the period in which the distribution is approved.

10.12.2 Goodwill

Goodwill is allocated to a single cash-generating unit ("**CGU**") or a group of cash-generating units that are expected to benefit from the business combination.

Goodwill is not subject to amortization but tested for impairment annually or whenever there is any indication of impairment. It is measured at cost less accumulated impairment losses. Any loss from impairment is recognized immediately in the consolidated statement of profit or loss and is not subsequently reversed.

10.12.3 Other Intangible Assets

Intangible assets acquired as part of a business combination are stated in the statement of financial position at their fair values as at the date of acquisition, less any accumulated amortization and any impairment. Purchased intangible assets are recognized at their acquisition costs plus any directly attributable costs, less any accumulated amortization and any impairment.

If the conditions as set out in IAS 38 are met, internally generated intangible assets are recognized at their developments costs less any accumulated amortization and impairment losses. The development costs comprise all costs directly or indirectly attributable to the assets incurred during the development phase, which begins at the time of having demonstrated the technical feasibility and ends upon completion of the asset.

Intangible assets considered to have a definite life are amortized over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired (triggering event). The following group-wide economic useful lives are assumed:

Intangible asset	Useful life
Internally generated intangible assets	3 to 10 years
Acquired rights and licenses	3 to 10 years
Trademark and publishing rights	10 to 40 years

Intangible assets determined to have indefinite lives are not amortized and are subject to impairment review at least annually. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable.

10.12.4 Impairment of Non-Financial Assets

At each reporting date, or if there is a triggering event, we test intangible assets with an indefinite useful life for any indication of impairment. For intangible assets with a definite useful life and for property, plant and equipment, the impairment testing is done only in case of a triggering event.

If there is such an indication, the asset's recoverable amount is determined. If it is not possible to determine the recoverable amount for an individual asset, the recoverable amount for the CGU to which the asset is allocated is used. The recoverable amount of the asset or the CGU is defined as the higher of its fair value less costs to sell and its value in use. An impairment is recognized if the carrying amount of an asset/a CGU exceeds its recoverable amount. The impairment loss shall be allocated to reduce the carrying amount of the asset of the unit (group of units) in the following order: (a) first, to reduce the carrying amount of any goodwill allocated to the CGU (group of units); and (b) then, to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units). In allocating an impairment loss, the carrying amount of an asset is not reduced below the highest of its fair value less cost of disposal, its value in use and zero. If the reason for a previously recognized impairment loss no longer exists, the impairment is reversed up to amortized costs, with the exception of goodwill.

In 2017, 2016 and 2015, the recoverable amount of CGUs, to which goodwill was allocated, was determined as the value in use. Value in use was determined using a discounted cash flow method. When assessing the value in use for a CGU, our management makes certain assumptions regarding the future cash flows and risk-adjusted capital costs. These assumptions are partially based on internal assumptions based on management planning and partially based on market data and external estimates. These assumptions are subject to change and as such can impact the values in use.

For each of our CGUs, an appropriate discount rate was calculated individually using current market data.

10.12.5 Financial Liabilities

10.12.5.1 *Initial Recognition and Measurement*

Financial liabilities within the scope of IAS 39 are classified as financial liabilities at fair value through profit or loss or as liabilities measured at amortized cost. We determine the classification of our financial liabilities at initial recognition.

Financial liabilities at fair value through profit or loss are initially measured at fair value. Financial liabilities measured at amortized cost are initially recognized at fair value including directly attributable transaction costs.

Our financial liabilities include trade and other payables, bank overdrafts, loans and borrowings, and derivative financial instruments that are not designated as hedging instruments pursuant to IAS 39.

10.12.5.2 *Subsequent Measurement*

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Subsequent measurement is at fair value through profit or loss. Separated embedded derivatives are also classified as held-for-trading. Gains or losses on liabilities held-for-trading are recognized in the consolidated statement of profit or loss.

After initial recognition, liabilities measured at amortized cost are subsequently measured at amortized cost using the effective interest method.

10.12.5.3 *Derecognition*

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability.

10.12.6 Provisions for Pensions and Other Long-Term Employee Benefits

The obligations from defined benefit plans for pensions and other long-term employee benefits are recognized in the consolidated statement of financial position at the present value of the defined benefit obligation at the end of the reporting period less the fair value of allocable plan assets. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. Under this method, not only obligations relating to known vested benefits at the reporting date are recognized, but also future increases in pensions and salaries. This involves taking into account various input factors. The input factors are based upon assumptions and estimates relating to the future development of salaries, relevant biometric factors, interest rates and overall mortality.

The present value of the defined benefit obligations is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefit will be paid, and that have terms to maturity approximately the same as the related pension obligation.

Re-measurements, comprising of actuarial gains and losses, asset ceiling effects, excluding amounts included in net interest on the net defined benefit liability and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognized immediately in the consolidated statement of financial position with a corresponding debit or credit to retained earnings through other comprehensive income in the period in which they occur. Re-measurements are not reclassified to profit or loss in subsequent periods.

10.13 Changes in Accounting Standards

10.13.1 IFRS 9 Financial Instruments

In July 2014, the IASB issued the final version of IFRS 9 (Financial Instruments) that replaces IAS 39 (Financial Instruments: Recognition and Measurements) and all previous versions of IFRS 9. IFRS 9 covers three aspects related to financial instruments: classification and measurement, impairment, and hedge accounting.

IFRS 9 introduces a uniform approach for classifying and measuring financial assets. The standard is based on the characteristics of the underlying cash flows and the business model by which these cash flows are managed. IFRS 9 provides a new impairment model that is based on the expected credit defaults. The standard contains new regulations on the application of hedge accounting in order to better present the risk management activities of an entity, in particular with regard to the management of non-financial risks.

We plan to adopt the new standard as of January 1, 2018 and will not restate comparative information. We performed a detailed impact assessment of all three aspects of IFRS 9. In preparing to adopt IFRS 9, we considered the following:

10.13.1.1 *Classification and measurement*

We do not expect a significant impact on our consolidated statement of financial position or equity on applying the classification and measurement requirements of IFRS 9.

10.13.1.2 *Modifications or exchanges of financial liabilities that do not result in derecognition*

IFRS 9 changes the accounting for a modification or exchange of a financial liability measured at amortized cost that does not result in the derecognition of the financial liability. When contractual cash flows of a financial liability are renegotiated or otherwise modified and the modification does not result in the derecognition of the financial liability, IFRS 9 requires us to recalculate the carrying amount of the financial liability as the present value of the modified contractual cash flows that are discounted at the financial liability's original effective interest rate. Any adjustment to the amortized cost of the financial liability arising from such a modification is recognized in profit or loss at the date of the modification.

Under legacy IFRS, we accounted for changes in future contractual cash flows arising as a result of a modification or exchange by determining a new effective interest rate based on the carrying amount of the original financial liability and the revised cash flows. We have determined that, due to the initial application of IFRS 9, the underlying effective interest rates for the senior loans will increase. This will result in a decrease of the carrying amount of the interest bearing loans and borrowings by approximately €20 million and a corresponding increase in the deferred tax liability as of January 1, 2018. For 2018, the higher effective interest rates will lead to an increase of interest expenses of approximately €20 million.

We will adopt this change retrospectively in accordance with IAS 8.

10.13.1.3 *Impairment*

IFRS 9 requires us to record expected credit losses on all of its loans and trade receivables, either on a 12-month or lifetime basis. Due to the new impairment model, earlier recognition of possible losses on trade receivables will arise. We will apply the simplified approach and record lifetime expected losses on all trade receivables but the impact on receivables will not be material.

10.13.2 IFRS 15 Revenue from Contracts with Customers

In May 2014, the IASB issued IFRS 15, Revenue from Contracts with Customers. According to the new standard, revenues should be recognized at the amount of the consideration that the entity expects to receive upon transfer of the promised goods or services to the customer. IFRS 15 also includes guidance on the presentation of contract balances, that is, assets and liabilities arising from contracts with customers, depending on the relation between the entity's performance and the customer's payment. In addition, the new standard encourages entities to disclose sufficient information to enable readers of financial statements to understand the nature, amount, timing and uncertainty of revenues and cash flows arising from contracts with customers. We plan to adopt the new standard on the required effective date, *i.e.*, January 1, 2018, using the modified retrospective method. IFRS 15 supersedes IAS 11, Construction Contracts and IAS 18, Revenue as well as related interpretations.

10.13.2.1 *Sale of Goods*

For contracts with customers in which the sale of goods, most of all printed journals and books, is generally expected to be the only performance obligation, adoption of IFRS 15 is not expected to have any impact on our revenues and profit or loss.

10.13.2.2 *Rights of Return*

We deliver print books to institutional customers such as book sellers (Research and Education) and public and private schools (Education). For most of these contracts, customers are provided with return rights within a specific time period and / or quality of the returned book.

We will apply the requirements in IFRS 15 on constraining estimates of variable consideration to determine the amount of variable consideration that can be included in the transaction price. We concluded that, when we adopt IFRS 15, no material effect to our consolidated financial statements is expected to occur.

10.13.2.3 *License to Intellectual Property*

We grant online access to customers for their digital journal and eBook content during a contracted license period. According to the license contracts, we grant multiple access rights to upcoming content (published during the license period) and historic content of licensed journals. In assessing the criteria of IFRS 15, we concluded that the license of the intellectual property is a right to access. The obligation is fulfilled over time during the license period and thus recognized on a straight line basis during the term of the license. No material impact on the group profit and loss statement is expected to occur.

10.13.2.4 *Advances Received from Customers*

We receive our yearly subscription payments, especially for print and online journals as well as eBook packages, typically at the beginning of the subscription period. Under the current accounting policy, we present such advances as deferred income under the non-current liabilities in the statement of financial position. When IFRS 15 is adopted, we will reclassify approximately €270 million from the current portion of deferred income to current contract liabilities in the opening balance as of January 1, 2018.

10.13.2.5 *Rendering of Services*

We provide consultation services to customers. We concluded that the services are satisfied over time given that the customer simultaneously receives and consumes the benefits provided by us. Consequently, under IFRS 15, we would continue to recognize revenues for these service contracts over time rather than at a point of time. No material impact on our profit or loss or statement of financial position is expected to occur.

10.13.3 IFRS 16 Leases

IFRS 16 was issued in January 2016 and replaces IAS 17 (Leases) and associated interpretations. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model. The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (*e.g.*, personal computers) and short-term leases (*i.e.,* leases with a lease term of twelve months or less). At the commencement date of a lease, a lessee will recognize a liability to make lease payments (*i.e.,* the lease liability) and an asset representing the right to use the underlying asset during the lease term (*i.e.,* the right-of-use asset). Lessees will be required to separately recognize the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessees will be also required to remeasure the lease liability upon the occurrence of certain events (*e.g.*, a change in the lease term, a change in future lease payments resulting from a change in an index or rate used to determine those payments). The lessee will generally recognize the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

IFRS 16 is effective for annual periods beginning on or after January 1, 2019. Early application is permitted, but not before an entity applies IFRS 15. A lessee can choose to apply the standard using either a full retrospective or a modified retrospective approach. We plan to adopt the new standard as of January 1, 2018 using the modified retrospective approach. We plan to recognize the lease liabilities in the net present value of the remaining lease payments and corresponding right of use assets, adjusted for accrued costs for that lease.

The modified retrospective approach was selected to ensure similar accounting for lease contracts in group and statutory accounts for those jurisdictions, where IFRS is applicable.

We define office space, company cars and other (mainly office equipment) as classes of assets. We generally plan to apply the short-term lease exemption (for leases with a term of 12 months and less) and the exemption to combine lease and non-lease components into a single lease component for all leases over underlying assets belonging to these classes of assets.

The review of the impact of the new standard on our financial statements has shown that the new rules affect in particular the accounting and measurement of rental and leasing contracts, which are currently classified as operating leases. These mainly comprise of leased office space, leased cars and other leased office equipment and IT infrastructure, which will lead to the recognition of respective rights of use and corresponding leasing liabilities resulting in an increase of the total asset/liability figure at first time adoption. For more information on the impact of IFRS 16 on our consolidated statement of financial position, our consolidated statement of profit or loss and our consolidated statement of cash flows, see "*10.2.14 Accounting Standard Changes*".

10.14 Additional Information from the Audited Unconsolidated Financial Statements prepared in accordance with the German Generally Accepted Accounting Principles of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2017

Certain information from the audited unconsolidated financial statements of the Issuer prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2017 is presented below. Such financial statements are included on pages F-179 et seq. in the financial section.

In 2017, the Issuer's other operating income was €0.1 million, compared to other operating income of €0.0 million in 2016.

The Issuer's net loss for the year was €1.3 million in 2017, compared to €0.1 million in 2016.

The Issuer's equity increased from €777.7 million as of December 31, 2016 to €786.0 million as of December 31, 2017 due to a contribution by the Selling Shareholder of €9.5 million into capital reserves. The Issuer's equity according to its unconsolidated financial statements of the Issuer prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2017 deviated significantly from the equity shown in the Issuer's consolidated financial statements as of and for the year ended December 31, 2017 prepared in accordance with IFRS. This difference is due to a number of factors, most importantly the fact that the Group's liabilities to shareholders and interest-bearing loans and borrowings were not incurred by the Issuer, but rather a subsidiary of the Issuer. Accordingly, financial expenses related to these debt instruments are not recorded in the Issuer's unconsolidated financial statements, leading to net losses for the year on an unconsolidated level, *i.e.*, for the Issuer on a stand-alone basis, being much lower than on a consolidated level, *i.e.*, for the entire Group. As these losses directly affect the relevant equity, the Issuer's unconsolidated equity is higher than the Group's consolidated equity.

11. MARKETS AND COMPETITION

Springer Nature is a global publisher of academic journals, books and digital content with a focus on Academic Research disciplines. Through our largest segment, Research, we publish journals and books and operate databases to disseminate academic research to libraries, (semi-)governmental institutions, corporations and individual researchers. In 2017, our Research segment contributed 71.0% to our revenues and 83.0% to our adjusted EBITDA.

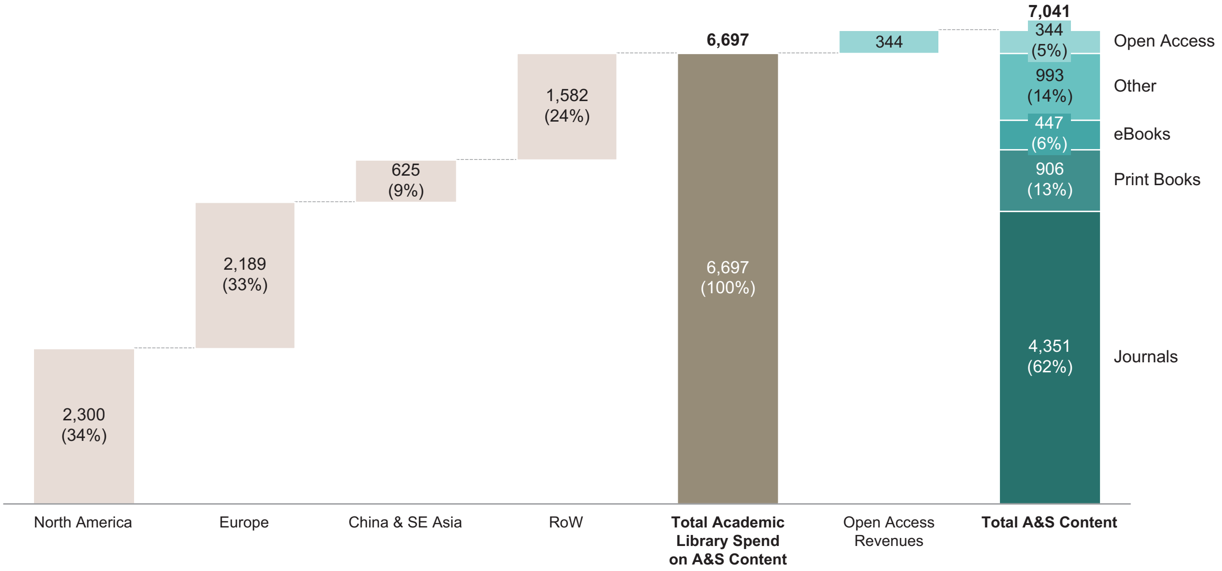
Unless otherwise stated, management estimates mentioned in this section are based on internal market observations and/or studies commissioned by us. This includes a report prepared by OC&C Strategy Consultants Limited, London, United Kingdom ("**OC&C**"), dated March 26, 2018, which is based on OC&C's analysis of multiple third party sources. While we did not verify or modify any of the market data or other data provided by OC&C, we have delivered, upon OC&C's request, certain factual information to OC&C.

11.1 The Academic Publishing Market and the Academic Library Spend Market

11.1.1 Academic Publishing Market, Customers, and Main Players

We operate primarily in the academic publishing market, which encompasses journals, books, eBooks and other content (such as databases and abstracting and indexing platforms) offered to academic and scientific libraries and departments, corporate customers, governmental institutions and other customers (the "**academic publishing market**").

The following chart shows the global spending on academic and scientific content in 2016 by region and product (in € million, of total):



(*Source: OC&C Report*)

From OC&C's analysis of multiple sources, OC&C estimates the size of the academic publishing market in 2016 at approximately €7 billion, including APCs under open access models. Of this, the academic library spending is estimated at approximately €6.7 billion, based on data by several market researchers and databases. According to the OC&C Report, North America accounted for 34% of overall academic publishing expenditure, while Europe accounted for 33%. China and South-East Asia represented 9% of the academic publishing market. The rest of the world, comprising stable and developed markets (such as Japan and Australia) as well as developing markets (for example, India and Brazil), accounted for 24% of the academic publishing market in 2016. Due to the lack of available data, revenues derived under open access models are accounted separately from this regional breakdown. The academic publishing market is projected to reach €7.7 billion in 2020 (*Source: OC&C Report*).

The main product types in the academic publishing market include journals, books, eBooks and abstracting and indexing platforms. According to the OC&C Report, in 2016 journals represented the majority of academic libraries content expenditure (62%), followed by printed books (13%) and eBooks (6%). Open access represented 5%, while other product types together represented approximately 14% of the total academic content expenditure.

The main customer groups in the academic publishing market are higher education institutions (through their academic libraries), governmental institutions, corporate customers and other customers (such as individuals). Academic libraries are typically associated with universities or large consortia. These customers require wide topic coverage across multiple disciplines. Spending by most academic libraries depends on various factors, including funding for higher education by governments, the budget allocated to academic libraries, and levels of higher education enrolment. In contrast, government spending relies on the broader economic environment and general policy decisions. Governments typically focus on content required to meet the specific research needs of their departments or institutions. Corporate budgets in principle depend on the broader economic conditions. These customers tend to pursue a targeted spending approach by demanding a narrow range of content depending on the industry vertical they operate in. Corporate customers also focus on high content usage and application to increase their return on content investment.

The major players within the academic publishing market are commercial publishers, academic societies, and university presses. There are also various niche players in segments that do not relate to academic publishing in a traditional sense, such as healthcare industry data providers and technical information providers.

11.1.2 Role of Publishers

Academic publishers play a key role in the traditional research value chain. They contribute efficiency and neutrality to the publishing process. Publishers are responsible for a series of activities at the interface between authors and their potential readers. For example, publishers' editorial boards determine the strategic direction of each journal and are the arbiters of its contribution to furthering knowledge in the particular discipline the respective journal targets. The peer review process of any journal is the decisive quality assurance mechanism. This process helps maintain credibility, and also evaluates content to prioritize publication timelines and organize themed issues. In addition, metadata and other usability tools (including keyword management) introduced by publishers for content delivered electronically facilitate both the search within and navigation between articles. Academic publishers distribute content globally, either by offering electronic access or by shipping journals and books. As a result of the increased use of the Internet and workflow and collaboration tools, publishers are increasing the number of direct touchpoints with authors.

11.1.3 Academic Journals

Journals contain periodical collections of peer-reviewed research articles and comprise the latest research in a particular area. This academic product type typically has a discipline-specific focus, although some publications are of a more general nature. Journals are predominantly purchased through subscription-based models on multi-year deals. For example, large universities tend to have subscription agreements with contract duration of three years, while national consortia agreements generally have a duration of three to five years. Contracts with corporate customers typically provide for a one to three year term. An increasing number of academic journals is available under open access models. These open access publications also contain peer-reviewed research and make such content accessible to the public at no cost and without usage restrictions. Open access represents a relatively new model that has been gaining traction in the academic publishing market. Funding for open access publications comes from APCs charged to submitting authors from the institution of the researcher.

Some academic journals focus on highly specialized academic researchers or institutions. These journals typically only cover a specific discipline or even sub-discipline and are purchased only by a small number of specialists. However, journals may also address a general audience and accordingly cover a broad range of topics. Typically, a large number of academics or institutions purchase these more generalist academic journals.

Academic journals can be ranked according to their academic prestige, which is an important criterion for researchers when deciding whether to read an article or where to publish their own research. A widely-accepted metric for a journal's academic prestige is its "impact factor," as published in the Clarivate Journal Citation Report ("**JCR**") database. This database provides access to statistical information for English-language academic journals based on citation data. It contains the most-cited scientific journals in the world and is widely recognized in the industry and academic communities as a measure of high quality. According to the OC&C Report, 90% of academics regard the impact factor of a journal as an important factor when choosing where to submit a work for publication. In addition, there are alternative metrics used in the context of academic publishing which include metrics of use, including views or mentions in social media. These metrics are currently evolving as a result of the proliferation and increased usage of social media tools.

According to the OC&C Report, journal subscriptions represent the largest part of the materials/content budget of academic libraries. With a CAGR of 2.2%, academic journals have outperformed the overall growth in library expenditure from 2011 until 2016. Based on a number of growth drivers such as a rising need to publish in the scientific community as well as growth in R&D spending and number of researchers, OC&C projects this trend to continue and estimates that the library spend market for journals will grow at a CAGR of 1.5-2.0% by 2020 (representing 65% of the materials/content budget of academic libraries). Furthermore, academic journals have historically been resilient in the face of budget cuts. In many instances when library budgets are cut, the journal spend is favored at the expense of printed books and eBooks.

11.1.4 Academic Books and eBooks

Academic books and eBooks both contain in-depth coverage of a specific discipline, written by one or more individuals with expert knowledge in the relevant field. Both academic books and eBooks are available in different formats:

- Monographs contain a comprehensive coverage of a specific area. Most of these books are either single-authored by a leading academic or they contain chapter collections by different individuals. As the end-user market for monographs is limited, they are typically published in lower volumes.
- In contrast to monographs, textbooks offer a broader coverage than monographs. Many textbooks are recommended or required reading in educational courses. Textbooks therefore often have high print runs and a long lifecycle.
- Reference books contain detailed guides and have a focus on a particular subject area. Examples of reference books are encyclopedias, dictionaries and handbooks. Reference books are typically purchased by academic institutions and they have a relatively high price and volume.
- Conference proceedings are a collation of academic papers, typically provided before or after a conference. They function as a “one-off” journal, and are printed as bound handbooks of research papers and presentations.

According to the OC&C Report, combined spending on books and eBooks has fallen by -1.2% in the period from 2011 to 2016. However, the books market has shifted over this time. There has been a shift in the academic library spending from print books (which have seen a decline at -4.1% from 2013 to 2016) to eBooks (CAGR of 6% from 2013 to 2016). OC&C projects this trend to continue, with eBooks expenditure expected to grow at a CAGR of 4.1-4.6% from 2016 to 2020.

11.1.5 Abstracting and Indexing Databases and Platforms

Abstracting and indexing databases and platforms serve as secondary content sources. They function as document retrieval systems for finding and accessing academic content, and hold abstracts as well as full text articles from various publishers, thereby enabling academics to conduct research more efficiently by using just one database or platform. Most databases also include an aggregation for discoverability and purchase of a publication.

According to the OC&C Report, approximately 14% of the materials/content budget of academic libraries is currently allocated for abstracting and indexing databases and platforms. From 2011 to 2016, these databases grew at a CAGR of 4.1%. The academic spend market for these databases and platforms is expected to continue to show robust growth over the coming years. OC&C projects that databases and others will grow at a CAGR of 3.6 to 4.1% from 2016 to 2020.

11.2 Market Dynamics and General Market Drivers

The publishing market for academic content and the academic library spending market have exhibited a stable growth trend in recent years. This resilience is a result of the key dynamics and drivers in the academic publishing market. Access to the most relevant and complete libraries of academic journals is fundamental to the work of academic and corporate researchers, as well as students, and universities therefore want to offer access to this content. Therefore, academic content has a “must-have” nature which serves as the main market driver for the academic publishing market. Furthermore, broader economic trends tend to have a limited impact on academic budgets of institutions, governments and companies. Accordingly, library budgets related to content have historically been more robust than other non-content elements of library budgets, which include staff salaries, operating costs (including IT) and binding. Historically, the academic library spending market has grown by approximately 1.7% per year from 2011 to 2016.

As a general matter, growth in global academic content spending is generally driven by a number of supply-and-demand drivers. Supply for academic content on the academic publishing market is driven by the following factors (*Source: OC&C Report; Outsell*):

- ***Number of researchers:*** Academic content is mainly produced and accessed by academic researchers. The number of researches has been steadily growing in recent years. According to the OC&C Report, this number grew by 2.2% per year from 2009 to 2014, and this trend is expected to continue globally.
- ***Research funding:*** Academic researchers are typically funded by a number of sources. These sources include private donations as well as government and funding bodies or trusts. In addition, R&D expenditure has grown in recent years. From an analysis of multiple sources, OC&C estimates that from 2009 to 2015, R&D spending grew at a CAGR of 4.4% per year in OECD countries and China. As a result, this trend led to higher output of academic content in academic institutions globally.
- ***Number of articles submitted:*** An increasing number of articles have been submitted for publication in recent years. This trend demonstrates the strong underlying growth in the generation of academic content. For example, from 2015 to 2017 the number of articles submitted to Springer Nature grew by 7 to 8% per year.
- ***Number of articles published:*** An increasing number of articles published per journal also drives content supply. Rather than the launch of new journals, this has been the primary driver of academic content growth in recent years. According to the OC&C Report, the number of articles per journal grew at a rate of 3.1% per year from 2012 to 2016.

In turn, the demand for academic content is sustained by stable economic growth and an increase in funding and higher education enrolment. The following factors drive the demand for academic content:

- ***Gross domestic product (GDP):*** The broader economic environment affects public budgets. In turn, these budgets determine how higher education is funded and thus how much demand for academic content is created. According to the OC&C Report, global GDP grew by 3% per year from 2012 to 2016.
- ***Higher education funding:*** Academic libraries rely on budgets available to purchase such content, which in turn depend on overall higher education funding. According to the OC&C Report, global funding for higher education grew by 2.0% per year from 2011 to 2016.
- ***Tertiary education enrolment:*** An increase in enrolment in higher education also leads to an increase in student numbers, which also typically results in an increased usage of academic content. According to the OC&C Report, higher education enrolment rose by 4.6% from 2011 to 2015.
- ***Library budgets:*** As one of the main purchasers of academic content, budgets of academic libraries have an impact on demand for academic content. In most cases, library budgets grow at a similar rate to the overall funding for higher education. From 2011 to 2016, library budgets grew by 1.9% per year according to the OC&C Report.
- ***Spending on content versus non-content***: The overall spending on academic content shows a high positive correlation with library budgets. As a result, growing library budgets lead to growth in spending on content. From 2011 to 2016, academic content spending grew by 1.7% per year according to the OC&C Report.

Geographically, growth in the academic publishing market was broadly consistent across the various markets. The library spend on academic content is largely concentrated in Europe and North America, which represented a combined 67% of global academic content spend in 2016. According to the OC&C Report, the market in Europe and in North America grew at a rate of 1.5% from 2013 to 2016. Certain developing markets recorded higher growth, however their share of the market has remained generally stable over recent years. In particular, market growth in China and Southeast Asia has been strong, with growth of 5.3% per year from 2011 to 2013 and 4.4% per year from 2013 to 2016. For the rest of the world, the academic library spend market grew by 1.4% per year from 2013 to 2016. This number was driven by a mix of trends in the countries that represent this region. For example, developed markets (such as Japan and Australia) experienced lower growth and accounted for approximately 30% of the rest of the world market in 2016. Latin America accounted for a further 30% of the rest of the world market and remained constant for the period from 2013 to 2016 due to deteriorating economic conditions.

Library budgets are expected to grow moderately in the future for all of these regions. OC&C projects that annual growth in the academic library spending market will be at around 1.3-1.8% per year from 2016 to

2020, a slight decline from a growth rate of 1.7% per year between 2011 and 2016. Pressure on library budgets in North America is expected to slow, while in Europe growth is expected to continue broadly in line with the growth rate for the period between 2011 and 2016 due to a more stable macroeconomic environment. However, in China and Southeast Asia, OC&C projects growth to slow to a rate of 3.9-4.4% per year between 2016 and 2020. Such slowdown is expected to result from a slower growth in higher education students and, subsequently, higher education funding in China.

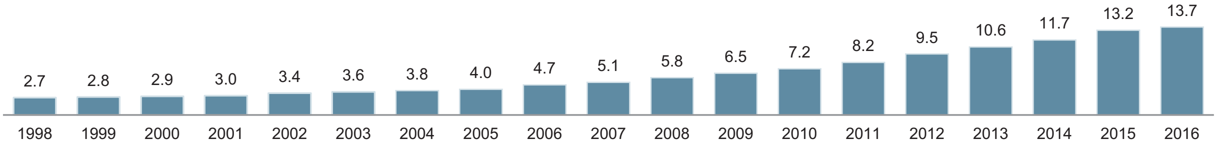
Another academic publishing market driver is the trend towards digitalization of academic content. With respect to journals, the migration from print to digital started over 20 years ago. Currently, most academic journals are published electronically. For academic books, this e-migration supports the growth of the academic eBooks market. As a result, customers have increased their efficiency. For example, inventory and storage space was reduced following a reduction in printed material and physical books and journals. As a consequence, librarians spend less time on manual tasks, including cataloging of works available. Digitalization thus promotes a shift from the non-content portions of library budgets to content-related spend. Management expects that a further transition from print to electronic products will drive content budget growth over and above total library budget growth.

11.3 Further Trends and Developments

OC&C projects that the market for academic content continues to evolve, due to, among other things, the following developments. However, according to the OC&C Report none of the developments described in more detail below will materially disrupt the fundamentals of the market.

11.3.1 Open Access

The academic publishing market is currently experiencing a gradual shift to open access publishing models. Under traditional subscription models, the subscribers of journals and eBooks paid subscription fees in order to access academic content. Open access models invert this principle, making publications available online, typically free of charge to users. In most cases, authors in turn pay an APC for the publication of their work. The following chart illustrates the development of the open access model on the academic publishing market from 1998 to 2016 (open access % of total citable academic content documents):



(Source: OC&C Report)

Within the open access market, a number of models have emerged, including “gold” and “green” open access models. Under the “gold” open access model, publications are made immediately available at no cost to users. These “gold” publications may be published in pure open access journals or so-called “hybrid” journals, which contain a portion of open access articles that are available free of charge, while access to all of its other articles requires a subscription. Under the “green” open access model, publications are made freely available on institutional or funder repositories only after a time delay (or “embargo” period) of typically six to eighteen months following publication in a traditional subscription-based publication. “Green” open access models may also be used by authors to archive their manuscripts for free public use in an institutional or subject repository. “Green” open access models are less preferable to the public as free access to articles is time delayed and less preferable to publishers as they do not add revenues but result in additional expenses associated with making an article publicly available for free. The works made publicly available for free under the “green” open access model are not final versions and correspond to the original author manuscripts. As a result, final editorial changes are not reflected and page numbers differ from the published version, making the version that is publicly available for free not citable.

“Gold” open access is the fastest growing segment in the research publishing market. OC&C projects that market growth for “gold” open access will be driven by various key drivers:

- Open access allows journals to grow with demand and the largest journals in the world are open access journals;
- New journal launches will target the currently existing gaps and unmet needs of researchers publishing under open access. New journal launches will continue until this process is completed; and

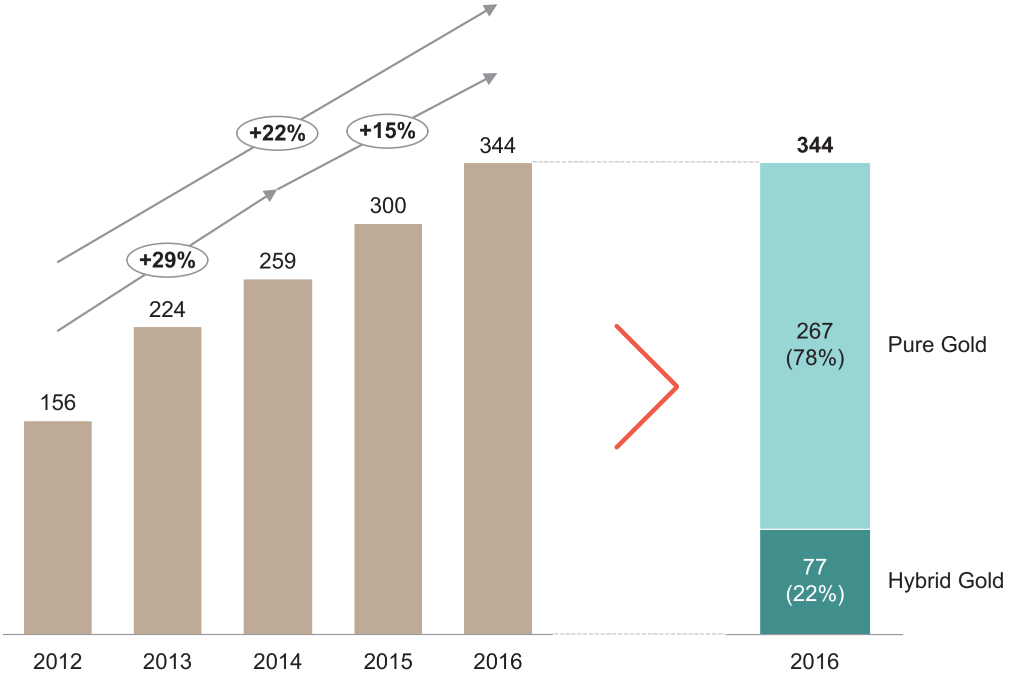
- Over time there may be a gradual transition of a portion of academic content from existing subscription journals to open access publications, a process called "flipping". Also, offsetting deals will contribute to overall market growth. Under those deals, subscription access and open access publishing are bundled together and may be purchased for a single price. So far, only four countries have successfully applied these offsetting deals. More countries, however, are considering following this trend, including countries from the EU.

Compared to traditional subscription-based models, the "gold" open access model offers benefits for researchers and funding bodies. The following table summarizes the main differences between these models:

	"Gold" open access	**Subscription**
Commercial structure	• Author pays to publish work	• User pays to read work
Licensing	• Free to read and re-use	• Paywall to read; restrictions regarding re-use
Funder	• Research funding bodies / academic institutions via article processing charges	• Institutional library budgets
Growth trends	• Growing research output • Fast growth triggered by launch of new titles • Lower barriers to entry	• Growing research output • Growth limited by availability of library budgets • Higher barriers to entry

According to the OC&C Report, revenues related to APCs increased approximately 22% per year during the period from 2012 to 2016. This dynamic development was largely driven by volume growth, in particular for "gold" open access models, as the open access penetration increased. In 2016, the total amount of APCs generated under open access models was approximately €344 million. Furthermore, as publishers have recently started to introduce year-on-year price rises, hybrid "gold" APCs have increased at 3 to 4% per year according to the OC&C Report, with average APCs being reported in the 2017 OpenAIRE report of approximately €1,500 for pure open access and €2,500 for hybrid open access *(Source: OpenAIRE).*

The following chart shows the development of the "gold" open access journal market size from 2012 to 2016 (in € million):



(Source: OC&C Report)

According to the OC&C Report, the shift towards open access models does not present a risk to subscription revenues of publishers for a number of reasons. OC&C does not see a risk of a "cannibalization" of subscription revenues due to the emergence of open access models. For example, non-open access journals remain the most prestigious type of publication measured by impact factor, and the reputation of a journal is the most important factor for academics when deciding which journal should publish their work. As the most prestigious journals in the academic publishing market will retain subscription-based models, OC&C projects that price pressure on subscriptions will likely remain limited. Furthermore, OC&C projects approximately 90% of the top two quintile journals by impact factor are non-open access journals. Similarly, the majority of top journals by impact factor is currently accessed through traditional subscription-based models. As a consequence, academic libraries are incentivized to retain access to those journals, which in turn limits their power in pricing negotiations and reduces downward pricing pressure on journal subscriptions. As a result, the growth of open access journals has so far generally been incremental, both in terms of content and funding sources, to academic subscription journals.

11.3.2 e-Piracy

According to the OC&C Report, e-piracy has emerged as another important factor affecting the further development of the academic publishing market. While journals are typically secured behind a paywall of a publisher, they can now often be found on e-piracy websites. These websites make paid content freely available to users through proxies and thereby bypass publishers' paywalls. Such e-piracy websites have gained attractiveness in the scientific community, as one of their features is to combine the works that have been published by several publishers on a single platform. These websites attempt to make content accessible in a convenient way for users. The SciHub website is regarded as the most high-profile player operating in this space.

SciHub is used globally, but is particularly strong in Iran, China and India. From OC&C's analysis of multiple sources, OC&C estimates that approximately 85% of papers published in academic subscription-based journals are currently available through SciHub. SciHub typically covers paywall content but also makes available publications that are typically only available through open access models.

SciHub has a strong coverage of journals across the top publishers in the academic publishing market. The coverage universe of SciHub varies by discipline. According to the OC&C Report, approximately 93% of articles in chemistry journals can be accessed through SciHub, compared to 76% of articles in computer science.

However, academic libraries generally do not regard e-piracy websites, including SciHub, as a replacement for traditional subscriptions. According to the OC&C Report, more than 50% of librarians mostly or strongly disagree to the assumption that SciHub could significantly reduce the usage of paid content in libraries. However, such websites could reduce pressure from librarians to access any so-called "tail" content (*i.e.,* content that is neither "core" nor of a "must have" nature) in case such content is also accessible through websites such as SciHub.

11.3.3 Aggregators

According to the OC&C Report, content aggregators will continue to impact the academic publishing market in the future. These players aggregate content from multiple publishers and then sell content to smaller institutions and/or institutions outside of consortia. Ebsco is an example of a content aggregator. It is one of the leading players on the aggregator market as it provides two kinds of services to libraries. The Ebsco Discovery Service is a single search box for the entire collection of an institution which also includes a relevance ranking. Currently, more than 11,000 customers in over 100 countries use Ebsco Discovery Service. Ebsco also provides a subscription management tool for more than 360,000 serials (including over 57,000 e-journals) and online access to 900,000 eBooks.

As aggregators bundle and redistribute content, the margins of publishers could be affected. However, content aggregators generally play an important and valuable role in the publishing value chain. Publishers may access smaller institutions without a significant expansion of their sales force. OC&C projects content aggregators to be a limited threat to publishers as long as they are able to retain control of academic content creation. Furthermore, aggregators do not publish their own content as they mainly serve as content management and searching platforms for libraries and ultimately rely on publishers. According to the OC&C Report, there is no indication of libraries preferring to purchase content exclusively from aggregators. The purchasing decision of libraries is rather driven by the product on offer and their own requirements. Content aggregators also typically do not have access to the latest content, which makes their offering less appealing to many large institutions or consortia.

11.4 Competitive Environment and Springer Nature Positioning

The academic publishing market is competitive and is comprised of workflows and processes that are difficult to replicate by new market participants, in particular with respect to traditional market segments in which building a credible network of researchers, editors and reviewers is a lengthy process requiring significant investment. Furthermore, structuring the content on offer by using metadata as well as the ongoing maintenance of content delivery platforms is a complex task for any market participant. In addition, a global sales force is required to visit customers, such as libraries, worldwide. With respect to open access models, no such sales force is necessary, which allows potential new market participants to offer such models more easily. However, open access requires the same quality measures such as the peer review process in order to succeed. Open access publishers therefore must set up a network of editors for editorial boards and peer reviewers. As result of new technologies that drive innovation of new products, Management expects that competition will strengthen in the future. Furthermore, new business models will compete for the same budgets as traditional content.

According to the OC&C Report, the academic publishing market is currently led by four large players, of which we are the second largest player by revenue. From OC&C's analysis of multiple sources, OC&C estimates that the leading academic content publishers have a combined market share of approximately 60%. However, there are approximately 2000 smaller academic publishers active in our market. The top four players by revenue in aggregate supply approximately 54% of the JCR titles, and 63% of journal titles in the top quartile measured by impact factor. Furthermore, the top four players by revenue in aggregate supply approximately 38% of books.

Our main competitors are Elsevier (the research publishing division of RELX plc, London, U.K.)), Wiley-Blackwell (the research publishing unit of John Wiley & Sons, Inc., New Jersey, United States) and Taylor & Francis (the academic information business of Informa plc, London, U.K.); and in the field of medicine, Wolters Kluwer Health (a division of Wolters Kluwer N.V., Alphen an den Rijn, the Netherlands). In addition, we face competition in certain disciplines from societies and academic institutes. This includes the American Chemical Society in chemistry, the American Institute of Physics in physics, IEEE (Institute of Electrical and Electronics Engineers) in engineering and computer science, and university presses such as the Cambridge University Press and the Oxford University Press. With regard to open access journal publishing, MDPI is our main competitor in terms of number of articles published in full open access journals. In the academic book market, our main competitors are Taylor & Francis, Oxford University Press, and Wiley.

According to the OC&C Report, we are the leader in terms of the number of journals, English language book titles and English language eBooks available. In 2016, we had a share of 16% in JCR journal titles, and a 19% share of book titles. We had 151,895 eBooks available online compared to second-ranked Taylor & Francis with 79,857 eBooks.

According to the OC&C Report, we are also a leader in open access both by number of open access journals, as well as by open access articles published. In 2016 we estimate that we published approximately 61,000 articles in full open access journals (excluding "hybrid" journals) followed by open access publishers including PLOS (25,000 articles), MDPI (18,000 articles), Hindawi (12,000 articles) and Frontiers (11,000 articles). In contrast, Elsevier published 11,000 articles in full open access journals. In 2016, we had 271 open access journals available, while Elsevier had 94, Taylor & Francis 68, and Wiley-Blackwell 59, open access journals available (JCR-listed journals only).

With respect to the print books market, we are the leading publisher in terms of number of English language titles available. According to the OC&C Report, we had a share of 41% of English language frontlist book titles published in 2016, while Taylor & Francis had a share of 28%, and Oxford University Press had a share of 11%. Ranked by subject, we are the leading book publisher in the fields of science, medicine, philosophy, and computer science. We are ranked second in the areas of social science, business & economics, and education. With regard to eBooks, we are also the market leader in terms of both numbers of titles available as well as English-language titles released in 2016. In August 2017, 151,859 English-language eBooks were listed on our website, while 79,857 were listed on the Taylor & Francis website, and 36,944 on the Elsevier website. Furthermore, we released 9,542 English-language eBooks in 2016, while Taylor & Francis released 6,006, and Elsevier 1,304 of such eBooks.

12. BUSINESS DESCRIPTION

12.1 Overview

We are, by our own estimate, one of the leading publishers of research, educational and professional content. We sell content in the form of journals, books and databases primarily to academic and governmental institutions, corporate customers and individuals. Created through a merger of Springer and MSE in 2015, we combined Springer's scale with Nature's top quality to become the number one publisher in terms of citations per article of English language journals (*Source: JCR 2016)*. We have historically benefited from stable, reliable and resilient revenues. Our innovation-driven approach has positioned us to benefit from the significant growth potential in our industry.

Our core market, research, is characterized by fundamental growth trends. Research and development spending in the OECD countries and China increased between 2009 and 2015 by a compound annual average of 4.4% (*Source: OECD; EIU*), significantly outpacing the growth of GDP in these regions. The number of researchers and universities also increased significantly. These trends resulted in increased demand on scientists and researchers to publish, resulting in an increase of article output at a CAGR of 5.0% over the same period (*Source: JCR 2016*). These growth trends favor large, established publishers in the relevant markets, as they would generally be best positioned to benefit from economies of scale.

We report our results in three reportable segments, Research, Education and Professional. Our largest segment, Research, focuses on the publication of academic journals, databases and books in the areas of science, technology and medicine ("**Academic Research**") which, although not indicated, by convention usually also covers humanities and social sciences (HSS) and is intended to do so in this prospectus. Our Research segment is characterized by a range of established, well respected titles, including our flagship Nature journals, and in 2016 was the market leader by number of top 50-ranked journals by impact factor (*Source: JCR 2016*), an important metric for measuring a journal's influence in the research community. Approximately two million unique editors and peer reviewers contributed to the publications of our Research segment in 2017. By leveraging the unique position of the Nature brand and focusing on growth sectors, our Research segment has continued to successfully launch new journal titles in a very competitive market, and has expanded its strong position in the open access market, which has been one of the growth drivers in the industry. Furthermore, we are the largest publisher of English language academic books by number of titles (*Source: OC&C Report*). Within our books business, we benefit from our focus on digital content delivery and generated 53.0% of our books revenues in 2017 through digital formats compared with an industry average of 27% (*Source: OC&C Report*). In 2016, our Research segment was, by our own estimate, the market leader in open access by number of open access articles published. Further, we seek to benefit from cooperation with partners. This cooperation with partners includes our long-standing business relationship with Digital Science, an entity of Holtzbrinck Publishing Group, with respect to software for the simplification and streamlining of the research process. For the year ended December 31, 2017, our Research segment contributed €1,162.2 million, or 71.0%, of our revenues.

Our Education segment specializes in the publication of books and materials for language learning, curricula and, to a smaller extent, higher education in more than 100 countries. In our language learning business, we focus primarily on Spain and Latin America, while our main school publishing markets are Southern Africa, India and Australia. Our Professional segment focuses on publications for road safety education matters, the medical and health industry and business information.

Our operations support all stages of the academic publishing process. We coordinate the peer review process for journal submissions, select the texts for publication in our products, edit the content and secure copyrights. Our key operations as publisher usually comprise the production of journals and books, which includes pre-publishing services such as typesetting, pre-press services and, in the case of physical journals and books, printing. Depending on the product type, we distribute our products through different channels. To enhance the use of these distribution channels, we employ sales and marketing teams that create awareness of our products and establish and maintain contact with existing and future customers. Our fulfillment operations encompass, among other things, order processing, delivery, warehousing and customer services. We have also continuously focused on streamlining our operations, for example by standardizing workflows, automating typesetting and centralizing purchasing and supplies.

We have been a leading academic publishing company for 175 years. Springer was founded in 1842 in Berlin. Over the last 30 years, we have transformed through a number of acquisitions and mergers, such as the merger between Springer and Kluwer N.V.'s Kluwer Academic Publishers business in 2004 and the acquisitions of Rendement, a Netherlands-based publisher of business/work-related magazines and material, in 2006, BioMed Central, a pioneer in the open access market, in 2008 and Kluwer N.V.'s Wolters Kluwer Health business in

2011. The roots of MSE date back to 1843, when Macmillan Publishers was founded in London and in 1869 launched the journal Nature, which has become the world's most cited scientific journal (*Source: JCR 2016*). MSE was created in 2012 and merged with Springer in 2015 to become Springer Nature.

Our excellent operational set-up is reflected in our financial performance. In 2017, our revenues were €1,637.2 million, a 0.8% reported increase or a 2.5% increase on an underlying basis, *i.e.*, adjusted for foreign exchange effects and changes in business scope, compared to 2016. Our adjusted EBITDA was €550.8 million in 2017, down 0.5% on a reported basis from 2016. On an underlying basis, adjusted EBITDA increased by 1.7% in 2017 compared to 2016. Our largest segment, Research, accounted for 71.0% of revenues and 83.0% of adjusted EBITDA in 2017.

12.2 Strengths

12.2.1 Stable Growth Market: Our Operations Focus on the Highly Attractive Academic Research Market.

Our largest segment, Research, operates in the academic publishing market. The global academic publishing market was worth €7.0 billion in 2016, based on academic library spending on academic and scientific content and open access revenues. Favorable fundamental trends have resulted in attractive and consistent growth in the academic publishing market. Spending on research and development activities in the OECD countries and China increased by a compound annual average of 4.4% between 2009 and 2015 *(Source: OECD; EIU*). The research community has also expanded, as evidenced by an increase in the number of researchers from 6.2 million in 2009 to 6.9 million in 2015 (*Source: MSTI 2017*). In parallel, scientific output increased, with journal articles published increasing at an annual average of 5.0% between 2005 and 2016 (*Source: JCR 2016*). From OC&C's analysis of multiple sources, academic library spending on academic and scientific content increased at a CAGR of 1.7% between 2011 and 2016 (*Source: OC&C*), outpacing, for example, the average GDP growth for the United States and the Eurozone. The academic publishing market has also been resilient through various economic cycles, demonstrating positive growth rates in every year since 2007, including in times of challenging macroeconomic conditions such as in 2009 and 2010. This trend is expected to continue, as the OC&C Report projects that academic library spending will grow at around 1.3% to 1.8% per year from 2016 to 2020.

The global STM market is characterized by significant barriers to entry. Users of academic research libraries expect them to provide access to all high-quality academic content in the relevant field. Given that such content is unique, it is not substitutable. We therefore regard such content as "must-have" content. Most of this must-have content is provided by a small number of leading academic publishers. It is very difficult and time consuming to build an inventory of must-have content, making it difficult for contestants to enter the STM market in the short to medium term. The ability of established academic publishers to deliver must-have content is reinforced by their brands and reputation, which facilitate attracting the most prominent and respected authors and researchers as well as peer reviewers and editors in the relevant field. For authors, it is critical to be published in journals and imprints that lend credibility to their work and ensure wide dissemination. In addition, customers, which include large research organizations and consortia, increasingly ask for subscription models which grant bundled access to a whole range of publications (so-called "Big Deals"). Under a "Big Deal" model, several journals are bundled together. Subscribers are granted access by paying a flat fee, which constitutes a discounted rate compared to the aggregated prices of the individual journals. "Big Deal" models are increasingly common in the digital journal subscription market. Only STM publishers with breadth and quality in their portfolio are well positioned to effectively address such demand, which enabled Springer to be the first to introduce a "Big Deal" in 2004. Larger companies, such as us, are also able to spread investments into platforms and spending on central functions over a larger number of publications, allowing these larger companies to benefit from economies of scale.

We believe that our large inventory of must-have information and portfolio of prestigious journal and book titles position us well to benefit from the favorable characteristics of the STM market. Our STM content is non-substitutable and provides critical input to academic communities worldwide. We are the academic publisher with the highest number of journals among the top 50 journals in the InCites ranking, resulting in a share of 42%, which demonstrates our superior brand prominence. Our leading size allows us to benefit from significant economies of scale and our portfolio positions us well to continue to offer attractive bundle deals to academic libraries.

12.2.2 Strong Leadership: Strategic Focus on Research, with a High-Quality Brand Portfolio, Global Scale and Favorable Positioning to Benefit from Strong Growth in the Open Access Publishing Market.

We operate with a strong focus on our Research segment. In 2017, our Research segment contributed 71.0% to our revenues and 83.0% to our adjusted EBITDA, while academic publishing activities accounted for significantly less than 50% of the adjusted EBITDA of our competitors RELX and informa.

We believe that the strength of our journal portfolio is unparalleled and provides us with a significant competitive advantage, with leading global scale and some of the most prestigious brands in the industry. We have more top 50 journals by impact factor than any other publisher according to the Clarivate Journal Citation Reports, and have demonstrated continued improvement in this metric. In 2016, 21 of our journals were represented in the top 50 journals by impact factor, whereas in 2009, Springer and MSE combined had 16 of their journals represented in the top 50. Our portfolio is also unparalleled with respect to scale. With 1,759 publications in 2016, we are the global leader for English language-journals across Academic Research disciplines and social sciences, and we are also the market leader in terms of new English-language academic frontlist books published in 2016.

We believe that we are well positioned to benefit from strong growth in open access. The open access segment is a rapidly evolving and dynamic segment in the academic publishing market. According to the OC&C Report, the open access journal revenue grew at a CAGR of 21.9% between 2012 to 2016, significantly outpacing the broader academic publishing market. Driven by initiatives of funding institutions and academic organizations to encourage or require authors to publish their academic work through open access media, open access models have rapidly gained acceptance by both authors and research institutions, which has led to growing publishing volumes.

We are the leader in this market by all key metrics, such as the number of journals, the volume of articles, and revenue. We were among the first publishers to embrace the opportunities offered by open access offerings, including through the acquisition of BioMed Central in 2008. Our brands including Nature Communications, Scientific Reports and Springer Open are leading names in the open access market. With 73,734 open access articles published in our pure open access publications in 2017, we were the clear market leader in the full open access market. Furthermore, in 2017 we had 550 open access journals available, which placed us clearly ahead of our main competitors. Based on full open access journals in 2017, we had a share of 28% of the top 20 open access players. With 16,657 articles published in hybrid open access journals, we are also in the leading position in this market.

Brand strength is becoming increasingly important, as market participants increasingly differentiate in the open access market with regard to APCs according to a journal's impact factor. Our open access portfolio includes a large number of leading brands, such as such as Nature Communications, Scientific Reports and Springer Open, and high impact factor publications, positioning us well to command premium APCs from authors.

12.2.3 Attractive Returns: We Deliver Stable Revenue Growth Exceeding Broader Market Growth, Attractive Profitability and Significant Cash Generation Through a Highly Predictable Financial Model.

Our Research segment benefits from a large share of predictable recurring subscription-based revenues (representing approximately 63% of Research segment revenue in 2017). The typical journal subscription has a term of three years. Accordingly, approximately two-thirds of the subscription-based revenues in a given year are typically already contractually fixed at the end of the preceding year. In many cases these contracts include price escalator clauses that lead to automatic price increases during the term of the relevant subscription and provide us with additional revenue upside. Our publications enjoy very high renewal rates that have remained relatively stable over time. In 2017, our subscription renewal rates averaged 97% for journals and 87% for eBooks. In addition, we achieved a 100% renewal rate among the top 50 customers in each of our Nature Research Group and Springer Research Group whose contracts were up for renewal in 2017, and 86% of these customers agreed to value increases in their renewals. Generally, subscriber losses are rare and limited to specific individual circumstances. In many cases, our subscribers return after a contract interruption. This unique strength is a result of the must-have nature of the content we provide to the scientific community as well as the industry-leading impact factor of our publications.

Our financial performance was stable in 2017. We reported revenues of €1,637.2 million in 2017, compared to €1,624.7 million in 2016, which corresponds to a growth rate of 0.8% despite the unfavorable impact of certain currency exchange rates, in particular the U.S. dollar versus the euro and the Japanese Yen versus the euro. Our underlying revenue growth in our Research segment was 3.2%, exceeding the overall market growth (defined as the growth of combined academic library spend and open access revenue) of 1.9% to 2.5% as estimated by OC&C. For our Group as a whole, underlying revenue growth was 2.5% in 2017. Our Adjusted EBITDA was €550.8 million in 2017, corresponding to an Adjusted EBITDA margin of 33.6%. Adjusted EBITDA grew by 1.7% in 2017 compared to 2016 on an underlying basis, *i.e.*, adjusted for foreign exchange effects and changes in business scope, despite continued investments in resources to support volume growth, new journal launches and IT capabilities. Adjusted pre-tax unlevered free cash flow was €333.2 million in 2017, significantly higher than our pre-tax unlevered free cash flow of €307.6 million in 2016, reflecting an increase in our cash conversion. This significant cash generation will allow us to further invest in future growth initiatives, reduce our leverage and provide cash returns to shareholders over time.

12.2.4 Solid Growth Strategy Focused on Six Key Pillars.

Our above-market growth in 2017 was the result of a clear growth strategy, which leverages our differentiating strengths and is based on the following six key levers:

- we capitalize on our strong leadership in the open access market, capturing a significant share of the fast growth in this segment;
- we continuously launch new products in our core product portfolio, including new Nature-branded journals and database products, which provide us with additional sources of revenue;
- we have been expanding our offering of author and researcher services, thereby generating incremental revenues while strengthening our core Research business;
- we continue to be a leader in process innovation, through a relentless focus on improving our core processes and systems;
- we drive cost efficiency through our business, both through specific projects and by maintaining a cost conscious culture; and
- we selectively pursue opportunities to create value through M&A, leveraging the economies of scale in our business and our track record in successful integration of acquired businesses.

12.3 Strategy

Our strategy is built on what we believe are the differentiating strengths of our business: the prominence of our brands, in particular Nature; our global footprint and network, both internal, *i.e.*, our integrated global team of employees, and external, *i.e.*, within the academic community that we serve; our proven ability to innovate, both incrementally and fundamentally, as we were, for example, the first company in the academic publishing industry to launch "Big Deal" subscriptions, an early adopter of open access and a technological pioneer through the introduction of our well regarded Springer Link technology platform in 2004; and the efficiency of our production machine and operations, allowing us to operate with a relatively low cost per volume processed and to launch new journals and books at low incremental cost.

12.3.1 Capitalize on our Leading Position in Open Access.

We were one of the first academic publishers to actively embrace the opportunities offered by open access, making us a pioneer and the clear leader in the pure open access market and a leading force in the hybrid open access market. We intend to focus on initiatives that aim at increasing the number of submissions, the acceptance rate and APC.

In order to increase submissions, we intend to develop our open access title portfolio by selecting content for our publications that we believe will support the impact factor and increase the reputation of our existing journals and by launching new journals in areas we perceive to be underserved by open access publications. We also intend to enhance our hybrid offerings, *i.e.,* journals that contain both open access and subscription content. We also seek to increase the number of submissions through digital marketing and author communication initiatives that aim at further improving the brand recognition and usage of our journals.

We aim at achieving our target acceptance rate through a number of initiatives. These initiatives include increasing the speed and quality of our acceptance process and further enhancing our peer reviewer network and support system and more aggressively pursuing the transfer of articles submitted to, but not ideally suited for, other publications. We also aim at increasing APCs by increasing the value we offer to authors through improving the impact factor and reputation of our existing journals. Further, we intend to employ a price differentiation strategy by tailoring APCs to the discipline and impact factor of the relevant journal, taking advantage of the high number of journals in our portfolio with a high impact factor.

12.3.2 Launch new Products in our Core Product Portfolio

We continue to launch new products under both our Nature and Springer brands. We believe that launching new journals under our Nature brand is an attractive opportunity, as these new titles can be instantly monetized outside of our Big Deal subscriptions, an attribute that we believe is unique in the academic publishing market today. Moreover, the prominence of the Nature brand in the scientific community and its broad applicability to different fields across the natural sciences provide us with a compelling platform to launch new titles across academic disciplines and quickly build their reputation as must-have content. In 2017, we launched three new Nature-branded journals, including Nature Catalysis, Nature Sustainability and Nature Electronics. We intend to continue leveraging the strength of our Nature brand for launching new products in the future in the areas of physical sciences, applied physical sciences and social sciences.

Within the Springer Research Group, our large portfolio provides us with insights about promising under-served niches in the academic publishing market, for examples in the areas of applied sciences and clinical medicine. A standardized process for launching new journals allows us to act quickly and to launch new journals at very low incremental cost. For example, in 2017, the Springer Research Group launched a total of 35 journals. Transfers of articles submitted to, but not ideally suited for publication in, more established journals to newly launched journals support the economics of new launches. We also intend to benefit from additional monetization opportunities offered by hybrid open access journals, with three high-volume hybrid journals currently planned. Finally, we intend to continue leveraging the Springer brand by publishing eBooks and, selectively, database products.

12.3.3 Expand Author and Researcher Services

The number of researchers has increased in recent years, contributing to increased competition between members of the academic community and demand for author and researcher services. While the market for these services is currently in its infancy, we believe it is a market with significant growth potential. We intend to leverage our combination of brands, network and global reach to tap into the expanding author and researcher services market. Through offering these services, we also help researchers to create more and better output, which will help us secure additional high quality content for our core business offerings. As part of this strategy, we increased our stake in Research Square AJE LLC to 60% on February 15, 2018. This US-based business primarily offers language and manuscript editing and translation Services to authors of scientific content.

12.3.4 Continuous Process Improvement and Innovation

We constantly focus on identifying areas, where we believe we can improve our processes and enhance innovation. We currently intend to focus on projects in the following areas:

- ***Digital Author Communication and Engagement:*** We believe that leveraging new tools to enhance digital author communication is an excellent way to foster greater author engagement and to better and more efficiently service the entire research community. We intend to scale our author services, build our digital and data-led author marketing capabilities and further expand and leverage our editor and reviewer network.

- ***Unified Springer Nature Transfer Service:*** Articles that are submitted for publication in one of our journals may not be best placed with the relevant journal. Given the size of our journal portfolio, it is, however, very likely that an article that meets certain minimum quality criteria is suitable for publication in another journal within our portfolio. We intend to further increase our focus on offering transfers from one journal to another to our authors by simplifying resubmissions for authors, improving the interaction with, and the process for, the author and increasing our editor's focus on keeping a higher percentage of publishable manuscripts within the Springer Nature portfolio, benefitting both our revenues and our relationship with authors.

- ***Faster Peer Review Process:*** Nearly all of the journals published by our Research segment are peer reviewed. In order to better serve the academic community and to increase efficiency, we intend to significantly simplify and standardize the peer review process with a view to significantly shortening the period between submission and publication and increasing the number of transfers between journals. We believe that a shorter peer review is a large opportunity in our market.

- ***Usage and Monetization:*** By improving our (digital) platforms and user experience, launching new services, simplifying the licensing and lead generation process and enabling users to access content off campus, we intend to increase usage of our products. We intend to employ data- and insight-driven institutional sales and end-user targeted marketing to increase the prices we charge for our products.

12.3.5 Drive Cost Efficiency

Cost efficiency has been a key element of our culture, contributing to our ability to operate at a relatively low cost. We intend to increase cost efficiency going forward through a number of targeted measures.

We seek to complete the integration of Springer's and MSE's legacy systems. We have also launched a cost savings program in the areas of material and production, automation, outsourcing and reorganization of our Research segment's overhead structure. We currently expect this program to lead to total run-rate cost savings of approximately €15 million in 2018 and 2019. In 2017, we invested into our employee base, including in the Open Research Group and in IT, creating additional processing capacity. As our volume of articles continues to grow, we expect to achieve operating leverage benefits on this investment. We also intend to realize additional synergies across our three segments, including through streamlining our processes. Finally, we see a significant opportunity in improving our change efficiency, i.e. our ability to introduce changes to our operations faster and at a lower cost.

12.3.6 Selectively Pursue M&A Opportunities

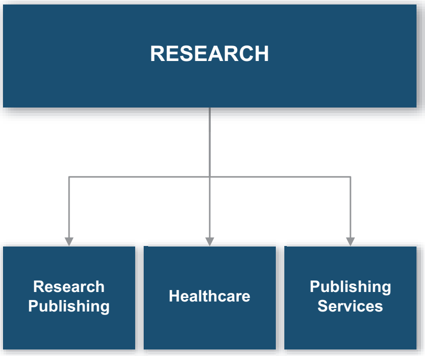
We are well equipped to benefit from further M&A opportunities that may arise. We have a long history of successful and disciplined M&A transactions, which have allowed us to achieve growth and synergies. We believe that the academic publishing industry structure is still fragmented, which will likely lead to opportunities for further add-on and large-scale M&A activities. Although we believe that M&A may present compelling growth options for us, we do not regard it as necessary for our Group and we intend to maintain a selective and disciplined approach.

12.4 Research

12.4.1 Overview

Our Research segment is focused on the publication of academic subscription and open access journals, databases, books and monographs in Academic Research disciplines. Our Research segment is a hub at the center of a large and global Academic Research research ecosystem in which we essentially connect authors and users of Academic Research content through a variety of established and innovative channels. We help researchers to share their discoveries and enable them to find access and understand the work of others.

Our Research segment is comprised of three business units, Research Publishing, Publishing Services and Healthcare. Our Research Publishing business unit, which includes four management groups, offers journals, databases, books and monographs for Academic Research disciplines. Our Publishing Services business unit offers typesetting and pre-publishing services such as composition, editing, and design, both to internal and external customers. In our Healthcare business unit we focus on clinical publications and scientific communications. The following chart shows the organizational structure of the Research segment:



Brands in our Research segment include Nature, Springer Open, Palgrave, Adis, Apress, BioMed Central, Spektrum Akademischer Verlag and others. Customers of our Research segment include mainly universities, libraries and individual researchers. In Publishing Services, external customers mainly include companies active in the Academic Research publishing market including our main competitors.

The Research segment is our largest segment by revenues and EBITDA. It benefits from a large and stable subscription revenue base and increasing revenues from open access publications. In 2017, the Research segment contributed 71.0% of Group revenues and 83.0% of Group adjusted EBITDA. The scale of our Research segment's publishing portfolio, the global recognition of its brands and the expertise in publishing has allowed the creation of a stable and growing business with potential for further revenue growth through a coordinated sales approach and expansion of products that are specifically tailored to the needs of individual customers.

12.4.2 Segment Strengths

We believe that our Research segment holds a strong position in the Academic Research publication market. Some of its strengths include:

- **Global Academic Research Leader**. Our Research segment is one of the leading players in the Academic Research industry. It benefits from its significant geographic reach due to its global sales and editorial presence, positioning the Research segment to realize significant economies of scale in an industry where size matters.
- **Strong Brand Portfolio.** The brands of our Research segment include some of the most prestigious brands in scholarly publishing. Our portfolio includes nearly half of the top 50 journals in terms of impact factor, positioning our Research segment clearly ahead of its key competitors. The strong brand names provide our Research segment with the unique opportunity to successfully launch new journal titles in an already relatively saturated market. For example, we have already launched three new journals in 2018.
- **Early and Strong Player in the Growing Open Access Market**. Our market position, strong brand recognition and focus on innovative products have allowed us to benefit from an early advantage in the open access market. Our early adoption of open access allowed us to emerge as a strong player and become the clear leader in this market. In 2016, our market share in terms of revenues was larger than the combined market shares of our three biggest competitors in the open access market. This strong position has helped our Research segment to grow faster than the open access market as a whole, which has itself been one of the key growth drivers in the industry. Further, launching a new journal in the open access market presents a relatively low risk, as the cost incurred with publication of open access journals are lower than in the case of a traditional journal.
- **Significant Merger-Related Synergies.** Our Research segment has been a key beneficiary of the merger between Springer and MSE in 2015, which combined Springer’s scale in the Academic Research market with Nature’s high quality and well-known brands. However, as we have not yet realized all of the benefits from the merger, we see substantial upside potential from the ongoing integration and workflow-alignment projects in the future. This upside potential includes cost efficiencies resulting from the migration of processes to single systems and the consolidation of our IT landscape.

12.4.3 Business Units

12.4.3.1 Research Publishing

The activities of our Research Publishing business are divided among four management groups: Nature Research Group, Springer Research Group, Open Research Group and Database Research Group.

Nature Research Group and Springer Research Group publish and sell academic content, such as Academic Research journals, books and eBooks, to academic research libraries, libraries of research-intensive institutions and corporate libraries worldwide. Their publications are diversified across all Academic Research disciplines, with a particular focus on publications in the fields of science (*e.g.* physics, biomedicine, life science, chemistry, material science, earth), technology (*e.g,* engineering, computer science), medicine (*e.g.* clinical), mathematics, humanities (*e.g.* history, literature), and social sciences (*e.g.* economics, politics, psychology), finance, management and business. The vast majority of content is published in journals, which are generally available through a subscription-based model and – to a lesser extent – through retail sales of single issues. Journal subscriptions are offered both as packages and as individual titles, and books in print and eBook formats. eBooks are sold both in packages relating to a specific Academic Research discipline and also as individual titles. The subscription models are generally based on multi-year terms. Contract terms for journals typically range from one to three years with built in price escalators, while eBooks are currently for the most part sold under yearly institutional sales contracts.

Our activities in the Nature Research Group include all Nature branded subscription titles as well as author services, including English language editing, scientific editing and manuscript formatting. The Nature Research Group also includes our activities related to Scientific American, which is the oldest continuously published magazine in the United States and, according to our assessment, a leading consumer science publication. In contrast, Springer Research Group includes all traditional subscription journals or hybrid journals that are non-Nature branded, as well as the academic book business of Springer Nature.

The Open Research Group was significantly enlarged as a result of our acquisition of BioMed Central in 2008. In this management group, we operate a platform exclusively dedicated to open access publishing, offering a portfolio of Academic Research journals based on the so-called "gold" open access model. Our Open Research Group does not produce printed copies, all activities are online-only. While authors pay an APC for the publication of their work, access for consumers to such content is free of charge. Brands within this management group include Scientific Reports, which is the largest open access platform by number of articles, and Nature Communications, an open access journal that publishes high-quality research from all areas of the natural sciences, making it the multi-disciplinary open access journal with the highest impact factor. Other brands of this management group are SpringerOpen, BioMed Central and Nature Research. SpringerOpen includes a portfolio of more than 200 peer-reviewed fully open access journals across all areas of science. In August 2012, due to the growing demand for open access and the success of our SpringerOpen journals, we expanded our offering to open access books. SpringerOpen currently lists more than 350 open access eBooks. The BioMed Central portfolio mainly includes high quality peer-reviewed medical and biology journals.

In our Database Research Group, we develop and market various database products for our scientific database portfolio. This management group was formed at the end of 2016 and spans areas ranging from material science to pharmacology and biomedicine. Through the offerings of our Database Research Group, users of one of our various applications are provided with access to data from a vast array of sources, enabling our customers to make better informed decisions, gain a competitive advantage and improve their overall work efficiency. For example, through AdisInsight we bring together scientific information on drugs in development, clinical trials and safety profiles. Our Nano offering centralizes a broad range of nanotech-related articles in one database. It allows researchers to gain access to and compare characteristics of a wide spectrum of nanomaterials. In addition, Nano contains manually created summaries from top peer-reviewed journals.

12.4.3.2 *Publishing Services*

Located in India, Publishing Services offers full-service operations with an industry-leading reputation. Our Publishing Services team consists of approximately 4,600 full-time employees, 90% of which holding at least a Bachelor degree and over 60% holding a Master degree or higher. Publishing Services provides typesetting and pre-publishing services including composition, editing, XML, graphics, design and formatting workflows for our Research segment as well as end-to-end content management, e-publishing, data conversion and related services for external customers such as journals and book publishers in Europe, the U.K. and in the US. As services are priced per page, revenues depend on the number of journal or book pages produced. Publishing Services has historically benefited from an increase in content concerning both our journals as well as those of key external customers. In addition, Publishing Services has experienced growth derived from the trend to outsource editorial services and by offering "total service". The "total service" concept allows Publishing Services to take over the management of the traffic of the publishing workflow and involves contacting authors directly, the inclusion of metadata, XML services to address the demands for digital formats and online publishing requirements and project management services, among others, which are traditionally the tasks of an internal production editor. We intend to continue to increase the operational efficiency of our Publishing Services unit through automation and machine learning and to attract high-caliber talents to deliver even higher value services.

12.4.3.3 *Healthcare*

Healthcare is a global provider of clinical publications and scientific communications as well as medical education and pharma sales force training materials. Based on our observations it enjoys an excellent reputation for quality amongst its customers and is increasingly seen as a preferred supplier to large pharma companies. Clinical publications include hybrid and full open access journals and books, primarily in the field of pharmacotherapy, and Healthcare also offers journal reprints and e prints, customized published content and image collections. Scientific communications services include services for pharmaceutical companies at the headquarters and country level, such as promotional medical education, regional meetings management and digital products. Healthcare has offices in North America, Europe, Asia and Latin America. Our Healthcare team is dedicated and has a vast expertise and background in the business discipline. 40% of our Healthcare employees have an educational or professional background in life sciences.

12.5 Education

12.5.1 Overview

Our Education segment provides students, teachers and institutions with high quality educational content in different formats. We are active in three business units: Language Learning, Curriculum and

International Higher Education. In particular, we offer comprehensive language teaching courses (predominantly English), which generated approximately 65% of the Education segment's revenues in 2017. The majority of our Curriculum content caters to primary and secondary education ("K 12", "curriculum"), accounting for approximately 25% of the Education segment's revenues in 2017. Finally, a smaller proportion of the Education segment's revenues in 2017 (approximately 10%) was derived from the sale of content and materials aimed at higher education students.

Approximately 90% of our sales are derived from the open market segment, *i.e.*, the segment where purchasing decisions are made by teachers or private individuals, which is typically more resilient and attractive compared to sales generated through government tender processes, which account for the remaining 10% of our Education segment revenues. Our exposure to government tender business has decreased in recent years, as a result of a conscious strategy aimed at de-risking our revenue base in the Education segment. We have a broad geographic footprint, with key markets being Spain, Mexico and Brazil. Our key brands are Macmillan Education and Macmillan International Higher Education.

The vast majority of sales in our Education segment relate to printed books, as digital adoption has been slow in our core markets. We operate with a predominantly print / digital blended offering that creates barriers to entry for digital-only start-ups, and are well positioned to benefit from further roll-out of digital products. The Education segment is characterized by relatively long content development and investment cycles of three to ten years.

The Education segment is our second largest segment, contributing 16.7% of our Group revenues and 9.0% of our Group adjusted EBITDA in 2017.

12.5.2 Segment Strengths

We believe that the strengths of our Education segment include the following:

- **Well-Recognized and Long-Established Heritage Brand**. Our Education segment operates under various brands, each of which is well recognized and has a long-established tradition. Our heritage brands are highly respected in many countries, including the member states of the Commonwealth of Nations. As purchasing decisions by teaching staff and private individuals are to a large extent driven by brand experience and trust, our long-established brands provide us with a competitive advantage in the open market segment.
- **Balanced Portfolio Coupled with Strong Market Position**. Our Education segment benefits from a limited dependency on individual markets through a balanced portfolio both from a regional and an activity line perspective. The segment's customers are located in more than 100 countries, with a particular focus on Spanish speaking countries, which has allowed our Education segment to establish a strong market position as a leading language learning publisher in Spain and Latin America.
- **Resilient Revenue Profile**. Our Education segment benefits from a resilient sales split. The so-called open market, i.e., sales where the purchasing decisions are taken by the teacher or private individual, is less volatile and more predictable than government spending. In 2017, less than 10% of our Education segment's sales were realized through tenders, discretionary spending and spending without a formalized budget, while more than 90% of sales were realized in the open market segment, of which 15% is government approved but follows the open market logic.

We aim to leverage the strengths of our Education segment and pursue a dedicated strategy to further drive stable revenue growth and profitability. We intend to improve our portfolio by defining standard operating models and conducting deep regional analyses for our markets. We plan to improve customer satisfaction by simplifying our digital interfaces and streamlining our global product catalogue. We also intend to further enhance our publishing efficiency by developing a more scalable publishing model and improving efficiency through enhanced process discipline. In addition, we believe that an adjustment of our global staff base as well as optimization of our production and supply chain, whilst also leveraging the purchasing power and infrastructure of the wider Group, will help drive operational excellence and profitability in our Education segment as a whole.

12.5.3 Business Units

Our Education segment is comprised of three business units, Language Learning, Curriculum and International Higher Education, with Language Learning contributing approximately two-thirds to segment revenues in 2017.

Our Language Learning business unit focuses on English language teaching and publishes print, digital and online materials catering to the needs of students and offers materials for teacher training and related resources for teachers. English language teaching materials account for the vast majority of the business unit's sales, while materials for Spanish language teaching accounted for approximately 20% of 2017 sales, but is growing faster than other languages in the portfolio (which include German, French and Mandarin). The majority of our English language learning business is part of the offering of products for use in primary and secondary education (so-called "K-12 curriculum"). The main markets served by the Language Learning business unit are Spain, Mexico, Brazil, Poland and China.

Our Curriculum business unit publishes full K-12 curriculum materials (subjects include science, literacy, geography and mathematics) for schools. The business unit's main markets are India, Southern Africa and Australia. Recent educational reforms in certain key markets provide an opportunity for additional growth. We believe based on our own estimate that we currently have a market share of approximately 15 to 20% in India and Southern Africa.

Our International Higher Education business unit works with leading educators and researchers to publish high quality materials and provide digital solutions for higher education. While International Higher Education is the smallest business unit in the Education segment, it benefits from its strong brands, such as Macmillan Higher Education, and enjoys solid market positions in selected disciplines. The unit also wholesales Macmillan Learning products (owned by Holtzbrinck Publishing Group) outside of North America (accounting for approximately 25% of unit sales). Our International Higher Education business is focused on Europe, especially the United Kingdom, with a smaller presence in Australia, Southern Africa, the Middle East and Asia, and virtually no exposure to the United States.

12.6 Professional

12.6.1 Overview

Our Professional segment provides high-quality tailored information and services for several professional markets in Europe. The segment has four business units. Road Safety Education publishes materials for driving schools and training institutes for professional drivers. Medicine focuses on publications for the healthcare sector. General B2B Media produces publications in the areas of business, banking, insurance, automotive, logistics and passenger transportation. Rendement is a specialist publisher, operating in the Netherlands, for small and medium-sized enterprises.

Brands in our Professional segment include Codes Rousseau, Verlag Heinrich Vogel, Planète Permis, extrasa, HE Lehrmittel and wendel-verlag in Road Safety Education, Springer Medizin, Ärzte Zeitung and Bohn Stafleu van Loghum in Medicine, Springer Gabler, Verlag Fuchsbriefe and Springer Vieweg in General B2B Media and Rendement in the Netherlands.

The Professional segment generates revenues through subscription, trade and advertising sales. It contributed 12.4% of our revenues and 8.0% of our adjusted EBITDA in 2017.

12.6.2 Segment Strengths

We believe that our Professional segment benefits from the following strengths:

- **Leading Market Position and Brand Recognition**. Our Professional segment benefits from its well-recognized brands and broad range of target groups. Due to a focus on high quality standards and constant innovation, our Professional segment enjoys an excellent reputation, allowing us to claim leading market positions in our sectors.
- **Comprehensive Offerings for Target Customers**. Through investments into our platform, we have created the option to produce target group specific subscription content and product bundles, which we believe have allowed us to achieve higher average prices, customer engagement and customer satisfaction. Our offerings are not limited to traditional offerings such as learning materials and business publications. Instead, our Professional segment also offers a broad range of competitive add-on services and innovative products. For example, we provide business software and tools for our driving school customers to help them operate successfully. We organize seminars and fairs for our customers' business communities. These comprehensive offerings allow us to become a one-stop shop for our customers.
- **Balanced Set-up and Advantageous Revenue Mix**. The business units in our Professional segment are active in different industries and geographic markets. They benefit from our infrastructure and back-office functions, which allows us to benefit from Springer Nature's significant economies of scale. Furthermore, our Professional segment does not rely on advertising

revenue. Sales of display advertising represent less than 25% of total Professional segment sales, creating a more stable revenue profile. These factors have historically resulted in resilient and attractive financial results in our Professional segment.

We aim at leveraging the strengths of our Professional segment and pursue several strategic priorities as part of our future strategy. We seek to maintain our Professional segment's current leadership by proactively anticipating and responding to changes in the regulatory environment. We may also selectively use opportunities to make targeted smaller acquisitions with a focus on digital business models. Furthermore, we intend to further increase efficiency through management of costs, continuation of increasing margins as well as leveraging our scalable operations. In addition, our Professional segment will migrate into digital areas with a focus on, for example, applications and services that are closely linked to our customers' workflow. Such migration is also expected to lead to an increase in customer engagement.

12.6.3 Business Units

12.6.3.1 *Road Safety Education*

Our Road Safety Education business unit publishes integrated administrative, teaching and learning software, school equipment and road safety education materials for driving schools and training institutes for professional drivers as well as their students. The business unit is active in Germany, France, Spain, Austria and Switzerland. According to our own estimate, our Road Safety Education business unit is the market leader in Europe.

12.6.3.2 *Medicine*

Our Medicine business unit produces educational materials, primary research and industry news publications aimed at healthcare professionals, such as doctors, nurses, dentists and pharmacists in Germany and the Netherlands. It also provides corporate publishing services to medical and pharmaceutical companies. Revenues stem from subscriptions to the business unit's journals, advertisement sales primarily to pharmaceutical companies, and print sales on a non-subscription basis.

12.6.3.3 *General B2B Media*

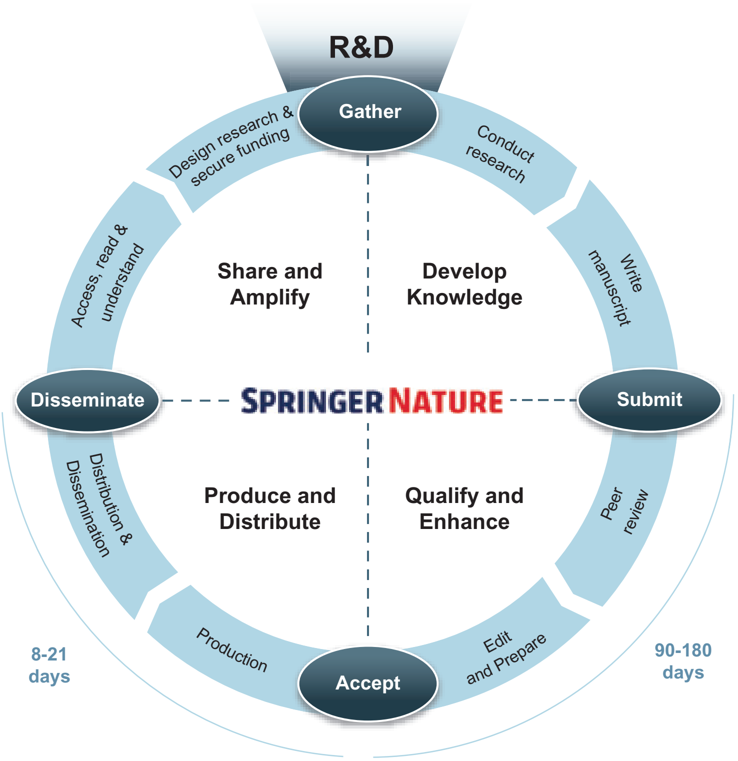
Our General B2B Media business unit publishes predominantly local language content in a portfolio of magazines and books. The publications are aimed at engineers, engineering students and professionals in financial services and communication industries. General B2B Media operates in Germany and Austria. Our online platform, springerprofessional.de, offers corporate customers and individual subscribers digital access to more than 67,000 books and more than 300 magazines and journals. Through Rendement.nl, we offer specialist journals, news and advice magazines, theme files, handbooks, training courses, congresses and online cross-media products that provide relevant and efficient advice on current and practical regulation and legal issues. Its target group are small and medium-sized specialist enterprises in the Netherlands across several industries, including specialists in the human resources, tax, and regulatory industries. Revenue is mainly generated from subscription-based magazines with "must have" content for small and medium-sized enterprises in the Netherlands. Revenues in our General B2B Media business unit are mostly generated by means of traditional business-to-business advertisement.

12.7 Operations

We are at the heart of the research process and offer a unique value proposition for authors and customers. We create and curate content, prepare a distributable product and drive usage and impact of the published work.

The creation of content starts with the gathering of knowledge. Members from the scientific community conduct research, often using works published by Springer Nature. After having finished their research activities, these authors then describe their findings in a manuscript. Once finalized, they submit their manuscript through our systems and we will then engage in a peer review process which typically takes approximately 90-180 days. The peer review process aims at ensuring that only reliable and valid content is published. During this process, editorial teams select relevant content for publishing depending on the theme and thresholds of the relevant journal or books collection. The finalized submission is then edited and prepared and ultimately accepted by our editorial boards.

We then engage in pre-publishing activities which typically last approximately 8 to 21 days. This production phase includes formatting of the work and the preparation of metadata for electronic search and reference. Following this production process, we distribute and disseminate the work to our customers electronically or in printed form, giving the scientific communities access to the latest academic research. These publications may in turn inspire, and serve as a basis for future research, driving further scientific publications. The following chart summarizes the research publication process and the value we create in this process.



In general, our curation of content is driven by various trends and factors. We typically either take a copyright in the work or an exclusive license to publish. For subscription models, this provides us with full and long-term rights over a unique set of assets and rewards us for the long-term preservation, storage and access responsibilities. For open access we typically make content available under a creative commons license, which enables members of the scientific community to use or re-use the respective work without having to enter into an agreement with us or making a payment to us. In addition our ability to transfer work between our publications is a key factor when it comes to better serving our authors. While many authors who submit their work to a journal are initially rejected, they typically submit the respective work to another journal which leads to an increase in work for the author and the publisher. However, we are sometimes able to match rejected articles with a more suitable publication instantly. Such opportunity enables us to publish more content and thereby gain market share.

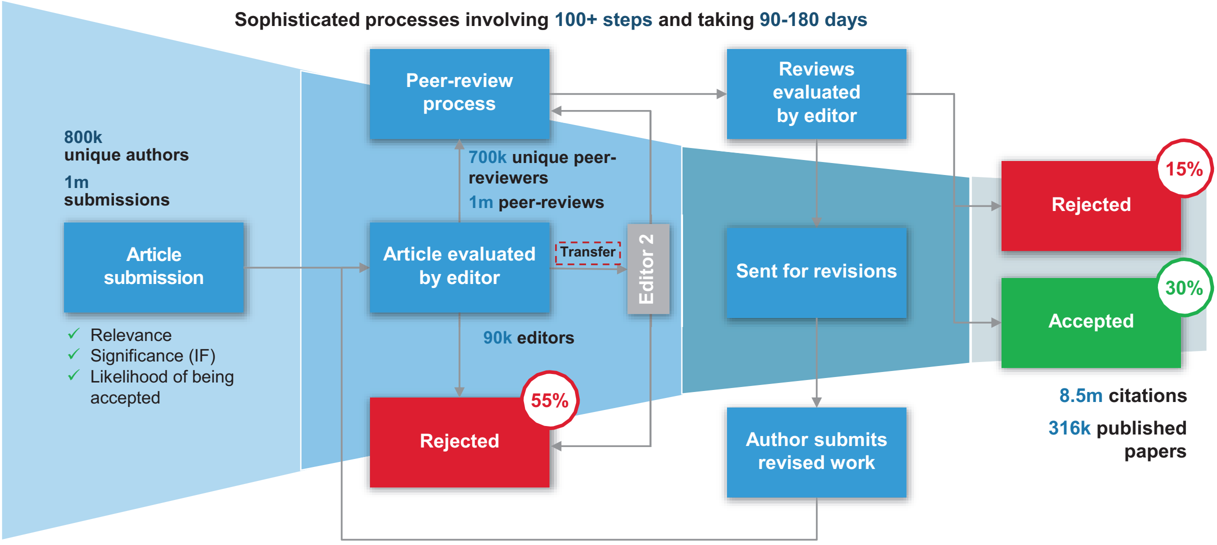
The production and distribution process of Academic Research content is complex and industrialized. As a general matter, it requires scale to drive unit costs lower. We typically acquire content through various editorial systems. Subsequent to this collecting of content, our formatting and proofreading systems produce the relevant publication through their pre-publishing services and make it ready for an offline or online distribution. For our offline distribution, content is processed by printers, while online distribution is channeled through our online platforms and external feeds. The production and distribution of Academic Research content is currently driven by various trends and factors. A highly standardized production process allows us to publish large content volumes at scale at a relatively low cost. Furthermore, we continuously improve our production processes through efficient outsourcing of tasks to specialized teams. Outsourcing may include the distribution and maintenance of metadata in order to create search engine optimized publications.

Our operations aim at creating and curating scientific content in an optimal manner, in order to drive usage and impact of our publications. Our tailor-made processes involved to achieve this goal are described in more detail below.

12.7.1 Editorial Tasks

In the Research segment, the most selective journals, like the Nature branded journals, operate an entirely in-house team of professional editors. For other journals we establish editorial boards to determine the strategic direction of the respective journal and act as the arbiters of its contribution to furthering knowledge in the particular field or discipline targeted by such journal. The peer review is a sophisticated process and represents the core element of our editorial activity. It aims at ensuring that all publications may be relied upon in the future by the scientific community. While we manage the set-up of those editorial boards, the boards themselves organize the peer review processes, which are decisive quality assurance mechanisms to maintain credibility. Members of these editorial boards are typically members of the academic community and experts and scientists from the relevant field of work. In most cases, these reviewers have the specific knowledge at the level of the author whose work is being reviewed. Most of the members of our editorial boards also publish their work in Springer Nature publications. This circumstance typically incentivizes these members to conduct an in-depth review of any potential publication, as it further strengthens the integrity and perception of each of our publications and the Springer Nature brand as a whole. The majority of our peer review processes are conducted externally. For some of our publications, including Nature, our in-house editors evaluate submissions and select external peer reviewers before appointing them to undertake their review of the submission. We have identified the peer review process as one our key strategic priorities and aim at further improving the efficiency of this process.

The peer review process takes approximately 90 to 180 days. It is initiated by an author submitting its work for publication in one of our titles. We currently receive approximately one million submissions per year from 800,000 unique authors. Following an initial evaluation of the article by one of our 90,000 journal editors, the submission is either rejected or passed on to our peer review process. Currently, approximately 700,000 unique peer reviewers engage in our peer review activities. After conducting an in-depth review, our peer review team and the respective journal editor follow up with the author and provides specific comments and questions on the submission and also discusses the likelihood and prospective timing of a publication. The vast majority of authors then implement these suggestions and re-submit their work. The peer review team reviews any such changes and may engage in further follow-up discussions with the author. This iterative process either ends with a final submission by the author, which is subsequently accepted for publication, or a rejection of the article for publication in a specific journal. We currently have a rejection rate of approximately 55% following the first article submission. For example, approximately 90% of the articles submitted for publication in our journal Nature are rejected. However, in many cases where a work is rejected following the peer review process, the editors of our publications engage in discussions regarding a potential alternative publication in which the initially rejected work could be published. The wide range of publications across different quality disciplines and target groups often allows us to refer the author to another journal in our portfolio. Our broad spectrum of titles provides opportunities for nearly all articles, which meet our high quality standards, to be published. This enables us to retain long-lasting relationships with authors due to their consistently high satisfaction with our publication process. 90% of authors of our publications would definitely or probably consider publishing their work with us again. It also provides our journals with a high number of articles suitable for publication. The following chart provides an overview of the peer review organization and the publishing decision process:



Our editorial boards also appraise content to prioritize publication timelines and organize themed issues. Members of editorial boards of journals and peer reviewers are typically not hired or paid by us, as we only organize the setting up of our editorial boards, while the review process and related tasks are managed by the editorial boards themselves. For our academic books, we employ editors to help authors structure their books and guide them in the process of converting a raw manuscript into a refined product ready for printing and distribution.

In our Education segment, editors employed by us are typically responsible for producing the relevant content or for managing free-lancers who produce content for a particular magazine. Within the Professional segment the roles of the editorial staff differ. In certain cases, editors have similar duties and responsibilities as within our Research segment and manage a fully independent editorial process, while in other cases they perform functions similar to those performed by editors in our Education segment.

12.7.2 Production

Production within our Group comprises our production staff, the internal systems they use, management of the use of Publishing Services and our printers. Traditionally, the publication has taken place through contributions to printed journals or books. Since the late 20th century, these product types have been digitalized and, as a result, new methods of dissemination have emerged, but the fundamentals of journal and book publishing have not changed.

12.7.2.1 *Pre-Publishing*

The production operations for all types of our products, including electronic documents, start with the pre-publishing process involving typesetting and pre-press services (*e.g.*, composition, editing, XML, graphics and design). For pre-publishing, we rely on both our own service providers within our Publishing Services business unit as well as third-party suppliers. We also cooperate with specialist providers of pre-publishing services for mathematical publications, an area where the pre-publishing work is relatively complex.

Over the last few years, we have sought to increase the amount of typesetter automation to reduce typesetting costs and in order to be able to offer all our books on the Springer Book Archives. In addition, we have sought to increase the usability of the content, including through enhancing html features, for instance for chemical and mathematical formulas. Furthermore, a large portion of journals and books are currently being typeset using techniques and formats such as FTXML (Forensic tool with XML), which allow for the use of the product on multiple technological devices, allowing for maximum flexibility in distribution and functionality.

12.7.2.2 *Printing*

Traditionally, publishers printed their products upfront using the offset printing method, before sale and delivery. This approach allows for the printing of a large number of copies at a low cost per copy. However, it entails the risk that the number of books printed exceeds demand. In order to address this risk, we have implemented the concepts print-on-demand ("**POD**") and print-to-order ("**PTO**") for books and journals. With POD, copies of a book or journal are only printed when an order has been received. While the unit price of each copy is higher than with the traditional approach, the average cost is lower for very small print runs. POD allows us to maintain a large backlist of publications without having to keep inventories in stock and to reduce associated costs. PTO is a technique that allows us to postpone printing and even to transfer the printing process to the wholesaler. The wholesaler orders our publication and then takes care of the printing process. We aim to apply our PTO/POD approaches whenever this is most cost-efficient. However, offset printing typically remains more efficient for high-volume printing.

12.7.3 Sales & Marketing

We tailor our sales and marketing approach specifically to our customers and the products of each business unit. To ensure that all products are sufficiently represented, we have separate sales forces for the product and customer groups of each segment. In order to ensure that different customer groups are adequately covered, our sales force is organized regionally with respect to academic clients and by industry sector for corporate customers. Internal sales and editorial teams cooperate closely to coordinate the editor's search for high-quality content to drive sales with the sales personnel's knowledge on customer needs. Furthermore, our marketing team is closely aligned with the sales team and is functionally split into three areas (i) channel marketing, which best supports the sales organization in addressing each of the different end-customers, (ii) author and society marketing, which supports content acquisition for our academic journals and books, and (iii) central teams such as strategic eMarketing and market research, which develop tools and provide knowledge on our customer base. eMarketing forms the basis of our marketing strategy: the automated, database driven creation of (promotional) materials ensures an efficient implementation of marketing campaigns worldwide.

The institutional sales teams of our Research segment license our eJournals portfolio, eBook collections and databases directly to higher education institutions, government research centers and corporations across the world and also via consortia which act as combined representatives of groups of these. The work is split between renewing customer (typically time based) contracts, upselling existing customers, and selling to new customers.

12.7.4 Distribution Channels

Traditionally, journals and books were sold through intermediaries, such as subscription agents for journals and wholesalers for books as well as book stores. The development of the Internet led to our ability to sell and bill customers directly and to a certain disintermediation, as online distributors (such as Amazon or Apple), through which journals and books are sold directly to the consumer, have emerged and gained importance. Direct sales to customers result in higher margins because intermediaries are no longer required. However, direct sales complicate the marketing of content, as sales and marketing teams must now cultivate relationships not only with intermediaries but also directly with end-customers. We operate both through intermediaries as well as through direct trade channels with our customers. While our business with physical books is largely dominated by intermediaries such as Amazon, we still have close relationships to the end customer which reduces our dependency on such intermediaries. Our shift towards eBooks, which are mostly sold through direct trade channels to customers, enables us to gain further insight into customer data and thereby improve future marketing activities and the relationship with existing and potential returning customers in general.

With respect to journals, there are currently three models by which libraries and universities purchase them: print only, online only and print and online. In the case of print orders, the delivery is handed over to a third-party vendor, which can be either a POD printer or a warehouse where the hard copies are available. If electronic copies of our journals are ordered, our fulfillment system generates access records that are transferred automatically to our online platform. Our main customers of printed journals are intermediaries who act globally as agents for academic institutions, whereas online customers are primarily consortia comprising universities and libraries. The trend shows an ongoing switch to electronic media by academic institutions.

Books are generally offered as hard copies or as electronic version. The hard copies are either produced on demand or are available in one of our warehouses. Our fulfillment systems send the customer orders received either to a printer or to third-party warehouse suppliers. To the extent books are being sold through intermediaries, these include (i) online retailers such as Amazon, (ii) major wholesalers (some of which service the library, retail and Internet channels) and (iii) companies that offer print books through multiple bookseller channels, including physical and college bookstores, as well as the online sales and distribution centers that support these channels. In some cases, the retailers operate a print-to-order division that services their customer orders for paperback titles and helps guarantee the availability and rapid delivery of books. Two of the major wholesalers are also our primary POD vendors. These two wholesalers also work as publisher services companies that handle our logistics and warehouse distribution services.

eBooks are digitalized publications of books and can be read on electronic devices. The eBook share has been increasing and represented 53% of our book sales by format in 2017. Under the eBook model, libraries typically buy eBook packages and receive a discount on the full list price, thus getting more value for money. As eBooks are a digitalized version of books, libraries also save on print book storage costs, freeing up funds to be used for additional eBook packages or other matters.

12.7.5 Fulfillment

Our fulfillment uses an SAP fulfillment system including the complete process from sales inquiry over order processing and invoicing to delivery and handling of any returns, as well as customer service and inventory management. The fulfillment system takes care of the fulfillment process, including order processing, providing access to our online content platform and invoicing.

12.7.6 Information Technology

Our IT systems are core to realizing merger-related synergies. Our integration projects focus on the reduction of duplication across multiple of our platforms in the Springer Nature technology landscape in order to increase efficiency and decrease potential for error. We aim at consolidating where necessary and where there is no additional value add from having duplication in order to create strategic, streamlined and scalable target solutions. For example, we will likely upgrade our SAP systems to a newer version in the short to medium term. We also seek to replace end-of-life business systems, and to modernize our systems and technology capability. As a majority of our offerings is delivered through digital solutions, high availability, responsiveness, and resilience of our IT systems and applications are critical to successfully deliver our products and services to customers. These projects are currently ongoing and will continue to be a major project over the coming years.

Our IT applications are hosted in two central data centers in Rotterdam and Dordrecht. These data centers host applications that are essential for our business. This includes SAP, DDS and our frontend systems such as Springer Link, which provides access to more than 2,500 English-language and more than 150 German-language journals across various disciplines. Our IT applications support our peer review process, advertisement activities, content delivery and storage of documents, fulfillment, customer service and our website. Our IT applications also include our central electronic database and content delivery platform for scientific publications, which provides access to a broad offering of journals, eBooks and books, our backlist publication titles, various workflow collaboration tools and tailored products for corporate customers or individuals.

Supporting IT applications relate to customer relationship management, sales, distribution, materials management, logistics, and business intelligence (*e.g.*, reports, statistics and analysis), human resources and consolidation and management reporting. We have a variety of third-party outsourcing, licensing and maintenance contracts relating to Information Technology. For example, we have outsourced the helpdesk and desktop support to Unisys, which provides cost effective services around the clock.

12.7.7 Partnerships

We operate a partnership model to pursue our capital-light and low-risk approach to emerging technologies. We partner with start-ups, including software companies, to benefit from their knowledge. This model allows us to enhance our processes or to develop innovative products in a swift manner. Our partnership model allows us to follow new technologies at a relatively early-stage. It provides us with the opportunity to evaluate such technologies and gives us the optionality to develop them in-house. In some cases, we may enter into strategic investments or minority investments to ensure long-term benefits, or even into majority/full ownership investments in exceptional situations.

We currently partner with and hold a stake in Research Square (a division of which is American Journal Experts). American Journal Experts provides us with services for language editing driven by artificial intelligence, and other innovative author services outside the area of language editing. Using artificial intelligence increases the speed of the publication process and facilitates manuscript transfer.

Our partnership with Digital Science, an entity of Holtzbrinck Publishing Group, supports us in building and maintaining close links with the scientific research community. Digital Science provides software to evaluate content usage, allowing us to improve our content and user experience. Digital Science provides its services through a number of portfolio companies, including:

- Figshare, an online repository for researches. The platform supports authors publishing in BioMed Central and Springer Open to share their research outputs and supplementary data either privately with collaborators or with the public.
- Readcube, a program for reading, managing, and annotating research literature. For example, Readcube enables users to create user-friendly publishing formats. Readcube technology is featured in SharedIt, which is our free content sharing initiative.
- Altmetric, which allows users to track and measure activity around academic research published on the Internet and social media. It provides tools and services to researchers, institutions, publishers and funders to collect and analyze such interaction.
- Overleaf, a cloud-based platform that allows collaborative writing and manuscript submission. Overleaf speeds up the process of writing, editing and publishing of scientific works. This platform makes science and research open and accessible.
- Dimensions, a linked research information system that makes it easier to find and access the most relevant information, analyze the academic and broader outcomes of research, and gather insights to inform future research strategy.

12.7.8 Description of Arrangements with Content Providers

12.7.8.1 *Content Acquisition for Journals*

There are two main ways in which we acquire content for journals: (i) directly from (a) individual authors and (b) editors, both of whom grant journal publishing rights to various Group entities, or (ii) indirectly through contracts with academic societies who own one or more journals and act as intermediaries in acquiring the content from the authors.

12.7.8.1.1 Acquisition of Rights from Individual Authors

We either take copyright from the author or we are granted an exclusive right of exploitation. With respect to our open access publications, copyright remains with the author. We are granted a worldwide, royalty-free, non-exclusive and perpetual license, while authors are allowed to reuse the version of record without an "embargo" period.

For the acquisition of copyright from journal authors, we use a copyright transfer statement that is regularly updated and provides for an assignment of copyright from the author to us. In certain cases, for example where the journal is owned by its founder, copyright is not assigned to us but to the owner of the journal. To the extent a copyright is not transferable (*e.g.*, for certain government employees in the United States), assignment of certain rights is effected to the greatest possible extent.

The copyright assignment currently used typically includes the exclusive, assignable and sub-licensable right, unlimited in time and territory, to reproduce, publish, distribute, transmit, make available and store the article or abstracts thereof in all forms of media of expression now known or developed in the future, including pre- and reprints, translations, photographic reproductions and microform. We may use the article in whole or in part in electronic form, such as use in databases or data networks for indexing, necessary alteration, display, print or download.

Authors may deposit a previous version of the relevant article accessible on non-commercial pre-print servers. Authors may also publish the work on their own website or in a repository and make it publicly available after a period of six to eighteen months (depending on the journal's policy) after official publication. In both cases, the author must not use the publisher's pdf version but only the author manuscript, and the author must give acknowledgements to the original article source and must provide hyperlinks to the published article.

12.7.8.1.2 Acquisition of Rights from Editors

For contracts with external academic editors, we use standard form contracts. Typical editors' obligations under such contracts include working in consultation with other editors and exercising control of the editorial development and editorial content of the journal. Typically, we are obliged to bear the entire costs of an electronic manuscript submission and tracking system as well as the manufacturing, distribution, stockholding, pricing, marketing and promotion of the journals and the collection of sales revenues. If a journal exceeds a certain article volume threshold, the relevant publisher typically agrees to provide the editor with an annual stipend or an annual office budget. Under the copyright laws of many jurisdictions, copyright may not only arise for individual articles but also for the selection of the compilation by the editor. In addition to acquiring copyrights or licenses from authors, we therefore seek to acquire licenses from editors.

12.7.8.1.3 Publishing Contracts with Academic Societies

We may acquire content by co-operating with an academic society. Academic societies are typically devoted to the promotion of an academic discipline, profession or a group of related disciplines. They have a local, national or international scope and memberships are often tied to either a professional qualification or an academic status. When a society owns a journal and also holds the publication rights, we obtain a publishing license from such society rather than from the individual authors. In general, we assume the publisher's tasks of promotion, production, distribution and hosting, as well as sales, customer support, subscription and payment handling. Societies are, through their editorial boards, usually responsible for the editorial procedure, which may include control over the published content, peer review, proofreading as well as the occasional submission of documents for rights clearance. In exceptional cases, production and distribution tasks are shared.

Where we cooperate with an academic society, two cases can be distinguished:

- A journal may be owned by the society. In this case, copyrights, trademarks and other proprietary rights are vested in the society. The society usually grants us a worldwide license to publish the journal for the term of the contract, which is generally more than five years. The society retains non-exclusive rights of varying scope (*e.g.*, to reproduce certain content for peer-reviewed articles or provide electronic access to journals' content themselves, unless this would impair the marketing of journals or divert revenue). We have a right of first refusal regarding new publications and non-compete obligations apply. Our approach is to maintain a perpetual digital archive and to continue to offer pre-termination subscribers online access thereto, thus allowing us to offer archived content to our current customers even if a society chooses another publisher. According to these contracts, we usually pay a flat fee as well as a revenue based license. Certain contracts provide for minimum guaranteed royalties and/or minimum subscriptions guaranteed by societies or for one-time payments by us.
- In other cases, the journal and its rights may be owned by us or jointly owned by us and the society. Nevertheless, as it is the case for society-owned journals, the journal is considered as the official

publication of the society. Special member subscription prices apply and societies take part in the publication process by performing editorial work. Licensing provisions are not as extensive as in co-publishing agreements where journals are owned by societies. Some contracts based on sole ownership of the publisher do not stipulate any licenses at all, but focus on editorial tasks of the societies and members' mandatory subscriptions. Contracts with joint ownership either aim at fostering the cooperation, or provide for a transition under which our share will be reduced over time and sole ownership is conferred to the respective society, and mostly provide for profit sharing after deduction of costs (*e.g.*, editorial office costs that are paid by the publisher). Some contracts also provide for bonus royalties based on turnover increases.

Overall, contractually agreed minimum royalty payments under journal co-publishing agreements amounted to €66.8 million in 2016 and to €56.0 million in 2017.

12.7.8.1.4 Content Acquisition for Books

Book content is generally acquired from (i) book authors, (ii) series editors, (iii) book editors and (iv) chapter contributors who typically provide expert level contributions in their specialty area. Authors and editors typically grant an exclusive, permanent, worldwide, assignable, sub-licensable right to the respective Group company to publish, distribute and make available the work in any current or future media including as hardcopy, online and on electronic end-user devices and in multimedia formats. Regarding some top-selling books, we acquired the right for online use for newer editions from the authors.

The royalty structure under the content acquisition contracts varies. Most contracts provide for royalties based on a percentage of sales. Under some contracts, no royalty is paid and remuneration is limited to complimentary copies of the published book. Other contracts provide for a flat fee payable upon publication. If the work is sold electronically as part of an eBook package, the author usually receives an equitable share of royalties from the income generated by us out of the relevant eBook package unless a lump sum remuneration is agreed.

12.8 Material Contracts

12.8.1 Financing Agreements

Our Group is financed in part by borrowings. The lenders are mainly institutional investors. As of December 31, 2017, borrowings consisted of senior loans, a revolving credit facility as well as shareholder loans. These agreements contain covenants, which may affect the operating flexibility of the Group. In the event these covenants are breached, a right of acceleration will be triggered on part of the lenders. This could result in a demand of immediate repayment of the relevant indebtedness, as well as potential cross-acceleration under our other debt instruments.

Our most significant financing agreement is the Senior Credit Agreement, which consists of several facilities. It provides a revolving credit facility of €250 million, and term loans of approximately €1.98 billion and $1.29 billion. Barclays Bank plc serves as administrative agent of the Senior Credit Agreement. Interest for the revolving credit facility accrues at a rate of EURIBOR plus 3.25% per annum, for the term loans at a rate of 3.25% per annum (for the euro denominated term loan) or 3.50% per annum (for the U.S. dollar denominated term loan), plus the greater of (i) 1.00% or (ii) EURIBOR or, respectively, of the USD LIBOR. With regard to the interest period of these term loans, Springer Nature has the option of a one-month, a three-month, a six-month or – subject to the consent by the lenders – twelve-month interest period. As of December 31, 2017, the facilities under the Senior Credit Agreement had a carrying amount of €3,042.3 million. The Senior Credit Agreement contains a change of control provision, pursuant to which we must prepay all outstanding loans on the occurrence of such change of control. An initial public offering of the Issuer's shares does not trigger a change of control provision under the Senior Credit Agreement. The amount outstanding under the revolving credit facility has a final maturity date in 2022 and the term loans have a final maturity date in 2022.

The Group is also financed by a shareholder loan entered into in 2013 with the Selling Shareholder as lender (the "**Shareholder Loan I**"). The Shareholder Loan I is divided into three tranches of €543 million, €50 million and €44 million. These tranches accrue interest at a fixed rate of 10.2288% per annum, 10.23% per annum and 10.2288% per annum, respectively. Such interest is calculated on the basis of the actual number of days elapsed and a year of 360 days. Interest on interest is not charged. In the context of the merger, the Shareholder Loan I was amended and now grants the right to be converted into equity instruments under certain circumstances. For more information regarding the dissolution of the Shareholder Loan I, see "*15.1.1 Current and Future Share Capital; Shares*". As of the date of this prospectus, the Shareholder Loan I had a total repayment amount of €453.0 million. The amounts outstanding under the Shareholder Loan I have a final maturity date in August 2022. In addition, Springer Nature is financed by a shareholder loan of €80 million provided by GvH 33 as lender in 2015 (the "**Shareholder Loan II**"). The Shareholder Loan II accrues interest at a fixed rate of 2.0% per annum, while interest is accrued and not compounded. As of December 31, 2017, Shareholder Loan II had a carrying amount of €80.6 million. The amounts outstanding under the Shareholder Loan II have a final maturity date in May 2030. The Shareholder Loan I and the Shareholder Loan II are both subordinated to the senior loans under the Senior Credit Agreement.

Upon completion of the Offering, Springer Nature intends to use these net proceeds to repay its obligations under the Senior Credit Agreement as well as under the Shareholder Loan II in accordance with their terms (see "*5 Reasons for the Offering and Listing and Use of Proceeds*"). For more information on the treatment of the Shareholder Loan I in connection with the Offering see "*15.1.1 Current and Future Share Capital; Shares*".

12.8.2 Cash Pool

On 24 January, 2017, Springer Science+Business Media GmbH and certain of its subsidiaries entered into a clearing and cash pool agreement, which replaced the cash pool agreement dated June 20, 2006. The current agreement optimizes the payment streams by centralizing of cash flows in order to facilitate the cash management of the Group. It also improves the conditions for investments of liquidity and borrowings by all of its parties, and optimizes the coverage of ongoing liquidity requirements. The clearing and cash pool agreement provides that any amount standing to the credit of any party's account is transferred to a settlement account. Such amount is used to reduce any amounts standing to the debit of other parties' accounts.

12.8.3 Post-IPO Facility Agreement

Following the Offering, we will continue to be financed in part by borrowings. To this end, we entered into various financing agreements. The majority of lenders under these agreements will be a group of our existing lenders. These agreements provide for senior loans and a revolving credit facility and contain covenants, which may affect the operating flexibility of the Group. In the event these covenants are breached, a right of acceleration could be triggered on part of our lenders which could in turn result in a demand of immediate repayment of the relevant indebtedness, as well as a potential cross-acceleration under other debt instruments.

Our most significant financing agreement will be a senior credit agreement (the "**Future Senior Credit Agreement**") entered into by the Issuer as guarantor and certain of its subsidiaries, as borrowers and/or guarantors, on April 12, 2018. The Future Senior Credit Agreement consists of several facilities: a revolving credit facility of €300 million and term loans of approximately up to €1.3 billion and up to $1.1 billion. Interest will accrue at a rate of EURIBOR plus 1.55% per annum for the revolving credit facility, and for the term loans at a rate of 1.75% per annum plus EURIBOR (for the euro denominated term loan) or, respectively, 1.75% per annum plus USD LIBOR (for the U.S. dollar denominated term loan). The margins will be adjusted on a quarterly basis depending on our ratio of consolidated total net debt to consolidated adjusted EBITDA as represented in the consolidated financial statements for the previous quarter. With regard to the interest period of the term loans, we have the option of a one-month, three-month, six-month or such other interest period as we may agree from time to time with our lenders. The Future Senior Credit Agreement contains a change of control provision, pursuant to which we will be required to prepay the outstanding loans and ancillary outstandings, together with accrued interest, to a lender who, within ten business days of the occurrence of such change of control, gives notice of wanting to be repaid and after the expiry of a negotiation period of 20 business days, unless the commitment can be transferred to another bank or financial institution. The facilities under the Future Senior Credit Agreement will have a final maturity date of five years from its signing date.

12.8.4 Macmillan License Agreement

As part of the merger of Springer and MSE in 2015, HM Publishers Holdings Limited ("**HM**"), a wholly-owned subsidiary of the Issuer, entered into a license agreement with Macmillan Publishers International Limited, an entity of Holtzbrinck Publishing Group ("**MP**"), and GvH 33 (the "**License Agreement**").

Under the License Agreement, MP granted HM a perpetual, royalty-free, non-transferable, worldwide license with respect to the word mark "MACMILLAN", the Macmillan wave logo, any combination of that word mark and wave logo, as well as the domain se.macmillan.com. The license granted under the License Agreement is exclusive. It stipulates, however, that GvH 33 and its affiliates may use the licensed trademarks for the operation of their business. Moreover, the License Agreement allows HM to grant sub-licenses (i) to its affiliates, (ii) to third-parties in connection with our business, and (iii) for a period of one year to a potential acquirer of all or some of our business. Furthermore, MP and its subsidiaries are entitled to renew licensed trademarks and any goodwill derived from the use of the license or any sub-license accrues to MP.

The license may not be revoked and is set to expire only under extraordinary circumstances, including financial distress or threat to the continuation of the business of HM. The License Agreement provides for a change of control, in the event of which the agreement terminates immediately, while the license terminates twelve months after such change of control has occurred with respect to the Macmillan trademark and all other trademarks which include the word "MACMILLAN". A change of control is deemed to occur when a person or a person and its affiliates acquire a material part of our business or a controlling interest in HM, *i.e.,* control over a majority of (i) its share capital, (ii) the directing power over voting rights in its general meeting, or (iii) the voting rights in its board meetings through the right to appoint or remove directors. The Offering will not trigger the change of control provision.

12.9 Employees

The following table sets forth the average number of employees for the periods indicated. There has been no material change in the number of our employees between December 31, 2017 and the date of this prospectus.

	For the year ended December 31,		
	2017	2016[(1)]	2015
Research	9,336	8,604	5,722
Education	2,355	2,393	3,410
Professional	930	911	1,670
Total	**12,621**	**11,908**	**10,802**

(1) Taken from the Issuer's audited consolidated financial statements as of and for the year ended December 31, 2017.

The following table sets forth the average number of employees broken down by location for the periods indicated.

	For the year ended December 31,	
	2017	2016
Americas	1,732	1,757
Asia-Pacific	5,942	5,465
Europe, Middle East and Africa (excluding Germany)	3,192	3,065
Germany	1,755	1,621
Total	**12,621**	**11,908**

12.10 Intellectual Property

12.10.1 Patents; IP Rights in Content

As of the date of this prospectus, we do not hold any patents. However, significant parts of our business depend on or are affected by intellectual property rights, especially regarding the rights to the in content we publish. Across our segments, with respect to journals we enter into licensing agreements for the majority of the content we publish. Contrary to a copyright assignment, these licensing agreements allow us to publish the work while the copyright rests with the author. For non-journal content, or content published in journals owned by a partner, such partner (such as an academic society) retains the copyright while we provide publishing and distribution services. Our open access publications are based on so-called "Creative Commons" licenses, which enable the free distribution of an otherwise copyrighted work in accordance with the conditions specified in such license. These licenses provide flexibility to authors as they allow customers to share, use and build upon such licensed work. At the same time, "Creative Commons" protect customers from copyright infringement as long as these customers abide by the conditions of the "Creative Commons" license.

12.10.2 Trademarks

Trademarks play an important role in our business as brands, such as Nature, are critical for the business success of any publisher, as contributors work with publishers due to their brand and reputation. Highly-regarded brands typically attract peer reviewers, members of the editorial boards or teaching staff to voluntarily contribute to our publications. We therefore manage our brands and trademarks very carefully. This includes providing for adequate protection through trade mark registrations. We have registered and use a number of registered trademarks, including the following:

- Adis;
- Advancing Discovery;
- Ärztewoche;
- Autowelt;
- BioMed Central;
- European Journal of Pediatrics;
- Macmillan (see "*12.8.4 Macmillan License Agreement*");
- Nano;
- Nature;
- Nature research;
- Rendement;
- Scientific American;
- Scientific Reports;
- Springer; and
- Springer Nature.

With regard to our operations, we rely on and own intellectual property in our IT systems and technology. Instead of building technology and IT systems internally, we operate in most cases on licensed and customized systems and technologies.

12.11 Insurance Coverage

We have taken out public and products liability, environmental liability and publisher's liability insurance. Under these policies, and related underlying policies in several countries, insured losses include bodily injury, property damages, pure financial losses arising out of third party claims based on private law or – only as far as insured – contractual liability from our business activities as described and insured in the mentioned policies, such as defamation, libel, slander, infringement of trademark or copyright and plagiarism, in each case subject to applicable caps and certain deductibles and limitations.

In addition, we have worldwide coverage policies for D&O (directors & officers) liability, employment practices liability and crime insurance, which are applicable for Springer Nature GmbH and all its subsidiaries, as well as cyber insurance and cargo insurance. Furthermore, we have taken out an all risk property insurance including, in certain countries such as Germany and the United States, coverage for additional costs, subject to usual exclusions, limits and deductibles. Compulsory policies have been taken out where required by local laws.

Management believes that we have adequate insurance coverage against all material risks that are typically insured by similar companies with comparable risk exposure. Insurance cover is regularly verified and adjusted when necessary. However, it cannot be ruled out that we may incur losses that are not covered by existing policies or that exceed the coverage level stipulated in the relevant insurance contracts. Furthermore, it cannot be guaranteed that we will be able to maintain adequate insurance coverage at acceptable cost in the future.

12.12 Facilities

The following table provides an overview of the major real estate holdings and leases of Springer Nature as of the date of this prospectus:

Site	Approx. Size (in m²)	Ownership/ Lease	Primary Use
Gurruchaga No. 2374 Buenos Aires, Argentina	2,500	Ownership	Warehouse and distribution
No. 58 Northwest 4th Ring West Road Beijing, China	1,970	Lease	Offices of Shanghai Springer Information Consulting Services Co., Ltd. And Macmillan Information Consulting Services (Shanghai) Co. Ltd.
135 Rue des Plesses, Château d'Olonne, France	3,380	Ownership	Offices of Codes Rousseau SAS
Heidelberger Platz 3 Berlin, Germany	14,480	Ownership	Headquarters
Haberstr. 4a Heidelberg, Germany	4,890	Ownership	Warehouse and distribution, Springer Customer Service Center GmbH
Tiergartenstraße 15 Heidelberg, Germany	2,230	Ownership	Offices of Spektrum der Wissenschaft Verlag and Springer Customer Service Center GmbH and Springer-Verlag GmbH
Tiergartenstraße 17 Heidelberg, Germany	19,200	Ownership	Offices of Springer-Verlag GmbH, Springer Medizin Verlag GmbH, Springer Customer Service Center GmbH and Spektrum der Wissenschaft Verlagsgesellschaft mbH
Aschauer Straße 30 München, Germany	13,490	Lease	Offices of Springer Fachmedien München GmbH, Springer Medizin Verlag GmbH and further legal entities.
No. 240 Lloyds Road Gopalapuram Chennai, India	1,150	Ownership	Offices & Warehouse of Macmillan Publishers India Private Limited
No. 146, Muttukadu Road Injambakkam Chennai, India	8,160	Ownership	Offices/Warehouse
4-3-1 Toranomon Minato-ku Tokyo, Japan	1,720	Lease	Offices of Springer Japan KK, Nature Japan KK and Macmillan Language House
19 Faraday st. Windhoek, Namibia	2,230	Ownership	Offices and store of Macmillan Education Namibia Publishers (PTY) Limited
402 Independence Ave Windhoek, Namibia	1,300	Ownership	Vacant
Van Godewijckstraat 30 Dordrecht, Netherlands	6,090	Lease	Offices of Springer Science+Business Media B.V. and Springer Science+Business Media Finance B.V.
London Campus (Trematon Walk, 4 & 6 Crinan Street, 8 – 14 Crinan Street, 42 – 50 York Way, 55 Balfe Street) London, United Kingdom	16,100	Lease	Offices of Macmillan Publishers Limited and further legal entities
236 Gray's Inn Road London, United Kingdom	2,400	Lease	Offices of BioMed Central Limited, Springer Healthcare Limited, Stampdew Limited and further legal entities

Site	Approx. Size (in m²)	Ownership/ Lease	Primary Use
1 New York Plaza New York, United States	7,150	Lease	Offices of Nature America, Inc. and further legal entities
233 Spring St. New York, United States	7,930	Lease	Offices of Springer Science+Business Media, LLC, Springer Customer Service Center LLC and further legal entities

Our corporate headquarters are located in Berlin, Germany, where we own office space, which we utilize for Group administration, the IT department and editorial tasks. The offices located at Heidelberger Platz 3, Berlin, Germany serve as the registered place of business of the Issuer. We own additional property in Germany, including in Heidelberg where our warehouse and distribution center is primarily used for storage purposes, while our office facilities are used for customer service and editorial tasks. Our leased Munich facility is primarily used for administrative tasks, customer service and editorial tasks. We own facilities in several locations outside of Germany, including Argentina, India and Namibia, and lease property in China and Japan. The majority of these facilities is utilized to run our customer service, operate our sales team, run local stores, and carry out editorial tasks as well as general administrative as well as IT functions.

We run our pre-publishing processes, which include typesetting and pre-press services, through our facilities in India. We operate hubs in Chennai (with approximately 3,650 full-time equivalent employees) and Pune (with approximately 1,000 full-time equivalent employees).

12.13 Legal Proceedings

Except for the proceeding described below, as of the date of this prospectus the Issuer and the Group are not involved, and have not been involved during the past 12 months, in any governmental, legal or arbitration proceedings (including any such proceedings, which are pending or threatened of which the Issuer is aware), which may have significant effects on the Issuer and/or the Group's financial position or profitability.

In connection with a distribution agreement entered into between Springer Science+Business Media, LLC ("**SSBM LLC**") and Pleiades Publishing, Inc. and Pleiades Publishing Ltd. ("**Pleiades**") on April 15, 2005 (modified, extended and amended by a binding letter on August 1, 2011), Pleiades commenced an action against SSBM LLC in the Supreme Court New York County in 2012, asserting claims arising out of or relating to such distribution agreement. In April 2016, SSBM LLC and Pleiades settled all matters in dispute and entered into new distribution arrangements for a five-year period from January 2016 to December 2021.

13. SHAREHOLDER INFORMATION

13.1 Current Shareholders

The following tables set forth the direct and indirect shareholders of the Issuer immediately prior to the Offering, and their expected shareholding, together with the expected shareholding after the public float upon completion of the Offering at the mid-point of the Price Range based on the Issuer's best knowledge.

		Controlling shareholder of the Issuer, in %				
			upon implementation of the IPO Capital Increase and completion of the Offering at the mid-point of the price range			
			placement of no Secondary Shares		placement of all Secondary Shares	
Indirect Shareholders	**Direct Shareholders**	**immediately prior to the Offering**	**without exercise of Greenshoe Option**	**full exercise of Greenshoe Option**	**without exercise of Greenshoe Option**	**full exercise of Greenshoe Option**
Monika Schoeller[1] Christiane Schoeller[1] Dr. Stefan von Holtzbrinck[1]	GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart, Germany[1]	53.00	38.15[2]	38.15[2]	38.15[2]	38.15[2]
BC Partners Holdings Limited, Guernsey, United Kingdom[3]	Springer Science+Business Media GP Acquisition S.C.A., Luxembourg, Luxembourg[3]	47.00	31.34[4]	28.01[5]	24.68[6]	20.68[7]
–	Free float	–	30.51[8]	33.84[9]	37.17[10]	41.17[11]
–	**Total**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

[1] GvH Vermögensverwaltungsgesellschaft XXXIII mbH is a wholly owned indirect subsidiary of Georg von Holtzbrinck GmbH & Co. KG. Its general partner, Verlagsgruppe Georg von Holtzbrinck GmbH, is jointly controlled by Dr Stefan von Holtzbrinck and Monika Schoeller Familiengesellschaft mbH & Co. KG. Monika Schoeller Familiengesellschaft mbH & Co. KG is, in turn, ultimately controlled by Monika Schoeller and Christiane Schoeller. The voting rights of GvH Vermögensverwaltungsgesellschaft XXXIII mbH in the Issuer are accordingly attributed to Dr Stefan von Holtzbrinck, Monika Schoeller and Christiane Schoeller, the ultimate controlling shareholders of Georg von Holtzbrinck GmbH & Co. KG.

[2] The percentage shown assumes placement of 94,919,626 New Shares (*i.e.*, the number of shares required to achieve the targeted gross proceeds of €1,186.5 million) and acquisition of 8,000,000 Offer Shares by GvH 33. At the low end of the Price Range and placement of 112,999,554 New Shares (*i.e.*, the number of shares required to achieve the targeted gross proceeds of €1,186.5 million), the percentage would amount to 36.38% (taking into account the acquisition of 9,523,809 Offer Shares by GvH 33). At the high end of the Price Range and placement of 81,827,263 New Shares (*i.e.*, the number of shares required to achieve the targeted gross proceeds of €1,186.5 million), the percentage would amount to 39.58% (taking into account the acquisition of 6,896,551 Offer Shares by GvH 33).

[3] Springer Science+Business Media GP Acquisition S.C.A. is a majority owned and controlled indirect subsidiary of BC Partners Holdings Limited. The voting rights of Springer Science+Business Media GP Acquisition S.C.A. in the Issuer are accordingly attributed to BC Partners Holdings Limited. The economic interests in Springer Science+Business Media GP Acquisition S.C.A. are held by funds that are advised by BC Partners Holdings Limited, EQT Partners AB and GIC (sovereign fund of the Government of Singapore), as well as by other investment companies, including companies in which management holds shares.

[4] Based on the assumptions described in footnote 2 above, the percentage would amount to 29.47% at the low end of the Price Range and 32.85% at the high end of the Price Range.

[5] Based on the assumptions described in footnote 2 above, the percentage would amount to 25.74% at the low end of the Price Range and 29.84% at the high end of the Price Range.

[6] Based on the assumptions described in footnote 2 above, the percentage would amount to 23.21% at the low end of the Price Range and 25.87% at the high end of the Price Range.

[7] Based on the assumptions described in footnote 2 above, the percentage would amount to 18.85% at the low end of the Price Range and 22.16% at the high end of the Price Range.

[8] Based on the assumptions described in footnote 2 above, the percentage would amount to 34.15% at the low end of the Price Range and 27.57% at the high end of the Price Range.

[9] Based on the assumptions described in footnote 2 above, the percentage would amount to 37.88% at the low end of the Price Range and 30.57% at the high end of the Price Range.

[10] Based on the assumptions described in footnote 2 above, the percentage would amount to 40.42% at the low end of the Price Range and 34.55% at the high end of the Price Range.

[11] Based on the assumptions described in footnote 2 above, the percentage would amount to 44.77% at the low end of the Price Range and 38.26% at the high end of the Price Range.

The Existing Shareholders have entered into a voting rights pooling agreement. This agreement governs, among other things, designation rights regarding the members of the Supervisory Board and the GP Supervisory Board, as well as a coordinated exercise of voting rights at the Issuer's shareholders' meetings. See below at "*13.5 Voting Rights Pooling Agreement*".

13.2 Additional Information on Holtzbrinck Publishing Group

Besides its ownership in the Issuer, Holtzbrinck Publishing Group pursues interests and activities as a media and publishing group. It is dedicated to the progress of science, education and the culture of reading. Holtzbrinck Publishing Group has broad interests in research publishing, educational content, consumer books and disruptive technology businesses. Currently, Holtzbrinck Publishing Group operates in more than 100 countries globally. In 2016, it generated revenues of approximately €3 billion, including its Springer Nature business, which contributed approximately 53% to Holtzbrinck Publishing Group's revenues. Approximately 30% of its revenues are related to its global consumer book division (Macmillan Publishers), 9% to its higher education business (Macmillan Learning), 6% to its German newspaper business (Die Zeit) and 2% to its holding entity for digital direct investments (Holtzbrinck Digital). Holtzbrinck Publishing Group generates sales in North America (36%), Germany (23%), the rest of Europe (14%), Asia (10%), U.K. (7%), Latin America (4%) and other regions (6%).

The mission of Holtzbrinck Publishing Group is to push boundaries in a continued strive to build new businesses and stay at the forefront of industry development. It has a long history of founding, developing, and acquiring businesses as a strategic owner, and of transforming business models in the digital era. Holtzbrinck Publishing Group is a visionary investor with a strong track record in creating successful businesses and value for shareholders. In 1995, Holtzbrinck Publishing Group acquired Macmillan Publishers Ltd and thereby more than doubled its turnover. Following the integration of Macmillan Publishers Ltd, Holtzbrinck Publishing Group divested its newspaper division and further strengthened its portfolio by investing in the Academic Research market, into content for its book division, and also accelerated investment into the high growth technology businesses. Besides these activities, Holtzbrinck Publishing Group has backed various start-ups in recent years, including Zalando, Delivery Hero, Groupon and Flixbus.

Holtzbrinck Publishing Group has a focus on educational content, consumer books and new technologies. Holtzbrinck Publishing Group continuously expands its science and educational content portfolio and currently provides various products and services to Springer Nature. In this context, it may also enter into competition with Springer Nature in the future. Competition could arise through certain of Holtzbrinck Publishing Group's already existing controlling and non-controlling stakes in various companies, including Netdoktor.de, Die Zeit – Convent, pflege.de, Lecturio, Miamed and Bettermarks.

Competition could arise through Holtzbrinck Publishing Group's activities pursued through the Macmillan Learning business, as Holtzbrinck Publishing Group holds 100% of the shares in this business. Macmillan Learning focuses on higher education in North America, and currently no competition or business overlap with Springer Nature exists. Furthermore, Springer Nature does currently not intend to enter the North American market for higher education. Macmillan Learning comprises various prestigious imprints such as H.W. Freeman, Bedford, and Worth Publishers. The homework platform Sapling, the student response system iClicker, and the artificial intelligence content curation engine Intellus provide Macmillan Learning with a strong technology position. Such positioning is critical for Macmillan Learning's mission to produce efficient and affordable learning outcomes. In 2016, Macmillan Learning generated revenues of approximately €259 million.

Holtzbrinck Publishing Group may also compete with Springer Nature through its entity Digital Science, which is its strategic growth division investing in early stage ventures in the research and science industry. All of the businesses of Digital Science are publisher agnostic and therefore independent. Digital Science is divided into four business segments: Metrics, Labs, Author services and other services, which contributed approximately €14 million, €3.1 million, €0 million, and €1.5 million, respectively, to Digital Science's 2016 revenue. Altmetric, one of the products of Digital Science, provides a standard success metric for research articles based on social media recognition which offers a more current success metric compared to impact factor. Springer Nature currently relies on services provided by Digital Science through its Author services business, as Digital Science supports the BioMed Central and Springer Open business of Springer Nature. In the future, Holtzbrinck Publishing Group could decide to no longer provide products and services through Digital Science to Springer Nature. However, Springer Nature could receive services comparable to the ones currently provided by Digital Science through other providers.

The Holtzbrinck Publishing Group currently holds a minority stake of 30% in Frontiers, a fast-growing open access publishing platform. Frontiers was founded in 2007 and provides functionalities, services and transparency to researches when processing their articles. In 2016, Frontiers generated sales of approximately CHF 21.1 million. Frontiers takes publishing online, focuses on innovation and the development of new technologies to make the peer review process more efficient and transparent. The company provides various impact metrics for articles and researchers, and it merges open access publishing with Loop, a research network platform. In doing so, Frontiers catalyzes collaboration and research dissemination and popularizes research to the public. Frontiers currently collaborates with various companies, including Springer Nature. However, as Frontiers and Springer Nature currently both operate in the open access segment, Frontiers is also a competitor of Springer Nature. Frontiers could also decide to no longer collaborate with Springer Nature.

In order to address potential conflicts of interests and differences of opinion, and to mitigate these in the future, Holtzbrinck Publishing Group and Springer Nature concluded a business opportunities agreement on April 18, 2018. This agreement contains, among other things, a business opportunity covenant. In accordance with such covenant, Holtzbrinck Publishing Group and Springer Nature shall conduct transactions on terms and conditions on arm's length basis, and Holtzbrinck Publishing Group may engage in the business as Springer Nature. Holtzbrinck Publishing Group is also required to present business opportunities that are in the scope of Springer Nature's business first to Sprinter Nature. Only if Springer Nature elects not to pursue these opportunities the Holtzbrinck Publishing Group may do so.

13.3 Controlling Interest

GvH 33 currently directly controls 53.00% of the voting rights in the Issuer. Therefore, GvH 33, and ultimately its controlling shareholders Dr. Stefan von Holtzbrinck, Monika Schoeller and Christiane Schoeller, are considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

The Selling Shareholder currently directly controls 47.00% of the voting rights in the Issuer. Therefore, the Selling Shareholder, and ultimately its controlling shareholder BC Partners, are considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

Based on the offer structure contemplated in this prospectus, GvH 33, immediately upon completion of the Offering, would hold more than 30% of the voting rights in the Issuer. Therefore, upon completion of the Offering, GvH 33 and its ultimately controlling shareholders, Dr. Stefan von Holtzbrinck, Monika Schoeller and Christiane Schoeller, will be considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

Based on the offer structure contemplated in this prospectus and depending on the number of Offer Shares actually placed in the Offering, the Selling Shareholder, immediately upon completion of the Offering, could also hold more than 30% of the voting rights in the Issuer. In this case, upon completion of the Offering, the Selling Shareholder, and ultimately its controlling shareholder BC Partners, would be considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*). For example, if the Offer Price were set at €12.50 per Offer Share, 94,919,626 New Shares would need to be issued to achieve the targeted gross proceeds from the Offering of €1,186.5 million. If, at such Offer Price, the Upsize Option and the Greenshoe Option were not exercised, the Selling Shareholder would hold 31.34% of the voting rights in the Issuer and accordingly would be considered to hold a controlling interest in the Issuer pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

13.4 DT III Agreement

On April 3, 2018, the Existing Shareholders and the Issuer entered into the so-called "DT III Agreement". Pursuant to this agreement, the Existing Shareholders will reimburse the Issuer for all costs incurred in connection with the preparation of the Offering on a *pro rata* basis. The *pro rata* share is calculated according to the ratio of the number of Secondary Shares placed in the Offering to the aggregate number of New Shares and Secondary Shares placed in the Offering and, in each case if and to the extent the Greenshoe Option is exercised, the number of Over-Allotment Shares. The cost to be borne by the Existing Shareholders will be split according to their shareholding in the Issuer as of the date of this prospectus (*i.e.,* 53% in the case of GvH 33 and 47% in the case of the Selling Shareholder). The costs to be reimbursed on such basis include, in particular, legal, auditor and other advisor fees, underwriters' commissions (excluding fees, costs and expenses charged by the underwriters in connection with the Selling Shareholder's selling of Secondary Shares, which will be borne by the Selling Shareholder, or the Issuer's issuing and selling of New Shares, which will be borne by the Issuer) and costs of the Offering. Of the Issuer's accumulated profits of €30.0 million according to the Issuer's unconsolidated financial statements as of and for the year ended December 31, 2017, €20 million are to be distributed to the Existing Shareholders as a dividend (see "*6.2 Dividend Policy and Earnings per Share*"). Pursuant to the DT III Agreement, the Existing Shareholders agreed to offset their respective dividend distribution claim with their reimbursement obligation under the DT III Agreement. Each Existing Shareholder agreed further, to the extent that the distribution claim of the respective Existing Shareholder exceeds such reimbursement obligation, to contribute the resulting difference to the Issuer's free capital reserves in the meaning of Section 272 para. 2 no. 4 of the German Commercial Code (*Handelsgesetzbuch*). The cost reimbursement obligation of the Existing Shareholders remains unaffected if the Offering is postponed or cancelled. As required by law, the Existing Shareholders further agreed to indemnify the Issuer for any liabilities, losses, and damages in connection with the Offering on a *pro rata* basis calculated according to the ratio of the number of Secondary Shares sold by the Selling Shareholder and allocated and settled in the Offering to the aggregate number of New Shares and Secondary Shares allocated and settled in the Offering (in each case if and to the extent the Greenshoe Option is exercised including such shares), including the *pro rata* share of all reasonable legal costs.

13.5 Voting Rights Pooling Agreement

The Existing Shareholders have entered into a voting rights pooling agreement on April 9, 2018 (the "**VRPA**"). Pursuant to the VRPA, the Existing Shareholders intend to coordinate their actions in relation to the General Partner and to exercise their voting rights arising out of the shares in the General Partner in a uniform manner. Furthermore, the Selling Shareholder may request to enter into a voting rights pooling agreement with GvH 33 in relation to the Existing Shareholders' shares in the Issuer. To this end, on April 9, 2018, GvH 33 offered to the Selling Shareholder to enter into such an agreement. This offer will expire two years after the Offering. The Selling Shareholder may however only accept this offer made by GvH 33 as necessary to enhance its influence in relation to the Issuer by way of coordination of actions and exercise of voting rights together with GvH 33 in a way materially similar as under the stipulations in the VRPA set forth below.

Pursuant to the VRPA, the Existing Shareholders will generally exercise their voting rights at the General Partner's shareholders' meetings in a uniform manner in relation to all agenda items at such meeting. Prior to such exercise of voting rights, the Existing Shareholders will collectively decide on how these voting rights will be exercised in a meeting. In principle, in case a majority of 80% of votes cast is not achieved in such meeting of the Existing Shareholders, a vote against the respective resolution item will be cast at the General Partner's shareholders' meeting.

These agenda items include, without limitation, the following:

- all resolutions requiring under statutory law or the articles of association of the General Partner a majority of at least three-quarters of the votes or the capital represented at the General Partner's shareholders' meetings;
- all measures for the increase and/or reduction of the General Partner's share capital;
- all other amendments to the articles of association, regardless of the majority required at the General Partner's shareholders' meetings;
- election and removal of members of the GP Supervisory Board;
- decisions on resolutions under the so-called *Holzmüller* doctrine; and
- resolutions on carrying out special audits and the appointment of special auditors.

With regard to the GP Supervisory Board, the VRPA stipulates that GvH 33 has the right to nominate three members of the GP Supervisory Board, and the Selling Shareholder has the right to nominate one member of the GP Supervisory Board. In addition, the Existing Shareholders shall jointly nominate three further members of the GP Supervisory Board to serve as independent members within the meaning of Section 5.4.2 of the German Corporate Governance Code (*Deutscher Corporate Governance Kodex*) as amended on February 7, 2017 (the "**Code**"). GvH 33 is entitled to determine the chairperson of the GP Supervisory Board, while the Selling Shareholder is entitled to determine the deputy chairperson of the GP Supervisory Board. Committees of the GP Supervisory Board will consist of an equal number of members nominated by GvH 33 and members nominated by the Selling Shareholder, while the chairperson of each such committee will be a member of the GP Supervisory Board nominated by GvH 33, with the exception of the audit committee (*Prüfungsausschuss*), where the chairperson will be an independent member of the GP Supervisory Board.

The VRPA will terminate at the earlier of (i) five years after the completion of the Offering, (ii) the holdings of or attributed to Georg von Holtzbrinck GmbH & Co. KG pursuant to Section 30 of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*), as if it would be applicable, falls below 30% of the voting rights in the General Partner, (iii) once any of the Existing Shareholders, together with its affiliates, no longer holds shares in the General Partner or (iv) once the Selling Shareholder sold and transferred its shares in the General Partner to GvH 33. However, upon the earlier of (i) two years following the completion of the Offering, or (ii) the Selling Shareholder's shareholding falling below 15% of the share capital of the Issuer that is issued at the time of the completion of the Offering, subject to required regulatory and antitrust clearances, certain provisions of the VRPA will no longer apply. As a consequence, the Existing Shareholders may exercise their voting rights in the General Partner independently of each other at the General Partner's shareholders' meetings. Furthermore, the provisions regarding the composition of the GP Supervisory Board and any committees cease to apply. In addition, GvH 33 may request from the Selling Shareholder to (i) sell and transfer its shareholding in the General Partner to GvH 33 and (ii) pass all resolutions and take all reasonable measures to implement such sale and transfer.

14. GENERAL INFORMATION ON THE ISSUER AND THE GROUP

14.1 Formation, Incorporation, Commercial Name and Registered Office

The Issuer's predecessor was formed as a limited liability company (*Gesellschaft mit beschränkter Haftung*) under the laws of the Federal Republic of Germany by articles of association dated April 12, 2013. Its legal name was "Blitz 13-255 GmbH" with its registered office in Munich, Germany, registered under the number HRB 205408 B with the commercial register at the local court (*Amtsgericht*) of Munich, Germany. By resolution of its shareholders dated July 23, 2013, its legal name was changed to "Springer SBM Zero GmbH".

By resolution of its shareholders dated September 5, 2013, the registered office was transferred to Berlin, Germany, registered under the number HRB 153763 B with the commercial register at the local court (*Amtsgericht*) of Charlottenburg, Germany.

By resolution of its shareholders dated July 27, 2017, the articles of association were revised and the Issuer's legal name was changed to "Springer Nature GmbH". The change in legal name was registered with the commercial register at the local court (*Amtsgericht*) of Charlottenburg, Germany, on September 6, 2017.

On April 5, 2018, the extraordinary shareholders' meeting approved a resolution to change the Issuer's legal form to a partnership limited by shares (*Kommanditgesellschaft auf Aktien*) under the legal name "Springer Nature AG & Co. KGaA". The change in legal form and name was registered under the number HRB 195463 B with the commercial register at the local court (*Amtsgericht*) of Charlottenburg. All these changes were effected in accordance with the applicable provisions of the German Transformation Act (*Umwandlungsgesetz*).

The Issuer is the Group's holding company; the Group primarily operates under the brand Springer Nature.

The Issuer's registered office is at Heidelberger Platz 3, 14197 Berlin, Germany (tel. +49 (0)30 827 870).

14.2 Fiscal Year and Duration

The Issuer's fiscal year is the calendar year. The Issuer was established for an unlimited period of time.

14.3 History of the Issuer

The Issuer looks back on a 175-year history as a leading academic publishing company. In 1842, Julius Springer founded Springer Verlag in Berlin. The business of Springer Verlag initially focused on academic publishing, in particular political writing, youth literature, and publications for the pharmacy, engineering, forestry and agriculture market. In 1999, Springer was acquired by Bertelsmann and in 2004, Springer merged with Kluwer Academic Publishers. It acquired Rendement in 2006 and BioMed Central in 2008.

In 1843, Macmillan Publishing was founded in London. The core brand of Macmillan Science and Education at this time was Nature, which was launched in 1869. In the following years and until today, Nature became one of the world's most renowned scientific journals. In 1995, Holtzbrinck Publishing Group acquired a majority interest in Macmillan Science and Education, and acquired the remaining interest in 1999.

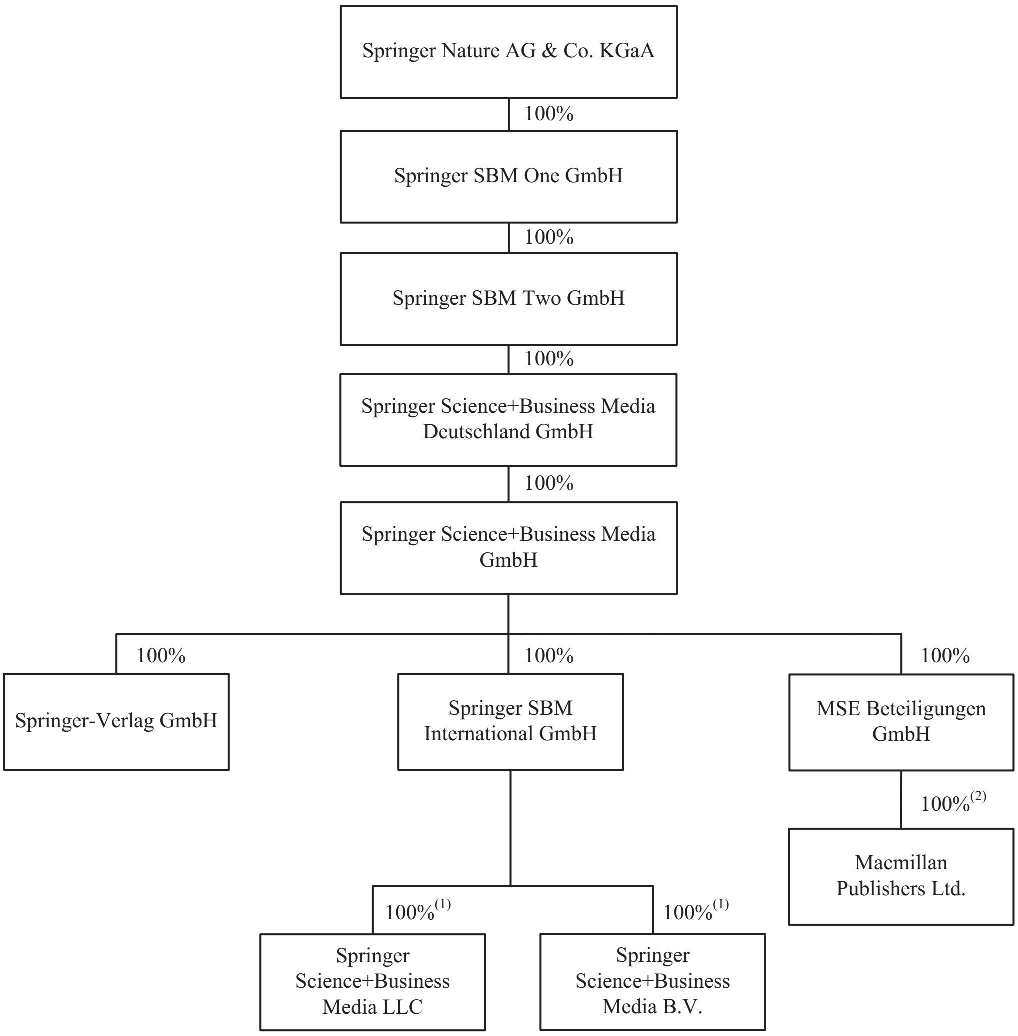
In 2013, BC Partners acquired the Springer Science+Business Media Group and Macmillan Science and Education was created. In 2015, Springer Science and Macmillan Science and Education merged by entering into a business combination agreement and a joint venture agreement. Springer Nature Group emerged as a leading global research, educational and professional publisher. It is home to a broad range of brands providing academic content through a wide array of products and services, and currently employs approximately 13,000 full-time equivalent employees in more than 50 countries.

14.4 Corporate Purpose

Pursuant to Section 2 of the Articles of Association, the Issuer's corporate purpose is the operation of publishing businesses of any kind, the production, development as well as the acquisition and sale of information systems and related products, the trade with licenses and other rights in media and information systems and the purchasing and the provision of related services, each in particular in the field of scientific and expert information. The Issuer is entitled to conduct all business transactions and take all measures which seem to be necessary or useful to promote the purpose of the Issuer. The Issuer may in particular establish or close branches at home or abroad as well as set up, acquire equity interests in or manage companies of the same or similar kind, demerge parts of its business to associated companies, including joint ventures with third parties, sell interests in other companies, conclude enterprise agreements or limit itself to the holding and management of shareholdings.

14.5 Group Structure

The Issuer is the holding company of our Group. The Issuer's business is conducted by its various subsidiaries. The following chart provides an overview of the Group (in simplified form) as of the date of this prospectus:


Springer Nature AG & Co. KGaA
100%
Springer SBM One GmbH
100%
Springer SBM Two GmbH
100%
Springer Science+Business Media Deutschland GmbH
100%
Springer Science+Business Media GmbH
100%
100%
100%
Springer-Verlag GmbH
Springer SBM International GmbH
MSE Beteiligungen GmbH
100%(2)
Macmillan Publishers Ltd.
100%(1)
100%(1)
Springer Science+Business Media LLC
Springer Science+Business Media B.V.

(1) Indirectly wholly-owned through Springer SBM International GmbH.

(2) Indirectly wholly-owned through MSE Beteiligungen GmbH.

14.6 Significant Subsidiaries

The following table provides an overview of the Issuer’s significant subsidiaries. The shareholdings reflect the Group’s direct and indirect economic interest in the respective entity. This means that shares held by the respective company itself are not taken into account when computing the percentage of participation. As of December 31, 2017, no amount was outstanding under the issued shares for each of the below listed subsidiaries.

Name and address/ registered office	As of December 31, 2017					
	Shareholding	Issued capital[1]	Capital reserves[2]	Profit/ loss[3]	Payables to the Issuer	Receivables from the Issuer
			(unaudited)			
	(in %)			(in €)		
Springer Fachmedien Wiesbaden GmbH	100	35,690	2,356,028	(1,782,651)	0	0
Springer Fachmedien München GmbH	100	300,770	13,546,628	9,138,441	0	0
Springer-Verlag GmbH	100	25,000	145,677,618	65,021,647	0	0
Springer Customer Service Center GmbH	100	150,000	109,950	104,502	0	0
Springer Medizin Verlag GmbH Berlin	100	25,150	85,543,567	17,433,893	0	0
Springer Science+Business Media B.V.	100	18,151	0	29,818,894	0	0
Springer International Publishing AG	100	93,130	0	(15,091,563)	0	0
Springer Japan KK	100	3,398,116	4,039,840	5,641,914	0	0
Springer Science+Business Media LLC	100	18,975	435,675,936	45,017,640	0	0
Springer-Verlag London Limited	100	584,611	911,993	3,575,982	0	0
Scientific Publishing Services Private Ltd.	100	698,245	27,930	8,232,481	0	0
Springer Customer Service Center LLC	100	95	417,544,862	(131,949)	0	0
Springer-Verlag GmbH	100	36,336	3,124,819	4,566,064	0	0
Macmillan Publishers India Private Ltd.	99.44	2,096,314	51,903	3,200,164	0	0
Macmillan Iberia S.A.U.	100	4,207,085	0	2,538,791	0	0
Macmillan Publishers Limited	100	11,791,785	0	255,263,362	0	0
Ediciones Castillo S.A. de C.V.	100	11,617,872	0	4,318,132	0	0
Nature America, Inc.	100	949	0	25,768,648	0	0
Springer Media B.V.	100	18,000	538,076	2,644,456	0	0
Rendement Uitgeverij B.V.	100	20,000	0	8,547,779	0	0
BioMed Central Limited	100	84,617,228	1,064,677	22,162,789	0	0

[1] Including preference shares.

[2] Without retained earnings, statutory/surplus reserve.

[3] According to IFRS.

14.7 Auditors

The Issuer appointed Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart, office Berlin, Friedrichstraße 140, 10117 Berlin, Germany, as the auditor of (i) our German language unconsolidated financial statements prepared in accordance with the German generally accepted accounting principles of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2017, and (ii) our German language consolidated financial statements prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315e (1) of the German Commercial Code (*Handelsgesetzbuch*) as of and for the year ended December 31, 2017 and our German language consolidated financial statements prepared in accordance with IFRS and the additional requirements of German commercial law pursuant to Section 315a (1) of the German Commercial Code (*Handelsgesetzbuch*) as of and for the years ended December 31, 2016 and December 31, 2015. Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft has audited in accordance with Section 317 of the German Commercial Code (*Handelsgesetzbuch*) and German generally accepted standards for financial statement audits and issued unqualified German language independent auditor's reports (*uneingeschränkte Bestätigungsvermerke des unanbhängigen Abschlussprüfers*) on the unconsolidated financial statements and consolidated financial statements as of and for the year ended December 31, 2017 and has issued unqualified audit opinions (*uneingeschränkte Bestätigungsvermerke*) on the consolidated financial statements as of and for the years ended December 31, 2016 and December 31, 2015.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft is a member of the Chamber of Public Accountants (*Wirtschaftsprüferkammer*), Rauchstraße 26, 10787 Berlin, Germany.

14.8 Announcements, Paying Agent

Pursuant to Section 3 para. 1 of the Articles of Association, the announcements of the Issuer are published in the German Federal Gazette (*Bundesanzeiger*), unless otherwise required by law.

The Issuer is entitled in accordance with Section 49 para. 3 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) to provide information to the shareholders by way of remote data transmission.

In accordance with the German Securities Prospectus Act (*Wertpapierprospektgesetz*), announcements in connection with the approval of this prospectus or any supplements thereto will be published in the form of publication provided for in this prospectus, in particular through publication on our website (www.springernature.com).

The paying agent is UniCredit Bank AG. The mailing address of the paying agent is: Kardinal-Faulhaber-Str. 1, 80333 Munich, Germany.

15. DESCRIPTION OF THE ISSUER'S SHARE CAPITAL AND APPLICABLE REGULATIONS

15.1 Provisions Relating to the Share Capital of the Issuer

15.1.1 Current and Future Share Capital; Shares

As of the date of this prospectus, the share capital of the Issuer amounts to €190,000,000.00 and is divided into 190,000,000 ordinary bearer shares with no-par value (*Stückaktien*). The share capital has been fully paid up. The Issuer's shares were created pursuant to the laws of the Federal Republic of Germany.

As of the date of this prospectus, the Existing Shareholders hold financing instruments related to SSBM One, a fully consolidated subsidiary of the Issuer. For more information in the Group structure, see "*14.5 Group Structure*".

The Selling Shareholder holds entitlements under a shareholder loan granted to SSBM One (the "**One Shareholder Loan**") in the course of its acquisition of Springer in 2013 (see "*12.8.1 Financing Agreements*"). As of the date of this prospectus, the amounts owed by SSBM One under the One Shareholder Loan stood at €453.0 million.

GvH 33, in turn, holds 26,600 One B Shares (together with the One Shareholder Loan the "**Financing Instruments**") in SSBM One, representing 26.6% of the share capital. SSBM One's remaining share capital is held by the Issuer (73,116 One B Shares, representing 73.116%) and SSBM One (284 One B Shares, representing 0.284% (as treasury shares)). The One B Shares were issued by SSBM One during the merger of Springer and Macmillan in 2015 in order to economically balance the financing structure between the Existing Shareholders in accordance with the shareholdings of Georg von Holtzbrinck GmbH & Co. KG and BC Partners in the Issuer (the "**Investment Ratio**").

Since the establishment of the Financing Instruments, the Selling Shareholder contributed and committed to contribute a portion of the One Shareholder Loan into the Group in connection with certain indemnity payments. Furthermore, GvH 33 granted a vendor loan to SSBM One in connection with the repurchase of One B Shares in 2016 (the "**Vendor Loan**"), which SSBM One holds as treasury shares. Both of these transactions led to a change in the Investment Ratio.

The Existing Shareholders will dissolve the Financing Instruments by (i) re-balancing the Investment Ratio and (ii) effecting a cash capital increase as follows:

- In a first step, GvH 33 will sell such number of One B Shares to the Selling Shareholder as is required to re-balance the Investment Ratio. The Selling Shareholder will pay the purchase price to GvH 33 for such One B Shares after the IPO.
- In a second step, GvH 33 will contribute and assign its remaining One B Shares and the Vendor Loan, and the Selling Shareholder will contribute and assign its One B Shares and the One Shareholder Loan to the Issuer into the free capital reserves as a contractual premium. Furthermore, the Issuer's shareholders' meeting will resolve to issue, in connection with the IPO Capital Increase, two shares to the Existing Shareholders against a contribution in cash by €2.00. The consummation of the IPO Capital Increase is expected to be registered with the commercial register of the local court (*Amtsgericht*) of Charlottenburg, Germany, on May 8, 2018. A delay in the registration of this capital increase against contribution in cash with the commercial register is not expected.

Upon registration of the IPO Capital Increase, the Issuer's outstanding share capital will be increased by (i) €2.00 as a result of the dissolution of the Financial Instruments as described above, and (ii) by up to €112,999,554.00 as a result of the IPO Capital Increase. The Issuer's outstanding share capital will therefore be divided into up to 302,999,556 ordinary bearer shares with no-par value (*Stückaktien*).

15.1.2 Development of the Share Capital

The Issuer's legal predecessor was incorporated in the legal form of a limited liability company (*Gesellschaft mit beschränkter Haftung*) on April 12, 2013 under the laws of the Federal Republic of Germany with a share capital of €25,000. Its legal name was "Blitz 13-255 GmbH". By decision of its shareholders dated July 23, 2013, its legal name was changed to "Springer SBM Zero GmbH". By decision of its shareholders dated July 27, 2017, the articles of association were revised and the Issuer's legal name was changed to "Springer Nature GmbH". By resolution of its shareholders dated April 5, 2018, the articles of association were revised and the Issuer's legal name changed to "Springer Nature AG & Co. KGaA".

The following table sets out the increases in the Issuer's share capital against cash from the founding of Springer Nature until the date of this prospectus:

Date of shareholder resolution or management resolution to increase share capital against cash	Nominal amount of capital increase in €	Resulting share capital in €	Date of registration in commercial register
April 1, 2015	22,000.00	47,000.00	April 17, 2015
May 5, 2015	53,000.00	100,000.00	May 5, 2015
April 16, 2018	189,900,000.00	190,000,000.00	April 20, 2018

On April 1, 2015, the Issuer's shareholders' meeting resolved to increase the Issuer's share capital from €25,000.00 by €22,000.00 to €47,000.00 against contribution in cash. The consummation of this capital increase was registered in the commercial register of the local court (*Amtsgericht*) of Charlottenburg, Germany, on April 17, 2015.

On May 5, 2015, the Issuer's shareholders' meeting resolved to increase the Issuer's share capital from €47,000.00 by €53,000.00 to €100,000.00 against contribution in kind. The consummation of this capital increase was registered in the commercial register of the local court (*Amtsgericht*) of Charlottenburg, Germany, on May 5, 2015.

On April 16, 2018, the Issuer's extraordinary shareholders' meeting resolved to increase the Issuer's share capital from €100,000.00 by €189,900,000.00 to €190,000,000.00 by way of conversion of capital reserves. The consummation of this capital increase was registered in the commercial register of the local court (*Amtsgericht*) of Charlottenburg, Germany, on April 20, 2018.

By resolution of the extraordinary shareholders' meeting expected to be held on or about May 3, 2018, the Issuer's share capital is expected to be increased from €190,000,000.00 by up to €112,999,556.00 to up to €302,999,556.00 against contribution in cash for the purposes of (i) creating the New Shares that are the subject of the Offering described in the prospectus and (ii) for purposes of creating two shares to be issued in connection with the dissolution of the Financing Instruments described above. It is anticipated that the consummation of the IPO Capital Increase will be registered with the commercial register of the local court (*Amtsgericht*) of Charlottenburg, Germany, on May 8, 2018.

15.1.3 Authorized Capital

Pursuant to Section 5 para. 1 of the Articles of Association, the General Partner is authorized, with consent of the Supervisory Board, to increase the share capital of the Issuer prior to or on April 13, 2023 by up to €95,000,000.00, by issuing new ordinary bearer shares with no-par value (*auf den Inhaber lautende Stückaktien*) against contributions in cash and/or in kind.

The Issuer's shareholders are to be granted subscription rights. However, the General Partner is authorized, with consent of the Supervisory Board, to exclude the subscription rights of the shareholders for one or more capital increases from the authorized capital in any of the following conditions:

- where the subscription ratio gives rise to fractions in the case of capital increases;
- to the extent necessary to grant the holders or creditors of bonds with warrants or conversion rights or profit participation rights or profit participating bonds, with warrants or conversion rights or conversion obligation (the "**Bonds**") (or a combination of these instruments), issued by the Issuer or a Group company a right to subscribe for new shares to the extent to which they would be entitled after exercise of their rights and obligations from these instruments;
- to fulfil the Issuer's obligations under warrants or conversion rights or, respectively, conversion obligations under bonds with warrants or conversion rights or profit participation rights or profit participating bonds, with warrants or conversion rights or conversion obligation (or a combination of these instruments), issued by the Issuer or Group company;
- if capital is increased against contributions in kind, in particular, but not limited to, in order to acquire an enterprise, parts of an enterprise or an interest in an enterprise;
- if the issue price of the new shares in case of a capital increase against cash contribution is not significantly below the stock market price and the aggregate number of listed shares pursuant to sections 203 para. 1, 186 paragraph 3 sentence 4 of the German Stock Corporation Act (*Aktiengesetz)* does not exceed 10% of the share capital, neither on the date on which this authorization takes effect nor on the date of exercise of this authorization. The sale of treasury

shares shall be counted towards the threshold of 10% provided that the sale occurs during the term of this authorization and under the exclusion of subscription rights pursuant to section 186 para. 3 sentence 4 of the German Stock Corporation Act (*Aktiengesetz*). Furthermore, such shares shall count towards this threshold that must be issued to service bonds (including participation rights) with conversion rights or warrants, or to service a conversion obligation, provided that the bonds or participation rights were issued during the term of this authorization with exclusion of subscription rights in corresponding application of section 186 para. 3 sentence 4 of the German Stock Corporation Act (*Aktiengesetz*); and

- to implement a scrip dividend of Issuer's shares (in part and/or at election) to fulfil dividend entitlements of the shareholders.

Shares issued in a capital increase against contributions in cash and/or in kind pursuant to these conditions with exclusion of subscription rights shall not exceed 20% of the share capital of the Issuer neither on the date on which this authorization takes effect nor on the date of exercise of this authorization. To the extent that, during the term of the authorized capital until the exercise of the authorized capital, other authorizations to issue or to sell shares of the Issuer or to issue rights, with the option or the obligation to subscribe to shares of the Issuer, are exercised with exclusion of subscription rights, it shall counted towards this threshold of 20%.

Furthermore, the General Partner is authorized, with consent of the Supervisory Board, to determine the content of the rights attached to the shares and the terms and conditions of the share issuance.

15.1.4 Conditional Capital

On April 16, 2018, an extraordinary Shareholders' Meeting has resolved, among others, on a Conditional Capital 2018 and on amending the Articles of Association pursuant to Section 192 of the German Stock Corporation Act (*Aktiengesetz*) accordingly.

Upon registration and pursuant to Section 6 para. 1 of the Articles of Association, the Issuer's share capital is conditionally increased by up to €38,000,000.00 ("**Conditional Capital 2018**"). The conditional capital increase will only be implemented to the extent necessary the holders or creditors of bonds, *i.e.* convertible bonds, bonds with warrants, profit participation rights, and/or income bonds, issued by the Issuer or a Group company based on the authorization resolution as adopted by the extraordinary Shareholders' Meeting of April 16, 2018, exercise their warrants or conversion rights or to fulfil the warrants or conversion obligations from these Bonds, and to the extent no other fulfilment is chosen. The new shares shall be issued at the respective option and conversion prices to be determined in accordance with the terms and conditions of the Bonds on the basis of the aforementioned authorization resolution. The new shares shall bear the right to participate in the profits starting from the beginning of the fiscal year in which they are issued as a result of the exercise of conversion or option rights or the fulfilment of conversion or option obligations. To the extent permitted by law, the General Partner, with the approval of the Supervisory Board, may determine the participation of the new shares in the profits in divergence from Section 60 para. 2 German Stock Corporation Act (*Aktiengesetz*). The General Partner is authorized to determine any further details of the implementation of the conditional capital increases from the Conditional Capital 2018.

15.1.5 Authorization to Issue Convertible Bonds and Other Instruments

Upon registration and pursuant to a resolution of the Issuer's extraordinary Shareholders' Meeting held on April 16, 2018, the General Partner is authorized, with the approval of the Supervisory Board, to issue, once or repeatedly, until April 13, 2023, Bonds, *i.e.,* convertible bonds, bonds with warrants, profit participation rights, and/or income bonds (or any combination of these instruments) having an aggregate principal amount of up to €400,000,000.00 and to grant the holders or creditors option or conversion rights to shares of the Issuer with a maximum proportion of the share capital of up to €38,000,000.00 in accordance with the terms and conditions of the Bonds. The authorization to issue Bonds sets out certain parameters which include the following: The Bonds may stipulate an obligatory conversion or an obligation to exercise the option upon maturity or earlier or provide for the right of the Issuer, in whole or in part, instead of paying the amounts due to deliver to the holders or creditors shares of the Issuer. In the event of an option being exercised or of a conversion, and in the event of fulfilment of option or conversion obligations, the Issuer may at its discretion grant new shares from authorized capital, treasury shares or other consideration. The terms and conditions of the Bonds may also provide for the right of the Issuer not to grant shares, but rather to pay the equivalent value in cash or shares of another listed company. The option or conversion price for a share must be either (i) at least 80% of the volume-weighted average stock exchange price of the shares of the Issuer in the XETRA trading system (or a comparable successor system) at the Frankfurt Stock Exchange on the last ten trading days prior to the date on which the resolution on the issue of the Bonds is adopted by the General Partner, or (ii) alternatively, in the event of subscription rights being granted, at least 80% of the volume-weighted average stock exchange price of the shares of the Issuer in the XETRA trading system (or a comparable successor system) at the Frankfurt Stock Exchange in the period during which the subscription rights are traded on the Frankfurt Stock Exchange or in the period from the start of the subscription period up to the final determination of the subscription price. In case of Bonds with a mandatory conversion obligation or with an obligation to exercise the option right or a put option entitling the Issuer to deliver shares, the conversion or option price may either be at least equal to the minimum price set out above or correspond to the average volume-weighted price of the shares of the Issuer in the XETRA trading system (or a comparable successor system) at the Frankfurt Stock Exchange on at least ten trading days immediately before or after the day of maturity, even if the average price is below the minimum price (80%). The terms and conditions may also provide for certain anti-dilution mechanisms pursuant to which the option or conversion rights and obligations may–notwithstanding any applicable law–be adjusted to retain value, if during the term of the Bonds the financial value of the existing option or conversion rights and obligations is diluted. The terms and conditions may also provide for a cash compensation instead of granting subscription rights or changing the conversion price. The Bonds may also be issued by companies in which the Issuer has a direct or indirect majority share. In such case, the General Partner is authorized to provide for a guarantee for the repayment of the Bonds for the issuing company and to grant holders or creditors of such Bonds shares of the Issuer in order to satisfy the conversion or option obligations conceded with such Bonds.

Shareholders have, in principle, subscription rights to the Bonds. The Bonds may also be acquired by one or several banks or enterprises within the meaning of Section 186 para. 5 sentence 1 German Stock Corporation Act (*Aktiengesetz*), subject to the obligation to offer them to shareholders for subscription. The General Partner may, with the approval of the Supervisory Board, exclude subscription rights to the Bonds in certain cases and under certain conditions, including (i) if the Bonds are issued for cash payment, provided that the issue price is not significantly lower than the theoretical market price as determined in accordance with recognized actuarial calculation methods and that the Bonds carry option or conversion rights and/or option or conversion obligations to shares with a proportionate amount of the share capital which must not exceed 10% of the Issuer's share capital at the time said authorization comes to effect or–in case such amount is lower–the authorization is exercised; any shares shall count towards the threshold of 10% of the registered share capital that (a) are issued or sold during the term and up to the time of exercising of the authorization, in direct or analogous application of Section 186 para. 3 sentence 4 of the German Stock Corporation Act (*Aktiengesetz*) or (b) are issued to satisfy subscription rights or conversion obligations arising from Bonds, provided that such Bonds are issued subject to the exclusion of the shareholders' subscription rights in analogous application of Section 186 para. 3 sentence 4 German Stock Corporation Act (*Aktiengesetz*) following the date on which this authorization becomes effective; (ii) if the Bonds are issued against contributions in kind, provided that the value of the contribution in kind is proportionate to the market value of the Bonds; (iii) for fractional amounts; or (iv) if the Bonds are issued to fulfil obligations of the Issuer from option or conversion rights or obligations from Bonds issued by the Issuer or by companies in which the Issuer has a direct or indirect majority share.

To the extent that profit participation rights or income Bonds are issued that do not carry option or conversion rights and/or option or conversion obligations, the General Partner shall be authorized to exclude subscription rights of shareholders overall if these profit participation rights or income Bonds are structured in the same way as Bonds, *i.e.,* do not constitute any membership rights in the Issuer, do not grant any participation in liquidation proceeds and the amount of interest is not calculated on the basis of the amount of net income, unappropriated net income, or the dividend. In this case, the interest and the issue price of the profit participation rights or income Bonds shall also correspond to comparable borrowings under current market conditions on the issue date. The General Partner is authorized, with the approval of the Supervisory Board, to stipulate further particulars and terms of the Bonds in accordance with the parameters of the authorization.

15.1.6 Treasury Shares

As of the date of this prospectus, the Issuer does not hold any of its own shares, nor does a third party hold any shares of the Issuer on behalf of or for the account of the Issuer.

15.2 General Provisions Governing a Liquidation of the Issuer

Apart from liquidation as a result of insolvency proceedings, the Issuer may be liquidated by a resolution of the General Shareholders' Meeting that is passed by a majority of the votes cast, provided that those votes represent 75% or more of the share capital represented at the General Shareholders' Meeting at which such vote is taken. The dissolution of the Issuer requires the consent of the General Partner.

The dissolution is carried out by the General Partner, or one or more persons that are appointed as liquidators of the Issuer by a resolution of the General Shareholders' Meeting. Pursuant to the German Stock Corporation Act (*Aktiengesetz*), in the event of the Issuer's liquidation, any assets remaining after all of the Issuer's liabilities have been settled will be distributed among the shareholders in proportion to their shareholdings. Pursuant to Section 10 para. 2 of the Articles of Association, in the event of the Issuer's liquidation, the General Partner shall not participate in the distribution of the Issuer's assets as described above. The German Stock Corporation Act (*Aktiengesetz*) provides certain protections for creditors that must be observed in the event of liquidation.

15.3 General Provisions Governing a Change in the Share Capital

Under the German Stock Corporation Act (*Aktiengesetz*), in case of a partnership limited by shares (*Kommanditgesellschaft auf Aktien*), a capital increase requires a resolution of the general shareholders' meeting resolution passed by a majority of at least 75% of the share capital represented at the vote and the approval of the general partner.

However, pursuant to the Issuer's Articles of Association, certain capital measures that do not have a dilutive effect (*Verwässerungseffekt*) on the shareholders' participations (such as capital increases with shareholders' subscription rights against contributions, capital increases from company funds and the issuance of convertible bonds, profit participation bonds and other instruments for which the shareholders have a subscription right) may be adopted by a simple majority. Shareholders can also create authorized capital. This requires a resolution passed by a majority of at least 75% of the share capital represented at the vote, authorizing the general partner to issue a specific quantity of shares within a period not exceeding five years. The nominal amount may not exceed half of the share capital existing at the time the authorization is granted. The resolution of the general partner to increase the capital under such authorization requires approval of the supervisory board of the partnership limited by shares.

In addition, shareholders can create contingent capital by a resolution of the general shareholders' meeting passed with a majority of at least 75% of the share capital represented at the vote for the purposes of (i) issuing shares to holders of convertible bonds or other securities granting a right to subscribe for shares; (ii) issuing shares as consideration in a merger with another company; or (iii) issuing shares offered to managers and employees of the Issuer or the Group. The shareholders' resolution requires approval of the general partner. The nominal amount of contingent capital may not exceed 10% of the share capital at the time the resolution is passed in cases where it is created to issue shares to managers and employees, and may not exceed 50% in all other cases. Resolutions to reduce share capital require a 75% majority of the share capital represented at the vote.

15.4 General Provisions Governing Subscription Rights

In principle, Section 186 of the German Stock Corporation Act (*Aktiengesetz*) grants to all shareholders the right to subscribe for new shares to be issued in a capital increase. In case of a partnership limited by shares (*Kommanditgesellschaft auf Aktien*), only the shareholders who participate in the company's share capital but are excluded from the management of the company and are not personally liable for the company's debts (*Kommanditaktionäre*) have subscription rights when new shares are issued. The same applies to convertible bonds, bonds with warrants, profit participation rights and participating bonds. Subscription rights are freely transferable and may be traded on German stock exchanges for a prescribed period before the deadline for subscription expires. However, shareholders do not have a right to request admission to trading for subscription rights. The general shareholders' meeting may, subject to a majority of at least 75% of the share capital represented at the vote, resolve to exclude subscription rights. Exclusion of shareholders' subscription rights also requires a report from the general partner of the company that justifies and demonstrates that the company's interest in excluding subscription rights outweighs the interest of the shareholders being granted subscription rights. Excluding shareholders' subscription rights when new shares are issued is specifically permissible where:

- the company is increasing share capital against cash contributions;
- the amount of the capital increase does not exceed 10% of the share capital at issue; and
- the price at which the new shares are being issued is not materially lower than the stock exchange price.

15.5 Exclusion of Minority Shareholders

Pursuant to Sections 327a *et seq.* of the German Stock Corporation Act (*Aktiengesetz*), which governs the so-called "squeeze-out under stock corporation law", upon the request of a shareholder holding 95% of the share capital, the shareholders' meeting of a partnership limited by shares (*Kommanditgesellschaft auf Aktien*) may resolve to transfer the shares of minority shareholders to a majority shareholder against the payment of adequate compensation in cash. The amount of the cash payment that must be offered to minority shareholders has to reflect "the circumstances of the company" at the time the shareholders' meeting passes the resolution. The amount of the cash payment is based on the full value of the company, which is generally determined using the capitalized earnings method. The minority shareholders are entitled to file for a valuation proceeding (*Spruchverfahren*), in the course of which the fairness (*Angemessenheit*) of the cash payment is reviewed.

Pursuant to Sections 39a and 39b of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*), in the case of a so-called "squeeze-out under takeover law", an offeror holding at least 95% of the voting share capital of a target company (as defined in the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*)) after a takeover bid or mandatory offer, may, within three months of the expiry of the deadline for acceptance of the offer, petition the Regional Court (*Landgericht*) of Frankfurt am Main for a court order transferring the remaining voting shares to itself against the payment of adequate compensation. A resolution passed by the shareholders' meeting is not required. The consideration paid in connection with the takeover or mandatory bid is considered adequate if the offeror has obtained at least 90% of the share capital subject to the offer. The nature of the compensation must be the same as the consideration paid under the takeover bid or mandatory offer; a cash alternative must be offered in any event. In addition, after a takeover bid or mandatory offer, shareholders in a target company who have not accepted the offer may do so up to three months after the deadline for acceptances has expired pursuant to Section 39c of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*), provided the offeror is entitled to petition for the transfer of the outstanding voting shares in accordance with Section 39a of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*). The provisions for a squeeze-out under stock corporation law cease to apply once an offeror has petitioned for a squeeze-out under takeover law, and only apply again when these proceedings have been definitively completed.

In addition, under Section 78, 62 para. 5 of the German Reorganization and Transformation Act (*Umwandlungsgesetz*), a majority shareholder holding at least 90% of the share capital of a partnership limited by shares (*Kommanditgesellschaft auf Aktien*) can require the shareholders' meeting to resolve that the minority shareholders must transfer their stock to the majority shareholder against the payment of adequate compensation in cash, provided that (i) the majority shareholder is a German stock corporation, a partnership limited by shares (*Kommanditgesellschaft auf Aktien*), or a Societas Europaea or European stock corporation (SE) having its seat in Germany; and (ii) the squeeze-out is performed to facilitate a merger under the German Transformation Act (*Umwandlungsgesetz*) between the majority shareholder and the partnership limited by shares (*Kommanditgesellschaft auf Aktien*). The shareholders' meeting approving the squeeze-out must take place within three months of the conclusion of the merger agreement. The procedure for the squeeze-out is essentially identical to the "squeeze-out under stock corporation law" described above, including the minority shareholders' right to have the appropriateness of the cash compensation reviewed.

15.6 Shareholder Notification Requirements; Mandatory Takeover Bids; Directors' Dealings

Once the Issuer's shares are admitted to trading on the regulated market of the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), it will be subject to the provisions of the German Securities Trading Act (*Wertpapierhandelsgesetz*) governing disclosure requirements for significant shareholdings, the Market Abuse Regulation (EU) No. 596/2014 ("**MAR**") governing, among other things, directors' obligations to disclose transactions in the Issuer's shares, debt instruments, or related financial instruments, and the provisions of the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*).

Pursuant to Section 33 para. 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), anyone who acquires, sells or whose shareholding in any other way reaches, exceeds or falls below 3%, 5%, 10%, 15%, 20%, 25%, 30%, 50% or 75% of the total number of voting rights in the Issuer, as an issuer whose country of origin (*Herkunftsstaat*) is Germany, is required to notify the Issuer and BaFin at the same time. Notifications must be submitted without undue delay, and no later than within four trading days. The four-day notification period starts at the time the person or entity subject to the notification requirement has knowledge of or, in consideration of the circumstances, should have had knowledge of his proportion of voting rights reaching, exceeding or falling below the aforementioned thresholds. The German Securities Trading Act (*Wertpapierhandelsgesetz*) contains a conclusive presumption that the person or entity subject to the notification requirement has knowledge two trading days after such an event occurs. Moreover, a person or entity is deemed to already hold shares as of the point in time such person or entity has an unconditional and due claim of transfer related to such shares pursuant to Section 33 para. 3 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). In the case that a threshold has been reached or crossed due to a change in the total number of voting rights, the notification period starts at the time the person or entity subject to the notification requirement has knowledge about such change, or upon the publication of the revised total number of voting rights by the Issuer, at the latest.

In connection with these requirements, Section 34 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) contains various attribution rules. For example, voting rights attached to shares held by a subsidiary are attributed to its parent company. Similarly, voting rights attached to shares held by a third party for the account of a person or entity are attributed to such person or entity. Voting rights which a person or entity is able to exercise as a proxy according to such person's or entity's discretion are also attributed to such person or entity. Further, any coordination by a person or entity with a third party on the basis of an agreement or in any other way generally results in an attribution of the full amount of voting rights held by, or attributed to, the third party as well as to such person or entity. Such acting in concert generally requires a consultation on the exercise of voting rights or other efforts designed to effect a permanent and material change in the business strategy of the Issuer. Accordingly, the exercise of voting rights does not necessarily have to be the subject of acting in concert. Coordination in individual cases, however, is not considered as acting in concert.

Similar obligations to notify the Issuer and the BaFin apply pursuant to Section 38 para. 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) to anyone who reaches, exceeds or falls below the aforementioned thresholds, except for the 3% threshold, by directly or indirectly holding instruments either (i) giving their holder the unconditional right or discretion to acquire already issued shares of the Issuer to which voting rights are attached, or (ii) relating to such shares and having a similar economic effect, whether or not conferring a right to a physical settlement. Pursuant to Section 38 para. 2 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), such instruments include, in particular, transferable securities, options, futures, swaps, forward rate agreements and contracts of difference.

In addition, anyone whose aggregate number of voting rights and instruments pursuant to Section 33 para. 1 and para. 2 and Section 38 para. 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) reaches, exceeds or falls below the aforementioned thresholds, except for the 3% threshold, has to notify the Issuer and the BaFin pursuant to Section 39 para. 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*).

If any of the aforementioned reporting obligations are triggered, the notifying person or entity is required to fully complete the notification form set forth as an annex to the Securities Trading and Insider List Regulation (*Wertpapierhandelsanzeige- und Insiderverzeichnisverordnung*). The notice can be submitted either in German or English, in writing or via fax. The notice must include, irrespective of the event triggering the notification, (i) the number and proportion of voting rights, (ii) the number and proportion of instruments and (iii) the aggregate number and proportion of voting rights and instruments held by or attributed to the notifying person or entity. In addition, the notice must include certain attribution details, among other things, the first name and surname of the notifying individual or the legal name, seat and state of a notifying entity, the event triggering the notification, the date on which the threshold was reached or crossed and, if voting rights or instruments are attributed.

As a domestic issuer, the Issuer must publish such notices without undue delay, but no later than three trading days of receipt, via media outlets or outlets where it can be assumed that the notice will be disseminated in the entire EU and in the non-EU member states that are parties to the Agreement in the EEA. The Issuer must also transmit the publication to the BaFin, specifying the time of publication and the media used and to the German Company Register (*Unternehmensregister*) for storage.

There are certain exceptions to the notice requirements. For example, a company is exempt from its notification obligation if its parent company, or if its parent company is itself a subsidiary, the parent's parent company, has filed a group notification pursuant to Section 37 para. 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). Moreover, shares or instruments held by a credit institution or a credit securities services company with a registered seat in the EU or in a non-EU member state that is a party to the Agreement in the EEA are not taken into account for determining the notification obligation or proportion of voting rights held, *provided* (i) they are held in such credit institution's or credit securities services company's trading book, (ii) they amount to no more than 5% of the voting shares, do not grant the right to acquire more than 5% of the voting shares, or do not have a similar economic effect and (iii) it is ensured that the voting rights held by them are not exercised or otherwise made use of.

If a shareholder fails to file a notice or provides false information with regard to shareholdings pursuant to Sections 33 and 34 of the German Securities Trading Act (*Wertpapierhandelsgesetz*), the rights attached to shares held by or attributed to such shareholder, particularly voting and dividend rights, do not exist for the duration of the failure. This does not apply to entitlements to dividend and liquidation gains if the notifications were not omitted willfully and have since been made. If the shareholder fails to disclose the correct proportion of voting rights held and the shareholder acted willfully or was grossly negligent, the rights attached to shares held by or attributed to such shareholder do not exist for a period of six months after such shareholder has correctly filed the necessary notification, except if the variation in the proportion of the voting rights notified in the preceding incorrect notification was less than 10% of the actual voting right proportion and no notification with respect to reaching, exceeding or falling below the aforementioned thresholds pursuant to Section 33 para. 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*) was omitted. The same rules apply to shares held by a shareholder, if such shareholder fails to file a notice or provides false information with regard to holdings in instruments or aggregate holdings in shares and instruments pursuant to Sections 38 para. 1, 39 para. 1 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). In addition, a fine may be imposed for failure to comply with notification obligations.

A shareholder who reaches or exceeds the threshold of 10% of the voting rights, or a higher threshold, is obligated to notify the Issuer within 20 trading days regarding the objective being pursued through the acquisition of voting rights, as well as regarding the source of the funds used for the purchase. Changes in those objectives must also be reported within 20 trading days. The Articles of Association have not made use of the option to release shareholders from this disclosure obligation. In calculating whether the 10% threshold has been reached or exceeded, the attribution rules mentioned above apply.

Furthermore, pursuant to the German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*), every person whose share of voting rights reaches or exceeds 30% of the voting shares of the Issuer is obligated to publish this fact on the Internet and by means of an electronically operated system for disseminating financial information, unless an exemption from this obligation has been granted by the BaFin. If no exemption has been granted, this publication has to be made within seven calendar days and include the total amount of voting rights held by and attributed to such person and, subsequently, such person is further required to submit a mandatory public tender offer to all holders of shares in the Issuer. The German Securities Acquisition and Takeover Act (*Wertpapiererwerbs- und Übernahmegesetz*) contains a series of provisions intended to ensure the attribution of shareholdings to the person who actually controls the voting rights attached to the shares, comparable to the attribution rules described above for shareholdings pursuant to Section 34 of the German Securities Trading Act (*Wertpapierhandelsgesetz*). If a bidder fails to give notice of reaching or exceeding the 30% threshold or fails to submit the mandatory tender offer, the bidder is barred from exercising the rights associated with these shares, including voting rights, for the duration of the delinquency. In case of willful failure to publish the notice of acquisition of control over another company or submission of a mandatory tender offer or willful failure to subsequently send those notices in a timely fashion, the bidder is also not entitled to dividends. A fine may also be imposed in case of non-compliance with the notification obligations described above.

Persons discharging managerial responsibilities at the Issuer within the meaning of the MAR, such as the members of the Management Board, the Supervisory Board and the GP Supervisory Board, have to notify the Issuer and the BaFin promptly and no later than three business days following transactions exceeding a total of €5,000 per annum in the Issuer's shares, debt instruments, or in related financial instruments undertaken for their own account (so-called managers' transactions). This also applies to persons or entities that are closely associated with such executives within the meaning of the MAR. The Issuer shall ensure that such managers' transactions notifications are made public promptly and no later than three business days after the transaction.

16. MANAGEMENT

16.1 Overview

The Issuer is incorporated as a partnership limited by shares (*Kommanditgesellschaft auf Aktien*) under German law. The partnership limited by shares is a hybrid legal form as it comprises elements of a German limited partnership (*Kommanditgesellschaft*) and of a German stock corporation (*Aktiengesellschaft*). The partnership limited by shares has its own legal personality. Similar to a German stock corporation, the partnership limited by shares has a share capital (*Grundkapital*) that is divided into shares. Besides the German stock corporation and the European stock corporation (*Societas Europaea*), the partnership limited by shares is the only German entity whose shares are eligible for listing on a stock exchange in Germany. Like a German stock corporation, a partnership limited by shares has the corporate bodies of a supervisory board (*Aufsichtsrat*) and a general shareholders' meeting (*Hauptversammlung*). The rights and obligations of these bodies are specified in the German Stock Corporation Act (*Aktiengesetz*), in the German Commercial Code (*Handelsgesetzbuch*), in the articles of association of the partnership limited by shares and of its general partner, as well as in the rules of procedure of the respective corporate body.

However, different from a German stock corporation and similar to a limited partnership, a partnership limited by shares has two different groups of shareholders: (i) at least one partner, which can be a natural or a legal person, with unlimited personal liability, the so-called general partner (*Komplementär*), responsible for managing the affairs of the company, and (ii) shareholders who participate in the company's share capital (*Grundkapital*) but are excluded from the management of the company who are not personally liable (*Kommanditaktionäre*) and who are represented by the general shareholders' meeting. The legal relationship of the general partners (*Komplementäre*) among themselves and vis-à-vis the shareholders (*Kommanditaktionäre*) and third parties are in principle governed pursuant to Section 278 para. 2 of the German Stock Corporation Act by the provisions of the German Commercial Code (*Handelsgesetzbuch*) regarding limited partnerships.

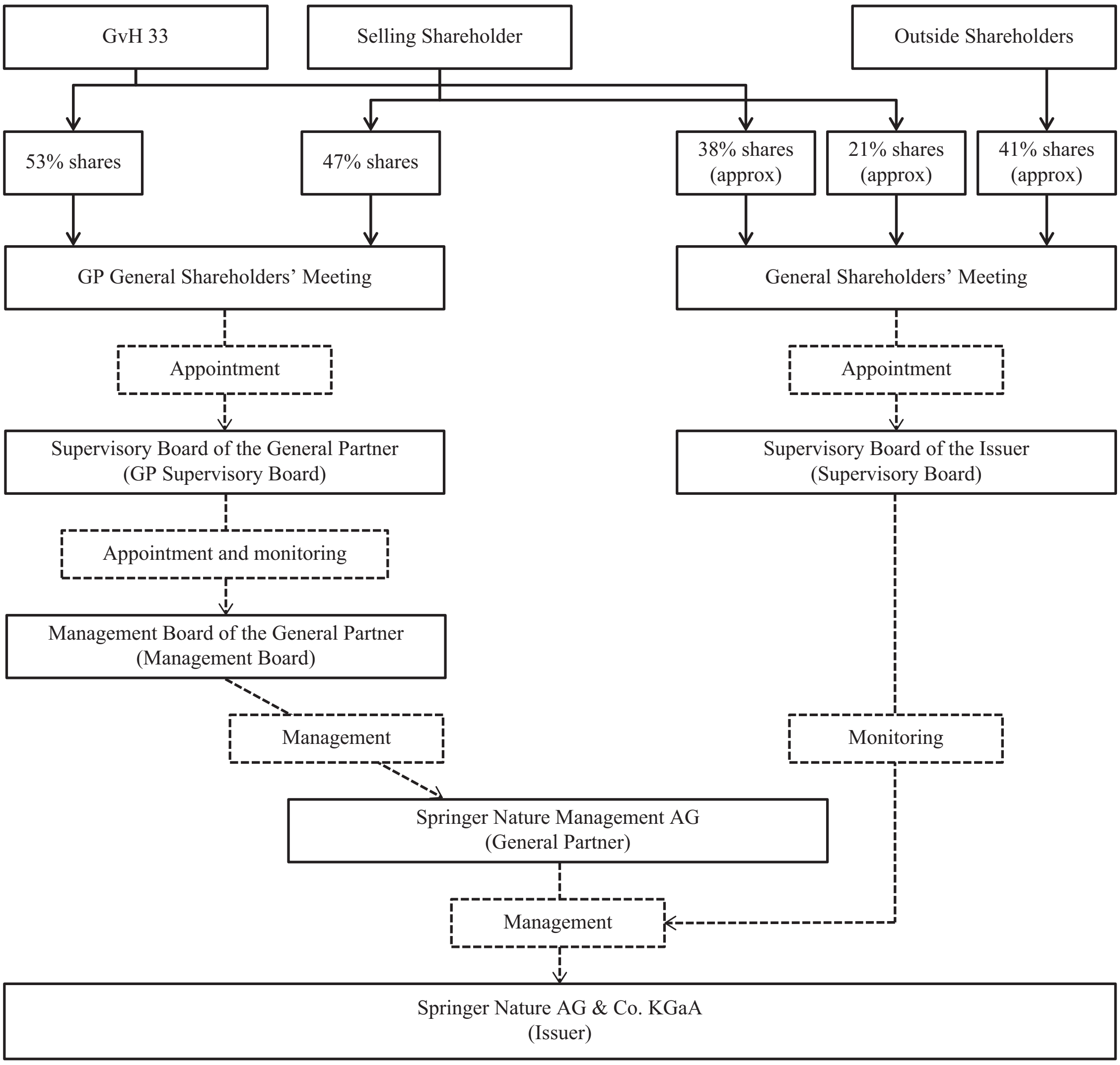
Corresponding to the general legal structure of a partnership limited by shares under German law as set out above, the Issuer has the following corporate bodies:

- the general partner of the Issuer (the "**General Partner**");
- the supervisory board of the Issuer (the "**Supervisory Board**"); and
- the general shareholders' meeting of the Issuer (the "**General Shareholders' Meeting**").

Pursuant to Section 14 para. 1 of the Articles of Association, the Issuer is intended to exist as a partnership limited by shares (*Kommanditgesellschaft*) as long as all shares in the General Partner are owned by a person with a shareholding of more than 20% in the Issuer's share capital. For the purpose of this calculation, the shareholdings of GvH 33 and BC Partners in the General Partner are counted combined, *i.e.,* in case the combined shareholding in the issuer's share capital of GvH 33 and BC Partners falls below 20%, the General Partner withdraws (*scheidet aus der Gesellschaft aus*). Furthermore, if (i) all shares in the General Partner are acquired by a third person (other than an affiliated company of a shareholder of the General Partner) and (ii) no public tender offer pursuant to the provisions of the German Takeover Act (*Wertpapiererwerbs- und Übernahmegesetzes*) is made within three months following effectiveness of such acquisition by the acquiring party, the General Partner withdraws (*scheidet aus der Gesellschaft aus*). Following a withdrawal, the Issuer may be converted into a German stock corporation (*Aktiengesellschaft*) on the next extraordinary or ordinary General Shareholders' Meeting.

16.2 Management and Oversight

The management structure of the Issuer following the Offering (assuming placement of 94,919,626 New Shares, *i.e.*, the number of shares required to achieve the targeted gross proceeds of €1,186.5 million at the mid-point of the Price Range and 18,983,479 Secondary Shares and 11,390,355 Over-Allotment Shares, *i.e.*, full placement of all Secondary Shares and Over-Allotment Shares) and can be illustrated as in the following chart and is described below:


GvH 33
Selling Shareholder
Outside Shareholders
53% shares
47% shares
38% shares (approx)
21% shares (approx)
41% shares (approx)
GP General Shareholders' Meeting
General Shareholders' Meeting
Appointment
Appointment
Supervisory Board of the General Partner (GP Supervisory Board)
Supervisory Board of the Issuer (Supervisory Board)
Appointment and monitoring
Management Board of the General Partner (Management Board)
Management
Monitoring
Springer Nature Management AG (General Partner)
Management
Springer Nature AG & Co. KGaA (Issuer)

16.3 General Partner

As General Partner, Springer Nature Management AG is solely responsible for the management of the Issuer. All shares in the General Partner are currently held by the Existing Shareholders.

16.3.1 Overview

As a German stock corporation (*Aktiengesellschaft*), the General Partner has a two-tier management and control system. It consists of the management board (*Vorstand*) (the "**Management Board**") and the supervisory board (*Aufsichtsrat*) (the "**GP Supervisory Board**"). Together with the General Partner's general shareholders' meeting (*Hauptversammlung*) (the "**GP General Shareholders' Meeting**"), they form the corporate bodies of the General Partner. Their functions, rights and obligations are governed by the German Stock Corporation Act (*Aktiengesetz*), the General Partner's articles of association (the "**GP Articles of Association**") and the rules of procedure of the Management Board (*Geschäftsordnung für den Vorstand*) and the rules of procedure of the GP Supervisory Board (*Geschäftsordnung für den Aufsichtsrat*). The Management Board is responsible for managing the General Partner's day-to-day business, while the GP Supervisory Board advises and supervises the Management Board.

16.3.2 Representation and Management of the Issuer

The General Partner represents the Issuer vis-à-vis third parties. The Supervisory Board represents the Issuer vis-à-vis the General Partner.

The function as a corporate body of a general partner automatically follows from its membership in the partnership limited by shares pursuant to Section 278 para. 2 of the German Stock Corporation Act (*Aktiengesetz*) and Sections 161 para. 2, 114, 115 of the German Commercial Code (*Handelsgesetzbuch*). Therefore, neither the Supervisory Board nor the General Shareholders' Meeting nor the GP General Shareholders' Meeting may appoint the General Partner. In contrast to a partnership limited by shares, the members of the management board of any German stock corporation are appointed by the supervisory board of such German stock corporation. The general partner may only be removed from office due to a withdrawal (*Ausscheiden*) pursuant to Section 278 para. 2 of the German Stock Corporation Act (*Aktiengesetz*), Section 131 para. 3 of the German Commercial Code (*Handelsgesetzbuch*) or in case of an expulsion (*Ausschließung*) by court pursuant to Section 278 para. 2 of the German Stock Corporation Act (*Aktiengesetz*), Section 140 of the German Commercial Code (*Handelsgesetzbuch*). Pursuant to Section 14 para. 1 of the Articles of Association, the General Partner withdraws (*scheidet aus der Gesellschaft aus*) if not all shares in the General Partner are owned by a person with a shareholding of more than 20% in the Issuer's share capital. For the purpose of this calculation, the shareholdings of GvH 33 and BC Partners are counted combined. Furthermore, the General Partner withdraws (*scheidet aus der Gesellschaft aus*) if all shares in the General Partner are acquired by a non-affiliated company of a shareholder of the General Partner provided that no public tender offer pursuant to the provisions of the German Takeover Act (*Wertpapiererwerbs- und Übernahmegesetzes*) is made within three months following effectiveness of such acquisition by such acquiring party.

Pursuant to Section 30 para. 2 of the Articles of Association – and in accordance with the statutory law including Section 285 para. 2 sentence 1 of the German Stock Corporation Act (*Aktiengesetz*), Sections 116 para. 2, 164 sentence 1 of the German Commercial Code (*Handelsgesetzbuch*) – resolutions of the General Shareholders' Meeting on matters exceeding the Issuer's ordinary course of business (*Handlungen, die über den gewöhnlichen Betrieb des Handelsgewerbes der Gesellschaft hinausgehen*) require the General Partner's consent. However, pursuant Section 12 para. 1 of the Articles of Association, the General Partner is authorized to implement extraordinary management measures, while shareholders may not approve or reject such measures at the General Shareholders' Meeting. The General Partner's consent is also required for resolutions of the General Shareholders' Meeting to amend the Articles of Association or regarding fundamental business issues or extraordinary transactions. In accordance with Section 286 para. 1 of the German Stock Corporation Act (*Aktiengesetz*) the General Shareholders' Meeting resolves upon the approval (*Feststellung*) of the Issuer's annual unconsolidated financial statements, subject to the consent of the General Partner, whereas the Supervisory Board resolves upon the endorsement (*Billigung*) of the annual unconsolidated and consolidated financial statements.

16.3.3 Liability as well as Membership Rights and Duties of the General Partner

The General Partner is personally liable for the debts of the partnership limited by shares without limitation vis-à-vis third parties. In case of a natural person serving as general partner of a partnership limited by shares, such liability extends to the entire assets. By contrast, if the general partner is a legal entity with limited liability, the shareholders of such legal entity are in principle not personally liable for the debts of the partnership limited by shares. Creditors of the Issuer may therefore generally only resort to the assets of the General Partner for payment of their claims.

Furthermore, the General Partner has the following rights and duties: Pursuant to Section 10 para. 2 of the Articles of Association, the General Partner is not entitled or obligated to make any contributions to the Issuer's share capital (*Erbringung von Vermögenseinlagen*). It does therefore not participate in the Issuer's profit and loss, its total assets (including any hidden reserves) or any liquidation proceeds.

According to Section 284 para. 1 of the German Stock Corporation Act (*Aktiengesetz*), a general partner may not, without the express consent of the other general partners, if any, and of the supervisory board of a partnership limited by shares, enter into transactions on his own behalf or on behalf of another person in the field of business of the partnership limited by shares (*Kommanditgesellschaft auf Aktien*) or become member of the management board, manager or general partner of a similar commercial enterprise. Such consent may only be granted for specific kinds of business or specific commercial enterprises. If a general partner violates such prohibition, the partnership limited by shares (*Kommanditgesellschaft auf Aktien*) may claim damages.

16.3.4 General Provisions Pursuant to the German Stock Corporation Act applicable to the Issuer and the General Partner

Each member of the Management Board and the GP Supervisory Board owes a duty of loyalty, legality and care to the General Partner. The General Partner and the Management Board and the Supervisory Board owe such duties to the Issuer. Members of these corporate bodies are required to consider a wide spectrum of matters in their decision-making, including those of the Issuer and the General Partner and their respective shareholders, employees and creditors. In addition, the Management Board is required to take the shareholders' rights to equal treatment and equal access to information into consideration. If members of the Management Board, Supervisory Board or GP Supervisory Board breach their duties, they may be individually or jointly and severally liable together with other members of the Management Board, the Supervisory Board or the GP Supervisory Board for compensatory damages.

Under German law, a shareholder generally is not able to proceed directly against members of the management board or supervisory board to assert a breach of duty. In general, only the company is able to enforce such claims. With respect to claims against the supervisory board members, the company is represented by the management board. The supervisory board represents the company with respect to claims against members of the management board. Following a decision by the German Federal Supreme Court (*Bundesgerichtshof*), the supervisory board is required to assert claims against the management board provided these claims are likely to succeed unless there are significant conflicting interests of the company which outweigh such claim. Even in case such a claim is not pursued, the management board and the supervisory board must assert the company's claims for damages if a resolution to this effect is passed by the general shareholders' meeting with a simple majority vote. The general shareholders' meeting may also appoint a special representative (*besonderer Vertreter*) to assert such claims. Such a special representative may also be appointed by a court upon a shareholders' petition whose shares cumulatively constitute 10% of the share capital or a *pro rata* share of €1 million. In addition, the general shareholders' meeting may appoint a special auditor (*Sonderprüfer*) by simple majority vote to audit transactions, including management transactions. If the general shareholders' meeting rejects the appointment of a special auditor, the court must appoint a special auditor upon the shareholders' petition whose shares cumulatively constitute 1% of the share capital at the time the petition is filed or constitute a *pro rata* share of €100,000 if facts exist that justify the suspicion that the behavior constituted gross violations of the law or the articles of association. If the general shareholders' meeting appoints a special auditor, the court must appoint another special auditor upon the shareholders' petition whose shares cumulatively constitute 1% of the share capital at the time the petition is filed or constitute a *pro rata* share of €100,000 if this appears necessary, including because the appointed special auditor is unsuited.

Shareholders and shareholder associations can solicit other shareholders to file a petition, jointly or by proxy, for a special audit, for the appointment of a special representative, or to convene a general shareholders' meeting or exercise voting rights in a general shareholders' meeting in the shareholders' forum of the German Federal Gazette (*Bundesanzeiger*), which is also accessible via the website of the German Company Register (*Unternehmensregister*). If there are facts that justify the suspicion that the company was harmed by dishonesty or a gross violation of law or the articles of association, shareholders who collectively hold 1% of the share capital or a *pro rata* share of €1 million may also, under certain further conditions, seek damages from members of the company's corporate bodies in their own names through court proceedings. Such claims, however, are inadmissible in case the company files a claim for damages.

The company may only waive or settle claims for damages against members of the management board or the supervisory board three years after such claims arose and provided the shareholders grant consent at the general shareholders' meeting by simple majority vote and if no objection is raised and documented in the minutes of the general shareholders' meeting by shareholders whose shares cumulatively constitute 10% of the share capital.

Under German law, individual shareholders and other persons are prohibited from exercising influence on the company to cause a member of the management board or the supervisory board to take actions detrimental to the company. A controlling shareholder may not exercise influence to cause the company to act contrary to its interests unless in case of a domination agreement (*Beherrschungsvertrag*) between the shareholder and the company, and unless such influence remains within the boundaries of certain mandatory provisions of law or compensation is paid for the disadvantages that arise. Any person who intentionally exercises influence on the company to cause a member of the management board or the supervisory board, an authorized representative (*Prokurist*) or an authorized agent (*Handlungsbevollmächtigter*) to act to the detriment of the company or its shareholders is liable to compensate the company and the shareholders for any resulting additional losses. Alongside the person who exercises influence to the detriment of the company, the members of the management board and supervisory board can be jointly and severally liable, if they acted in violation of their duties.

16.4 Management Board

16.4.1 Overview

When acting in its capacity as general partner of the Issuer, the General Partner always acts through its Management Board. The Management Board is responsible for managing the General Partner in accordance with applicable law, the GP Articles of Association and the rules of procedure for the Management Board (*Geschäftsordnung für den Vorstand*), including the business responsibility plan (*Geschäftsverteilungsplan*), taking into account the resolutions of the GP General Shareholders' Meeting. The members of the Management Board represent the General Partner in dealings with third parties.

Pursuant to Section 7 of the GP Articles of Association, the Management Board consists of at least one member with the GP Supervisory Board determining their number. The General Partner is represented by either two members of the Management Board acting jointly or by one member of the Management Board acting jointly with an authorized representative (*Prokurist*) pursuant to Section 9 para. 1 of the GP Articles of Association. The GP Supervisory Board appoints and dismisses the members of the Management Board. The GP Supervisory Board may appoint members of the Management Board to act as chairperson and deputy chairperson of the Management Board.

The rules of procedure for the Management Board allocate the responsibilities to individual members of the Management Board on the basis of a business responsibility plan (*Geschäftsverteilungsplan*). Such business responsibility plan is an annex to the rules of procedure for the Management Board. The GP Supervisory Board may amend or change this business responsibility plan at any time.

16.4.2 Members of the Management Board

The following table lists the current members of the Management Board and their respective responsibilities:

Name/Position	Age	First appointed on[1]	Appointed until	Responsibilities
Daniel Ropers	46	2017	2022	Chief Executive Officer (CEO)
Dr. Ulrich Vest	54	2004	2023	Chief Financial Officer (CFO)
Steven Inchcoombe	53	2016	2023	Chief Publishing Officer (CPO)
Rachel Jacobs	42	2016	2021	Chief Legal Officer (CLO)
Martin Mos	56	2015	2021	Chief Operating Officer (COO)
Frank Vrancken Peeters	52	2017	2022	Chief Commercial Officer (CCO)

[1] Appointed to the management board of Springer Nature GmbH, the predecessor of the Issuer.

The following description provides summaries of the *curricula vitae* of the current members of the Management Board and indicates their principal activities outside the Group to the extent those activities are significant with respect to the Group.

Daniel Ropers was born in 1972 in Freiburg im Breisgau, Germany. Mr. Ropers studied at Erasmus University Rotterdam, Netherlands, and at ESSEC Business School in Cergy Pontoise, France. He holds a MSc in Economics and a master's degree in Global Economics and Business Studies. Mr. Ropers began his career as a management consultant at McKinsey & Co in 1997. During his work at McKinsey & Co, he was involved in the launch of bol.com, a Dutch language online retailer. In 1999, he joined bol.com as Finance & Business Development Director and shortly after became the CEO of bol.com. Under Mr. Ropers' leadership, bol.com developed into a highly appreciated consumer brand in the Netherlands and into the leader in online shopping in the Dutch language area, serving 8 million customers with consumer sales exceeding €1.5 billion. In addition, Mr. Ropers has served as an advisor to the government of the Netherlands, advising on various topics including digital privacy and digital government matters. In 2017, Mr. Ropers joined Springer Nature as CEO.

Alongside his office as a member of the Management Board, Mr. Ropers is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- CVC Capital Partners Limited (advisor);
- CWDS BV (member of the board); and
- STAK Balou (member of the board).

Previously:

- bol.com (chief executive officer);
- Thuiswinkel.org (member of the management board);
- Telegraaf Media Groep (member of the supervisory board); and
- Stichting Leerstoel Detailhandel (member of the board).

Dr. Ulrich Vest was born in 1963 in Rüsselsheim, Germany. He holds a degree in business administration and engineering (*Diplom-Wirtschaftsingenieur*) and studied in Darmstadt, Germany, and Lyon, France. In 1990, Dr. Vest started his professional career at Procter & Gamble as controlling manager. Between 1991 and 1996, he served as an assistant at the chair for finance/banking at Bayreuth University and received a Ph.D. In 1996, Dr. Vest joined the central controlling and reporting department of Bertelsmann. He was appointed director of controlling of Bertelsmann Fachinformation in 1997. From 1999 to 2001, he served as director of corporate development and controlling at BertelsmannSpringer. In 2002, he became Chief Financial Officer and was appointed to the board of BertelsmannSpringer. Since 2004, he has served as Chief Financial Officer of the Springer Group and continues in this role for Springer Nature.

Alongside his office as a member of the Management Board, Dr. Vest is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- BBIS Berlin Brandenburg International School GmbH (member of the supervisory board).

Previously:

- Springer Science+Business Media GP Acquisition S.C.A. (member of the supervisory board (*commisaire conseil de surveillance*)).

Steven Inchcoombe was born in 1964 in London, United Kingdom. Following his graduation from Merton College, Oxford University, Mr. Inchcoombe began his career as a trainee accountant at Price Waterhouse (now PricewaterhouseCoopers) where he qualified as a Chartered Accountant in 1990. Between 1990 and 2000, he held commercial, development and general management positions at Interactive Data Corporation, and was a member of the management board responsible for strategy and corporate development. Between 2000 and 2006, Mr. Inchcoombe held board positions at The Financial Times Group, was managing director of ft.com and became U.K. Publisher of The Financial Times. Between 2006 and 2015, Mr. Inchcoombe was a member of the board of Macmillan Publishers; in 2007, he became managing director of Nature Publishing Group (NPG), and in 2013, he was appointed chief executive officer of Macmillan's Science and Scholarly division, comprising NPG, Scientific American and Palgrave Macmillan. Following the merger between Springer and Macmillan Science and Education in 2015, Mr. Inchcoombe was managing director of the Nature Research Group. In 2016, he was appointed Chief Publishing Officer of Springer Nature.

Alongside his office as a member of the Management Board, Mr. Inchcoombe is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- None.

Previously:

- Frontiers Media SA (chairperson of the board).

Rachel Jacobs was born in 1975 in Sheffield, United Kingdom. She holds a first class honors degree in Environmental Science from the University of Leeds and a post graduate diploma in legal practice from the College of Law. She joined CMS Cameron McKenna in 2001 and upon qualification in 2003, Ms. Jacobs worked as a solicitor in the corporate department, advising on both public and private M&A transactions, private equity transactions and capital markets transactions. In 2006, Ms. Jacobs joined Informa plc to head the group legal department. In 2011, she joined Macmillan Publishers as Group General Counsel and member of the Executive Committee, with responsibility for the legal, company secretarial, anti-piracy and compliance departments. In 2015, Ms. Jacobs was appointed Group General Counsel of Springer Nature and took responsibility for Editorial Rights in addition to her existing remit. She was appointed to the Management Board of Springer Nature in March 2016.

Alongside her office as a member of the Management Board, Ms. Jacobs is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- None.

Previously:

- None.

Martin Mos was born in 1962 in Delfzijl, Netherlands. Mr. Mos holds a master's degree in Economics and Accounting from the University of Groningen, Netherlands. Mr. Mos began his career as a member of the auditing department at Ernst & Young in 1986. In 1990, he joined the Internal Audit department of Elsevier International. From 1992 to 1998, Mr. Mos served at various finance positions at Elsevier Business Information and, from 1999 to 2003, as Chief Financial Officer of Elsevier Science. In 2004, Mr. Mos joined Springer Group as Chief Operating Officer before moving into the same position at Springer Nature in 2015.

Alongside his office as a member of the Management Board, Mr. Mos is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- Stichting tot Beheer van de Aandelen van Centraal Boekhuis BV (member of the management board); and
- De Graafshap (chairman of the supervisory board).

Previously:

- Springer Science+Business Media GP Acquisition S.C.A. (member of the supervisory board (*commisaire conseil de surveillance*)).

Frank Vrancken Peeters was born in 1966 in Nijmegen, Netherlands. Mr. Peeters holds a master of science in business administration from the Erasmus University Rotterdam, Netherlands.

Mr. Peeters started his career in 1991 as a financial analyst at Shell International Petroleum Company until 1993. From 1993 until 1998, he worked with Booz Allen & Hamilton as a consultant, associate and senior associate. In 1998, Mr. Peeters joined Reed Elsevier Director of Strategy for Elsevier Science until 2000. From 2000 to 2003, he served as Managing Director of ScienceDirect, in 2003 he was appointed Managing Director for Global Sales of Elsevier Science & Technology. From 2005 until 2007, Mr. Peeters served as Managing Director for Academic and Government Markets. In 2007, Mr. Peeters was appointed as Chief Operating Officer of Infinitas Learning Netherlands. In 2010, Mr. Peeters joined Wolters Kluwer as the Chief Executive Officer for Netherlands and as the Regional Managing Director for Northern Europe. Since 2015, he is the Regional Managing Director for Western Europe at Wolters Kluwer. He currently serves as Chief Commercial Officer at Springer Nature and Head of Research Commercial Organisation.

Alongside his office as a member of the Management Board, Mr. Peeters is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- Dutch Public Broadcasting (non-executive director).

Previously:

- Nationaal Uitgeversverbond (board member).

All members of the Management Board may be reached at the Issuer's registered office at Heidelberger Platz 3, 14197 Berlin, Germany (tel. +49 (0)30 827 870).

16.4.3 Management Service Agreements

The members of the Management Board entered into service agreements with the Issuer based on essentially similar terms. Under these service agreements with the Issuer, these members are employed for a period from 2018 to the year of the expiring date of the contracts which are individually agreed for a period of three to five years. Not earlier than twelve months but not later than nine months prior to the expiry of the contracts the members of the Management Board shall start to negotiate with the GP Supervisory Board whether and, if applicable, under which conditions the appointment as Management Board member and the service agreement shall be extended. If a member of the Management Board becomes permanently incapable to work during the term of the respective service agreement, such service agreement ends as of the date such permanent disability is established.

The relevant service agreement automatically terminates in the event that the appointment as member of the Management Board is revoked by the GP Supervisory Board, irrespective of the right to terminate the service agreement for good cause.

Furthermore, the management agreements may be terminated by the respective member of the Management Board by giving three months' notice in case of a change in control. Such change in control occurs if (i) a third party acquires at least 50% of the statutory voting rights in the General Partner and (ii) a further precondition is met, such as the revocation of the respective Management Board member's appointment due to a withdrawal of confidence (*Entzug des Vertrauens*) within six months of a change in control or a substantial (*wesentlich*) change in the Management Board member's responsibilities and/or tasks. A termination following the change of control may be exercised within two months from the date on which the conditions for a termination based on a change of control are met.

The service agreements include fringe benefits for the members of the Management Board in line with market practice, including certain pension allowances or commitments, accident and life insurance and a car or car allowance. The members of the Management Board are subject to market standard non-competition obligations for the term of their respective service agreement. The members of the Management Board are also subject to market standard post-contractual non-competition obligations after the termination of the respective service agreement, covering a period of one year following such termination.

Furthermore, members of the Management Board have the option to purchase Offer Shares as part of the Offering with a total Offer Price of up to 100% of the relevant member's annual fixed gross salary on a guaranteed allocation basis (*garantierte Zuteilung*) as part of the Offering. For a description of this option see "*3.7 Allotment Criteria*".

16.4.4 Remuneration and Other Benefits of the Members of the Management Board

The compensation under the management service agreements for the members of the Management Board was approved by the Supervisory Board, taking into account general market practice, legal requirements in accordance with Section 87 of the German Stock Corporation Act (*Aktiengesetz*) and additional recommendations of the Code.

Daniel Ropers, Ulrich Vest, Steven Inchcoombe, Rachel Jacobs, Martin Mos and Frank Vrancken Peeters each have entered into a management service agreement with the Issuer. The compensation of the members of the Management Board under the management service agreements, entered into with the Issuer for all six of our members of the Management Board, consists of an annual fixed gross salary payment (the "**Base Salary**"), a short term incentive payment (the "**STI**") and a long term incentive payment (the "**LTI**"). In order to align the interests of the Management Board with those of other stakeholders of the Issuer, the LTI is a performance share plan involving virtual shares, which awards each member of the Management Board with a cash payout following a performance period.

Under their management service agreements, the members of the Management Board will receive in aggregate an annual fixed gross salary of approximately €3.2 million. The annual fixed gross salary is in each case paid out in twelve equal monthly instalments at the end of each month, respectively.

For the STI, the performance targets consisting of EBT as well as the free cash flow of the Group (each weighted 50%) are multiplied with a multiplier of a range between 0.8 and 1.2, depending on the individual performance of the member of the Management Board, the collective performance of the Management Board as well as stakeholder goals. This is subsequently multiplied with the annual target value of the member of the Management Board and fully paid out in cash after the respective financial year, with a cap of 150% of the annual target value. For 2018, the aggregate target compensation under the STI amounts to approximately €1.4 million.

For the performance share plan LTI, the number of conditional virtual shares is determined by dividing the average share price before the respective period by the target value. The performance targets consist of Return On Capital Employed (ROCE) and absolute total shareholder return and relative shareholder return (measured against the MDAX index) (weighted 50%, 25% and 25% respectively) which are (after the end of the performance period of four financial years) multiplied with the number of conditional virtual shares of the member of the Management Board, with a cap of 200% of the number of conditional virtual shares. Subsequently, this is multiplied with the average share price prior to the end of this period, with a cap of 250% of the target value. For 2018, the aggregate target compensation under the LTI amounts to approximately €2.3 million.

Furthermore, share ownership guidelines (the "**SOG**") are implemented and apply to the members of the Management Board. The purpose of the SOG is to further align the interests of the Management Board with those of other stakeholders of the Issuer. According to the SOG, ordinary members of the Management Board are obliged to hold shares in the Issuer amounting to one times their Base Salary (for the Chief Executive Officer: two times the Base Salary) after a build-up phase of a maximum of six years following their respective appointment until the end of their respective term.

The shares each member of the Management Board received from the conversion of the Management Participation Program may be used to fulfil the criteria under the SOG. For more information on the Management Participation Program and the IPO bonus to be paid to two members of the Management Board, see "*16.10 Management Participation Program*".

All members of the Management Board are covered by directors and officers (D&O) insurance policies with coverage in line with best market practice and a deductible in line with the respective provisions of the German Stock Corporation Act (*Aktiengesetz*).

16.4.5 Shareholdings of the Members of the Management Board in the Issuer

Other than the shareholdings described above, there are no shareholdings of the members of the Management Board in the Issuer.

16.5 Supervisory Board

16.5.1 Overview

The Supervisory Board oversees and advises the General Partner in its acting as general partner of the Issuer. The General Partner has the same reporting and information obligations toward the Supervisory Board as the management board of a German stock corporation.

In accordance with Section 15 para. 1 of the Articles of Association and Sections 278 para. 3 and 95 et seq. of the German Stock Corporation Act (*Aktiengesetz*), the Supervisory Board consists of seven members, unless mandatory statutory provisions require a different number of members. All of the members are elected by the General Shareholders' Meeting. A member of the Supervisory Board may simultaneously be a member of the GP Supervisory Board. Unless otherwise specified by the General Shareholders' Meeting, the term of office of each Supervisory Board member ends at the end of the General Shareholders' Meeting that resolves on the formal approval of the members' acts for the third fiscal year following the commencement of their term of office, not including for this calculation the fiscal year in which the term of office began. The term of office of a substitute member shall terminate at the end of the term of office of the leaving member, unless a shorter term of office is specified by the General Shareholders' Meeting. Re-election of members of the Supervisory Board is possible.

Each member of the Supervisory Board may resign from office even without good cause with one month written notice to the General Partner and the chairperson of the Supervisory Board. A shortening of this period is permitted following consent by the chairperson of the Supervisory Board. Furthermore, each member of the Supervisory Board may immediately resign from office for cause.

The Supervisory Board shall adopt rules of procedure (*Geschäftsordnung des Aufsichtsrats*). It is further authorized to establish committees among its members in accordance with the law and the Articles of Association. To the extent permitted by law or by the Articles of Association, the Supervisory Board may delegate any of its duties, decision-making powers and rights to its chairperson or to committees established.

The Supervisory Board shall determine the composition, competences and procedures of the committees. The current version of the Supervisory Board's rules of procedure (*Geschäftsordnung des Aufsichtsrats*) was adopted by resolution of the Supervisory Board on April 10, 2018. The Supervisory Board is entitled to resolve amendments to the Articles of Association if such amendments only relate to the wording. According to the Articles of Association, meetings of the Supervisory Board are usually called in text form at least 14 days in advance by the chairperson of the Supervisory Board, not including the day on which the invitation is sent and the day of the meeting itself. In urgent cases, the chairperson may shorten this period and call the meeting orally, via telephone or by other customary means of communication.

Pursuant to the Articles of Association, resolutions of the Supervisory Board shall generally be passed in meetings (*Sitzungen*). However, resolution can at the order of the chairperson also be passed via e-mail or by telefax. If a Supervisory Board member does not attend a meeting, they may have another member of the Supervisory Board submit their written votes.

Pursuant to Section 19 para. 2 of the Articles of Association, the Supervisory Board shall have a quorum if at least half of the Supervisory Board members, including the chairperson of the Supervisory Board, participate in the adoption of the resolution and all members of the Supervisory Board have been duly invited.

Resolutions of the Supervisory Board are generally adopted with a simple majority of the votes cast, unless prescribed otherwise by mandatory statutory law.

In accordance with the Articles of Association, certain types of transactions of the General Partner require the approval of the Supervisory Board. They include:

- the acquisition and sale of significant businesses, parts of businesses or interests in businesses;
- the spinning-off of significant parts of businesses from the company‘s assets or from a directly or indirectly wholly owned company;
- the merging of significant parts of businesses and other significant changes to the corporate structure;
- the acquisition, sale and encumbrance of significant real estate and leasehold;
- the taking up or granting of significant loans outside the ordinary course of business;
- the provision of significant collateral for third parties (warranties or guarantees) outside the ordinary course of business;
- the conclusion of leases of operations with third parties insofar as subject matter of such lease is a significant part of the business;
- the conclusion of intercompany agreements or profit pool agreements between a significant controlled business and a third party; and
- the setting up of significant new business activities or closing of current significant business activities.

16.5.2 Members of the Supervisory Board

The table below lists the current members of the Supervisory Board.

Name	Age	Member since	Appointed until[1]	Principal occupation
Dr. Stefan von Holtzbrinck (Chairperson)	54	2018	2021	CEO of Verlagsgruppe Georg von Holtzbrinck GmbH
Dr. Ewald Walgenbach (Deputy chairperson)	59	2018	2021	Managing partner at BC Partners
Obi Bettina Felten	45	2018	2021	Director of X Development LLC
Simone Menne	57	2018	2021	Supervisory board member at BMW Group, Deutsche Post AG and Johnson Controls International Plc
Dr. Bernd Scheifele	59	2018	2021	CEO of HeidelbergCement AG
Jens Schwanewedel	49	2018	2021	CFO of Verlagsgruppe Georg von Holtzbrinck GmbH
Dr. Stefan Oschmann	60	2018	2021	CEO of Merck KGaA

[1] The members of the Supervisory Board are appointed for a period terminating at the end of the shareholders’ meeting that resolves on the formal discharge (*Entlastung*) for the second year following the beginning of the term, not including the year in which conversion term began.

The following description provides summaries of the *curricula vitae* of the current members of the Supervisory Board and indicates their principal activities outside Springer Nature to the extent those activities are significant with respect to them.

Dr. Stefan von Holtzbrinck was born in 1963 in Ettlingen, Germany. He studied law and German literature at the universities of Tübingen and Munich. He holds a degree and received a Ph.D in law from the University of Munich. Dr. von Holtzbrinck began his career in 1990 as a sales & marketing manager at Bloomsbury and as assistant to the CFO of Kirch Medien Gruppe. Two years later, Dr. von Holtzbrinck led the "New Media" division of Verlagsgruppe Georg von Holtzbrinck. From 1997 until 2000, Dr. von Holtzbrinck joined the Nature Publishing Group, first as electronic publishing director, then as a managing director and served as director of Macmillan Limited. He joined Verlagsgruppe Georg von Holtzbrinck in 2001 as chief executive officer.

Alongside his office as chairperson of the Supervisory Board, Dr. von Holtzbrinck is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- Verlagsgruppe Georg von Holtzbrinck GmbH (member of the executive board);
- Max-Planck-Gesellschaft zur Förderung der Wissenschaften e.V. (member of the board of directors (*Verwaltungsrat*)); and
- ZEIT Verlagsgruppe GmbH & Co. KG (chairman of the supervisory board).

Previously:

- None.

Dr. Ewald Walgenbach was born in 1959 in Neustadt (Wied), Germany. Following his graduation from the University of Cologne, Dr. Walgenbach received a Ph.D and degree in biology from the Max Planck Institut for Plant Breeding Research in Cologne. In 1986, Dr. Walgenbach began his career and joined The Boston Consulting Group as a consultant. In 1992, Dr. Walgenbach served as managing director of the chemicals division at Boehringer Ingelheim for two years. Thereafter, Dr. Walgenbach became head of corporate strategy at Bertelsmann and joined UFA Film + Fernseh GmbH as managing director in 1994. Between 1997 and 2000, Dr. Walgenbach was the executive director of TV, production and rights trading at CLT-UFA. In 2000, he served as chief operating officer of RTL Group for two years. In 2002, Dr. Walgenbach joined Bertelsmann as a member of the management board, where he also served as chief operating officer and chief executive officer of the DirectGroup division of Bertelsmann. Dr. Walgenbach joined BC Partners in 2008 and currently serves as managing partner.

Alongside his office as a member of the Supervisory Board, Dr. Walgenbach is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- Springer Science+Business Media GP Acquisition S.C.A. (member of the supervisory board); and
- Aenova Holding GmbH (chairperson of the supervisory board).

Previously:

- Springer Nature GmbH (member of the supervisory board);
- PUCC Investments SCA (director);
- LED Acquisition SCA (director);
- SL Lux Investments SCA (director);
- Synlab Holding GmbH (director); and
- Allflex Corporation Inc. (director).

Obi Bettina Felten was born in 1972 in Saarbrücken, Germany. She holds a degree in psychology and philosophy from the University of Oxford, United Kingdom. Ms. Felten started her career in 1996 at Mitchell Madison Group as a consultant. At eToys.com, where she served from 1999 until 2001, Ms. Felten led the expansion to Germany. In 2001, she joined consulting firm Javelin Group and in 2004, she worked with Signet Group, a specialist retailer of jewelry and watches. In 2006, Ms. Felten joined Google as the head of consumer marketing in the United Kingdom. In 2008, she became director of consumer marketing for Europe, Middle East and Africa. Since 2012, she has been product management director at X, Alphabet (formerly known as Google X). Besides her work at X, Ms. Felten is a startup mentor and angel investor, with a focus on women entrepreneurs.

Alongside her office as member of the Supervisory Board, Ms. Felten is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- X, Alphabet (product management director);
- Shift (trustee); and
- Picasso Labs (board member).

Previously:

- None.

Simone Menne was born in 1960 in Kiel, Germany. Ms. Menne holds a degree in Business Administration from the University of Kiel, Germany. Ms. Menne started her career as an auditor for ITT Corporation, United States, in 1987, and, in 1989, joined Deutsche Lufthansa as an auditor. After serving Deutsche Lufthansa in various positions, she served as vice president of finance and accounting of Lufthansa Technik from 2004 to 2010 and as Chief Financial Officer at British Midland from 2010 to 2012. In 2012, Ms. Menne joined Lufthansa as a member of the management board and was appointed Chief Financial Officer in 2016. Ms. Menne served as chief financial officer at Boehringer Ingelheim from 2016 to 2017. Ms. Menne is a member of the supervisory board of Deutsche Post since 2014 and a member of the supervisory board of Bayerische Motoren Werke since 2015. She has served as chairperson of the supervisory board of various entities in the aviation industry.

Alongside her office as member of the Supervisory Board, Ms. Menne is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- Bayerische Motoren Werke AG (member of the supervisory board);
- Deutsche Post AG (member of the supervisory board); and
- Johnson Controls International plc (member of the supervisory board).

Previously:

- Boehringer Ingelheim (chief financial officer and member of the management board);
- Lufthansa Consulting GmbH (member of the advisory board);
- Deutsche Lufthansa AG (chief financial officer and member of the management board);
- Lufthansa Technik AG (member of the supervisory board);
- Deutsche Lufthansa (chief financial officer and aviation services);
- Lufthansa Systems GmbH & Co. KG (chairperson of the supervisory board);
- LSG Lufthansa Service Holding AG (chairperson of the supervisory board):
- Delvag Luftfahrtversicherungs-AG (chairperson of the supervisory board);
- Lufthansa Cargo AG (chairperson of the supervisory board);
- Allianz Global Corporate & Specialty SE (member of the advisory council);
- FWB Frankfurter Wertpapierbörse (exchange council (*Börsenrat*)); and
- Miles & More GmbH (chairperson of the advisory committee).

Dr. Bernd Scheifele was born in 1958 in Freiburg, Germany. Dr. Scheifele studied law at the University of Freiburg, Germany, and at the University of Burgundy, Dijon, France. He holds a Master of Laws degree from the University of Illinois, United States and a Ph.D in law from the University of Freiburg, Germany. Dr. Scheifele started his career as an attorney at the law firm Gleiss Lutz Hootz Hirsch in 1988. In 1994, he became the chairman of PHOENIX Pharmahandel. In 2005, Dr. Scheifele joined HeidelbergCement as chief executive officer. In 2005, Dr. Scheifele was appointed as chairman of the advisory board of PHOENIX Pharmahandel. In 2006, he was appointed as a member of the supervisory board of Verlagsgruppe Georg von Holtzbrinck GmbH.

Alongside his office as member of the Supervisory Board, Dr. Scheifele is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- HeidelbergCement AG (chief executive officer);
- PHOENIX Pharma SE (chairman of the supervisory board);
- PHOENIX Pharmahandel GmbH & Co. KG (chairman of the advisory board); and
- Verlagsgruppe Georg von Holtzbrinck GmbH (member of the supervisory board).

Previously:

- None.

Jens Schwanewedel was born in 1968 in Varel, Germany. Mr. Schwanewedel holds a degree in business administration (*Diplom-Betriebswirt (FH)*) from the Reutlingen University, Germany, and a degree in management from the Reims Management School, France. In 1995, Mr. Schwanewedel started his career and joined Arthur Andersen where he served as a senior auditor and project manager until 1999. He then joined the Hugo Boss group, where he served as an assistant to the Executive board, director of finance and administration as well as managing director of the Benelux operations and also worked as the head of group planning & analysis. In 2004, Mr. Schwanewedel joined Georg von Holtzbrinck GmbH & Co. KG as the vice president of group accounting & reporting. In 2006, he joined Verlagsgruppe Georg von Holtzbrinck GmbH, where he served as the senior vice president of controlling & accounting as well as the deputy CFO. Since 2009, he is a member of the executive board and group CFO of Verlagsgruppe Georg von Holtzbrinck GmbH. Since 2011, Mr. Schwanewedel is a member of the advisory board (*Beirat*) of DZ Bank AG. In 2013, he became a member of the advisory board (*Regionalbeirat Südwest*) of Commerzbank AG.

Alongside his office as member of the Supervisory Board, Mr. Schwanewedel is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- Verlagsgruppe Georg von Holtzbrinck GmbH (member of the executive board and Group CFO);
- DZ Bank AG (member of the advisory board); and
- Commerzbank AG (member of the advisory board (*Regionalbeirat Südwest*)).

Previously:

- PIN Mail AG (member of the supervisory board);
- MailworXs GmbH (member of the advisory board); and
- NEVA Media GmbH (member of the advisory board).

Dr. Stefan Oschmann was born in 1957 in Würzburg, Germany. Dr. Oschmann holds a degree and a Ph.D in veterinary medicine from Ludwig-Maximilians-University of Munich, Germany. He began his career at the International Atomic Energy Agency (IAEA) in 1985 and from 1987 on, he worked at the German Animal Health Federation (*Bundesverband für Tiergesundheit* (BfT)), a member organization of the German Chemical Industry Association (VCI). In 1989, Dr. Oschmann joined the U.S. pharmaceutical company MSD Merck Sharp & Dohme, where he held a range of executive positions until 2011. Among others, he served as vice president of MSD Europe, managing director of MSD Germany, senior vice president for worldwide human health marketing, member of the senior management and corporate officer responsible for Europe, the Middle East, Africa and Canada and, finally, president of MSD's emerging markets. In 2011, Dr. Oschmann joined Merck KGaA as chief executive officer of the biopharma division and as a member of the executive board. From 2013 to 2014, he led the healthcare business of Merck KGaA, where he headed the biopharma, consumer health, allergopharma and biosimilars divisions. In 2015, he was appointed vice chairman of the executive board and deputy chief executive officer. In 2016, Dr. Oschmann was appointed chairman of the executive board and chief executive officer of Merck KGaA.

Alongside his office as a member of the Supervisory Board, Dr. Oschmann is, or was within the last five years, a member of the administrative, management or supervisory bodies of and/or a partner in the following companies or partnerships outside Springer Nature:

Currently:

- Merck KGaA (chairman of the executive board and chief executive officer);
- European Federation of Pharmaceutical Industries and Associations (president);
- Deutsche Welle (member of the business advisory board);
- Verband der Chemischen Industrie e.V. (VCI) (member of the executive committee); and
- Allianz SE (member of the joint advisory board of the Allianz companies).

Previously:

- Merck KGaA (vice chairman and deputy chief executive officer); and
- International Federation of Pharmaceutical Manufacturers & Associations (president).

All members of the Supervisory Board may be reached at the Issuer's registered office at Heidelberger Platz 3, 14197 Berlin (tel. +49 (0)30 827 870).

16.5.3 Supervisory Board Committees

Pursuant to Section 22 para. 1 of the Articles of Association, the Supervisory Board may set up committees in accordance with the law. According to the Supervisory Board's rules of procedure (*Geschäftsordnung des Aufsichtsrats*) (Sections 6 through 8), the Supervisory Board shall form an Executive and Nomination Committee and an Audit Committee (*Prüfungsausschuss*) from among its members. The Supervisory Board may set up further committees if desired. The Supervisory Board's decision making authority may be delegated to these committees to the extent permitted by law. The following committees have been established by the Supervisory Board.

The **Executive and Nomination Committee** (*Präsidial- und Nominierungsausschuss*) shall debate key topics and prepare the resolutions of the Supervisory Board. It shall prepare the resolutions of the Supervisory Board with regard to the proposition of candidates suited to be proposed by the Supervisory Board to the General Meeting as election nominees, and approval for measures requiring approval according to the Articles of Association. The Executive and Nomination Committee consists of three members. These shall consist of the chairperson of the Supervisory Board, the deputy chairperson of the Supervisory Board and one additional Supervisory Board member who was jointly nominated to the GP Supervisory Board by the Existing Shareholders (see "*13.5 Voting Rights Pooling Agreement*).

The current members of the Executive and Nomination Committee are:

Name	Responsibilities
Dr. Stefan von Holtzbrinck	Chairperson
Dr. Ewald Walgenbach	Deputy chairperson
Dr. Stefan Oschmann	Additional member

The **Audit Committee** (*Prüfungsausschuss*) handles the monitoring of the accounting process, the effectiveness of the internal control system, the risk management system and the internal audit system, the audit of the annual financial statements, in particular the independence of the auditor, the services rendered additionally by the auditor, the issuing of the audit mandate to the auditor, the determination of auditing focal points and the fee agreement, and compliance. The Audit Committee consists of three members. The chairperson of the Supervisory Board shall not be the chairperson of the Audit Committee. The Audit Committee shall select its own chairperson. The chairperson shall be independent and therefore, in particular, have no personal or business relations with the Issuer, its executive bodies, any controlling shareholder of the Issuer or an enterprise affiliated with the latter which may cause a substantial and not merely temporary conflict of interests. Furthermore, the chairperson shall not be a former member of the Management Board whose appointment ended less than two years prior to his appointment as chairperson of the Audit Committee.

The current members of the Audit Committee are:

Name	Responsibilities
Simone Menne	Chairperson
Dr. Ewald Walgenbach	Member
Jens Schwanewedel	Member

The Supervisory Board's rules of procedure require the chairperson of the Audit Committee to have specialist knowledge and experience in the application of accounting principles and internal control processes. As concerns the Audit Committee, Simone Menne is considered to possess the respective expertise.

16.5.4 Remuneration of the Members of the Supervisory Board

Pursuant to Section 23 of the Articles of Association, the members of the Supervisory Board may be granted a remuneration for their activities, which is to be set by the General Shareholders' Meeting. The Management Board and the Supervisory Board intend to propose that the following remuneration for the members of the Supervisory Board be resolved by an extraordinary shareholders' meeting of the Issuer on or about April 16, 2018: The members of the Supervisory Board receive a fixed annual payment of €50,000.00. The chairperson of the Supervisory Board receives a payment of €75,000.00, the deputy chairperson of the Supervisory Board receives a payment of €60,000.00. Members of the Audit Committee of the Supervisory Board receive a fixed annual payment of €15,000.00, provided that the respective committee has met at least once per fiscal year. The chairperson of such committee receives a fixed annual payment of €30,000.00. Members of the Supervisory Board receive an attendance fee of €1,000.00 per meeting. Members of committees of the Supervisory Board will not receive an attendance fee per meeting. Members of the Supervisory Board who hold their office in the Supervisory Board or who hold the office as chairperson only for a part of a fiscal year shall receive the corresponding portion of the compensation (*pro rata temporis*). In addition, the Issuer reimburses the members of the Supervisory Board for reasonable out-of-pocket expenses incurred in the performance of their duties as Supervisory Board members as well as, in certain cases, the value added tax on their compensation and reasonable out-of-pocket expenses.

The members of the Supervisory Board are covered by directors and officers insurance policies entered into by the Issuer and with terms in accordance with market practice and recommendations of the Code.

16.5.5 Shareholdings of the Supervisory Board Members in the Issuer

As of the date of this prospectus, 100,700,000 of the shares in the Issuer are indirectly held by Verlagsgruppe Georg von Holtzbrinck GmbH, a party related to Dr. Stefan von Holtzbrinck.

Other than the shareholdings described above, there are no shareholdings of the members of the Supervisory Board in the Issuer.

16.6 GP Supervisory Board

16.6.1 Overview

The GP Supervisory Board consists of seven members, unless mandatory statutory provisions require a different number of members. All of the members are elected by the GP General Shareholders' Meeting. Therefore, the shareholders of the Issuer (*i.e.,* through the General Shareholders' Meeting) may not elect the members of the GP Supervisory Board.

Unless otherwise specified by the GP General Shareholders' Meeting, the term of office of each GP Supervisory Board member ends at the end of the GP General Shareholders' Meeting that resolves on the formal approval of the members' acts for the fourth fiscal year following the commencement of their term of office, not including for this calculation the fiscal year in which the term of office began. Re-election of members of the GP Supervisory Board is possible.

Each member of the GP Supervisory Board may resign from office even without good cause with a one month written notice issued to the Management Board and the chairperson of the GP Supervisory Board. A shortening of this period is permitted following consent by the chairperson of the GP Supervisory Board. Furthermore, each member of the GP Supervisory Board may resign from office for cause.

The GP Supervisory Board may adopt rules of procedure (*Geschäftsordnung des Aufsichtsrats*). It is further authorized to establish committees among its members in accordance with the law and pursuant to Section 17 para. 1 of the GP Articles of Association. To the extent permitted by law or by the GP Articles of Association, the GP Supervisory Board may delegate any of its duties, decision-making powers and rights to its committees.

The GP Supervisory Board shall determine the composition, competences and procedures of the committees. The current version of the GP Supervisory Board's rules of procedure (*Geschäftsordnung des Aufsichtsrats*) was passed by resolution of the GP Supervisory Board on April 10, 2018. The GP Supervisory

Board is entitled to resolve amendments to the GP Articles of Association if such amendments only relate to the wording. According to the GP Articles of Association, the GP Supervisory Board must hold at least four meetings in each calendar year, thereof at least two in each calendar half-year.

Pursuant to the GP Articles of Association and the GP Supervisory Board's rules of procedure (*Geschäftsordnung des Aufsichtsrats*), meetings of the GP Supervisory Board are usually called in text form at least 14 days in advance by the chairperson of the GP Supervisory Board, not including the day on which the invitation is sent and the day of the meeting itself. In urgent cases, the chairperson may shorten this period and call the meeting orally, via telephone or by other customary means of communication.

Pursuant to Section 14 para. 2 of the GP Articles of Association the GP Supervisory Board has a quorum if at least half of the GP Supervisory Board members, including the chairperson of the GP Supervisory Board, participate in the adoption of the resolution and all members of the GP Supervisory Board have been duly invited. Resolutions of the GP Supervisory Board are generally adopted with a simple majority of the votes cast to the extent that the applicable laws do not set mandatory provisions stipulating otherwise.

In accordance with the rules of procedure for the Management Board, certain transactions and measures of the General Partner in its capacity as general partner of the Issuer, require prior approval of the GP Supervisory Board. They include:

- the acquisition and disposal of enterprises, interests in enterprises and parts of enterprises, real property, rights equivalent to real property, and buildings, provided that in the individual case the consideration exceeds an amount (or in case of payment in kind a value) of €10 million – several related acquisitions or disposals in the same context are to be treated in their entirety;
- the acquisition and disposal of enterprises, interests in enterprises and parts of enterprises, real property, rights equivalent to real property, and buildings, provided that, while in the individual case (including several related acquisitions or disposals in the same context which are to be treated in their entirety pursuant to the above) the consideration does not exceed an amount (or in case of payment in kind a value) of €10 million, the cumulated total of remuneration (or, respectively value) exceeds an amount of €30 million per business year and the consideration (or, respectively, value) of the respective acquisition or disposal exceeds an amount of €3 million;
- changes in business strategy;
- material measures pursuant to the German Transformation Act (*Umwandlungsgesetz*) and material recapitalization, material reorganization and consolidation of material business lines of the General Partner and/or the Issuer and/or subsidiaries which –, as measured by the last consolidated financial statements of the Group –, have an annual adjusted EBITDA of more than 5% or a consolidated net revenue of more than 5% or a balance sheet total, adjusted for goodwill and intangible assets from business transactions, of more than 5%;
- the initiation of new and limitation or discontinuation of existing business lines, which – as measured by the last consolidated financial statements of the Group – have an annual adjusted EBITDA of more than 5% or a consolidated net revenue of more than 5% or a balance sheet total, adjusted for goodwill and intangible assets from business transactions, of more than 5%;
- the conclusion, amendment or cancellation of important strategic contracts, cooperations, strategic alliances and joint ventures, in each case outside the ordinary course of business, if the value of the agreement exceeds €10 million;
- the acquisition or disposal of movable fixed assets items, as far as the value of the investment or divestments exceeds an amount of €10 million – several related acquisitions or disposals in the same context are to be treated in their entirety;
- the taking out of bonds and other loans or credit lines with a term of at least five years and an amount exceeding €50 million in the individual case; extensions or refinancing of existing facilities are excluded;
- the conclusion of license agreements, lease agreements, rental agreements or entering into similar continuing obligations, if the total amount of obligations under the respective agreement for the period until the next possible date the respective agreement can be terminated exceeds an amount of €50 million;
- the initiation or court settlement (or other forms of settlement) of legal disputes or official proceedings of any kind, where a Group company is party, as far as the amount involved exceeds €10 million in the individual case;

- the adoption or amending of our annual budget or mid-term plan;
- material legal transactions between a Group company on the one hand and a Management Board member or a related person or a related company on the other hand, whereby end consumer business with a Group company is not material;
- granting of loans, granting of guarantees, granting of comfort letters and similar liabilities, excluding in each case customer payment terms in the ordinary course of business, as far as such granting occurs for the obligation of a third party outside the Group and such provision of collateral by the Group exceeds an amount of €5 million;
- conclusion, amendment and termination of inter-company agreements within the meaning of Sec. 291 *et seq.* of the German Stock Corporation Act (*Aktiengesetz*), provided that the other party to such agreement is not a fully-owned direct or indirect subsidiary of the General Partner, the Issuer or a subsidiary of the Issuer; and
- the appointment of the editor in chief of "Nature" and managing directors of the business divisions "Macmillan Education" and "Springer Professional".

16.6.2 Members of the GP Supervisory Board

The table below lists the current members of the GP Supervisory Board.

Name	Age	Member since	Appointed until(1)	Principal occupation
Dr. Stefan von Holtzbrinck (Chairperson)	54	2018	2021	CEO of Verlagsgruppe Georg von Holtzbrinck GmbH
Dr. Ewald Walgenbach (Deputy chairperson)	59	2018	2021	Managing partner at BC Partners
Obi Bettina Felten	44	2018	2021	Director of X Development LLC
Simone Menne	57	2018	2021	Supervisory board member at BMW Group, Deutsche Post AG and Johnson Controls International Plc
Dr. Bernd Scheifele	59	2018	2021	CEO of HeidelbergCement AG
Jens Schwanewedel	49	2018	2021	CFO of Verlagsgruppe Georg von Holtzbrinck GmbH
Dr. Stefan Oschmann	60	2018	2021	CEO of Merck KGaA

(1) The members of the Supervisory Board are appointed for a period terminating at the end of the shareholders' meeting that resolves on the formal discharge (*Entlastung*) for the second year following the beginning of the term, not including the year in which conversion term began.

For summaries of the curricula vitae of the current members of the GP Supervisory Board including an overview of the companies and enterprises in which the members of the GP Supervisory Board currently hold seats or have held seats on administrative, management or supervisory boards, or comparable German or foreign supervisory bodies, or of which they were partners during the last five years, with the exception of the Issuer, the General Partner and the subsidiaries of the Group see above at "*16.5.2 Members of the Supervisory Board*".

All members of the GP Supervisory Board may be reached at the Issuer's registered office at Heidelberger Platz 3, 14197 Berlin (tel. +49 (0)30 827 870).

16.6.3 GP Supervisory Board Committees

Pursuant to Section 17 para. 1 of the articles of association of the General Partner, the GP Supervisory Board may set up committees in accordance with the law. According to the GP Supervisory Board's rules of procedure (*Geschäftsordnung des Aufsichtsrats*) (Sections 6 through 7), the GP Supervisory Board shall form a Remuneration Committee (*Vergütungsausschuss*) from among its members. The Supervisory GP Board may set up further committees if necessary. The GP Supervisory Board's decision making authority may be delegated to these committees to the extent permitted by law. The following committee has been established by the GP Supervisory Board.

The **Remuneration Committee** (*Vergütungsausschuss*) debates the service agreements of the Management Board members and prepares the resolutions of the GP Supervisory Board. In particular, it carries out preparatory measures for subsequent resolutions of the GP Supervisory Board with regard to the following items: (i) all aspects of remuneration and employment terms for the Management Board as well as for employees of the Issuer directly reporting to the Management Board and holding a position with the title "Executive Vice President" or "Managing Director" and (ii) entering into, any amendments to, or the termination of, the service agreements of the members of the Management Board, including in respect of remuneration guidelines, incentive programs, strategy and framework.

The current members of the Remuneration Committee are:

Name	Responsibilities
Dr. Stefan von Holtzbrinck	Chairperson
Dr. Ewald Walgenbach	Deputy chairperson
Dr. Stefan Oschmann	Member

16.6.4 Remuneration of the Members of the GP Supervisory Board

The members of the GP Supervisory Board will not receive a remuneration. Pursuant to Section 18 para. 3 of the Articles of Association, the Issuer reimburses the members of the GP Supervisory Board for reasonable out-of-pocket expenses incurred in the performance of their duties as GP Supervisory Board members as well as, in certain cases, the value added tax on their compensation, if any, and reasonable out-of-pocket expenses.

The members of the GP Supervisory Board are covered by directors and officers insurance policies entered into by the Issuer and with terms in accordance with market practice.

16.6.5 Shareholdings of the GP Supervisory Board Members in the Issuer

For information on the shareholdings of the GP Supervisory Board members of the Issuer see above at "*16.5.5 Shareholdings of the Supervisory Board Members in the Issuer*".

16.7 Certain Information Regarding the Members of the Management Board, the Supervisory Board and the GP Supervisory Board

As of the date of this prospectus, the Supervisory Board and the GP Supervisory Board are composed of the same members.

In the last five years, no member of the Management Board or the Supervisory Board or the GP Supervisory Board has been convicted of fraudulent offences.

In the last five years, no member of the Management Board or the Supervisory Board or the GP Supervisory Board has been associated with any bankruptcy, receivership or liquidation acting in its capacity as a member of any administrative, management or supervisory body.

In the last five years, no official public incriminations and/or sanctions have been made by statutory or legal authorities (including designated professional bodies) against the members of the Management Board or Supervisory Board or the GP Supervisory Board, nor have sanctions been imposed by the aforementioned authorities.

No court has ever disqualified any of the members of either board from acting as a member of the administrative, management, or supervisory body of an issuer, or from acting in the management or conduct of the affairs of any issuer for at least the previous five years.

Dr. Stefan von Holtzbrinck acts as CEO, Jens Schwanewedel acts as CFO and Dr. Bernd Scheifele acts as member of the supervisory board of Verlagsgruppe Georg von Holtzbrinck GmbH. The group of companies held by Verlagsgruppe Georg von Holtzbrinck GmbH may compete with us, which may lead to conflicts of interest.

Apart from the above, there are no conflicts of interest or potential conflicts of interest between the members of the Management Board and Supervisory Board and GP Supervisory Board as regards the Issuer on the one side and their private interests, membership in governing bodies of companies, or other obligations on the other side.

No member of the Management Board or the Supervisory Board or the GP Supervisory Board has entered into a service agreement with a Group company that provides for benefits upon termination of employment or office.

There are no family relationships between the members of the Management Board and the Supervisory Board and the GP Supervisory Board, either among themselves or in relation to the members of the other body.

16.8 General Shareholders' Meeting

The shareholders of a partnership limited by shares exercise their rights in the general shareholders' meeting. They may also be represented through a further optional corporate body. However, the Issuer has not made use of this option.

Pursuant to Section 24 of the Articles of Association, the annual General Shareholders' Meeting must be held either at the registered seat of the Issuer, or in a German city with at least 250,000 inhabitants. Except where the Supervisory Board is authorized to do so by law, the General Shareholders' Meeting shall be convened by the General Partner. It shall be convened at least 36 days prior to the date of the General Shareholders' Meeting. The day of the General Shareholders' Meeting and of the convocation of the General Shareholders' Meeting are not being included when calculating this period.

A General Shareholders' Meeting may also be convened by the General Partner or upon the request of shareholders whose shares in the aggregate account for 5% of the share capital. Shareholders or shareholder associations may solicit other shareholders to make such a request, jointly or by proxy, in the shareholders' forum of the German Federal Gazette (*Bundesanzeiger*), which is also accessible via the website of the German Company Register (*Unternehmensregister*). If, following a request made by shareholders whose Issuer's shares in aggregate account for 5% of the capital stock, a General Shareholders' Meeting is not held in due time the competent local court (*Amtsgericht*) may authorize the shareholders who have requested it or their representatives to convene a General Shareholders' Meeting. The Supervisory Board may convene a General Shareholders' Meeting if the interest of the Issuer requires so.

Pursuant to Section 26 para. 1 of the Articles of Association, all shareholders who have registered in due time prior to a General Shareholders' Meeting and prove their eligibility to attend by means of a proof of their shareholding in text form issued by the bank which keeps their securities account shall be entitled to attend the General Shareholders' Meeting and exercise their voting rights. The registration for participation must be received by the Issuer by the end of the sixth day prior to the date of the General Shareholders' Meeting. When calculating this period, the day of the receipt of the registration shall not be included. The notification for attendance is to be submitted in text form in German or English. Voting rights may be exercised by proxy. The granting of a proxy, its revocation and the evidence of authority to be provided to the Issuer requires text form.

Pursuant to Section 27 of the Articles of Association, the General Shareholders' Meeting is chaired by the chairperson of the Supervisory Board or by a person appointed by the chairperson of the Supervisory Board. If neither the chairperson of the Supervisory Board nor the person appointed by the chairperson of the Supervisory Board chairs the General Shareholders' Meeting, the Supervisory Board may appoint a third person as the chairperson of the General Shareholders' Meeting. In case such appointment is not made by the Supervisory Board, the appointment is made by the General Shareholders' Meeting, chaired by the shareholder or shareholder representative representing most of the shares present at the General Shareholders' Meeting. The chairperson may decide the sequence that topics on the agenda are dealt with. He may determine type, form and sequence of voting. He is entitled to impose a suitable limit on the allowed time for shareholders to speak and ask questions and to permit the partial or complete transmission of the General Stockholders' Meeting in image and sound.

Pursuant to Section 30 para. 1 of the Articles of Association, resolutions of the General Shareholders' Meeting are adopted by a simple majority of the votes cast, and, in so far as a majority of the share capital is necessary by law, with a simple majority of the registered share capital represented at the voting, unless mandatory law stipulates otherwise.

According to the German Stock Corporation Act (*Aktiengesetz*), resolutions of fundamental importance (*grundlegende Bedeutung*) require both a majority of votes cast and a majority of at least 75% of the registered share capital represented at the vote on the resolution. Resolutions of fundamental importance include:

- approval of contracts within the meaning of Section 179a of the German Stock Corporation Act (*Aktiengesetz*) (transfer of the entire assets of the company) and management actions of special significance that require the approval of the shareholders' meeting in compliance with legal precedents;
- capital increases, including the creation of conditional or authorized capital;
- issuance of, or authorization to issue, convertible and profit-sharing certificates and other profit-sharing rights;
- exclusion of subscription rights as part of an authorization on the use of treasury stock;
- capital reductions;

- liquidation of the company;
- continuation of the liquidated company after the resolution on liquidation or expiry of the time period;
- approval to conclude, amend or terminate affiliation agreements (*Unternehmensverträge*);
- integration of a German stock corporation into another German stock corporation and squeeze-out of the minority shareholders; and
- action within the meaning of the German Transformation Act (*Umwandlungsgesetz*).

Neither German law nor the Articles of Association limit the right of foreign shareholders or shareholders not domiciled in Germany to hold shares of the Issuer or exercise the voting rights associated therewith.

16.9 Corporate Governance

The Code contains recommendations and suggestions for the management and supervision of German companies listed on a stock exchange. The Code incorporates nationally and internationally recognized standards of good and responsible corporate governance. The purpose of the Code is to make the German system of corporate governance and supervision transparent for investors. The Code includes recommendations and suggestions for management and supervision with regard to shareholders and shareholders' meetings, management and supervisory boards, transparency, accounting and auditing.

There is no obligation to comply with the recommendations or suggestions of the Code. However, the German Stock Corporation Act (*Aktiengesetz*) requires that the management board and supervisory board of a German listed company declare, every year, either that the recommendations have been or will be applied, or which recommendations have not been or will not be applied and explain why the management board and the supervisory board do not/will not apply the recommendations that have not been or will not be applied. This declaration is to be made permanently accessible to shareholders. However, deviations from the suggestions contained in the Code need not be disclosed.

As of the date of this prospectus, the Issuer complies with all recommendations in the Code apart from the following:

- Section 4.2.5 para. 3 and 4: The total compensation of every member of the Management Board will not be disclosed on an individual basis. The model tables provided as appendices to the Code will not be used to disclose remuneration information.
- Section 5.1.2 para. 2 sent. 3: The Supervisory Board will not specify an age limit for the members of the Management Board.
- Section 5.4.1 para. 2 sent. 2: Within the company-specific situation the composition of the Supervisory Board will not reflect an age limit and a regular limit to Supervisory Board members' term of office.
- Section 7.1.2. sent. 3: The consolidated financial statements and the group management report will not be made publicly accessible within 90 days from the end of the financial year.
- Section 7.1.2 sent. 3: Mandatory interim financial information will not be made publicly accessible within 45 days from the end of the reporting period.

16.10 Management Participation Program

In 2013, a management participation program was set up in order to align the commercial interest of the management and key employees of the most important group entities with the interests of the shareholders in the Selling Shareholder. Springer SBM Management Beteiligungs GmbH & Co. KG ("**Manager Partnership**") and Stichting Springer SBM Management Participation ("**Manager Stichting**") as well as Springer SBM Pari Passu Beteiligungs GmbH & Co. KG ("**Pari Passu Partnership**") and Stichting Springer SBM Pari Passu Participation ("**Pari Passu Stichting**") serve as entities that pool the interests of the management and key employees. These entities have, together with BC Partners and other shareholders ("**Investors**"), invested in the Selling Shareholder. In 2015, an additional entity, Harry & Sally Management Beteiligungs GmbH & Co. KG ("**H&S Partnership**") was set up to accommodate an investment by management and key employees of MSE in the course of the merger.

54 employees of the Group have acquired interests in the Manager Partnership, the Manager Stichting, the Pari Passu Partnership and the Pari Passu Stichting. These individuals have invested an aggregate amount of approximately €15.3 million under the Management Participation Program. Of that, the members of the Management Board have invested a total of approximately €8.5 million under the Management Participation Program. The Management Participation Program is not open for new investments by new participants.

The Investors are shareholders of the Selling Shareholder. The Selling Shareholder's equity is divided into common shares that are structured in different classes ("**Common Shares**") and preferred shares. Furthermore, debt instruments in the form of preferred equity certificates carrying an annual yield of 10.08% ("**PEC**") exist. In terms of the capital structure of the Selling Shareholder, the beneficiaries of the management participation program hold Common Shares through Manager Partnership, H&S Partnership and Manager Stichting, as well as Common Shares and PEC through Pari Passu Partnership and Pari Passu Stichting. Distributions by the Selling Shareholder will first be made on the PECs, then on the preferred shares and only following that on the Common Shares.

The Management Participation Program will not be terminated following the Offering but will continue to be in place. Depending on the final placement price, the members of the Management Board will hold an indirect economic interest in the Issuer, which corresponds to 0.7% of the Issuer's shares at the mid-point of the Price Range. Management and key employees will receive payments from the management entities once these have received payments from the Selling Shareholder; the Selling Shareholder will use such payments first to redeem the PEC and preferred shares (in which Pari Passu Partnership and Pari Passu Stichting will participate) and only following that, to pay on the Common Shares (in which all the management entities participate). Based on the expected proceeds from the sale of the Secondary Shares, no payout to the members of the Management Board holding Common Shares is expected in connection with the Offering under the Management Participation Program. Members of the Management Board will receive a payout of up to €1.6 million in connection with the Offering for PECs held by them. Daniel Ropers and Frank Vrancken Peeters were the last persons who invested in the Management Participation Program. As they have not been invested in the Management Participation Program for years, they may receive a total IPO bonus of up to €1.95 million. The IPO bonus will be paid by a company to be determined by the Existing Shareholders on December 31, 2018. The amount to be paid will be determined in the reasonable discretion of the Existing Shareholders, taking into account the result of the IPO.

The members of the Management Board may only receive cash payments corresponding to up to 25% of their Common Share interest in the Management Participation Program as part of the IPO. The remaining Common Share interest held by members of the Management Board and not sold in the IPO is subject to a two-year lock-up from the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), provided, however, that 50% of their remaining Common Share interest in the Management Participation Program may be sold from the date that falls one year after the first day of trading of the Issuer's shares on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). Any proceeds that exceed such threshold are required to be reinvested in shares in the Issuer, which will be subject to the lock–up described in "*3.9 Lock up Agreement, Limitations on Disposal*" above. In lieu of such cash payments, the Selling Shareholder may, in its sole discretion, transfer existing shares in the Issuer from the holdings of the Selling Shareholder (except for any taxes payable by the members of the Management Board) to the members of the Management Board. Any such shares will also be subject to the lock-up.

16.11 EQT Management Participation Program

In August 2013, Springer Nature was sold from funds advised by EQT Partners AB ("**EQT**") to funds advised by BC Partner Holdings Limited. Funds advised by EQT Partners AB retained a minority economic interest in Springer Nature via the Selling Shareholder.

Under the ownership of EQT, a management participation program comparable to the management participation program described above was set up, allowing managers and employees of Springer Nature to participate in Springer Nature's economic development. As of the date of this prospectus, to the knowledge of the Issuer, two Management Board members in addition to 23 employees of Springer Nature participate in the management participation program set up by EQT.

Assuming full placement of all Secondary Shares at the mid-point of the Price Range, the participants in the management participation program set up by EQT that are members of the Management Board or employed by a Springer Nature Group company as of the date of this prospectus, will receive a total payout of approximately €1.0 million.

17. CERTAIN RELATIONSHIPS AND RELATED-PARTY TRANSACTIONS

In accordance with IAS 24, transactions with persons or companies that are, inter alia, members of the same group as the Issuer or that are in control of or controlled by the Issuer must be disclosed unless they are already included as consolidated companies in the Issuer's audited consolidated financial statements. Control exists if a shareholder owns more than one half of the voting rights in the Issuer or, by virtue of an agreement, has the power to control the financial and operating policies of the Issuer's management. The disclosure requirements under IAS 24 also extend to transactions with associated companies (including joint ventures) as well as transactions with persons who have significant influence on the Issuer's financial and operating policies, including close family members and intermediate entities. This includes the members of the Management Board and Supervisory Board and close members of their families, as well as those entities over which the members of the Management Board and Supervisory Board or their close family members are able to exercise a significant influence or in which they hold a significant share of the voting rights.

Set forth below in is a summary of such transactions with related parties for the years ended December 31, 2015, 2016 and 2017 and up to and including the date of this prospectus. Further information, including quantitative amounts, of related party transactions are contained in the notes to the Issuer's audited consolidated financial statements as of and for the years ended December 31, 2015, 2016 and 2017, which are all included in the Section "21. Financial Information" of this prospectus on page F-2 et seq. Business relationships between companies of our Group are not included.

For more information on Financing Instruments, please refer to section "15.1.1Current and Future Share Capital; Shares".

17.1 Relationships and Transactions with Related Parties

Related parties are regarded as those persons and entities that control the Group or that are controlled or subject to significant influence by the Group.

Other related parties (entities) include the entities that Springer Nature controls but that are not consolidated because there are no material business dealings with them and they are not material for the Group on aggregate.

The following tables show the transactions with parties with significant influence over the Group:

	For the year ended December 31, 2017			As of December 31, 2017	
Related party transactions 2017	**Sale of goods/ services to related parties**	**Purchases of goods/ services from related parties**	**Financial result**	**Amounts owed by related parties**	**Amounts owed to related parties**
			(in € million)		
Holtzbrinck Publishing Group[1]	5.1	10.6	(46.0)	5.8	653.9
Springer Science+Business Media GP Acquisition S.C.A.	–	–	(38.4)	8.3	440.5

[1] Transactions relate to different legal entities of Holtzbrinck Publishing Group.

	For the year ended December 31, 2016			As of December 31, 2016	
Related party transactions	**Sale of goods/ services to related parties**	**Purchases of goods/ services from related parties**	**Financial result**	**Amounts owed by related parties**	**Amounts owed to related parties**
			(in € million)		
Holtzbrinck Publishing Group[1]	11.6	19.2	(47.0)	15.1	603.9
Springer Science+Business Media GP Acquisition S.C.A.	–	–	(35.5)	–	414.3

[1] Transactions relate to different legal entities of Holtzbrinck Publishing Group.

Related party transactions	For the year ended December 31, 2015 Sale of goods/ services to related parties	 Purchases of goods/ services from related parties	 Financial result	As of December 31, 2015 Amounts owed by related parties	 Amounts owed to related parties
			(in € million)		
Holtzbrinck Publishing Group[1]	12.1	13.4	(28.6)	21.0	510.3
Springer Science+Business Media GP Acquisition S.C.A.	0.1	0.2	(51.5)	5.0	383.1

[1] Transactions relate to different legal entities of Holtzbrinck Publishing Group.

The financial liabilities included the shareholder loans granted by Springer Science+Business Media GP Acquisition S.C.A. and GvH Vermögensverwaltungsgesellschaft XXXIII mbH; the expense in the financial result corresponds to the interest calculated using the effective interest method as well as the measurement gain or loss from financial instruments recognized at fair value through profit or loss.

The related party transactions mentioned above include a subrental agreement for One New York Plaza between us and the Holtzbrinck Publishing Group and several service agreements and a master service agreement between us and the Holtzbrinck Publishing Group.

An indefinite license agreement was concluded with Holtzbrinck Publishing Group to use the Macmillan trade name.

On April 9, 2018, GvH 33, the Selling Shareholder, the Issuer and SSBM One entered into an agreement pursuant to which GvH 33 and the Selling Shareholder would each provide an unsecured loan of €10 million to the Issuer. These loans are intended to emulate the economic effect of certain provisions of the business combination agreement that had been entered into in the course of the merger of Springer and MSE in 2015 and by which GvH 33 and the Selling Shareholder had committed, starting from the first day of trading, to indemnify the Issuer from potential tax obligations relating to the period before the merger. These provisions do no longer apply. Under the new loan arrangements, if the Issuer would not have had an indemnification claim against either GvH 33 or the Selling Shareholder under the described previous provisions of the business combination agreement by 2021, each of the unsecured loans will be repaid in full. If, however, the Issuer would have had such an indemnification claim under those provisions, the repayment amount under each of the unsecured loans will be contributed in the amount of an indemnification claim to the Issuer's free capital reserves within the meaning of Section 272 para. 2 no. 4 of the German Commercial Code (*Handelsgesetzbuch*), and the remaining amount will be paid back with accrued interest. If the Issuer realizes tax benefits relating to the period before the merger by 2021, the Issuer will be required to forward these to GvH 33 or the Selling Shareholder, as the case may be. Interest under this unsecured loan will accrue at a fixed rate of 0.5% p.a.

Apart from the relationships stated above, the Issuer did not have any other significant business relationships with related parties.

17.2 Relationship with Members of the Management Board and Supervisory Board

Members of the Management Board as well as certain managers of the Group ("management"), purchased interests in Springer Science+Business Media GP Acquisition S.C.A. via investment companies, *i.e.,* German limited partnerships and Dutch foundations. The acquisition was carried out at fair value and management was not awarded any benefits from the acquisition and thus no remuneration expense was recorded for this transaction. For more information, see "*16.10 Management Participation Program*".

The members of the Management Board only received remuneration relating to their function as persons in key positions.

The remuneration paid to the members of the Management Board in the periods indicated is set forth in the following table. The payments were made by subsidiaries of the Issuer.

	Management Board		
	2017	**2016**	**2015**
		(in € million) **(unaudited)**	
Short-term benefits	4.9	8.0[1]	3.6
Long-term benefits	0.1	0.2	0.1
Total remuneration	**5.0**	**8.2**	**3.7**

[1] Including one-off payments following the resignation and exit of one board member.

For an overview regarding the compensation, shareholding and long-term incentives of the members of the Management Board, please refer to the section "*16.4.4 Remuneration and Other Benefits of the Members of the Management Board*" and "*16.10 Management Participation Program*" as well as to the notes to our audited consolidated financial statements for the years ended December 31, 2015, 2016 and 2017, which are included in the section "*21. Financial Information*" of this prospectus.

18. UNDERWRITING

18.1 General

On April 25, 2018, the Issuer, the Existing Shareholders and the Underwriters entered into an Underwriting Agreement relating to the offer and sale of the Offer Shares in connection with the Offering.

Under the terms of the Underwriting Agreement and subject to certain conditions and only after execution of the pricing agreement, each Underwriter will be obliged to acquire such number of Offer Shares as will be specified in the pricing agreement, but in any event only up to the maximum number of Offer Shares set forth below opposite the Underwriter's name:

Underwriters	Maximum Number of Offer Shares to be underwritten[1]	Percentage of Maximum Number Offer Shares underwritten (in %)
J.P. Morgan Securities plc 25 Bank Street, Canary Wharf, London E14 5JP United Kingdom	37,588,172	30.0
Morgan Stanley & Co. International plc 25 Cabot Square, Canary Wharf, London E14 4QA, United Kingdom	37,588,172	30.0
BNP PARIBAS 16 boulevard des Italiens, 75009 Paris, France	10,023,512	8.0
Credit Suisse Securities (Europe) Limited One Cabot Square, London E14 4QJ, United Kingdom	10,023,512	8.0
Goldman Sachs International Peterborough Court, 133 Fleet Street, London EC4A 2BB, United Kingdom	10,023,512	8.0
Merrill Lynch International 2 King Edward Street, London EC1A 1HQ, United Kingdom	10,023,512	8.0
Société Générale Corporate & Investment Banking 29 boulevard Haussmann 10, 75009 Paris, France	10,023,512	8.0
Total	**125,293,906**	**100.0**

[1] Assuming placement of all Offer Shares.

In connection with the Offering, each of the Underwriters and any of their respective affiliates may take up a portion of the Offer Shares in the Offering as a principal position and in that capacity may retain, purchase or sell for its own account such securities and any Offer Shares or related investments and may offer or sell such Offer Shares or other investments otherwise than in connection with the Offering. Accordingly, references in this prospectus to Offer Shares being offered or placed should be read as including any offering or placement of Offer Shares to any of the Underwriters or any of their respective affiliates acting in such capacity. In addition, certain of the Underwriters or their affiliates may enter into financing arrangements (including swaps or contracts for differences) with investors in connection with which such Underwriters (or their affiliates) may from time to time acquire, hold or dispose of Offer Shares. None of the Underwriters intends to disclose the extent of any such investment or transactions otherwise than in accordance with any legal or regulatory obligation to do so.

18.2 Underwriting Agreement

In the Underwriting Agreement, the Underwriters agreed to underwrite and purchase the Offer Shares with a view to offering them to investors in this Offering. The Underwriters agreed to remit to the Issuer the Offer Price of the New Shares (less agreed commissions and expenses) at the time the Issuer's shares are delivered, which is expected to be two bank working days after admission to trading. The Underwriters further agreed to acquire the Secondary Shares from the holdings of the Selling Shareholder, if and to the extent the Upsize Option is exercised by the Selling Shareholder in consultation with the Joint Global Coordinators on the date of pricing depending on market demand and using the order book prepared during the bookbuilding process, and to sell such shares as part of the Offering; the Underwriters will remit the purchase price (less agreed upon commissions and expenses) of the placed Secondary Shares, if any, to the Selling Shareholder at the time the shares are delivered.

For the purpose of a potential Over-Allotment, the Stabilization Manager, for the account of the Underwriters, will be provided with up to 13,198,347 existing shares from the holdings of the Selling Shareholder in the form of a securities loan. The total number of Over-Allotment Shares will not exceed 10% of the final number of New Shares and Secondary Shares, if any, actually placed in the Offering. The number of New Shares depends on the Offer Price; the number of Secondary Shares depends on the extent to which the Upsize Option is exercised, if at all, by the Selling Shareholder in consultation with the Joint Global Coordinators. The Selling Shareholder granted the Underwriters an option to acquire a number of Issuer's shares equal to the number of Over-Allotment Shares at the Offer Price less agreed commissions. The Underwriters agreed to remit the purchase price (less agreed upon commissions and expenses) of the shares from the exercise of the Greenshoe Option, if any, to the Selling Shareholder at the time the shares are delivered. The Greenshoe Option will terminate on June 9, 2018.

The obligations of the Underwriters are subject to various conditions, including, among other things, (i) the agreement of the Underwriters, the Issuer, and the Selling Shareholder on the Offer Price and the final volume of New Shares to be purchased by the Underwriters, (ii) the absence of a material event, *e.g.*, a reasonably likely material adverse change in or affecting the condition, business, prospects, management, consolidated financial position, shareholders' equity, or results of operations of our Group, or a suspension or material limitation in trading in securities of the Issuer or in securities generally on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*), the London Stock Exchange or the New York Stock Exchange, (iii) receipt of customary certificates, legal opinions and auditor letters, and (iv) the introduction of the Issuer's shares to trading on the Frankfurt Stock Exchange (*Frankfurter Wertpapierbörse*). The Underwriters have provided and may in the future provide services to the Issuer in the ordinary course of business and may extend credit to, and have regular business dealings with the Issuer in their capacity as financial institutions. For a more detailed description of the interests of the Underwriters in the Offering, see "*3.12 Interests of Parties Participating in the Offering*".

18.3 Commission

The Underwriters will offer the Offer Shares at the Offer Price. The Issuer and the Selling Shareholder will pay, severally and not jointly, *pro rata temporis* to their respective share in the gross proceeds of the Offering, the Underwriters a commission of 1.25% of the gross proceeds from the Offering (the "**Base Fee**"). The Base Fee may be deducted from the gross proceeds of the Offering before payment to the Issuer. In addition to the Base Fee, the Issuer and the Selling Shareholder may, in their absolute and full discretion, pay the Joint Global Coordinators based on its assessment of the Offering's success an additional discretionary success fee of up to 1.00% of the gross proceeds from the Offering. Any discretionary fee will be decided on by the Issuer and the Selling Shareholder within 35 calendar days following the closing of the Offering. The Issuer and the Selling Shareholder also agreed to reimburse the Underwriters for certain expenses incurred by them in connection with the Offering.

18.4 Greenshoe Option and Securities Loan

To cover potential Over-Allotments, the Selling Shareholder will make available up to 13,198,347 bearer shares with no–par value free of charge in the form of a securities loan to J.P. Morgan for the account of the Underwriters. In addition, the Selling Shareholder will further grant the Underwriters the option to acquire up to an equal number of shares against payment of the Offer Price (Greenshoe Option) in order to satisfy the retransfer obligation under the securities loan. The Greenshoe Option may be exercised at maximum to the extent that shares have been placed by way of Over-Allotments. The Greenshoe Option shall be exercisable by J.P. Morgan as Stabilization Manager in agreement with the other Underwriters within 30 calendar days after commencement of the stock exchange trading of the shares.

18.5 GvH 33 Investment and Guaranteed Allocation

In the Underwriting Agreement, GvH 33 committed to invest a total amount of €100 million under and as part of the Offering. Based on an Offer Price at the mid-point of the Price Range, the total number of Offer Shares purchased by GvH 33 would be 8,000,000 Offer Shares, which represent approximately 6.4% of the Offer Shares, assuming that all 125,293,906 Offer Shares are placed. GvH 33 has been guaranteed full allocation of its Offer Shares. The Offer Shares acquired by GvH 33 will be subject to an 18-month lock-up as described in more detail in "*3.9 Lock-up Agreement, Limitations on Disposal*".

18.6 Termination/Indemnification

The Underwriting Agreement provides that the Underwriters may, under certain circumstances, terminate the Underwriting Agreement, including after the Offer Shares have been allotted and listed, up to delivery and settlement. Grounds for termination include, in particular, if:

- the Group has sustained a loss or interference with respect to its business from fire, explosion, flood or other calamity (whether or not covered by insurance), or from any labor dispute or court or governmental;
- there has been any material change or development reasonably likely to result in a material change to the share capital of the Issuer;
- there has been any material change or development reasonably likely to result in a material change in the long-term debt of the Issuer or the Group;
- there has been any material adverse change, or any development involving a reasonably likely prospective material adverse change, in or affecting the condition, business, prospects, management, consolidated financial position, shareholders' equity or results of operations of the Issuer or the Group or such as would prevent the Issuer from performing any of its obligations pursuant to the Underwriting Agreement;
- the Issuer or the Group has incurred any liability or obligation, direct or contingent, or entered into any material transaction not in the ordinary course of business; or
- a suspension in trading on the Frankfurt, London or New York stock exchanges occurs;
- a general moratorium on banking activities is imposed in Frankfurt am Main, London, or New York by the relevant authorities;
- a material adverse change in national or international financial, political, or economic conditions or currency exchange rates or currency controls which could have a material adverse impact on the financial markets in the Federal Republic of Germany, the United Kingdom or the United States occurs;
- an outbreak or escalation of hostilities or the declaration of a national emergency or war which have a material adverse impact on the financial markets in Germany, the United Kingdom or the United States occurs; or
- any acts of terrorism or any other calamity or crisis or any change in financial, political or economic conditions or currency exchange rates or currency control which have a material adverse impact on the financial markets in Germany, the United Kingdom or the United States occur.

If the Underwriting Agreement is terminated, the Offering will not take place, in which case any allotments already made to investors will be invalidated and investors will have no claim for delivery. Claims with respect to subscription fees already paid and costs incurred by an investor in connection with the subscription will be governed solely by the legal relationship between the investor and the financial intermediary to which the investor submitted its purchase order. Investors who engage in short-selling bear the risk of being unable to satisfy their delivery obligations.

The Issuer and the Selling Shareholder have agreed in the Underwriting Agreement to indemnify the Underwriters against certain liabilities that may arise in connection with the Offering, including liabilities under applicable securities laws.

18.7 Selling Restrictions

The distribution of this prospectus and the sale of the Offer Shares may be restricted by law in certain jurisdictions. No action has been or will be taken by the Issuer, the Selling Shareholder or the Underwriters to permit a public offering of the Offers Shares anywhere other than Germany and Luxembourg or the possession or distribution of this document in any other jurisdiction, where action for that purpose may be required.

The Offer Shares are not and will not be registered pursuant to the provisions of the Securities Act or with the securities regulators of the individual states of the United States. The Offer Shares may not be offered, sold or delivered, directly or indirectly, in or into the United States except pursuant to an exemption from the registration and reporting requirements of the United States securities laws and in compliance with all other applicable United States legal regulations. The Offer Shares may be sold in or into the United States only to persons who are QIBs within the meaning of Rule 144A or another exemption from registration, and outside the

United States in accordance with Rule 903 of Regulation S and in compliance with other U.S. legal regulations, and no (i) "direct selling efforts" as defined in Regulation S or (ii) "general advertising" or "general solicitation", each as defined in Regulation D under the Securities Act in relation to the Offer Shares may take place. Any offer or sale of shares in reliance on Rule 144A will be made by broker dealers who are registered as such under the Securities Act. Terms used above have the meanings given to them by Regulation S and Rule 144A under the Securities Act.

In addition, until 40 days after the commencement of the Offering, an offer or sale of shares within the United States by any dealer (whether or not participating in the Offering) may violate the registration requirements of the Securities Act if such offer or sales is made otherwise than in accordance with Rule 144A or pursuant to another exemption from registration under the Securities Act.

The Issuer does not intend to register either the Offering or any portion of the Offering in the United States or to conduct a public offering of shares in the United States.

Accordingly, neither this document nor any advertisement or any other offering material may be distributed or published in any jurisdiction other than Germany and Luxembourg except under circumstances that will result in compliance with any applicable laws and regulations. Persons into whose possession this prospectus comes are required to inform themselves about and observe any such restrictions, including those set out in the preceding paragraphs. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction.

Sales in the United Kingdom are also subject to restrictions. In the United Kingdom, this prospectus is only addressed to and directed to Qualified Investors (i) who have professional experience in matters relating to investments falling within Article 19 para. 5 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "**Order**"), (ii) who are high net worth entities falling within Article 49 para. 2(a) through (d) of the Order, or (iii) other persons to whom it may otherwise lawfully be communicated (all such persons together being referred to as "**Relevant Persons**"). The securities described herein are only available in the United Kingdom to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such securities in the United Kingdom will be engaged in only with, Relevant Persons. Any person in the United Kingdom who is not a Relevant Person should not act or rely on this prospectus or any of its contents.

In relation to each member state of the EEA which has implemented Directive 2003/71/EC as amended (the "**Prospectus Directive**") from the date of the implementation of the Prospectus Directive (each a "**Relevant Member State**") no offer to the public of any Offer Shares which are the subject of this Offering have been and will be made in that Relevant Member State, other than the offers contemplated in this prospectus in Germany (and Luxembourg once the prospectus has been approved by the BaFin, notified to the Commission de Surveillance du Secteur Financier (*CSSF*)) and published in accordance with the Prospectus Directive as implemented in Germany, except that it may make an offer to the public in that Relevant Member State of any Offer Shares at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

1. to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

2. to any legal entity which has two or more of (i) an average of at least 250 employees during the last fiscal year; (ii) a total balance sheet of more than €43,000,000 and (iii) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

3. to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the Joint Bookrunners for any such offer; or

4. in any other circumstances falling within Article 3(2) of the Prospectus Directive.

For the purposes of this prospectus, the expression an "offer to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State.

Each person in a Relevant Member State other than, in the case of paragraph 2. persons receiving offers to the public contemplated in the German and Luxembourg public offerings, who receive any communication in respect of, or who acquires any shares which are the subject of the Offering contemplated by this prospectus will be deemed to have represented, warranted and agreed to and with each Underwriter that:

1. it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2 para. 1 lit. (e) of the Prospectus Directive; and

2. in the case of any shares acquired by it as a financial intermediary, as that term is used in Article 3 para. 2 of the Prospectus Directive, (i) the shares acquired by it in the Offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than to "qualified investors" as defined in the Prospectus Directive, or in circumstances in which the prior consent of the Underwriters has been given to the offer or resale; or (ii) where shares have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors, the offer of those shares to it is not treated under the Prospectus Directive as having been made to such persons.

The following disclosure is directed at distributors of the Offer Shares: Solely for the purposes of the product governance requirements contained within: (a) EU Directive 2014/65/EU on markets in financial instruments, as amended ("**MiFID II**"); (b) Articles 9 and 10 of Commission Delegated Directive (EU) 2017/593 supplementing MiFID II; and (c) local implementing measures (together, the "**MiFID II Product Governance Requirements**"), and disclaiming all and any liability, whether arising in tort, contract or otherwise, which any "manufacturer" (for the purposes of the MiFID II Product Governance Requirements) may otherwise have with respect thereto, the Offer Shares have been subject to a product approval process by the Joint Global Coordinators. As a result, it has been determined that such Offer Shares are: (i) compatible with an end target market of retail investors and investors who meet the criteria of professional clients and eligible counterparties, each as defined in MiFID II; and (ii) eligible for distribution through all distribution channels as are permitted by MiFID II (the "**Target Market Assessment**"). Notwithstanding the Target Market Assessment, Distributors should note that: the price of the Offer Shares may decline and investors could lose all or part of their investment. The Offer Shares offer no guaranteed income and no capital protection and an investment in the Offer Shares is compatible only with investors who do not need a guaranteed income or capital protection, who (either alone or in conjunction with an appropriate financial or other adviser) are capable of evaluating the merits and risks of such an investment and who have sufficient resources to be able to bear any losses that may result therefrom. The Target Market Assessment is without prejudice to the requirements of any contractual, legal or regulatory selling restrictions in relation to the Offering.

For the avoidance of doubt, the Target Market Assessment does not constitute: (a) an assessment of suitability or appropriateness for the purposes of MiFID II; or (b) a recommendation to any investor or group of investors to invest in, or purchase, or take any other action whatsoever with respect to the Offer Shares.

Each distributor is responsible for undertaking its own target market assessment in respect of the Offer Shares and determining appropriate distribution channels.

18.8 Other Interests of the Underwriters in the Offering

The Underwriters act for the Issuer and the Selling Shareholder on the Offering and coordinate the structuring and execution of the Offering. Upon successful implementation of the Offering, the Underwriters will receive a commission. As a result of these contractual relationships, the Underwriters have a financial interest in the success of the Offering.

Furthermore, in connection with the Offering, each of the Underwriters and any of their respective affiliates, acting as an investor for their own account, may acquire shares in the Offering and in that capacity may retain, purchase or sell for its own account such shares or related investments and may offer or sell such shares or other investments otherwise than in connection with the Offering. In addition, certain of the Underwriters or their affiliates may enter into financing arrangements (including swaps or contracts for differences) with investors in connection with which Underwriters (or their affiliates) may from time to time acquire, hold or dispose of shares in the Issuer.

Some of the Underwriters or their affiliates have, and may from time to time in the future continue to have, business relations with our Group or may perform services for our Group in the ordinary course of business for which they have received or may receive customary fees and commissions.

19. TAXATION IN GERMANY

The following section outlines certain key German tax principles that may be relevant with respect to the acquisition, holding or transfer of shares in the Issuer. It is important to note that the legal situation may change, possibly with retroactive effect. This summary is not and does not purport to be a comprehensive or exhaustive description of all German tax considerations that may be relevant to shareholders of the Issuer. In particular, this summary does not cover tax considerations that may be relevant to a shareholder that is a tax resident of a jurisdiction other than Germany. This presentation is based upon domestic German tax laws in effect as of the date of this prospectus and the provisions of double taxation treaties currently in force between Germany and other countries.

This section does not replace the need for individual shareholders of the Issuer to seek personal tax advice. It is therefore recommended that shareholders consult their own tax advisors regarding the tax implications of acquiring, holding or transferring shares of the Issuer and what procedures are necessary to secure the repayment of German withholding tax (Kapitalertragsteuer), if possible. Only qualified tax advisors are in a position to adequately consider the particular tax situation of individual shareholders.

19.1 Taxation of the Issuer

The Issuer, established in the legal form of an AG & Co. KGaA (partnership limited by shares) with the General Partner as the sole general partner, qualifies as a legal entity subject to unlimited tax liability under the German Corporation Tax Act (*Körperschaftsteuergesetz*), and the Issuer's taxable income is determined in accordance with the rules of the German Corporation Tax Act (*Körperschaftsteuergesetz*). The General Partner, established in the legal form of an German stock stock corporation (*Aktiengesellschaft*), is also subject to unlimited tax liability under the German Corporation Tax Act (*Körperschaftsteuergesetz*). The General Partner does not hold a participation in the Issuer's share capital, but is entitled to a remuneration, inter alia, for management services rendered towards the Issuer.

The taxable income of the Issuer, whether distributed or retained, is generally subject to German corporate income tax at a uniform rate of 15% plus the solidarity surcharge of 5.5% thereon, resulting in a total tax rate of 15.825%. The remuneration received by the General Partner is deductible from the Issuer's taxable income.

Dividends and other shares in profits which the Issuer receives from domestic and foreign corporations are generally not subject to corporate income tax; however, 5% of this type of income are deemed to be a non-deductible business expense and are thus taxable. The same generally applies to profits earned by the Issuer from the sale or disposal of shares in another domestic or foreign corporation held by the Issuer. Losses incurred from the sale or disposal of such shares are not deductible for tax purposes, regardless of the percentage of shares held. Different rules apply to free-floating dividends (*i.e.,* dividends earned on direct shareholdings in a distributing corporation equal to less than 10% of its share capital at the start of the respective calendar year ("**Portfolio Dividends**")). Portfolio Dividends are fully taxed at the corporate income tax rate (plus solidarity surcharge thereon). The acquisition of a shareholding of at least 10% is deemed to have occurred at the beginning of the calendar year.

Participations in the share capital of other corporations which the Issuer holds through partnerships, including co-entrepreneurships (*Mitunternehmerschaften*), are attributable to the Issuer only on a *pro rata* basis at the ratio of the interest share of the Issuer in the assets of the relevant partnership.

In addition, the Issuer is subject to trade tax with respect to its taxable trade profits from its permanent establishments in Germany. The local trade tax rate depends on the local municipalities in which the Issuer maintains its domestic permanent establishments. The trade tax burden in Germany currently generally ranges from 7 percent to 18 percent depending on the municipality.

For trade tax purposes, dividends received from domestic and foreign corporations and capital gains from the sale of shares in other corporations are treated in principle in the same manner as for corporate income tax purposes. However, shares in profits received from domestic and foreign corporations are effectively 95% exempt from trade tax only if, *inter alia*, the company that is receiving the dividends has held or holds a stake of at least 15% in the share capital of the company making the distribution at the beginning or – in the case of foreign corporations – since the beginning of the assessment period. In the case of distributing companies within the meaning of Article 2 of the Council Directive 2011/96/EU of November 30, 2011 on the common system of taxation applicable in the case of parent companies and subsidiaries of different member states, as amended (the "**Parent-Subsidiary Directive**") domiciled in another member state of the EU, a stake of 10% at the beginning of the assessment period is sufficient. Additional limitations apply with respect to shares in profits received from foreign corporations domiciled outside the EU which do not qualify as corporations within the meaning of Article 2 of the Parent-Subsidiary Directive.

The provisions of the interest barrier (*Zinsschranke*) restrict the extent to which interest expenses are tax deductible. Under these rules, net interest expenses (interest expenses minus interest income in any given fiscal year) are generally only deductible up to 30% of the taxable EBITDA (taxable earnings adjusted for, in particular, interest costs, interest income, and certain depreciation and amortization), although there are certain exceptions to this rule. The interest barrier rules do not apply in any given fiscal year (i) if the annual net interest expense is less than €3.0 million, (ii) if the respective entity is not or only partially part of a consolidated group, or (iii) if the respective entity is part of a consolidated group but its equity ratio is no more than 2 percentage points below the equity ratio of the consolidated group. For eligibility of exemption (ii), the entity must prove that it did not pay more than 10% of the net interest expense to shareholders with a (direct or indirect) shareholding in the entity of more than 25% or to an associated person. For eligibility of exemption (iii), the entity must prove that the entity itself and any other company of the consolidated group did not pay more than 10% of the net interest expense to shareholders with a (direct or indirect) shareholding in a group company of more than 25% or to an associated person. Interest expense that is not deductible in any given fiscal year may be carried forward for up to five to subsequent fiscal years of the Issuer (interest carryforward) and will increase the interest expense in those subsequent years. Under certain conditions, non-offsettable EBITDA may also be carried forward to subsequent fiscal years (EBITDA carryforward). For the purpose of trade tax, however, the deductibility of interest expenses is further restricted to the extent that the sum of certain trade taxable add back items exceeds €100,000.00. In such cases 25% of the interest expenses, to the extent they were deducted for corporate income tax purposes, are added back for purposes of the trade tax base; consequently, in these cases the deductibility is limited to 75% of the interest expenses.

Losses of the Issuer can be carried forward to subsequent fiscal years and used to fully offset taxable income for corporate income tax and trade tax purposes only up to an amount of €1.0 million. If the taxable income for the year or taxable profit subject to trade taxation exceeds this threshold, only up to 60% of the amount exceeding the threshold may be offset by tax loss carryforwards. The remaining 40% are subject to taxation (minimum taxation). The rules also provide for a tax loss carryback in an amount of up to €1.0 million to the previous year with regards to corporate income tax. Unused tax loss carryforwards may generally be carried forward for an unlimited period of time.

If more than 50% of the subscribed capital or voting rights of the Issuer are transferred to an acquirer (including parties related to the acquirer) within five years directly or indirectly or a comparable acquisition occurs, all tax loss carryforwards and interest carryforwards are forfeited. A group of acquirers with aligned interests is also considered to be an acquirer for these purposes. In addition, any current year losses incurred prior to the acquisition will not be deductible. If more than 25% up to and including 50% of the subscribed capital or voting rights of the Issuer are transferred to an acquirer (including parties related to the acquirer) or a comparable acquisition occurs, a proportional amount of tax loss carryforwards, the unused current losses and interest carryforwards is forfeited. This does not apply to share transfers if (i) the purchaser directly or indirectly holds a participation of 100% in the transferring entity, (ii) the seller indirectly or directly holds a participation of 100% in the receiving entity, or (iii) the same natural or legal person or commercial partnership directly or indirectly holds a participation of 100% in the transferring and the receiving entity (*Konzernklausel*, "**Intra-Group Clause**"). Furthermore, tax loss carryforwards, unused current losses and interest carryforwards taxable in Germany will not expire to the extent that they are covered by built in gains taxable in Germany at the time of such acquisition (*Stille-Reserven-Klausel*, "**Hidden-Reserves Clause**"). With effect as of January 1, 2016 a new rule was introduced into the German Corporate Income Tax Act pursuant to which any share transfer that would otherwise be subject to the rules above does not result upon application in forfeiture of tax loss carryforwards and interest carryforwards resulting from current business operations (*Geschäftsbetrieb*) of the Issuer, if the current business operations of the Issuer remained the same (i) from the time of its establishment; or (ii) during the last three business years prior to the share transfer and such business operations are maintained after the transfer (*fortführungsgebundener Verlustvortrag*, "**Going Concern Tax Loss Carryforward**"). The determination of whether the business operations have been maintained is assessed on the basis of qualitative factors, such as the produced goods and services, target markets, client and supplier bases, etc. However, the tax loss carryforwards and interest carryforwards will be forfeited in any circumstance if, after the share transfer, the business operations of the Issuer become dormant, are amended, the Issuer becomes a partner in an operating partnership (*Mitunternehmerschaft*), the Issuer becomes a fiscal unity parent, or assets are transferred from the Issuer and recognized at a value lower than the fair market value. This requirement is monitored until the retained tax loss carryforwards and interest carryforwards have been fully utilized.

On March 29, 2017 the German Federal Constitutional Court (*Bundesverfassungsgericht*) held that the above loss expiry rules in their versions applicable from 2008 until 2015 are inconsistent with the principle of equality (*Gleichheitsgrundsatz*) under the German Constitution (*Grundgesetz*) to the extent they relate to a transfer of more than 25% up to and including 50% of the subscribed capital or voting rights of a company. This applies irrespective of the introduction of the Intra-Group Clause and the Hidden-Reserves Clause. The Federal Constitutional Court obliged the German legislator to revise by December 31, 2018 at the latest the law in line with the German Constitution (*Grundgesetz*) with retroactive effect as from January 1, 2008.

The ruling of the Federal Constitutional Court remains silent on whether or not the loss expiry rules are compliant with the German Constitution to the extent more than 50% of the subscribed capital or voting rights are transferred. However, this question is dealt with in cases still pending with the Federal Fiscal Court (*Bundesfinanzhof*). Further, the Federal Constitutional Court did not decide whether the loss expiry rules as applicable since 2016 comply with the constitutional principle of equality in light of the enactment of the Going Concern Tax Loss Carryforward. Therefore, it is currently unclear if and to what extent the pertinent loss expiry rules will be further amended by the German legislator.

19.2 Taxation of Shareholders

Shareholders are taxed in particular in connection with the holding of shares (taxation of dividend income), upon the sale of shares (taxation of capital gains) and the gratuitous transfer of shares (inheritance and gift tax).

19.2.1 Taxation of Dividend Income

In the future, the Issuer may pay dividends out of a tax recognized contribution account (*steuerliches Einlagenkonto*). To the extent that the Issuer pays dividends from the tax-recognized contribution account (*steuerliches Einlagenkonto*), the dividends are not subject to withholding tax, personal income tax (including the solidarity surcharge and church tax, if any) or corporate income tax, as the case may be. However, dividends paid out of a tax-recognized contribution account lower the acquisition costs of the shares, which may result in a higher amount of taxable capital gains upon the shareholder's sale of the shares. Special rules apply to the extent that dividends from the tax-recognized contribution account exceed the then lowered acquisition costs of the shares (the details are outlined below).

19.2.2 Withholding Tax

Dividends distributed by the Issuer that are not paid out of the tax-recognized contribution account (*steuerliches Einlagenkonto*) are subject to a deduction at source (withholding tax) at a 25% rate plus a solidarity surcharge of 5.5% on the amount of withholding tax (amounting in total to a rate of 26.375%) and church tax (*Kirchensteuer*), if applicable. The basis for determining the dividend withholding tax is the dividend approved for distribution by the Issuer's shareholders' meeting.

In general, dividend withholding tax is withheld regardless of whether and, if so, to what extent the shareholder must report the dividend for tax purposes and regardless of whether the shareholder is a resident of Germany or of a foreign country.

As the Issuer's shares are admitted to be held in collective safe custody (*Sammelverwahrung*) with a central securities depository (*Wertpapiersammelbank*) pursuant to Section 5 of the German Act on Securities Accounts (*Depotgesetz*) and are entrusted to such central securities depository for collective safe custody in Germany, the Issuer is generally not responsible for withholding the withholding tax. Instead, one of the following entities in Germany is responsible and authorized to collect withholding tax and to remit it to the relevant tax authority for the account of the relevant shareholder: (i) a domestic bank or financial service institute, a domestic securities trading company or a domestic securities trading bank (including the domestic branches of foreign banks or financial service institutes) that holds the shares in custody or that manages such shares and that pays out or credits the shareholder's investment income or that pays the investment income to a foreign entity, or (ii) the central securities depository (*Wertpapiersammelbank*) holding the collective deposit shares in custody if it pays the investment income to a foreign entity, or (iii) the Issuer itself (each a "Dividend Paying Agent"). However, if and to the extent shares held in collective safe custody (*girosammelverwahrt*) by the central securities depository (*Wertpapiersammelbank*) are treated as stock being held separately (so-called "*abgesetzte Bestände*"), the Issuer itself is responsible for withholding tax.

The Issuer assumes responsibility for the withholding of taxes on distributions at source, in accordance with statutory provisions. This means that the Issuer is released from liability for the violation of its legal obligation to withhold and transfer the taxes at source if it provides evidence that it has not breached its duties intentionally or grossly negligently.

Where dividends are distributed to a company resident in another member state of the EU within the meaning of Article 2 of the Parent-Subsidiary Directive, withholding of the dividend withholding tax may not be required (withholding tax exemption) or may be refunded, each upon application, and provided that additional requirements are met (withholding tax exemption). This also applies to dividends distributed to a permanent establishment located in another member state of the EU of such parent company or of a parent company that is tax resident in Germany, if the interest in the dividend-paying subsidiary is part of the respective permanent establishment's business assets. An important prerequisite for the exemption from withholding at the source or refund of withholding tax under the Parent-Subsidiary Directive is that the shareholder has directly held at least 10% of the Issuer's registered share capital continuously for one year and that the German Federal Central Office of Taxation (*Bundeszentralamt für Steuern*), with its registered office in An der Küppe 1, 53225 Bonn, Germany, has certified to the creditor of the dividends, based upon an application filed by such creditor on the officially prescribed form, that the prerequisites for exemption have been met.

The dividend withholding tax rate for dividends paid to shareholders without a tax residence in Germany will be reduced in accordance with any applicable double taxation treaty between Germany and the relevant shareholder's country of residence, provided that the shares are neither held as part of the business assets of a permanent establishment or a fixed base in Germany nor as part of the business assets for which a permanent representative in Germany has been appointed. The reduction in the dividend withholding tax is generally obtained by applying to the Federal Central Office of Taxation (*Bundeszentralamt für Steuern*), with its registered office in An der Küppe 1, 53225 Bonn, Germany, for a refund of the difference between the dividend withholding tax withheld, including the solidarity surcharge, and the amount of withholding tax actually owed under the applicable double taxation treaty, which usually amounts to between 5% and 15%. Depending on the applicable double taxation treaty, a reduced withholding tax rate may be applicable, if the shareholder has applied for an exemption from the Federal Central Office of Taxation (*Bundeszentralamt für Steuern*). The applicable double taxation treaty may also provide for a full exemption from the German dividend withholding tax, if the relevant shareholder has directly held at least 10% of the Issuer's registered share capital and if further prerequisites are met. Forms for the refund and exemption procedure may be obtained from the Federal Central Office of Taxation (*Bundeszentralamt für Steuern*), as well as German embassies and consulates.

Corporations that are not tax residents in Germany will upon application receive a refund of two fifths of the dividend withholding tax that was withheld and remitted to the tax authorities subject to certain requirements. This applies regardless of any further reduction or exemption provided for under the Parent-Subsidiary Directive or a double taxation treaty.

Foreign corporations will generally have to meet certain stringent substance criteria defined by statute in order to receive an exemption from, or (partial) refund of, German dividend withholding tax.

Pursuant to a special rule on the restriction of withholding tax credit, the aforementioned relief in accordance with applicable double taxation treaties as well as the credit of withholding tax described for shares held as private and as business assets (see "*19.3 Taxation of Dividends of Shareholders with a Tax Residence in Germany*") is subject to the following three cumulative prerequisites: (i) the relevant shareholder must qualify as beneficial owner of the shares in the Issuer for a minimum holding period of 45 consecutive days occurring within a period of 45 days prior and 45 days after the due date of the dividends, (ii) the shareholder has to bear at least 70% of the change in value risk related to the shares in the Issuer during the minimum holding period without being directly or indirectly hedged, and (iii) the shareholder is not required to fully or largely, directly or indirectly, transfer the dividends to third parties (the tests under (i) to (iii) above are together described as the "**Minimum Risk Test**").

Should any of the three prerequisites not be met, the following applies:

- As regards the taxation of dividends of shareholders with a tax residence in Germany, three fifths of the withholding tax imposed on the dividends may not be credited against the shareholder's (corporate) income tax liability, but may, upon application, be deducted from the shareholder's tax base for the relevant assessment period. A shareholder that has received gross dividends without any deduction of withholding tax due to a tax exemption without qualifying for a full tax credit has to notify the competent local tax office accordingly and has to make a payment in the amount of the withholding tax deduction which was omitted. The special rule on the restriction of withholding tax credit does not apply to a shareholder whose overall dividend earnings within an assessment period do not exceed €20,000.00 or who has been the beneficial owner of the shares in the Issuer for at least one uninterrupted year upon receipt of the dividends.
- As regards the taxation of dividends of shareholders without a tax residence in Germany who have applied for a full or partial refund of the withholding tax pursuant to a double taxation treaty, no refund is available. This restriction does not apply to a shareholder (i) that directly holds at least

10% of the shares in the Issuer and that is subject to (corporate) income tax in the country of its tax residence without any exemptions, or (ii) that has been the beneficial owner of the shares in the Issuer for at least one uninterrupted year upon receipt of the dividends, or (iii) if the applicable tax rate pursuant to the applicable double taxation treaty is at least 15%.

Prospective shareholders are advised to seek their own professional advice in relation to the possibility to obtain a tax credit or refund of withholding tax on dividends.

The Dividend Paying Agent which keeps or administrates the shares and pays or credits the capital income is required to create so-called pots for the loss set off (*Verlustverrechnungstöpfe*) to allow for setting off of negative capital income with current and future positive capital income. A set off of negative capital income at a Dividend Paying Agent with positive capital income at a different Dividend Paying Agent is not possible and can only be achieved in the course of the income tax assessment at the level of the respective shareholder. In this case the taxpayer has to apply for a certificate confirming the amount of losses not offset with the Dividend Paying Agent where the pots for the loss set off exists. The application is irrevocable and has to reach the Dividend Paying Agent until 15th December of the respective year. Otherwise the losses will be carried forward to the following year by the Dividend Paying Agent.

Withholding tax will not be withheld by a Dividend Paying Agent if the taxpayer provides the Dividend Paying Agent with an application for exemption (*Freistellungsauftrag*) to the extent the capital income does not exceed the annual lump sum allowance (*Sparerpauschbetrag*) of € 801.00 (€1,602.00 for jointly filing individuals) as outlined on the application for exemption. Furthermore, no withholding tax will be levied if the taxpayer provides the Dividend Paying Agent with a non-assessment certificate (*Nichtveranlagungsbescheinigung*) to be applied for with the competent tax office of the investor.

19.3 Taxation of Dividends of Shareholders with a Tax Residence in Germany

19.3.1 Individuals who hold the Shares as Private Assets

For individuals who are tax resident in Germany (generally, individuals whose domicile or usual residence is located in Germany) and who hold their shares in the Issuer as private assets, the withholding tax of 25% plus solidarity surcharge of 5.5% thereon, resulting in a total tax rate of 26.375% (plus church tax, if any) will generally serve as a final tax (*i.e.,* once such tax has been deducted, the shareholder's income tax liability on the dividends will be settled, and he or she will no longer have to declare them on his or her annual tax return (the "**Flat Tax**")).

The purpose of the Flat Tax is to provide for separate and final taxation of capital investment income earned (*i.e.,* taxation that is irrespective of the individual's personal income tax rate). Shareholders may apply to have their capital investment income assessed in accordance with the general rules and with an individual's personal income tax rate if this would result in a lower tax burden. In this case, the base for taxation would be the gross dividend income less the savers' allowance of €801.00 (€1,602.00 for jointly filing individuals). Any tax and solidarity surcharge already withheld would be credited (subject to the Minimum Risk Test) against the income tax and solidarity surcharge so determined, and any overpayment refunded. Income-related expenses cannot be deducted from capital gains in either case. The only possible deduction is the savers' allowance of €801.00 (€1,602.00 for jointly filing individuals) on all private capital income. Furthermore, dividend income can only be offset by losses from capital income, except for losses generated by the disposal of shares.

If the individual owns (i) at least 1% of the shares in the Issuer and is able to exercise, by virtue of professional activity (*berufliche Tätigkeit*) for the Issuer, a significant entrepreneurial influence on the business activity of the Issuer, or (ii) at least 25% of the shares in the Issuer, the tax authorities may approve upon application that the dividends are taxed under the partial-income method (see "*19.3.2.2 Sole Proprietors (Individuals)*").

Entities required to collect withholding taxes on capital investment income are required to likewise withhold the church tax on payments to shareholders who are subject to church tax, unless the shareholder objects in writing to the Federal Central Office of Taxation (*Bundeszentralamt für Steuern*) against the sharing of his or her private information regarding his or her affiliation with a religious denomination (*Sperrvermerk*). If church tax is withheld and remitted to the tax authority as part of the withholding tax deduction, then the church tax on the dividends is also deemed to be discharged when it is deducted. The withheld church tax cannot be deducted in the tax assessment as a special expense. However, 26.375% of the church tax withheld on the dividends is deducted from the withholding tax (including the solidarity surcharge) withheld. If no church taxes are withheld along with the withholding of the withholding tax, the shareholder who owes church tax is required to report his or her dividends in his or her income tax return. The church tax on the dividends will then be imposed during the assessment.

Contrary to the above, dividend payments that are funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) and are paid to shareholders who are tax resident in Germany whose shares are held as private assets, do not form part of the shareholder's taxable income. If the dividend payment funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) exceeds the shareholder's acquisition costs, in the view of the tax authorities negative acquisition costs will arise which can result in a higher capital gain in case of a disposal of the shares. This will not apply if (i) the shareholder or, in the event of a gratuitous transfer, its legal predecessor, or, if the shares have been gratuitously transferred several times in succession, one of his legal predecessors at any point during the five years preceding the disposal directly or indirectly held at least 1% of the share capital of the Issuer (a "**Qualified Participation**") and (ii) the dividend payment funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) exceeds the acquisition costs of the shares. In case of a Qualified Participation, a dividend payment funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) is considered a sale of the shares and is taxable as a capital gain if and to the extent the dividend payment funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) exceeds the acquisition costs of the shares. In this case the taxation corresponds to the capital gains taxation of shareholders maintaining a Qualified Participation (see "*19.5 Taxation of Capital Gains*").

19.3.2 Shares Held as Business Assets

The Flat Tax does not apply to dividends from shares of the Issuer held as business assets of shareholders who are tax resident in Germany. In this case, the taxation is based on whether the shareholder is a corporation, an individual or a partnership. The withholding tax withheld and paid to the tax authorities, including the solidarity surcharge, is credited (subject to the Minimum Risk Test) against the income or corporate income tax and the solidarity surcharge of the shareholder, and any overpayment will be refunded.

Dividend payments that are funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) and paid to shareholders who are tax resident in Germany whose shares are held as business assets are generally fully tax-exempt in the hands of such shareholders leading only to reduction of their acquisition costs/book value. To the extent the dividend payments funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) exceed the acquisition costs/book value of the shares, a taxable capital gain should occur. The taxation of such gain corresponds to the taxation of shareholders whose shares are held as business assets (see "*19.5 Taxation of Capital Gains*"). However, as regards the application of the 95% exemption in case of a corporation this is not undisputed.

19.3.2.1 *Corporations*

Dividends received by corporations that are tax resident in Germany are generally exempt from corporate income tax and solidarity surcharge. However, 5% of the dividends are treated as a non-deductible business expenses and, as such, are subject to corporate income tax (plus the solidarity surcharge) with a total tax rate of 15.825%.

Portfolio Dividends are fully taxed at the corporate income tax rate (plus solidarity surcharge thereon). The acquisition of a shareholding of at least 10% during a calendar year is deemed to have occurred at the beginning of the respective calendar year. Participations which a shareholder holds through a commercial partnership are only attributable to such shareholder on a *pro rata* basis at the ratio of the interest share of the shareholder in the assets of the relevant partnership.

Business expenses actually incurred and with a direct business relationship to the dividends may be fully deducted.

Any dividends (after deducting business expenses related to the dividends) are fully subject to trade tax, unless the corporation held at least 15% of the Issuer's registered share capital at the beginning of the relevant tax assessment period, entitling it to an intercorporate privilege for trade tax purposes. In such case, the aforementioned exemption of 95% of the dividend income applies analogously for trade tax purposes.

19.3.2.2 *Sole Proprietors (Individuals)*

If the shares in the Issuer are held as part of the business assets of a sole proprietor (individual) with his or her tax residence in Germany, 40% of any dividend is tax exempt (so-called partial income method). Only 60% of the expenses economically related to the dividends are tax deductible. The partial income method also applies when individuals hold the shares indirectly through a partnership (with the exception of individual investors who hold their shares through partnerships that are neither commercial partnerships nor presumed to be commercial partnerships). However, the partial income method does not apply with respect to church tax (if applicable). If the shares are held as business assets of a domestic commercial permanent establishment, the full amount of the dividend income (after deducting business expenses that are economically related to the dividends) is also subject to trade tax, unless the taxpayer held at least 15% of the Issuer's registered share capital at the beginning of the relevant tax assessment period. In the latter case, the net dividends (after deducting directly related expenses) are exempt from trade tax. However, trade tax is generally credited – fully or in part – as a lump sum against the relevant shareholder's personal income tax liability, depending on the tax rate imposed by the local municipality and certain individual tax-relevant circumstances of the shareholder.

19.3.2.3 *Partnerships*

If a shareholder is a partnership, the personal income tax or corporate income tax, as the case may be, and the solidarity surcharge are levied at the level of each partner rather than at the level of the partnership. The taxation of each partner depends upon whether the partner is a corporation or an individual. If the partner is a corporation, dividends are generally 95% tax exempt. However, dividends from an indirect shareholding representing less than 10% of the share capital for the relevant partner are fully subject to taxation (see "*19.3.2.1 Corporations*"). If the partner is an individual and the shares are held as business assets of the partnership, only 60% of the dividend income is subject to income tax. In this case, the partial income method does not apply with respect to church tax, if applicable (see "*19.3.2.2 Sole Proprietors (Individuals)*").

Additionally, if the shares are held as business assets of a domestic permanent establishment of an actual or presumed commercial partnership, the full amount of dividend income is generally also subject to trade tax at the level of the partnership. In the case of partners who are individuals, the trade tax that the partnership pays on his or her portion of the partnership's income is generally credited as a lump sum – fully or in part – against the individual's personal income tax liability depending on the tax rate imposed by the local municipality and certain individual tax-relevant circumstances of the shareholder. If the partnership held at least 15% of the Issuer's registered share capital at the beginning of the relevant tax assessment period, the dividends (after deduction of business expenses economically related thereto) should generally not be subject to trade tax. In this case, trade tax should, however, be levied on 5% of the dividends to the extent they are attributable to the profit share of such corporate partners to whom at least 10% of the shares in the Issuer are attributable on a look-through basis, since this portion of the dividends should be deemed to be non-deductible business expenses. The remaining portion of the dividend income attributable to partners other than such specific corporate partners (which includes individual partners and should, according to a literal reading of the law, also include corporate partners to whom, on a look-through basis, only portfolio participations are attributable) should not be subject to trade tax.

19.3.2.4 *Financial and Insurance Sector*

Special rules apply to companies operating in the financial and insurance sector, as well as pension funds (see "*19.6 Special Treatment of Companies in the Financial and Insurance Sectors and Pension Funds*").

19.4 Taxation of Dividends of Shareholders without a Tax Residence in Germany

Dividends paid to shareholders of the Issuer (individuals and corporations) without a tax residence in Germany are taxed in Germany, provided that the shares are held as part of the business assets of a permanent establishment or a fixed base in Germany or as part of the business assets for which a permanent representative in Germany has been appointed. The withholding tax (including solidarity surcharge) withheld and remitted to the German tax authorities is credited (subject to the Minimum Risk Test) against the respective shareholder's personal income tax or corporate income tax liability, and any overpayment will be refunded. The same applies to the solidarity surcharge. These shareholders are essentially subject to the same rules applicable to tax resident shareholders, as discussed above.

In all other cases, the withholding of the dividend withholding tax discharges any tax liability of the shareholder in Germany. A refund or exemption is granted only as discussed with respect to dividend withholding tax (see "*19.2.2 Withholding Tax*").

Dividend payments that are funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) are generally not taxable in Germany.

19.5 Taxation of Capital Gains

19.5.1 Taxation of Capital Gains of Shareholders with a Tax Residence in Germany

19.5.1.1 Shares Held as Private Assets

Gains on the sale of shares of the Issuer that are held as private assets by shareholders with a tax residence in Germany and which were acquired after December 31, 2008, are generally taxable regardless of the length of time held. The tax rate is generally a uniform 25% plus the 5.5% solidarity surcharge thereon (resulting in an aggregate tax rate of 26.375%) as well as any church tax, if applicable.

The taxable capital gains are the difference between (i) the proceeds from the disposal of the shares after deducting the direct sales costs and (ii) the acquisition costs of the shares. Under certain conditions, prior payments from the tax-recognized contribution account (*steuerliches Einlagekonto*) may lead to reduced acquisition costs of the shares held as private assets and, as a consequence, increase the taxable sales gain. Losses on the sale of shares can only be used to offset gains made on the sale of shares during the same year or in subsequent years.

If the shares are held in custody or administered by a domestic bank or financial service institute, a domestic securities trading company or a domestic securities trading bank (including the domestic branches of foreign banks and financial service institutes), or if such entity or branch sells the shares and pays out or credits the capital gains (each a "**Domestic Paying Agent**"), such Domestic Paying Agent withholds a withholding tax of 25% plus 5.5% solidarity surcharge thereon and any church tax, if applicable, and remits such taxes to the tax authority. In such a case, the tax on the capital gain will generally be discharged. If the shares were only held in custody or administered by the respective Domestic Paying Agent continuously after acquisition, the amount of taxes withheld is generally based on the difference between the proceeds from the sale, after deducting expenses directly related to the sale, and the amount paid to acquire such shares. However, the withholding tax rate of 25% plus the 5.5% solidarity surcharge thereon and any church tax, if applicable, will be applied to 30% of the gross sales proceeds, if the shares were not administered by the same custodian bank since acquisition and the original cost of the shares cannot be verified or such verification is not admissible. In this case, the shareholder is entitled to, and in case the actual gain is higher than 30% of the gross proceeds required to, verify the original costs of the shares in his or her annual tax return.

Entities required to collect withholding taxes on capital investment income are also required to withhold the church tax for shareholders who are subject to church tax, unless the shareholder objects in writing to the Federal Central Office of Taxation (*Bundeszentralamt für Steuern*) against the sharing of his or her private information regarding his or her affiliation with a denomination (*Sperrvermerk*). If church tax is withheld and remitted to the tax authority as part of the withholding tax deduction, then the church tax on the capital gain is also deemed to be discharged when it is deducted. The withheld church tax cannot be deducted in the tax assessment as a special expense. However, 26.375% of the church tax withheld on the capital gain is deducted from the withholding tax (including the solidarity surcharge) withheld.

If the withholding tax or, if applicable, the church tax on capital gains is not withheld by a Domestic Paying Agent, the shareholder is required to declare the capital gains in his income tax return. The income tax and any applicable church tax on the capital gains will then be collected by way of assessment.

A shareholder may request that all of his or her items of capital investment income, along with his or her other taxable income, are subject to the progressive income tax rate instead of the uniform tax rate for private capital investment income if this lowers his or her tax burden. In such case, the base for taxation would be the gross income less the savers' allowance of €801.00 (€1,602.00 for jointly filing individuals). The prohibition on deducting income-related costs and the restrictions on offsetting losses also apply to tax assessments based on the progressive income tax rate. Any tax already withheld would be credited against the income tax so determined, and any overpayment refunded.

One exception to this rule is that a shareholder's capital gains are subject to the partial income method and not the Flat Tax. Consequently, 60% of the proceeds from the sale of shares are subject to the individual income tax rate, if the shareholder, or his or her legal predecessor in case of acquisition without consideration, has directly or indirectly held shares equal to at least 1% of the Issuer's share capital at any time during the previous five years (*i.e.,* held a Qualified Participation). 60% of the expenses economically related to the proceeds from the sale of shares are tax-deductible.

In the case of a Qualified Participation, withholding tax (including the solidarity surcharge) is also withheld by the Domestic Paying Agent. The tax withheld, however, is not treated as a final tax. Hence, the shareholder is required to declare the gains from the sale in his or her income tax return. The withholding tax (including solidarity surcharge) withheld and remitted to the German tax authorities is credited against the respective shareholder's personal income tax liability, and any overpayment will be refunded.

19.5.1.2 Shares Held as Business Assets

The Flat Tax does not apply to proceeds from the sale of shares held as business assets by shareholders tax resident in Germany. If the shares form part of a shareholder's business assets, taxation of the capital gains realized will then depend upon whether the shareholder is a corporation, sole proprietor or partnership. Dividend payments that are funded from the Issuer's tax-recognized contribution account (*steuerliches Einlagekonto*) reduce the original acquisition costs/book value. This may give rise to a higher taxable capital gain in case of a sale of shares. If the dividend payments exceed the shares' book value for tax purposes, a taxable capital gain may arise.

1. **Corporations:** In general, capital gains earned on the sale of shares by corporations domiciled in Germany are exempt from corporate income tax (including the solidarity surcharge) and trade tax, irrespective of the stake represented by the shares and the length of time the shares are held. However, 5% of the capital gains are treated as a non-deductible business expenses and, as such, are subject to corporate income tax (plus the solidarity surcharge thereon) and to trade tax.
2. **Sole proprietors (individuals):** If the shares of the Issuer were acquired after December 31, 2008 and form part of the business assets of a sole proprietor (individual) who is tax resident in Germany, 60% of the capital gains on their sale are subject to the individual's personal tax rate plus the solidarity surcharge thereon (partial income method). Correspondingly, only 60% of losses from such sales and 60% of expenses economically related to such sales are deductible. For church tax, if applicable, the partial income method does not apply. If the shares are held as business assets of a commercial permanent establishment located in Germany, 60% of the capital gains are also subject to trade tax. The trade tax is fully or partially credited as a lump sum against the shareholder's personal income tax liability, depending on the tax rate imposed by the local municipality and certain individual tax-relevant circumstances of the shareholder.
3. **Commercial partnerships:** If the shareholder is a partnership, personal income tax or corporate income tax, as the case may be, is assessed at the level of each partner rather than at the level of the partnership. The taxation of each partner depends upon whether the respective partner is a corporation or an individual. If the partner is a corporation, the tax principles applying to capital gains which are outlined in subsection 1 apply. If the partner is an individual, the tax principles applying to capital gains that are outlined in subsection 2 apply. Upon application and provided that additional prerequisites are met, an individual who is a partner may obtain a reduction of his or her personal income tax rate for profits not withdrawn from the partnership. In addition, capital gains from the sale of shares attributable to a permanent establishment maintained in Germany by an actual or presumed commercial partnership are subject to trade tax at the level of the partnership. In such case, generally only 60% of the gains are subject to trade tax to the extent the partners in the partnership are individuals, while 5% are subject to trade tax to the extent the partners are corporations and shares are sold. Under the principles discussed above, losses on sales and other reductions in profit related to the shares sold are generally not deductible or only partially deductible, if the partner is a corporation. If the partner is an individual, the trade tax the partnership pays on his or her share of the partnership's income is generally credited as a lump sum – fully or in part – against his or her the shareholder's personal income tax liability, depending on the tax rate imposed by the local municipality and certain individual tax-relevant circumstances of the shareholder.

Special rules apply to capital gains realized by companies operating in the financial and insurance sectors, as well as pension funds (see "*19.6 Special Treatment of Companies in the Financial and Insurance Sectors and Pension Funds*").

If a Domestic Paying Agent is involved, the proceeds from the sale of shares of the Issuer held as business assets are generally subject to the same withholding tax rate as those of shareholders whose shares are held as private assets (see "*19.5.1.1 Shares Held as Private Assets*"). However, the Domestic Paying Agent may refrain from withholding the withholding tax if (i) the shareholder is a corporation, association or estate with its tax residence in Germany, or (ii) the shares form part of the shareholder's domestic business assets, and the shareholder informs the Domestic Paying Agent of this on the officially prescribed form and meets certain additional prerequisites. If the Domestic Paying Agent nevertheless withholds taxes, the withholding tax withheld and remitted (including the solidarity surcharge and church tax, if applicable) will be credited against the relevant shareholder's income tax or corporate income tax liability (including the solidarity surcharge and church tax, if applicable) and any excess amount will be refunded.

19.5.2 Taxation of Capital Gains of Shareholders without a Tax Residence in Germany

Capital gains realized by a shareholder without a tax residence in Germany are only subject to German income tax if the selling shareholder holds a Qualified Participation or if the shares form part of the business assets of a permanent establishment in Germany or of business assets for which a permanent representative is appointed.

Most double taxation treaties provide for an exemption from German taxes and assign the right of taxation to the shareholder's country of tax residence in the former case.

19.6 Special Treatment of Companies in the Financial and Insurance Sectors and Pension Funds

As an exception to the aforementioned rules, dividends paid to, and capital gains realized by, certain companies in the financial and insurance sector are fully taxable. This applies to dividends received on, as well as gains from the disposal of, shares in a trading portfolio within the meaning of Section 340e para. 3 of the German Commercial Code (*Handelsgesetzbuch*) of credit institutions and financial services institutions, and shares that are, upon acquisition of the shares, allocable to the current assets of a financial enterprise within the meaning of the German Banking Act (*Kreditwesengesetz*) that is directly or indirectly held by a credit institution or financial services institution to more than 50%. The same applies to shares of the Issuer held as investments by life insurance providers, health insurance providers and pension funds. If the shareholding at the beginning of the relevant assessment period is 15% or higher, the dividends may, subject to certain conditions, be fully exempted from trade tax. However, an exemption to the foregoing, and thus a 95% effective tax exemption, applies to dividends obtained by the aforementioned companies, to which the Parent-Subsidiary Directive applies.

19.7 Inheritance and Gift Tax

The transfer of shares to another person by inheritance or gift is generally only subject to German inheritance or gift tax if:

1. the decedent, donor, heir, beneficiary or other transferee maintained his or her domicile or habitual abode in Germany, or had its place of management or registered office in Germany at the time of the transfer, or is a German citizen who has spent no more than five consecutive years (this term is extended to ten years for German expatriates with residence in the United States) prior to the transfer outside Germany without maintaining a residence in Germany (special rules apply to certain former German citizens who neither maintain their domicile nor have their habitual abode in Germany); or
2. the shares were held by the decedent or donor as part of business assets for which a permanent establishment was maintained in Germany or for which a permanent representative in Germany had been appointed; or
3. the decedent or donor, either individually or collectively with related parties, held, directly or indirectly, at least 10% of the Issuer's registered share capital at the time of the inheritance or gift.

The fair value of the shares represents the tax assessment base, which generally corresponds to the stock exchange price of the Issuer's shares. Depending on the degree of relationship between decedent or donor and recipient, different tax-free allowances and tax rates apply.

The few German double taxation treaties relating to inheritance tax and gift tax currently in force usually provide that the German inheritance tax or gift tax can only be levied in the cases of (1.) above, and also with certain restrictions in case of (2.) above. Special provisions apply to certain German nationals living outside of Germany and former German nationals.

19.8 The Proposed Financial Transactions Tax

On February 14, 2013, the European Commission published a proposal (the "**Commission's Proposal**") for a Directive for a common financial transaction tax in certain participating EU member states, including Germany, which if introduced, could apply to certain dealings in the Issuer's shares (including secondary market transactions) in certain circumstances. The issuance and subscription of shares should, however, be exempt. The Commission's Proposal remains subject to negotiations between the participating EU member states and it is currently unclear if, in which form and when the Commission's Proposal will be implemented.

19.9 Other Taxes

No German transfer tax, value-added tax, stamp duty or similar taxes are assessed on the purchase, sale or other transfer of shares of the Issuer. Provided that certain requirements are met, an entrepreneur may, however, opt for the payment of value-added tax on transactions that are otherwise tax-exempt. Net wealth tax is currently not imposed in Germany.

20. TAXATION IN THE GRAND DUCHY OF LUXEMBOURG

The following information is of a general nature only and is based on the laws in force in Luxembourg as of the date of this prospectus. It does not purport to be a comprehensive description of all the tax considerations that might be relevant to an investment decision. It is included herein solely for preliminary information purposes. It is not intended to be, nor should it be construed to be, legal or tax advice. It is a description of the essential material Luxembourg tax consequences with respect to the listing and may not include tax considerations that arise from rules of general application or that are generally assumed to be known to shareholders. This information is based on the laws in force in Luxembourg on the date of this prospectus and is subject to any change in law that may take effect after such date. Prospective shareholders (the "**Shareholders**") should consult their professional advisors with respect to particular circumstances, the effects of state, local or foreign laws to which they may be subject, and as to their tax position. Please be aware that the residence concept used under the respective headings applies for Luxembourg income tax assessment purposes only. Any reference in the present section to a tax, duty, levy impost or other charge or withholding of a similar nature refers to Luxembourg tax law and/or concepts only. Also, please note that, generally, a reference to Luxembourg income tax encompasses corporate income tax (*impôt sur le revenu des collectivités*), municipal business tax (*impôt commercial communal*), a solidarity surcharge (*contribution au fonds pour l'emploi*) as well as personal income tax (*impôt sur le revenu*). Corporate Shareholders may further be subject to net wealth tax (*impôt sur la fortune*) as well as other duties, levies or taxes. Corporate income tax, municipal business tax, the solidarity surcharge and the net wealth tax invariably apply to most corporate taxpayers resident in Luxembourg for tax purposes. Individual taxpayers are generally subject to personal income tax and the solidarity surcharge. Under certain circumstances, where an individual taxpayer acts in the course of the management of a professional or business undertaking, municipal business tax may apply as well.

20.1 Luxembourg Taxation of the Shareholders

Taxation of income derived from shares, and capital gains realized on shares by Luxembourg residents.

20.1.1 Withholding Taxes

Dividend payments made to shareholders by a non-resident company, such as the Issuer, as well as liquidation proceeds and capital gains derived therefrom are not subject to a withholding tax in Luxembourg. Therefore, the Issuer does not assume liability for withholding taxes at the source.

20.1.2 Taxation of Dividend Income

Under certain conditions, a corresponding tax credit may be granted to the Shareholders for foreign withholding taxes against Luxembourg income tax due on these dividends, without exceeding in any case Luxembourg tax on such income.

20.1.2.1 *Luxembourg Resident Shareholders*

Dividends and other payments derived from the shares held by resident individual Shareholders, who act in the course of the management of either their private wealth or their professional/business activity, are subject to income tax at the ordinary progressive rates with a current top effective marginal tax rate of 42% (45.78% including the maximum 9% solidarity surcharge) depending on the annual level of income of the shareholders.

Under current Luxembourg tax laws, 50% of the gross amount of dividends received by resident individuals from the Issuer may however exempt from income tax, since the distributing Issuer is a EU company covered by Article 2 of the Parent-Subsidiary Directive. In addition, a total lump-sum of €1,500 (doubled for individual taxpayers who are jointly taxable) is deductible from total investment income (dividends and interest) received during the tax year. Either actual income related expenses (*e.g.*, bank fees) are deducted provided they are supported by documents or a lump-sum deduction of €25 applies (doubled for individual taxpayers who are jointly taxable).

Dividends derived from the shares by Luxembourg resident fully taxable companies are subject to income taxes, unless the conditions of the participation exemption regime are satisfied.

Subject to the anti-abuse provisions of Art 166 (2bis) Luxembourg income tax law, the participation exemption regime provides that dividends derived from the shares may be exempt from income tax at the level of the Shareholder if cumulatively (a) the Shareholder receiving the dividends is either (i) a fully taxable Luxembourg resident company, (ii) a domestic permanent establishment of an EU resident company falling under article 2 of the Parent-Subsidiary Directive, (iii) a domestic permanent establishment of a joint-stock company limited by shares (*société de capitaux*) that is resident in a State with which Luxembourg has concluded a double tax treaty, or (iv) a domestic permanent establishment of a joint-stock company limited by shares (*société de capitaux*) or of a cooperative company which is a resident of a EEA Member State (other than a EU Member State); and at the date on which the income is made available, (b) the distributing company is a qualified subsidiary ("**Qualified Subsidiary**"), and (c) the Shareholder holds or commits to hold directly for an uninterrupted period of at least twelve months a qualified shareholding ("**Qualified Shareholding**"). A Qualified Subsidiary means (a) a Luxembourg resident fully-taxable joint-stock company limited by shares (*société de capitaux*), (b) a company covered by Article 2 of the Parent-Subsidiary Directive or (c) a non-resident joint-stock company limited by shares (*société de capitaux*) liable to a tax corresponding to Luxembourg corporate income tax at a rate of a minimum of 9.5% (as from 2017). A Qualified Shareholding means shares representing a direct participation of at least 10% in the share capital of the Qualified Subsidiary or a direct participation in the Qualified Subsidiary of an acquisition price of at least €1.2 million (or an equivalent amount in another currency). Liquidation proceeds are assimilated to a received dividend and may be exempt under the same conditions. Shares held through a tax transparent entity are considered as being a direct participation proportionally to the percentage held in the net assets of the transparent entity. To the extent that expenses related to the participation in the Issuer have reduced the Shareholder's taxable profits (during the year of receipt of the dividend), the deductions from these related expenses will not be tax deductible.

If the participation exemption does not apply, dividends may benefit from the 50% exemption under the relevant conditions set out above.

Any Shareholder which is a Luxembourg resident entity governed by the law of December 17, 2010 on undertakings for collective investment, as amended, by the law of February 13, 2007 on specialized investment funds, as amended, by the law of May 11, 2007 on the family wealth management company, as amended, or by the law of July 23, 2016 on reserved alternative investment funds, is not subject to any Luxembourg corporation taxes in respect of dividends received from the Issuer.

20.1.2.2 *Non-Resident Shareholders*

Non-resident Shareholders who are non-residents of Luxembourg and who have neither a permanent establishment nor a fixed place of business or a permanent representative in Luxembourg to which the shares are attributable are not liable to any Luxembourg income tax on dividends received from the Issuer.

Subject to the provisions of double taxation treaties, dividends on the shares received by non-resident Shareholders holding the shares through a Luxembourg permanent establishment or through a Luxembourg permanent representative to which or whom the shares are attributable are subject to income tax at ordinary rates unless the conditions of the participation exemption as described above apply.

20.1.3 Taxation of Capital Gains

20.1.3.1 *Luxembourg Resident Shareholders*

Capital gains realized on the disposal of the shares by resident individual Shareholders, who act in the course of the management of their private wealth, are not subject to income tax, unless said capital gains qualify either as speculative gains or as gains on a substantial participation ("**Substantial Participation**"). Capital gains are deemed to be speculative and are subject to income tax at ordinary rates if the shares are disposed of within six months after their acquisition or if their disposal precedes their acquisition. A participation is deemed to be substantial where a resident individual Shareholder holds, either alone or together with his spouse or partner and/or minor children, directly or indirectly at any time within the five years preceding the disposal, more than 10% of the share capital of the Issuer. A Shareholder is also deemed to transfer a Substantial Participation if he acquired free of charge, within the five years preceding the transfer, a participation that constituted a Substantial Participation in the hands of the transferor (or the transferors in case of successive transfers free of charge within the same five-year period). Capital gains realized on a Substantial Participation are subject to Luxembourg income tax according to the half-global rate method (*i.e.,* the average rate applicable to the total income is calculated according to progressive income tax rates and half of the average rate is applied to the capital gains realized on a Substantial Participation) and may benefit from an allowance of up to €50,000 granted for a ten-year period (doubled for individual taxpayers who are jointly taxable). A disposal may include a sale, an exchange, a contribution or any other kind of alienation of the shares. Capital gains realized on the disposal of the shares by resident individual Shareholders, who act in the course of their professional/business activity, are subject to income tax at ordinary rates.

Taxable gains are determined as being the difference between the price for which the shares have been disposed of and the lower of their cost or book value.

Capital gains realized by (a) a Luxembourg fully-taxable resident company or (b) the Luxembourg permanent establishment of a non-resident foreign company on the shares of the Issuer are subject to income tax at the maximum global rate of 26.01% (in Luxembourg-City in 2018), unless the conditions of the participation exemption regime, as described above, are satisfied except that the acquisition price must be of at least €6 million for capital gain exemption purposes. Shares held through a tax transparent entity are considered as a direct participation holding proportionally to the percentage held in the assets of the transparent entity. To the extent that expenses related to the (exempt) shareholding or write-downs deducted in relation to the participation have reduced the Shareholder's taxable profits (during the year of the sale or in prior years), the exempt amount of the capital gain will be reduced by the sum of the excess expenses and capital write-downs which are in direct economic connection with the participation and were deducted over current and previous years.

Any expenses in excess of the capital gains remain fully tax deductible.

Taxable gains are determined to be the difference between the price for which the shares have been disposed of and the lower of their cost or book value.

The Shareholder which is a Luxembourg resident entity governed by the law of December 17, 2010 on undertakings for collective investment, as amended, by the law of February 13, 2007 on specialized investment funds, as amended, by the law of May 11, 2007 on the family estate management company, as amended, or by the law of July 23, 2016 on reserved alternative investment funds, is not subject to any Luxembourg corporation taxes in respect of capital gains realized upon disposal of its shares.

20.1.3.2 *Non-Resident Shareholders*

Under Luxembourg tax laws currently in force (subject to the provisions of double taxation treaties), capital gains realized on the disposal of the shares by a non-resident Shareholder holding the shares through a Luxembourg permanent establishment or through a Luxembourg permanent representative to which or whom the shares are attributable are subject to income tax at ordinary rates unless the conditions of the participation exemption as described above apply. Taxable gains are determined as being the difference between the price for which the shares have been disposed of and the lower of their cost or book value.

20.2 Net Wealth Tax

Luxembourg resident Shareholders, as well as non-resident Shareholders who have a permanent establishment or a permanent representative in Luxembourg to which or whom the shares are attributable, are subject to Luxembourg net wealth tax on its net assets as determined for net wealth tax purposes on the net wealth tax assessment date (January 1 of each year), except if the Shareholder is (i) a resident or non-resident individual, (ii) or governed by the amended law of May 11, 2007 on family estate management companies, (iii) by the amended law of December 17, 2010 on undertakings for collective investment, (iv) by the law of February 13, 2007 on specialized investment funds, as amended, (v) is a securitization company governed by the law of March 22, 2004 on securitization, as amended, (vi) a capital company governed by the law of June 15, 2004 on venture capital vehicles, as amended, (vii) a professional pension institution governed by the amended law of July 13, 2005 or (viii) a reserved alternative investment fund vehicle governed by the law of July 23, 2016.

Please note, however, that securitization companies governed by the law of March 22, 2004 on securitization, as amended, capital companies governed by the law of June 15, 2004 on venture capital vehicles, as amended, professional pension institutions governed by the amended law of July 13, 2005 or reserved alternative investment funds (opting to be treated as a venture capital vehicle for Luxembourg tax purposes) governed by the law of July 23, 2016 may under certain conditions, be subject to minimum net wealth tax.

Furthermore, in the case the Shareholder is (i) a Luxembourg resident fully taxable collective entity (ii) a domestic permanent establishment of an EU resident company covered by Article 2 of the Parent-Subsidiary Directive, (iii) a domestic permanent establishment of a joint-stock company limited by shares (*société de capitaux*) that is resident in a State with which Luxembourg has concluded a double tax treaty, or (iv) a domestic permanent establishment of a joint-stock company limited by shares (*société de capitaux*) or of a cooperative company which is a resident of a EEA Member State (other than a EU Member State), the shares may be exempt from net wealth tax for a given year, if the shares represent at the net wealth tax assessment date a participation of at least 10% in the share capital of the Issuer or a participation of an acquisition price of at least €1.2 million. However, if the holder of the shares is a vehicle not listed under the exceptions (i) to (vi) listed above, it might be subject (a) to a minimum net wealth tax of €4,815 if it holds assets such as fixed financial assets, receivables owed to affiliated companies, transferable securities, postal checking accounts, checks and cash, in a proportion that exceeds 90% of its total balance sheet value and if the total balance sheet value exceeds €350,000 or (b) to a minimum net wealth tax between €535 and €32,100 based on the total amount of its assets.

20.3 Value Added Tax

There is no Luxembourg value added tax payable in respect of payments in consideration for the subscription of the shares or in respect of the payment of dividends or the transfer of the shares.

20.4 Other Taxes

Under current Luxembourg tax laws, no registration tax or similar tax is in principle payable by the Shareholder upon the acquisition, holding or disposal of the shares. However, a fixed registration duty of €12 may be due upon registration of the shares in Luxembourg in the case of legal proceedings before Luxembourg courts, in case the shares must be produced before an official Luxembourg authority, or in the case of a registration of the shares on a voluntary basis.

A fixed registration duty of €75 is due upon incorporation of and any subsequent increase in capital of a Luxembourg company.

Under current Luxembourg tax law, where an individual Shareholder is a resident of Luxembourg for inheritance tax purposes at the time of his/her death, the shares are included in his or her taxable basis for inheritance tax purposes.

Gift tax may be due on a gift or donation of the shares if the gift is recorded in a Luxembourg notarial deed or otherwise registered in Luxembourg.

21. Financial Information

The following English-language consolidated financial statements (F-2 – F-58, F-62 – F-115 and F-117 – F-177) and unconsolidated financial statements (F-179 – F-183) are translations of the respective German-language audited consolidated financial statements and the respective German-language audited unconsolidated financial statements.

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Consolidated Statement of Profit or Loss
for the year ended 31 December 2017

in EUR million	Note	2017	2016
Revenues	1	1,637.2	1,624.7
Other operating income	2	74.8	82.8
Internal costs capitalised	3	41.5	43.4
Change in inventories		(1.0)	(4.3)
Cost of materials	4	(179.6)	(204.8)
Royalty and licence fees	5	(125.7)	(118.4)
Personnel costs	6	(541.6)	(514.4)
Other operating expenses	7	(386.8)	(393.8)
Income from associates and other investments	13	3.0	1.4
Gains/losses from the disposal of businesses/investments		(0.8)	2.1
Earnings before interest, taxes, depreciation and amortisation (EBITDA)		**521.0**	**518.7**
Amortisation and impairment of intangible assets	8	(369.2)	(253.3)
Depreciation and impairment of property, plant and equipment	8	(17.4)	(16.8)
Result from operations		**134.4**	**248.6**
Financial expenses	9	(400.9)	(439.1)
Financial income	9	204.2	88.3
Financial result		**(196.7)**	**(350.8)**
Earnings before taxes		**(62.3)**	**(102.2)**
Income taxes	10	(4.3)	(20.6)
Net result for the period		**(66.6)**	**(122.8)**
Net result attributable to:			
Owners of the parent		(68.2)	(122.5)
Non-controlling interests		1.6	(0.3)
Net result for the period		**(66.6)**	**(122.8)**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Comprehensive Income
for the year ended 31 December 2017

in EUR million	Note	2017	2016
Net result for the period		**(66.6)**	**(122.8)**
Other comprehensive income not to be reclassified to profit or loss in subsequent periods (after taxes):			
Actuarial gains and losses on pension plans (net)	21	(11.9)	(63.6)
Deferred taxes on actuarial gains and losses (net)	10	0.9	13.2
Items not be reclassified to profit or loss		**(11.0)**	**(50.4)**
Other comprehensive income to be reclassified to profit or loss in subsequent periods (after taxes):			
Currency translation differences	20	(96.3)	(163.4)
Items to be reclassified to profit or loss		**(96.3)**	**(163.4)**
Other comprehensive loss for the period (after taxes)		**(107.3)**	**(213.8)**
Total comprehensive loss for the period		**(173.9)**	**(336.6)**
Total comprehensive income/loss attributable to:			
Owners of the parent		(175.4)	(334.4)
Non-controlling interests		1.5	(2.2)
Total comprehensive loss for the period		**(173.9)**	**(336.6)**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Financial Position as at 31 December 2017

Assets **in EUR million**	**Note**	**31 Dec 2017**	**31 Dec 2016**
Goodwill	11	1,253.2	1,330.0
Other intangible assets	11	3,573.7	3,923.4
Property, plant and equipment	12	153.0	155.2
Investments in associates	13	25.9	20.3
Financial assets	14	2.3	4.2
Other non-current assets	15	6.9	8.7
Deferred tax assets	10	8.4	7.6
Non-current assets		**5,023.4**	**5,449.4**
Inventories	16	63.2	73.7
Trade receivables	17	416.9	464.5
Income tax receivables		19.2	16.1
Other current assets	18	64.1	65.2
Cash and cash equivalents	19	122.8	97.0
Current assets		**686.2**	**716.5**
Total assets		**5,709.6**	**6,165.9**

Equity and liabilities **in EUR million**	**Note**	**31 Dec 2017**	**31 Dec 2016**
Share capital		0.1	0.1
Capital reserves		748.7	771.2
Retained earnings/other accumulated equity		(766.6)	(561.4)
Net result for the period attributable to owners of the parent		(68.2)	(122.5)
Shareholders' equity		**(86.0)**	**87.4**
Non-controlling interests		2.3	(4.2)
Equity	20	**(83.7)**	**83.2**
Liabilities to shareholders	22	1,032.7	955.2
Provisions for pensions and other long-term employee benefits	21	261.9	265.8
Interest-bearing loans and borrowings	22	2,976.2	3,097.0
Finance lease liabilities	23	0.4	6.1
Other long-term provisions and non-current liabilities	24	17.3	22.4
Deferred tax liabilities	10	732.2	825.3
Long-term provisions and non-current liabilities		**5,020.7**	**5,171.8**
Interest-bearing loans and borrowings	22	71.8	83.8
Finance lease liabilities	23	6.5	1.3
Provisions	24	18.8	28.5
Trade payables		130.3	134.4
Income tax payables		51.0	26.5
Other current liabilities	25	202.9	315.9
Deferred income	26	291.3	320.5
Short-term provisions and current liabilities		**772.6**	**910.9**
Total equity and liabilities		**5,709.6**	**6,165.9**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Cash Flows
for the year ended 31 December 2017

in EUR million	Note	2017	2016
Net result for the period		**(66.6)**	**(122.8)**
Financial expenses	9	400.9	439.1
Financial income	9	(204.2)	(88.3)
Income taxes	10	4.3	20.6
Result from operations		**134.4**	**248.6**
Amortisation and impairment of intangible assets	8	369.2	253.3
Depreciation and impairment of property, plant and equipment	8	17.4	16.8
Earnings before interest, taxes, depreciation and amortisation (EBITDA)		**521.0**	**518.7**
Non-cash expenses and income		(15.1)	(5.3)
Change in non-current provisions and long-term receivables	21, 24	(15.1)	(16.7)
Change in inventories	16	(1.0)	6.1
Change in trade receivables	17	28.8	2.4
Change in trade payables		2.4	8.7
Change in deferred income	26	(12.5)	(46.8)
Change in other assets and liabilities		(16.8)	(12.6)
Income tax payments	10	(46.9)	(52.3)
Net cash from operating activities		**444.8**	**402.2**
Cash paid for investments in intangible assets	11	(31.9)	(27.0)
Cash paid for investment in content	11	(136.4)	(137.4)
Cash paid for investments in property, plant and equipment	12	(20.0)	(17.6)
Cash paid for investments in financial assets		(0.0)	(0.0)
Cash paid for acquired businesses		(5.4)	(12.3)
Cash and cash equivalents acquired		0.0	-
Proceeds from divestiture of businesses		2.2	2.2
Proceeds from disposal of non-current assets		1.2	6.1
Cash received/(paid) for available-for-sale financial instruments		0.6	8.9
Net change in loans granted	22	0.3	0.0
Net cash from investing activities		**(189.4)**	**(177.1)**
Interest paid (including financing-related fees)		(173.2)	(216.8)
Interest received		4.0	5.0
Cash paid and received for interest	9, 22	(169.2)	(211.8)
Cash repayment of financial liabilities to third parties	22, 28	(536.3)	(620.9)
Cash received from borrowing financial liabilities from third parties	22	486.4	589.8
Cash paid for dividends to non-controlling interests		(2.1)	(1.5)
Cash repayment of finance lease liabilities	23	(1.4)	(1.3)
Net cash from financing activities		**(222.6)**	**(245.7)**
Change in cash and cash equivalents		**32.8**	**(20.6)**
Net foreign exchange rate difference		(7.0)	0.3
Cash and cash equivalents at beginning of the period		**97.0**	**117.3**
Cash and cash equivalents at end of the period	19	**122.8**	**97.0**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Changes in Equity
for the year ended 31 December 2017

in EUR million	Share capital	Capital reserves	Other accumulated equity	Retained earnings	Shareholders' equity	Non-controlling interests	Total equity
Note	20	20	20				
Balance as at 31 Dec 2015	**0.1**	**771.2**	**17.9**	**(365.6)**	**423.6**	**(2.3)**	**421.3**
Net result for the period	-	-	-	(122.5)	(122.5)	(0.3)	(122.8)
Other comprehensive loss	-	-	(213.7)	-	(213.7)	(0.1)	(213.8)
Total comprehensive loss	-	-	(213.7)	(122.5)	(336.2)	(0.4)	(336.6)
Repurchase of Shareholder loan instruments	(0.0)	-	0.0	-	(0.0)	-	(0.0)
Dividends	-	-	-	-	-	(1.5)	(1.5)
Balance as at 31 Dec 2016	**0.1**	**771.2**	**(195.8)**	**(488.1)**	**87.4**	**(4.2)**	**83.2**
Net result for the period	-	-	-	(68.2)	(68.2)	1.6	(66.6)
Other comprehensive loss	-	-	(107.2)	-	(107.2)	(0.1)	(107.3)
Total comprehensive income/loss	-	-	(107.2)	(68.2)	(175.4)	1.5	(173.9)
Contribution into Capital reserves	-	9.6	-	-	9.6	-	9.6
Withdrawal from Capital reserves	-	(32.1)	-	32.1	0.0	-	0.0
Reclassification	-	-	-	(10.1)	(10.1)	10.1	0.0
Non-controlling interests from business combinations	-	-	-	2.5	2.5	(3.0)	(0.5)
Dividends	-	-	-	-	-	(2.1)	(2.1)
Balance as at 31 Dec 2017	**0.1**	**748.1**	**(303.0)**	**(531.8)**	**(86.0)**	**2.3**	**(83.7)**

The accompanying notes form an integral part of the consolidated financial statements.

Notes to the Consolidated Financial Statements

Corporate Information

Springer Nature GmbH (formerly known as SBM Zero GmbH), a limited liability company, is the parent of the Springer Nature Group. Springer Nature GmbH is referred to as the "Company" in these consolidated financial statements when considering the legal entity and it is referred to as the "Group" or "Springer Nature" when considering the entire group of entities and subsidiaries directly or indirectly held by the Company.

Springer Nature is a leading global research, educational and professional publisher, home to an array of respected and trusted brands providing quality content through a range of innovative products and services. Springer Nature is the world's largest academic book publisher, publisher of the world's most influential journals and a pioneer in the field of open research. The Group numbers almost 13,000 employees in almost 50 countries. Springer Nature was formed in 2015 through the merger of Nature Publishing Group, Palgrave Macmillan, Macmillan Education and Springer Science+Business Media.

The Group is controlled through its parent company, Springer Nature GmbH, in which Holtzbrinck Publishing Group holds 53.0% and 47.0% is held by a company that is controlled by funds advised by BC Partners (BC Funds).

The registered office of the Company is located at Heidelberger Platz 3, 14197 Berlin, Germany.

The consolidated financial statements were approved for issue by resolution of management on 23 March 2018.

General Principles

The consolidated financial statements of Springer Nature GmbH ("Springer Nature Group Financial statements" or "Consolidated Financial Statements") were prepared in accordance with all mandatory International Financial Reporting Standards (IFRS) and International Financial Reporting Interpretations (IFRIC) as endorsed by the European Union, and with the additional requirements of commercial law pursuant to Sec. 315e (1) HGB ("Handelsgesetzbuch": German Commercial Code, "Konzernabschluss nach internationalen Rechnungslegungsstandards").

The financial year comprised the period from 1 January to 31 December 2017. The reporting date of the company and of all subsidiaries, with the exception of entities in India and Mauritius, is 31 December.

For statutory reasons, the financial year of subsidiaries in India and Mauritius starts as at 1 April and ends as at 31 March. These entities report to Springer Nature as at 31 December and apply the IFRS financial reporting principles and the accounting policies applicable for the Group entities as if 31 December were the end of the reporting period.

The consolidated financial statements are prepared in Euros. All amounts are stated in millions of Euro (EUR m) except where otherwise indicated. The numbers are rounded to one decimal place, which may cause rounding differences. If numbers are rounded to zero "0.0" or "(0.0)" is presented, in case of no values "-" is reported. The consolidated financial statements were prepared on a historical cost basis, except for certain financial instruments that were measured at fair value. The statement of profit or loss was prepared using the nature of expense method.

First-time applied Financial Reporting Standards and Interpretations

First-time application of new financial reporting standards and interpretations in 2017 resulted in no material changes to Springer Nature's consolidated financial statements.

New International Financial Reporting Standards and Interpretations

The IASB or IFRIC have published pronouncements that are not yet effective and have not yet been adopted by Springer Nature. The Group intends to apply all standards and interpretations when they become mandatory. The new accounting standards that may result in changes for Springer Nature are described below.

Standards adopted by the EU

- *IFRS 9 Financial Instruments*

In July 2014, the IASB issued the final version of IFRS 9 (Financial Instruments) that replaces IAS 39 (Financial Instruments: Recognition and Measurements) and all previous versions of IFRS 9. IFRS 9 covers all three aspects that were analysed and assessed as part of the financial instruments project: classification and measurement, impairment, and hedge accounting. IFRS 9 is mandatory for reporting periods beginning on or after 1 January 2018. Except for hedge accounting, retrospective application is required but providing comparative information is not compulsory. For hedge accounting, the requirements are generally applied prospectively, with some limited exceptions.

IFRS 9 introduces a uniform approach for classifying and measuring financial assets. The standard is based on the characteristics of the underlying cash flows and the business model by which these cash flows are managed. IFRS 9 provides a new impairment model that is based on the expected credit defaults. The standard contains new regulations on the application of hedge accounting in order to better present the risk management activities of an entity, in particular with regard to the management of non-financial risks.

Springer Nature plans to adopt the new standard as at 1 January 2018 and will not restate comparative information. The Group performed a detailed impact assessment of all three aspects of IFRS 9.

In preparing to adopt IFRS 9, the Group considered the following:

Classification and measurement

The Group does not expect a significant impact on its consolidated statement of financial position or equity on applying the classification and measurement requirements of IFRS 9. Loans as well as trade receivables are held to collect contractual cash flows and are expected to give rise to cash flows representing solely payments of principal and interest. The Group analysed the contractual cash flow characteristics of those instruments and concluded that they continue to meet the criteria for amortised cost measurement under IFRS 9.

Modifications or exchanges of financial liabilities that do not result in derecognition

IFRS 9 changes the accounting for a modification or exchange of a financial liability measured at amortised cost that does not result in the derecognition of the financial liability. When contractual cash flows of a financial liability are renegotiated or otherwise modified and the modification does not result in the derecognition of the financial liability, IFRS 9 requires the Group to recalculate the carrying amount of the financial liability as the present value of the modified contractual cash flows that are discounted at the financial liability's original effective interest rate. Any adjustment to the amortised cost of the financial liability arising from such a modification is recognised in profit or loss at the date of the modification.

Under legacy IFRS the Group accounted for changes in future contractual cash flows arising as a result of a modification or exchange by determining a new effective interest rate based on the carrying amount of the original financial liability and the revised cash flows. The Group has determined that, due to the initial application of IFRS 9, the underlying effective interest rates for the senior loans will increase. This will result in a decrease of the carrying amount of the interest bearing loans and borrowings by approximately EUR 20m and a corresponding increase in the deferred tax liability as of 1 January 2018. For 2018, the higher effective interest rates will lead to an increase of interest expenses of approximately EUR 20m.

The group will adopt this change retrospectively in accordance with IAS 8.

Impairment

IFRS 9 requires the Group to record expected credit losses on all of its loans and trade receivables, either on a 12-month or lifetime basis. Due to the new impairment model, earlier recognition of possible losses on trade receivables will arise. The Group will apply the simplified approach and record lifetime expected losses on all trade receivables but the impact on receivables will not be material.

Hedge accounting

As IFRS 9 does not change the general principles of how an entity accounts for effective hedges, the Group does not expect an impact as it does not apply hedge accounting.

- *IFRS 15 Revenue from Contracts with Customers*

IFRS 15 was issued in May 2014; and amended in April 2016, and establishes a five-step model to account for revenues arising from contracts with customers. IFRS 15 replaces IAS 11 “Construction Contracts” and IAS 18 “Revenue” as well as the associated interpretations. Either a full retrospective application or a modified retrospective application is required for annual periods beginning on or after 1 January 2018. According to the new standard, revenues should be recognised at the amount of the consideration that the entity expects to receive upon transfer of the promised goods or services to the customer. IFRS 15 also includes guidance on the presentation of contract balances, that is, assets and liabilities arising from contracts with customers, depending on the relation between the entity´s performance and the customer´s payment. In addition, the new standard encourages entities to disclose sufficient information to enable readers of financial statements to understand the nature, amount, timing and uncertainty of revenues and cash flows arising from contracts with customers. The Group plans to adopt the new standard on the required effective date using the modified retrospective method.

During 2016, the Group performed a preliminary assessment of IFRS 15, which was finalised with a more detailed analysis in 2017.

In preparing to adopt IFRS 15, the Group considered the following:

Sale of goods

For contracts with customers in which the sale of goods, most of all printed journals and books, is expected to be the only performance obligation, adoption of IFRS 15 is not expected to have any impact on the Group's revenue and profit or loss. Revenue recognition will occur at a point in time when control of the asset is transferred to the customer, typically on delivery of the goods.

Rights of return

The Group delivers print books to institutional customers such as booksellers and public and private schools. For most of these contracts, customers are provided with return rights within a specific time period and / or in case of quality issues of the returned book.

The Group will apply the requirements in IFRS 15 on constraining estimates of variable consideration to determine the amount of variable consideration that can be included in the transaction price. The Group concluded that, when it adopts IFRS 15, no material effect to the consolidated financial statement occurs.

License to intellectual property

In connection with print or electronic subscription contracts for upcoming content (journals and books), the group typically grants online access rights to historic content of the licensed product within the subscription period. In assessing the criteria of IFRS 15, the Group concludes that the license of the intellectual property is regularly a right to access. The obligation is fulfilled over time during the license period and thus recognised on a straight line basis during the term of the license. No material impact on the Group statement of profit or loss occurs.

Advances received from customers

The Group receives its yearly subscription payments, in particular for print and online journals as well as e-book packages, typically at the beginning of the subscription period. Under the current accounting policy, the Group presents such advances as deferred income within non-current liabilities in the statement of financial position. No interest is accrued on the advances received as the period between transfer of promised good or service and the payment from the customer is less than one year.

When IFRS 15 is adopted, the Group will reclassify approximately EUR 270m from the current portion of deferred income to current contract liabilities in the opening balance as of 1 January 2018.

Rendering of services

The Group provides consultation services to customers. The Group concluded that the services are satisfied over time given that the customer simultaneously receives and consumes the benefits provided by the Group. Consequently, under IFRS 15 the Group would continue to recognise revenue for these service contracts over time rather than at a point of time. No material impact on the Group's statement of profit or loss or statement of financial position occurs.

Presentation and disclosure requirements

The new standard provides presentation and disclosure requirements, which are more detailed than under current IFRS and which will significantly increase the volume of disclosures in Springer Nature's consolidated financial statements, for example regarding disaggregation of revenues, contract balances, performance obligations as well as significant judgements applied.

Other adjustments

If further reasonable and supportable information is available to the Group in 2018, when the Group adopts IFRS 15, additional adjustments to the statement of financial position as of 31 December 2017 may be necessary.

- *IFRS 16 Leases*

IFRS 16 was issued in January 2016 and replaces IAS 17 (Leases) and associated interpretations. IFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under IAS 17. The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less). At the commencement date of a lease, a lessee will recognise a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). Lessees will be required to separately recognise the interest expense on the lease liability and the depreciation expense on the right-of-use asset. Lessees will be also required to remeasure the lease liability upon the occurrence of certain events (e.g., a change in the lease term, a change in future lease payments resulting from a change in an index or rate used to determine those payments). The lessee will generally recognise the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset. Payments for operating lease contracts will be included in net cash from financing activities under the new standard.

Lessor accounting under IFRS 16 is substantially unchanged from today's accounting under IAS 17. Lessors will continue to classify all leases using the same classification principle as in IAS 17 and distinguish between two types of leases: operating and finance leases.

IFRS 16 also requires lessees and lessors to make more extensive disclosures than under IAS 17.

IFRS 16 is effective for annual periods beginning on or after 1 January 2019. Early application is permitted, but not before an entity applies IFRS 15. A lessee can choose to apply the standard using either a full retrospective or a modified retrospective approach.

Springer Nature plans to adopt the new standard as at 1 January 2018 using the modified retrospective approach. The Group plans to recognise the lease liabilities at the net present value of the remaining lease payments and corresponding right of use assets, adjusted for accrued costs for that lease.

The modified retrospective approach was selected to ensure similar accounting for lease contracts in Group and statutory accounts for those jurisdictions where IFRS is applicable.

The Group defines office space, company cars and other (mainly office equipment) as classes of assets. The Group generally plans to apply the short-term lease exemption (for leases with a term of 12 months and less) and the exemption to combine lease and non-lease components into a single lease component for all leases over underlying assets belonging to these classes of assets.

The review of the impact of the new standard on Springer Nature's consolidated financial statements has shown that the new rules affect in particular the accounting and measurement of rental and leasing contracts, which are currently classified as operating leases. These mainly comprise of leased office space, leased cars and other leased office equipment and IT infrastructure, which will lead to the recognition of respective rights of use and corresponding leasing liabilities resulting in an increase of the total asset/liability figure at first time adoption.

If the Group had adopted IFRS 16 as of 1 January 2017 using the modified retrospective approach with the same accounting methods (underlying lease classes, calculation of discount rate as of 31 December 2016) the consolidated statement of profit or loss, the consolidated statement of financial position, and the consolidated statement of cash flows would be affected as follows:

Consolidated statement of profit or loss in EUR million	**2017**	**IFRS 16 adj.**	**2017 adj.**
Cost of materials	(179.6)	32.1	(147.5)
Earnings before interest, taxes, depreciation and amortisation (EBITDA)	**521.0**	**32.1**	**553.1**
Depreciation and impairment of property, plant and equipment	(17.4)	(27.1)	(44.5)
Result from operations	**134.4**	**5.0**	**139.4**
Financial expenses	(400.9)	(8.8)	(409.7)
Income taxes	(4.3)	0.9	(3.4)
Net result for the period	**(66.6)**	**(2.9)**	**(69.5)**

Consolidated statement of financial position **Assets** **in EUR million**	**31 Dec 2017**	**IFRS 16 adj.**	**31 Dec 2017 adj.**
Property, plant and equipment	153.0	178.4	331.4
Deferred tax assets	8.4	1.1	9.5

Consolidated statement of financial position **Equity and liabilities** **in EUR million**	**31 Dec 2017**	**IFRS 16 adj.**	**31 Dec 2017 adj.**
Finance lease liabilities (non-current)	0.4	162.5	162.9
Deferred tax liabilities	732.2	0.2	732.4
Finance lease liabilities (current)	6.5	26.8	33.3
Deferred income	291.3	(7.1)	284.2

Consolidated statement of cash flows **in EUR million**	**2017**	**IFRS 16 adj.**	**2017 adj.**
Net result for the period	**(66.6)**	**(2.9)**	**(69.5)**
Financial expenses	400.9	8.8	409.7
Income taxes	4.3	(0.9)	3.3
Result from operations	**134.4**	**5.0**	**139.4**
Depreciation and impairment of property, plant and equipment	17.4	27.1	44.5
Net cash from operating activities	**444.8**	**32.1**	**476.9**
Cash repayment of finance lease liabilities	(1.4)	(32.1)	(33.5)
Net cash from financing activities	**(222.6)**	**(32.1)**	**(254.7)**

The new standard provides notes requirements, which are more detailed than under IAS 17 and which will significantly increase the volume of disclosures in Springer Nature's consolidated financial statements, for example regarding interest expenses on lease liabilities, expenses for short-term lease contracts and leases of low-value assets as well as carrying amounts of right of use assets.

Consolidation Principles

The consolidated financial statements include Springer Nature GmbH and all significant entities controlled directly or indirectly by Springer Nature GmbH. A list of consolidated subsidiaries including their registered office and respective shareholding is set out in note 33. The Company's financial statements and the financial statements of the subsidiaries included in the consolidated financial statements were prepared in accordance with standardised accounting policies.

Subsidiaries are consolidated from the date of acquisition, being the date on which the Group obtains control, and continue to be consolidated until the date when such control ceases. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

All business combinations are accounted for using the acquisition method. According to IFRS this requires to identify the acquirer, to determine the acquisition date, to recognise and measure the identifiable assets acquired as well as the liabilities assumed and any non-controlling interest in the acquiree. The cost of an acquisition is determined as the aggregate of the consideration transferred, measured at the acquisition date's fair value, and the amount of any non-controlling interest in the acquiree. For each business combination, management individually determines whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets.

Any contingent consideration to be transferred by the acquirer that is classified as an asset or liability is measured at fair value with the changes in fair value recognised in profit or loss. Any contingent consideration that is classified as equity is not re-measured and the subsequent settlement is accounted for within equity. Identifiable assets acquired, as well as liabilities and assumed contingent liabilities are measured at their fair value at the acquisition date, regardless of any remaining non-controlling interests in the acquired business.

Any excess of the consideration over the fair value of the net assets acquired is recognised as goodwill. Should the fair value of the acquired net assets exceed the cost of the acquisition, the difference is recognised in profit or loss.

Acquisition-related costs incurred as part of the business combination are included in other operating expenses.

Fair value adjustments recognised in the course of the purchase price allocation (e.g., for trademarks, customer relationships, journal portfolios) result from the difference between the fair value of acquired assets and the carrying amounts of each of those assets, determined in accordance with IFRS, at the acquisition date.

All gains, losses, revenues, expenses, income, assets, liabilities, and provisions from intercompany transactions are eliminated. Intercompany profits included in inventories and non-current assets are eliminated in the consolidated statement of profit or loss.

Associates in which the Group has significant influence to participate in the financial and operating policy are included in the consolidated financial statements using the equity method, based on separate IFRS financial statements. Goodwill relating to the associate or joint venture is included in the carrying amount of the investment and is not tested for impairment separately. The financial statements of the associate or joint venture are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring the accounting policies in line with those of the Group. Losses in excess of the carrying amount of the investment are not recognised unless there is an obligation to make additional capital contributions. Intercompany profits and losses are eliminated pro rata. Carrying amounts of investments are tested for impairment and are written down to their recoverable amount if needed.

Scope of Consolidation

The following table shows the number of entities consolidated by Springer Nature GmbH in 2017 and 2016:

Development in Scope of Consolidation	2017	2016
Fully consolidated entities as at 1 Jan	130	131
Additions	3	4
Mergers/liquidations	(2)	(5)
Fully consolidated entities as at 31 Dec	**131**	**130**
Thereof German entities	25	22

Additions 2017

There were no significant additions in 2017.

Additions 2016

There were no significant additions in 2016.

Foreign Currency Translation

In Springer Nature’s consolidated financial statements, the financial statements of foreign subsidiaries are translated into Euro using the functional currency concept in accordance with IAS 21. Since all subsidiaries conduct their financial, commercial and organisational activities independently, their respective local currency is the functional currency.

Foreign currency transactions are translated into the respective functional currency using the exchange rate applicable at the time of the transaction. Gains and losses from the settlement of such transactions or from the valuation of the corresponding monetary assets and liabilities at the closing date are included in profit or loss. Monetary assets and liabilities are translated into the respective functional currency at the closing rate whereas non-monetary assets and liabilities are translated at their applicable historic rate.

For presentation in the Group’s reporting currency, the assets and liabilities of subsidiaries whose functional currency is not the Euro are translated at the closing rate while the statement of profit or loss is translated at the average rate for the period. Equity components are translated at the historical exchange rate. Currency translation differences are recognised in other comprehensive income.

When subsidiaries are disposed of, any related cumulative translation difference is reclassified to profit or loss.

Goodwill and fair value adjustments of assets and liabilities from the acquisition of subsidiaries are allocated to the acquired entity and translated into the Group’s presentation currency at the closing rate as at the end of the reporting period.

The following exchange rates were used to translate the currencies which are significant to the Group:

Foreign currency per EUR 1	Average rate 2017	Closing rate 31 Dec 2017	Average rate 2016	Closing rate 31 Dec 2016
British Pounds	0.8763	0.8875	0.8191	0.8553
Japanese Yen	126.6544	135.0092	120.3732	123.4096
Swiss Francs	1.1117	1.1701	1.0902	1.0738
US Dollar	1.1296	1.1994	1.1069	1.0540

Accounting Policies

Fair Value Measurement

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When measuring fair value, it is assumed that the transaction in the course of which the asset is sold or the liability is transferred is taking place either (a) on the principal market for the asset or (b) on the most advantageous market for the asset or the liability (if no principal market exists). The Group must have access to the principal market or the most advantageous market.

The fair value of an asset or liability is measured based on the assumptions that market participants would make when setting the price. It is assumed that the market participants are acting in their best economic interest.

Measurement of the fair value of a non-financial asset takes into account the ability of the market participant to generate economic benefit through the highest and best use of the asset or by selling it to another market participant that will find the highest and best use for the asset.

The Group applies valuation techniques that are appropriate under the respective circumstances and for which sufficient data for fair value measurement is available. The use of relevant observable input factors should be as high as possible, while the use of input factors not based on observable data should be as low as possible.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are classified on the basis of the following fair value hierarchy. The classification uses the input factors of the lowest category that is material to the fair value measurement.

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: input factors other than quoted prices included within Level 1 that are observable for the assets and liabilities, either directly, i.e. as prices, or indirectly, i.e. derived from prices.
- Level 3: input factors that are not based on observable market data.

For assets or liabilities that are recorded in the consolidated financial statements on a recurring basis, the Group examines the classification at the end of each reporting period and makes corresponding reclassifications as necessary.

Revenue Recognition

Revenues from the sale of products are recognised when the significant risks and rewards of ownership of the goods are transferred to the customer, the sales price is determinable and receipt of payment can be assumed.

Print subscription revenues for journals/magazines are recognised at the time the journal/magazine is dispatched to the customer. Subscription revenues for academic journals, for which the content is made available electronically to the customer, are recognised pro-rata temporis over the period of the subscription.

If discounts are granted to customers and the customer settles the invoice within the period the discount relates to, the amount deducted by the customer is recorded as a sales deduction. Revenues are also stated net of allowances and corrections for expected returns.

Interest income and expenses are allocated to the period they relate to. Dividends are recognised in the period in which the distribution is approved.

Goodwill

Goodwill is allocated to a single cash-generating unit (CGU) or a group of cash-generating units that are expected to benefit from the business combination.

Goodwill is not subject to amortisation but tested for impairment annually or whenever there is any indication of impairment. It is measured at cost less accumulated impairment losses. Any loss from impairment is recognised immediately in profit or loss and is not subsequently reversed.

Other Intangible Assets

Intangible assets acquired as part of a business combination are stated in the statement of financial position at their fair values as at the date of acquisition, less any accumulated amortisation and any impairment. Purchased intangible assets are recognised at their acquisition costs plus any directly attributable costs, less any accumulated amortisation and any impairment.

If the conditions as set out in IAS 38 are met, internally generated intangible assets are recognised at their development costs less any accumulated amortisation and impairment losses. The development costs comprise all costs directly or indirectly attributable to the assets incurred during the development phase, which begins at the time of having demonstrated the technical feasibility and ends upon completion of the asset.

Intangible assets considered to have a definite life are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired (triggering event). The following group-wide economic useful lives are assumed:

Intangible assets	Useful life
Internally generated intangible assets	3 to 10 years
Acquired rights and licenses	3 to 10 years
Trademark and publishing rights	10 to 40 years

Intangible assets determined to have indefinite lives are not amortised and are subject to impairment review at least annually. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable.

Property, Plant and Equipment

Property, plant and equipment are measured at acquisition or manufacturing cost less accumulated depreciation and impairments. Maintenance expenses are recorded as expenses in the period in which they are incurred, whereas expenses resulting in a prolongation of the asset's useful life or in a significant improvement in its use, are recognised as subsequent costs. Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment.

Items included in property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives. Depreciation is based on the following group-wide economic useful lives:

Assets	Useful life
Buildings	10 to 35 years
Plant, technical equipment and machinery	3 to 10 years
Furniture, fixtures and office equipment	3 to 12 years

Leases

To the extent Springer Nature assumes all significant risks and rewards relating to a leased asset and is thus to be seen as the economic owner of the asset (finance lease), the leased asset is recognised in the statement of financial position. The leased asset is recognised at the amount of the asset's fair value at the inception of the lease or the present value of minimum lease payments, if lower. The lease liability is recognised at the same amount as the respective asset. If it is sufficiently certain that ownership of the leased asset will pass to the Group at the end of the lease term, the asset is depreciated over its economic useful life. Otherwise, it is depreciated over the term of the lease.

In addition to finance leases, the Group has also entered into operating lease agreements. This means that economic ownership of the leased assets lies with the lessor and lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term. Any benefits resulting from incentives granted are recognised on a straight-line basis as a reduction of the lease instalments over the lease term.

Impairment of Non-Financial Assets

At each reporting date, or if there is a triggering event, Springer Nature tests intangible assets with an indefinite useful life for any indication of impairment. For intangible assets with a definite useful life and for property, plant and equipment, the impairment testing is done only in case of a triggering event.

If there is such an indication, the asset's recoverable amount is determined. If it is not possible to determine the recoverable amount for an individual asset, the recoverable amount for the cash-generating unit (CGU) to which the asset is allocated is used. The recoverable amount of the asset or the CGU is defined as the higher of its fair value less costs to sell and its value in use. An impairment is recognised if the carrying amount of an asset's CGU exceeds its recoverable amount. The impairment loss shall be allocated to reduce the carrying amount of the asset of the unit (group of units) in the following order: (a) first, to reduce the carrying amount of any goodwill allocated to the CGU (group of units); and (b) then, to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units). In allocating an impairment loss, the carrying amount of an asset is not reduced below the highest of its fair value less cost of disposal, its value in use and zero. If the reason for a previously recognised impairment loss no longer exists, the impairment is reversed up to amortised costs, with the exception of goodwill.

In 2017 and 2016, the recoverable amount of CGUs, to which goodwill was allocated, was determined as the value in use. Value in use was determined using a discounted cash flow method. When assessing the value in use for a CGU, management makes certain assumptions regarding the future cash flows and risk-adjusted capital costs. These assumptions are partially based on internal assumptions based on management planning and partially based on market data and external estimates. These assumptions are subject to change and as such can impact the values in use.

For each of the Group's CGUs, an appropriate discount rate was calculated individually using current market data.

Financial Assets

Initial Recognition and Measurement

Financial assets are classified either as financial assets at fair value through profit or loss, loans and receivables or as available-for-sale financial assets, as appropriate. The Group determines the classification of its financial assets at initial recognition.

All financial assets not measured at fair value through profit or loss, are recognised initially at fair value plus directly attributable transaction costs.

Subsequent Measurement

At Springer Nature, the category of financial assets at fair value through profit or loss consists of derivatives that are not designated as hedging instruments. They are reported in the statement of financial position under other assets. Financial assets at fair value through profit and loss are carried in the statement of financial position at fair value with changes in fair value recognised in other financial expense or other financial income in profit or loss.

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market and are neither classified as held-for-trading nor as available-for-sale. The category includes the Group's trade receivables, loans to employees, as well as long-term loans and other current assets. After initial measurement, the loans and receivables are subsequently measured at amortised cost using the effective interest method less any impairment losses, if necessary.

Available-for-sale financial assets are non-derivative financial assets which were classified under this category directly or were not classified to any other category. Springer Nature holds securities mainly in this category. They are disclosed under non-current assets unless management plans to sell them within 12 months of the reporting date and they do not fall due within this period. Available-for-sale financial assets are measured at fair value after initial recognition. Unrealised gains and losses are recorded directly in equity taking deferred taxes into account. When a financial asset classified as available for sale is derecognised or impaired, the cumulative gains and losses from fair value measurement recognised directly in equity are recognised through profit or loss.

Derecognition

A financial asset is derecognised when one of the following conditions has been fulfilled:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement that fulfils the conditions under IAS 39.19; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

Impairment of Financial Assets

The Group assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if there is objective evidence of impairment as a result of one or more events that have occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors are experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation and where observable data indicates that there is a measurable decrease in the estimated future cash flows, such as changes in economic conditions that correlate with defaults.

For financial assets carried at amortised cost, the Group first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment. If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate.

Financial Liabilities

Initial Recognition and Measurement

Financial liabilities within the scope of IAS 39 are classified as financial liabilities at fair value through profit or loss or as liabilities measured at amortised cost. The Group determines the classification of its financial liabilities at initial recognition.

Financial liabilities at fair value through profit or loss are initially measured at fair value. Financial liabilities measured at amortised cost are initially recognised at fair value including directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, bank overdrafts, loans and borrowings, and derivative financial instruments that are not designated as hedging instruments pursuant to IAS 39.

Subsequent Measurement

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Subsequent measurement is at fair value through profit or loss. Separated embedded derivatives are also classified as held-for-trading. Gains or losses on liabilities held-for-trading are recognised in profit or loss.

After initial recognition, liabilities measured at amortised cost are subsequently measured at amortised cost using the effective interest method.

Derecognition

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability.

Offsetting of Financial Instruments

Financial assets and financial liabilities are offset with the net amount reported in the consolidated statement of financial position only if there is a current enforceable legal right to offset the recognised amounts and an intention to settle them on a net basis, or to realise the assets and settle the liabilities simultaneously.

Derivative Financial Instruments

As set out in IAS 39, all derivative financial instruments are recognised at fair value in the consolidated statement of financial position. At the time a contract involving a derivative is entered into, it is determined whether it is intended to serve as a fair value hedge or as a cash flow hedge. Springer Nature's derivative financial instruments did not formally meet the requirements of IAS 39 for applying hedge accounting, even though it is the economic purpose of the derivative. Changes in their fair values are, therefore, recognised in profit or loss rather than in equity.

Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts, and the host contracts are not held-for-trading or designated as at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognised in profit or loss.

Inventories

Inventories are measured at the lower of cost and net realisable value. Manufacturing costs include both directly and indirectly attributable costs. The indirect costs primarily comprise the costs of generating and preparing the content (pre-publishing costs) as well as printing and binding.

Similar inventories are measured by using the first-in, first-out method (FIFO). Intercompany profits are eliminated from inventories originating from intra-group suppliers and carried at group manufacturing cost.

Cash and Cash Equivalents

Cash and cash equivalents include bank balances with a maturity of three months or less and cash in hand. Amounts in foreign currency are translated at closing rates.

Current Taxes and Deferred Taxes

The line item "income taxes" comprises both current taxes and deferred taxes. Income taxes are recognised in profit or loss unless they relate to items recognised directly in equity or in other comprehensive income. In such cases, the taxes are also recognised in equity or in other comprehensive income.

The current tax expense and income is calculated according to tax laws of the countries in which Springer Nature operates and generates taxable income effective as at the reporting date. Management periodically reviews individual tax matters to determine whether there is any scope for interpretation under the applicable tax legislation and establishes tax provisions where appropriate.

According to IAS 12, deferred taxes must be recorded for all temporary differences between the carrying amounts of assets and liabilities in the tax accounts and the consolidated statement of financial position under IFRS as well as for interest carried forward and unused tax losses. This does not apply to deferred tax assets and liabilities arising from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss. Deferred tax assets associated with investments in subsidiaries and associates are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

Deferred tax liabilities resulting from the initial recognition of goodwill are recognised only if the amortisation of this goodwill is tax deductible.

Deferred tax assets are recognised for all temporary differences and unused tax losses only to the extent that it is probable that taxable profit will be available in the future against which the losses can be utilised.

Deferred taxes are calculated at the tax rates that are expected to apply to the period when a liability is settled or an asset is realised.

Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Provisions

With the exception of the provisions for pensions and other long-term employee benefits calculated in accordance with IAS 19, all other provisions are recognised in line with IAS 37. They are recognised when the Group has a present obligation to a third party based on a past event, an outflow of resources is probable and a reliable estimate can be made of the obligation. The amount of each provision corresponds to the expected settlement amount. Non-current provisions with a remaining period of more than one year are discounted in order to reflect the present value of the expenditure expected to settle the obligation at the reporting date by application of appropriate market rates of interest.

Provisions for Pensions and Other Long-term Employee Benefits

The obligations from defined benefit plans for pensions and other long-term employee benefits are recognised in the consolidated statement of financial position at the present value of the defined benefit obligation at the end of the reporting period less the fair value of allocable plan assets. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. Under this method, not only obligations relating to known vested benefits at the reporting date are recognised, but also future increases in pensions and salaries. This involves taking into account various input factors. The input factors are based upon assumptions and estimates relating to the future development of salaries, relevant biometric factors, interest rates and overall mortality.

The present value of the defined benefit obligations is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefit will be paid, and that have terms to maturity approximately the same as the related pension obligation.

Remeasurements, comprising of actuarial gains and losses, asset ceiling effects, excluding amounts included in net interest on the net defined benefit liability and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognised immediately in the consolidated statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Remeasurements are not reclassified to profit or loss in subsequent periods.

Judgements, Assumptions and Estimates

The preparation of the Group's consolidated financial statements in accordance with IFRS requires management to make certain assumptions and estimates that may affect the carrying amount of assets, provisions and liabilities as well as income and expenses recognised. The estimates and related assumptions are based on experience and various other factors that appear to be appropriate in the circumstances. Actual results may differ from these estimates. All estimates and underlying assumptions are reviewed on an ongoing basis.

Revisions of accounting estimates are recognised in the period in which the revision is determined, if the revision affects only that period of the revision and future periods. Assumptions and estimates made by management in the application of IFRS that have a significant effect on the consolidated financial statements and estimates with a risk of possible adjustments in the next years are discussed in the corresponding notes.

The underlying assumptions and estimates applied relate to the recognition and measurement of pensions and other long-term employee benefits, to the measurement of internally generated intangible assets, to the determination of impairment losses on intangible assets including goodwill, to the valuation allowance for trade receivables, to the usability of tax loss carry forwards, to the measurement of financial instruments, to the determination of provisions and to the classification of leases. Assumptions were also used in the purchase price allocation concerning the measurement of intangible assets. Information concerning the carrying amounts determined with the use of estimates can be found in the notes to the specific line items.

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of the Group's assets and liabilities relate to defined benefit pension plans (note 21), the impairment of non-financial assets (note 11) and fair value measurement of financial instruments (note 28). A description of the relevant input parameters which include estimates/assumptions are disclosed in the respective notes section together with sensitivity analyses.

1. Revenues

Revenues **in EUR million**	**2017**	**2016**
Revenues from the sale of:		
Journals/journal content	861.2	866.6
Books/book content	566.3	561.6
Advertisements	83.8	85.9
Other revenues	144.4	124.8
Discounts and allowances	(18.5)	(14.2)
Total revenues	**1,637.2**	**1,624.7**

The line item "other revenues" included revenues related to consultancy, congresses/seminars, author services and custom publishing.

2. Other Operating Income

Other operating income **in EUR million**	**2017**	**2016**
Currency exchange gains	33.6	42.6
Income from the release of provisions and other liabilities	8.4	7.9
Sundry operating income	32.8	32.3
Total other operating income	**74.8**	**82.8**

The line item "Currency exchange gains" included realised currency exchange gains from transactions incurred during the year and gains from the year-end valuation of subsidiaries' trade receivables and payables denominated in currencies other than the functional currency.

The line item "Sundry operating income" included mainly income related to written-off bad debts, rental income and income from services rendered. Sundry operating income in the amount of EUR 11.2m relates to an indemnification agreement between former and current shareholders (for further information please refer to note 20).

In 2017, income of EUR 1.5m (2016: EUR 5.3m) from transitional services rendered to the Holtzbrinck group was included.

3. Internal Costs Capitalised

The line item "Internal costs capitalised" comprised the capitalised costs for the development of self-developed software as well as internal costs for content creation.

4. Cost of Materials

Cost of materials **in EUR million**	**2017**	**2016**
Purchased services	(131.8)	(156.4)
Raw materials and supplies	(47.8)	(48.4)
Total cost of materials	**(179.6)**	**(204.8)**

The line item "Purchased services" mainly contained costs for printing and binding as well as pre-publishing costs.

5. Royalty and Licence Fees

Royalties and license fees expenses comprised of fixed royalties and royalties on sales paid for acquired and licensed content. This included payments to authors of books and journal articles, as well as payments for society owned journals.

6. *Personnel Costs*

Personnel costs in EUR million	2017	2016
Wages and salaries	(441.0)	(424.0)
State social security contributions	(57.0)	(53.2)
Pension and similar expenses	(21.5)	(18.1)
Other employee benefits	(22.1)	(19.1)
Total personnel costs	**(541.6)**	**(514.4)**

In 2017, the average number of employees (full-time equivalents - FTE) was 12,621 (2016: 11,908; taken into account the employees from the acquired businesses, since their initial consolidation date). The absolute number of employees (FTE) was 12,626 as at the end of 2017 (2016: 11,939).

The average number of employees in the Group per segment is presented below. The India-based Publishing Service unit contributed 4,723 in 2017 (2016: 4,255) to the total FTE figure. This business unit as well as the Healthcare business unit form part of the Research segment but were reported in the Professional segment in 2016. The previous year figures have been adjusted accordingly.

Average number of employees (full-time equivalents)	2017	2016
Research	9,336	8,604
Education	2,355	2,393
Professional	930	911
Total average number of employees	**12,621**	**11,908**

7. *Other Operating Expenses*

Other operating expenses in EUR million	2017	2016
Administrative expenses and fees	(146.7)	(147.9)
Marketing and sales costs	(96.5)	(89.3)
Rent and building costs	(51.7)	(54.1)
Currency exchange losses	(41.6)	(36.5)
Sundry expenses	(50.3)	(66.0)
Total other operating expenses	**(386.8)**	**(393.8)**

The line item "Administrative expenses and fees" mainly included expenses relating to information technology, travel costs and consulting fees.

The line item "Currency exchange losses" included realised currency exchange losses from transactions incurred during the year and losses from the year-end valuation of subsidiaries' trade receivables and trade payables denominated in currencies other than the functional currency.

"Sundry expenses" mainly consisted of allowance for doubtful trade receivables, costs for temporary staff and purchased services, as well as other taxes. Expenses for services rendered by the Holtzbrinck Publishing Group under transitional service agreements of EUR 3.4m (2016: EUR 8.4m) were also included.

The lease payments recognised as expenses in 2017 amounted to EUR 35.8m (2016: EUR 36.0m).

The fees for the audit of the financial statements and other services rendered by the audit firm Ernst & Young GmbH were as follows:

Professional fees for Ernst & Young in EUR million	2017	2016
Audit of the financial statements	(1.8)	(2.0)
Tax advisory services	(0.5)	(0.6)
Other certification or appraisal services	(0.5)	(0.4)
Total professional fees for Ernst & Young	**(2.8)**	**(3.0)**

The professional fees for the audit of the financial statements included the audit of the subsidiaries and the audit of the consolidated financial statements. The tax advisory fees consisted of support provided with regard to specific tax questions. The other certification and appraisal services comprised, among others, fees for the audits to verify compliance with certain contractual agreements.

8. *Amortisation and Impairment of Intangible Assets and Depreciation and Impairment of Property, Plant and Equipment*

Amortisation, depreciation and impairment losses in EUR million	2017	2016
Amortisation of other intangible assets	(268.5)	(249.2)
Impairment of goodwill and other intangible assets	(100.7)	(4.1)
Depreciation and impairment of property, plant and equipment	(17.4)	(16.8)
Total amortisation, depreciation and impairment losses	**(386.6)**	**(270.1)**

Amortisation expenses of EUR 108.2m for intangible assets (2016: EUR 111.0m) and depreciation charges of EUR 0.7m for property, plant and equipment (2016: EUR 0.7m), relating to fair value adjustments recognised in connection with business combinations, were recognised in the reporting period. Impairment losses of EUR 85.5m (2016: EUR 4.1m) and EUR 15.2m (2016: EUR 0.0m) relating to acquisition related intangible assets and goodwill respectively were charged to profit or loss. Please refer to note 11 for further details on the impairment losses.

In 2017, amortisation expenses of EUR 137.8m (2016: EUR 118.2m) mainly relating to assets from co-publishing agreements (EUR 59.3m, 2016: EUR 62.4m) and from capitalising pre publishing related costs (EUR 78.5m, 2016: EUR 55.8m) were recognised on content assets. Amortisation expenses of EUR 87.5m (2016: EUR 62.7m) were recognised on internally generated intangible assets in the period under review. An amount of EUR 13.6m results from a change in accounting estimates relating to the amortisation pattern of content creation assets in the research segment.

9. *Financial Expenses and Financial Income*

The line item “Financial expenses” is analysed as follows:

Financial expenses in EUR million	2017	2016
Interest expenses	(235.8)	(257.7)
Other financial expenses	(165.1)	(181.4)
Total financial expenses	**(400.9)**	**(439.1)**

The line item “Interest expenses” mainly comprised interest expenses from financial liabilities, interest expenses from interest rate hedging transactions, interest expenses from applying the effective interest method as well as the net interest expense from pension obligations.

The line item “Other financial expenses” comprised losses of EUR 82.8m (2016: EUR 75.6m) from measuring the fair value of financial instruments (see note 28), losses of EUR 70.1m (2016: EUR 63.6m) from the year-end measurement of subsidiaries’ financial liabilities carried in other currencies than the functional currency of the respective subsidiary, realised currency exchange losses of EUR 0.5m (2016: EUR 14.8m) from financing activities during the year, losses of EUR 2.2m (2016: EUR 1.6m) from marking the Group’s financial derivatives to market and other financing-related costs of EUR 9.5m (2016: EUR 25.8m).

The line item “Financial income” is analysed as follows:

Financial income in EUR million	2017	2016
Interest income	4.4	5.4
Other financial income	199.8	82.9
Total financial income	**204.2**	**88.3**

The line item “Interest income” mainly included interest income from funds, income from loans receivable and other interest income.

The position “Other financial income” included gains of EUR 65.1m (2016: EUR 42.3m) from the year-end valuation of subsidiaries’ financial debt incurred in other currencies than the functional currency of the respective subsidiary, gains from the market valuation of the Group's financial derivatives of EUR 96.7m (2016: EUR 40.5m) and realised currency exchange gains from intra-group financing activities incurred during the year of EUR 37.9m (2016: EUR 0.1m).

10. Income Taxes

Income taxes, analysed into current and deferred tax position, were as follows:

Income taxes **in EUR million**	**2017**	**2016**
Result before income taxes	(62.3)	(102.2)
Current income taxes	(71.9)	(58.4)
Deferred taxes	67.6	37.8
Total income taxes	(4.3)	(20.6)
Net result for the period	**(66.6)**	**(122.8)**

The line item "Deferred taxes" comprises the following positions:

Deferred taxes **in EUR million**	**2017**	**2016**
Due to tax losses carry forward	36.0	10.3
Due to temporary differences	31.6	27.5
Total deferred taxes	**67.6**	**37.8**

For the reconciliation between expected income taxes and the actual income taxes recorded, the German combined statutory tax rate of 30.2% (consisting of 15.8% corporate tax and 14.4% trade tax) was applied, as in the prior year. The reconciliation is shown in the following table:

Reconciliation between expected and actual income taxes **in EUR million**	**2017**	**2016**
Result before income taxes	(62.3)	(102.2)
Statutory German income tax rate	30.2%	30.2%
Expected income taxes	18.8	30.9
Different national tax rates	0.3	8.2
Changes in tax regulations or tax status	61.9	13.4
Current tax income/expenses relating to prior periods	(11.1)	(8.5)
Deferred tax income/expenses relating to prior periods	2.8	5.5
Changes in recognition of interest and tax loss carry forwards	(60.7)	(45.5)
Effect of permanent differences	(16.7)	(24.4)
Other	0.4	(0.2)
Total income taxes	**(4.3)**	**(20.6)**

In 2017, deferred taxes of EUR 26.2m (2016: EUR 34.4m) were recorded directly in other comprehensive income. The amount related to pension provisions and currency translation effects on the tax position from subsidiaries with other functional currency than EUR.

The total income taxes were influenced by deferred tax income of EUR 63.4m as an impact of the US Tax Cuts and Jobs Act which involves a reduction in the federal tax rate by 14%. The changes in loss carry forwards include an amount of EUR 31.8m (2016: EUR 37.4m) relating to interest carry forward arisen in Germany in the reporting period for which no deferred tax asset has been recognised.

Deferred tax assets for temporary differences and tax loss carry forwards were recognised to the extent deferred tax liabilities relating to the same tax authority and the same taxable entity were available. Deferred tax assets exceeding the deferred tax liabilities were only recognised to the extent that they can be utilised against future taxable profits. The measurement was based on a medium-term plan established for each jurisdiction.

The deferred tax assets and liabilities resulted from the following items:

Deferred tax assets and liabilities in EUR million	31 Dec 2017		31 Dec 2016	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Goodwill and other intangible assets	5.2	819.5	3.5	1,022.3
Property, plant and equipment	3.7	14.1	2.0	14.1
Financial assets	0.0	-	-	-
Inventories	8.9	0.8	10.5	0.6
Trade receivables	4.7	3.0	2.9	3.4
Other current assets	2.0	10.5	0.1	10.0
Provisions for pensions and other long-term employee benefits	34.1	-	36.8	-
Interest-bearing loans and borrowings	1.2	8.0	11.3	19.0
Finance lease liabilities	2.0	-	2.3	-
Current provisions	5.6	2.9	6.4	1.0
Other liabilities	45.7	3.5	97.7	2.6
Deferred income	0.2	10.8	-	10.8
Unrecognised taxes on temporary differences	(21.4)	-	(1.2)	-
Tax loss carry forward	132.2	-	136.5	-
Unrecognised tax loss carry forward	(74.8)	-	(42.7)	-
Sub-total	**149.3**	**873.1**	**266.1**	**1,083.8**
Offsetting	(140.9)	(140.9)	(258.5)	(258.5)
Carrying amounts	**8.4**	**732.2**	**7.6**	**825.3**

An amount of EUR 69.2m (2016: EUR 37.4m) shown under loss carry forward relates to interest carry forward in Germany for which no deferred tax asset has been recognised since the interest carry forward is not regarded as utilisable under the current group (financing) structure.

11. Goodwill and Other Intangible Assets

Goodwill

Carrying amount of goodwill in EUR million	2017	2016
Carrying amount as at 1 Jan	1,330.0	1,346.9
Acquisitions	2.3	0.8
Impairments	(15.2)	-
Currency translation differences	(63.9)	(17.7)
Carrying amount as at 31 Dec	**1,253.2**	**1,330.0**

The carrying amount of goodwill is after accumulated impairment charges of EUR 66.1m as at 31 December 2017 (31 Dec 2016: EUR 52.8m). Goodwill primarily resulted from the acquisition of Springer in 2013. The acquisition of MSE resulted in goodwill of EUR 60.5m in 2015. Minor acquisitions added goodwill of EUR 2.3m in 2017 (2016: EUR 0.8m).

Other Intangible Assets

The following table shows the movement at the position other intangible assets:

Other intangible assets in EUR million	2017	2016
Acquisition/production cost		
Balance as at 1 Jan	4,692.9	4,683.8
Acquisition/disposal of business	0.8	-
Additions	171.0	175.8
Disposals	(8.0)	(16.7)
Reclassifications	5.7	-
Currency translation differences	(234.8)	(150.0)
Balance as at 31 Dec	4,627.6	4,692.9
Amortisation		
Balance as at 1 Jan	769.5	529.3
Additions	268.4	249.3
Impairments	85.5	4.1
Disposals	(8.0)	(16.0)
Reclassifications	-	-
Currency translation differences	(61.5)	2.8
Balance as at 31 Dec	1,053.9	769.5
Carrying amount as at 31 Dec	**3,573.7**	**3,923.4**

Other intangible assets were identified, measured and recognised mainly in connection with the purchase price allocation after the acquisition of Springer in 2013 and the establishment of Springer Nature in 2015. The following table summarises the gross amounts and the carrying amounts of the other intangible assets:

	31 Dec 2017		31 Dec 2016	
Other intangible assets in EUR million	Gross amount	Carrying amount	Gross amount	Carrying amount
Customer relationships/subscriptions	1,332.1	1,102.4	1,410.5	1,227.4
Publishing rights	1,311.7	1,178.3	1,390.8	1,284.0
Trademarks	1,011.7	984.8	1,027.2	1,006.3
Co-publishing rights	352.2	84.2	332.5	104.6
Content creation	289.3	66.4	215.6	58.7
Self-developed/acquired software	166.2	75.6	142.4	73.3
Other publishing rights/licenses	164.4	82.0	173.9	169.1
Total other intangible assets	**4,627.6**	**3,573.7**	**4,692.9**	**3,923.4**

The line item “Publishing rights” included rights to academic journals and specialist journals. In the line “Customer relationships/subscriptions” grown customer relationships in the journal and books business were disclosed. The line item “Co-publishing rights” contained publishing rights that arose from exclusive contracts with scientific societies to publish and/or distribute academic journals worldwide or in a specific country or region.

The position “Trademarks” included among others the carrying amounts of the “Springer” brand of EUR 599.2m (2016: EUR 599.2m), the “Nature” brand of EUR 186.7m (2016: EUR 193.8m) and the “Estrada” brand of EUR 2.0m (2016: EUR 2.7m) as well as the exclusive right to use the “Macmillan” brand of EUR 65.9m (2016: EUR 150.0m) which all have an indefinite useful life. The position “Publishing Rights” included, but was not limited to, the carrying amount of EUR 73.3m (2016: EUR 79.1m) for the rights to the title “Nature” that also has an indefinite useful life.

Impairment Testing of Goodwill and Other Intangible Assets

In 2017, the number of cash generating units (CGUs) was 8 (2016: 8). The carrying amount of goodwill and intangible assets with indefinite useful lives allocated to the different CGUs is set out in the tables below. The CGU Research was renamed into Research Publishing in 2017.

Carrying amount of goodwill in EUR million	**31 Dec 2017**		**31 Dec 2016**	
CGU Research Publishing	1,161.3	92.7%	1,221.1	91.8%
CGU Language Learning & Schools	-	-	16.2	1.2%
Other CGUs	91.9	7.3%	92.7	7.0%
Total carrying amount of goodwill	**1,253.2**	**100.0%**	**1,330.0**	**100.0%**

Carrying amount of intangible assets with indefinite useful life in EUR million	**31 Dec 2017**		**31 Dec 2016**	
CGU Research Publishing	859.2	92.7%	872.1	85.1%
CGU Language Learning & Schools	53.3	5.7%	137.5	13.4%
Other CGUs	14.6	1.6%	15.1	1.5%
Total carrying amount of intangible assets with indefinite useful life	**927.1**	**100.0%**	**1,024.7**	**100.0%**

Springer Nature used the following key assumptions for the impairment testing for the two major CGUs:

Key assumptions for impairment testing	**After-tax discount rate**	**Pre-tax discount rate**	**Annual growth rate of free cash flows after the medium-term planning**
2017			
CGU Research Publishing	6.9%	9.25%	1.0%
CGU Language Learning & Schools	9.7%	13.0%	0.0%
2016			
CGU Research Publishing	6.7%	9.3%	1.0%
CGU Language Learning & Schools	7.4%	10.3%	0.0%

The impairment test is sensitive to changes in the underlying assumptions, especially the yearly free cash flow growth rates and the discount rates. For all CGUs the cash flow planning was derived from the latest Group budget and strategic medium-term plan and covered a period of five years.

CGU Research Publishing

The recoverable amount of the CGU based on its value in use was calculated to be EUR 4,441.4m as at 31 December 2017 (2016: EUR 5,149.6m). The excess of the recoverable amount over the carrying amount of this CGU amounted to EUR 776.8m (2016: EUR 1,333.0m).

In comparison to prior year’s medium-term planning the free cash flow is expected to be lower due to unfavourable changes in the currency exchange rates of some markets the CGU is doing business in, i.e. predominantly US Dollar and British Pounds, lower top-line growth in line with overall revised industry growth expectations but still above market growth, coupled with certain merger related discretionary cost steps that impacted the cost base. The medium-term plan growth is expected to mainly come from the further increase in output, i.e., number of articles and books published, launch of new journals, moderate price increases, increase in usage of the book portfolio, maintaining the market share in the growing open access market, and offering additional services to the authors and researchers.

An increase in the discount rate by 122 base points would have reduced the headroom between the recoverable amount and the carrying amount of the CGU to zero (2016: 190 base points). A reduction in the annual free cash flow medium-term growth rate of 307 base points would also have reduced the headroom to zero (2016: 500 base points). If both measurement assumptions were to vary, an increase in the discount rate by 50 base points and at the same time a decrease in the annual free cash flow medium-term growth rate of 178 base points would have reduced the headroom to zero (2016: increase of 50 base points in discount rate and decrease of 360 base points in the annual free cash flow medium-term growth rate).

CGU Language Learning & Schools

As a result of the annual impairment test, the CGU Language Learning & Schools, which is part of the segment Education, was identified as requiring impairments and impairment was recognised accordingly. The carrying amount of EUR 239.5m exceeded the recoverable amount (EUR 140.4m) of the CGU by EUR 99.1m. Of the impairment loss, EUR 15.2m was allocated to goodwill and EUR 78.7m to the exclusive right to use the “Macmillan” brand. An amount of EUR 5.2m was allocated to other intangible assets within the CGU.

The main reason for the impairment is the difficult market environment in certain regions due to the weakness of the local economies resulting in both lower government funded spend by cancelling contracts or modifying terms to reduce constraints on budgets, and lower private spend. Average growth of free cash flow in the medium-term planning has, therefore, been adjusted downwards compared to prior year. The growth of the free cash flow is expected to come from improving profitability, winning market share in certain regions, rebound in private spend driven by the recovery of some economies and increasing revenues from digital products driven by discrete spend in higher content development and digital transformation of parts of the business in the short-term.

In 2016, the recoverable amount of EUR 335.0m exceeded the carrying amount by EUR 72.3m. At the prior-year impairment testing, an increase in the discount rate by 190 base points would have reduced the headroom between the recoverable amount and the carrying amount of the CGU to zero. A reduction in the annual free cash flow medium-term growth rate of 315 base points would also have reduced the headroom to zero. If both measurement assumptions were to vary, an increase in the discount rate by 50 base points and at the same time a decrease in the annual free cash flow medium-term growth rate of 230 base points would have reduced the headroom to zero.

12. Property, Plant and Equipment

The following table shows the development of property, plant and equipment in the reporting period and in the prior year:

Property, Plant and Equipment in EUR million	**Land and buildings**	**Plant, technical equipment and machinery**	**Other equipment, furniture and fixtures**	**Assets under construction**	**Total**
Acquisition or production cost					
Balance as at 1 Jan 2017	140.5	7.5	48.6	0.8	**197.4**
Acquisition/disposal of business	-	-	0.0	-	**0.0**
Additions	8.1	0.4	11.7	0.5	**20.7**
Disposals	(0.3)	(0.6)	(4.0)	(0.1)	**(5.0)**
Reclassifications	0.0	0.0	0.6	(0.6)	**0.0**
Currency translation differences	(4.1)	(0.2)	(1.9)	(0.0)	**(6.2)**
Balance as at 31 Dec 2017	144.2	7.1	55.0	0.6	**206.9**
Depreciation					
Balance as at 1 Jan 2017	13.7	3.7	24.8	-	**42.2**
Additions	5.0	1.1	10.7	-	**16.8**
Impairments	0.6	-	-	-	**0.6**
Disposals	(0.1)	(0.5)	(3.7)	-	**(4.3)**
Reclassifications	0.0	-	(0.0)	-	**0.0**
Currency translation differences	(0.4)	(0.1)	(0.9)	-	**(1.4)**
Balance as at 31 Dec 2017	18.8	4.2	30.9	-	**53.9**
Carrying amount as at 31 Dec 2017	**125.4**	**2.9**	**24.1**	**0.6**	**153.0**

Property, Plant and Equipment in EUR million	Land and buildings	Plant, technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
Acquisition or production cost					
Balance as at 1 Jan 2016	155.3	7.3	38.1	0.2	**200.9**
Acquisition/disposal of business	-	-	-	-	**-**
Additions	3.0	1.2	12.7	0.7	**17.6**
Disposals	(5.5)	(0.2)	(1.6)	-	**(7.3)**
Reclassifications	-	(0.2)	0.3	(0.1)	**-**
Currency translation differences	(12.3)	(0.6)	(0.9)	-	**(13.8)**
Balance as at 31 Dec 2016	140.5	7.5	48.6	0.8	**197.4**
Depreciation					
Balance as at 1 Jan 2016	9.3	2.3	16.2	-	**27.8**
Additions	5.3	2.2	9.2	-	**16.7**
Impairments	-	-	-	-	**-**
Disposals	(0.6)	(0.2)	(1.2)	-	**(2.0)**
Reclassifications	-	(0.6)	0.6	-	**-**
Currency translation differences	(0.3)	-	-	-	**(0.3)**
Balance as at 31 Dec 2016	13.7	3.7	24.8	-	**42.2**
Carrying amount as at 31 Dec 2016	**126.8**	**3.8**	**23.8**	**0.8**	**155.2**

13. Investments in Associates

The Group holds investments in several associates that are individually not material and listed in note 34. The summarised financial information is presented in the table below and not adjusted for the percentage of ownership held by Springer Nature.

Assets and liabilities of associates in EUR million	31 Dec 2017	31 Dec 2016
Assets	31.3	24.8
Liabilities	(16.2)	(14.2)

The line item “Investments in associates” was as follows:

Investments in associates in EUR million	31 Dec 2017	31 Dec 2016
Investments in associates	25.9	20.3

Items for profit or loss are presented for the 12-month period applied under the equity method. If shares in associates were acquired during the financial year, income and expenses were only included for the period between the acquisition date and the year end.

Cumulated income and expenses of associates for 12-month period in EUR million	2017	2016
Income	57.5	40.9
Expenses	(52.1)	(37.2)

The line item “Income from associates” was as follows:

Income from associates in EUR million	2017	2016
Income from associates	3.0	1.4

14. Financial Assets

Financial Assets in EUR million	31 Dec 2017	31 Dec 2016
Loans	1.8	3.7
Other financial assets	0.5	0.5
Total financial assets	**2.3**	**4.2**

The line item "Loans" contained vendor loans given to acquirers of divested businesses. As at 31 December 2017, EUR 1.0m (2016: EUR 2.9m) of these loans related to the divested Vision Care business.

The following table shows the movement of the position Financial Assets:

Financial assets in EUR million	2017	2016
Balance as at 1 Jan	4.2	5.3
Additions	0.2	0.6
Disposals	(1.8)	(1.8)
Currency translation differences	(0.3)	0.1
Balance as at 31 Dec	**2.3**	**4.2**

15. Other Non-Current Assets

Other non-current assets in EUR million	2017	2016
Prepaid expenses	1.8	1.8
Pension assets	1.6	2.7
Non-current purchase price receivables from divested businesses	0.8	2.2
Other non-current receivables	2.7	2.0
Balance as at 31 Dec	**6.9**	**8.7**

The line item "Pension assets" contains net pension assets as well as pension assets which do not qualify as pension assets under IAS 19.

16. Inventories

The total carrying amount of inventories was analysed as follows:

Inventories in EUR million	31 Dec 2017	31 Dec 2016
Finished goods and merchandise	37.9	42.4
Work in progress	16.5	21.2
Advance payments	5.8	4.4
Raw materials and supplies	3.0	5.7
Total inventories	**63.2**	**73.7**

17. Trade Receivables

The following table gives an overview of the credit risk arising from the trade receivables position:

Trade receivables in EUR million	31 Dec 2017	31 Dec 2016
Receivables, neither past due nor impaired	293.8	310.9
Receivables, past due but not impaired	85.5	101.6
thereof < 90 days	64.7	86.1
thereof 90 to 179 days	9.8	7.5
thereof 180 to 359 days	9.3	3.9
thereof >360 days	1.7	4.1
Receivables, past due and impaired		
Gross amount	53.8	64.6
Valuation allowance	(16.2)	(12.6)
Carrying amount	37.6	52.0
Total trade receivables	**416.9**	**464.5**

Valuation allowances for trade receivables were made on an individual basis and calculated taking into account all discernible risks. Receivables which were past due for 90, 180 and 360 days were usually written off by 25.0%, 50.0% and 100.0% respectively of their nominal amount.

If a customer has become insolvent or other circumstances indicate default, the corresponding receivables are written off in full.

The following table presents the changes in the valuation allowances for trade receivables:

Valuation allowances for trade receivables **in EUR million**	**2017**	**2016**
Balance as at 1 Jan	12.6	13.7
Utilisation	(3.2)	(5.8)
Additions	12.0	12.4
Release	(5.1)	(7.6)
Currency translation differences	(0.1)	(0.1)
Balance as at 31 Dec	**16.2**	**12.6**

18. Other Current Assets

The line item "Other current assets" consisted of the following components:

Other current assets **in EUR million**	**31 Dec 2017**	**31 Dec 2016**
Receivables from related parties	16.2	16.0
Prepaid expenses	14.7	18.3
VAT receivables	8.6	6.7
Derivative financial instruments	5.2	1.2
Advance payments for royalties and licenses	4.8	4.2
Creditors with debit balances	4.1	4.8
Short-term purchase price receivables from divested businesses	0.2	0.8
Fixed-term deposits	-	0.6
Other receivables	10.3	12.6
Total other current assets	**64.1**	**65.2**

The other current assets were classified as financial assets with the exception of prepaid expenses, advance payments for royalties and licenses and a part of the other receivables.

19. Cash and Cash Equivalents

Cash and cash equivalents consisted of cash in hand and bank balances.

20. Equity

Share Capital

As in the prior year, the company's share capital totalled EUR 100,000.00 as at 31 December 2017, with a nominal amount of EUR 1.00 per share.

Capital Reserves

As at 31 December 2017, the capital reserve of EUR 748.7m (31 Dec 2016: EUR 771.2m) mostly contained shareholder contributions.

Following the settlement of a legal case to which a subsidiary of the company was party to, an indemnification agreement between former shareholders of former Springer and current shareholders of the Group, came into effect. As a consequence former Springer had a claim against its former shareholder, i.e. the funds advised by EQT Partners AB, in the amount of EUR 11.2m creating other income in 2017. The receivable was subsequently transferred to Springer Science+Business Media GP Acquisition S.C.A. in exchange for an equal portion of the BCP Shareholder Loan. Furthermore, Springer Science+Business Media GP Acquisition S.C.A. contributed EUR 9.6m into the capital reserve of the company by means of waiving EUR 1.0m of the BCP Shareholder Loan and future contribution of USD 10.0m plus accrued interests of 1.5% p.a. payable in five equal annual instalments starting as of 2018.

An amount of EUR 32.1m was withdrawn from capital reserves as the company balanced the loss carry forward and net loss of the reporting period and reclassified the exceeding amount of EUR 30.0m to retained earnings on statutory level.

Retained Earnings/Other Accumulated Equity

Other accumulated equity comprised actuarial gains and losses from pension obligations less deferred taxes thereon, as well as currency translation effects.

21. Provisions for Pensions and Other Long-Term Employee Benefits

The line item "Provisions for pensions and other long-term employee benefits" consisted of the following components:

Provisions for pensions and other long-term employee benefits in EUR million	31 Dec 2017	31 Dec 2016
Provision for pension obligations	247.3	251.5
Provisions for other long-term employee benefits	14.6	14.3
Total provisions for pensions and other long-term employee benefits	**261.9**	**265.8**

Pensions

Springer Nature operates various forms of pension plans for current and former employees and, where applicable, their surviving dependents. The benefits of these plans are determined by the legal, tax and economic situation of each country concerned. These company pension plans include defined contribution plans and defined benefit plans. The defined benefit plans are either funded via external investment funds, a pension liability insurance (both referred to as plan assets) or they are unfunded. Provisions are set up for obligations arising from defined benefit plans and presented in the line item "Provision for pension obligations".

Springer Nature's largest defined benefit pension plans are in UK, Germany and USA. The plan participants were as follows:

Pension plan participants as at 31 Dec 2017	Active	Deferred members	Retirees	Total
UK	57	781	613	**1,451**
Germany	332	335	872	**1,539**
USA	100	179	89	**368**
Other	213	-	5	**218**
Total pension plan participants	**702**	**1,295**	**1,579**	**3,576**

Pension plan participants as at 31 Dec 2016	Active	Deferred members	Retirees	Total
UK	58	783	610	**1,451**
Germany	345	349	876	**1,570**
USA	117	171	82	**370**
Other	216	-	5	**221**
Total pension plan participants	**736**	**1,303**	**1,573**	**3,612**

In the UK, various defined benefit plans provide different benefits to its members. These pension schemes, which are closed to new entrants, are funded with plan assets. The pension plan with the largest liability is a trust-based hybrid plan with a final salary component and a career average re-valued earnings component. The final salary component is closed to future entitlements, except for a small number of members that still retain the link to their final salary. The career average re-valued earnings component commenced in 2010, and there are a small number of active members still accruing benefits. Over the course of 2013, an asset-backed funding structure via a property and a loan was put in place for the main UK pension plan.

There are different defined benefit plans in Germany which are closed for new entrants as well. The final salary plans where the benefits depend on the pensionable salary and the years of service, and a contribution-based plan where yearly contributions are converted into benefits via actuarial factors, are the largest schemes in Germany. The pension plans are not funded by plan assets and provide for annuity payments upon reaching retirement age or in the event of disability or death.

Both defined benefit plans in the USA are closed for new entrants. The benefit accruals for both pension plans have been frozen since 2010. The retirement benefits are calculated based on years of service and average annual salary compensation.

In the case of plans that are funded by plan assets, the Group ensures that the assets are managed in such a way that long-term investments are in line with the obligations under the pension schemes (asset liability matching (ALM) strategy). The objective of the ALM strategy is to match the return and maturity of the plan assets with the benefit payments as they fall due, and in the appropriate currency. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets.

As at 31 December 2017 and 2016, the defined benefit obligation (DBO), fair value of plan assets and net pension obligations by country were as follows:

Pension obligations as at 31 Dec 2017 **in EUR million**	**Defined benefit obligation**	**Plan assets**	**Net pension obligation**
UK	330.7	245.6	85.1
Germany	150.1	1.0	149.1
USA	29.8	20.6	9.2
Other	9.3	6.7	2.6
Total	**519.9**	**273.9**	**246.0**
Amounts recognised in the consolidated statement of financial position:			
Provision for pension obligations			247.3
Other non-current assets			1.3
Net pension obligations			**246.0**

Pension obligations as at 31 Dec 2016 **in EUR million**	**Defined benefit obligation**	**Plan assets**	**Net pension obligation**
UK	344.4	264.2	80.2
Germany	157.9	0.9	157.0
USA	30.6	21.3	9.3
Other	10.3	7.7	2.6
Total	**543.2**	**294.1**	**249.1**
Amounts recognised in the consolidated statement of financial position:			
Provision for pension obligations			251.5
Other non-current assets			2.4
Net pension obligations			**249.1**

The following table shows the development of benefit obligations in 2017 and 2016:

Reconciliation of defined benefit obligation **in EUR million**	**2017**	**2016**
Balance as at 1 Jan	543.2	497.2
Service costs	2.7	2.3
Interest expenses	12.4	15.4
Expenses recognised in profit or loss	15.1	17.7
Effect of changes:		
Demographic assumptions	(6.0)	(0.1)
Financial assumptions	9.3	96.0
Experience adjustments	(1.3)	(0.8)
Re-measurement included in OCI	2.0	95.1
Benefits paid from plan assets	(16.4)	(13.6)
Benefits paid by the company	(7.1)	(7.1)
Plan participants’ contributions	0.4	0.4
Insurance contributions paid	(0.1)	(0.1)
Currency translation differences	(17.2)	(46.4)
Balance as at 31 Dec	**519.9**	**543.2**

The following table shows the development of plan assets in 2017 and 2016:

Reconciliation of plan assets in EUR million	2017	2016
Balance as at 1 Jan	294.1	295.8
Administrative expenses/fees	(0.1)	(0.1)
Expected return on plan assets	7.5	10.2
Expenses and income recognised in profit or loss	7.4	10.1
Re-measurement of plan assets	(10.0)	31.6
Re-measurement included in OCI	(10.0)	31.6
Benefits paid from plan assets	(16.4)	(13.6)
Employer contributions	11.6	8.5
Plan participants' contributions	0.4	0.4
Insurance contributions paid	(0.1)	(0.1)
Asset surplus at plan termination	(0.3)	-
Currency translation differences	(12.8)	(38.6)
Balance as at 31 Dec	**273.9**	**294.1**

The portfolio structure of the plan assets as at 31 December 2017 and 2016 was as follows:

Portfolio structure of plan assets as at 31 Dec 2017 in EUR million	UK	Germany	USA	Other	Total
Debt instruments	137.7	-	6.4	0.9	**145.0**
Insurance contracts*	52.1	1.0	-	4.3	**57.4**
Investment funds	44.8	-	-	-	**44.8**
Real estate funds	0.2	-	0.7	0.3	**1.2**
Equity instruments	5.0	-	13.1	0.8	**18.9**
Cash and cash equivalents	3.2	-	0.4	-	**3.6**
Other instruments	2.6	-	-	0.4	**3.0**
Total	**245.6**	**1.0**	**20.6**	**6.7**	**273.9**

Portfolio structure of plan assets as at 31 Dec 2016 in EUR million	UK	Germany	USA	Other	Total
Debt instruments	145.3	-	6.8	0.9	**153.0**
Insurance contracts*	56.4	0.9	-	5.3	**62.6**
Investment funds	43.4	-	-	0.6	**44.0**
Real estate funds	7.0	-	0.7	0.2	**7.9**
Equity instruments	4.5	-	13.6	0.4	**18.5**
Cash and cash equivalents	6.3	-	0.2	0.1	**6.6**
Other instruments	1.3	-	-	0.2	**1.5**
Total	**264.2**	**0.9**	**21.3**	**7.7**	**294.1**

* Buy-in insurance contracts

The following table summarises the estimated payments for 2018 and the payments in 2017:

Employer payments in EUR million	Estimated payments 2018	Payments 2017
Employer contributions to plan assets	12.4	11.6
Benefits paid by the company	7.0	7.1
Total	**19.4**	**18.7**

The weighted average duration of Springer Nature's defined benefit obligation was 17 years (2016: 18 years) as at the reporting date.

Provisions for Other Long-term Employee Benefits

In addition to pension benefits, Springer Nature provides, either voluntarily or based on legal or contractual regulations, certain other employee benefits to its employees in several countries. These employee benefits are summarised in the line item "Other long-term employee benefits".

Severance payments are made when employees leave the company and are based on statutory obligations, primarily in Austria, France, Italy, India and Mexico. Employees in Germany who are at least 55 years old and have a permanent employment contract with the company qualify for the old-age part-time schemes. The partial retirement phase lasts two to five years.

Provisions for other long-term employee benefits are recognised in the same way as defined benefit plans, but with actuarial gains and losses recognised in profit and loss rather than OCI.

As at 31 December 2017 and 2016, the defined benefit obligation (DBO), fair value of plan assets and net obligations for other long-term employee benefits were as follows:

Other long-term employee benefits as at 31 Dec 2017 **in EUR million**	**Defined benefit obligation**	**Plan assets**	**Net obligation**
Severance payments	8.9	2.5	6.4
Loyalty benefits	7.9	-	7.9
Old-age part-time schemes	2.5	2.3	0.2
Deferred compensation plan	0.7	0.7	(0.0)
Total	**20.0**	**5.5**	**14.5**
Amounts recognised in the consolidated statement of financial position:			
Provisions for other long-term employee benefits			14.6
Other non-current assets			0.1
Net obligations			**14.5**

Other long-term employee benefits as at 31 Dec 2016 **in EUR million**	**Defined benefit obligation**	**Plan assets**	**Net obligation**
Severance payments	8.0	2.1	5.9
Loyalty benefits	7.7	-	7.7
Old-age part-time schemes	2.4	1.7	0.7
Deferred compensation plan	0.6	0.6	-
Total	**18.7**	**4.4**	**14.3**
Amounts recognised in the consolidated statement of financial position:			
Provisions for other long-term employee benefits			14.3
Other non-current assets			-
Net obligations			**14.3**

Actuarial Assumptions

In accordance with IAS 19, the provisions for pensions were calculated using actuarial models and the projected unit credit method. The amount of the provision depends on the employees' period of service with the company and their pensionable salary while the models factor in future increases in salary and pensions, biometric parameters and prevailing long-term capital market interest rates. Interest expenses recognised in profit or loss were calculated based on the net liability using the same long-term capital market interest rate.

The tables below summarise the actuarial assumptions that were used to determine the major pension obligations:

Actuarial assumptions as at 31 Dec 2017	**Discount rate**	**Salary increase rate**	**Pension increase rate**	**Employee turnover**
UK	2.40-2.60%	3.10%	3.00% –3.60%	based on experience
Germany	1.90%	2.50%	1.50%	
USA	3.50-3.60%	n/a	n/a	

Actuarial assumptions as at 31 Dec 2016	Discount rate	Salary increase rate	Pension increase rate	Employee turnover
UK	2.60-2.70%	3.20%	3.00% – 3.60%	based on experience
Germany	1.70%	2.50%	1.50%	
USA	4.00-4.20%	n/a	n/a	

Springer Nature applied the following mortality tables:

Applied mortality tables for valuation 2017	
UK	S1NA CMI 2015 with 1.25% long-term average mortality rate
	88% and 92% of SAPS S2 (males/females) with CMI 2016 projections, long-term trend rate of 1.25% p.a.
Germany	Heubeck mortality tables 2005G
USA	MRP2007 Generational White Collar

Sensitivity Analysis for Pension Benefits

An increase or decrease in any of the significant actuarial assumptions would have resulted in the following changes in the present value of the defined benefit obligations as at 31 December 2017 and 2016:

Impact on the present value of the DBO as at in EUR million	31 Dec 2017	31 Dec 2016
Increase in discount rate of 25 bps	(21.8)	(23.0)
Decrease in discount rate by 25 bps	23.4	24.8
Increase in pension increase rate by 25 bps	10.4	10.9
Decrease of pension increase rate by 25 bps	(9.9)	(9.5)
Increase of salary increase rate by 25 bps	1.4	1.5
Decrease of salary increase rate by 25 bps	(1.2)	(1.3)
Increase of life expectancy by one year	20.0	22.0
Decrease of life expectancy by one year	(19.7)	(22.2)

The above sensitivity analyses were calculated by adjusting one parameter while keeping all other parameters unchanged. In practice, this is unlikely to occur, and changes in some of the assumptions may be interdependent. When calculating the sensitivity of the defined benefit obligations to significant actuarial assumptions the same method has been applied as when calculating the pension obligations recognised within the statement of financial position.

Defined Contribution Plans and State Plans

In the case of defined contribution plans, the Group makes payments into an external fund or other welfare fund on a statutory, contractual or voluntary basis. Once the Group has paid the due contributions, it is not obliged to provide any further benefits, thus no provision is recognised in the consolidated statement of financial position.

The amount recognised as an expense for defined contribution plans amounted to EUR 14.9m (2016: EUR 13.1m) in the reporting period.

22. Interest Bearing Loans and Borrowings

The Group is financed by senior loans, a working-capital facility (revolving credit facility, hereinafter referred to as "revolver" or "RCF") and other sources. The lenders are mainly institutional investors. The senior loans and the RCF are syndicated loans under the terms of which lenders and Springer Nature are bound under standard leverage loan facility and inter-creditor agreements.

In 2017, the Group has undertaken several measures to improve the capital structure. The first transaction took place in April and led to a repricing of the EUR senior tranche. The floor was reduced by 50 bps to 0.5% and the margin decreased by 25 bps. In the course of this transaction the Group shifted USD 133.4m from the USD to the EUR tranche. In September 2017, the Group successfully refinanced EUR 136.0m of the PHY (Private High Yield) by issuing new senior debt in the same amount. A third refinancing step was taken in November when the remaining EUR 84.0m of the PHY was replaced by new senior debt as well. Together with this refinancing, the maturities of all the senior loans were increased to February 2022 (RCF) and August 2022 (senior loans). The refinancing of the PHY resulted in the disposal of old debt whereas the other refinancing measures were modifications of existing debts and did therefore not result in the disposal of old and recognition of new debt.

The amendments of the facilities can be summarised as shown in the following table.

	Before refinancings		After refinancings	
in million	Nominal	Interest rate	Nominal	Interest rate
B8*	EUR 1,646.8	Max (1%; EURIBOR) + 3.75%		
B9*	USD 1,436.2	Max (1%;USD LIBOR) + 3.75%		
B10*	EUR 419.2	Max (1%; EURIBOR) + 3.75%		
Revolver	EUR 250.0	EURIBOR + 3.50%	EUR 250.0	EURIBOR + 3.50%
B12*			EUR 1,973.6	Max (0.5%; EURIBOR) + 3.50%
B13*			USD 1,288.2	Max (1%;USD LIBOR) + 3.75%
PHY loan	EUR 220.0	Max (1%; EURIBOR) + 8.00%		

* Tranches of senior loans

The margins on the senior loan tranches decrease gradually, if the leverage ratio falls. In 2017, the total leverage ratio fell below 5.5 so that the margin on the EUR tranche was at 3.25%, on the USD tranche at 3.50% and on the RCF was reduced to 3.25%. A leverage ratio less than 4.5 further reduces the revolver margin to 3.0%

All senior loans, except for the revolving credit facility (RCF), are subject to a base interest rate of the maximum of EURIBOR and a floor of 0.50% or LIBOR and a floor of 1.00%. Springer Nature has an option regarding the interest periods which can be one month, three months, six months or – subject to the acceptance of the lending institutions – 12 months.

Interest payments are made regularly at the end of the interest period, but at least every three months and on every repayment date in the case of senior loans. Repayments of EUR 5.0m and USD 3.7m are due for tranches B12 and B13 respectively at the end of each quarter. Depending on the cash flow performance of the business in the preceding year, a mandatory repayment obligation exists for a certain share of such excess cash flow, which is linked to the leverage level at year-end.

In addition to the senior loans, the Group is financed by a shareholder loan issued by Springer Science+Business Media GP Acquisition S.C.A. (BCP shareholder loan).

The BCP shareholder loan accrues interest at a nominal rate of 10.23%. As at 31 December 2017, the loan comprised two tranches of EUR 312.7m (31 Dec 2016: EUR 322.8m) and EUR 33.4m (31 Dec 2016: EUR 34.9m), maturing in August 2022.

The fair value of the BCP shareholder loan was estimated using a discounted cash flow model. The valuation requires management to make certain assumptions about the model inputs, especially the discount rate to be applied (31 Dec 2017: 9.4%, 31 Dec 2016: 9.2%). Cash flows are derived from the contractual rights and the assumption of an expected term of the loans of initially five years. The fair value as at 31 December 2017 was EUR 440.5m (31 Dec 2016: EUR 414.3m). Provided that the right to exchange the BCP shareholder loan for the company's equity instruments is exercised, Springer Nature has no payment obligations from the shareholder loan.

Furthermore, in the course of the business combination of former Springer/MSE, preference shares (henceforth: shareholder loan instruments) of EUR 407.2m were issued by Springer SBM One GmbH to GvH Vermögensverwaltungsgesellschaft XXXIII mbH, a subsidiary of the Holtzbrinck Publishing Group, on 5 May 2015, which at the end of 2017 stood at EUR 402.9m.

Utilisation of the shareholder loan instruments was limited by contractual obligations, so as to give them the structural equivalence of the BCP shareholder loan. Under certain circumstances, GvH Vermögensverwaltungsgesellschaft XXXIII mbH can swap the company's shareholder loan instruments in exchange for equity instruments of the company. The obligation related to this put option at the level of Springer Nature GmbH is recognised as debt capital at fair value in the company's consolidated financial statements. The fair value of the shareholder loan instruments was calculated using the discounted cash flow model. The measurement requires management to make certain assumptions about the model inputs, especially the interpretation of contractual agreements and the discount rate to be applied. Cash flows are derived from the contract rights of the shareholder loan instruments, which are discounted using the respective market interest rate for this instrument. The discount rate applied was 9.4% (31 Dec 2016: 9.1%). The fair value as at 31 December 2017 was EUR 511.6m (31 Dec 2016: EUR 467.2m). There is no contractual obligation to repay the shareholder loan instruments.

An increase of twenty basis points in the discount rate for the shareholder loan instruments and the BCP shareholder loans would had led to an accumulated decrease in financial liabilities of less than EUR 1.0m as at

31 December 2017 (31 Dec 2016: EUR 2.6m). A decrease of twenty basis points in the discount rate would had resulted in an increase in financial liabilities of less than EUR 1.0m (31 Dec 2016: EUR 2.6m). The sensitivity analyses were calculated by adjusting one parameter while keeping all other parameters unchanged.

A further shareholder loan of EUR 80.0m was provided by GvH Vermögensverwaltungsgesellschaft XXXIII mbH on 5 May 2015 (GvH shareholder loan). The interest rate on this shareholder loan is 2.0% p.a. Interest is accrued and not compounded. The loan together with the accrued interest will mature in May 2030. Interest of EUR 4.3m (31 Dec 2016: EUR 2.7m) that did not increase the nominal amount of the loan was deferred at the reporting date and was recognised using the effective interest method.

All shareholder loans are subordinated to the senior loans. The following tables show the carrying amount of the financial debt of the Group as well as the respective maturities:

Carrying amount of interest bearing loans and borrowings in EUR million	Effective interest rate	31 Dec 2017						
		Carrying amount	Remaining term in years					Total
			< 1 to 1	> 1 to 2	> 2 to 3	> 3 to 5	> 5	
Shareholder Loan Instruments		511.6	-	-	-	-	511.6	511.6
Shareholder Loan – BCP		440.5	-	-	-	440.5	-	440.5
Shareholder Loan – GvH		80.6	-	-	-	-	80.6	80.6
Liabilities to shareholders		1,032.7	0.0	0.0	0.0	440.5	592.2	1,032.7
Senior loans	5.2%	3,008.3	32.1	32.1	32.1	2,912.0	-	3,008.3
Revolving credit facility	2.3%	34.0	34.0	-	-	-	-	34.0
Other financial liabilities	0.0%	5.7	5.7	-	-	-	-	5.7
Interest-bearing loans and borrowings		3,048.0	71.8	32.1	32.1	2,912.0	-	3,048.0
Total		**4,080.7**	**71.8**	**32.1**	**32.1**	**3,352.5**	**592.2**	**4,080.7**

Carrying amount of interest bearing loans and borrowings in EUR million	Effective interest rate	31 Dec 2016						
		Carrying amount	Remaining term in years					Total
			< 1 to 1	> 1 to 2	> 2 to 3	> 3 to 5	> 5	
Shareholder Loan Instruments		467.2	-	-	-	-	467.2	467.2
Shareholder Loan – BCP		414.3	-	-	-	-	414.3	414.3
Shareholder Loan – GvH		73.7	-	-	-	-	73.7	73.7
Liabilities to shareholders		955.2	0.0	0.0	0.0	0.0	955.2	955.2
Senior loans	6.6%	2,911.9	30.6	30.6	30.6	2,820.2	-	2,911.9
PHY loan	9.2%	215.7	-	-	-	215.7	-	215.7
Revolving credit facility	3.3%	52.0	52.0	-	-	-	-	52.0
Other financial liabilities	0.0%	1.2	1.2	-	-	-	-	1.2
Interest-bearing loans and borrowings		3,180.8	83.8	30.6	30.6	3,035.9	-	3,180.8
Total		**4,136.0**	**83.8**	**30.6**	**30.6**	**3,035.9**	**955.2**	**4,136.0**

The carrying amount of the senior and PHY loans was presented net of any discounts, arrangement fees and financing-related costs, as well as net of the fair market value of the embedded derivative – i.e. the interest floor component – using the effective interest method. The effective interest was calculated based on an expected term of the loans of initially five years.

The line item "Other financial liabilities" contained accrued interests and bank fees.

The senior loans were denominated in Euro and US dollars and the carrying amounts as at 31 December 2017 and 2016 were as follows:

Senior loans in EUR million	31 Dec 2017		31 Dec 2016	
	EUR	US dollar	EUR	US dollar
Carrying amounts	1,946.4	1,273.6	1,582.3	1,401.3

The most relevant financial covenants to be monitored and reported are the leverage ratio (ratio between net debt and EBITDA) and the interest cover ratio (ratio between EBITDA and interest expenses). The ongoing compliance with the respective limits set for these key ratios is an important component of Springer Nature's capital management, since a covenant breach can lead to an unplanned debt repayment obligation. Constant monitoring, stress testing and various interest scenario simulations are applied by Springer Nature as part of the financial risk management process as a means of ensuring future covenant compliance. However, compliance with the leverage ratio only has to be ensured if more than 30.0% of the total revolver volume is drawn at the end of a quarter. By contrast, the interest cover ratio is an incurrence covenant, meaning that this covenant must only be complied with if certain events like further borrowing occur. No such event occurred during the reporting period and also not in prior year.

As at the end of reporting period, EUR 34.0m (31 Dec 2016: EUR 52.0m) were drawn on the revolving credit facility. The Group was, therefore, in compliance with all debt covenants and expects to maintain sufficient headroom under the limits set in the financing agreements for future periods. Springer Nature does not see an immediate need for a fundamental short-term to medium-term refinancing of the outstanding debt facilities, as the debt instruments will mature in 2022.

Fixed repayments due in 2018 were presented as current financial liabilities in the consolidated statement of financial position.

23. Finance Lease Liabilities

Finance lease liabilities mainly stemmed from property lease contracts at Springer-Verlag GmbH, Heidelberg, Germany.

The finance leases were generally subject to a non-cancellable minimum lease term, at the end of which the lessee, Springer Nature, has the option of acquiring the leased asset at its residual value. There were no arrangements regarding conditional lease payments within the Group and the current leases did not contain options to renew. The lease payments from finance leases were as follows:

Lease payments from finance leases as at 31 Dec 2017 in EUR million	**Nominal value**	**Discounted amount**	**Present value**
Less than 1 year	6.6	0.1	**6.5**
1 to 5 years	0.3	0.0	**0.3**
More than 5 years	0.1	0.0	**0.1**
Total lease payments	**7.0**	**0.1**	**6.9**

Lease payments from finance leases as at 31 Dec 2016 in EUR million	**Nominal value**	**Discounted amount**	**Present value**
Less than 1 year	1.3	0.0	**1.3**
1 to 5 years	6.6	0.5	**6.1**
More than 5 years	-	-	**-**
Total lease payments	**7.9**	**0.5**	**7.4**

24. Other Long-Term Provisions, Non-Current Liabilities and Current Provisions

The line item “Other long-term provisions and non-current liabilities” included non-current purchase price liabilities, other non-current liabilities and other long-term provisions, analysed as follows:

Other long-term provisions and non-current liabilities in EUR million	**31 Dec 2017**	**31 Dec 2016**
Other non-current liabilities	11.3	18.4
Other non-current provisions	3.0	2.8
Purchase price liabilities	3.0	1.2
Total other long-term provisions and non-current liabilities	**17.3**	**22.4**

The positions “Other non-current liabilities” and “Purchase price liabilities” were classified as financial liabilities.

The following tables provide details for the composition and movement in the current provisions:

Current provisions in EUR million	Provisions for legal and other risks	Provisions for returns	Sundry provisions	Total current provisions
Balance as at 1 Jan 2017	2.7	12.0	13.8	**28.5**
Additions	2.4	9.4	4.7	**16.5**
Utilisation	(2.1)	(8.0)	(13.0)	**(23.1)**
Release	(0.1)	(1.4)	(0.3)	**(1.8)**
Reclassification	-	-	0.1	**0.1**
Currency translation differences	(0.1)	(0.8)	(0.5)	**(1.4)**
Balance as at 31 Dec 2017	**2.8**	**11.2**	**4.8**	**18.8**

Current provisions in EUR million	Provisions for legal and other risks	Provisions for returns	Sundry provisions	Total current provisions
Balance as at 1 Jan 2016	8.6	12.0	14.2	**34.8**
Additions	2.5	8.7	5.3	**16.5**
Utilisation	(5.8)	(7.2)	(4.9)	**(17.9)**
Release	(2.5)	(1.3)	(0.9)	**(4.7)**
Reclassification	-	-	0.2	**0.2**
Currency translation differences	(0.1)	(0.2)	(0.1)	**(0.4)**
Balance as at 31 Dec 2016	**2.7**	**12.0**	**13.8**	**28.5**

The provisions for returns related to deliveries in the current and previous period. They were measured on past experience, normal course of business, and on assumptions regarding future development in the book market.

25. Other Current Liabilities

Other current liabilities in EUR million	31 Dec 2017	31 Dec 2016
Royalty liabilities	66.2	67.8
Personnel-related liabilities	56.1	57.3
Derivative financial instruments	25.9	123.3
Debtors with credit balances	16.9	21.4
VAT liabilities	15.5	16.8
Sundry liabilities	22.3	29.3
Total other current liabilities	**202.9**	**315.9**

The position "Sundry liabilities" included liabilities to Springer Hilfsfonds from a loan of EUR 3.2m (2016: EUR 3.2m).

All "Other current liabilities" were classified as financial liabilities.

26. Deferred Income

Deferred income included invoiced sales and subscription payments received in advance, to the extent that the goods were not delivered or services not rendered. Invoiced costs that are charged for packaging and transport were also included in the item. In subsequent periods, the deferred income item is released to the statement of profit or loss, usually within the next 12 months.

27. Off-Balance Sheet Commitments/Contingent Liabilities

Guarantees and securities of EUR 24.5m (2016: EUR 35.9m) had been granted as at 31 December 2017. An amount of EUR 17.9m (2016: EUR 22.8m) thereof was attributable to guarantees to secure day-to-day bank services (cash pool activities, overdraft facilities etc.) and EUR 3.2m (2016: EUR 2.9m) to securities on behalf of subsidiaries for existing rent agreements. There were other insignificant guarantees to secure company credit cards, business contracts and guarantees for income tax payments in several jurisdictions. The likelihood that the guarantees will result in any future cash outflow is expected to be very limited.

The Group entered into journal content distribution deals under which Springer Nature is entitled to acquire the content, distribute and sell it in contractually agreed territories. Under these co-publishing agreements Springer

Nature has to pay contractually agreed minimum royalties. The remaining terms of the contracts vary between two to five years and Springer Nature expects payment obligations of EUR 52.1m in 2018, decreasing obligations for 2019 and slightly increasing obligations for the years thereafter. There were no other contingent liabilities.

The obligations for operating leases at year-end were EUR 205.2m (2016: EUR 210.8m). The maturity structure of the operating lease payments is summarised in the following table:

	31 Dec 2017	31 Dec 2016
Obligations for operating leases in EUR million	**Nominal value**	**Nominal value**
Less than 1 year	29.7	32.9
1 to 5 years	91.1	95.8
More than 5 years	84.4	82.1
Total obligations for operating leases	**205.2**	**210.8**

The majority of the multi-year lease contracts related to office space. The remainder represented leases for company cars, office equipment and IT infrastructure.

28. Financial Instruments and Risk Management

Springer Nature is exposed to various forms of financial risks through its international business operations and financing agreements. This includes amongst others risks from its financial instruments and in particular from movement in foreign exchange rates and interest rates.

The following tables show the carrying amounts and, the amortised costs or fair values of the Group's financial instruments applying the categories of IAS 39, as at 31 December 2017 and 2016.

	31 Dec 2017		
Financial instruments in EUR million	**Carrying amount**	**Amortised cost**	**Fair value**
Financial assets	2.3	2.3	-
Other non-current assets	3.5	3.5	-
Trade receivables	416.9	416.9	-
Other assets	31.3	31.3	-
Cash and cash equivalents	122.8	122.8	-
Loans and receivables	576.8	576.8	-
Available-for-sale financial assets	-	-	-
Financial assets measured at fair value not through profit or loss	-	-	-
Financial derivatives - held for trading	5.1	-	5.1
Other non-current assets	1.6	-	1.6
Financial assets at fair value through profit or loss	6.7	-	6.7
Total financial assets	**583.5**	**576.8**	**6.7**
Other long-term provisions and non-current liabilities	11.2	11.2	-
Liabilities to shareholders	80.6	80.6	-
Interest-bearing loans and borrowings	3,048.0	3,048.0	-
Finance lease liabilities	6.9	6.9	-
Trade payables	130.3	130.3	-
Other liabilities	176.6	176.6	-
Liabilities measured at amortised cost	3,453.6	3,453.6	-
Liabilities to shareholders	952.1	-	952.1
Other financial derivatives - held for trading	15.7	-	15.7
Embedded financial derivatives (floor) - held for trading	10.3	-	10.3
Contingent consideration at fair value	3.3	-	3.3
Financial liabilities at fair value through profit or loss	981.4	-	981.4
Total financial liabilities	**4,435.0**	**3,453.6**	**981.4**

Financial instruments in EUR million	31 Dec 2016 Carrying amount	 Amortised cost	 Fair value
Financial assets	4.2	4.2	-
Other non-current assets	4.2	4.2	-
Trade receivables	464.5	464.5	-
Other assets	26.9	26.9	-
Cash and cash equivalents	97.0	97.0	-
Loans and receivables	596.8	596.8	-
Available-for-sale financial assets	0.6	-	0.6
Financial assets measured at fair value not through profit or loss	0.6	-	0.6
Financial derivatives - held for trading	1.2	-	1.2
Other non-current assets	2.7	-	2.7
Financial assets at fair value through profit or loss	3.9	-	3.9
Total financial assets	**601.3**	**596.8**	**4.5**
Other long-term provisions and non-current liabilities	18.4	18.4	-
Liabilities to shareholders	73.7	73.7	-
Interest-bearing loans and borrowings	3,180.8	3,180.8	-
Finance lease liabilities	7.4	7.4	-
Trade payables	134.4	134.4	-
Other liabilities	192.4	192.4	-
Liabilities measured at amortised cost	3,607.1	3,607.1	-
Liabilities to shareholders	881.5	-	881.5
Other financial derivatives - held for trading	33.6	-	33.6
Embedded financial derivatives (floor) - held for trading	89.7	-	89.7
Contingent consideration at fair value	1.4	-	1.4
Financial liabilities at fair value through profit or loss	1,006.2	-	1,006.2
Total financial liabilities	**4,613.3**	**3,607.1**	**1,006.2**

For those financial instruments that were measured at amortised cost, the fair value equals amortised cost. Reported fair values can only be seen as indications of prices that might be achieved when selling these instruments in the market. As in the prior year, there were no reclassifications between the valuation categories in 2017.

The following table shows the reconciliation between financial instruments and the consolidated statement of financial position:

Reconciliation between financial instruments and the consolidated statement of financial positions in EUR million	31 Dec 2017 Financial instruments	 Other	 Total in statement of financial position
Financial assets	2.3	-	**2.3**
Other non-current assets	3.5	1.8	**5.3**
Trade receivables	416.9	-	**416.9**
Other assets	31.3	27.7	**59.0**
Cash and cash equivalents	122.8	-	**122.8**
Loans and receivables	576.8	29.5	**606.3**
Available-for-sale financial assets*	-	-	**-**
Financial assets measured at fair value not through profit or loss	-	-	**-**
Financial derivatives - held for trading*	5.1	-	**5.1**
Other non-current assets	1.6	-	**1.6**
Financial assets at fair value through profit or loss	6.7	-	**6.7**
Total financial assets	**583.5**	**29.5**	**613.0**
Other long-term provisions and non-current liabilities	11.2	3.0	**14.2**
Liabilities to shareholders	80.6	**-**	**80.6**
Interest-bearing loans and borrowings**	3,048.0	**-**	**3,048.0**
Finance lease liabilities**	6.9	**-**	**6.9**
Trade payables	130.3	**-**	**130.3**
Other liabilities	176.6	**-**	**176.6**
Liabilities measured at amortised cost	3,453.6	3.0	**3,456.6**
Liabilities to shareholders	952.1	-	**952.1**
Other liabilities (financial derivatives) - held for trading***	26.0	-	**26.0**
Contingent consideration at fair value****	3.0	-	**3.0**
Contingent consideration at fair value***	0.3	-	**0.3**
Financial liabilities at fair value through profit or loss	981.4	-	**981.4**
Total financial liabilities	**4,435.0**	**3.0**	**4,438.0**

Reconciliation between financial instruments and the consolidated statement of financial positions in EUR million	**31 Dec 2016** **Financial instruments**	**Other**	**Total in statement of financial position**
Financial assets	4.2	-	**4.2**
Other non-current assets	4.2	1.8	**6.0**
Trade receivables	464.5	-	**464.5**
Other assets	26.9	36.5	**63.4**
Cash and cash equivalents	97.0	-	**97.0**
Loans and receivables	596.8	38.3	**635.1**
Available-for-sale financial assets*	0.6	-	**0.6**
Financial assets measured at fair value not through profit or loss	0.6	-	**0.6**
Financial derivatives - held for trading*	1.2	-	**1.2**
Other non-current assets	2.7	-	**2.7**
Financial assets at fair value through profit or loss	3.9	-	**3.9**
Total financial assets	**601.3**	**38.3**	**639.6**
Other long-term provisions and non-current liabilities	18.4	2.8	**21.2**
Liabilities to shareholders	73.7	**-**	**73.7**
Interest-bearing loans and borrowings**	3,180.8	**-**	**3,180.8**
Finance lease liabilities**	7.4	**-**	**7.4**
Trade payables	134.4	**-**	**134.4**
Other liabilities	192.4	**-**	**192.4**
Liabilities measured at amortised cost	3,607.1	2.8	**3,609.9**
Liabilities to shareholders	881.5	-	**881.5**
Other liabilities (financial derivatives) - held for trading***	123.3	-	**123.3**
Contingent consideration at fair value****	1.2	-	**1.2**
Contingent consideration at fair value***	0.2	-	**0.2**
Financial liabilities at fair value through profit or loss	1,006.2	-	**1,006.2**
Total financial liabilities	**4,613.3**	**2.8**	**4,616.1**

* “Other assets” item

** Short-term and long-term

*** “Other liabilities” item

**** “Other long-term provisions and non-current liabilities” item

The tables below show the financial instruments measured at fair value through profit or loss categorised by valuation levels:

Financial instruments categories by valuation levels in EUR million	**31 Dec 2017** **Carrying amount**	**Level 1**	**Level 2**	**Level 3**
Available for sale	-	-	-	-
Financial assets measured at fair value not through profit or loss	**-**	**-**	**-**	**-**
Held for trading	5.1	-	5.1	-
Other non-current assets	1.6	-	1.6	-
Financial assets at fair value through profit or loss	**6.7**	**-**	**6.7**	**-**
Held for trading	26.0	-	26.0	-
Liabilities to shareholders	952.1	-	-	952.1
Contingent consideration at fair value	3.3	-	-	3.3
Financial liabilities at fair value through profit or loss	**981.4**	**-**	**26.0**	**955.4**

Financial instruments categories by valuation levels in EUR million	**31 Dec 2016**			
	Carrying amount	**Level 1**	**Level 2**	**Level 3**
Available for sale	0.6	0.6	-	-
Financial assets measured at fair value not through profit or loss	**0.6**	**0.6**	**-**	**-**
Held for trading	1.2	-	1.2	-
Other non-current assets	2.7	-	2.7	-
Financial assets at fair value through profit or loss	**3.9**	**-**	**3.9**	**-**
Held for trading	123.3	-	123.3	-
Liabilities to shareholders	881.5	-	-	881.5
Contingent consideration at fair value	1.4	-	-	1.4
Financial liabilities at fair value through profit or loss	**1,006.2**	**-**	**123.3**	**882.9**

The gains and losses (excluding interest) recognised in the financial result in 2017 and 2016 are summarised as follows:

Gains and losses recognised in the financial result in EUR million	**2017**	**2016**
Other financial liabilities	(44.4)	(90.2)
Held for trading	91.9	37.4
Loans and receivables	(18.8)	(6.3)
Net gains/losses of the period	**28.7**	**(59.1)**

The following table presents the interest income and expenses recognised in 2017 and 2016 associated with financial instruments:

Recognised interest income and expenses associated with financial instruments in EUR million	**2017**	**2016**
Loans and receivables	4.4	5.5
Other financial liabilities	(192.4)	(208.2)
Net interest expenses associated with financial instruments of the period	**(188.0)**	**(202.7)**

Financial Risk Management

Springer Nature has established a risk management process aimed at identifying, quantifying and efficiently reducing the risks that Springer Nature as a group is exposed to including the likelihood of occurrence, the potential financial impact and the risk mitigation measures. We base our risk management processes on the Internal Control-Integrated Framework of the Committee of Sponsoring Organisations of the Treadway Commission (COSO). These processes are coordinated by Springer Nature's Governance, Risk and Compliance department and summarised in a risk assessment report which is presented to the management board and to the supervisory board of Springer Nature on a regular basis.

Springer Nature has categorised potential risks as:

- external,
- market-related,
- process-related,
- project-related or
- related to financing/financial instruments.

Springer Nature is exposed to a variety of financial risks, especially market risks resulting from movements in foreign exchange rates and interest rates.

Exchange Rate Risk

The Group is exposed to risks in various currencies. Foreign currency exchange rate exposure is partly balanced by having operating costs in the countries in which Springer Nature is selling its products and services.

Another central measure aimed at offsetting exchange rate risk consists of Springer Nature's split of debt tranches into Euro and US dollar denominated sub-tranches. Springer Nature has taken up financial debt denominated in US dollars, which leads to interest and regular debt repayments in US dollars. The nominal values of the loans are structured such that the corresponding interest and amortisation payments approximately equal the amount of operating cash inflows in US dollars which reduces the structural currency risk that could arise from currency imbalances in cash flows significantly.

The following table summarises the nominal amounts, the fair values as at 31 December 2017 and 2016, and the gains and losses recognised for the forward exchange contracts in each of the periods. The nominal amounts represent the total of all underlying selling amounts.

Forward exchange contracts in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2017	82.0	5.0	(2.6)
31 Dec 2016	128.9	(0.8)	(1.4)

Another risk arises from Group entities with functional currencies other than the Euro. The income and expenses of these group entities were translated into Euro using the annual average rate, while assets and liabilities were translated into Euro using the closing rate in order to include them in the consolidated financial statements. Changes in the exchange rates may affect, for example, the Group's revenues and net result as well as the equity position of Springer Nature.

The Group's exposure to changes in the fair value of its monetary assets and liabilities depends mainly on the movement in the exchange rate of the US dollar against the Euro. The positive exchange rate effect from financial assets and liabilities denominated in US dollars in each of Springer Nature's subsidiaries on the Group's net result before taxes is EUR 33.3m (2016: EUR 39.3m) in the case that the US dollar depreciates by 5.0% against the Euro with all other variables held constant. The effect on cash flow is substantially less significant because of the natural hedge relationship through the financing in US dollars.

Interest Rate Risk

The Group is exposed to interest rate risk as Springer Nature's financial debt is subject to variable interest rates. More specifically, as Springer Nature has agreed to a 0.5%/1.0% floor on its lending rates, any fluctuation of the base interest rates in the US dollar and Euro markets above 1.0% and 0.5% respectively impact Springer Nature's interest expense. Furthermore, negative interest rates have an adverse impact on Springer Nature's result as well given the fact that interest rate swaps are not floored at 0.0%.

To mitigate the risk resulting from movements in interest rates the Group entered into payer swaps (i.e. Springer Nature pays a fixed rate and receives a variable interest rate) to hedge the floating interest rate loans. As at 31 December 2017, 41.6% of the outstanding nominal amounts of the senior loans (EUR 1,252.0m; 2016: EUR 1,347.8m) were hedged at an average fixed hedge rate of 1.96% (2016: 1.96%). These hedges will mature in September 2018. In addition to the already outstanding payer swaps, two new swaps were concluded in 2017 with a nominal amount of EUR 403.3m. The average hedge rate is 1.34%. These will only come into effect at the end of September 2018 maturing in June 2023. Hence, the hedge ratio will decrease to c. 14% in Q3 2018. The group has not designated any financial instruments as hedge instruments in the context of IAS 39.

The derivatives used by the Group are not traded on an organised exchange (OTC instruments) and were only concluded with banks of impeccable credit standing that were approved by management. All derivatives were reported at fair value through profit and loss. No financial derivatives are used for speculative purposes.

The following table summarises the nominal amounts, the fair values at year-end (translated at closing exchange rates), as well as the gains and losses recognised in the respective financial year (translated at average exchange rates) for the interest rate swaps.

Interest rate swaps in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2017	1,655.2	(5.7)	26.0
31 Dec 2016	1,347.8	(31.6)	9.2

The nominal amounts are the amounts used to calculate the fixed rate and floating rate interest payments. The fair values of the different interest rate swaps were determined using a discounted cash flow calculation, based on the valuations and available market data as at the reporting date provided by the respective banks with which the contracts were concluded.

The fair value of the 0.5%/1.0% floor component embedded in the senior loans and the PHY loan was calculated using the Black-76 model and is presented below:

Floor instruments in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2017	3,047.6	(10.3)	70.7
31 Dec 2016	3,229.4	(89.7)	31.3

The gains from the valuation of the floor instruments contain an one-off effect of EUR 27.0m due to a change in estimate regarding the expected term of the floor instrument. Springer Nature is constantly monitoring the interest rate risk. In order to assess the impact of interest rate changes on the Group's interest expense for upcoming periods as well as on future fair values of its interest rate hedging derivatives, Springer Nature simulates variations both in the Euro and US dollar interest rates scenario analyses, whereby current yield curves and implied forward rates are used to forecast future cash interest payments and fair market values respectively. For the scenario analyses, forward rates are shifted or adjusted based on the scenario to be analysed.

The following tables show scenario analyses for interest expenses based on parallel shifts in market rates. The additional interest expenses represent the net effect, i.e. including the effects of opposing interest rate derivatives:

EURIBOR scenarios in EUR million	**2017**	**2016**
Actual interest expenses (-) and income (+) in the period	(104.1)	(119.8)
Change in interest expenses with parallel rate curve shift by:		
+300 bp	(20.5)	(12.7)
+200 bp	(7.4)	(1.1)
+100 bp	3.9	6.3
-50 BP	(3.1)	(3.2)

USD LIBOR scenarios in USD million	**2017**	**2016**
Actual interest expenses (-) and income (+) in the period	(68.0)	(78.5)
Change in interest expenses with parallel rate curve shift by:		
+300 bp	(17.2)	(11.2)
+200 bp	(11.5)	(6.1)
+100 bp	(5.7)	1.0
-50 BP	(1.4)	(3.9)

The following table summarises changes in market values of swaps and the effects of these changes in value on the statement of profit or loss with a parallel shift of the interest curve as at 31 December. For example, the scenario of an interest reduction of 50 basis points (bps) would have led to additional losses of EUR 12.9m as at 31 December 2017 (2016: EUR 10.7m).

Effect of changes in market values on statement of profit or loss in EUR million	**31 Dec 2017**	**31 Dec 2016**
Changes to the market value of swaps from changes to the interest rate by:		
-50 bps	(12.9)	(10.7)
+100 bps	12.6	20.1
+200 bps	48.5	40.1
+300 bps	70.9	59.6

Credit Risk

The maximum exposure resulting from credit risks is the total of carrying amounts of each class of financial assets as at the reporting date. Springer Nature's credit risk is, however, mainly the default of customers with open accounts receivable balances. The Group manages its credit risk from trade receivables based on internal guidelines, e.g., internal limits for each customer and customers with large outstanding or overdue trade receivables are monitored regularly.

An amount of EUR 371.0m (2016: EUR 420.1m) of the Group's trade receivables related mainly to the Research and Education businesses, with a customer base that comprises to a large extent public administrations, universities, companies, wholesalers and agencies with strong credit ratings.

A further component of credit risk management is the constant monitoring of countries (and customers in the respective countries) with political instability and/or under financial distress. Management had no evidence with respect to other given loans that any impairment was necessary.

Liquidity Risk

Liquidity risk for Springer Nature is the risk of not being able to meet financial obligations in full when these become due for payment. The primary sources of liquidity are the operating businesses, external borrowings and borrowings from related parties.

Springer Nature manages its liquidity by pooling and aggregating funds from group entities. Short-term liquidity needs are financed through existing cash balances or by drawing on the revolver. As at 31 December 2017, EUR 13.0m (2016: EUR 13.0m) of the revolver was earmarked for letters of credit and other purposes in context of the operational business and was not available for liquidity drawings. Furthermore, two ancillary facilities with a total amount of EUR 16.0m (2016: EUR 16.0m) are in place in order to facilitate efficient cash management. Those facilities can be used as overdraft facilities but also for other operational purposes like guarantees.

The Group uses foreign currency exchange swaps to efficiently close liquidity gaps in individual currencies using the available funds.

The following table summarises the nominal amounts and the fair values of outstanding foreign exchange swaps as at 31 December 2017 and 2016, as well as the gains and losses recognised in the respective financial year (translated at average exchange rate).

Foreign exchange swaps in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2017	13.6	(0.1)	(2.2)
31 Dec 2016	1.4	-	(1.5)

The following tables summarise the carrying amount contractual cash flows[1] of the financial liabilities and derivative financial instruments including the estimated and implied interest payments:

	31 Dec 2017						
Carrying amount and contractual cash flows in EUR million	**Carrying amount**	**Total cash flows**	**Less than 6 months**	**7-12 months**	**1 to 2 years**	**2-5 years**	**More than 5 years**
Non-derivative financial liabilities	**4,409.0**	**(4,748.7)**	**(407.7)**	**(111.8)**	**(172.9)**	**(3,951.8)**	**(104.5)**
Other long-term provisions and non-current liabilities	11.2	(11.3)	-	-	(1.8)	(9.4)	(0.1)
Interest-bearing loans and Borrowings	3,048.0	(3,706.7)	(97.1)	(107.9)	(169.0)	(3,332.7)	-
Liabilities to shareholders	1,032.7	(712.0)	-	-	-	(607.6)	(104.4)
Finance lease liabilities	6.9	(7.7)	(3.7)	(3.7)	(0.2)	(0.1)	-
Trade payables	130.3	(130.3)	(130.3)	-	-	-	-
Other liabilities	176.6	(176.6)	(176.6)	-	-	-	-
Contingent considerations	3.3	(4.1)	-	(0.2)	(1.9)	(2.0)	-
Derivative financial instruments	**11.1**	**(48.4)**	**(12.0)**	**(8.5)**	**(8.9)**	**(19.8)**	**0.8**
Forward exchange contracts (financial asset)	(0.5)						
Cash inflows		82.0	33.6	16.3	32.1	-	-
Cash outflows		(80.3)	(32.6)	(16.1)	(31.6)	-	-
Foreign exchange swaps (financial liability)	0.1						
Cash inflows		2.3	2.3	-	-	-	-
Cash outflows		(2.4)	(2.4)	-	-	-	-
Financial liabilities – 1% floor component	10.3	(44.1)	(5.0)	(4.9)	(9.7)	(24.5)	-
Financial liabilities – Interest rate swaps	5.7						
Cash inflows		36.8	4.5	3.8	5.4	20.0	3.1
Cash outflows		(42.7)	(12.4)	(7.6)	(5.1)	(15.3)	(2.3)

[1] The presentation of the contractual cash flows is purely based on the contract term of the underlying financial liability/ financial instrument, which might deviate from management's expectation regarding the actual repayment date.

	31 Dec 2016						
Carrying amount and contractual cash flows in EUR million	**Carrying amount**	**Total cash flows**	**Less than 6 months**	**7-12 months**	**1 to 2 years**	**2-5 years**	**More than 5 years**
Non-derivative financial liabilities	**4,490.0**	**(4,965.1)**	**(475.5)**	**(98.1)**	**(206.3)**	**(3,471.2)**	**(714.0)**
Other long-term provisions and non-current liabilities	18.4	(20.4)	-	-	(5.9)	(12.5)	(2.0)
Interest-bearing loans and Borrowings	3,180.8	(3,896.2)	(147.8)	(97.4)	(193.8)	(3,457.1)	-
Liabilities to shareholders	955.2	(712.0)	-	-	-	-	(712.0)
Finance lease liabilities	7.4	(7.9)	(0.7)	(0.7)	(6.6)	-	-
Trade payables	134.4	(134.4)	(134.4)	-	-	-	-
Other liabilities	192.4	(192.4)	(192.4)	-	-	-	-
Contingent considerations	1.4	(1.8)	(0.2)	-	-	(1.6)	-
Derivative financial instruments	**122.1**	**(106.3)**	**(20.8)**	**(19.8)**	**(32.4)**	**(33.3)**	**-**
Forward exchange contracts (liabilities)	0.8						
Cash inflows		130.3	39.8	26.5	32.0	32.0	-
Cash outflows		(130.3)	(39.4)	(26.1)	(32.4)	(32.4)	-
Foreign exchange swaps (asset)	-						
Cash inflows		1.5	1.5	-	-	-	-
Cash outflows		(1.4)	(1.4)	-	-	-	-
Floor comp. (liabilities)	89.7	(74.5)	(10.9)	(10.7)	(20.0)	(32.9)	-
Interest rate swaps (liabilities)	31.6						
Cash inflows		14.4	2.8	3.8	7.8	-	-
Cash outflows		(46.3)	(13.2)	(13.3)	(19.8)	-	-

29. Consolidated Statement of Cash Flows

Springer Nature's consolidated statement of cash flows is based on IAS 7 and is intended to enable the reader of the consolidated financial statements to assess the Group's ability to generate cash and cash equivalents. Cash flows are subdivided into net cash flows from operating, investing and financing activities. The consolidated statement of cash flows includes the effects of movements in exchange rates and changes in the scope of consolidation. The net cash flows from operating activities are presented using the indirect method, which adjusts the net result for the period for items not generating or using cash for the year.

Investing activities include purchases of non-current assets, cash payments and proceeds related to the acquisition and divestiture of businesses, as well as proceeds from disposals of non-current assets. Financing activities include changes in shareholders' equity affecting cash, changes in financial liabilities and shareholder loans. Cash and cash equivalents comprise the total volume of liquid funds.

The liabilities arising from financing activities are reconciled as follows:

			Non-cash changes				
Reconciliation of financing activities in EUR million	**31 Dec 2016**	**Cash Flow**	**Fair value changes**	**Accrued interests**	**FX Effects**	**Other**	**31 Dec 2017**
Liabilities to shareholders	955.2	-	44.4	45.3	-	(12.2)	1,032.7
Interest-bearing loans and borrowings (current and non-current)	3,180.8	(49.3)	-	65.0	(148.3)	(0.2)	3,048.0
Finance lease liabilities	7.4	(1.4)	-	0.4	0.0	0.5	6.9
Long-term debt	**4,143.4**	**(50.7)**	**44.4**	**110.7**	**(148.3)**	**(11.9)**	**4,087.6**

30. Related-Party Transactions and Management Remuneration

Springer Nature GmbH, Berlin, is the parent of the Group in which GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart holds 53.0% and Springer Science+Business Media GP Acquisition S.C.A., Luxembourg, holds 47.0%. GvH Vermögensverwaltungsgesellschaft XXXIII mbH is a 100.0% subsidiary of the Holtzbrinck Publishing Group. Springer Science+Business Media GP Acquisition S.C.A. is a partnership limited by shares and its managing general partner is Springer Science+Business Media GP S.à.r.l., Luxembourg. The interests in Springer Science+Business Media GP Acquisition S.C.A. are held by funds that are advised by BC Partners

Limited, EQT Partners AB and GIC (sovereign fund of the Government of Singapore), as well as by investment companies in which management holds the shares.

The members of the supervisory board are listed in the following table:

Member of supervisory board	Appointment	Resignation
von Holtzbrinck, Stefan (chairman)	05 May 2015	
Walgenbach, Ewald (deputy chairman)	05 May 2015	
Brockhaus, Michael	05 May 2015	
Haderer, Hans	05 May 2015	30 Nov 2017
Kastka, Maximilian	01 Dec 2017	
Mogge, Christian	05 May 2015	
Schwanewedel, Jens	05 May 2015	

The following table shows the managing directors of Springer Nature in 2017 and 2016:

Managing director	Appointment	Resignation
Haank, Derk	28 Feb 2014	31 Dec 2017
Inchcoombe, Steven	01 Jun 2016	
Jacobs, Rachel	01 Jun 2016	
Mos, Martin	28 Feb 2014	
Peeters, Franciscus Vrancken	20 Sep 2017	
Ropers, Daniel	01 Oct 2017	
Thomas, Annette	05 May 2015	09 Mar 2016
Vest, Ulrich	28 Feb 2014	

Related parties are regarded as those persons and entities that control the Group or that are controlled or subject to significant influence by the Group.

Other related parties (entities) include the entities that Springer Nature controls but that are not consolidated because there are no material business dealings with them and they are not material for the Group on aggregate.

The following tables show the transactions with parties with significant influence over the Group:

Related party transactions 2017 in EUR million	Sale of goods/ services to related parties in 2017	Purchases of goods/services from related parties in 2017	Financial result 2017	Amounts owed by related parties 31 Dec 2017	Amounts owed to related parties 31 Dec 2017
Holtzbrinck Publishing Group*	5.1	10.6	(46.0)	5.8	653.9
Springer Science+Business Media GP Acquisition S.C.A.	-	-	(38.4)	8.3	440.5

* Transactions relate to different legal entities of Holtzbrinck Publishing Group

Related party transactions 2016 in EUR million	Sale of goods/ services to related parties in 2016	Purchases of goods/services from related parties in 2016	Financial result 2016	Amounts owed by related parties 31 Dec 2016	Amounts owed to related parties 31 Dec 2016
Holtzbrinck Publishing Group*	11.6	19.2	(47.0)	15.1	603.9
Springer Science+Business Media GP Acquisition S.C.A.	-	-	(35.5)	-	414.3

* Transactions relate to different legal entities of Holtzbrinck Publishing Group

For details on financial liabilities from shareholders please refer to note 22.

An indefinite license agreement was concluded with Holtzbrinck Publishing Group to use the Macmillan trade name.

Management Participation

Managing directors of Springer Nature, as well as certain managers of the Group (“management”), purchased interests in Springer Science+Business Media GP Acquisition S.C.A. via investment companies, i.e. German limited partnerships and Dutch foundations. The acquisition was carried out at fair value and management was not awarded any benefits from the acquisition and thus no remuneration expense was recorded for this transaction.

Remuneration of Springer Nature Management

In 2017, payments for short-term benefits made to managing directors of Springer Nature amounted to EUR 4.9m (2016: EUR 8.0m) whilst 2016 included also one-off payments following the resignation and exit of one board member. Payments in relation to long-term benefits amounted to EUR 0.1m in 2017 (2016: EUR 0.2m). The related payments were made by the different subsidiaries of Springer Nature.

31. Segment Information

For management information Springer Nature is organised into business units based on its products, services and customers and has three reportable segments, which are Research, Education and Professional.

Within the Research business, Springer Nature focuses on the worldwide publication of Science, Technical and Medical (STM) content, primarily scientific journals, databases and books, mainly in English. The content is sold globally to academic research libraries, libraries of governmental and private research institutions as well as to corporate customers and, to a lesser extent, individual customers. Springer Nature's best-known brands in the Research business include the umbrella brands Springer and Nature Research, global brands such as BioMed Central, Adis, Palgrave and many other well established imprints and brands in the various disciplines and local markets that Springer Nature's Research business is active in. Furthermore the Research division includes the Healthcare business unit which focuses on clinical publications and scientific communication. The Publishing Service unit offers pre-publishing services and related business services to both internal and external customers. The Healthcare business unit was a separate operating segment which was aggregated with the STM business to one reportable segment. Management concluded, based on an assessment of product types, production and distribution processes and end customers, that economic characteristics of both businesses were similar.

Springer Nature's Education business focuses on producing high-quality teaching and learning materials for global educational markets that are published under the highly respected Macmillan Education brand as well as under local brands and imprints. Key customers are public and private school systems, individual schools in the local markets Springer Nature is active in, as well as individual teachers, university students and pupils. The Education business comprises three different business lines/divisions. The Language Learning division focuses mainly on English Language Teaching content but also produces language learning resources for Spanish and Chinese for certain regions, as well as curriculum materials in Spanish. The Schools Curriculum division creates learning material to fit with the general school (K-12) curricula of countries around the world, whilst the Higher Education division publishes books/educational material used at university/post graduate level across a wide range of subject areas.

The Professional segment provides high-quality special interest information and services for several professional/B2B markets in Europe. The Professional Road Safety Education business publishes integrated administrative, teaching and learning software, school equipment and road safety education materials for driving schools and training institutes for professional drivers as well as their students. The business unit is active in Germany, France, Spain, Austria and Switzerland. The Professional Medicine business produces educational materials, primary research and industry news publications aimed at healthcare professionals in Germany, Austria and the Netherlands. It also provides marketing and publishing services to medical and pharmaceutical companies. The B2B publishing activities in Germany and the Netherlands are focusing on publications in business, engineering, transport and logistics.

Segmentation of assets and liabilities based on operating segments does not occur, as these measures do not serve as a basis for decision making at segment level.

Transfer prices between operating segments are on an arm's length basis.

Segment information 2017 **in EUR million**	**Research**	**Education**	**Professional**	**Consolidation/ other**	**Group**
Revenues	**1,162.2**	**272.8**	**203.7**	**(1.5)**	**1,637.2**
Thereof from external customers	1,160.6	272.8	203.7	0.1	1,637.2
Thereof from internal customers	1.6	-	-	(1.6)	-
Share of profit/loss of associated companies	1.7	0.6	0.7	-	3.0
EBITDA	**433.4**	**43.2**	**43.0**	**1.4**	**521.0**
Gains/losses from the disposal of businesses/investments	-	2.3	-	(1.5)	0.8
Adjustments (exceptional items)[2]	24.0	3.9	1.1	-	29.0
Adjusted EBITDA	**457.4**	**49.4**	**44.1**	**(0.1)**	**550.8**
Depreciation of property, plant and equipment[3]	(12.9)	(2.3)	(0.8)	-	(16.0)
Amortisation of intangible assets[4]	(141.4)	(15.4)	(3.6)	-	(160.4)
Adjusted operating income	**303.1**	**31.7**	**39.7**	**(0.1)**	**374.4**

Segment information 2016 **in EUR million**	**Research**	**Education**	**Professional**	**Consolidation/ other**	**Group**
Revenues	**1,142.4**	**278.3**	**204.8**	**(0.8)**	**1,624.7**
Thereof from external customers	1,141.2	278.3	204.8	0.4	1,624.7
Thereof from internal customers	1.2	-	-	(1.2)	-
Share of profit/loss of associated companies	0.3	0.7	0.4	-	1.4
EBITDA	**430.5**	**48.0**	**41.0**	**(0.8)**	**518.7**
Gains/losses from the disposal of business/investments	(1.4)	(0.3)	-	(0.4)	(2.1)
Adjustments (exceptional items)[2]	32.5	2.7	2.1	(0.1)	37.2
Adjusted EBITDA	**461.6**	**50.4**	**43.1**	**(1.3)**	**553.8**
Depreciation of property, plant and equipment[3]	(13.2)	(2.0)	(0.8)	-	(16.0)
Amortisation of intangible assets[4]	(122.0)	(12.5)	(3.7)	-	(138.2)
Adjusted operating income	**326.4**	**35.9**	**38.6**	**(1.3)**	**399.6**

[2] Adjustments (exceptional items) relate to effects occurring outside the ordinary course of business or non-recurring effects as the integration and restructuring of businesses or business units, as well as to other exceptional or non-recurring business transactions or events.

[3] Depreciation and impairment of property, plant and equipment excluding impairments and depreciation on fair value adjustments recognised in connection with business combinations.

[4] Amortisation and impairment of intangible assets excluding impairments and amortisation on fair value adjustments recognised in connection with business combinations.

Consolidation/other includes the effects from eliminating transactions between the segments as well as profit or loss relating to discontinued operations.

Segment reconciliation **in EUR million**	**2017**	**2016**
Adjusted operating income	**374.4**	**399.6**
Gains/losses from the disposal of business/investments	(0.8)	2.1
Adjustments (exceptional items)	(29.0)	(37.2)
Amortisation/depreciation and impairment on acquisition related assets[5]	(210.2)	(115.9)
Result from operations	**134.4**	**248.6**
Financial result	(196.7)	(350.8)
Earnings before taxes	**(62.3)**	**(102.2)**
Income taxes	(4.3)	(20.6)
Net result for the period	**(66.6)**	**(122.8)**
Adjustments (exceptional items)	29.0	37.2
Tax effect on adjustments (exceptional items)	(8.9)	(11.4)
Adjusted net result for the period	**(46.5)**	**(97.0)**

[5] Acquisition related assets relate to fair value adjustments recognised in connection with business combinations.

Revenues by geographical market[6] in EUR million	2017	2016
Germany	256.6	244.2
Other EMEA	552.8	528.7
Americas	513.5	540.9
APAC	314.3	310.9
Total revenue	**1,637.2**	**1,624.7**

Non-current assets excluding goodwill in EUR million	31 Dec 2017	31 Dec 2016
Germany	1,238.7	1,270.2
UK	1,043.5	1,180.1
USA	783.7	931.1
Rest of World	660.8	697.2
Total	**3,726.7**	**4,078.6**

[6] Based on the country the customer is located in.

32. Subsequent Events

On 15 February 2018, the Group acquired an additional stake of 30% in Research Square AJE LLC bringing the total share up to 60% for a preliminary contribution of USD 15.2m. The US based business primarily offers language and manuscript editing and translation services to authors of scientific content.

On 16 February 2018 Springer Nature acquired all shares in a German-based congress business with 11 employees located in Germany, for a preliminary purchase price of EUR 12.0m.

There were no further events after the reporting date, which had a significant influence on the net assets, financial position or results of operations of the Group.

Berlin, 23 March 2018

Steven Inchcoombe Rachel Jacobs Martin Mos

Franciscus Vrancken Peeters Daniel Ropers Ulrich Vest

33. Significant Subsidiaries and Participations as at 31 December 2017/2016

	% shareholding	
Name and registered office of entity	**2017**	**2016**
Parent company		
Springer Nature GmbH, Berlin		
Subsidiaries		
Argentina		
Editorial Estrada S.A., Buenos Aires	100.00	100.00
Editorial Puerto de Palos S.A., Buenos Aires	100.00	100.00
Macmillan Publishers S.A., Buenos Aires	100.00	100.00
Springer ADIS Argentina S.A., Buenos Aires	100.00	100.00
Australia		
Macmillan Science and Education Australia Pty Ltd., Victoria	100.00	100.00
Springer Science and Business Media Australia Pty Ltd., Sydney	100.00	100.00
Austria		
Hubert Ebner Verlags GmbH, Thalheim bei Wels	100.00	100.00
Springer Austria Holding GmbH, Vienna	100.00	100.00
Springer-Verlag GmbH, Vienna	100.00	100.00
Botswana		
Macmillan Botswana Publishing Company (Pty), Gaborone	100.00	100.00
Brazil		
Macmillan do Brasil Editora, Commercializdora, Importadorae Distribuitora Ltda., São Paulo	100.00	100.00
Springer Health Do Brasil Ltda., São Paulo	100.00	100.00
China		
Macmillan Information Consulting Services (Shanghai) Co. Ltd., Shanghai	100.00	100.00
Shanghai Springer Information Consulting Services Co., Ltd, Shanghai	100.00	100.00
Colombia		
Macmillan Publishers S.A.S., Bogotá	100.00	100.00
Egypt		
Kawkab Distribution Ltd., Cairo	100.00	100.00
Macmillan Publishers Egypt Ltd., Cairo	100.00	100.00
France		
Codes Rousseau S.A.S., Château d'Olonne	100.00	100.00
Planète Permis S.A.S., Goxwiller	100.00	100.00
Springer Science+Business Media France S.A.R.L., Paris	100.00	100.00
Springer Science +Business Media France S.A.S, Paris	100.00	100.00
Springer-Verlag France S.A.S., Paris	100.00	100.00
Germany		
DriversCoach GmbH, Rahden*	100.00	100.00
FUCHSBRIEFE Dr. Hans Fuchs GmbH, Berlin*	100.00	100.00
FUMO Solutions GmbH, Dornstadt	100.00	-
InfoChem Gesellschaft für chemische Information mbH, Munich*	100.00	100.00
iversity Learning Solutions GmbH, Berlin	100.00	-
Medizinisches Bildungszentrum Deutschland GmbH, Hamburg*	100.00	100.00
MSE Beteiligungen GmbH, Berlin*	100.00	100.00
Spektrum der Wissenschaft Verlagsgesellschaft mbH, Heidelberg*	100.00	100.00
Springer Campus GmbH, Berlin*	100.00	100.00
Springer Customer Service Center GmbH, Heidelberg*	100.00	100.00
Springer Fachmedien München GmbH, Munich*	100.00	100.00
Springer Fachmedien Wiesbaden GmbH, Wiesbaden*	100.00	100.00
Springer Medizin Verlag GmbH, Berlin*	100.00	100.00

Name and registered office of entity	% shareholding 2017	% shareholding 2016
Germany (continued)		
Springer SBM Two GmbH, Berlin*	100.00	100.00
Springer SBM One GmbH, Berlin	73.12	73.12
Springer Science+Business Media Deutschland GmbH, Berlin*	100.00	100.00
Springer Science+Business Media Real Estate GmbH, Berlin*	100.00	100.00
Springer Science+Business Media Real Estate Holding GmbH, Berlin*	100.00	100.00
Springer SBM International GmbH, Berlin*	100.00	100.00
Springer Science+Business Media GmbH, Berlin*	100.00	100.00
Springer Verlag GmbH, Berlin*	100.00	100.00
Tiega 15 GmbH, Berlin*	100.00	100.00
TRIAS GmbH, Dingolfing	100.00	-
Wendel-Verlag GmbH, Kassel*	100.00	100.00
Hong Kong		
Macmillan Publishers (China) Limited, Hong Kong	100.00	100.00
Springer Asia Ltd., Hong Kong	100.00	100.00
India		
Crest Premedia Solutions Private Limited, Pune	100.00	90.00
Macmillan Publishers India Private Limited, Chennai	99.44	98.75
Scientific Publishing Services Private Ltd., Chennai	90.00	90.00
Springer (India) Private Ltd., New Delhi	100.00	100.00
Italy		
Springer-Verlag Italia S.r.l., Milan	100.00	100.00
Springer Healthcare Italia S.r.l., Milan	100.00	100.00
Japan		
Macmillan Language House Limited, Tokyo	100.00	100.00
Nature Japan KK, Tokyo	100.00	100.00
Springer Japan KK, Tokyo	100.00	100.00
Lesotho		
Macmillan Boleswa Publishers (Lesotho) (Pty) Limited, Maseru	100.00	100.00
Mauritius		
Springer SBM Holding Ltd., Ebene	100.00	100.00
Springer SBM Services Ltd., Ebene**	-	100.00
Mexico		
Ediciones Castillo, S.A. de C.V., Mexico City	100.00	100.00
Macmillan Administracion Corporativa, S.A. de C.V., Mexico City	100.00	100.00
Macmillan Publishers, S.A. de C.V., Mexico City	100.00	100.00
Springer Science+Business Media Mexico, S.A. de C.V., Mexico City	100.00	100.00
Mozambique		
Editora Nacional de Mocambique, Maputo	90.00	90.00
Macmillan Educacao Mozambique Limitada, Maputo	80.00	80.00
Namibia		
Edumeds (Pty) Limited, Windhoek	100.00	100.00
Edumeds (Rundu) (Pty) Limited, Windhoek	100.00	100.00
Macmillan Education Namibia Publishers (Pty) Limited, Windhoek	100.00	100.00
Namibia Educational Services (Pty) Limited, Windhoek	100.00	100.00
Namibia Publishing House (Pty) Limited, Windhoek	100.00	100.00
Netherlands		
Checklist Publishing B.V., Dordrecht****	100.00	100.00
College Press Netherlands B.V., Amsterdam****	100.00	100.00
Mekentosj B.V., Dordrecht****	100.00	100.00
Publicount B.V., Rotterdam****	100.00	100.00

Name and registered office of entity	% shareholding 2017	% shareholding 2016
Netherlands (continued)		
Rendement Uitgeverij B.V., Rotterdam****	100.00	100.00
Springer Media B.V., Houten****	100.00	100.00
Springer Science+Business Media B.V., Dordrecht****	100.00	100.00
Springer Science+Business Media Finance B.V., Dordrecht****	100.00	100.00
New Zealand		
Adis International Limited, Auckland	100.00	100.00
Peru		
Macmillan Publishers S.A., Lima	95.16	95.16
Poland		
Macmillan Polska Sp. z o.o., Warsaw	100.00	100.00
Singapore		
Springer Nature Singapore Private Ltd., Singapore	100.00	100.00
South Africa		
Macmillan Author's Share Trust, Johannesburg***	-	-
Macmillan Employee Share Trust, Johannesburg***	-	-
Macmillan South Africa (Pty) Limited, Midrand, (Johannesburg)	75.00	75.00
Springer Science and Business Media South Africa (Pty) Ltd., Midrand (Johannesburg)	100.00	100.00
South Korea		
Macmillan Korea Publishers Limited, Seoul	100.00	100.00
Springer Korea Ltd., Seoul	100.00	100.00
Spain		
Editorial Trafico Vial S.A., Móstoles (Madrid)	100.00	100.00
Macmillan Iberia S.A.U., Madrid	100.00	100.00
Prensa Cientifica S.A., Barcelona	100.00	100.00
Springer Healthcare Iberica S.L.U., Madrid	100.00	100.00
Swaziland		
Macmillan Boleswa Publishers (Pty) Limited, Mbabane	100.00	100.00
Macmillan Education Swaziland (Pty) Limited, Mbabane	100.00	100.00
MSNP Pty Limited, Mbabane	70.00	70.00
Switzerland		
Springer International Publishing AG, Cham	100.00	100.00
Springer Transport Media Schweiz GmbH, Urdorf	100.00	100.00
Taiwan		
Macmillan Taiwan Limited, Taipei City	100.00	100.00
Springer Taiwan Limited, Taipei City	100.00	100.00
Thailand		
Macmillan Publishers (Thailand) Limited, Bangkok	100.00	100.00
Turkey		
Springer Yayincilik Ticaret Limited Sirketi, Istanbul	100.00	100.00
United Kingdom		
BioMed Central Limited, London	100.00	100.00
Current Controlled Trials Limited, London	100.00	100.00
Current Science Limited, London	100.00	100.00
Genome Biology Limited, London	100.00	100.00
HM Publishers Holdings Limited, London	100.00	100.00
Holtzbrinck Publishers Holdings Limited, London	100.00	100.00
Livfe Limited, London	100.00	100.00
Macmillan (SLP) General Partner Limited, Edinburgh	100.00	100.00
Macmillan Limited, London	100.00	100.00

Name and registered office of entity	% shareholding 2017	% shareholding 2016
United Kingdom (continued)		
Macmillan Magazines Limited, London	100.00	100.00
Macmillan Pension Plan Limited, London	100.00	100.00
Macmillan Publishers Holdings Limited, London	100.00	100.00
Macmillan Publishers Limited, London	100.00	100.00
Macmillan Scottish Limited Partnership, Edinburgh*****	100.00	100.00
Macmillan Subscriptions Limited, London	100.00	100.00
Springer Healthcare Limited, London	100.00	100.00
Springer Nature One Limited, London	100.00	100.00
Springer Nature Two Limited, London	100.00	100.00
Springer Science+Business Media UK Limited, London	100.00	100.00
Springer-Verlag London Limited, London	100.00	100.00
Stampdew Limited, London	100.00	100.00
United States		
Apress Media LLC, Sacramento	100.00	100.00
KC & COF Inc., Emeryville**	-	100.00
Macmillan Academic Publishing Inc., New York	100.00	100.00
Nature America Inc., New York	100.00	100.00
Rednova Learning Inc., Florida	100.00	100.00
Springer Customer Service Center LLC, Wilmington	100.00	100.00
Springer Healthcare LLC, Wilmington	100.00	100.00
Springer Science+Business Media LLC, Boston	100.00	100.00
Springer Science+Business Media Finance Inc., Wilmington	100.00	100.00

* The Group has made use of the exemption clause of section 264 paragraph 3 number 4a HGB (“Handelsgesetzbuch”: German Commercial Code), relieving it from the duty to publish and file the separate financial statements of these German entities.

** Merged, liquidated or deregistered

*** Springer Nature controls the trusts through the trustees which are nominated by a subsidiary of the Group.

**** The Group has made use of the exemption clause of Part 9 Section 403 (I) (b) Book 2, of the Netherlands Civil Code, relieving it from the duty to publish and file separate financial statements for these Dutch entities.

*****The Group has an interest in the Macmillan Scottish Limited Partnership which is fully consolidated into the consolidated financial statements. The Group has made use of the exemption conferred by Regulation 7 of the Partnerships (Accounts) Regulations 2008 and has, therefore, not appended the accounts of this qualifying partnership to these financial statements. Separate accounts for the partnership are not required to be, and have not been, filed at Companies House in the UK.

34. Associates as at 31 December 2017/2016

Name and registered office of entity	**% shareholding**	
	2017	**2016**
France		
Pour la Science S.A.R.L., Paris	50.00	50.00
Germany		
11 Academia Networks GmbH, Berlin	40.00	-
GbR Musik in Geschichte und Gegenwart, Kassel	50.00	50.00
med update GmbH, Wiesbaden*	50.00	50.00
Springer-VDI-Verlag GmbH, Düsseldorf	45.00	45.00
Springer-VDI-Verlag GmbH & Co. KG, Düsseldorf	45.00	45.00
Italy		
Le Scienze S.p.A., Rome	50.00	50.00
Japan		
Nikkei Science Inc., Tokyo	50.00	50.00
Spain		
Ediciones Bilingues SL, Madrid	50.00	50.00
United Kingdom		
FMC 2011 Limited, Shenley	31.00	-
United States		
Research Square LLC, Durham	30.00	30.00
Zimbabwe		
College Press Publishers (Pty) Limited, Harare	48.91	48.91

* 49.00% of voting rights

35. Other Investments as at 31 December 2017/2016

Name and registered office of entity	**% shareholding**	
	2017	**2016**
Akademie der Deutschen Medien gGmbH, Munich, Germany	5.00	5.00
Editorial Delti Mexico S.A. DE C.V., Mexico City, Mexico	15.18	15.18
Inchi Trust Ltd. (Limited by Guarantee), Cambridge, UK	50.00	50.00
King’s Cross and St. Pancras Business Partnership Ltd., London, UK	12.50	12.50
Princeton Architectural Press, Inc., New York, USA	1.10	1.10
Repro India Limited, Mumbai, India	15.00	15.00

The following English-language translation of the German-language independent auditor's report (Bestätigungsvermerk des unabhängigen Abschlussprüfers) refers to the consolidated financial statements, prepared in accordance with International Financial Reporting Standards as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ("Handelsgesetzbuch": German Commercial Code), as well as the group management report, prepared on the basis of German commercial law (HGB), of Springer Nature GmbH, Berlin, as of and for the year ended December 31, 2017 as a whole and not solely to the consolidated financial statements presented in this prospectus on the preceding pages. The group management report is not part of this prospectus.

Independent Auditor's Report

To Springer Nature GmbH

Opinions

We have audited the consolidated financial statements of Springer Nature GmbH, Berlin, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2017, the consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of cash flows and consolidated statement of changes in equity for the fiscal year from 1 January 2017 to 31 December 2017, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Springer Nature GmbH for the fiscal year from 1 January 2017 to 31 December 2017.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2017 and of its financial performance for the fiscal year from 1 January 2017 to 31 December 2017, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Other information

The executive directors are responsible for the other information. The other information comprises parts of information in the annual company report, which will be presumably provided to us after the date of our report, except for the consolidated financial statements, the group management report and our independent auditor's report.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the executive directors and the supervisory board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with (German) law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Berlin, 23 March 2018

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

(signed)	*(signed)*
Kausch-Blecken von Schmeling Wirtschaftsprüfer (German Public Auditor)	Weiß Wirtschaftsprüfer (German Public Auditor)

Consolidated Financial Statements of
Springer SBM Zero GmbH
as of and for the year ended December 31, 2016 (IFRS)

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Consolidated Statement of Profit or Loss

in EUR million	Note	2016	2015
Revenues	1	1,624.7	1,470.7
Other operating income	2	82.8	58.3
Internal costs capitalised	3	43.4	28.6
Change in inventories		(4.3)	(20.1)
Cost of materials	4	(204.8)	(197.3)
Royalty and licence fees	5	(118.4)	(119.4)
Personnel costs	6	(514.4)	(457.1)
Other operating expenses	7	(393.8)	(365.6)
Income from associates and other investments	16	1.4	1.2
Gains/losses from the disposal of businesses/investments		2.1	0.0
Earnings before interest, taxes, depreciation and amortisation (EBITDA)		**518.7**	**399.3**
Amortisation and impairment of intangible assets	8	(253.3)	(243.3)
Depreciation of property, plant and equipment	8	(16.8)	(16.4)
Results from operations		**248.6**	**139.6**
Financial expenses	9	(439.1)	(388.8)
Financial income	9	88.3	69.3
Financial result		**(350.8)**	**(319.5)**
Earnings before taxes		**(102.2)**	**(179.9)**
Income taxes	10	(20.6)	36.0
Net result for the period		**(122.8)**	**(143.9)**
Net result attributable to:			
Owners of the parent		(122.5)	(141.6)
Non-controlling interests		(0.3)	(2.3)
Net result for the period		**(122.8)**	**(143.9)**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Comprehensive Income

in EUR million	Note	2016	2015
Net result for the period		**(122.8)**	**(143.9)**
Other comprehensive income not to be reclassified to profit or loss in subsequent periods (after taxes):			
Actuarial gains and losses on pension plans (net)	23	(63.6)	15.5
Deferred taxes on actuarial gains and losses (net)	10	13.2	(4.1)
Items not to be reclassified to profit or loss		**(50.4)**	**11.4**
Other comprehensive income to be reclassified to profit or loss in subsequent periods (after taxes):			
Currency translation differences		(163.4)	27.6
Changes in the fair value of available-for-sale financial assets	30	-	0.0
Deferred taxes on changes in the fair value of available-for-sale financial assets	10	-	0.0
Items to be reclassified to profit or loss		**(163.4)**	**27.6**
Other comprehensive income/loss for the period (after taxes)		**(213.8)**	**39.0**
Total comprehensive loss for the period		**(336.6)**	**(104.9)**
Total comprehensive loss attributable to:			
Owners of the parent		(334.4)	(102.7)
Non-controlling interests		(2.2)	(2.2)
Total comprehensive loss for the period		**(336.6)**	**(104.9)**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Financial Position

Assets **in EUR million**	**Note**	**31 Dec 2016**	**31 Dec 2015**
Goodwill	12	1,330.0	1,346.9
Other intangible assets	13	3,923.4	4,154.5
Property, plant and equipment	15	155.2	173.0
Investments in associates	16	20.3	7.6
Financial assets	17	4.2	5.3
Other non-current assets		8.7	12.5
Deferred tax assets	10	7.6	8.5
Non-current assets	11	**5,449.4**	**5,708.3**
Inventories	18	73.7	84.2
Trade receivables	19	464.5	477.3
Income tax receivables		16.1	10.2
Other current assets	20	65.2	91.3
Cash and cash equivalents	21	97.0	117.3
Current assets		**716.5**	**780.3**
Total assets		**6,165.9**	**6,488.6**

Equity and liabilities **in EUR million**	**Note**	**31 Dec 2016**	**31 Dec 2015**
Share capital		0.1	0.1
Capital reserves		771.2	771.2
Retained earnings/other accumulated equity		(561.4)	(206.1)
Net result for the period attributable to owners of the parent		(122.5)	(141.6)
Shareholders' equity		**87.4**	**423.6**
Non-controlling interests		(4.2)	(2.3)
Equity	22	**83.2**	**421.3**
Liabilities to shareholders	24	955.2	882.3
Provisions for pensions and other long-term employee benefits	23	265.8	215.2
Interest-bearing loans and borrowings	24	3,097.0	3,058.6
Finance lease liabilities	25	6.1	7.0
Other long-term provisions and non-current liabilities	26	22.4	17.0
Deferred tax liabilities	10	825.3	898.3
Long-term provisions and non-current liabilities		**5,171.8**	**5,078.4**
Interest-bearing loans and borrowings	24	83.8	77.4
Finance lease liabilities	25	1.3	1.3
Provisions	26	28.5	34.7
Trade payables		134.4	127.1
Income tax payables		26.5	24.3
Other current liabilities	27	315.9	347.6
Deferred income	28	320.5	376.5
Short-term provisions and current liabilities		**910.9**	**988.9**
Total equity and liabilities		**6,165.9**	**6,488.6**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Cash Flows

in EUR million	Note	2016	2015
Net result for the period		**(122.8)**	**(143.9)**
Financial expenses	9	439.1	388.8
Financial income	9	(88.3)	(69.3)
Income taxes	10	20.6	(36.0)
Result from operations		**248.6**	**139.6**
Amortisation and impairment of intangible assets	8	253.3	243.3
Depreciation of property, plant and equipment	8	16.8	16.4
Earnings before interest, taxes, depreciation and amortisation (EBITDA)		**518.7**	**399.3**
Non-cash expenses and income		(5.3)	16.5
Change in non-current provisions and long-term receivables	23,26	(16.7)	(4.2)
Change in inventories	18	6.1	37.1
Change in trade receivables	19	2.4	(127.2)
Change in trade payables		8.7	7.2
Change in deferred income	28	(46.8)	19.0
Change in other assets and liabilities		(12.6)	27.1
Income tax payments	10	(52.3)	(33.2)
Net cash from operating activities		**402.2**	**341.7**
Cash paid for investments in intangible assets	13	(27.0)	(23.1)
Cash paid for investment in content	13	(137.4)	(102.0)
Cash paid for investments in property, plant and equipment	15	(17.6)	(19.5)
Cash paid for investments in financial assets		(0.0)	(1.0)
Cash paid for acquired business		(12.3)	(5.8)
Cash and cash equivalents acquired		-	39.4
Proceeds from divestiture of businesses		2.2	4.9
Proceeds from disposal of property, plant and equipment		6.1	2.0
Proceeds from disposal of intangible assets		0.0	2.8
Proceeds from disposal of other financial assets		-	0.2
Cash received/(paid) for available for sale financial instruments		8.9	(8.1)
Net change in loans granted	24	0.0	-
Net cash from investing activities		**(177.1)**	**(110.2)**
Interest paid (including financing-related fees)		(216.8)	(206.5)
Interest received		5.0	5.2
Cash paid and received for interest	9,24	(211.8)	(201.4)
Cash repayment of financial liabilities to third parties	24,30	(620.9)	(552.3)
Cash repayments and other payments to shareholders	24	-	(257.1)
Cash received from borrowing financial liabilities from third parties	24	589,8	757.0
Cash received from shareholder loans	24	-	80.0
Capital increases	22	-	0.0
Cash paid for dividends paid to non-controlling interests		(1.5)	(0.1)
Cash repayment of finance lease liabilities	25	(1.3)	(1.4)
Net cash from financing activities		**(245.7)**	**(175.3)**
Change in cash and cash equivalents		**(20.6)**	**56.2**
Net foreign exchange difference		0.3	(5.3)
Cash and cash equivalents at beginning of the period		**117.3**	**66.9**
Cash and cash equivalents at end of the period	21	**97.0**	**117.3**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Changes in Equity

in EUR million	Share capital	Capital reserves	Other accumulated equity	Retained earnings	Shareholders' equity	Non-controlling interests	Total equity
Note	22	22	22				
Balance as at 31 Dec 2014	**0.0**	**321.2**	**(20.9)**	**(224.0)**	**76.3**	**(1.8)**	**74.5**
Capital increase	0.1	450.0			450.1		450.1
Net result for the period				(141.6)	(141.6)	(2.3)	(143.9)
Other comprehensive income			38.7		38.7	0.1	38.8
Total comprehensive income/loss for the period			38.7	(141.6)	(102.9)	(2.2)	(105.1)
Non-controlling interests from business combinations					0.0	1.8	1.8
Dividends					0.0	(0.1)	(0.1)
Other			0.1		0.1		0.1
Balance as at 31 Dec 2015	**0.1**	**771.2**	**17.9**	**(365.6)**	**423.6**	**(2.3)**	**421.3**
Repurchase of B shares	(0.0)		0.0		(0.0)		(0.0)
Net result for the period				(122.5)	(122.5)	(0.3)	(122.8)
Other comprehensive loss			(213.7)		(213.7)	(0.1)	(213.8)
Total comprehensive loss for the period			(213.7)	(122.5)	(336.2)	(0.4)	(336.6)
Dividends					0.0	(1.5)	(1.5)
Balance as at 31 Dec 2016	**0.1**	**771.2**	**(195.8)**	**(488.1)**	**87.4**	**(4.2)**	**83.2**

The accompanying notes form an integral part of the consolidated financial statements.

Notes to the Consolidated Financial Statements

Corporate Information

Springer SBM Zero GmbH, a limited liability company, is the parent of the Springer Nature Group. Springer SBM Zero GmbH is referred to as the "company" in these financial statements when considering the legal entity and it is referred to as the "Group" or "Springer Nature" when considering the entire group of entities and subsidiaries directly or indirectly held by the company.

Springer Nature is a leading global research, educational and professional publisher, home to an array of respected and trusted brands providing quality content through a range of innovative products and services. Springer Nature is the world's largest academic book publisher, publisher of the world's most influential journals and a pioneer in the field of open research. The Group numbers almost 12,000 employees in almost 50 countries. Springer Nature was formed in 2015 through the merger of large parts of the Science and Education Business of the Holtzbrinck Publishing Group (MSE) and the Springer Science+Business Media Group (Springer). The former MSE business consists of two business lines, i.e. the Macmillan Science & Scholarly business (MSS), comprised of the Nature Publishing Group and Palgrave Macmillan and the Macmillan Education business (Education).

The Group is controlled through its parent company, Springer SBM Zero GmbH, in which Holtzbrinck Publishing Group holds 53.0% and 47.0% is held by a company that is controlled by funds advised by BC Partners (BC Funds).

The registered office of the Company is located at Heidelberger Platz 3, 14197 Berlin, Germany.

The consolidated financial statements were approved for issue by resolution of management on 26 July 2017.

General Principles

The consolidated financial statements of Springer SBM Zero GmbH ("Springer Nature Group financial statements" or "consolidated financial statements") were prepared in accordance with all mandatory International Financial Reporting Standards (IFRS) and International Financial Reporting Interpretations (IFRIC) as endorsed by the European Union, and with the additional requirements of commercial law pursuant to Sec. 315a HGB ("Handelsgesetzbuch": German Commercial Code, "Konzernabschluss nach internationalen Rechnungslegungsstandards").

The financial year comprised the period from 1 January to 31 December 2016. The reporting date of the company and of all subsidiaries, with the exception of the entities in India and Mauritius, is 31 December.

For statutory reasons, the financial year of the subsidiaries in India and Mauritius starts as at 1 April and ends as at 31 March. These entities report to Springer Nature as at 31 December and apply the IFRS financial reporting principles and the accounting policies applicable for the group entities as if 31 December were the end of the reporting period.

MSE and Springer were merged in May 2015. MSE was contributed to Springer. This led to the inclusion of MSE's financials in the financial statements of Springer Nature from the date of the merger. The comparability of information related to the consolidated statement of cash flows and the consolidated statement of profit or loss, as well as the analysis of the movements between 2015 and 2016, is, therefore, limited.

The consolidated financial statements are prepared in Euros. All amounts are stated in millions of Euro (EUR m) except where otherwise indicated. The numbers are rounded to one decimal place, which may cause rounding differences. If numbers are rounded to zero "0.0" or "(0.0)" is presented, in case of no values "-" is reported. The consolidated financial statements were prepared on a historical cost basis, except for financial instruments that were measured at fair value. The statement of profit or loss was prepared using the nature of expense method.

First-time applied Financial Reporting Standards and Interpretations

First-time application of new financial reporting standards and interpretations in 2016 resulted in no material changes to Springer Nature's consolidated financial statements.

New International Financial Reporting Standards and Interpretations

The IASB or IFRIC have published pronouncements that are not yet effective and have not yet been adopted by Springer Nature. The Group intends to apply all standards and interpretations when they become mandatory. The new accounting standards that may result in changes for Springer Nature are described below.

Standards adopted by the EU

- *IFRS 9 Financial Instruments*

In July 2014, the IASB issued the final version of IFRS 9 (Financial Instruments) that replaces IAS 39 (Financial Instruments: Recognition and Measurements) and all previous versions of IFRS 9. IFRS 9 covers all three aspects that were analysed and assessed as part of the financial instruments project: classification and measurement, impairment, and hedge accounting. IFRS 9 is mandatory for reporting periods beginning on or after 1 January 2018. Early adoption is permitted.

IFRS 9 introduces a uniform approach for classifying and measuring financial assets. The standard is based on the characteristics of the underlying cash flows and the business model by which these cash flows are managed. IFRS 9 provides a new impairment model that is based on the expected credit defaults. The standard contains new regulations on the application of hedge accounting in order to better present the risk management activities of an entity, in particular with regard to the management of non-financial risks.

Springer Nature plans to adopt the new standard as at 1 January 2018. In 2016, the Group performed a high-level impact assessment of all three aspects of IFRS 9. This preliminary analysis was based on information available at that time. The result may therefore change when further detailed analyses will be conducted and/or additional information will become available to Springer Nature in future.

After considering the classification and measurement requirements of IFRS 9, Springer Nature expects to continue to measure all financial assets at fair value that are currently held at fair value. Loans as well as trade receivables are held to collect contractual cash flows and are expected to give rise to cash flows representing solely payments of principal and interest. Thus, the Group expects that these will continue to be measured at amortised cost under IFRS 9. However, Springer Nature will analyse the contractual cash flow characteristics of those instruments in more detail before concluding whether all those instruments meet the criteria for measurement at amortised cost under IFRS 9.

IFRS 9 requires the Group to record expected credit losses on all of its loans and trade receivables, either on a 12-month or lifetime basis. Due to the new impairment model, earlier recognition of possible losses on non-current financial assets can arise, but the Group will need to perform a more detailed analysis considering all reasonable and supportable information, including forward-looking elements to determine the extent of the impact.

As IFRS 9 does not change the general principles of how an entity accounts for effective hedges, the Group does not expect a significant impact as a result of applying IFRS 9. A deeper analysis will take place in the course of 2017.

Overall, the Group currently expects no significant impact on its statement of financial position and equity from the application of IFRS 9.

- *IFRS 15 Revenue from Contracts with Customers*

IFRS 15 was issued in May 2014 and establishes a five-step model to account for revenues arising from contracts with customers. IFRS 15 replaces IAS 11 “Construction Contracts” and IAS 18 “Revenue” as well as the associated interpretations. The standard is effective for reporting periods beginning on or after 1 January 2018. In general the standard must be applied retrospectively, but various transition options and simplifications are allowed. Early adoption is permitted. According to this new standard, revenues should be recognised at the amount of the consideration that the entity expects to receive upon transfer of the promised goods or services to the customer. IFRS 15 also includes guidance on the presentation of contract balances, that is, assets and liabilities arising from contracts with customers, depending on the relation between the entity’s performance and the customer’s payment. In addition, the new standard encourages entities to disclose sufficient information to enable readers of financial statements to understand the nature, amount, timing and uncertainty of revenues and cash flows arising from contracts with customers.

In 2016, the Group started an initial analysis of areas potentially affected by the application of the new standard. Springer Nature will finally assess whether it opts for the full or modified retrospective application after a group-wide detailed analysis of revenue streams and contract models has been conducted in the course of 2017. Although the analysis is still in a rather early stage, Springer Nature currently does not expect material changes regarding the timing and measurement of its revenue recognition for license and service income from the initial application of IFRS 15.

For the sale of goods (especially print books) no material change is expected to result from the application of IFRS 15, as the revenue recognition is still expected to take place when the goods are delivered and risks are transferred to the customer. Also Springer Nature's current approach to account for expected returns is considered to be in line with the provisions in IFRS 15. The Group will, however, continue to assess if the application of IFRS 15 will result in adjustments.

The new standard provides presentation and disclosure requirements, which are more detailed than under current IFRS and which will significantly increase the volume of disclosures in Springer Nature's financial statements, for example regarding disaggregation of revenues, contract balances, performance obligations as well as significant judgements applied. Many of the disclosure requirements in IFRS 15 are completely new. These disclosure requirements will also form part of the detailed analysis and implementation roadmap in 2017.

Standards not yet adopted by the EU

- *IFRS 16 Leases*

IFRS 16 was issued in January 2016 and replaces IAS 17 (Leases) and associated interpretations. IFRS 16 is effective for financial years starting on or after 1 January 2019. Early application is permitted, as long as IFRS 15 has already been applied. The EU endorsement of IFRS 16 is still pending. According to the new regulation, lessees are required to account for all leases in the form of a right of use, and a corresponding leasing liability. A lease contract exists if the fulfilment of the contract depends on the use of an identifiable asset, and the customer simultaneously acquires control of this asset. The presentation in the statement of profit or loss is essentially a finance lease transaction, so that the right of use usually depreciates on a straight-line basis, and the leasing liability is updated using the effective interest method. The standard includes two recognition exemptions for lessees - short-term leases, i.e., leases with a total term of a maximum of 12 months, and leases of low value assets, i.e. acquisition costs of up to USD 5,000. In such cases, the lessee has the option of selecting an accounting method which is similar to that of the previous operating lease.

The review of the impact of the new standard on Springer Nature's financial statements is still ongoing but has shown so far that the new rules affect in particular the accounting and measurement of rental and leasing contracts, which are currently classified as operating leases. These mainly comprise of leased office space, leased cars and other leased office equipment and IT infrastructure, which will lead to the recognition of respective rights of use and corresponding leasing liabilities resulting in an increase of the total asset/liability figure at first time adoption. As such, the first-time adoption of the standard will result in an increase in total assets and liabilities.

Currently, the costs for operating lease contracts are included within other operating expenses in the consolidated statement of profit or loss. After the adoption, amortisation of the right of use and interest expense for the leasing liability will be included in the consolidated statement of profit or loss instead.

Payments for operating lease contracts are currently included in the net cash from operating activities but will be included in net cash from financing activities under the new standard. The future minimum lease payments from operating leases are disclosed in note 29, but at the present time conclusive and complete information on the effects of the new rules on our financial reporting cannot be provided.

Consolidation Principles

The consolidated financial statements include Springer SBM Zero GmbH and all significant entities controlled directly or indirectly by Springer SBM Zero GmbH. A list of consolidated subsidiaries including their registered office and respective shareholding is set out in note 34. The company's financial statements and the financial statements of the subsidiaries included in the consolidated financial statements were prepared in accordance with standardised accounting policies.

Subsidiaries are consolidated from the date of acquisition, being the date on which the Group obtains control, and continue to be consolidated until the date when such control ceases. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

All business combinations are accounted for using the acquisition method. According to IFRS this requires to identify the acquirer, to determine the acquisition date, to recognise and measure the identifiable assets acquired as well as the liabilities assumed and any non-controlling interest in the acquiree. The cost of an acquisition is determined as the aggregate of the consideration transferred, measured at the acquisition date's fair value, and the amount of any non-controlling interest in the acquiree. For each business combination, management individually determines whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets.

Any contingent consideration to be transferred by the acquirer that is classified as an asset or liability is measured at fair value with the changes in fair value recognised in the consolidated statement of profit or loss. Any contingent consideration that is classified as equity is not remeasured and the subsequent settlement is accounted for within equity. Identifiable assets acquired, as well as liabilities and assumed contingent liabilities are measured at their fair value at the acquisition date, regardless of any remaining non-controlling interests in the acquired business.

Any excess of the consideration over the fair value of the net assets acquired is recognised as goodwill. Should the fair value of the acquired net assets exceed the cost of the acquisition, the difference is recognised in the consolidated statement of profit or loss.

Acquisition-related costs incurred as part of the business combination are included in other operating expenses.

Fair value adjustments recognised in the course of the purchase price allocation (e.g., for trademarks, customer relationships, journal portfolios) result from the difference between the fair value of acquired assets and the carrying amounts of each of those assets, determined in accordance with IFRS, at the acquisition date.

All gains, losses, revenues, expenses, income, assets, liabilities, and provisions from intercompany transactions are eliminated. Intercompany profits included in inventories and non-current assets are eliminated in the consolidated statement of profit or loss.

Associates in which the Group has significant influence to participate in the financial and operating policy are included in the consolidated financial statements using the equity method, based on separate IFRS financial statements. Goodwill relating to the associate or joint venture is included in the carrying amount of the investment and is not tested for impairment separately. The financial statements of the associate or joint venture are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring the accounting policies in line with those of the Group. Losses in excess of the carrying amount of the investment are not recognised unless there is an obligation to make additional capital contributions. Intercompany profits and losses are eliminated pro rata. Carrying amounts of investments are tested for impairment and are written down to their recoverable amount if needed.

Scope of Consolidation

The following table shows the number of entities consolidated by Springer SBM Zero GmbH in 2016 and 2015:

Development in Scope of Consolidation	2016	2015
Fully consolidated entities as at 1 Jan	131	77
Additions	4	61
Mergers/liquidations	(5)	(7)
Fully consolidated entities as at 31 Dec	**130**	**131**
Thereof German entities	21	21

Additions 2016

There were no significant additions in 2016.

Additions 2015

On 23 December 2014, funds advised by BC Partners reached an agreement with the Holtzbrinck Publishing Group (Holtzbrinck) to merge the Springer Science+Business Media Group with material parts of Holtzbrinck's Science and Education business. The transaction was closed on 5 May 2015 after the precedent conditions were fulfilled. According to the contractual arrangements none of the shareholders has control over the group.

The former MSE consisted of two businesses: MSS and Education. MSS comprised the publishing of journals in Science, Technical and Medical (STM), including the flagship journal Nature, as well as English language books and journals in social sciences and humanities whereas the Education business publishes books and materials for the K-12 educational markets as well as English language teaching materials.

As the business combination on the level of Springer SBM Zero GmbH had substance from the perspective of the reporting entity, the transaction was accounted for under the acquisition method in line with IFRS 3 and the acquirer and the acquisition date were identified and the purchase price was determined. Springer SBM Zero GmbH was identified as the acquirer and MSE Group as the acquiree.

The shares in MSE were contributed to Springer SBM One GmbH, the direct subsidiary of Springer SBM Zero GmbH, by virtue of a contribution in kind. In exchange, new ordinary shares and preference shares were issued to GvH Vermögensverwaltungsgesellschaft XXXIII mbH ("GvH"), a subsidiary of the Holtzbrinck Publishing Group. In a second step, GvH contributed its ordinary shares in SBM One GmbH to SBM Zero in exchange for shares in this company.

The contribution transferred for the acquisition of MSE by the company amounted to EUR 1,252.6m and consisted of EUR 857.2m for the ordinary and preferences shares given in exchange for the contribution of MSE, and EUR 395.4m of assumed liabilities due to the Holtzbrinck Publishing Group which were settled at closing.

The fair values of the identifiable assets and liabilities of the MSE business at the date of acquisition were as follows:

in EUR million	Fair value
Intangible assets	1,378.8
Property, plant and equipment	123.8
Other financial assets, investment in associates and other non-current assets	5.3
Deferred tax assets	39.2
Inventories, trade receivables and other current assets	294.8
Cash and cash equivalents	39.0
Total assets	1,880.9
Provisions for pensions and other long-term employee benefits, other long-term provisions and non-current liabilities	70.7
Finance lease liabilities	0.2
Deferred tax liabilities	314.1
Short-term interest-bearing loans and borrowings	2.9
Other current provisions and accruals, trade payables and other current liabilities (including liabilities for income taxes and other taxes)	163.9
Deferred income	135.2
Total provisions and liabilities	687.0
Total identifiable net assets at fair value	**1,193.9**
Share of non-controlling interests in net assets	1.8
Acquisition costs	1,252.6
Goodwill	**60.5**

The intangible assets of EUR 1,378.8m mainly consisted of EUR 281.5m for trademarks, EUR 406.5m for publishing rights of academic journals and educational book series, EUR 12.0m for co-publishing rights from exclusive contracts with academic societies, EUR 463.5m for mature customer relationships in the journal and Education business, and EUR 176.5m for the contractual right to use the "Macmillan" trademark exclusively. Assets with a carrying amount of EUR 494.1m, comprising trademarks (EUR 409.1m) and publishing rights (EUR 85.0m), had an indefinite useful life.

The gross amount of trade receivables acquired amounted to EUR 185.7m. Valuation allowances of EUR 25.4m was recognised on this amount.

Goodwill of EUR 60.5m reflected the value for expected revenues from business with new customers, increasing revenues from existing business relationships due to additional services and products sold, new sources of income through the development of new products based on the existing content databases, as well as intangible assets that cannot be separated such as the employees and their specialist knowledge. Goodwill also includes expected synergy effects resulting from the business combination. Goodwill of EUR 16.5m was expected to be deductible for income tax purposes.

The MSE business was consolidated as at the closing date of 5 May 2015 and since then has contributed EUR 483.5m to revenues and EUR 92.5m to EBITDA. If the business had been included as at 1 January 2015, it would have contributed EUR 666.9m and EUR 98.6m to 2015 revenues and EBITDA respectively.

Further business combinations that occurred in 2015 related to the acquisition of 100.0% of the shares in J.B. Metzler Verlag GmbH (formerly: J. B. Metzler'sche Verlagsbuchhandlung and Carl Ernst Poeschel Verlag GmbH) (Stuttgart, Germany) as at 1 August 2015 and DriversCoach GmbH (Hüllhorst, Germany) as at 13 August 2015. In addition, some assets in the area of healthcare publishing were acquired in the Netherlands as at 25 August 2015.

These business combinations were carried out in the context of Springer Nature's strategy, and individually had no material effects on the financial position, liquidity, and financial performance of the group.

The acquisition costs for all these three acquisitions in 2015 came to EUR 6.2m and consisted of the purchase prices paid and contingent consideration of EUR 1.1m. The acquisition-related expenses recorded in other operating expenses came to EUR 0.3m in 2015.

The contingent consideration resulted from an earn-out provision and was recorded at its fair value as at the acquisition date. The earn-out obligation becomes payable if certain predefined performance measures will be met in the years 2017 to 2019.

Based on the individual purchase price allocations, the cumulative acquisition costs of the business combinations were allocated to the purchased assets and liabilities as follows:

in EUR million	Fair value
Intangible assets	4.0
Investments in associates	0.5
Deferred tax assets	0.1
Inventories, trade receivables and other current assets	2.6
Cash and cash equivalents	0.4
Total assets	7.6
Provisions for pensions and similar obligations	0.1
Deferred tax liabilities	0.1
Trade payables, current provisions and other liabilities (including liabilities for taxes)	3.1
Total provisions and liabilities	3.3
Total identifiable net assets at fair value	**4.3**
Acquisition costs	6.2
Goodwill	**1.9**

Goodwill of EUR 1.9m mainly reflected the value for expected revenues from business with new customers, intangible assets that cannot be separated such as the workforce and their specialist knowledge and strategic advantages arising from the market position of the acquiree. Only the goodwill recognised for the Dutch healthcare publishing activities of EUR 0.7m is tax-deductible.

Since their respective initial consolidations, these businesses contributed a total amount of EUR 5.8m to the Group's revenues and EUR 1.3m to EBITDA in 2015. If the acquisitions had already been finalised as at 1 January 2015, these businesses would have contributed a total amount of EUR 14.6m to the consolidated revenues in 2015.

Foreign Currency Translation

In Springer Nature's consolidated financial statements, the financial statements of foreign subsidiaries are translated into Euro using the functional currency concept in accordance with IAS 21. Since all subsidiaries conduct their financial, commercial and organisational activities independently, their respective local currency is the functional currency.

Foreign currency transactions are translated into the respective functional currency using the exchange rate applicable at the time of the transaction. Gains and losses from the settlement of such transactions or from the valuation of the corresponding monetary assets and liabilities at the closing date are included in the statement of profit or loss. Monetary assets and liabilities are translated into the respective functional currency at the closing rate whereas non-monetary assets and liabilities are translated at their applicable historic rate.

For presentation in the Group's reporting currency, the assets and liabilities of subsidiaries whose functional currency is not the Euro are translated at the closing rate while the statement of profit or loss is translated at the average rate for the period. Equity components are translated at the historical exchange rate. Currency translation differences are recognised in other comprehensive income.

When subsidiaries are disposed of, any related cumulative translation difference is reclassified to the consolidated statement of profit or loss.

Goodwill and fair value adjustments of assets and liabilities from the acquisition of subsidiaries are allocated to the acquired entity and translated into the Group's presentation currency at the closing rate as at the end of the reporting period.

The following exchange rates were used to translate the currencies which are significant to the Group:

Foreign currency unit per EUR 1	Average rate 2016	Closing rate 31 Dec 2016	Average rate 2015	Closing rate 31 Dec 2015
British Pounds	0.8191	0.8553	0.7260	0.7340
Japanese Yen	120.3732	123.4096	134.2877	131.0702
Swiss Francs	1.0902	1.0738	1.0676	1.0835
US dollar	1.1069	1.0540	1.1096	1.0887

Accounting Policies

Fair Value Measurement

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When measuring fair value, it is assumed that the transaction in the course of which the asset is sold or the liability is transferred is taking place either (a) on the principal market for the asset or (b) on the most advantageous market for the asset or the liability (if no principal market exists). The Group must have access to the principal market or the most advantageous market.

The fair value of an asset or liability is measured based on the assumptions that market participants would make when setting the price. It is assumed that the market participants are acting in their best economic interest.

Measurement of the fair value of a non-financial asset takes into account the ability of the market participant to generate economic benefit through the highest and best use of the asset or by selling it to another market participant that will find the highest and best use for the asset.

The Group applies valuation techniques that are appropriate under the respective circumstances and for which sufficient data for fair value measurement is available. The use of relevant observable input factors should be as high as possible, while the use of input factors not based on observable data should be as low as possible.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are classified on the basis of the following fair value hierarchy. The classification uses the input factors of the lowest category that is material to the fair value measurement.

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: input factors other than quoted prices included within Level 1 that are observable for the assets and liabilities, either directly, i.e. as prices, or indirectly, i.e. derived from prices.
- Level 3: input factors that are not based on observable market data.

For assets or liabilities that are recorded in the financial statements on a recurring basis, the Group examines the classification at the end of each reporting period and makes corresponding reclassifications as necessary.

Revenue Recognition

Revenues from the sale of products are recognised when the significant risks and rewards of ownership of the goods are transferred to the customer, the sales price is determinable and receipt of payment can be assumed.

Print subscription revenues for journals/magazines are recognised at the time the journal/magazine is dispatched to the customer. Subscription revenues for academic journals, for which the content is made available electronically to the customer, are recognised pro-rata temporis over the period of the subscription.

Revenues from service type projects are recognised by applying the percentage-of-completion method, when the outcome of the project contract can be reliably estimated based on the percentage of costs incurred to date compared to the contractual milestones. Revenues associated with the project are recognised by reference to the stage of completion of the transaction at the end of the reporting period. An expected loss on a project is recognised as an expense immediately. Costs incurred before a milestone is completed are recognised as work-in-progress within inventories.

If discounts are granted to customers and the customer settles the invoice within the period the discount relates to, the amount deducted by the customer is recorded as a sales deduction. Revenues are also stated net of allowances and corrections for expected returns.

Interest income and expenses are allocated to the period they relate to. Dividends are recognised in the period in which the distribution is approved.

Goodwill

Goodwill is allocated to a single cash-generating unit (CGU) or a group of cash-generating units that are expected to benefit from the business combination. The Group's CGUs reflect the lowest level of the operating segments that management monitors for goodwill.

Goodwill is not subject to amortisation but tested for impairment annually or whenever there is any indication of impairment. It is measured at cost less accumulated impairment losses. Any loss from impairment is recognised immediately in the consolidated statement of profit or loss and is not subsequently reversed. Gains and losses on the sale of an entity reflect the carrying amount of goodwill attributable to the entity disposed of.

Other Intangible Assets

Intangible assets acquired as part of a business combination are stated in the statement of financial position at their fair values as at the date of acquisition, less any accumulated amortisation and any impairments. Purchased intangible assets are recognised at their acquisition costs plus any directly attributable costs, less any accumulated amortisation and any impairments.

If the conditions as set out in IAS 38 are met, internally generated intangible assets are recognised at their developments costs less any accumulated amortisation and impairment losses. The development costs comprise all costs directly or indirectly attributable to the assets incurred during the development phase, which begins at the time of having demonstrated the technical feasibility and ends upon completion of the asset.

Intangible assets considered to have a definite life are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired (triggering event). The following group-wide economic useful lives are assumed:

Intangible assets	Useful life
Internally generated intangible assets	3 to 10 years
Acquired rights and licenses	3 to 10 years
Trademark and publishing rights	10 to 40 years

Intangible assets determined to have indefinite lives are not amortised and are subject to impairment review at least annually. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable.

Property, Plant and Equipment

Property, plant and equipment are measured at acquisition or manufacturing cost less accumulated depreciation and impairments. Maintenance expenses are recorded as expenses in the period in which they are incurred, whereas expenses resulting in a prolongation of the asset's useful life or in a significant improvement in its use, are recognised as subsequent costs. Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment.

Items included in property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives. Depreciation is based on the following group-wide economic useful lives:

Asset	Useful life
Buildings	10 to 35 years
Plant, technical equipment and machinery	3 to 10 years
Furniture, fixtures and office equipment	3 to 12 years

Leases

To the extent Springer Nature assumes all significant risks and rewards relating to a leased asset and is thus to be seen as the economic owner of the asset (finance lease), the leased asset is recognised in the statement of financial position. The leased asset is recognised at the amount of the asset's fair value at the inception of the lease or the present value of minimum lease payments, if lower. The lease liability is recognised at the same amount as the respective asset. If it is sufficiently certain that ownership of the leased asset will pass to the Group at the end of the lease term, the asset is depreciated over its economic useful life. Otherwise, it is depreciated over the term of the lease.

In addition to finance leases, the Group has also entered into operating lease agreements. In addition to finance leases, the Group has also entered into operating lease agreements. This means that economic ownership of the leased assets lies with the lessor and lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term. Any benefits resulting from incentives granted are recognised on a straight-line basis as a reduction of the lease instalments over the lease term.

Impairment of Non-Financial Assets

At each reporting date, or if there is a triggering event, Springer Nature tests intangible assets for any indication of impairment. For property, plant and equipment the impairment testing is done only in case of a triggering event.

If there is such an indication, the asset's recoverable amount is determined. If it is not possible to determine the recoverable amount for an individual asset, the recoverable amount for the cash-generating unit (CGU) to which the asset is allocated is used. The recoverable amount of the asset or the CGU is defined as the higher of its fair value less costs to sell and its value in use. An impairment is recognised if the carrying amount exceeds the recoverable amount. The impairment first reduces the carrying amount of the intangible asset or goodwill allocated to the CGU. Any impairment in excess of that is allocated based on the carrying amounts of each asset included in the CGU on a pro rata basis. If the reason for a previously recognised impairment loss no longer exists, the impairment is reversed up to amortised costs, with the exception of goodwill.

In 2016 and 2015, an impairment test was carried out on the basis of value in use, which itself was derived using a discounted cash flow method. When assessing the value in use for each asset or each CGU, management makes certain assumptions regarding the future cash flows of assets or CGUs and risk-adjusted capital costs of assets or CGUs. These assumptions are mainly based on market data and external estimates. They are subject to change and as such can lead to future differences in values in use.

For each of the Group's business lines, cost of capital was calculated individually using current market data in 2016 and 2015 and, if needed, adjusted for CGU-specific parameters (i.e. risk premium).

Financial Assets and Liabilities

Financial Assets

Initial Recognition and Measurement

Financial assets are classified either as financial assets at fair value through profit or loss, loans and receivables or as available-for-sale financial assets, as appropriate. The Group determines the classification of its financial assets at initial recognition.

All financial assets not measured at fair value through profit or loss are recognised initially at fair value plus directly attributable transaction costs.

Subsequent Measurement

At Springer Nature, the category of financial assets at fair value through profit or loss consists of derivatives that are not designated as hedging instruments. They are reported in the statement of financial position under other assets. Financial assets at fair value through profit and loss are carried in the statement of financial position at fair value with changes in fair value recognised in other financial expense or other financial income in the statement of profit or loss.

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market and are neither classified as held-for-trading nor as available-for-sale. The category includes the Group's trade receivables, loans to employees, as well as long-term loans and other current assets. After initial measurement, the loans and receivables are subsequently measured at amortised cost using the effective interest method less any impairment losses, if necessary.

Available-for-sale financial assets are non-derivative financial assets which were classified under this category directly or were not classified to any other category. Springer Nature holds securities mainly in this category. They are disclosed under non-current assets unless management plans to sell them within 12 months of the reporting date and they do not fall due within this period. Available-for-sale financial assets are measured at fair value after initial recognition. Unrealised gains and losses are recorded directly in equity taking deferred taxes into account. When a financial asset classified as available for sale is derecognised or impaired, the cumulative gains and losses from fair value measurement recognised directly in equity are recognised through profit or loss.

Derecognition

A financial asset is derecognised when one of the following conditions has been fulfilled:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement that fulfils the conditions under IAS 39.19; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

Impairment of Financial Assets

The Group assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if there is objective evidence of impairment as a result of one or more events that have occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors are experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation and where observable data indicates that there is a measurable decrease in the estimated future cash flows, such as changes in economic conditions that correlate with defaults.

For financial assets carried at amortised cost, the Group first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment. If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate.

Financial Liabilities

Initial Recognition and Measurement

Financial liabilities within the scope of IAS 39 are classified as financial liabilities at fair value through profit or loss or as liabilities measured at amortised cost. The Group determines the classification of its financial liabilities at initial recognition.

Financial liabilities at fair value through profit or loss are initially measured at fair value. Financial liabilities measured at amortised cost are initially recognised at fair value including directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, bank overdrafts, loans and borrowings, and derivative financial instruments that are not designated as hedging instruments pursuant to IAS 39.

Subsequent Measurement

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Subsequent measurement is at fair value through profit or loss. Separated embedded derivatives are also classified as held-for-trading. Gains or losses on liabilities held-for-trading are recognised in the consolidated statement of profit or loss.

After initial recognition, liabilities measured at amortised cost are subsequently measured at amortised cost using the effective interest method.

Derecognition

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability.

Offsetting of Financial Instruments

Financial assets and financial liabilities are offset with the net amount reported in the consolidated statement of financial position only if there is a current enforceable legal right to offset the recognised amounts and an intention to settle them on a net basis, or to realise the assets and settle the liabilities simultaneously.

Derivative Financial Instruments

As set out in IAS 39, all derivative financial instruments are recognised at fair value in the consolidated statement of financial position. At the time a contract involving a derivative is entered into, it is determined whether it is intended to serve as a fair value hedge or as a cash flow hedge. Springer Nature's derivative financial instruments did not formally meet the requirements of IAS 39 for applying hedge accounting, even though it is the economic purpose of the derivative. Changes in their fair values are, therefore, recognised in the consolidated statement of profit or loss rather than in equity.

Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts, and the host contracts are not held-for-trading or designated as at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognised in the consolidated statement of profit or loss.

Inventories

Inventories are measured at the lower of cost and net realisable value. Manufacturing costs include both directly and indirectly attributable costs. The indirect costs primarily comprise the costs of generating and preparing the content (pre-publishing costs) as well as printing and binding. If the content is produced primarily for electronic sale, for print products the pre-publishing costs are allocated pro rata to the physical inventories in the proportion of online-to-print book revenues. The indirect costs mainly include production-related overheads and are included using a mark-up rate.

Similar inventories are measured by using the first-in, first-out method (FIFO). Intercompany profits are eliminated from inventories originating from intra-group suppliers and carried at group manufacturing cost.

Cash and Cash Equivalents

Cash and cash equivalents include bank balances and cash in hand. Amounts in foreign currency are translated at closing rates.

Current Taxes and Deferred Taxes

The line item income tax comprises both current taxes and deferred taxes. Income taxes are recognised in the consolidated statement of profit or loss unless they relate to items recognised directly in equity or in other comprehensive income. In such cases, the taxes are also recognised in equity or in other comprehensive income.

The current tax expense and income is calculated according to tax laws of the countries in which Springer Nature operates and generates taxable income effective as at the reporting date. Management periodically reviews individual tax matters to determine whether there is any scope for interpretation under the applicable tax legislation. and establishes tax provisions where appropriate.

According to IAS 12, deferred taxes must be recorded for all temporary differences between the carrying amounts of assets and liabilities in the tax accounts and the consolidated statement of financial position under IFRS as well as for interest carried forward and unused tax losses. This does not apply to deferred tax assets and liabilities arising from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss. Deferred tax assets associated with investments in subsidiaries and associates are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

Deferred tax liabilities resulting from the initial recognition of goodwill are recognised only if the amoritsation of this goodwill is tax deductible.

Deferred tax assets are recognised for all temporary differences and unused tax losses only to the extent that it is probable that taxable profit will be available in the future against which the losses can be utilised.

Deferred taxes are calculated at the tax rates that are expected to apply to the period when a liability is settled or an asset is realised.

Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Provisions

With the exception of the provisions for pensions and other long-term employee benefits calculated in accordance with IAS 19, all other provisions are recognised in line with IAS 37. They are recognised when the Group has a present obligation to a third party based on a past event, an outflow of resources is probable and a reliable estimate can be made of the obligation. The amount of each provision corresponds to the expected settlement amount. Non-current provisions with a remaining period of more than one year are discounted in order to reflect the present value of the expenditure expected to settle the obligation at the reporting date by application of appropriate market rates of interest.

Provisions for Pensions and Other Long-term Employee Benefits

The obligations from defined benefit plans for pensions and other long-term employee benefits are recognised in the consolidated statement of financial position at the present value of the defined benefit obligation at the end of the reporting period less the fair value of allocable plan assets. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. Under this method, not only obligations relating to known vested benefits at the reporting date are recognised, but also future increases in pensions and salaries. This involves taking account of various input factors. The input factors are based upon assumptions and estimates relating to the future development of salaries, relevant biometric factors, interest rates and overall mortality.

The present value of the defined benefit obligations is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefit will be paid, and that have terms to maturity approximately the same as the related pension obligation.

Remeasurements, comprising of actuarial gains and losses, asset ceiling effects, excluding amounts included in net interest on the net defined benefit liability and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognised immediately in the consolidated statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Remeasurements are not reclassified to profit or loss in subsequent periods.

Judgements, Assumptions and Estimates

The preparation of the Group’s consolidated financial statements in accordance with IFRS requires management to make certain assumptions and estimates that may affect the carrying amount of assets, provisions and liabilities as well as income and expenses recognised. The estimates and related assumptions are based on experience and various other factors that appear to be appropriate in the circumstances. Actual results may differ from these estimates. All estimates and underlying assumptions are reviewed on an on-going basis.

Revisions of accounting estimates are recognised in the period in which the revision is determined, if the revision affects only that period of the revision and future periods. Assumptions and estimates made by management in the application of IFRS that have a significant effect on the consolidated financial statements and estimates with a risk of possible adjustments in the next years are discussed in the corresponding notes.

The underlying assumptions and estimates applied relate to the recognition and measurement of pensions and other long-term employee benefits, to the measurement of internally generated intangible assets, to the determination of impairment losses on intangible assets including goodwill, to the valuation allowance for trade receivables, to the usability of tax loss carry forwards, to the measurement of financial instruments, to the determination of provisions and to the classification of leases. Assumptions were also used in the purchase price allocation concerning the measurement of intangible assets. Information concerning the carrying amounts determined with the use of estimates can be found in the notes to the specific line items.

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of the Group’s assets and liabilities relate to defined benefit pension plans (note 23), the impairment of non-financial assets (note 14) and fair value measurement of financial instruments (note 30). A description of the relevant input parameters which include estimates/assumptions are disclosed in the respective notes section together with sensitivity analyses.

Notes to the Consolidated Statement of Profit or Loss and the Consolidated Statement of Financial Position

1 Revenues

in EUR million	2016	2015
Revenues from the sale of:		
Journals/journal content	866.6	766.2
Books/book content	561.6	527.2
Advertisements	85.9	80.1
Other revenues	124.8	106.3
Discounts and allowances	(14.2)	(9.1)
Total revenues	**1,624.7**	**1,470.7**

2 Other Operating Income

in EUR million	2016	2015
Currency exchange gains	42.6	28.0
Income from the release of provisions and other liabilities	7.9	4.7
Sundry operating income	32.3	25.6
Total other operating income	**82.8**	**58.3**

The line item "Currency exchange gains" included realised currency exchange gains from transactions incurred during the year and gains from the year-end valuation of subsidaries' trade receivables and payables denominated in currencies other than the functional currency.

The line item "Sundry operating income" included mainly income related to written-off bad debts, rental income and income from services rendered. In 2016, income of EUR 5.3m (2015: EUR 10.8m) from transitional services rendered to the Holtzbrinck Publishing Group was included.

3 Internal Costs Capitalised

The line item "Internal costs capitalised" comprised the capitalised costs for the development of selfdeveloped software and database projects as well as internal costs for content creation.

4 Cost of Materials

in EUR million	2016	2015
Purchased services	(156.4)	(169.9)
Raw materials and supplies	(48.4)	(27.4)
Total cost of materials	**(204.8)**	**(197.3)**

The line item "Purchased services" mainly contained costs for printing and binding as well as prepublishing costs.

5 Royalty and Licence Fees

Royalties and license fees expenses were comprised of fixed royalties and royalties on sales paid for acquired and licensed content. This included payments to authors of books and journal articles, as well as payments for society owned journals.

6 Personnel Costs

in EUR million	2016	2015
Wages and salaries	(424.0)	(375.7)
State social security contributions	(53.2)	(52.9)
Pension and similar expenses	(18.1)	(15.8)
Other employee benefits	(19.1)	(12.7)
Total personnel costs	**(514.4)**	**(457.1)**

In 2016, the average number of employees (full-time equivalents - FTE) was 11,908 (2015: 10,802; taken into account the employees from the acquired businesses, since their initial consolidation date). The absolute number of employees (FTE) was 11,939 as at the end of 2016 (2015: 12,093).

The average number of employees in the Group per business is presented below. The India-based business line, which is part of the Professional business, contributed 4,255 in 2016 (2015: 4,486) to the total FTE figure.

Full-time equivalents (average)	2016	2015
Professional	5,540	5,722
Research	3,975	3,410
Education	2,393	1,670
Total	**11,908**	**10,802**

7 *Other Operating Expenses*

in EUR million	2016	2015
Administrative expenses/fees	(147.9)	(148.4)
Marketing and sales costs	(89.3)	(80.6)
Rent and building costs	(54.1)	(41.1)
Currency exchange losses	(36.5)	(35.9)
Sundry expenses	(66.0)	(59.6)
Total other operating expenses	**(393.8)**	**(365.6)**

The line item “Administrative expenses/fees” mainly included expenses relating to information technology, travel costs and consulting fees.

The line item “Currency exchange losses” included realised currency exchange losses from transactions incurred during the year and losses from the year-end valuation of subsidiaries’ trade receivables and trade payables denominated in currencies other than the functional currency.

“Sundry expenses” mainly consisted of allowance for doubtful trade receivables, costs for temporary staff and purchased services, as well as other taxes. Expenses for services rendered by the Holtzbrinck Publishing Group under transitional service agreements of EUR 8.4m (2015: EUR 11.6m) were also included.

The lease payments recognised as expenses in 2016 amounted to EUR 36.0m (2015: EUR 29.3m).

The fees for the audit of the financial statements and other services rendered by the audit firm Ernst & Young GmbH were as follows:

in EUR million	2016	2015
Audits of the financial statements	(2.0)	(2.2)
Tax advisory services	(0.6)	(0.7)
Other certification or appraisal services	(0.4)	(1.0)
Total professional fees	**(3.0)**	**(3.9)**

The professional fees for the audit of the financial statements included the audit of the subsidiaries and the audit of the consolidated financial statements. The tax advisory fees consisted of support provided with regard to specific tax questions. The other certification and appraisal services comprised, among others, fees for the audits to verify compliance with certain contractual agreements.

8 *Amortisation and Impairment of Intangible Assets and Depreciation of Property, Plant and Equipment*

in EUR million	2016	2015
Amortisation and impairment of other intangible assets	(253.3)	(232.3)
Impairment of goodwill	-	(11.0)
Depreciation of property, plant and equipment	(16.8)	(16.4)
Total amortisation, depreciation and impairment losses	**(270.1)**	**(259.7)**

Amortisation and impairment of other intangible assets and depreciation of property, plant and equipment included amortisation and depreciation charges as well as impairment losses that related to fair value adjustments of other intangible assets and property, plant and equipment recognised subsequently to business combinations. Amortisation expenses of EUR 115.1m for intangible assets (2015: EUR 106.3m) and depreciation charges of EUR 0.7m for property, plant and equipment (2015: EUR 0.7m) relating to these fair value adjustments were recognised in the reporting period. An impairment loss of EUR 4.1m (2015: EUR 4.2m) was recorded on other intangible assets in 2016.

Amortisation expenses of EUR 62.7m (2015: EUR 52.3m) were recognised on internally generated intangible assets in the period under review.

9 Financial Expenses and Financial Income

The line item "Financial expenses" broke down as follows:

in EUR million	2016	2015
Interest expenses	(257.7)	(276.6)
Other financial expenses	(181.4)	(112.2)
Financial expenses	**(439.1)**	**(388.8)**

The line item "Interest expenses" mainly comprised interest expenses from financial liabilities, interest expenses from interest rate hedging transactions, interest expenses from applying the effective interest method as well as the net interest expense from pension obligations.

The line item "Other financial expenses" comprises expenses of EUR 75.6 m (2015: EUR 46.8 m) from measuring the fair value of financial instruments (see note 24), losses of EUR 63.6 m (2015: EUR 24.4 m) from the year-end measurement of subsidiaries' financial liabilities carried in other currencies than the functional currency of the respective subsidiary, realised currency exchange losses of EUR 14.8 m (2015: EUR 35.0 m) from financing activities during the year, losses of EUR 1.6 m (2015: EUR 0.0 m) from marking the Group's financial derivatives to market and other financing-related costs of EUR 25.8 m (2015: EUR 6.0 m).

The line item "Financial income" broke down as follows:

in EUR million	2016	2015
Interest income	5.4	4.7
Other financial income	82.9	64.6
Financial income	**88.3**	**69.3**

The line item "Interest income" mainly included interest income from funds, income from loans receivable and other interest income.

The position "Other financial income" included gains of EUR 42.3m (2015: EUR 43.5m) from the year-end valuation of subsidiaries' financial debt incurred in other currencies than the functional currency of the respective subsidiary, gains from the market valuation of the Group's financial derivatives of EUR 40.5m (2015: EUR 18.7m) and realised currency exchange gains from intra-group financing activities incurred during the year of EUR 0.1m (2015: EUR 2.4m).

10 Income Taxes

Income taxes, split into current and deferred tax position, were as follows:

in EUR million	2016	2015
Result before income taxes	(102.2)	(179.9)
Current income taxes	(58.4)	(33.6)
Deferred taxes	37.8	69.6
Total income taxes	(20.6)	36.0
Net result for the period	**(122.8)**	**(143.9)**

The line item "Deferred taxes" comprises the following positions:

in EUR million	2016	2015
Due to tax loss carry forwards	10.3	28.6
Due to temporary differences	27.5	41.0
Deferred taxes	**37.8**	**69.6**

For the reconciliation between expected income taxes and the actual income taxes recorded, the German combined statutory tax rate of 30.2% (consisting of 15.8% corporate tax and 14.4% trade tax) was applied, as in the prior year. The reconciliation is shown in the following table:

in EUR million	**2016**	**2015**
Result before income taxes	(102.2)	(179.9)
Statutory German income tax rate	30.2%	30.2%
Expected income taxes	30.9	54.3
Different national tax rates	8.2	5.4
Changes in tax regulations or tax status	13.4	13.5
Tax income/expenses relating to prior periods	(8.5)	(2.9)
Deferred tax income/expenses relating to prior periods	5.5	1.1
Changes in tax loss carry forwards	(45.5)	(14.1)
Effect of permanent differences	(24.4)	(20.3)
Other	(0.2)	(1.0)
Total income taxes	**(20.6)**	**36.0**

In 2016, deferred taxes of EUR 34.4m (2015: EUR 23.0m) were recorded directly in other comprehensive income. The amount related to pension provisions, currency translation effects on the tax position resulting from differences between the currency exchange rates as at 31 December 2015, 31 December 2016 and the average exchange rates for 2016 as well as on available-for-sale financial assets.

Deferred tax assets for temporary differences and tax loss carry forwards were recognised to the extent deferred tax liabilities relating to the same tax authority and the same taxable entity were available. Deferred tax assets exceeding the deferred tax liabilities were only recognised to the extent that they can be utilised against future taxable profits. The measurement was based on a medium-term plan established for each jurisdiction.

The deferred tax assets and liabilities were attributable to the following:

	31 Dec 2016		**31 Dec 2015**	
in EUR million	**Deferred tax assets**	**Deferred tax liabilities**	**Deferred tax assets**	**Deferred tax liabilities**
Goodwill and other intangible assets	3.5	1,022.3	6.0	1,100.9
Property, plant and equipment	2.0	14.1	2.6	4.3
Financial assets	-	0.0	0.1	-
Inventories	10.5	0.6	13.5	0.1
Trade receivables	2.9	3.4	2.9	1.5
Other current assets	0.1	10.0	2.6	12.5
Provisions for pensions and other long-term employee benefits	36.8	-	29.9	-
Interest-bearing loans and borrowings	11.3	19.0	7.6	15.7
Finance lease liabilities	2.3	-	2.5	-
Current provisions	6.4	1.0	4.0	0.8
Other liabilities	97.7	2.6	103.8	2.7
Deferred income	0.0	10.8	-	9.7
Unrecognised taxes on temporary differences	(1.2)	-	(0.6)	-
Tax loss carry forward	136.5	-	87.8	-
Unrecognised tax loss carry forward	(42.7)	-	(4.3)	-
Total deferred taxes	266.1	1,083.8	258.4	1,148.2
Offsetting	(258.5)	(258.5)	(249.9)	(249.9)
Total carrying amount	**7.6**	**825.3**	**8.5**	**898.3**

11 Non-Current Assets

The following table shows the movement in goodwill, other intangible assets, property, plant and equipment as well as financial assets, which constituted the major part of non-current assets.

in EUR million	Goodwill	Other intangible assets	Property, plant and equipment	Financial assets	Total
Acquisition or production cost					
Balance as at 1 Jan 2016	1,399.3	4,683.8	200.9	5.3	6,289.3
Acquisition/disposal of business	0.8	0.0	0.0	-	0.8
Additions	-	175.8	17.6	0.6	194.0
Disposals	-	(16.7)	(7.3)	(1.8)	(25.8)
Reclassifications	-	-	0.0	-	0.0
Currency translation differences	(17.3)	(150.0)	(13.8)	0.1	(181.0)
Balance as at 31 Dec 2016	1,382.8	4,692.9	197.4	4.2	6,277.3
Depreciation/amortisation					
Balance as at 1 Jan 2016	52.4	529.3	27.9	0.0	609.6
Additions	-	249.3	16.7	0.0	266.0
Impairments	-	4.1	-	-	4.1
Disposals	-	(16.0)	(2.0)	-	(18.0)
Reclassifications	-	-	0.0	-	0.0
Currency translation differences	0.4	2.8	(0.4)	0.0	2.8
Balance as at 31 Dec 2016	52.8	769.5	42.2	0.0	864.5
Carrying amount as at 31 Dec 2016	**1,330.0**	**3,923.4**	**155.2**	**4.2**	**5,412.8**

in EUR million	Goodwill	Other intangible assets	Property, plant and equipment	Financial assets	Total
Acquisition or production cost					
Balance as at 1 Jan 2015	1,279.6	3,061.4	59.5	7.2	4,407.7
Acquisition/disposal of business	62.4	1,382.8	123.8	0.6	1,569.6
Additions	-	127.5	21.1	0.2	148.8
Disposals	-	(6.3)	(1.7)	(3.0)	(11.0)
Reclassifications	-	0.0	0.0	0.0	0.0
Currency translation differences	57.3	118.4	(1.8)	0.3	174.2
Balance as at 31 Dec 2015	1,399.3	4,683.8	200.9	5.3	6,289.3
Depreciation/amortisation					
Balance as at 1 Jan 2015	40.6	284.7	12.0	-	337.3
Additions	-	228.1	16.4	0.0	244.5
Impairments	11.0	4.2	-	-	15.2
Disposals	-	(4.7)	(0.8)	-	(5.5)
Reclassifications	-	-	0.0	-	0.0
Currency translation differences	0.8	17.0	0.3	0.0	18.1
Balance as at 31 Dec 2015	52.4	529.3	27.9	0.0	609.6
Carrying amount as at 31 Dec 2015	**1,346.9**	**4,154.5**	**173.0**	**5.3**	**5,679.7**

12 Goodwill

Goodwill presented here of EUR 1,330.0m primarily resulted from the acquisition of Springer in the financial year 2013. The acquisition of MSE in 2015 resulted in goodwill of EUR 60.5m, the acquisition of J.B. Metzler, DriversCoach and the Dutch Healthcare business added goodwill of EUR 1.9m and minor acquisitions in 2016 added goodwill of EUR 0.8m.

13 *Other Intangible Assets*

The following table summarises the gross amounts and the carrying amounts of the other intangible assets:

	31 Dec 2016		31 Dec 2015	
in EUR million	**Gross amount**	**Carrying amount**	**Gross amount**	**Carrying amount**
Publishing rights	1,390.8	1,284.0	1,438.6	1,365.4
Customer relationships/subscriptions	1,410.5	1,227.4	1,439.9	1,313.7
Trademarks	1,027.2	1,006.3	1,079.0	1,063.8
Co-publishing rights	332.5	104.6	250.1	101.6
Self-developed/acquired software	142.4	73.3	116.5	55.7
eBook databases	215.6	58.7	161.6	59.7
Other publishing rights/licenses	173.9	169.1	198.1	194.6
Total other intangible assets	**4,692.9**	**3,923.4**	**4,683.8**	**4,154.5**

Other intangible assets were identified, measured and recognised mainly in connection with the purchase price allocation after the acquisition of Springer in 2013 and the establishment of Springer Nature in 2015.

The line item “Publishing rights” included rights to academic journals and specialist journals. In the line “Customer relationships/subscriptions” grown customer relationships in the journal and books business were disclosed. The line item “Co-publishing rights” contained publishing rights that arose from exclusive contracts with scientific societies to publish and/or distribute academic journals worldwide or in a specific country or region.

The position “Trademarks” included among others the carrying amounts of the “Springer” brand of EUR 599.2m (2015: EUR 599.2m), the “Nature” brand of EUR 193.8m (2015: EUR 225.8m) and the “Estrada” brand of EUR 2.7m (2015: EUR 3.2m) as well as the exclusive right to use the “Macmillan” brand of EUR 150.0m (2015: EUR 174.8m) which all have an indefinite useful life. The position “Publishing Rights” included, but was not limited to, the carrying amount of EUR 79.1m (2015: EUR 85.4m) for the rights to the title “Nature” that also has an indefinite useful life.

14 *Impairment Testing of Goodwill and Intangible Assets*

Effective 1 January 2016, Springer Nature changed its reporting structure to support the newly established management and business structure of its divisions following the merger of Springer and MSE in 2015. The change in the composition of the businesses affected several cash-generating units (CGUs) to which goodwill and intangible assets were allocated.

The CGU Research was formed out of the former CGUs STM Science and MSS (Macmillan Science & Scholarly). The former CGU Education was divided into two CGUs, the CGU Language Learning & Schools and the CGU International Higher Education.

The three smaller CGUs within the Professional business, i.e. Professional Business/Technology, Professional Medicine and Professional Road Safety/Education, were combined into the new Springer Fachmedien CGU.

The reallocation of goodwill and other intangible assets was based on relative fair values. An impairment test was prepared for the old CGUs which did not result in an impairment.

Allocation of goodwill and intangible assets with indefinite useful lives to current CGUs broke down as follows (prior year figures were adjusted accordingly):

in EUR million	**CGU Research**	**CGU Language Learning & Schools**	**Other CGUs**	**Total**
Goodwill				
31 Dec 2016	1,221.1	16.2	92.7	1,330.0
31 Dec 2015	1,237.8	16.8	92.3	1,346.9
Intangible assets with indefinite useful life				
31 Dec 2016	872.1	137.5	15.1	1,024.7
31 Dec 2015	910.4	160.3	17.7	1,088.4

Allocation of goodwill and intangible assets with indefinite useful lives to old CGUs broke down as follows as at 31 December 2015:

in EUR million	CGU STM Science	CGU Macmillan Science & Scholarly	CGU Education	Other CGUs	Total
Goodwill					
31 Dec 2015	1,197.0	40.8	18.2	90.9	1,346.9
Intangible assets with indefinite useful life					
31 Dec 2015	599.2	311.2	178.0	-	1,088.4

CGU Research

The carrying amount of goodwill that was allocated to Springer Nature's biggest CGU amounted to EUR 1,221.1m (2015: EUR 1,237.8m) or 91.8% (2015: 91.9%) of the Group's total goodwill of EUR 1,330.0m (2015: EUR 1,346.9m) as measured at 31 December 2016. The recoverable amount of the CGU based on its value in use was calculated to be EUR 5,149.6m as at 31 December 2016 (2015: EUR 5,858.2m). The cash flow planning was derived from the latest group budget and strategic medium-term plan and covered a period of five years. A discount rate of 6.7% after tax (9.3% before tax) was used and the cash flows after the five-year period were extrapolated with an annual growth rate of 1.0%. In prior year discount rates of 6.2% after tax (8.9% before tax) and 6.3% after tax (8.9% before tax) were used for previously separate CGUs STM Science and MSS respectively. The excess of the recoverable amount over the carrying amount of this CGU amounted to EUR 1,333.0m (2015: STM Science EUR 875.0m and MSS EUR 1,171.9m).

The medium-term plan assumed an annual average growth rate of free cash flow of 11.6% for the years 2018 to 2021. In the prior year, annual average growth rates of free cash flow of 10.7% and 14.0% were assumed for STM Science and MSS respectively. The growth is expected to mainly stem from the further increase in output i.e., number of articles and books published, moderate price increases, increase in usage of the book portfolio, maintaining the market share in the growing open access market, and offering additional services to the authors and researchers.

The impairment test is sensitive to changes in the underlying assumptions, especially the yearly free cash flow growth rates and the discount rates. An increase in the discount rate by 190 base points would have reduced the headroom between the recoverable amount and the carrying amount of the CGU to zero (2015: STM Science 160 base points, Macmillan Science & Scholarly 630 base points). A reduction in the annual medium-term growth rate of 500 base points would also have reduced the headroom to zero (2015: STM Science 570 base points, Macmillan Science & Scholarly 1,900 base points). If both measurement assumptions were to vary, an increase in the discount rate by 50 base points and at the same time a decrease in the annual free cash flow medium-term growth rate of 360 base points would have reduced the headroom to zero (2015: STM Science reduction of 50 base points in discount rate and decrease of 380 base points in the annual free cash flow medium-term growth rate, Macmillan Science & Scholarly reduction of 200 base points in discount rate and decrease of 1,200 base points in the annual free cash flow medium-term growth rate).

In 2016, an impairment loss of EUR 4.1m was recorded for journal assets that were identified, measured and recognised in connection with the purchase price allocation after the acquisition of Springer in 2013 but for which publication has been recently ceased.

CGU Language Learning & Schools

The carrying amount of goodwill allocated to the CGU Language Learning & Schools amounted to EUR 16.2m, or 1.2% of the Group's total goodwill as at 31 December 2016 (2015: Education EUR 18.2m, 1.4%). Moreover, an amount of EUR 137.5m, or 13.4% of the total intangible assets with indefinite useful lives as at 31 December 2016 (2015: Education EUR 177.9m or 16.3%), reflecting the license for the use of the Macmillan trademark, was allocated to the CGU as well.

The recoverable amount of the CGU was EUR 335.0 m as at 31 December 2016 (2015: Education EUR 496.2 m; Language Learning & Schools EUR 464.9 m) and was determined on its value in use, for which the cash flow planning was derived from the latest group budget and strategic medium-term plan, which covered a period of five years. The discount rate used was 7.4% after tax (10.3% before tax, CGU Education 2015: 7.7% after tax, 10.9% before tax). Cash flows beyond the five-year period were extrapolated assuming flat free cash flows. The excess of recoverable amount over carrying amount was EUR 72.3m (2015: Education EUR 188.6m).

Medium-term plan for Language Learning & Schools assumed an average annual growth rate of 17.5% for the free cash flow for the years 2018 to 2021. In prior year an annual average growth of free cash flow of 14.5% was assumed for Education.

The growth is expected to come from improving profitability, winning market share in certain regions, higher content development and investing in the digital transformation of parts of the business, thereby increasing the revenues from digital products.

The impairment test is sensitive to changes in the underlying assumptions, especially the yearly free cash flow growth rates and the discount rates. An increase in the discount rate by 190 base points would have reduced the headroom between the recoverable amount and the carrying amount of the CGU to zero (Education 2015: 480 base points). A reduction in the annual medium-term growth rate of 315 base points would also have reduced the headroom to zero (Education 2015: 1,260 base points). If both measurement assumptions were to vary, an increase in the discount rate by 50 base points and at the same time a decrease in the annual free cash flow medium-term growth rate of 230 base points would have reduced the headroom to zero (Education 2015: reduction of 200 base points in discount rate and decrease of 690 base points in the annual free cash flow medium-term growth rate).

15 Property, Plant and Equipment

The following table shows the development of property, plant and equipment in the reporting period and in the prior year:

in EUR million	Land and buildings	Plant, technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
Acquisition or production cost					
Balance as at 1 Jan 2016	155.3	7.3	38.1	0.2	200.9
Acquisition/disposal of business	-	0.0	0.0	-	0.0
Additions	3.0	1.2	12.7	0.7	17.6
Disposals	(5.5)	(0.2)	(1.6)	-	(7.3)
Reclassifications	0.0	(0.2)	0.3	(0.1)	0.0
Currency translation differences	(12.3)	(0.6)	(0.9)	0.0	(13.8)
Balance as at 31 Dec 2016	140.5	7.5	48.6	0.8	197.4
Depreciation					
Balance as at 1 Jan 2016	9.3	2.3	16.2	-	27.8
Additions	5.3	2.2	9.2	-	16.7
Disposals	(0.6)	(0.2)	(1.2)	-	(2.0)
Reclassifications	(0.0)	(0.6)	0.6	-	(0.0)
Currency translation differences	(0.3)	0.0	0.0	-	(0.3)
Balance as at 31 Dec 2016	13.7	3.7	24.8	-	42.2
Carrying amount as at 31 Dec 2016	**126.8**	**3.8**	**23.8**	**0.8**	**155.2**

in EUR million	Land and buildings	Plant, technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
Acquisition or production cost					
Balance as at 1 Jan 2015	39.8	0.4	19.3	-	59.5
Acquisition/disposal of business	105.7	7.3	10.8	-	123.8
Additions	11.6	0.1	9.3	0.2	21.2
Disposals	(0.2)	(0.1)	(1.4)	-	(1.7)
Reclassifications	0.0	(0.3)	0.3	-	0.0
Currency translation differences	(1.6)	(0.1)	(0.2)	0.0	(2.0)
Balance as at 31 Dec 2015	155.3	7.3	38.1	0.2	200.9
Depreciation					
Balance as at 1 Jan 2015	3.8	0.1	8.1	-	12.0
Additions	5.5	2.3	8.6	-	16.4
Disposals	(0.1)	-	(0.8)	-	(0.9)
Reclassifications	0.0	(0.1)	0.1	-	0.0
Currency translation differences	0.1	0.0	0.3	-	0.4
Balance as at 31 Dec 2015	9.3	2.3	16.3	-	27.9
Carrying amount as at 31 Dec 2015	**146.0**	**5.0**	**21.8**	**0.2**	**173.0**

16 Investments in Associates

The Group holds investments in several associates that are individually not material and listed in note 35. The summarised financial information is presented in the table below and not adjusted for the percentage of ownership held by Springer Nature.

in EUR million	31 Dec 2016	31 Dec 2015
Assets	24.8	10.8
Liabilities	(14.2)	(7.6)

The line item "Investments in associates" was as follows:

in EUR million	31 Dec 2016	31 Dec 2015
Investments in associates	20.3	7.6

Items for the profit or loss are presented for the 12-month period applied under the equity method. If shares in associates had been acquired during the financial year, income and expenses was only included for the period between the acquisition date and year end.

in EUR million	2016	2015
Income	40.9	24.3
Expenses	(37.2)	(23.2)

The line item "Income from associates" was as follows:

in EUR million	2016	2015
Income from associates	1.4	1.2

17 Financial Assets

in EUR million	31 Dec 2016	31 Dec 2015
Loans	3.7	4.8
Other financial assets	0.5	0.5
Financial assets	**4.2**	**5.3**

The line item "Loans" contained vendor loans given to acquirers of divested businesses. As at 31 December 2016, EUR 2.9m (2015: EUR 4.4m) of these loans related to the divested Vision Care business.

18 Inventories

The total carrying amount of inventories broke down as follows:

in EUR million	31 Dec 2016	31 Dec 2015
Finished goods and merchandise	42.4	53.0
Work in progress	21.2	21.2
Raw materials and supplies	5.7	7.8
Advance payments	4.4	2.2
Total inventories	**73.7**	**84.2**

19 Trade Receivables

The following table gives an overview of the credit risk arising from the trade receivables position:

in EUR million	31 Dec 2016	31 Dec 2015
Receivables, neither past due nor impaired	379.3	393.7
Receivables, past due but not impaired	33.2	15.9
thereof < 30 days	20.3	10.4
thereof 30 to 89 days	12.9	1.1
Receivables, past due and impaired		
Gross amount	64.6	81.4
Valuation allowance	(12.6)	(13.7)
Carrying amount	52.0	67.7
Total trade receivables	**464.5**	**477.3**

Valuation allowances for trade receivables were made on an individual basis and calculated taking into account all discernible risks. Receivables which were past due for 90, 180 and 360 days were usually written off by 25.0%, 50.0% and 100.0% respectively of their nominal amount.

If a customer has become insolvent or other circumstances indicate default, the corresponding receivables are written off in full.

The following table presents the changes in the valuation allowances for trade receivables:

in EUR million	2016	2015
Balance as at 1 Jan	13.7	11.9
Utilisation	(5.8)	(2.8)
Additions	12.4	9.5
Release	(7.6)	(4.8)
Currency translation differences	(0.1)	(0.1)
Balance as at 31 Dec	**12.6**	**13.7**

20 Other Current Assets

The line item "Other current assets" consisted of the following components:

in EUR million	31 Dec 2016	31 Dec 2015
Prepaid expenses	18.3	23.4
Receivables from related parties	16.0	28.9
VAT receivables	6.7	3.9
Creditors with debit balances	4.8	2.4
Advance payments for royalties and licenses	4.2	5.4
Derivative financial instruments	1.2	0.4
Short-term purchase price receivables from divested businesses	0.8	0.8
Fixed-term deposits	0.6	9.8
Other receivables	12.6	16.3
Other current assets	**65.2**	**91.3**

The other current assets were classified as financial assets with the exception of prepaid expenses, advance payments for royalties and licenses and a part of the other receivables.

21 Cash and Cash Equivalents

Cash and cash equivalents consisted of cash in hand and bank balances.

22 Equity

Share Capital

As in the prior year, the company's share capital totalled EUR 100,000.00 as at 31 December 2016, with a nominal amount of EUR 1.00 per share.

Capital Reserves

As at 31 December 2016 the capital reserve mostly contained shareholder contributions of EUR 771.2m (31 Dec 2015: EUR 771.2m).

Retained Earnings/Other Accumulated Equity

Other accumulated equity comprised actuarial gains and losses from pension obligations less deferred taxes thereon, gains and losses from the measurement of available-for-sale instruments less deferred taxes thereon, as well as currency translation effects.

23 *Provisions for Pensions and Other Long-Term Employee Benefits*

The line item “Provisions for pensions and other long-term employee benefits” consisted of the following components:

in EUR million	31 Dec 2016	31 Dec 2015
Provision for pension obligations	251.5	203.5
Provisions for other long-term employee benefits	14.3	11.7
Provisions for pensions and other long-term employee benefits	**265.8**	**215.2**

Pensions

Springer Nature operates various forms of pension plans for current and former employees and, where applicable, their surviving dependents. The benefits of these plans are determined by the legal, tax and economic situation of each country concerned. These company pension plans include defined contribution plans and defined benefit plans. The defined benefit plans are either funded via external investment funds, a pension liability insurance (both referred to as plan assets) or they are unfunded. Provisions are set up for obligations arising from defined benefit plans and presented in the line item “Provision for pension obligations”.

Springer Nature’s largest defined benefit pension plans are offered in UK, Germany and USA. The plan participants were as follows:

Pension plan participants as at 31 Dec 2016	Active	Deferred members	Retirees	Total
UK	58	783	610	1,451
Germany	345	349	876	1,570
USA	117	171	82	370
Other	216	-	5	221
Total	**736**	**1,303**	**1,573**	**3,612**

Pension plan participants as at 31 Dec 2015	Active	Deferred members	Retirees	Total
UK	58	783	610	1,451
Germany	361	349	885	1,595
USA	132	169	79	380
Other	231	-	6	237
Total	**782**	**1,301**	**1,580**	**3,663**

In the UK, various defined benefit plans provide different benefits to its members. These pension schemes, which are closed to new entrants, are funded with plan assets. The pension plan with the largest liability is a trust-based hybrid plan with a final salary component and a career average revalued earnings component. The final salary component is closed to future entitlements, except for a small number of members that still retain the link to their final salary. The career average revalued earnings component commenced in 2010, and there are a small number of active members still accruing benefits. Over the course of 2013, an asset-backed funding structure via a property and a loan was put in place for the main UK pension plan.

There are different defined benefit plans in Germany which are closed for new entrants as well. The final salary plans where the benefits depend on the pensionable salary and the years of service, and a contribution-based plan where yearly contributions are converted into benefits via actuarial factors, are the largest schemes in Germany. The pension plans are not funded by plan assets and provide for annuity payments upon reaching retirement age or in the event of disability or death.

Both defined benefit plans in the USA are closed for new entrants. The benefit accruals for both pension plans have been frozen since 2010. The retirement benefits are calculated based on years of service and average annual salary compensation.

In the case of plans that are funded by plan assets, the Group ensures that the assets are managed in such a way that long-term investments are in line with the obligations under the pension schemes (asset liability matching (ALM) strategy). The objective of the ALM strategy is to match the return and maturity of the plan assets with the benefit payments as they fall due, and in the appropriate currency. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets.

As at 31 December 2016 and 2015, the defined benefit obligation (DBO), fair value of plan assets and net pension obligations by country were as follows:

Pension obligations as at 31 Dec 2016 **in EUR million**	**Defined benefit obligation**	**Plan assets**	**Net pension obligations**
UK	344.4	264.2	80.2
Germany	157.9	0.9	157.0
USA	30.6	21.3	9.3
Other	10.3	7.7	2.6
Total	**543.2**	**294.1**	**249.1**
Amounts recognised in the consolidated statement of financial position:			
Provision for pension obligations			251.5
Other non-current assets			2.4
Net pension obligations			**249.1**

Pension obligations as at 31 Dec 2015 **in EUR million**	**Defined benefit obligation**	**Plan assets**	**Net pension obligations**
UK	312.5	267.2	45.3
Germany	145.7	0.9	144.8
USA	28.8	20.2	8.6
Other	10.2	7.5	2.7
Total	**497.2**	**295.8**	**201.4**
Amounts recognised in the consolidated statement of financial position:			
Provision for pension obligations			203.5
Other non-current assets			2.1
Net pension obligations			**201.4**

The following table shows the development of benefit obligations in 2016 and 2015:

Reconciliation of defined benefit obligation **in EUR million**	**2016**	**2015**
Balance as at 1 Jan	497.2	191.9
Acquisition/disposal of business	-	329.6
Service costs	2.3	2.6
Interest expenses	15.4	12.4
Expenses recognised in the consolidated statement of profit or loss	17.7	15.0
Effect of changes:		
Demographic assumptions	(0.1)	7.2
Financial assumptions	96.0	(29.7)
Experience adjustments	(0.8)	2.4
Remeasurement included in OCI	95.1	(20.1)
Benefits paid from plan assets	(13.6)	(10.2)
Benefits paid by the company	(7.1)	(7.2)
Plan participants' contributions	0.4	0.4
Insurance contributions paid	(0.1)	(0.1)
Currency translation differences	(46.4)	(2.1)
Balance as at 31 Dec	**543.2**	**497.2**

The following table shows the development of plan assets in 2016 and 2015:

Reconciliation of plan assets in EUR million	**2016**	**2015**
Balance as at 1 Jan	295.8	26.0
Acquisition/disposal of business	-	274.5
Administrative expenses/fees	(0.1)	(0.1)
Expected return on plan assets	10.2	7.2
Expenses and income recognised in the consolidated statement of profit or loss	10.1	7.1
Remeasurement of plan assets	31.6	(4.6)
Remeasurement included in OCI	31.6	(4.6)
Benefits paid from plan assets	(13.6)	(10.2)
Employer contributions	8.5	5.1
Plan participants' contributions	0.4	0.4
Insurance contributions paid	(0.1)	(0.1)
Currency translation differences	(38.6)	(2.4)
Balance as at 31 Dec	**294.1**	**295.8**

The portfolio structure of the plan assets as at 31 December 2016 and 2015 was as follows:

Portfolio structure as at 31 Dec 2016 in EUR million	**UK**	**Germany**	**USA**	**Other**	**Total**
Debt instruments	145.3	-	6.8	0.9	153.0
Plan assets held by insurance company*	56.4	0.9	-	5.3	62.6
Investment funds	43.4	-	-	0.6	44.0
Real estate funds	7.0	-	0.7	0.2	7.9
Equity instruments	4.5	-	13.6	0.4	18.5
Cash and cash equivalents	6.3	-	0.2	0.1	6.6
Other instruments	1.3	-	-	0.2	1.5
Total plan assets	**264.2**	**0.9**	**21.3**	**7.7**	**294.1**

Portfolio structure as at 31 Dec 2015 in EUR million	**UK**	**Germany**	**USA**	**Other**	**Total**
Debt instruments	145.3	-	6.6	1.5	153.4
Plan assets held by insurance company*	54.0	0.9	-	4.5	59.4
Investment funds	47.5	-	-	0.6	48.1
Real estate funds	11.2	-	0.7	0.3	12.2
Equity instruments	4.2	-	12.5	0.5	17.2
Cash and cash equivalents	3.5	-	0.3	0.1	3.9
Other instruments	1.5	-	-	0.1	1.6
Total plan assets	**267.2**	**0.9**	**20.1**	**7.6**	**295.8**

* Buy-in insurance contracts

The following table summarises the estimated payments for 2017 and the payments in 2016:

in EUR million	**Estimated payments 2017**	**Payments 2016**
Employer contributions to plan assets	10.3	8.5
Benefit payments from employer	7.1	7.1
Total of payments	**17.4**	**15.6**

The weighted average duration of Springer Nature's defined benefit obligation was 18 years (2015: 16 years) as at the reporting date.

Provisions for Other Long-term Employee Benefits

In addition to pension benefits, Springer Nature provides, either voluntarily or based on legal or contractual regulations, certain other employee benefits to its employees in several countries. These employee benefits are summarised in the line item "Other long-term employee benefits".

As at 31 December 2016 and 2015, the defined benefit obligation (DBO), fair value of plan assets and net obligations for other long-term employee benefits were as follows:

Other long-term employee benefits as at 31 Dec 2016 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
Severance payments	8.0	2.1	5.9
Loyalty benefits	7.7	-	7.7
Phased-retirement schemes	2.4	1.7	0.7
Deferred compensation plan	0.6	0.6	-
Total other long-term employee benefits	**18.7**	**4.4**	**14.3**
Amounts recognised in the consolidated statement of financial position:			
Provisions for other long-term employee benefits			14.3
Other non-current assets			-
Net obligations			**14.3**

Other long-term employee benefits as at 31 Dec 2015 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
Severance payments	7.2	1.8	5.4
Loyalty benefits	5.8	-	5.8
Phased-retirement schemes	1.4	0.9	0.5
Deferred compensation plan	0.6	0.6	-
Total other long-term employee benefits	**15.0**	**3.3**	**11.7**
Amounts recognised in the consolidated statement of financial position:			
Provisions for other long-term employee benefits			11.7
Other non-current assets			0.0
Net obligations			**11.7**

Actuarial Assumptions

In accordance with IAS 19, the provisions for pensions were calculated using actuarial models and the projected unit credit method. The amount of the provision depends on the employees' period of service with the company and their pensionable salary while the models factor in future increases in salary and pensions, biometric parameters and prevailing long-term capital market interest rates. Interest expenses recognised in the consolidated statement of profit or loss were calculated based on the net liability using the same long-term capital market interest rate.

The tables below summarise the actuarial assumptions that were used to determine the major pension obligations:

Actuarial assumptions as at 31 Dec 2016	Discount rate	Future salary development	Pension increase rate	Employee turnover
UK	2.60-2.70%	3.20%	3.00% – 3.60%	based on experience
Germany	1.70%	2.50%	1.50%	
USA	4.00-4.20%	n.a.	n.a.	

Actuarial assumptions as at 31 Dec 2015	Discount rate	Future salary development	Pension increase rate	Employee turnover
UK	3.90%	3.00%	2.10% – 3.65%	based on experience
Germany	2.40%	2.50%	1.50%	
USA	4.20-4.45%	n.a.	n.a.	

Springer Nature applied the following mortality tables:

Applied mortality tables	
UK	S1NA CMI 2013 with 1.25% long term average mortality rate 88% and 92% of SAPS S2 (males/females) with CMI 2015 projections, long-term trend rate of 1.25% p.a.
Germany	Heubeck mortality tables 2005G
USA	MRP2007 Generational White Collar

Sensitivity Analysis for Pension Benefits

An increase or decrease in any of the significant actuarial assumptions would have resulted in the following changes in the present value of the benefit obligations as at 31 December 2016 and 2015:

Impact on the present value of the DBO as at in EUR million	**31 Dec 2016**	**31 Dec 2015**
Increase in discount rate of 25 bps	(23.0)	(19.6)
Decrease in discount rate by 25 bps	24.8	20.9
Increase in pension increase rate by 25 bps	10.9	7.3
Decrease of pension increase rate by 25 bps	(9.5)	(7.1)
Increase of salary increase rate by 25 bps	1.5	1.4
Decrease of salary increase rate by 25 bps	(1.3)	(1.4)
Increase of life expectancy by one year	22.0	17.4
Decrease of life expectancy by one year	(22.2)	(17.4)

The above sensitivity analyses were calculated by adjusting one parameter while keeping all other parameters unchanged. In practice, this is unlikely to occur, and changes in some of the assumptions may be interdependent. When calculating the sensitivity of the defined benefit obligations to significant actuarial assumptions the same method has been applied as when calculating the pension obligations recognised within the statement of financial position.

Defined Contribution Plans and State Plans

In the case of defined contribution plans, the Group makes payments into an external fund or other welfare fund on a statutory, contractual or voluntary basis. Once the Group has paid the due contributions, it is not obliged to provide any further benefits, thus no provision is recognised in the consolidated statement of financial position.

The amount recognised as an expense for defined contribution plans amounted to EUR 13.1m (2015: EUR 10.9m) in the reporting period. The contributions paid to public/state pension insurance institutions amounted to EUR 11.2m in 2016 (2015: EUR 10.3m).

24 Interest Bearing Loans and Borrowings

The Group is financed by senior loans, a private high-yield loan (hereinafter referred to as “PHY loan”), a working-capital facility (revolving credit facility, hereinafter referred to as “revolver” or “RCF”) and other sources. The lenders are mainly institutional investors. The senior loans and the RCF are syndicated loans under the terms of which lenders and Springer Nature are bound under standard leverage loan facility and intercreditor agreements.

In August 2016, the Group refinanced EUR 420.0m of the PHY by issuing new senior debt of EUR 419.2m and using EUR 0.8m in cash. As the underlying conditions of the financial instruments did not change, the effective interest rate was remeasured with regard to the transaction costs only and the carrying amounts were adjusted accordingly.

The amendment of the facilities can be summarised as follows:

	Before PHY refinancing		**After PHY refinancing**	
in million	**Nominal**	**Interest rate**	**Nominal**	**Interest rate**
B8*	EUR 1,234.9	Max (1%; EURIBOR) + 3.50%	EUR 1,234.9	Max (1%; EURIBOR) + 3.75%
B9*	USD 1,443.5	Max (1%;USD LIBOR) + 3.50%	USD 1,443.5	Max (1%;USD LIBOR) + 3.75%
B10*			EUR 419.2	Max (1%; EURIBOR) + 3.75%
Revolver	EUR 250.0	EURIBOR + 3.50%	EUR 250.0	EURIBOR + 3.50%
PHY loan	EUR 640.0	Max (1%; EURIBOR) + 8.00%	EUR 220.0	Max (1%; EURIBOR) + 8.00%

* Tranches of senior loans

The loan maturities remained unchanged, being February 2020 (RCF), August 2020 (senior loans) and August 2021 (PHY loan).

The margins on the senior loan tranches decrease gradually, if the ratio of net debt to EBITDA (leverage ratio) falls. The first margin reduction will occur if the leverage ratio falls below 6.0. A leverage ratio below 4.5 will result in a further decrease of the margin of tranche B8 to 3.25% and the margin of tranche B9 to 3.50%. A leverage ratio less than 4.5 also reduces gradually the revolver margin to 3.00%. In 2016, prior to the refinancing the total leverage ratio fell below 6.0 so that the margins on all senior tranches and the RCF were reduced to 3.50%. As part of the PHY refinancing the margin on the senior tranches was raised by 0.25% to 3.75% until year-end and then turned back to the initially agreed margin.

All loans, except for the revolving credit facility (RCF), are subject to a base interest rate of the maximum of EURIBOR or LIBOR and a floor of 1.00%. For the senior loans, Springer Nature has an option regarding the interest periods. These can be one month, three months, six months or – subject to the acceptance of the lending institutions – 12 months. The PHY loan has fixed interest periods of three months.

Interest payments are made regularly at the end of the interest period, but at least every three months and on every repayment date in the case of senior loans. Repayments of EUR 3.1m, USD 3.7m and EUR 1.0m are due for tranches B8, B9 and B10 respectively at the end of each quarter. Depending on the cash flow performance of the business in the preceding year, a mandatory repayment obligation exists for a certain share of such excess cash flow, which is linked to the leverage level at year-end.

A special feature of the PHY loan is the option to capitalise 50.0% of the interest due as mark-up on the nominal amount of the loan instead of paying it in cash ("PIK toggle option"). If this option is chosen, the margin increases by 0.75% p.a. in the following interest period.

Early repayment of the PHY loan without a prepayment premium is not possible until August 2017. Except for tranche B10 which requires a prepayment premium until August 2017 as well, there are no restrictions to the other senior loans regarding early repayments.

The PHY loan is subordinated to the senior loans. Collateral was provided to the syndicate banks for the senior and the PHY loans, i.e. the Group waived its claims on shares in subsidiaries and other assets (including intellectual property and trade receivables) and pledged these in favour of the lending institutions.

In addition to the senior and PHY loans, the Group is financed by a shareholder loan issued by Springer Science+Business Media GP Acquisition S.C.A. (BCP shareholder loan). In the context of the business combination dated 5 May 2015, Springer Science+Business Media GP Acquisition S.C.A was granted the right to convert the shareholder loan into equity instruments under certain circumstances. This conversion right attached to the BCP shareholder loan is an embedded derivative which, together with the loan, is measured at fair value through profit or loss as a compound instrument (shareholder loan and right to capital contribution) as of 5 May 2015.

The BCP shareholder loan accrues interest at a nominal rate of 10.23%. As at 31 December 2016, the loan comprised two tranches of EUR 322.8m (31 Dec 2015: EUR 326.2m) and EUR 34.9m (31 Dec 2015: EUR 34.5m), maturing in August 2022. In connection with the business combination in the prior year, the Group had receivables due from the shareholder held on a trust account. This trust account was settled on 29 July 2016 and existing receivables of EUR 4.2m were offset against the BCP shareholder loan, of which EUR 0.4m relates to interest accrued.

The fair value of the BCP shareholder loan was estimated using a discounted cash flow model. The valuation requires management to make certain assumptions about the model inputs, especially the discount rate to be applied. Cash flows are derived from the contractually agreed rights to repayment held by the creditor of the BCP shareholder loan, which are discounted using the respective market interest rate for this loan. The point of repayment is assumed using business considerations, thus the expected remaining term is shorter than the contractual repayment period. The discount rate applied is 9.2% (31 Dec 2015: 9.2%). The fair value as at 31 December 2016 comes to EUR 414.3m (31 Dec 2015: EUR 383.1m). Provided that the right to exchange the BCP shareholder loan for the company's equity instruments is exercised, Springer Nature has no payment obligations from the shareholder loan.

Furthermore, in the course of the business combination, preference shares (henceforth: shareholder loan instruments) of EUR 407.2m were issued by Springer SBM One GmbH to GvH Vermögensverwaltungsgesellschaft XXXIII mbH, a subsidiary of the Holtzbrinck Publishing Group, on 5 May 2015. In connection with the business combination in the prior year, the Group had receivables due from GvH Vermögensverwaltungsgesellschaft XXXIII mbH held on a trust account. This trust account was settled on 29 July 2016 and existing receivables of EUR 4.9m were used to repurchase a total of 284 shareholder loan instruments. The repurchased shareholder loan instruments with a nominal value of EUR 284 were recognised in the consolidated financial statements as own shares; the excess of the nominal value was offset against capital reserves. Utilisation of the shareholder loan instruments was limited by contractual obligations, so as to give them the structural equivalence of the BCP shareholder loan. Under certain circumstances, GvH Vermögensverwaltungsgesellschaft XXXIII mbH can swap the company's shareholder loan instruments in exchange for equity instruments of the company. The obligation related to this put option at the level of SBM Zero GmbH is recognised at fair value as debt capital in the company's consolidated financial statements. The fair value of the shareholder loan instruments was calculated using the discounted cash flow model. The measurement requires management to make certain assumptions about the model inputs, especially the interpretation of contractual agreements and the discount rate to be applied. Cash flows are derived from the contract rights of the shareholder loan instruments, which are discounted using the respective market interest rate for this instrument. The discount rate applied is 9.2% (31 Dec 2015: 9.2%). The fair value as at 31 December 2016 is EUR 467.2m (31 Dec 2015: EUR 432.0m). There is no contractual obligation to repay the shareholder loan instruments.

An increase of ten basis points in the discount rate for the shareholder loan instruments and the BCP shareholder loans led to an accumulated decrease in financial liabilities of less than EUR 1.5m as at 31 December 2016 (31 Dec 2015: EUR 2.0m). A decrease of ten basis points in the discount rate results in an increase in financial liabilities of less than EUR 1.5m (31 Dec 2015: EUR 2.0m). The sensitivity analyses were calculated by adjusting one parameter while keeping all other parameters unchanged.

A further shareholder loan of EUR 80.0m was provided by GvH Vermögensverwaltungsgesellschaft XXXIII mbH on 5 May 2015 (shareholder loan – GvH). The interest rate on this shareholder loan is 2.0% p.a. Interest is accrued and not compounded. The loan together with the accrued interest will mature in May 2030. Interest of EUR 2.7m (31 Dec 2015: EUR 1.1m) that did not increase the nominal amount of the loan was deferred at the reporting date and was recognised using the effective interest method.

All shareholder loans are subordinated to the senior and PHY loans. The following tables show the carrying amount of the financial debt of the Group as well as the respective maturities:

		31 Dec 2016						
			Remaining term in years					
in EUR million	Effective interest rate	Carrying amount	< 1 to 1	> 1 to 2	> 2 to 3	> 3 to 5	> 5	Total
Senior loans	6.6%	2,911.9	30.6	30.6	30.6	2,820.2	-	2,911.9
Shareholder loan instruments		467.2	-	-	-	-	467.2	467.2
Shareholder loan - BCP		414.3	-	-	-	-	414.3	414.3
PHY loan	9.2%	215.7	-	-	-	215.7	-	215.7
Shareholder loan - GvH	9.7%	73.7	-	-	-	-	73.7	73.7
Revolving credit facility	3.3%	52.0	52.0	-	-	-	-	52.0
Other financial liabilities	0.0%	1.1	1.1	-	-	-	-	1.1
Total		**4,135.9**	**83.7**	**30.6**	**30.6**	**3,035.9**	**955.2**	**4,135.9**

		31 Dec 2015						
			Remaining term in years					
in EUR million	Effective interest rate	Carrying amount	< 1 to 1	> 1 to 2	> 2 to 3	> 3 to 5	> 5	Total
Senior loans	5.7%	2,464.8	25.9	25.9	25.9	2,387.1	0.0	2,464.8
PHY loan	9.5%	619.8	-	-	-	-	619.8	619.8
Shareholder loan instruments		432.0	-	-	-	-	432.0	432.0
Shareholder loan - BCP		383.1	-	-	-	-	383.1	383.1
Shareholder loan - GvH	9.7%	67.3	-	-	-	-	67.3	67.3
Revolving credit facility	3.7%	50.0	50.0	-	-	-	-	50.0
Other financial liabilities	0.0%	1.4	1.4	-	-	-	-	1.4
Total		**4,018.4**	**77.3**	**25.9**	**25.9**	**2,387.1**	**1,502.2**	**4,018.4**

The carrying amount of the senior and PHY loans was presented net of any discounts, arrangement fees and financing-related costs, as well as net of the fair market value of the embedded derivative – i.e. the 1.00% interest floor component – using the effective interest method. The effective interest was calculated based on an expected term of the loans of five years.

The line item "Other financial liabilities" contained accrued interests and bank fees.

The senior loans were denominated in Euro and US dollars and the carrying amounts as at 31 December 2016 and 2015 were as follows:

	31 Dec 2016		31 Dec 2015	
in million	EUR	US dollar	EUR	US dollar
Senior loans	1,582.3	1,401.3	1,183.9	1,394.5

The most relevant financial covenants to be monitored and reported are the leverage ratio (ratio between net debt and EBITDA) and the interest cover ratio (ratio between EBITDA and interest expenses). The ongoing compliance with the respective limits set for these key ratios is an important component of Springer Nature's capital management, since a covenant breach can lead to an unplanned debt repayment obligation. Constant monitoring, stress testing and various interest scenario simulations are applied by Springer Nature as part of the financial risk management process as a means of ensuring future covenant compliance. However, compliance with the leverage ratio only has to be ensured if more than 30.0% of the total revolver volume is drawn at the end of a quarter. By contrast, the interest cover ratio is an incurrence covenant, meaning that this covenant must only be complied with if certain events like further borrowing occur. No such event occurred during the reporting period and also not in prior year.

As at the end of reporting period, EUR 52.0m had been drawn on the revolving credit facility. The Group was, therefore, in compliance with all debt covenants and expects to maintain sufficient headroom under the limits set in the financing agreements for future periods. Springer Nature does not see an immediate need for a fundamental short-term to medium-term refinancing of the outstanding debt facilities, as the debt instruments will mature between 2020 and 2022.

Fixed repayments due in 2017 were presented as current financial liabilities in the consolidated statement of financial position.

25 Finance Lease Liabilities

Finance lease liabilities mainly stemmed from property lease contracts at Springer-Verlag GmbH, Heidelberg, Germany.

The finance leases were generally subject to a non-cancellable minimum lease term, at the end of which the lessee, Springer Nature, has the option of acquiring the leased asset at its residual value. There were no arrangements regarding conditional lease payments within the Group and the current leases did not contain options to renew. The lease payments from finance leases were as follows:

31 Dec 2016 in EUR million	Nominal value	Discounted amount	Present value
Less than 1 year	1.3	0.0	1.3
1 to 5 years	6.6	0.5	6.1
More than 5 years	-	-	-
Total lease payments	**7.9**	**0.5**	**7.4**

31 Dec 2015 in EUR million	Nominal value	Discounted amount	Present value
Less than 1 year	1.3	0.0	1.3
1 to 5 years	7.9	0.9	7.0
More than 5 years	-	-	-
Total lease payments	**9.2**	**0.9**	**8.3**

26 Other Long-Term Provisions, Non-Current Liabilities and Current Provisions

The line item "Other long-term provisions and non-current liabilities" included non-current purchase price liabilities, other non-current liabilities and other long-term provisions, broken down as follows:

in EUR million	31 Dec 2016	31 Dec 2015
Other non-current liabilities	18.4	11.1
Other non-current provisions	2.8	4.6
Purchase price liabilities	1.2	1.3
Other long-term provisions and non-current liabilities	**22.4**	**17.0**

The positions "Other non-current liabilities" and "Purchase price liabilities" were classified as financial liabilities.

The following tables provide details for the composition and movements in the current provisions:

in EUR million	Provisions for legal and other risks	Provisions for returns	Sundry provisions	Total current provisions
Balance as at 1 Jan 2016	8.6	12.0	14.2	34.8
Additions	2.5	8.7	5.3	16.5
Utilisation	(5.8)	(7.2)	(4.9)	(17.9)
Release	(2.5)	(1.3)	(0.9)	(4.7)
Reclassification	-	-	0.2	0.2
Currency translation differences	(0.1)	(0.2)	(0.1)	(0.4)
Balance as at 31 Dec 2016	**2.7**	**12.0**	**13.8**	**28.5**

in EUR million	Provisions for legal and other risks	Provisions for returns	Sundry provisions	Total current provisions
Balance as at 1 Jan 2015	1.4	5.2	0.7	7.3
Acquisition/disposal of business	-	13.1	1.5	14.6
Additions	8.2	12.0	14.1	34.3
Utilisation	(0.9)	(18.3)	(1.6)	(20.8)
Release	(0.3)	0.0	(0.4)	(0.7)
Reclassification	-	-	0.0	0.0
Currency translation differences	0.2	0.0	(0.2)	0.2
Balance as at 31 Dec 2015	**8.6**	**12.0**	**14.1**	**34.7**

The provisions for returns related to deliveries in the current and previous period. They were measured on past experience, normal course of business, and on assumptions regarding future development in the book market.

27 Other Current Liabilities

in EUR million	31 Dec 2016	31 Dec 2015
Derivative financial instruments	123.3	139.1
Royalty liabilities	72.2	81.4
Personnel-related liabilities	57.3	67.5
Debtors with credit balances	21.4	9.4
VAT liabilities	16.8	12.5
Sundry liabilities	24.9	37.7
Other current liabilities	**315.9**	**347.6**

The position “Sundry liabilities” included liabilities to Springer Hilfsfonds from a loan of EUR 3.2m (2015: EUR 3.2m).

All “Other current liabilities” were classified as financial liabilities.

28 Deferred Income

Deferred income included invoiced sales and subscription payments received in advance, to the extent that the goods were not delivered or services not rendered. Invoiced costs that are charged for packaging and transport were also included in the item. In subsequent periods, the deferred income item is released to the statement of profit or loss, usually within the next 12 months.

29 Off-Balance Sheet Commitments/Contingent Liabilities

Guarantees and securities of EUR 35.9m (2015: EUR 37.6m) had been granted as at 31 December 2016. An amount of EUR 22.8m (2015: EUR 24.0m) thereof was attributable to guarantees to secure day-to-day bank services (cash pool activities, overdraft facilities etc.), EUR 5.7m (2015: EUR 7.3m) to securities relating to the purchase of software licences, and EUR 2.9m (2015: EUR 2.9m) to securities on behalf of subsidiaries for existing rent agreements. There were other insignificant guarantees to secure company credit cards, business contracts and guarantees for income tax payments in several jurisdictions. The likelihood that the guarantees will result in any future cash outflow was very limited.

Springer Nature entered into journal content distribution deals under which Springer Nature is entitled to acquire the content, distribute and sell it in contractually agreed territories (co-publishing agreements). Springer Nature has to pay contractually agreed minimum royalties which are, however, subject to final adjustment based on quantity, quality and usage of delivered content. The remaining term of the contracts varies between two to six years and Springer Nature expects payment obligations of EUR 59.7m in 2017, slightly increasing in 2018 and decreasing in the following years. There were no other contingent liabilities.

The obligations for operating leases at year-end were EUR 210.8m (2015: EUR 170.8m). The maturity structure of the operating lease payments is summarised in the following table:

	31 Dec 2016	31 Dec 2015
in EUR million	**Nominal value**	**Nominal value**
Less than 1 year	32.9	32.6
1 to 5 years	95.8	81.4
More than 5 years	82.1	56.8
Total lease payments	**210.8**	**170.8**

The majority of the multi-year lease contracts related to office space. The remainder represented leases for company cars, office equipment and IT infrastructure.

30 Financial Instruments and Risk Management

Springer Nature is exposed to various forms of financial risks through its international business operations and financing agreements. This includes amongst others risks from its financial instruments and in particular from movement in foreign exchange rates and interest rates.

The following tables show the carrying amounts and, the amortised costs or fair values of the Group's financial instruments applying the categories of IAS 39, as at 31 December 2016 and 2015. For those financial instruments that were measured at amortised cost, the fair value equals amortised cost. Reported fair values can only be seen as indications of prices that might be achieved when selling these instruments in the market. As in the prior year, there were no reclassifications between the valuation categories in 2016.

	31 Dec 2016		
in EUR million	**Carrying amount**	**Amortized cost**	**Fair value**
Financial assets	4.2	4.2	-
Other non-current assets	4.2	4.2	-
Trade receivables	464.5	464.5	-
Other assets	26.9	26.9	-
Cash and cash equivalents	97.0	97.0	-
Loans and receivables	596.8	596.8	-
Available-for-sale financial assets	0.6	-	0.6
Financial assets measured at fair value not through profit or loss	0.6	-	0.6
Financial derivatives - held for trading	1.2	-	1.2
Other non-current assets	2.7	-	2.7
Financial assets at fair value through profit or loss	3.9	-	3.9
Total financial assets	**601.3**	**596.8**	**4.5**
Other long-term provisions and non-current liabilities	18.4	18.4	-
Liabilities to shareholders	73.8	73.8	-
Interest-bearing loans and borrowings	3,180.8	3,180.8	-
Finance lease liabilities	7.4	7.4	-
Trade payables	134.4	134.4	-
Other liabilities	192.4	192.4	-
Liabilities measured at amortised cost	3,607.2	3,607.2	-
Liabilities to shareholders	881.4	-	881.4
Other financial derivatives - held for trading	33.6	-	33.6
Embedded financial derivatives (1% floor) - held for trading	89.7	-	89.7
Contingent consideration at fair value	1.4	-	1.4
Financial liabilities at fair value through profit or loss	1,006.1	-	1,006.1
Total financial liabilities	**4,613.3**	**6,607.2**	**1,006.1**

	31 Dec 2015		
in EUR million	**Carrying amount**	**Amortized cost**	**Fair value**
Financial assets	5.3	5.3	-
Other non-current assets	5.2	5.2	-
Trade receivables	477.3	477.3	-
Other assets	37.4	37.4	-
Cash and cash equivalents	117.3	117.3	-
Loans and receivables	642.5	642.5	-
Available-for-sale financial assets	9.8	-	9.8
Financial assets measured at fair value not through profit or loss	9.8	-	9.8
Financial derivatives - held for trading	0.4	-	0.4
Other non-current assets	2.5	-	2.5
Financial assets at fair value through profit or loss	2.9	-	2.9
Total financial assets	**655.2**	**642.5**	**12.7**
Other long-term provisions and non-current liabilities	11.1	11.1	-
Liabilities to shareholders	67.3	67.3	-
Interest-bearing loans and borrowings	3,136.0	3,136.0	-
Finance lease liabilities	8.3	8.3	-
Trade payables	127.1	127.1	-
Other liabilities	208.3	208.3	-
Liabilities measured at amortised cost	3,558.1	3,558.1	-
Liabilities to shareholders	815.0	-	815.0
Other financial derivatives - held for trading	41.3	-	41.3
Embedded financial derivatives (1% floor) - held for trading	97.8	-	97.8
Contingent consideration at fair value	1.4	-	1.4
Financial liabilities at fair value through profit or loss	955.5	-	955.5
Total financial liabilities	**4,513.6**	**3,558.1**	**955.5**

The following table shows the reconciliation between financial instruments and the consolidated statement of financial position:

	31 Dec 2016		
in EUR million	**Financial Instruments**	**Other**	**Total in statement of financial position**
Financial assets	4.2	-	4.2
Other non-current assets	4.2	1.8	6.0
Trade receivables	464.5	-	464.5
Other assets	26.9	36.5	63.4
Cash and cash equivalents	97.0	-	97.0
Loans and receivables	596.8	38.3	635.1
Available-for-sale financial assets*	0.6	-	0.6
Financial assets measured at fair value not through profit or loss	0.6	0.0	0.6
Financial derivatives - held for trading*	1.2	-	1.2
Other non-current assets	2.7	-	2.7
Financial assets at fair value through profit or loss	3.9	0.0	3.9
Total assets	**601.3**	**38.3**	**639.6**
Other long-term provisions and non-current liabilities	18.4	2.8	21.2
Liabilities to shareholders	73.8	-	73.8
Interest-bearing loans and borrowings**	3,180.8	-	3,180.8
Finance lease liabilities**	7.4	-	7.4
Trade payables	134.4	-	134.4
Other liabilities	192.4	-	192.4
Liabilities measured at amortised cost	3,607.2	2.8	3,610.0
Liabilities to shareholders	881.4		881.4
Other liabilities (financial derivatives) – held for trading purposes***	123.3	-	123.3
Contingent consideration at fair value****	1.2	-	1.2
Contingent consideration at fair value***	0.2	-	0.2
Financial liabilities at fair value through profit or loss	1,006.1	-	1,006.1
Total provisions and liabilities	**4,613.3**	**2.8**	**4,616.1**

* "Other assets" item

** Short-term and long-term

*** "Other liabilities" item

**** "Other long-term provisions and non-current liabilities" item

in EUR million	31 Dec 2015 Financial Instruments	Other	Total in statement of financial position
Financial assets	5.3	-	5.3
Other non-current assets	5.2	4.8	10.0
Trade receivables	477.3	-	477.3
Other assets	37.4	43.7	81.1
Cash and cash equivalents	117.3	-	117.3
Loans and receivables	642.5	48.5	691.0
Available-for-sale financial assets*	9.8	-	9.8
Financial assets measured at fair value not through profit or loss	9.8	-	9.8
Financial derivatives - held for trading*	0.4	-	0.4
Other non-current assets	2.5	-	2.5
Financial assets at fair value through profit or loss	2.9	-	2.9
Total assets	**655.2**	**48.5**	**703.7**
Other long-term provisions and non-current liabilities	11.1	4.6	15.7
Liabilities to shareholders	67.3	-	67.3
Interest-bearing loans and borrowings**	3,136.0	-	3,136.0
Finance lease liabilities**	8.3	-	8.3
Trade payables	127.1	-	127.1
Other liabilities	208.3	-	208.3
Liabilities measured at amortised cost	3,558.1	4.6	3.562.7
Liabilities to shareholders	815.0		815.0
Other liabilities (financial derivatives) – held for trading purposes***	139.1	-	139.1
Contingent consideration at fair value****	1.3	-	1.3
Contingent consideration at fair value***	0.1	-	0.1
Financial liabilities at fair value through profit or loss	955.5	-	955.5
Total provisions and liabilities	**4,513.6**	**4.6**	**4,518.2**

* “Other assets” item

** Short-term and long-term

*** “Other liabilities” item

**** “Other long-term provisions and non-current liabilities” item

The tables below show the financial instruments measured at fair value through profit or loss categorised by valuation levels:

in EUR million	31 Dec 2016 Carrying amount	Level 1	Level 2	Level 3
Available for sale	0.6	0.6	-	-
Financial assets measured at fair value not through profit or loss	**0.6**	**0.6**	**-**	**-**
Held for trading	1.2	-	1.2	-
Other non-current assets	2.7	-	2.7	-
Financial assets at fair value through profit or loss	**3.9**	**-**	**3.9**	**-**
Held for trading	123.3	-	123.3	-
Liabilities to shareholders	881.5	-	-	881.5
Contingent consideration at fair value	1.4	-	-	1.4
Financial liabilities at fair value through profit or loss	**1,006.2**	**-**	**123.3**	**882.9**

in EUR million	31 Dec 2015 Carrying amount	Level 1	Level 2	Level 3
Available for sale	9.8	9.8	-	-
Financial assets measured at fair value not through profit or loss	**9.8**	**9.8**	**-**	**-**
Held for trading	0.4	-	0.4	-
Other non-current assets	2.5	-	2.5	-
Financial assets at fair value through profit or loss	**2.9**	**-**	**2.9**	**-**
Held for trading	139.1	-	139.1	-
Liabilities to shareholders	815.0	-	-	815.0
Contingent consideration at fair value	1.4	-	-	1.4
Financial liabilities at fair value through profit or loss	**955.5**	**-**	**139.1**	**816.4**

The gains and losses (excluding interest) recognised in the financial result in 2016 and 2015 are summarised as follows:

in EUR million	2016	2015
Other financial liabilities	(90.2)	(79.4)
Held for trading	37.4	18.0
Loans and receivables	(6.3)	3.0
Total gains and losses (result for the period)	**(59.1)**	**(58.4)**

The following table presents the interest income and expenses recognised in 2016 and 2015 associated with financial instruments:

in EUR million	2016	2015
Loans and receivables	5.5	4.7
Other financial liabilities	(208.2)	(234.7)
Total gains and losses (result for the period)	**(202.7)**	**(230.0)**

The following table presents the gains and losses recognised in other comprehensive income:

in EUR million	2016	2015
Available for sale	-	(0.0)
Total gains and losses (other comprehensive income)	**-**	**(0.0)**

Financial Risk Management

As part of its Group policies, Springer Nature has established a risk management process aimed at identifying and quantifying the risks that Springer Nature as a group is exposed to. As part of the annual budget process, and with a review in the first half of the following year, each business unit of Springer Nature assesses and updates its risk portfolio for the likelihood of occurrence, potential financial impact and risk mitigation measures. This process is coordinated by Springer Nature's Internal Audit department and tested for compliance with the guidelines for the risk management process. The findings are then summarised in a risk management report and presented to the management and supervisory board of Springer Nature on a regular basis. Springer Nature has categorised potential risks as

- external,
- market-related,
- process-related,
- project-related or
- relating to financing/financial instruments.

Springer Nature is exposed to a variety of financial risks, especially market risks resulting from movements in foreign exchange rates and interest rates.

Exchange Rate Risk

The Group is exposed to risks in various currencies. Foreign currency exchange rate exposure is partly balanced by having operating costs in the countries in which Springer Nature is selling its products and services.

Another central measure aimed at offsetting exchange rate risk consists of Springer Nature's split of debt tranches into Euro and US dollar denominated sub-tranches. Springer Nature has taken up financial debt denominated in US dollars, which leads to interest and regular debt repayments in US dollars. The nominal values of the loans are structured such that the corresponding interest and amortisation payments approximately equal the amount of operating cash inflows in US dollars which reduces the structural currency risk that could arise from currency imbalances in cash flows significantly.

Any significant currency item subject to exchange rate risk that is not covered by natural structural hedges is hedged separately and individually. In these cases, hedging instruments are entered into to minimise the risks arising from exchange rate fluctuations, between the date on which the hedges were entered into and the expected date of the cash inflow relating to the underlying business transaction. The counterparty risk of these transactions is closely monitored and contracts are only entered into with banks that meet certain tight rating criteria.

The following table summarises the nominal amounts, the fair values as at 31 December 2016 and 2015, and the gains and losses recognised for the forward exchange contracts in each of the periods. The nominal amounts represent the total of all underlying selling amounts.

Forward exchange contracts in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2016	128.9	(0.8)	(1.4)
31 Dec 2015	37.0	(0.3)	1.2

Another risk arises from Group entities with functional currencies other than the Euro. The income and expenses of these group entities were translated into Euro using the annual average rate, while assets and liabilities were translated into Euro using the closing rate in order to include them in the consolidated financial statements. Changes in the exchange rates may affect, for example, the Group's revenues and net result as well as the equity position of Springer Nature.

The Group's exposure to changes in the fair value of its monetary assets and liabilities depends mainly on the movement in the exchange rate of the US dollar against the Euro. The positive exchange rate effect from financial assets and liabilities denominated in US dollars in each of Springer Nature's subsidiaries on the Group's net result before taxes is EUR 39.3m (2015: EUR 35.3m) in the case that the US dollar depreciates by 5.0% against the Euro with all other variables held constant. The effect on cash flow is substantially less significant because of the natural hedge relationship through the financing in US dollars.

Interest Rate Risk

The Group is exposed to interest rate risk as Springer Nature's financial debt is subject to variable interest rates. More specifically, as Springer Nature has agreed to a 1.0% floor on its lending rates, any fluctuation of the base interest rates in the US dollar and Euro markets above 1.0% impact Springer Nature's interest expense. Furthermore, negative interest rates have an adverse impact on Springer Nature's result as well given the fact that interest rate swaps are not floored at 0.0%.

To mitigate the risk resulting from movements in interest rates the Group entered into payer swaps (i.e. Springer Nature pays a fixed rate and receives a variable interest rate) to hedge the floating interest rate loans. The hedges mature in September 2018. As at 31 December 2016, 41.0% of the outstanding nominal amounts of the senior loans and PHY loan (EUR 1,347.8m; 2015: EUR 1,334.9m) were hedged at an average fixed hedge rate of 1.96% (2015: 1.30%).

The derivatives used by the Group are not traded on an organised exchange (OTC instruments) and were only concluded with banks of impeccable credit standing that were approved by management. All derivatives were reported at fair value through profit and loss. No financial derivatives are used for speculative purposes.

The following table summarises the nominal amounts, the fair values at year-end (translated at closing exchange rates), as well as the gains and losses recognised in the respective financial year (translated at average exchange rates) for the interest rate swaps.

Interest rate swaps in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2016	1,347.8	(31.6)	9.2
31 Dec 2015	1,334.9	(40.7)	(1.0)

The nominal amounts are the amounts used to calculate the fixed rate and floating rate interest payments. The fair values of the different interest rate swaps were determined using a discounted cash flow calculation, based on the valuations and available market data as at the reporting date provided by the respective banks with which the contracts were concluded.

The fair value of the 1.0% floor component embedded in the senior loans and the PHY loan was calculated using the Black-76 model and is presented below:

Floor instruments in EUR million	Nominal amount	Fair value	Gains/losses
31 Dec 2016	3,229.4	(89.7)	31.3
31 Dec 2015	3,213.7	(97.8)	17.4

Springer Nature is constantly monitoring the interest rate risk. In order to assess the impact of interest rate changes on the Group's interest expense for upcoming periods as well as on future fair values of its interest rate hedging derivatives, Springer Nature simulates variations both in the Euro and US dollar interest rates scenario analyses, whereby current yield curves and implied forward rates are used to forecast future cash interest payments and fair market values respectively. For the scenario analyses, forward rates are shifted or adjusted based on the scenario to be analysed.

The following tables show scenario analyses for interest expenses based on parallel shifts in market rates. The additional interest expenses represent the net effect, i.e. including the effects of opposing interest rate derivatives.

EURIBOR scenarios in EUR million	2016	2015
Actual interest expenses (-) and income (+) in the period	(119.8)	(112.0)
Change in interest expenses with parallel rate curve shift by:		
+300 bp	(12.7)	(11.1)
+200 bp	(1.1)	(2.5)
+100 bp	6.3	6.0
-50 BP	(3.2)	(3.1)

USD LIBOR scenarios in USD million	2016	2015
Actual interest expenses (-) and income (+) in the period	(78.5)	(75.6)
Change in interest expenses with parallel rate curve shift by:		
+300 bp	(11.2)	(0.3)
+200 bp	(6.1)	2.3
+100 bp	1.0	4.9
-50 BP	(3.9)	(4.0)

The following table summarises changes in market values and the effects of these changes in value on the statement of profit or loss with a parallel shift of the interest curve as at 31 December. For example, the scenario of an interest reduction of 50 basis points (bps) would have led to an additional losses of EUR 10.7m as at 31 December 2016.

in EUR million	31 Dec 2016	31 Dec 2015
Changes to the market value of swaps from changes to the interest rate by		
-50 bps	(10.7)	(17.7)
+100 bps	20.1	33.8
+200 bps	40.1	66.8
+300 bps	59.6	98.6

Credit Risk

The maximum exposure resulting from credit risks is the total of carrying amounts of each class of financial assets as at the reporting date. Springer Nature's credit risk is, however, mainly the default of customers with open accounts receivable balances. The Group manages its credit risk from trade receivables based on internal guidelines, e.g., internal limits for each customer and customers with large outstanding or overdue trade receivables are monitored regularly.

An amount of EUR 420.1m (2015: EUR 455.2m) of the Group's trade receivables related mainly to the Research and Education businesses, with a customer base that comprises to a large extent public administrations, universities, companies, wholesalers and agencies with strong credit ratings.

A further component of credit risk management is the constant monitoring of countries (and customers in the respective countries) with political instability and/or under financial distress.

Management had no evidence with respect to other given loans that any impairment was necessary.

Liquidity Risk

Liquidity risk for Springer Nature is the risk of not being able to meet financial obligations in full when these become due for payment. The primary sources of liquidity are the operating businesses, external borrowings and borrowings from related parties.

Springer Nature manages its liquidity by pooling and aggregating funds from group entities. Short-term liquidity needs are financed through existing cash balances or by drawing on the revolver. As at 31 December 2016, EUR 13.0m of the revolver was earmarked for letters of credit and other purposes in context of the operational business and was not available for liquidity drawings. Furthermore, two ancillary facilities with a total amount of EUR 16.0m are in place in order to facilitate efficient cash management. Those facilities can be used as overdraft facilities but also for other operational purposes like guarantees.

The Group uses foreign currency exchange swaps to efficiently close liquidity gaps in individual currencies using the available funds.

The following table summarises the nominal amounts, the outstanding foreign exchange swaps as at 31 December 2016 and 2015, as well as the gains and losses recognised in the respective financial year (translated at average exchange rate).

Foreign exchange swaps in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2016	1.4	0.0	(1.5)
31 Dec 2015	20.2	0.1	0.5

The following tables summarise the contractual cash flows of the financial liabilities and derivative financial instruments including the estimated and implied interest payments:

	31 Dec 2016						
in EUR million	**Carrying amount**	**Contractual cash flows**	**Less than 6 months**	**7-12 months**	**1 to 2 years**	**2-5 years**	**More than 5 years**
Non-derivative financial liabilities	**4,490.0**	**(4,595.0)**	**(475.4)**	**(98.1)**	**(206.3)**	**(3,471.2)**	**(343.9)**
Other long-term provisions and non-current liabilities	18.4	(20.4)	-	-	(5.9)	(12.5)	(2.0)
Interest-bearing loans and borrowings	3,180.8	(3,896.2)	(147.8)	(97.4)	(193.8)	(3,457.1)	-
Liabilities to shareholders	955.2	(341.9)	-	-	-	-	(341.9)
Finance lease liabilities	7.4	(7.9)	(0.7)	(0.7)	(6.6)	(0.0)	-
Trade payables	134.4	(134.4)	(134.4)	-	-	-	-
Other liabilities	192.4	(192.4)	(192.4)	-	-	-	-
Contingent consideration	1.4	(1.8)	(0.2)	-	-	(1.6)	-
Derivative financial instruments	**122.1**	**(106.3)**	**(20.8)**	**(19.8)**	**(32.4)**	**(33.3)**	**-**
Forward exchange contracts (financial liabilities)	0.8						
Cash inflows		130.3	39.8	26.5	32.0	32.0	-
Cash outflows		(130.3)	(39.4)	(26.1)	(32.4)	(32.4)	-
Currency swaps (financial asset)	(0.0)						
Cash inflows		1.5	1.5	-	-	-	-
Cash outflows		(1.4)	(1.4)	-	-	-	-
1.00% floor comp. (financial liabilities)	89.7	(74.5)	(10.9)	(10.7)	(20.0)	(32.9)	-
Interest rate swaps (financial liabilities)	31.6						
Cash inflows		14.4	2.8	3.8	7.8	-	-
Cash outflows		(46.3)	(13.2)	(13.3)	(19.8)	-	-

	31 Dec 2015						
in EUR million	Carrying amount	Contractual cash flows	Less than 6 months	7-12 months	1 to 2 years	2-5 years	More than 5 years
Non-derivative financial liabilities	**4,374.7**	**(5,186.0)**	**(441.1)**	**(104.7)**	**(216.0)**	**(3,003.4)**	**(1,420.9)**
Other long-term provisions and non-current liabilities	11.1	(11.7)	(0.3)	(0.0)	(4.2)	(3.5)	(3.7)
Interest-bearing loans and borrowings	3,136.0	(4,094.0)	(104.6)	(104.0)	(210.3)	(2,991.7)	(683.4)
Liabilities to shareholders	882.3	(733.8)	-	-	-	-	(733.8)
Finance lease liabilities	8.3	(9.3)	(0.7)	(0.7)	(1.3)	(6.7)	(0.0)
Trade payables	127.1	(127.1)	(127.1)	-	-	-	-
Other liabilities	208.3	(208.3)	(208.3)	-	-	-	-
Contingent consideration	1.4	(1.8)	(0.1)	-	(0.2)	(1.5)	-
Derivative financial instruments	**138.7**	**(126.0)**	**(19.5)**	**(18.6)**	**(42.5)**	**(45.3)**	**(0.1)**
Forward exchange contracts (financial liabilities)	0.3						
Cash inflows		33.4	27.2	6.2	-	-	-
Cash outflows		(32.5)	(26.6)	(5.2)	-	-	-
Currency swaps (financial asset)	(0.1)						
Cash inflows		20.0	20.0	-	-	-	-
Cash outflows		(20.1)	(20.1)	-	-	-	-
1.00% floor comp. (financial liabilities)	97.8	(76.9)	(13.0)	(11.6)	(21.3)	(30.9)	(0.1)
Interest rate swaps (financial liabilities)	40.7						
Cash inflows		11.1	1.6	0.4	4.4	4.7	-
Cash outflows		(61.0)	(8.6)	(7.7)	(25.6)	(19.1)	-

31 Consolidated Statement of Cash Flows

Springer Nature’s statement of cash flows is based on IAS 7 and is intended to enable the reader of the consolidated financial statements to assess the Group’s ability to generate cash and cash equivalents. Cash flows are subdivided into net cash flows from operating, investing and financing activities. The statement of cash flows includes the effects of movements in exchange rates and changes in the scope of consolidation. The net cash flows from operating activities are presented using the indirect method, which adjusts the net result for the period for items not generating or using cash for the year.

Investing activities includes purchases of non-current assets, cash payments and proceeds related to the acquisition and divestiture of businesses, as well as proceeds from disposals of non-current assets. Financing activities include changes in shareholders’ equity affecting cash, changes in financial liabilities and shareholder loans. Cash and cash equivalents comprise the total volume of liquid funds.

32 Related-Party Transactions and Management Remuneration

Springer SBM Zero GmbH, Berlin, is the parent of the Group in which GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart holds 53.0% and Springer Science+Business Media GP Acquisition S.C.A., Luxembourg, holds 47.0%. GvH Vermögensverwaltungsgesellschaft XXXIII mbH is a 100.0% subsidiary of the Holtzbrinck Publishing Group. Springer Science+Business Media GP Acquisition S.C.A. is a partnership limited by shares and its managing general partner is Springer Science+Business Media GP S.à.r.l., Luxembourg. The interests in Springer Science+Business Media GP Acquisition S.C.A. are held by funds that are advised by BC Partners Limited, EQT Partners AB and GIC (sovereign fund of the Government of Singapore) as well as by investment companies in which management holds the shares.

The members of the supervisory board are listed in the following table:

Name	Appointment date
von Holtzbrinck, Stefan (chairman)	5 May 2015
Walgenbach, Ewald (deputy chairman)	5 May 2015
Brockhaus, Michael	5 May 2015
Haderer, Hans	5 May 2015
Mogge, Christian	5 May 2015
Schwanewedel, Jens	5 May 2015

The following table shows the managing directors of Springer Nature in 2016 and 2015:

Name	Appointment	Resignation
Haank, Derk	28 Feb 2014	
Inchcoombe, Steven	1 Jun 2016	
Jacobs, Rachel	1 Jun 2016	
Mos, Martin	28 Feb 2014	
Thomas, Annette	5 May 2015	9 Mar 2016
Vest, Ulrich	28 Feb 2014	

Related parties are regarded as those persons and entities that control the Group or that are controlled or subject to significant influence by the Group.

Other related parties (entities) include the entities that Springer Nature controls but that are not consolidated because there are no material business dealings with them and they are not material for the Group on aggregate.

The following tables show the transactions with parties with significant influence over the Group:

Related party transactions 2016 in EUR million	Sale of goods/ services to related parties in 2016	Purchases of goods/services from related parties in 2016	Financial result 2016	Amounts owed by related parties 31 Dec 2016	Amounts owed to related parties 31 Dec 2016
Holtzbrinck Publishing Group*	11.6	19.2	(47.0)	15.1	603.9
Springer Science+Business Media GP Acquisition S.C.A.	-	-	(35.5)	-	414.3

* transactions relate to different legal entities of Holtzbrinck Publishing Group

Related party transactions 2015 in EUR million	Sale of goods/ services to related parties in 2015	Purchases of goods/services from related parties in 2015	Financial result 2015	Amounts owed by related parties 31 Dec 2015	Amounts owed to related parties 31 Dec 2015
Holtzbrinck Publishing Group*	12.1	13.4	(28.6)	21.0	510.3
Springer Science+Business Media GP Acquisition S.C.A.	0.1	0.2	(51.5)	5.0	383.1

* transactions relate to different legal entities of Holtzbrinck Publishing Group

The financial liabilities included the shareholder loans granted by Springer Science+Business Media GP Acquisition S.C.A. and GvH Vermögensverwaltungsgesellschaft XXXIII mbH; the expense in the financial result corresponds to the interest calculated using the effective interest method as well as the measurement gain or loss from financial instruments recognised at fair value through profit or loss.

An indefinite license agreement was concluded with Holtzbrinck Publishing Group to use the Macmillan trade name.

Management Participation

Managing directors of Springer Nature, as well as certain managers of the Group ("management"), purchased interests in Springer Science+Business Media GP Acquisition S.C.A. via investment companies, i.e. German limited partnerships and Dutch foundations. The acquisition was carried out at fair value and management was not awarded any benefits from the acquisition and thus no remuneration expense was recorded for this transaction.

Remuneration of Springer Nature Management

Payments made to managing directors of Springer Nature in 2016 amounted to EUR 8.0m (2015: EUR 3.6m) and comprised short-term benefits to active board members, as well as one-off payments following the resignation and exit of one board member. Payments in relation to long-term benefits amounted to EUR 0.2m in 2016 (2015: EUR 0.1m). The related payments were made by the different subsidiaries of Springer Nature.

33 Subsequent Events

In March 2017, Springer Nature successfully negotiated a repricing of its senior loans denominated in EUR. As a result the floor will be reduced by 0.5% to 0.5% and the margin will decrease to 3.25%. Furthermore, new funds denominated in EUR were used to repay a portion of the approximate USD 133m in senior loans denominated in US dollars. The effective date of the repricing was 7 April 2017.

On 27 June 2017, Springer Nature made it known that Derk Haank will step down from his role as chief executive officer (CEO) by the end of 2017. His successor is Daniel Ropers, currently the CEO of bol.com. To ensure a smooth handover, Daniel Ropers will work together with Derk Haank for a transition period starting 1 October 2017.

There were no further events after the reporting date, which had a significant influence on the net assets, financial position or results of operations of the Group.

Berlin, 26 July 2017

Derk Haank	Steven Inchcoombe	Rachel Jacobs
Martin Mos	Ulrich Vest	

Name and registered office of entity	% shareholding 2016	% shareholding 2015
Parent company		
Springer SBM Zero GmbH, Berlin		
Subsidiaries		
Argentina		
Editorial Estrada S.A., Buenos Aires	100.00	100.00
Editorial Puerto de Palos S.A., Buenos Aires	100.00	100.00
Macmillan Publishers S.A., Buenos Aires	100.00	100.00
Springer ADIS Argentina S.A., Buenos Aires	100.00	100.00
Australia		
Macmillan Science and Education Australia Pty Ltd., Victoria	100.00	100.00
Springer Science and Business Media Australia Pty Ltd., Sydney	100.00	100.00
Austria		
Hubert Ebner Verlags GmbH, Thalheim bei Wels	100.00	100.00
Springer Austria Holding GmbH, Vienna	100.00	100.00
Springer-Verlag GmbH, Vienna	100.00	100.00
Botswana		
Macmillan Botswana Publishing Company (Pty), Gaborone	100.00	100.00
Brazil		
Macmillan do Brasil Editora, Commercializdora, Importadora e Distribuitora Ltda., São Paulo	100.00	100.00
Springer Health Do Brasil Ltda., São Paulo	100.00	100.00
China		
Macmillan Information Consulting Services Co. Ltd., Shanghai	100.00	100.00
Shanghai Springer Information Consulting Services Co., Ltd, Shanghai	100.00	100.00
Colombia		
Macmillan Publishers S.A.S., Bogotá	100.00	100.00
Egypt		
Kawkab Distribution Ltd., Cairo	98.00	98.00
Macmillan Publishers Egypt Ltd., Cairo	100.00	100.00
France		
Codes Rousseau S.A.S., Château d'Olonne	100.00	100.00
Planète Permis S.A.S., Goxwiller	100.00	100.00
Springer Science+Business Media France S.A.R.L., Paris	100.00	100.00
Springer Science+Business Media France S.A.S., Paris	100.00	100.00
Springer-Verlag France S.A.S., Paris	100.00	100.00
Germany		
FUCHSBRIEFE Dr. Hans Fuchs GmbH, Berlin*	100.00	100.00
DriversCoach GmbH, Rahden*	100.00	100.00
InfoChem Gesellschaft für chemische Information mbH, Munich*	100.00	100.00
J.B. Metzler Verlag GmbH, Stuttgart**	-	100.00
Medizinisches Bildungszentrum Deutschland GmbH, Hamburg*	100.00	-
MSE Beteiligungungen GmbH, Berlin*	100.00	100.00
Spektrum der Wissenschaft Verlagsgesellschaft mbH, Heidelberg*	100.00	100.00
Springer Campus GmbH, Berlin*	100.00	-
Springer Customer Service Center GmbH, Heidelberg*	100.00	100.00
Springer Fachmedien München GmbH, Munich*	100.00	100.00
Springer Fachmedien Wiesbaden GmbH, Wiesbaden*	100.00	100.00
Springer Medizin Verlag GmbH, Berlin*	100.00	100.00
Springer SBM Two GmbH, Berlin*	100.00	100.00

Name and registered office of entity	% shareholding	
	2016	2015
Germany (continued)		
Springer SBM One GmbH, Berlin	73.12	73.12
Springer Science+Business Media Deutschland GmbH, Berlin*	100.00	100.00
Springer Science+Business Media Real Estate GmbH, Berlin*	100.00	100.00
Springer Science+Business Media Real Estate Holding GmbH, Berlin*	100.00	100.00
Springer SBM International GmbH, Berlin*	100.00	100.00
Springer Science+Business Media GmbH, Berlin*	100.00	100.00
Springer Verlag GmbH, Heidelberg*	100.00	100.00
Tiega 15 GmbH, Berlin*	100.00	100.00
Wendel-Verlag GmbH, Kassel*	100.00	100.00
Hong Kong		
Macmillan Production (Asia) Limited, Hong Kong**	-	100.00
Macmillan Publishers (China) Limited, Hong Kong	100.00	100.00
Springer Asia Ltd., Hong Kong	100.00	100.00
India		
Crest Premedia Solutions Private Limited, Pune	90.00	90.00
Macmillan Publishers India Private Limited, Chennai	88.10	88.10
Scientific Publishing Services Private Ltd., Chennai	90.00	90.00
Springer Editorial Services Private Limited, New Delhi**	-	100.00
Springer (India) Private Ltd., New Delhi	100.00	100.00
Italy		
Springer-Verlag Italy S.r.l., Milan	100.00	100.00
Springer Healthcare Italy S.r.l., Milan	100.00	100.00
Japan		
Macmillan Language House Limited, Tokyo	100.00	100.00
Nature Japan KK, Tokyo	100.00	100.00
Springer Japan KK, Tokyo	100.00	100.00
Lesotho		
Macmillan Boleswa Publishers (Lesotho) (Pty) Limited, Maseru	100.00	100.00
Mauritius		
Springer SBM Holding Ltd., Ebene	100.00	100.00
Springer SBM Services Ltd., Ebene	100.00	100.00
Mexico		
Ediciones Castillo, S.A. de C.V., Mexico City	100.00	100.00
Heinemann Mexico S.A. de C.V., Mexico City**	-	100.00
Macmillan Administracion Corporativa, S.A. de C.V., Mexico City	100.00	100.00
Macmillan Publishers, S.A. de C.V., Mexico City	100.00	100.00
Springer Science+Business Media Mexico, S.A. de C.V., Mexico City	100.00	100.00
Mozambique		
Editora Nacional de Mocambique, Maputo	90.00	90.00
Macmillan Educacao Mozambique Limitada, Maputo	80.00	80.00
Namibia		
Edumeds (Pty) Limited, Windhoek	100.00	100.00
Edumeds (Rundu) (Pty) Limited, Windhoek	100.00	100.00
Macmillan Education Namibia Publishers (Pty) Limited, Windhoek	100.00	100.00
Namibia Educational Services (Pty) Limited, Windhoek	100.00	100.00
Namibia Publishing House (Pty) Limited, Windhoek	100.00	100.00
Netherlands		
Checklist Publishing B.V., Dordrecht	100.00	100.00
College Press Netherlands B.V., Amsterdam	100.00	100.00
Mekentosj B.V., Dordrecht	100.00	100.00
Publicount B.V., Rotterdam	100.00	100.00

Name and registered office of entity	% shareholding	
	2016	2015
Netherlands (continued)		
Rendement Uitgeverij B.V., Rotterdam	100.00	100.00
Springer Media B.V., Houten	100.00	100.00
Springer Science+Business Media B.V., Dordrecht	100.00	100.00
Springer Science+Business Media Finance B.V., Dordrecht	100.00	100.00
New Zealand		
Adis International Limited, Auckland	100.00	100.00
Peru		
Macmillan Publishers S.A., Lima	95.00	95.00
Poland		
Macmillan Polska Sp. z o.o., Warsaw	100.00	100.00
Singapore		
Springer Nature Singapore Private Ltd., Singapore	100.00	100.00
South Africa		
Macmillan Author's Share Trust, Johannesburg***	-	-
Macmillan Employee Share Trust, Johannesburg***	-	-
Macmillan South Africa (Pty) Limited, Johannesburg	75.00	75.00
Springer Science and Business Media South Africa (Pty) Ltd., Midrand (Johannesburg)	100.00	100.00
South Korea		
Macmillan Korea Publishers Limited, Seoul	100.00	100.00
Springer Korea Ltd., Seoul	100.00	100.00
Spain		
Editorial Trafico Vial S.A., Móstoles (Madrid)	100.00	100.00
Macmillan Iberia S.A.U., Madrid	100.00	100.00
Nature Publishing Group Iberoamerica, S.L., Madrid**	-	100.00
Prensa Cientifica S.A., Barcelona	100.00	100.00
Springer Healthcare Iberica S.L., Madrid	100.00	100.00
Swaziland		
Macmillan Boleswa Publishers (Pty) Limited, Mbabane	100.00	100.00
Macmillan Education Swaziland (Pty) Limited, Mbabane	100.00	100.00
MSNP Pty Limited, Mbabane	70.00	70.00
Switzerland		
Springer International Publishing AG, Cham	100.00	100.00
Springer Transport Media Schweiz GmbH, Urdorf	100.00	100.00
Taiwan		
Macmillan Taiwan Limited, Taipei	100.00	100.00
Springer Taiwan Limited, Taipei	100.00	100.00
Thailand		
Macmillan Publishers (Thailand) Limited, Bangkok	100.00	100.00
Turkey		
Springer Yayincilik Ticaret Limited Sirketi, Istanbul	100.00	100.00
UK		
BioMed Central Limited, London	100.00	100.00
Current Controlled Trials Limited, London	100.00	100.00
Current Science Limited, London	100.00	100.00
Genome Biology Limited, London	100.00	100.00
HM Publishers Holdings Limited, London	100.00	100.00
Holtzbrinck Publishers Holdings Limited, London	100.00	100.00
Livfe Limited, London	100.00	100.00
Macmillan (SLP) General Partner Limited, Edinburgh	100.00	100.00
Macmillan Limited, London	100.00	100.00
Macmillan Magazines Limited, London	100.00	100.00

Name and registered office of entity	% shareholding 2016	% shareholding 2015
UK (continued)		
Macmillan Pension Plan Limited, London	100.00	100.00
Macmillan Publishers Holdings Limited, London	100.00	100.00
Macmillan Publishers Limited, London	100.00	100.00
Macmillan Scottish Limited Partnership, Edinburgh	100.00	100.00
Macmillan Subscriptions Limited, London	100.00	100.00
Springer Healthcare Limited, London	100.00	100.00
Springer Nature One Limited, London	100.00	-
Springer Nature Two Limited, London	100.00	-
Springer Science+Business Media UK Limited, London	100.00	100.00
Springer-Verlag London Limited, London	100.00	100.00
Stampdew Limited, London	100.00	100.00
USA		
Apress LLC, Sacramento	100.00	100.00
KC & COF Inc., Emeryville	100.00	100.00
Macmillan Academic Publishing Inc., New York	100.00	100.00
Nature America Inc., New York	100.00	100.00
Rednova Learning Inc., Florida	100.00	100.00
Springer Customer Service Center LLC, Wilmington	100.00	100.00
Springer Healthcare LLC, Wilmington	100.00	100.00
Springer Science+Business Media LLC, Boston	100.00	100.00
Springer Science+Business Media Finance Inc., Wilmington	100.00	100.00

The Group has an interest in the Macmillan Scottish Limited Partnership which is fully consolidated into the consolidated financial statements. The Group has made use of the exemption conferred by Regulation 7 of the Partnerships (Accounts) Regulations 2008 and has, therefore, not appended the accounts of this qualifying partnership to these financial statements. Separate accounts for the partnership are not required to be, and have not been, filed at Companies House in the UK.

* The Group has made use of the exemption clause of section 264 paragraph 3 number 4a HGB ("Handelsgesetzbuch": German Commercial Code), relieving it from the duty to publish and file the separate financial statements of these German entities.

** merged, liquidated or deregistered

*** Springer Nature controls the trusts through the trustees which are nominated by a subsidiary of the Group.

35 Associates as at 31 December 2016/2015

Name and registered office of entity	% shareholding 2016	% shareholding 2015
France		
Pour la Science S.A.R.L., Paris	50.00	50.00
Germany		
GbR Musik in Geschichte und Gegenwart, Kassel	50.00	50.00
med update GmbH, Wiesbaden*	50.00	50.00
Springer-VDI-Verlag GmbH, Düsseldorf	45.00	45.00
Springer-VDI-Verlag GmbH & Co. KG, Düsseldorf	45.00	45.00
Italy		
Le Scienze S.p.A., Rome	50.00	50.00
Japan		
Nikkei Science Inc., Tokyo	50.00	50.00
Spain		
Ediciones Bilingues SL, Madrid	50.00	50.00
USA		
Research Square LLC, Durham	30.00	-
Zimbabwe		
College Press Publishers (Pty) Limited, Harare	48.91	48.91

* 49.00% of voting rights

36 *Other Investments as at 31 December 2016/2015*

Name and registered office of entity	% shareholding	
	2016	2015
Akademie der Deutschen Medien gGmbH, Munich, Germany	5.00	5.00
Editorial Delti Mexico S.A. DE C.V., Mexico City, Mexico	15.18	15.18
Inchi Trust Ltd. (Limited by Guarantee), London, UK	50.00	50.00
King's Cross and ST. Pancras Business Partnership Ltd., London, UK	12.50	12.50
Princeton Architectural Press, Inc., New York, USA	1.10	1.10
Repro India Limited, Mumbai, India	15.00	15.00

The following English-language translation of the German-language audit opinion (Bestätigungsvermerk) refers to the consolidated financial statements, prepared in accordance with International Financial Reporting Standards as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB ("Handelsgesetzbuch": German Commercial Code), as well as the group management report, prepared on the basis of German commercial law (HGB), of Springer SBM Zero GmbH, Berlin, as of and for the year ended December 31, 2016 as a whole and not solely to the consolidated financial statements presented in this prospectus on the preceding pages. The group management report is not part of this prospectus.

Audit Opinion

We have audited the consolidated financial statements prepared by Springer SBM Zero GmbH, Berlin, comprising the statement of profit or loss, the statement of comprehensive income, the statement of financial position, the statement of cash flows, the statement of changes in equity, the notes to the consolidated financial statements, together with the group management report for the financial year from 1 January to 31 December 2016. The preparation of the consolidated financial statements and the group management report in accordance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB ("Handelsgesetzbuch": German Commercial Code) is the responsibility of the company's management. Our responsibility is to express an opinion on the consolidated financial statements and the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with Sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315a HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The group management report is consistent with the consolidated financial statements, complies with the legal requirements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Berlin, 26 July 2017

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

(signed)	*(signed)*
Kausch-Blecken von Schmeling Wirtschaftsprüfer (German Public Auditor)	Weiß Wirtschaftsprüfer (German Public Auditor)

Consolidated Financial Statements of
Springer SBM Zero GmbH
as of and for the year ended December 31, 2015 (IFRS)

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Consolidated Statement of Profit or Loss

in EUR million	Note	2015	2014
Revenues	1	1,470.7	959.1
Other operating income	2	58.3	30
Internal costs capitalised	3	28.6	20.4
Change in inventories		(20.1)	4.1
Cost of materials	4	(197.3)	(104.2)
Royalty and licence fees	5	(119.4)	(93.8)
Personnel costs	6	(457.1)	(275.1)
Other operating expenses	7	(365.6)	(197.3)
Income from associates and other investments	16	1.2	0.7
Gains/losses from the disposal of businesses/investments		0.0	(2.4)
Earnings before interest, taxes, depreciation and amortisation (EBITDA)		**399.3**	**341.5**
Amortisation and impairment of intangible assets	8	(243.3)	(248.1)
Depreciation of property, plant and equipment	8	(16.4)	(8.6)
Result from operations		**139.6**	**84.8**
Financial expenses	9	(388.8)	(388.5)
Financial income	9	69.3	56.6
Financial result		**(319.5)**	**(331.9)**
Earnings before taxes		**(179.9)**	**(247.1)**
Income taxes	10	36.0	21.8
Net result for the period		**(143.9)**	**(225.3)**
Net result attributable to:			
Owners of the parent		(141.6)	(224.0)
Non-controlling interests		(2.3)	(1.3)
Net result for the period		**(143.9)**	**(225.3)**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Comprehensive Income

in EUR million	Note	2015	2014
Net result for the period		**(143.9)**	**(225.3)**
Other comprehensive income not to be reclassified to profit or loss in subsequent periods (after taxes):			
Actuarial gains and losses on pension plans (net)	23	15.5	(29.8)
Deferred taxes on actuarial gains and losses (net)	10	(4.1)	9.2
Items not to be reclassified to profit or loss		**11.4**	**(20.6)**
Other comprehensive income to be reclassified to profit or loss in subsequent periods (after taxes):			
Currency translation differences		27.6	33.0
Changes in the fair value of available-for-sale financial assets	30	0.0	0.1
Deferred taxes on changes in the fair value of available-for-sale financial assets	10	0.0	0.0
Items to be reclassified to profit or loss		**27.6**	**33.1**
Other comprehensive income for the period (after taxes)		**39.0**	**12.5**
Total comprehensive loss for the period		**(104.9)**	**(212.8)**
Total comprehensive loss attributable to:			
Owners of the parent		(102.7)	(211.5)
Non-controlling interests		(2.2)	(1.3)
Total comprehensive loss for the period		**(104.9)**	**(212.8)**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Financial Position

Assets in EUR million	Note	31 Dec 2015	31 Dec 2014	1 Jan 2014
Goodwill	12	1,346.9	1,239.0	1,220.7
Other intangible assets	13	4,154.5	2,776.7	2,794.7
Property, plant and equipment	15	173.0	47.5	55.7
Investments in associates	16	7.6	4.5	4.5
Financial assets	17	5.3	7.2	26.4
Other non-current assets		12.5	8.9	9.2
Deferred tax assets	10	8.5	2.3	2.1
Non-current assets	11	**5,708.3**	**4,086.1**	**4,113.3**
Inventories	18	84.2	27.4	24.0
Trade receivables	19	477.3	222.3	212.8
Income tax receivables		10.2	4.3	10.0
Other current assets	20	91.3	34.1	23.9
Cash and cash equivalents	21	117.3	66.9	46.5
Current assets		**780.3**	**355.0**	**317.2**
Total assets		**6,488.6**	**4,441.1**	**4,430.5**

Equity and liabilities in EUR million	Note	31 Dec 2015	31 Dec 2014	1 Jan 2014
Share capital		0.1	0.0	0.0
Capital reserves		771.2	321.2	321.2
Retained earnings/other accumulated equity		(206.1)	(20.9)	(33.0)
Net result for the period attributable to owners of the parent		(141.6)	(224.0)	-
Shareholders' equity		**423.6**	**76.3**	**288.2**
Non-controlling interests		(2.3)	(1.8)	0.6
Equity	22	**421.3**	**74.5**	**288.8**
Liabilities to shareholders	24	882.3	579.5	533.4
Provisions for pensions and other long-term employee benefits	23	215.2	174.5	143.8
Interest-bearing loans and borrowings	24	3,058.6	2,360.0	2,230.6
Finance lease liabilities	25	7.0	5.6	6.5
Other long-term provisions and non-current liabilities	26	17.0	4.4	3.2
Deferred tax liabilities	10	898.3	664.0	694.0
Long-term provisions and non-current liabilities		**5,078.4**	**3,788.0**	**3,611.5**
Interest-bearing loans and borrowings	24	77.4	19.6	37.3
Finance lease liabilities	25	1.3	1.3	1.3
Provisions	26	34.7	7.3	7.9
Trade payables		127.1	68.7	73.8
Income tax payables		24.3	17.2	19.4
Other current liabilities	27	347.6	251.7	172.3
Deferred income	28	376.5	212.8	218.2
Short-term provisions and current liabilities		**988.9**	**578.6**	**530.2**
Total equity and liabilities		**6,488.6**	**4,441.1**	**4,430.5**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Cash Flows

in EUR million	Note	2015	2014
Net result for the period		**(143.9)**	**(225.3)**
Financial expenses	9	388.8	379.9
Financial income	9	(69.3)	(48.0)
Income taxes	10	(36.0)	(21.8)
Result from operations		**139.6**	**84.8**
Amortisation and impairment of intangible assets	8	243.3	248.1
Depreciation of property, plant and equipment	8	16.4	8.6
Earnings before interest, taxes, depreciation and amortisation (EBITDA)		**399.3**	**341.5**
Non-cash expenses and income		16.6	15.9
Change in non-current provisions and long-term receivables	23,26	(4.2)	(4.3)
Change in inventories	18	37.1	(2.4)
Change in trade receivables	19	(127.2)	(3.4)
Change in trade payables		7.2	(6.3)
Change in deferred income	28	19.0	(12.7)
Change in other assets and liabilities		27.1	2.1
Income tax payments	10	(33.2)	(18.4)
Net cash from operating activities		**341.7**	**312.0**
Cash paid for investments in intangible assets	13	(23.1)	(20.8)
Cash paid for investment in content	13	(102.0)	(78.0)
Cash paid for investments in property, plant and equipment	15	(19.5)	(5.9)
Cash paid for investments in financial assets		(1.0)	(0.3)
Cash paid (-)/received (+) for acquired businesses (incl. cash and cash equivalents acquired)		33.6	(4.4)
Proceeds from divestiture of businesses		4.9	20.0
Proceeds from disposal of property, plant and equipment		2.0	7.4
Proceeds from disposal of intangible assets		2.8	-
Proceeds from disposal of other financial assets		0.2	-
Cash received/(paid) for available for sale financial instruments		(8.1)	1.3
Net change in loans granted	24	-	(0.2)
Net cash from investing activities		**(110.2)**	**(80.9)**
Interest paid (including financing-related fees)		(206.6)	(192.4)
Interest received		5.2	1.5
Cash paid and received for interest	9,24	(201.4)	(190.9)
Cash repayment of financial liabilities to third parties	24,30	(552.3)	(396.6)
Cash repayments and other payments to shareholders	24	(257.1)	-
Cash received from borrowing financial liabilities from third parties	24	757.0	378.0
Cash received from shareholder loans	24	80.0	-
Capital increases	22	0.0	-
Cash paid for dividends paid to non-controlling interests		(0.1)	(0.9)
Cash repayment of finance lease liabilities	25	(1.4)	(1.3)
Net cash from financing activities		**(175.3)**	**(211.7)**
Change in cash and cash equivalents		**56.2**	**19.4**
Net foreign exchange difference		(5.8)	1.0
Cash and cash equivalents at beginning of the period		**66.9**	**46.5**
Cash and cash equivalents at end of the period	21	**117.3**	**66.9**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Changes in Equity

in EUR million	Share capital	Capital reserves	Other accumulated equity	Retained earnings	Shareholders' equity	Non-controlling interests	Total equity
Note	22	22	22				
Balance as at 01 Jan 2014	**0.0**	**321.2**	**(33.0)**		**288.2**	**0.6**	**288.8**
Net result for the period				(224.0)	(224.0)	(1.3)	(225.3)
Actuarial gains and losses on pension plans net of tax			(20.6)		(20.6)		(20.6)
Change in available-for-sale financial assets net of tax			0.1		0.1		0.1
Currency translation			33.0		33.0	0.0	33.0
Total comprehensive income/loss for the period			12.5	(224.0)	(211.5)	(1.3)	(212.8)
Purchase of non-controlling interests			(0.4)		(0.4)	(0.2)	(0.6)
Dividends					0.0	(0.9)	(0.9)
Balance as at 31 Dec 2014	**0.0**	**321.2**	**(20.9)**	**(224.0)**	**76.3**	**(1.8)**	**74.5**
Capital increase	0.1	450.0			450.1		450.1
Net result for the period				(141.6)	(141.6)	(2.3)	(143.9)
Actuarial gains and losses on pension plans net of tax			11.4		11.4		11.4
Change in available-for-sale financial assets net of tax			0.0		0.0		0.0
Currency translation			27.5		27.5	0.1	27.6
Total comprehensive income/loss for the period			38.9	(141.6)	(102.7)	(2.2)	(104.9)
Non-controlling interests from business combinations					0.0	1.8	1.8
Dividends					0.0	(0.1)	(0.1)
Other			0.1		0.1		0.1
Balance as at 31 Dec 2015	**0.1**	**771.2**	**17.9**	**(365.6)**	**423.6**	**(2.3)**	**421.3**

The accompanying notes form an integral part of the consolidated financial statements.

Notes to the Consolidated Financial Statements

Corporate Information

Springer SBM Zero GmbH, a limited liability company, is the parent of the Springer Nature Group. Springer SBM Zero GmbH is referred to as the “company” in these financial statements when considering the legal entity and it is referred to as the “Group” or “Springer Nature” when considering the entire group of entities and subsidiaries directly or indirectly held by the company.

Springer Nature is a leading global research, educational and professional publisher, home to an array of respected and trusted brands providing quality content through a range of innovative products and services. Springer Nature is the world’s largest academic book publisher, publisher of the world’s most influential journals and a pioneer in the field of open research. The Group numbers almost 12,000 employees in almost 50 countries. Springer Nature was formed in 2015 through the merger of large parts of the Science and Education Business of the Holtzbrinck Publishing Group (MSE) and the Springer Science+Business Media Group (Springer). The former MSE consists of two business lines the Macmillan Science & Scholarly (MSS), comprising the Nature Publishing Group and Palgrave Macmillan as well as Macmillan Education (Education).

The Group is controlled through its parent company, Springer SBM Zero GmbH, in which Holtzbrinck Publishing Group holds 53.0% and 47.0% is held by a company that is controlled by funds advised by BC Partners (BC Funds). We refer to paragraph “Additions 2015” which contains a detailed description of the changes in the Group’s structure and their effects on the financial statements.

The registered office of the Company is located at Heidelberger Platz 3, 14197 Berlin, Germany.

The consolidated financial statements were approved for issue by resolution of management on 26 July 2017.

General Principles

The consolidated financial statements of Springer SBM Zero GmbH (“Springer Nature Group financial statements” or “consolidated financial statements”) were prepared in accordance with all mandatory International Financial Reporting Standards (IFRS) and International Financial Reporting Interpretations (IFRIC) as endorsed by the European Union, and with the additional requirements of commercial law pursuant to Sec. 315a HGB (“Handelsgesetzbuch”: German Commercial Code, “Konzernabschluss nach internationalen Rechnungslegungsstandards”).

These consolidated financial statements for the financial year ended 31 December 2015 are the first the Group has prepared in accordance with IFRS. The legal entities that make up the Group were included in the consolidated financial statements of Springer Science+Business Media S.A., Luxembourg, for all reporting periods up to and including the financial year ended 31 December 2014. Group reporting was prepared according to IFRS for the purpose of consolidation, however a complete report as defined by IAS 1 was not prepared. As described in the general principles section, the Group has prepared its financial statements in accordance with the IFRSs that apply to reporting periods ending on or after 31 December 2015, together with the comparative figures for reporting periods ending on or after 31 December 2014 (for information on the first-time application of IFRS by the Group, see the section “First-time adoption of IFRS”). In preparing these financial statements, the Group’s opening statement of financial position was prepared as at 1 January 2014, the date of the Group’s transition to IFRS.

The financial year comprised the period from 1 January to 31 December 2015. The reporting date of the company and of all subsidiaries, with the exception of the entities in India and Mauritius, is 31 December.

For statutory reasons, the financial year of the subsidiaries in India and Mauritius starts as at 1 April and ends as at 31 March. These entities report to Springer Nature as at 31 December and apply the IFRS financial reporting principles and the accounting policies applicable for the group entities as if 31 December were the end of the reporting period.

MSE and Springer were merged in May 2015. MSE was contributed to Springer. This led to the inclusion of MSE’s financials in the financial statements of Springer Nature from the date of the merger. The comparability of information related to the consolidated statement of cash flows and the consolidated statement of profit or loss, as well as the analysis of the movements between 2014 and 2015, is, therefore, limited.

The consolidated financial statements are prepared in Euros. All amounts are stated in millions of Euro (EUR m) except where otherwise indicated. The numbers are rounded to one decimal place, which may cause rounding differences. If numbers are rounded to zero “0.0” or “-0.0” is presented, in case of no values “-” is reported. The consolidated financial statements were prepared on a historical cost basis, except for financial instruments that were measured at fair value. The statement of profit or loss was prepared using the nature of expense method.

First-time Adoption of IFRS

These financial statements for the financial year ended 31 December 2015 are the first the Group has prepared in accordance with IFRS. The legal entities that make up the Group were included in the consolidated financial statements of Springer Science+Business Media S.A., Luxembourg, for all reporting periods up to and including the financial year ended 31 December 2014.

The accounting policies applied and exceptions are explained in the following note.

The Group records and values its assets and liabilities in its consolidated financial statements according to IFRS 1 "First-time Adoption of International Financial Reporting Standards" at the time of transitioning to IFRS. The consolidated financial statements were prepared based on the amounts reported by Springer Science+Business Media S.A.

The estimates used for the measurement correspond with the measurements used to prepare the consolidated financial statements of Springer Science+Business Media S.A. as of the same date. IFRS 1 allows first-time adopters certain exceptions from the retrospective application of IFRSs. The financial position, financial performance and cash flows pursuant to local GAAP were not reconciled to IFRS because no consolidated financial statements have been prepared according to the local accounting policies.

As a first-time adopter, the Group does not make use of the exemption provided for business combinations.

First-time applied Financial Reporting Standards and Interpretations

First-time application of new financial reporting standards and interpretations in 2016 resulted in no material changes to Springer Nature's consolidated financial statements.

New International Financial Reporting Standards and Interpretations

The IASB or IFRIC have published pronouncements that are not yet effective and have not yet been adopted by Springer Nature. The Group intends to apply all standards and interpretations when they become mandatory. The new accounting standards that may result in changes for Springer Nature are described below.

Standards adopted by the EU

- *IFRS 9 Financial Instruments*

In July 2014, the IASB issued the final version of IFRS 9 (Financial Instruments) that replaces IAS 39 (Financial Instruments: Recognition and Measurements) and all previous versions of IFRS 9. IFRS 9 covers all three aspects that were analysed and assessed as part of the financial instruments project: classification and measurement, impairment, and hedge accounting. IFRS 9 is mandatory for reporting periods beginning on or after 1 January 2018. Early adoption is permitted.

IFRS 9 introduces a uniform approach for classifying and measuring financial assets. The standard is based on the characteristics of the underlying cash flows and the business model by which these cash flows are managed. IFRS 9 provides a new impairment model that is based on the expected credit defaults. The standard contains new regulations on the application of hedge accounting in order to better present the risk management activities of an entity, in particular with regard to the management of non-financial risks.

Springer Nature plans to adopt the new standard as at 1 January 2018. In 2016, the Group performed a high-level impact assessment of all three aspects of IFRS 9. This preliminary analysis was based on information available at that time. The result may therefore change when further detailed analyses will be conducted and/or additional information will become available to Springer Nature in future.

After considering the classification and measurement requirements of IFRS 9, Springer Nature expects to continue to measure all financial assets at fair value that are currently held at fair value. Loans as well as trade receivables are held to collect contractual cash flows and are expected to give rise to cash flows representing solely payments of principal and interest. Thus, the Group expects that these will continue to be measured at amortised cost under IFRS 9. However, Springer Nature will analyse the contractual cash flow characteristics of those instruments in more detail before concluding whether all those instruments meet the criteria for measurement at amortised cost under IFRS 9.

IFRS 9 requires the Group to record expected credit losses on all of its loans and trade receivables, either on a 12-month or lifetime basis. Due to the new impairment model, earlier recognition of possible losses on non-current financial assets can arise, but the Group will need to perform a more detailed analysis considering all reasonable and supportable information, including forward-looking elements to determine the extent of the impact.

As IFRS 9 does not change the general principles of how an entity accounts for effective hedges, the Group does not expect a significant impact as a result of applying IFRS 9. A deeper analysis will take place in the course of 2017.

Overall, the Group currently expects no significant impact on its statement of financial position and equity from the application of IFRS 9.

- *IFRS 15 Revenue from Contracts with Customers*

IFRS 15 was issued in May 2014 and establishes a five-step model to account for revenues arising from contracts with customers. IFRS 15 replaces IAS 11 "Construction Contracts" and IAS 18 "Revenue" as well as the associated interpretations. The standard is effective for reporting periods beginning on or after 1 January 2018. In general the standard must be applied retrospectively, but various transition options and simplifications are allowed. Early adoption is permitted. According to this new standard, revenues should be recognised at the amount of the consideration that the entity expects to receive upon transfer of the promised goods or services to the customer. IFRS 15 also includes guidance on the presentation of contract balances, that is, assets and liabilities arising from contracts with customers, depending on the relation between the entity´s performance and the customer´s payment. In addition, the new standard encourages entities to disclose sufficient information to enable readers of financial statements to understand the nature, amount, timing and uncertainty of revenues and cash flows arising from contracts with customers.

In 2016, the Group started an initial analysis of areas potentially affected by the application of the new standard. Springer Nature will finally assess whether it opts for the full or modified retrospective application after a group-wide detailed analysis of revenue streams and contract models has been conducted in the course of 2017. Although the analysis is still in a rather early stage, Springer Nature currently does not expect material changes regarding the timing and measurement of its revenue recognition for license and service income from the initial application of IFRS 15.

For the sale of goods (especially print books) no material change is expected to result from the application of IFRS 15, as the revenue recognition is still expected to take place when the goods are delivered and risks are transferred to the customer. Also Springer Nature's current approach to account for expected returns is considered to be in line with the provisions in IFRS 15. The Group will, however, continue to assess if the application of IFRS 15 will result in adjustments.

The new standard provides presentation and disclosure requirements, which are more detailed than under current IFRS and which will significantly increase the volume of disclosures in Springer Nature's financial statements, for example regarding disaggregation of revenues, contract balances, performance obligations as well as significant judgements applied. Many of the disclosure requirements in IFRS 15 are completely new. These disclosure requirements will also form part of the detailed analysis and implementation roadmap in 2017.

Standards not yet adopted by the EU

- *IFRS 16 Leases*

IFRS 16 was issued in January 2016 and replaces IAS 17 (Leases) and associated interpretations. IFRS 16 is effective for financial years starting on or after 1 January 2019. Early application is permitted, as long as IFRS 15 has already been applied. The EU endorsement of IFRS 16 is still pending. According to the new regulation, lessees are required to account for all leases in the form of a right of use, and a corresponding leasing liability. A lease contract exists if the fulfilment of the contract depends on the use of an identifiable asset, and the customer simultaneously acquires control of this asset. The presentation in the statement of profit or loss is essentially a finance lease transaction, so that the right of use usually depreciates on a straight-line basis, and the leasing liability is updated using the effective interest method. The standard includes two recognition exemptions for lessees - short-term leases i.e., leases with a total term of a maximum of 12 months, and leases of low value assets, i.e. acquisition costs of up to USD 5,000. In such cases, the lessee has the option of selecting an accounting method which is similar to that of the previous operating lease.

The review of the impact of the new standard on Springer Nature's financial statements is still ongoing but has shown so far that the new rules affect in particular the accounting and measurement of rental and leasing contracts, which are currently classified as operating leases. These mainly comprise of leased office space, leased cars and other leased office equipment and IT infrastructure, which will lead to the recognition of respective rights of use and corresponding leasing liabilities resulting in an increase of the total asset/liability figure at first time adoption. As such, the first-time adoption of the standard will result in an increase in total assets and liabilities.

Currently, the costs for operating lease contracts are included within other operating expenses in the consolidated statement of profit or loss. After the adoption, amortisation of the right of use and interest expense for the leasing liability will be included in the consolidated statement of profit or loss instead.

Payments for operating lease contracts are currently included in the net cash from operating activities but will be included in net cash from financing activities under the new standard. The future minimum lease payments from operating leases are disclosed in note 29, but at the present time conclusive and complete information on the effects of the new rules on our financial reporting cannot be provided.

Consolidation Principles

The consolidated financial statements include Springer SBM Zero GmbH and all significant entities controlled directly or indirectly by Springer SBM Zero GmbH. A list of consolidated subsidiaries including their registered office and respective shareholding is set out in note 34. The company's financial statements and the financial statements of the subsidiaries included in the consolidated financial statements were prepared in accordance with standardised accounting policies.

Subsidiaries are consolidated from the date of acquisition, being the date on which the Group obtains control, and continue to be consolidated until the date when such control ceases. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

All business combinations are accounted for using the acquisition method. According to IFRS this requires to identify the acquirer, to determine the acquisition date, to recognise and measure the identifiable assets acquired as well as the liabilities assumed and any non-controlling interest in the acquiree. The cost of an acquisition is determined as the aggregate of the consideration transferred, measured at the acquisition date's fair value, and the amount of any non-controlling interest in the acquiree. For each business combination, management individually determines whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets.

Any contingent consideration to be transferred by the acquirer that is classified as an asset or liability is measured at fair value with the changes in fair value recognised in the consolidated statement of profit or loss. Any contingent consideration that is classified as equity is not remeasured and the subsequent settlement is accounted for within equity. Identifiable assets acquired, as well as liabilities and assumed contingent liabilities are measured at their fair value at the acquisition date, regardless of any remaining non-controlling interests in the acquired business.

Any excess of the consideration over the fair value of the net assets acquired is recognised as goodwill. Should the fair value of the acquired net assets exceed the cost of the acquisition, the difference is recognised in the consolidated statement of profit or loss.

Acquisition-related costs incurred as part of the business combination are included in other operating expenses.

Fair value adjustments recognised in the course of the purchase price allocation (e.g., for trademarks, customer relationships, journal portfolios) result from the difference between the fair value of acquired assets and the carrying amounts of each of those assets, determined in accordance with IFRS, at the acquisition date.

All gains, losses, revenues, expenses, income, assets, liabilities, and provisions from intercompany transactions are eliminated. Intercompany profits included in inventories and non-current assets are eliminated in the consolidated statement of profit or loss.

Associates in which the Group has significant influence to participate in the financial and operating policy are included in the consolidated financial statements using the equity method, based on separate IFRS financial statements. Goodwill relating to the associate or joint venture is included in the carrying amount of the investment and is not tested for impairment separately. The financial statements of the associate or joint venture are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring the accounting policies in line with those of the Group. Losses in excess of the carrying amount of the investment are not recognised unless there is an obligation to make additional capital contributions. Intercompany profits and losses are eliminated pro rata. Carrying amounts of investments are tested for impairment and are written down to their recoverable amount if needed.

Scope of Consolidation

The following table shows the number of entities consolidated by Springer SBM Zero GmbH in 2015 and 2014:

Development in Scope of Consolidation	2015	2014
Fully consolidated entities as at 1 Jan	77	77
Additions	61	1
Mergers/liquidations	(7)	(1)
Fully consolidated entities as at 31 Dec	**131**	**77**
Thereof German entities	21	21

Additions 2015

On 23 December 2014, funds advised by BC Partners reached an agreement with the Holtzbrinck Publishing Group (Holtzbrinck) to merge the Springer Science+Business Media Group with material parts of Holtzbrinck's Science and Education business. The transaction was closed on 5 May 2015 after the precedent conditions were fulfilled. According to the contractual arrangements none of the shareholders has control over the group.

The former MSE business consisted of two business lines: MSS and Education. MSS comprised the publishing of journals in Science, Technical and Medical (STM), including the flagship journal Nature, as well as English language books and journals in social sciences and humanities whereas Education publishes books and materials for the K-12 educational markets as well as English language teaching materials.

As the business combination on the level of Springer SBM Zero GmbH had substance from the perspective of the reporting entity, the transaction was accounted for under the acquisition method in line with IFRS 3 and the acquirer and the acquisition date were identified and the purchase price was determined. Springer SBM Zero GmbH was identified as the acquirer and MSE Group as the acquiree.

The shares in MSE were contributed to Springer SBM One GmbH, which is the indirect subsidiary of Springer SBM Zero GmbH, by virtue of a contribution in kind. In exchange, new ordinary and preference shares (shareholder loan instruments) in Springer SBM One GmbH were issued to GvH Vermögensverwaltungsgesellschaft XXXIII mbH ("GvH"), a subsidiary of the Holtzbrinck Publishing Group. In a second step, GvH contributed its ordinary shares in SBM One GmbH to SBM Zero in exchange for shares in this company.

The contribution paid for the acquisition of MSE by the company amounted to EUR 1,252.6m and consisted of EUR 450.2m for the ordinary shares issued in exchange for the contribution made by MSE Group and EUR 802.6m of assumed liabilities due to the Holtzbrinck Publishing Group. Of the assumed liabilities, EUR 407.2m relate to shareholder loan instruments and EUR 395.4m to liabilities that were settled at closing.

The fair values of the identifiable assets and liabilities of the MSE business at the date of acquisition were as follows:

in EUR million	Fair value
Intangible assets	1,378.8
Property, plant and equipment	123.8
Other financial assets, investments in associates and other non-current assets	5.3
Deferred tax assets	39.2
Inventories, trade receivables and other current assets	294.8
Cash and cash equivalents	39.0
Total assets	1,880.9
Provisions for pensions and other long-term employee benefits, other long-term provisions and non-current liabilities	70.7
Finance lease liabilities	0.2
Deferred tax liabilities	314.1
Short-term interest-bearing loans and borrowings	2.9
Other current provisions and accruals, trade payables and other current liabilities (including liabilities for income taxes and other taxes)	163.9
Deferred income	135.2
Total provisions and liabilities	687.0
Total identifiable net assets at fair value	**1,193.9**
Share of non-controlling interests in net assets	1.8
Acquisition costs	1,252.6
Goodwill	**60.5**

The intangible assets of EUR 1,378.8m mainly consisted of EUR 281.5m for trademarks, EUR 406.5m for publishing rights of academic journals and educational book series, EUR 12.0m for co-publishing rights from exclusive contracts with academic societies, EUR 463.5m for mature customer relationships in the journal and Education business, and EUR 176.5m for the contractual right to use the "Macmillan" trademark exclusively. Assets with a carrying amount of EUR 494.1m, comprising trademarks (EUR 409.1m) and publishing rights (EUR 85.0m), had an indefinite useful life.

The gross amount of trade receivables acquired amounted to EUR 185.7m. Valuation allowances of EUR 25.4m was recognised on this amount.

Goodwill of EUR 60.5m reflected the value for expected revenues from business with new customers, increasing revenues from existing business relationships due to additional services and products sold, new sources of income through the development of new products based on the existing content databases, as well as intangible assets that cannot be separated such as the employees and their specialist knowledge. Goodwill also includes expected synergy effects resulting from the business combination. Goodwill of EUR 16.5m was expected to be deductible for income tax purposes.

The MSE business was consolidated as at the closing date of 5 May 2015 and since then has contributed EUR 483.5m to revenues and EUR 92.5m to EBITDA. If the business had been included as at 1 January 2015, it would have contributed EUR 666.9m and EUR 98.6m to 2015 revenues and EBITDA respectively.

Further business combinations that occurred in 2015 related to the acquisition of 100.0% of the shares in J.B. Metzler Verlag GmbH (formerly: J. B. Metzler'sche Verlagsbuchhandlung and Carl Ernst Poeschel Verlag GmbH) (Stuttgart, Germany) as at 1 August 2015 and DriversCoach GmbH (Hüllhorst, Germany) as at 13 August 2015. In addition, some assets in the area of healthcare publishing were acquired in the Netherlands as at 25 August 2015.

These business combinations were carried out in the context of Springer Nature's strategy, and individually had no material effects on the financial position, liquidity, and financial performance of the group.

J.B. Metzler was founded in 1682 and is one of the most important humanities publishers, producing respected and acclaimed reference works, handbooks and textbooks. Beyond its focus on the natural sciences, engineering and medicine, Springer Nature also maintains an extensive international humanities portfolio, including imprints such as Palgrave, Macmillan and Springer. The addition of J.B. Metzler represents a significant enhancement of this portfolio. The acquisition added 19 employees to Springer Nature's workforce.

The acquisition of **DriversCoach** complements the existing driving school activities. The company develops and distributes a digital learning product which is used by driving students in preparation for the practical driving test. Users are able to utilise the content across multiple platforms and driving schools receive specific analyses about the skills of their students. The acquisition added one employee to Springer Nature's workforce.

The acquisition of the **Dutch healthcare publishing activities** portfolio consists of Dutch language books, events and magazines for healthcare professionals and enhances Springer Nature's health portfolio published under the Bohn Stafleu van Loghum (BSL) imprint. BSL supports professionals in healthcare in their daily practice and life-long learning. By combining and enhancing the portfolio improved offering for professionals, students and institutions, both in print and online and through events can be developed. Authors, editors and societies will thus have a broader base, which also stands the business in good stead for the longer term. The acquisition added 41 employees to Springer Nature's workforce.

The acquisition costs for all these three acquisitions in 2015 came to EUR 6.2m and consisted of the purchase prices paid and contingent consideration of EUR 1.1m. The acquisition-related expenses recorded in other operating expenses came to EUR 0.3m in 2015.

The contingent consideration resulted from an earn-out provision and was recorded at its fair value as at the acquisition date. The earn-out obligation becomes payable if certain predefined performance measures will be met in the years 2017 to 2019.

Based on the individual purchase price allocations, the cumulative acquisition costs of the business combinations were allocated to the purchased assets and liabilities as follows:

in EUR million	Fair value
Intangible assets	4.0
Investments in associates	0.5
Deferred tax assets	0.1
Inventories, trade receivables and other current assets	2.6
Cash and cash equivalents	0.4
Total assets	7.6
Provisions for pensions and similar obligations	0.1
Deferred tax liabilities	0.1
Trade payables, current provisions and other liabilities (including liabilities for taxes)	3.1
Total provisions and liabilities	3.3
Total identifiable net assets at fair value	**4.3**
Acquisition costs	6.2
Goodwill	**1.9**

Goodwill of EUR 1.9m mainly reflected the value for expected revenues from business with new customers, intangible assets that cannot be separated such as the workforce and their specialist knowledge and strategic advantages arising from the market position of the acquiree. Only the goodwill recognised for the Dutch healthcare publishing activities of EUR 0.7m is tax-deductible.

Since their respective initial consolidations, these businesses contributed a total amount of EUR 5.8m to the Group's revenues and EUR 1.3m to EBITDA in 2015. If the acquisitions had already been finalised as at 1 January 2015, these businesses would have contributed a total amount of EUR 14.6m to the consolidated revenues in 2015. Due to the unreasonable time and expense it would entail, no amounts were stated regarding the profit and loss of the businesses acquired. The gross amount of trade receivables acquired was EUR 1.2m. Valuation allowances of EUR 0.1m were recognised on this amount.

Additions 2014

Effective as at 1 January 2014, the Group acquired Planète Permis S.A.S., a French publishing house of driving school instruction materials. The preliminary purchase price amounted to EUR 2.3m and comprised a cash portion of EUR 1.9m and a contingent consideration measured at EUR 0.4m as at the acquisition date. Net assets identified at fair value amounted to EUR 0.8m and resulted in recognition of EUR 1.5m goodwill.

Foreign Currency Translation

In Springer Nature's consolidated financial statements, the financial statements of foreign subsidiaries are translated into Euro using the functional currency concept in accordance with IAS 21. Since all subsidiaries conduct their financial, commercial and organisational activities independently, their respective local currency is the functional currency.

Foreign currency transactions are translated into the respective functional currency using the exchange rate applicable at the time of the transaction. Gains and losses from the settlement of such transactions or from the valuation of the corresponding monetary assets and liabilities at the closing date are included in the statement of profit or loss. Monetary assets and liabilities are translated into the respective functional currency at the closing rate whereas non-monetary assets and liabilities are translated at their applicable historic rate.

For presentation in the Group's reporting currency, the assets and liabilities of subsidiaries whose functional currency is not the Euro are translated at the closing rate while the statement of profit or loss is translated at the average rate for the period. Equity components are translated at the historical exchange rate. Currency translation differences are recognised in other comprehensive income.

When subsidiaries are disposed of, any related cumulative translation difference is reclassified to the consolidated statement of profit or loss.

Goodwill and fair value adjustments of assets and liabilities from the acquisition of subsidiaries are allocated to the acquired entity and translated into the Group's presentation currency at the closing rate as at the end of the reporting period.

The following exchange rates were used to translate the currencies which are significant to the Group:

Foreign currency unit per EUR 1	Average rate 2014	Closing rate 31 Dec 2014	Average rate 2015	Closing rate 31 Dec 2015
British Pounds	0.8064	0.7789	0.7260	0.7340
Japanese Yen	140.3765	145.2306	134.2877	131.0702
Swiss Francs	1.2146	1.2024	1.0676	1.0835
US dollar	1.3288	1.2141	1.1096	1.0887

Accounting Policies

Fair Value Measurement

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When measuring fair value, it is assumed that the transaction in the course of which the asset is sold or the liability is transferred is taking place either (a) on the principal market for the asset or (b) on the most advantageous market for the asset or the liability (if no principal market exists). The Group must have access to the principal market or the most advantageous market.

The fair value of an asset or liability is measured based on the assumptions that market participants would make when setting the price. It is assumed that the market participants are acting in their best economic interest.

Measurement of the fair value of a non-financial asset takes into account the ability of the market participant to generate economic benefit through the highest and best use of the asset or by selling it to another market participant that will find the highest and best use for the asset.

The Group applies valuation techniques that are appropriate under the respective circumstances and for which sufficient data for fair value measurement is available. The use of relevant observable input factors should be as high as possible, while the use of input factors not based on observable data should be as low as possible.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are classified on the basis of the following fair value hierarchy. The classification uses the input factors of the lowest category that is material to the fair value measurement.

- Level 1: quoted prices in active markets for identical assets or liabilities.
- Level 2: input factors other than quoted prices included within Level 1 that are observable for the assets and liabilities, either directly, i.e. as prices, or indirectly, i.e. derived from prices.
- Level 3: input factors that are not based on observable market data.

For assets or liabilities that are recorded in the financial statements on a recurring basis, the Group examines the classification at the end of each reporting period and makes corresponding reclassifications as necessary.

Revenue Recognition

Revenues from the sale of products are recognised when the significant risks and rewards of ownership of the goods are transferred to the customer, the sales price is determinable and receipt of payment can be assumed.

Print subscription revenues for journals/magazines are recognised at the time the journal/magazine is dispatched to the customer. Subscription revenues for academic journals, for which the content is made available electronically to the customer, are recognised pro-rata temporis over the period of the subscription.

Revenues from service type projects are recognised by applying the percentage-of-completion method, when the outcome of the project contract can be reliably estimated based on the percentage of costs incurred to date compared to the contractual milestones. Revenues associated with the project are recognised by reference to the stage of completion of the transaction at the end of the reporting period. An expected loss on a project is recognised as an expense immediately. Costs incurred before a milestone is completed are recognised as work-in-progress within inventories.

If discounts are granted to customers and the customer settles the invoice within the period the discount relates to, the amount deducted by the customer is recorded as a sales deduction. Revenues are also stated net of allowances and corrections for expected returns.

Interest income and expenses are allocated to the period they relate to. Dividends are recognised in the period in which the distribution is approved.

Goodwill

Goodwill is allocated to a single cash-generating unit (CGU) or a group of cash-generating units that are expected to benefit from the business combination. The Group’s CGUs reflect the lowest level of the operating segments that management monitors for goodwill.

Goodwill is not subject to amortisation but tested for impairment annually or whenever there is any indication of impairment. It is measured at cost less accumulated impairment losses. Any loss from impairment is recognised immediately in the consolidated statement of profit or loss and is not subsequently reversed. Gains and losses on the sale of an entity reflect the carrying amount of goodwill attributable to the entity disposed of.

Other Intangible Assets

Intangible assets acquired as part of a business combination are stated in the statement of financial position at their fair values as at the date of acquisition, less any accumulated amortisation and any impairments. Purchased intangible assets are recognised at their acquisition costs plus any directly attributable costs, less any accumulated amortisation and any impairments.

If the conditions as set out in IAS 38 are met, internally generated intangible assets are recognised at their developments costs less any accumulated amortisation and impairment losses. The development costs comprise all costs directly or indirectly attributable to the assets incurred during the development phase, which begins at the time of having demonstrated the technical feasibility and ends upon completion of the asset.

Intangible assets considered to have a definite life are amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired (triggering event). The following group-wide economic useful lives are assumed:

Intangible assets	Useful life
Internally generated intangible assets	3 to 10 years
Acquired rights and licenses	3 to 10 years
Trademark and publishing rights	10 to 40 years

Intangible assets determined to have indefinite lives are not amortised and are subject to impairment review at least annually. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable.

Property, Plant and Equipment

Property, plant and equipment are measured at acquisition or manufacturing cost less accumulated depreciation and impairments. Maintenance expenses are recorded as expenses in the period in which they are incurred, whereas expenses resulting in a prolongation of the asset’s useful life or in a significant improvement in its use, are recognised as subsequent costs. Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment.

Items included in property, plant and equipment are depreciated on a straight-line basis over their estimated useful lives. Depreciation is based on the following group-wide economic useful lives:

Assets	Useful life
Buildings	10 to 35 years
Plant, technical equipment and machinery	3 to 10 years
Furniture, fixtures and office equipment	3 to 12 years

Leases

To the extent Springer Nature assumes all significant risks and rewards relating to a leased asset and is thus to be seen as the economic owner of the asset (finance lease), the leased asset is recognised in the statement of financial position. The leased asset is recognised at the amount of the asset's fair value at the inception of the lease or the present value of minimum lease payments, if lower. The lease liability is recognised at the same amount as the respective asset. If it is sufficiently certain that ownership of the leased asset will pass to the Group at the end of the lease term, the asset is depreciated over its economic useful life. Otherwise, it is depreciated over the term of the lease.

In addition to finance leases, the Group has also entered into operating lease agreements. In addition to finance leases, the Group has also entered into operating lease agreements. This means that economic ownership of the leased assets lies with the lessor and lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term. Any benefits resulting from incentives granted are recognised on a straight-line basis as a reduction of the lease instalments over the lease term.

Non-Current Assets Held for Sale and Disposal Groups

The Group classifies non-current assets and disposal groups as held for sale if their carrying amounts will be recovered principally through a sale rather than through continuing use. The criteria for held for sale classification is met when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition.

Non-current assets classified as held for sale and disposal groups are disclosed separately in the statement of financial position. The assets or disposal groups are measured at the lower of carrying amount and fair value less costs to sell and are no longer depreciated or amortised.

Impairment of Non-Financial Assets

At each reporting date, or if there is a triggering event, Springer Nature tests intangible assets for any indication of impairment. For property, plant and equipment the impairment testing is done only in case of a triggering event.

If there is such an indication, the asset's recoverable amount is determined. If it is not possible to determine the recoverable amount for an individual asset, the recoverable amount for the cash-generating unit (CGU) to which the asset is allocated is used. The recoverable amount of the asset or the CGU is defined as the higher of its fair value less costs to sell and its value in use. An impairment is recognised if the carrying amount exceeds the recoverable amount. The impairment first reduces the carrying amount of the intangible asset or goodwill allocated to the CGU. Any impairment in excess of that is allocated based on the carrying amounts of each asset included in the CGU on a pro rata basis. If the reason for a previously recognised impairment loss no longer exists, the impairment is reversed up to amortised costs, with the exception of goodwill.

In 2015 and 2014, an impairment test was carried out on the basis of value in use, which itself was derived using a discounted cash flow method. When assessing the value in use for each asset or each CGU, management makes certain assumptions regarding the future cash flows of assets or CGUs and risk-adjusted capital costs of assets or CGUs. These assumptions are mainly based on market data and external estimates. They are subject to change and as such can lead to future differences in values in use.

For each of the Group's business lines, cost of capital was calculated individually using current market data in 2015 and 2014 and, if needed, adjusted for CGU-specific parameters (e.g. risk premium).

Financial Assets and Liabilities

Financial Assets

Initial Recognition and Measurement

Financial assets are classified either as financial assets at fair value through profit or loss, loans and receivables or as available-for-sale financial assets, as appropriate. The Group determines the classification of its financial assets at initial recognition.

All financial assets not measured at fair value through profit or loss are recognised initially at fair value plus directly attributable transaction costs.

Subsequent Measurement

At Springer Nature, the category of financial assets at fair value through profit or loss consists of derivatives that are not designated as hedging instruments. They are reported in the statement of financial position under other assets. Financial assets at fair value through profit and loss are carried in the statement of financial position at fair value with changes in fair value recognised in other financial expense or other financial income in the statement of profit or loss.

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market and are neither classified as held-for-trading nor as available-for-sale. The category includes the Group's trade receivables, loans to employees, as well as long-term loans and other current assets. After initial measurement, the loans and receivables are subsequently measured at amortised cost using the effective interest method less any impairment losses, if necessary.

Available-for-sale financial assets are non-derivative financial assets which were classified under this category directly or were not classified to any other category. Springer Nature holds securities mainly in this category. They are disclosed under non-current assets unless management plans to sell them within 12 months of the reporting date and they do not fall due within this period. Available-for-sale financial assets are measured at fair value after initial recognition. Unrealised gains and losses are recorded directly in equity taking deferred taxes into account. When a financial asset classified as available for sale is derecognised or impaired, the cumulative gains and losses from fair value measurement recognised directly in equity are recognised through profit or loss.

Derecognition

A financial asset is derecognised when one of the following conditions has been fulfilled:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement that fulfils the conditions under IAS 39.19; and either (a) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

Impairment of Financial Assets

The Group assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if there is objective evidence of impairment as a result of one or more events that have occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors are experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganisation and where observable data indicates that there is a measurable decrease in the estimated future cash flows, such as changes in economic conditions that correlate with defaults.

For financial assets carried at amortised cost, the Group first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment. If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate.

Financial Liabilities

Initial Recognition and Measurement

Financial liabilities within the scope of IAS 39 are classified as financial liabilities at fair value through profit or loss or as liabilities measured at amortised cost. The Group determines the classification of its financial liabilities at initial recognition.

Financial liabilities at fair value through profit or loss are initially measured at fair value. Financial liabilities measured at amortised cost are initially recognised at fair value including directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, bank overdrafts, loans and borrowings, and derivative financial instruments that are not designated as hedging instruments pursuant to IAS 39.

Subsequent Measurement

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss. Subsequent measurement is at fair value through profit or loss. Separated embedded derivatives are also classified as held-for-trading. Gains or losses on liabilities held-for-trading are recognised in the consolidated statement of profit or loss.

After initial recognition, liabilities measured at amortised cost are subsequently measured at amortised cost using the effective interest method.

Derecognition

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability.

Offsetting of Financial Instruments

Financial assets and financial liabilities are offset with the net amount reported in the consolidated statement of financial position only if there is a current enforceable legal right to offset the recognised amounts and an intention to settle them on a net basis, or to realise the assets and settle the liabilities simultaneously.

Derivative Financial Instruments

As set out in IAS 39, all derivative financial instruments are recognised at fair value in the consolidated statement of financial position. At the time a contract involving a derivative is entered into, it is determined whether it is intended to serve as a fair value hedge or as a cash flow hedge. Springer Nature's derivative financial instruments did not formally meet the requirements of IAS 39 for applying hedge accounting, even though it is the economic purpose of the derivative. Changes in their fair values are, therefore, recognised in the consolidated statement of profit or loss rather than in equity.

Derivatives embedded in host contracts are accounted for as separate derivatives and recorded at fair value if their economic characteristics and risks are not closely related to those of the host contracts, and the host contracts are not held-for-trading or designated as at fair value through profit or loss. These embedded derivatives are measured at fair value with changes in fair value recognised in the consolidated statement of profit or loss.

Inventories

Inventories are measured at the lower of cost and net realisable value. Manufacturing costs include both directly and indirectly attributable costs. The indirect costs primarily comprise the costs of generating and preparing the content (pre-publishing costs) as well as printing and binding. If the content is produced primarily for electronic sale, for print products the pre-publishing costs are allocated pro rata to the physical inventories in the proportion of online-to-print book revenues. The indirect costs mainly include production-related overheads and are included using a mark-up rate.

Similar inventories are measured by using the first-in, first-out method (FIFO). Intercompany profits are eliminated from inventories originating from intra-group suppliers and carried at group manufacturing cost.

Cash and Cash Equivalents

Cash and cash equivalents include bank balances and cash in hand. Amounts in foreign currency are translated at closing rates.

Current Taxes and Deferred Taxes

The line item income tax comprises both current taxes and deferred taxes. Income taxes are recognised in the consolidated statement of profit or loss unless they relate to items recognised directly in equity or in other comprehensive income. In such cases, the taxes are also recognised in equity or in other comprehensive income.

The current tax expense and income is calculated according to tax laws of the countries in which Springer Nature operates and generates taxable income effective as at the reporting date. Management periodically reviews individual tax matters to determine whether there is any scope for interpretation under the applicable tax legislation and establishes tax provisions where appropriate.

According to IAS 12, deferred taxes must be recorded for all temporary differences between the carrying amounts of assets and liabilities in the tax accounts and the consolidated statement of financial position under IFRS as well as for interest carried forward and unused tax losses. This does not apply to deferred tax assets and liabilities arising from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss. Deferred tax assets associated with investments in subsidiaries and associates are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

Deferred tax liabilities resulting from the initial recognition of goodwill are recognised only if the amortisation of this goodwill is tax deductible.

Deferred tax assets are recognised for all temporary differences and unused tax losses only to the extent that it is probable that taxable profit will be available in the future against which the losses can be utilised.

Deferred taxes are calculated at the tax rates that are expected to apply to the period when a liability is settled or an asset is realised.

Deferred tax assets and deferred tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Provisions

With the exception of the provisions for pensions and other long-term employee benefits calculated in accordance with IAS 19, all other provisions are recognised in line with IAS 37. They are recognised when the Group has a present obligation to a third party based on a past event, an outflow of resources is probable and a reliable estimate can be made of the obligation. The amount of each provision corresponds to the expected settlement amount. Non-current provisions with a remaining period of more than one year are discounted in order to reflect the present value of the expenditure expected to settle the obligation at the reporting date by application of appropriate market rates of interest.

Provisions for Pensions and Other Long-term Employee Benefits

The obligations from defined benefit plans for pensions and other long-term employee benefits are recognised in the consolidated statement of financial position at the present value of the defined benefit obligation at the end of the reporting period less the fair value of allocable plan assets. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method. Under this method, not only obligations relating to known vested benefits at the reporting date are recognised, but also future increases in pensions and salaries. This involves taking account of various input factors. The input factors are based upon assumptions and estimates relating to the future development of salaries, relevant biometric factors, interest rates and overall mortality.

The present value of the defined benefit obligations is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefit will be paid, and that have terms to maturity approximately the same as the related pension obligation.

Remeasurements, comprising of actuarial gains and losses, asset ceiling effects, excluding amounts included in net interest on the net defined benefit liability and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognised immediately in the consolidated statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Remeasurements are not reclassified to profit or loss in subsequent periods.

Judgements, Assumptions and Estimates

The preparation of the Group's consolidated financial statements in accordance with IFRS requires management to make certain assumptions and estimates that may affect the carrying amount of assets, provisions and liabilities as well as income and expenses recognised. The estimates and related assumptions are based on experience and various other factors that appear to be appropriate in the circumstances. Actual results may differ from these estimates. All estimates and underlying assumptions are reviewed on an on-going basis.

Revisions of accounting estimates are recognised in the period in which the revision is determined, if the revision affects only that period of the revision and future periods. Assumptions and estimates made by management in the application of IFRS that have a significant effect on the consolidated financial statements and estimates with a risk of possible adjustments in the next years are discussed in the corresponding notes.

The underlying assumptions and estimates applied relate to the recognition and measurement of pensions and other long-term employee benefits, to the measurement of internally generated intangible assets, to the determination of impairment losses on intangible assets including goodwill, to the valuation allowance for trade receivables, to the usability of tax loss carry forwards, to the measurement of financial instruments, to the determination of provisions and to the classification of leases. Assumptions were also used in the purchase price allocation concerning the measurement of intangible assets. Information concerning the carrying amounts determined with the use of estimates can be found in the notes to the specific line items.

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of the Group's assets and liabilities relate to defined benefit pension plans (note 23), the impairment of non-financial assets (note 14) and fair value measurement of financial instruments (note 30). A description of the relevant input parameters which include estimates/assumptions are disclosed in the respective notes section together with sensitivity analyses.

Notes to the Consolidated Statement of Profit or Loss and the Consolidated Statement of Financial Position

1 *Revenues*

in EUR million	**2015**	**2014**
Revenues from the sale of:		
Journals/journal content	766.2	542.6
Books/book content	527.2	277.6
Advertisements	80.1	58.4
Other revenues	106.3	88.2
Discounts and allowances	(9.1)	(7.7)
Total revenues	**1,470.7**	**959.1**

2 *Other Operating Income*

in EUR million	**2015**	**2014**
Currency exchange gains	28.0	9.6
Income from the release of provisions and other liabilities	4.7	4.2
Sundry operating income	25.6	16.2
Total other operating income	**58.3**	**30.0**

The line item "Currency exchange gains" included realised currency exchange gains from transactions incurred during the year and gains from the year-end valuation of subsidaries' trade receivables and payables denominated in currencies other than the functional currency.

The line item "Sundry operating income" included mainly income related to written-off bad debts, rental income and income from services rendered. In 2015, income of EUR 10.8m from transitional services rendered to the Holtzbrinck Publishing Group was included.

3 *Internal Costs Capitalised*

The line item "Internal Costs capitalised" comprised the capitalised costs for the development of self-developed software and database projects as well as internal costs for content creation.

4 *Cost of Materials*

in EUR million	2015	2014
Purchased services	(169.9)	(91.5)
Materials and supplies	(27.4)	(12.7)
Total cost of materials	**(197.3)**	**(104.2)**

The line item "Purchased services" mainly contained costs for printing and binding as well as pre-publishing costs.

5 *Royalty and Licence Fees*

Royalties and license fees expenses were comprised of fixed royalties and royalties on sales paid for acquired and licensed content. This included payments to authors of books and journal articles, as well as payments for society owned journals.

6 *Personnel Costs*

in EUR million	2015	2014
Wages and salaries	(375.7)	(223.5)
State social security contributions	(52.9)	(31.6)
Pension and similar expenses	(15.8)	(8.7)
Other employee benefits	(12.7)	(11.3)
Total personnel costs	**(457.1)**	**(275.1)**

In 2015, expenses of EUR 0.3m relating to the acquisition of MSE were disclosed in personnel costs.

In the period under review, the average number of employees (full-time equivalents) was 10,802 (2014: 8,259), taken into account the employees from the acquired businesses only as at their initial consolidation date. The absolute number of employees (full-time equivalents) was 12,093 as at the end of 2015 (2014: 8,212).

The average number of employees in the Group per business is presented below. The India-based business division Publishing Services, which is part of Science, Technical and Medical (STM), is reported separately due to the large number of employees.

Full-time equivalents	2015	2014
Publishing Services	4,486	4,709
STM (Springer and Macmillan Science & Scholarly)	3,318	2,385
Education	1,670	-
Professional	910	1,019
Corporate (MSE and Springer)	418	146
Total	**10,802**	**8,259**

7 *Other Operating Expenses*

in EUR million	2015	2014
Administrative expenses/fees	(148.4)	(73.0)
Marketing and sales costs	(80.6)	(52.5)
Rent and building costs	(41.1)	(22.3)
Currency exchange losses	(35.9)	(17.9)
Sundry expenses	(59.6)	(31.6)
Total other operating expenses	**(365.6)**	**(197.3)**

The line item "Administrative expenses/fees" mainly included expenses relating to information technology, travel costs and consulting fees.

In 2015, expenses of EUR 6.0m relating to the acquisition of MSE were disclosed in the line item "Administrative expenses/fees".

The line item "Currency exchange losses" included realised currency exchange losses from transactions incurred during the year and losses from the year-end valuation of subsidaries' trade receivables and trade payables denominated in currencies other than the functional currency.

"Sundry expenses" mainly consisted of allowance for doubtful trade receivables, costs for temporary staff and purchased services, as well as other taxes. Expenses for services rendered by the Holtzbrinck Publishing Group under the transitional service agreements of EUR 11.6m were also included.

The lease payments recognised as expenses in the period under review amounted to EUR 29.3m (2014: EUR 25.5m).

The fees for the audit of the financial statement and other services rendered by the audit firm Ernst & Young GmbH were as follows:

in EUR million	2015	2014
Audits of the financial statements	(2.2)	(1.0)
Tax advisory services	(0.7)	(0.5)
Other certification or appraisal services	(1.0)	(0.3)
Total professional fees	**(3.9)**	**(1.8)**

The professional fees for the audit of the financial statements included the audit of the subsidiaries and the audit of the consolidated financial statements. The tax advisory fees consisted of support provided with regard to specific tax questions. The other certification and appraisal services comprised, among others, fees for the audits to verify compliance with certain contractual agreements.

8 Amortisation and Impairment of Intangible Assets and Depreciation of Property, Plant and Equipment

in EUR million	2015	2014
Amortisation and impairment of other intangible assets	(232.3)	(207.8)
Impairment of goodwill	(11.0)	(40.3)
Depreciation of property, plant and equipment	(16.4)	(8.6)
Total amortisation, depreciation and impairment losses	**(259.7)**	**(256.7)**

Amortisation and impairment of other intangible assets and depreciation of property, plant and equipment included amortisation and depreciation charges as well as impairment losses that related to fair value adjustments of other intangible assets and property, plant and equipment recognised subsequently to business combinations. Amortisation expenses of EUR 106.3m for intangible assets (2014: EUR 106.4m) and depreciation charges of EUR 0.7m for property, plant and equipment (2014: EUR 0.8m) relating to these fair value adjustments were recognised in the period under review. In 2015, impairment losses of EUR 4.2m (2014: EUR 27.0m) were recorded on other intangible assets. EUR 1.7m of these impairment losses relate to fair value adjustments to business combinations were recognised subsequently.

Amortisation expenses of EUR 52.3m (2014: EUR 41.4m) were recognised on internally generated intangible assets in the period under review.

9 Financial Expenses and Financial Income

The line item "Financial expenses" broke down as follows:

in EUR million	2015	2014
Interest expenses	(276.6)	(254.1)
Other financial expenses	(112.2)	(134.4)
Financial expenses	**(388.8)**	**(388.5)**

The line item "Interest expenses" mainly comprised interest expenses from financial liabilities, interest expenses from interest rate hedging transactions, interest expenses from applying the effective interest method as well as the net interest expense from pension obligations.

The line item “Other financial expenses” comprised expenses of EUR 46.8m (2014: EUR 0.0m) from the measurement of financial instruments recognised at fair value (see note 24), realised currency exchange losses from intra-group financing activities during the year of EUR 35.0m (2014: EUR 50.5m), losses from the year-end measurement of subsidiaries’ financial debt carried in currencies other than the functional currency of EUR 24.4m (2014: EUR 19.1m), losses of EUR 0.0m (2014: EUR 60.3m) from marking the Group’s financial derivatives to market and other financing related costs of EUR 6.0m (2014: EUR 4.5m).

The line item “Financial income” broke down as follows:

in EUR million	2015	2014
Interest income	4.7	4.2
Other financial income	64.6	52.4
Financial income	**69.3**	**56.6**

The line item “Interest income” mainly included interest income from funds, income from loans receivable and other interest income.

The line item “Other financial income” included gains of EUR 43.5m (2014: EUR 52.4m) from the year-end measurement of subsidiaries’ financial debt carried in other currencies than the functional currency of the respective subsidiary, gains of EUR 18.7m (2014: EUR 0.0m) from marking the Group’s financial derivatives to market and realised currency exchange gains of EUR 2.4m (2014: EUR 0.0m) from intra-group financing activities incurred during the year.

10 Income Taxes

Income taxes, split into current and deferred tax position, were as follows:

in EUR million	2015	2014
Net result before income taxes	(179.9)	(247.1)
Current income taxes	(33.6)	(19.2)
Deferred income taxes	69.6	41.0
Total income taxes	36.0	21.8
Net result for the period	**(143.9)**	**(225.3)**

The line item “Deferred taxes” comprises the following positions:

in EUR million	2015	2014
Due to tax loss carry forwards	28.6	(20.3)
Due to temporary differences	41.0	61.3
Deferred income taxes	**69.6**	**41.0**

For the reconciliation between expected income taxes and the actual income taxes recorded, the German combined statutory tax rate of 30.2% (consisting of 15.8% corporate tax and 14.4% trade tax) was applied, as it was in the prior year. The reconciliation is shown in the following table:

in EUR million	2015	2014
Net result before income taxes	(179.9)	(247.1)
Statutory German income tax rate	30.2%	30.2%
Expected income taxes	54.3	74.6
Different national tax rates	5.4	1.9
Changes in tax regulations or tax status	13.5	4.3
Tax income/expenses relating to prior periods	(2.9)	0.2
Deferred tax income/expenses relating to prior periods	1.1	(3.7)
Changes in tax loss carry forwards	(14.1)	(36.2)
Effect of permanent differences	(20.3)	(19.4)
Other	(1.0)	0.1
Total income taxes	**36.0**	**21.8**

In 2015, deferred taxes of EUR 23.0m (2014: EUR 10.5m) were recorded directly in other comprehensive income. The amount related to pension provisions, currency translation effects on the tax position resulting from differences between the currency exchange rates as at 31 December 2014, 31 December 2015 and the average exchange rates for 2016 as well as on available-for-sale financial assets.

Deferred tax assets for temporary differences and tax loss carry forwards were recognised to the extent deferred tax liabilities relating to the same tax authority and the same taxable entity were available. Deferred tax assets exceeding the deferred tax liabilities were only recognised to the extent that they can be utilised against future taxable profits. The measurement was based on a medium-term plan established for each jurisdiction.

The deferred tax assets and liabilities were attributable to the following:

	31 Dec 2015		31 Dec 2014		1 Jan 2014	
in EUR million	**Deferred tax assets**	**Deferred tax liabilities**	**Deferred tax assets**	**Deferred tax liabilities**	**Deferred tax assets**	**Deferred tax liabilities**
Goodwill and other intangible assets	6.0	1,100.9	0.2	796.7	0.1	800.5
Property, plant and equipment	2.6	4.3	1.2	2.6	2.2	5.5
Financial assets	0.1	-	-	-	-	-
Inventories	13.5	0.1	8.5	-	8.4	-
Trade receivables	2.9	1.5	0.4	0.7	0.4	1.3
Other current assets	2.6	12.5	1.3	9.5	0.5	5.6
Provisions for pensions and other long-term employee benefits	29.9	-	24.9	-	15.9	0.1
Interest-bearing loans and borrowings	7.6	15.7	7.4	28.6	1.9	38.1
Finance lease liabilities	2.5	-	2.1	-	2.4	-
Current provisions	4.0	0.8	0.8	2.6	1.1	0.6
Other liabilities	103.8	2.7	82.9	1.3	53.2	4.1
Deferred income	-	9.7	-	3.5	3.4	-
Unrecognised taxes on temporary differences	(0.6)	-	-	-	-	-
Tax loss carry forward	87.8	-	92.6	-	79.8	-
Unrecognised tax loss carry forward	(4.3)	-	(38.5)	-	(5.4)	-
Total deferred taxes	258.4	1,148.2	183.8	845.5	163.9	855.8
Offsetting	(249.9)	(249.9)	(181.5)	(181.5)	(161.8)	(161.8)
Total carrying amount	**8.5**	**898.3**	**2.3**	**664.0**	**2.1**	**694.0**

11 Non-Current Assets

The following table shows the movement in goodwill, other intangible assets, property, plant and equipment as well as financial assets, which constituted the major part of non-current assets.

in EUR million	Goodwill	Other intangible assets	Property, plant and equipment	Financial assets	Total
Acquisition or production cost					
Balance as at 1 Jan 2015	1,279.6	3,061.4	59.5	7.2	4,407.7
Acquisition/disposal of business	62.4	1,382.8	123.8	0.6	1,569.6
Additions	-	127.5	21.1	0.2	148.8
Disposals	-	(6.3)	(1.7)	(3.0)	(11.0)
Reclassifications	-	0.0	0.0	0.0	0.0
Currency translation differences	57.3	118.4	(1.8)	0.3	174.2
Balance as at 31 Dec 2015	1,399.3	4,683.8	200.9	5.3	6,289.3
Amortisation, depreciation and impairment					
Balance as at 1 Jan 2015	40.6	284.7	12.0	-	337.3
Additions	-	228.1	16.4	0.0	244.5
Impairments	11.0	4.2	-	-	15.2
Disposals	-	(4.7)	(0.8)	-	(5.5)
Reclassifications	-	-	0.0	-	0.0
Currency translation differences	0.8	17.0	0.3	0.0	18.1
Balance as at 31 Dec 2015	52.4	529.3	27.9	0.0	609.6
Carrying amount as at 31 Dec 2015	**1,346.9**	**4,154.5**	**173.0**	**5.3**	**5,679.7**

in EUR million	Goodwill	Other intangible assets	Property, plant and equipment	Financial assets	Total
Acquisition or production cost					
Balance as at 1 Jan 2014	1,220.7	2,861.5	59.2	26.4	4,167.8
Acquisition/disposal of business	1.5	-	-	-	1.5
Additions	-	101.3	5.8	0.7	107.8
Disposals	-	(5.2)	(6.7)	(20.7)	(32.6)
Reclassifications	-	-	0.0	-	0.0
Currency translation differences	57.4	103.8	1.2	0.8	163.2
Balance as at 31 Dec 2014	1,279.6	3,061.4	59.5	7.2	4,407.7
Amortisation, depreciation and impairment					
Balance as at 1 Jan 2014	-	66.8	3.5	-	70.3
Additions	-	180.9	8.5	-	189.4
Impairments	40.3	27.0	-	-	67.3
Disposals	-	(0.4)	(0.4)	-	(0.8)
Reclassifications	-	-	0.0	-	0.0
Currency translation differences	0.3	10.4	0.4	-	11.1
Balance as at 31 Dec 2014	40.6	284.7	12.0	-	337.3
Carrying amount as at 31 Dec 2014	**1,239.0**	**2,776.7**	**47.5**	**7.2**	**4,070.4**

12 Goodwill

Goodwill presented here of EUR 1,346.9m primarily resulted from the acquisition of Springer in the financial year 2013. The acquisition of MSE in 2015 resulted in goodwill of EUR 60.5m and the acquisition of J.B. Metzler, DriversCoach and the Dutch Healthcare business added goodwill of EUR 1.9m.

13 Other Intangible Assets

The following table summarises the gross amounts and the carrying amounts of the other intangible assets:

	31 Dec 2015		31 Dec 2014		1 Jan 2014	
in EUR million	**Gross amount**	**Carrying amount**	**Gross amount**	**Carrying amount**	**Gross amount**	**Carrying amount**
Publishing rights	1,438.6	1,365.4	976.9	937.7	935.9	926.6
Customer relationships/subscriptions	1,439.9	1,313.7	935.6	864.6	900.7	886.4
Trademarks	1,079.0	1,063.8	792.8	785.1	785.6	783.5
Co-publishing rights	250.1	101.6	170.0	94.4	113.1	97.5
Self-developed/acquired software	116.5	55.7	81.0	44.6	58.2	49.4
eBook databases	161.6	59.7	84.2	31.0	49.0	32.8
Other publishing rights/licenses	198.1	194.6	20.9	19.3	19.1	18.5
Total other intangible assets	**4,683.8**	**4,154.5**	**3,061.4**	**2,776.7**	**2,861.6**	**2,794.7**

Other intangible assets were identified, measured and recognised mainly in connection with the purchase price allocation after the acquisition of Springer in 2013 and the establishment of Springer Nature in 2015.

The line item "Publishing rights" included rights to academic journals and specialist journals. In the line "Customer relationships/subscriptions" grown customer relationships in the journal and books business were disclosed. The line item "Co-publishing rights" contained publishing rights that arose from exclusive contracts with scientific societies to publish and/or distribute academic journals worldwide or in a specific country or region.

The position "Trademarks" included among others the carrying amounts of the "Springer" brand of EUR 599.2m, the "Nature" brand of EUR 225.8m and the "Estrada" brand of EUR 3.2m as well as the exclusive right to use the "Macmillan" brand of EUR 174.8m which all have an indefinite useful life. The position "Publishing Rights" included, but was not limited to, the carrying amount of EUR 85.4m for the rights to the title "Nature" that also has an indefinite useful life.

The increase in gross amounts is mainly attributable to the additions from the Macmillan Science and Education business and the regular investments in content, content hosting and distribution platforms as well as software and exchange rates movements.

14 Impairment Testing of Goodwill and Intangible Assets

In 2015, the cash-generating units were defined in line with the pre-merger business lines. Goodwill from the acquisition of MSE was allocated to the MSS and Education business accordingly while goodwill from the other acquisitions was allocated to the respective CGU of Springer. As certain lines of the merged businesses will be further integrated in 2016 the cash-generating unit structure will have to be adjusted accordingly.

Allocation of goodwill and intangible assets with indefinite useful lives to old CGUs broke down as follows:

in EUR million	**CGU STM Science**	**CGU MSS**	**CGU Education**	**Other CGUs**	**Total**
Goodwill					
31 Dec 2015	1,197.0	40.8	18.2	90.9	1,346.9
31 Dec 2014	1,145.5	-	-	93.5	1,239.0
1 Jan 2014	1,093.1	-	-	127.6	1,220.7
Intangible assets with an indefinite useful life					
31 Dec 2015	599.2	311.2	178.0	-	1,088.4
31 Dec 2014	599.2	-	-	-	599.2
1 Jan 2014	599.2	-	-	-	599.2

CGU STM Science

The carrying amount of goodwill that is allocated to Springer Nature's biggest CGU and that makes up a major part of the STM business amounted to EUR 1,197.0m (2014: EUR 1,145.5m) or 88.9% (2014: 92.5%) of the Group's total goodwill of EUR 1,346.9m (2014: EUR 1,239.0m) as measured at 31 December 2015. Also allocated to this CGU is the carrying amount of the "Springer" brand, which amounted to EUR 599.2m at the end of the financial year (2014: EUR 599.2m). The recoverable amount of the CGU came to EUR 3,756.3m as at

31 December 2015 (2014: EUR 3,443.9m) and was calculated based on its value in use. The cash flow planning was derived from the latest group budget and covers a period of five years (medium-term planning). A discount rate of 6.2% after tax (8.9% before tax) (2014: 7.3%; 10.6% before tax) was used and the cash flows after the five-year period were extrapolated with an annual growth rate of 1.0%. The value in use of this CGU exceeded its carrying amount by EUR 875.0m (2014: EUR 662.0m).

The medium-term planning assumes growth rates of free cash flow of 10.7% in the years 2016 to 2020. The growth is expected to mainly stem from further increase in output i.e., number of articles and books published, moderate price increases, increase in usage of the book portfolio, maintaining the market share in the growing open access market, and offering additional services to the authors and researchers.

The impairment test is sensitive to changes in the underlying assumptions, especially the yearly free cash flow growth rates and the discount rates. An increase in the discount rate by 160 base points would reduce the headroom between the recoverable amount and the carrying amount of the CGU to zero. A reduction in the annual medium-term growth rate of 570 base points would also reduce the headroom to zero. If both measurement assumptions were to vary, an increase in the discount rate by 50 base points and at the same time a decrease in the annual free cash flow medium-term growth of 380 base points would reduce the headroom to zero.

CGU Macmillan Science & Scholarly (MSS)

Goodwill allocated to the Macmillan Science & Scholarly CGU was EUR 40.8m as at 31 December 2015, or 3.0% of the total carrying amount of goodwill recorded. Also allocated to this CGU is the carrying amount of the "Nature", "Palgrave" and "Scientific American" brands, which amounted to EUR 277.0m at the end of the financial year. The recoverable amount of the Macmillan Science & Scholarly CGU amounted to EUR 2,101.9m as at 31 December 2015 and was also calculated using value in use, for which the cash flow planning was derived from the latest group budget, which covers a period of five years (medium-term planning). The discount rate used was 6.3% after tax (8.9% before tax). Cash flows beyond the five-year period were extrapolated using an annual growth rate of 1.0%. The value in use of this CGU exceeded its carrying amount by EUR 1,171.9m.

Medium-term planning for Macmillan Science & Scholarly assumes an annual average growth rate of the free cash flow of 14.0% for the years 2016 to 2020. The growth is expected to mainly come from further increase in the number of articles published, an increase of journals under the Nature brand, gaining further market share in the open access market and offering additional services to authors and researchers.

The impairment test is sensitive to changes in the underlying assumptions, especially the yearly free cash flow growth rates and the discount rate. An increase in the discount rate by 630 base points would reduce the headroom between the recoverable amount and the carrying amount of the CGU to zero. A reduction in the annual medium-term growth rate of the free cash flow of 1,900 base points would also reduce the headroom to zero. If both measurement assumptions were to vary, an increase in the discount rate by 200 base points and a decrease in the annual medium-term growth of 1,200 base points of the free cash flow would reduce the headroom to zero.

CGU Education

Goodwill allocated to the Education CGU was EUR 18.2m as at 31 December 2015, or 1.4% of the total carrying amount of goodwill recorded. Also allocated to this CGU is the carrying amount of the "Estrada" brand, which amounted to EUR 3.2m at the end of the financial year. The recoverable amount of the Education CGU amounted to EUR 496.2m as at 31 December 2015 and was also calculated using value in use, for which the cash flow planning was derived from the latest group budget, which covers a period of five years (medium-term planning). The discount rate used was 7.7% after tax (10.9% before tax). Cash flows beyond the five-year period were extrapolated assuming flat free cash flows. The value in use of this CGU exceeded its carrying amount by EUR 188.6m.

Medium-term planning for Education assumes growth rates for the free cash flow at an average of 14.5% for the years 2016 to 2020. The growth is expected to come from improving profitability, winning market share in certain regions, higher content development and investing in the digital transformation of parts of the business, thereby increasing the revenues from digital products.

The impairment test is sensitive to changes in the underlying assumptions, especially the yearly free cash flow growth rates and the discount rate. An increase in the discount rate by 480 base points would reduce the headroom between the recoverable amount and the carrying amount of the CGU to zero. A reduction in the annual medium-term growth rate of the free cash flow of 1,260 base points would also reduce the headroom to zero. If both measurement assumptions were to vary, an increase in the discount rate by 200 base points and a decrease in the annual medium-term growth of 690 base points of the free cash flow would reduce the headroom to zero.

Other CGUs

As a result of the annual impairment test, two of the other CGUs were identified as requiring impairments and impairments were recognised accordingly.

The STM Healthcare CGU comprises international business with medical publications, mostly in English language, scientific communication and specialist medical training that are mainly aimed at the pharmaceutical industry and medical professionals. Goodwill of this CGU was impaired by EUR 7.6m as at 31 December 2015. With a discount rate of 9.6% after tax (13.7% before tax), value in use was used to determine the recoverable amount.

The main reason for impairment is the difficult market environment in certain regions due to the weakness of the local economies resulting in lower sales than assumed in the original business plan back in 2013.

Towards the end of 2015, the Group initiated a process to divest the Papers business. In April 2016, Springer Nature entered into an agreement with Holtzbrinck to sell the Papers software to a subsidiary of the Holtzbrinck Publishing Group. As the selling price did not cover the carrying amount of the Papers CGU, the remaining goodwill as well as the carrying amount of the Papers software amounting to EUR 3.4m and EUR 1.7m respectively, were fully impaired.

15 Property, Plant and Equipment

The following table shows the development of property, plant and equipment in the reporting period and in the prior year:

in EUR million	Land and buildings	Plant, technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
Acquisition or production cost					
Balance as at 1 Jan 2015	39.8	0.4	19.3	-	59.5
Acquisition/disposal of business	105.7	7.3	10.8	-	123.8
Additions	11.6	0.1	9.3	0.2	21.2
Disposals	(0.2)	(0.1)	(1.4)	-	(1.7)
Reclassifications	0.0	(0.3)	0.3	-	0.0
Currency translation differences	(1.6)	(0.1)	(0.2)	0.0	(2.0)
Balance as at 31 Dec 2015	155.3	7.3	38.1	0.2	200.9
Depreciation and impairment					
Balance as at 1 Jan 2015	3.8	0.1	8.1	-	12.0
Additions	5.5	2.3	8.6	-	16.4
Disposals	(0.1)	-	(0.8)	-	(0.9)
Reclassifications	0.0	(0,1)	0.1	-	0.0
Currency translation differences	0.1	0.0	0.3	-	0.4
Balance as at 31 Dec 2015	9.3	2.3	16.3	-	27.9
Carrying amount as at 31 Dec 2015	**146.0**	**5.0**	**21.8**	**0.2**	**173.0**

in EUR million	Land and buildings	Plant, technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
Acquisition or production cost					
Balance as at 1 Jan 2014	45.2	0.4	13.6	-	59.2
Acquisition/disposal of business	-	-	-	-	-
Additions	0.7	0.0	5.1	-	5.8
Disposals	(6.5)	0.0	(0.2)	-	(6.7)
Reclassifications	(0.1)	-	0.1	-	0.0
Currency translation differences	0.5	0.0	0.7	-	1.2
Balance as at 31 Dec 2014	39.8	0.4	19.3	-	59.5
Depreciation and impairment					
Balance as at 1 Jan 2014	1.3	0.0	2.2	-	3.5
Additions	2.8	0.1	5.6	-	8.5
Disposals	(0.3)	0.0	(0,1)	-	(0.4)
Reclassifications	(0.1)	-	0.1	-	0.0
Currency translation differences	0.1	0.0	0.3	-	0.4
Balance as at 31 Dec 2014	3.8	0.1	8.1	-	12.0
Carrying amount as at 31 Dec 2014	**36.0**	**0.3**	**11.2**	**-**	**47.5**

16 Investments in Associates

The Group holds investments in several associates that are individually not material and listed in note 34. The summarised financial information is presented in the table below and not adjusted for the percentage of ownership held by Springer Nature.

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Assets	10.8	1.5	4.4
Liabilities	(7.6)	(1.3)	(3.5)

The line item “Investments in associates” was as follows:

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Investments in associates	7.6	4.5	4.5

Items for the profit or loss are presented for the 12-month period applied under the equity method.

in EUR million	2015	2014
Income	24.3	5.5
Expenses	(23.2)	(4.9)

The line item “Income from associates” was as follows:

in EUR million	2015	2014
Income from associates	1.2	0.7

17 Financial Assets

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Loans	4.8	6.7	26.1
Other financial assets	0.5	0.5	0.3
Financial assets	**5.3**	**7.2**	**26.4**

The line item “Loans” contained vendor loans given to acquirers of divested businesses. As at 31 December 2015, EUR 4.4m (31 Dec 2014: EUR 5.4m; 1 Jan 2014: EUR 7.1m) of these loans related to the divested Vision Care business. The loan given to the acquirer of the Platow business disclosed at EUR 0.6m as at 31 December 2014 was redeemed in 2015 (1 Jan 2014: EUR 1.4m).

18 *Inventories*

The total carrying amount of inventories broke down as follows:

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Finished goods and merchandise	53.0	15.7	14.1
Work in progress	21.2	10.4	8.6
Materials and supplies	7.8	0.1	0.0
Advance payments	2.2	1.2	1.3
Total inventories	**84.2**	**27.4**	**24.0**

19 *Trade Receivables*

The following table gives an overview of the credit risk arising from the trade receivables position:

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Receivables, neither past due nor impaired	393.7	186.1	177.5
Receivables, past due but not impaired	15.9	8.3	16.4
thereof < 30 days	10.4	5.7	11.3
thereof 30 to 89 days	1.1	2.6	5.1
Receivables, past due and impaired			
Gross amount	81.4	39.8	23.1
Valuation allowance	(13.7)	(11.9)	(4.2)
Carrying amount	67.7	27.9	18.9
Total trade receivables	**477.3**	**222.3**	**212.8**

Valuation allowances for trade receivables were made on an individual basis and calculated taking into account all discernible risks. Receivables which were past due for 90, 180 and 360 days were usually written off by 25.0%, 50.0% and 100.0% respectively of their nominal amount.

If a customer has become insolvent or other circumstances indicate default, the corresponding receivables are written off in full.

The following table presents the changes in the valuation allowances for trade receivables:

in EUR million	2015	2014
Balance as at 1 Jan	11.9	4.2
Utilisation	(2.8)	(1.8)
Additions	9.5	11.1
Reversal	(4.8)	(1.7)
Currency translation differences	(0.1)	0.1
Balance as at 31 Dec	**13.7**	**11.9**

20 *Other Current Assets*

The line item "Other current assets" consisted of the following components:

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Receivables from related parties	28.9	1.5	0.0
Prepaid expenses	23.4	12.6	7.7
Fixed-term deposits	9.8	1.3	2.4
Advance payments for royalties and licenses	5.4	6.2	3.6
VAT receivables	3.9	3.5	3.6
Creditors with debit balances	2.4	2.2	3.1
Short-term purchase price receivables from divested businesses	0.8	0.8	0.5
Derivative financial instruments	0.4	1.5	1.1
Other receivables	16.3	4.5	1.9
Other current assets	**91.3**	**34.1**	**23.9**

With the exception of prepaid expenses, advance payments for royalties and licenses and a part of the other receivables, other current assets are classified as financial assets.

21 Cash and Cash Equivalents

Cash and cash equivalents consisted of cash in hand and bank balances.

22 Equity

Share Capital

The share capital of the company as at 31 December 2015 amounted to a total of EUR 100,000.00 with a nominal value of EUR 1.00 per share (31 Dec 2014: EUR 25,000.00; 1 Jan 2014: EUR 25,000.00).

Capital Reserves

As at 31 December 2015 the capital reserve mainly contained shareholder contributions of EUR 771.2m (31 Dec 2014: EUR 321.2m; 1 Jan 2014: EUR 321.2m).

Retained Earnings/Other Accumulated Equity

Other accumulated equity comprised actuarial gains and losses from pension obligations less deferred taxes thereon, gains and losses from the measurement of available-for-sale instruments less deferred taxes thereon, as well as currency translation effects.

23 Provisions for Pensions and Other Long-Term Employee Benefits

The line item "Provisions for pensions and other long-term employee benefits" consisted of the following components:

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Provision for pension obligations	203.5	165.9	136.9
Provisions for other long-term employee benefits	11.7	8.6	6.9
Provisions for pensions and other long-term employee benefits	**215.2**	**174.5**	**143.8**

Pensions

Springer Nature operates various forms of pension plans for current and former employees and, where applicable, their surviving dependents. The benefits of these plans are determined by the legal, tax and economic situation of each country concerned. These company pension plans include defined contribution plans and defined benefit plans. The defined benefit plans are either funded via external investment funds, a pension liability insurance (both referred to as plan assets) or they are unfunded. Provisions are set up for obligations arising from defined benefit plans and presented in the line item "Provision for pension obligations".

Springer Nature's largest defined benefit pension plans are offered in UK, Germany and USA. The plan participants were as follows:

Pension plan participants as at 31 Dec 2015	Active	Deferred members	Retirees	Total
UK	58	783	610	1,451
Germany	361	349	885	1,595
USA	132	169	79	380
Other	231	-	6	237
Total	**782**	**1,301**	**1,580**	**3,663**

Pension plan participants as at 31 Dec 2014	Active	Deferred members	Retirees	Total
UK	8	38	2	48
Germany	387	343	862	1,592
USA	62	153	68	283
Other	130	1	5	136
Total	**587**	**535**	**937**	**2,059**

Pension plan participants as at 1 Jan 2014	Active	Deferred members	Retirees	Total
UK	8	33	2	43
Germany	413	354	866	1,633
USA	62	160	64	286
Other	130	1	5	136
Total	**613**	**548**	**937**	**2,098**

In the UK, various defined benefit plans provide different benefits to its members. These pension schemes, which are closed to new entrants, are funded with plan assets. The pension plan with the largest liability is a trust-based hybrid plan with a final salary component and a career average revalued earnings component. The final salary component is closed to future entitlements, except for a small number of members that still retain the link to their final salary. The career average revalued earnings component commenced in 2010, and there are a small number of active members still accruing benefits. Over the course of 2013, an asset-backed funding structure via a property and a loan was put in place for the main UK pension plan.

There are different defined benefit plans in Germany which are closed for new entrants as well. The final salary plans where the benefits depend on the pensionable salary and the years of service, and a contribution-based plan where yearly contributions are converted into benefits via actuarial factors, are the largest schemes in Germany. The pension plans are not funded by plan assets and provide for annuity payments upon reaching retirement age or in the event of disability or death.

Both defined benefit plans in the USA are closed for new entrants. The benefit accruals for both pension plans have been frozen since 2010. The retirement benefits are calculated based on years of service and average annual salary compensation.

In the case of plans that are funded by plan assets, the Group ensures that the assets are managed in such a way that long-term investments are in line with the obligations under the pension schemes (asset liability matching (ALM) strategy). The objective of the ALM strategy is to match the return and maturity of the plan assets with the benefit payments as they fall due, and in the appropriate currency. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets.

As at 31 December 2015 and 2014 as well as 1 January 2014, the defined benefit obligation (DBO), fair value of plan assets and net pension obligations by country were as follows:

Pension obligations as at 31 Dec 2015 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
UK	312.5	267.2	45.3
Germany	145.7	0.9	144.8
USA	28.8	20.2	8.6
Other	10.2	7.5	2.7
Total	**497.2**	**295.8**	**201.4**
Amounts recognised in the consolidated statement of financial position:			
Provision for pension obligations			203.5
Other non-current assets			2.1
Net pension obligations			**201.4**

Pension obligations as at 31 Dec 2014 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
UK	7.5	6.3	1.2
Germany	156.0	0.9	155.1
USA	23.0	16.5	6.5
Other	5.4	2.3	3.1
Total	**191.9**	**26.0**	**165.9**
Amounts recognised in the consolidated statement of financial position:			
Provision for pension obligations			165.9
Other non-current assets			-
Net pension obligations			**165.9**

Pension obligations as at 1 Jan 2014 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
UK	5.1	5.2	(0.1)
Germany	132.4	1.0	131.4
USA	16.8	13.9	2.9
Other	4.7	2.1	2.6
Total	**159.0**	**22.2**	**136.8**
Amounts recognised in the consolidated statement of financial position:			
Provision for pension obligations			136.9
Other non-current assets			0.1
Net pension obligations			**136.8**

The following tables show the development of benefit obligations in 2015 and 2014:

Reconciliation of defined benefit obligation in EUR million	2015	2014
Balance as at 1 Jan	191.9	159.0
Acquisition/disposal of business	329.6	-
Service costs	2.6	1.6
Interest expenses	12.4	5.8
Expenses recognised in the consolidated statement of profit or loss	15.0	7.4
Effect of changes:		
Demographic assumptions	7.2	(1.5)
Financial assumptions	(29.7)	31.7
Experience adjustments	2.4	0.4
Remeasurement included in OCI	(20.1)	30.6
Benefits paid from plan assets	(10.2)	(1.4)
Benefits paid by the company	(7.2)	(7.0)
Plan participants' contributions	0.4	0.2
Insurance contributions paid	(0.1)	(0.1)
Currency translation differences	(2.1)	3.2
Balance as at 31 Dec	**497.2**	**191.9**

The following table shows the development of plan assets in 2015 and 2014:

Reconciliation of plan assets in EUR million	2015	2014
Balance as at 1 Jan	26.0	22.2
Acquisition/disposal of business	274.5	-
Administrative expenses/fees	(0.1)	(0.1)
Expected return on plan assets	7.2	1.0
Expenses and income recognised in the consolidated statement of profit or loss	7.1	0.9
Remeasurement of plan assets	(4.6)	0.9
Remeasurement included in OCI	(4.6)	0.9
Benefits paid from plan assets	(10.2)	(1.4)
Employer contributions	5.1	0.9
Plan participants' contributions	0.4	0.2
Insurance contributions paid	(0.1)	(0.1)
Currency translation differences	(2.4)	2.4
Balance as at 31 Dec	**295.8**	**26.0**

The portfolio structure of the plan assets as at 31 December 2015 and 1 January 2014 was as follows:

Portfolio structure as at 31 Dec 2015 in EUR million	UK	Germany	USA	Other	Total
Debt instruments	145.3	-	6.6	1.5	153.4
Assets held by insurance company*	54.0	0.9	-	4.5	59.4
Investment funds	47.5	-	-	0.6	48.1
Real estate funds	11.2	-	0.7	0.3	12.2
Equity instruments	4.2	-	12.5	0.5	17.2
Cash and cash equivalents	3.5	-	0.3	0.1	3.9
Other instruments	1.5	-	-	0.1	1.6
Total plan assets	**267.2**	**0.9**	**20.1**	**7.6**	**295.8**

Portfolio structure as at 31 Dec 2014 in EUR million	UK	Germany	USA	Other	Total
Debt instruments	2.5	-	5.3	1.3	9.1
Assets held by insurance company*	-	0.9	-	-	0.9
Investment funds	-	-	-	-	-
Real estate funds	-	-	0.6	0.2	0.8
Equity instruments	3.8	-	10.6	0.5	14.9
Cash and cash equivalents	0.0	-	0.1	0.1	0.2
Other instruments	-	-	-	0.1	0.1
Total plan assets	**6.3**	**0.9**	**16.6**	**2.2**	**26.0**

Portfolio structure as at 1 Jan 2014 in EUR million	UK	Germany	USA	Other	Total
Debt instruments	2.0	-	4.3	1.3	7.6
Assets held by insurance company*	-	1.0	-	-	1.0
Investment funds	-	-	-	-	-
Real estate funds	-	-	0.5	0.2	0.7
Equity instruments	3.1	-	9.0	0.4	12.5
Cash and cash equivalents	0.0	-	0.1	0.1	0.2
Other instruments	-	-	-	0.2	0.2
Total plan assets	**5.1**	**1.0**	**13.9**	**2.2**	**22.2**

* Buy-in insurance contracts

The following table summarises the estimated payments for 2016 and the payments in 2015:

in EUR million	Estimated payments 2016	Payments 2015
Employer contributions to plan assets	9.2	5.1
Benefit payments from employer	7.2	7.2
Total of payments	**16.4**	**12.3**

The weighted average duration of Springer Nature's defined benefit obligation was 16 years as at the reporting date (31 Dec 2014: 15 years; 1 Jan 2014: 14 years).

Provisions for Other Long-term Employee Benefits

In addition to pension benefits, Springer Nature provides, either voluntarily or based on legal or contractual regulations, certain other employee benefits to its employees in several countries. These employee benefits are summarised in the line item "Other long-term employee benefits".

As at 31 December 2015 and 2014, the defined benefit obligation (DBO), fair value of plan assets and net obligations for other long-term employee benefits were as follows:

Other long-term employee benefits as at 31 Dec 2015 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
Severance payments	7.2	1.8	5.4
Loyalty benefits	5.8	-	5.8
Phased-retirement schemes	1.4	0.9	0.5
Deferred compensation plan	0.6	0.6	-
Total other long-term employee benefits	**15.0**	**3.3**	**11.7**
Amounts recognised in the consolidated statement of financial position:			
Provisions for other long-term employee benefits			11.7
Other non-current assets			0.0
Net obligations			**11.7**

Other long-term employee benefits as at 31 Dec 2014 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
Severance payments	4.3	1.0	3.3
Long-service awards	5.3	-	5.3
Old-age part-time schemes	0.9	1.0	(0.1)
Deferred compensation plan	0.6	0.6	-
Total other long-term employee benefits	**11.1**	**2.6**	**8.5**
Amounts recognised in the consolidated statement of financial position:			
Provisions for other long-term employee benefits			8.6
Other non-current assets			0.1
Net obligations			**8.5**

Other long-term employee benefits as at 1 Jan 2014 in EUR million	Defined benefit obligation	Plan assets	Net pension obligations
Severance payments	2.5	-	2.5
Long-service awards	4.2	-	4.2
Old-age part-time schemes	1.5	1.3	0.2
Deferred compensation plan	0.7	0.7	-
Total other long-term employee benefits	**8.9**	**2.0**	**6.9**
Amounts recognised in the consolidated statement of financial position:			
Provisions for other long-term employee benefits			6.9
Other non-current assets			-
Net obligations			**6.9**

Actuarial Assumptions

In accordance with IAS 19, the provisions for pensions were calculated using actuarial models and the projected unit credit method. The amount of the provision depends on the employees' period of service with the company and their pensionable salary while the models factor in future increases in salary and pensions, biometric parameters and prevailing long-term capital market interest rates. Interest expenses recognised in the consolidated statement of profit or loss were calculated based on the net liability using the same long-term capital market interest rate.

The tables below summarise the actuarial assumptions that were used to determine the major pension obligations:

Actuarial assumptions as at 31 Dec 2015	Discount rate	Salary increase rate	Future pension increases	Employee turnover
UK	3.90%	3.00%	2.10% - 3.65%	based on experience
Germany	2.40%	2.50%	1.50%	
USA	4.20-4.45%	n.a.	n.a.	

Actuarial assumptions as at 31 Dec 2014	Discount rate	Salary increase rate	Future pension increases	Employee turnover
UK	3.70%	3.00%	2.10% - 3.60%	based on experience
Germany	2.00%	2.50%	1.50%	
USA	3.90%	n.a.	n.a.	

Actuarial assumptions as at 1 Jan 2014	Discount rate	Salary increase rate	Future pension increases	Employee turnover
UK	4.60%	3.30%	2.10% - 3.70%	based on experience
Germany	3.60%	2.50%	1.75%	
USA	4.70%	n.a.	n.a.	

Springer Nature applied the following mortality tables:

Applied mortality tables	
UK	S1NA CMI 2013 with 1.25% long term average mortality rate 110.0% of SAPS S2 Light tables with CMI 2014 improvements and 1.25% pa underpin
Germany	Heubeck mortality tables 2005G
USA	MRP2007 Generational White Collar RP 2014 Generational Mortality with Scale BB

Sensitivity Analysis for Pension Benefits

An increase or decrease in any of the significant actuarial assumptions would have resulted in the following changes in the present value of the benefit obligations as at 31 December 2015 and 2014:

Impact on the present value of the DBO as at in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Increase in discount rate of 25 bps	(19.6)	(6.9)	(5.2)
Decrease in discount rate by 25 bps	20.9	7.3	5.5
Increase in pension increase rate by 25 bps	7.3	4.4	3.5
Decrease of pension increase rate by 25 bps	(7.1)	(4.1)	(3.3)
Increase of salary increase rate by 25 bps	1.4	0.6	0.5
Decrease of salary increase rate by 25 bps	(1.4)	(0.6)	(0.6)
Increase of life expectancy by one year	17.4	6.6	4.6
Decrease of life expectancy by one year	(17.4)	(6.7)	(4.1)

The above sensitivity analyses were calculated by adjusting one parameter while keeping all other parameters unchanged. In practice, this is unlikely to occur, and changes in some of the assumptions may be interdependent. When calculating the sensitivity of the defined benefit obligations to significant actuarial assumptions the same method has been applied as when calculating the pension obligations recognised within the statement of financial position.

Defined Contribution Plans and State Plans

In the case of defined contribution plans, the Group makes payments into an external fund or other welfare fund on a statutory, contractual or voluntary basis. Once the Group has paid the due contributions, it is not obliged to provide any further benefits, thus no provision is recognised in the consolidated statement of financial position.

The amount recognised as an expense for defined contribution plans amounted to EUR 10.9m (2014: EUR 5.2m) in the reporting period. The contributions paid to public/state pension insurance institutions amounted to EUR 10.3m (2014: EUR 9.4m) for the reporting period.

24 Interest Bearing Loans and Borrowings

The Group is financed by senior loans, a private high-yield loan (hereinafter referred to as “PHY loan”), a working-capital facility (revolving credit facility, hereinafter referred to as “revolver” or “RCF”) and other sources. The lenders are mainly institutional investors. The senior loans and the RCF are syndicated loans under the terms of which lenders and Springer Nature are bound under standard leverage loan facility and intercreditor agreements.

In order to allow for Springer Nature to be created, various adjustments to the pre-merger facilities had to be put in place. Besides a number of contractual amendments, the nominal amounts of the senior loans and the revolver were increased by EUR 600.0m and EUR 100.0m respectively. All existing senior loan tranches (B3, B4 and B5) were refinanced using new tranches (B8 and B9). The new money in the senior loans was borrowed in EUR and USD. As the underlying conditions of the financial instruments have not changed the effective interest rate was remeasured with regard to the transaction costs only and the carrying amounts were adjusted accordingly.

The amendment of the facilities can be summarised as follows:

	Before refinancing		After refinancing	
in million	**Nominal**	**Interest rate**	**Nominal**	**Interest rate**
B3*	USD 1,240.6	Max (1%;USD LIBOR) + 3.75%	-	
B4*	EUR 601.4	Max (1%;Euribor) + 3.75%	-	
B5*	EUR 249.1	Max (1%;Euribor) + 3.75%	-	
B8*			EUR 1,250.5	Max (1%; EURIBOR) + 3.75%
B9*			USD 1,461.8	Max (1%;USD LIBOR) + 3.75%
Revolver	EUR 150.0	Euribor + 3.775%	EUR 250.0	Euribor + 3.75%
PHY loan	EUR 640.0	Max (1%; EURIBOR) + 8.00%	EUR 640.0	Max (1%; EURIBOR) + 8.00%

* Tranches of senior loans

The loan maturities remained unchanged, being February 2020 (RCF), August 2020 (senior loans) and August 2021 (PHY loan).

The margins on the senior loan tranches decrease gradually, if the ratio of net debt to EBITDA (leverage ratio) falls. The first margin reduction occurs if the leverage ratio falls below 6.0. A leverage ratio below 4.5 further decreases the margin of tranche B8 to 3.25% and the margin of tranche B9 to 3.50%. A leverage ratio less than 4.5 also reduces gradually the revolver margin to 3.00%.

All loans, except for the revolving credit facility (RCF), are subject to a base interest rate of the maximum of EURIBOR or LIBOR and a floor of 1.00%. For the senior loans, Springer Nature has an option regarding the interest periods. These can be one month, three months, six months or – subject to the acceptance of the lending institutions – 12 months. The PHY loan has fixed interest periods of three months.

Interest payments are made regularly at the end of the interest period, but at least every three months and on every repayment date in the case of senior loans. Repayments of EUR 3.1m and USD 3.7m are due for tranches B8 and B9 respectively at the end of each quarter. Depending on the cash flow performance of the business in the preceding year, a mandatory repayment obligation exists for a certain share of such excess cash flow, which is linked to the leverage level at year end.

A special feature of the PHY loan is the option of paying 50.0% of the interest due not in cash but instead to capitalise it as a mark-up on the nominal amount of the loan (“PIK toggle option”). If this option is chosen, the margin increases by 0.75% p.a. in the following interest period.

Early repayment of the loans without a prepayment premium was not possible until August 2015 for the PHY loan but there are no repayment restrictions for the senior loans.

The PHY loan is subordinated to the senior loans. Collateral was provided to the syndicate banks for the senior and the PHY loans, i.e. the Group waived its claims on shares in subsidiaries and other assets (including intellectual property and trade receivables) and pledged these in favour of the lending institutions.

In addition to the senior and PHY loans, the Group is financed by a shareholder loan issued by Springer Science+Business Media GP Acquisition S.C.A. (BCP shareholder loan). In the context of the business combination dated 5 May 2015, Springer Science+Business Media GP Acquisition S.C.A was granted the right to convert the shareholder loan into equity instruments under certain circumstances. This conversion right attached to the BCP shareholder loan is an embedded derivative which, together with the loan, is measured at fair value through profit or loss as a compound instrument (shareholder loan and right to capital contribution) as of 5 May 2015.

The BCP shareholder loan accrues interest at a nominal rate of 10.23%. As at 31 December 2015 the loan comprised two tranches of EUR 326.2m and EUR 34.9m, which will expire in August 2022. The fair value of the BCP shareholder loan was estimated using a discounted cash flow model. The valuation requires management to make certain assumptions about the model inputs, especially the discount rate to be applied. Cash flows are derived from the contractually agreed rights to repayment held by the creditor of the BCP shareholder loan, which are discounted using the respective market interest rate for this loan. The point of repayment is assumed using business considerations, thus the expected remaining term is shorter than the contractual repayment period. The discount rate applied is 9.2% at both measurement dates. The fair value as at 31 December 2015 comes to EUR 383.1m (5 May 2015: EUR 361.1m). Provided that the right to exchange the BCP shareholder loan for the company's equity instruments is exercised, the company has no payment obligations from the shareholder loan.

The BCP shareholder loan was recognised using the effective interest method up until 5 May 2015. Interest of EUR 77.8m (1 Jan 2014: EUR 24.7m) that did not increase the nominal amount of the loan was accrued as at 31 December 2014.

In the prior year the BCP shareholder loan comprised a third tranche that was outstanding on 31 December 2014. On 5 May 2015, tranche II was repaid in full, whereas the tranches I and III were paid back in part. In addition, all accrued interest on the three tranches accumulated since the initial issue of the loan has been repaid.

Furthermore, in the course of the business combination, shareholder loan instruments of EUR 407.2m were issued by Springer SBM One GmbH to GvH Vermögensverwaltungsgesellschaft XXXIII mbH. Utilisation of the shareholder loan instruments was limited by contractual obligations, so as to give them the structural equivalence of the BCP shareholder loan. Under certain circumstances, GvH Vermögensverwaltungsgesellschaft XXXIII mbH can swap the company's shareholder loan instruments in exchange for equity instruments of the company. The obligation related to this put option at the level of SBM Zero GmbH is recognised at fair value as debt capital in the company's consolidated financial statements. The fair value of the shareholder loan instruments was calculated using the discounted cash flow model. The measurement requires management to make certain assumptions about the model inputs, especially the interpretation of contractual agreements and the discount rate to be applied. Cash flows are derived from the contract rights of the shareholder loan instruments, which are discounted using the respective market interest rate for this instrument. The discount rate applied is 9.2% at both measurement dates. The fair value as at 31 December 2015 comes to EUR 432.2m (5 May 2015: EUR 407.2m). There is no contractual obligation to repay the shareholder loan instruments.

An increase of ten basis points in the discount rate for the shareholder loan instruments and the BCP shareholder loans would lead to an accumulated decrease in financial liabilities of EUR 2.0m as at 31 December 2015 (5 May 2015: EUR 2.3m). A decrease of ten basis points in the discount rate results in an increase in financial liabilities of EUR 2.0m (5 May 2015: EUR 2.3m). The sensitivity analyses were calculated by adjusting one parameter while keeping all other parameters unchanged.

A further shareholder loan of EUR 80.0m was provided by GvH Vermögensverwaltungsgesellschaft XXXIII mbH on 5 May 2015 (shareholder loan – GvH). The interest rate on this shareholder loan is 2.0% p.a. Interest is accrued and not compounded. The loan together with the accrued interest will mature in May 2030. Interest of EUR 1.1m that did not increase the nominal amount of the loan was accrued at the reporting date and was recognised using the effective interest method.

The shareholder loans and shareholder loan instruments are subordinated to the senior and PHY loans.

The following tables show the carrying amount of the financial debt of the Group as well as the respective maturities:

		31 Dec 2015						
			Remaining term in years					
in EUR million	**Effective interest rate**	**Carrying amount**	**< 1 to 1**	**> 1 to 2**	**> 2 to 3**	**> 3 to 5**	**> 5**	**Total**
Senior loans	5.7%	2,464.8	25.9	25.9	25.9	2,387.1	-	2,464.8
PHY loan	9.5%	619.8	-	-	-	-	619.8	619.8
Shareholder loan instruments		432.0	-	-	-	-	432.0	432.0
Shareholder loan - BCP		383.1	-	-	-	-	383.1	383.1
Shareholder loan - GvH	9.7%	67.3	-	-	-	-	67.3	67.3
Revolving credit facility	3.7%	50.0	50.0	-	-	-	-	50.0
Other financial liabilities	0.0%	1.4	1.4	-	-	-	-	1.4
Total		**4,018.4**	**77.3**	**25.9**	**25.9**	**2,387.1**	**1,502.2**	**4,018.4**

in EUR million	Effective interest rate	31 Dec 2014						
		Carrying amount	Remaining term in years					Total
			< 1 to 1	> 1 to 2	> 2 to 3	> 3 to 5	> 5	
Senior loans	5.9%	1,765.5	18.9	18.9	18.9	37.7	1,671.1	1,765.5
PHY loan	9.8%	613.4	-	-	-	-	613.4	613.4
Shareholder loan - BCP	8.7%	579.5	-	-	-	-	579.5	579.5
Other financial liabilities	0.0%	0.7	0.7	-	-	-	-	0.7
Total		**2,959.1**	**19.6**	**18.9**	**18.9**	**37.7**	**2,864.0**	**2,959.1**

in EUR million	Effective interest rate	1 Jan 2014						
		Carrying amount	Remaining term in years					Total
			< 1 to 1	> 1 to 2	> 2 to 3	> 3 to 5	> 5	
Senior loans	6.2%	1,642.1	17.7	17.7	17.7	35.4	1,553.6	1,642.1
PHY loan	9.7%	606.2	-	-	-	-	606.2	606.2
Shareholder loan - BCP	8.4%	533.4	-	-	-	-	533.4	533.4
Other financial liabilities	0.0%	19.6	19.6	-	-	-	-	19.6
Total		**2,801.3**	**37.3**	**17.7**	**17.7**	**35.4**	**2,693.2**	**2,801.3**

The carrying amount of the senior and PHY loans was presented net of any discounts, arrangement fees and financing-related costs, as well as net of the fair market value of the embedded derivative – i.e. the 1.00% interest floor component – using the effective interest method. The effective interest was calculated based on an expected term of the loans of five years.

The line item “Other financial liabilities” contained accrued interests and bank fees.

The senior loans were denominated in Euro and US dollars and the carrying amounts as at 31 December 2015 and 2014 were as follows:

in million	31 Dec 2015		31 Dec 2014		1 Jan 2014	
	EUR	US dollar	EUR	US dollar	EUR	US dollar
Senior loans	1,183.9	1,394.5	797.5	1,175.2	569.3	1,479.4

The most relevant financial covenants to be monitored and reported are the leverage ratio (ratio between net debt and EBITDA) and the interest cover ratio (ratio between EBITDA and interest expenses). The on-going compliance with the respective limits set for these key ratios is an important component of Springer Nature’s capital management, since a covenant breach can lead to an unplanned debt repayment obligation. Constant monitoring, stress testing and various interest scenario simulations are applied by Springer Nature as part of the financial risk management process as a means of ensuring future covenant compliance. However, compliance with the leverage ratio only has to be ensured if more than 30.0% of the total revolver volume is drawn at the end of a quarter. By contrast, the interest cover ratio is an incurrence covenant, meaning that this covenant must only be complied with if certain events like further borrowing occur. No such event occurred during the reporting period and also not in prior year.

As at the end of reporting period, EUR 50.0m had been drawn on the revolving credit facility. The Group was therefore in compliance with all debt covenants and expects to maintain sufficient headroom under the limits set in the financing agreements for future periods. Springer Nature does not see an immediate need for a fundamental short-term to medium-term refinancing of the outstanding debt facilities, as the debt instruments will mature between 2020 and 2022.

Fixed repayments due in 2016 were presented as current financial liabilities in the consolidated statement of financial position.

25 Finance Lease Liabilities

Finance lease liabilities mainly stemmed from property lease contracts at Springer-Verlag GmbH, Heidelberg, Germany.

The finance leases were generally subject to a non-cancellable minimum lease term, at the end of which the lessee, Springer Nature, has the option of acquiring the leased asset at its residual value. There were no arrangements regarding conditional lease payments within the Group and the current leases did not contain options to renew. The lease payments from finance leases were as follows:

31 Dec 2015 in EUR million	Nominal value	Discounted amount	Present value
Less than 1 year	1.3	0.0	1.3
1 to 5 years	7.9	0.9	7.0
More than 5 years	-	-	-
Total lease payments	**9.2**	**0.9**	**8.3**

31 Dec 2014 in EUR million	Nominal value	Discounted amount	Present value
Less than 1 year	1.3	0.0	1.3
1 to 5 years	6.6	1.0	5.6
More than 5 years	-	-	-
Total lease payments	**7.9**	**1.0**	**6.9**

1 Jan 2014 in EUR million	Nominal value	Discounted amount	Present value
Less than 1 year	1.3	0.0	1.3
1 to 5 years	8.0	1.5	6.5
More than 5 years	-	-	-
Total lease payments	**9.3**	**1.5**	**7.8**

26 Other Long-Term Provisions, Non-Current Liabilities and Current Provisions

The line item "Other long-term provisions and non-current liabilities" included non-current purchase price liabilities, other non-current liabilities and other long-term provisions, broken down as follows:

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Other non-current liabilities	11.1	2.4	-
Other non-current provisions	4.6	1.4	0.8
Purchase price liabilities	1.3	0.6	2.4
Other long-term provisions and non-current liabilities	**17.0**	**4.4**	**3.2**

The positions "Other non-current liabilities" and "Purchase price liabilities" were classified as financial liabilities.

The following tables provide details for the composition and movements in the current provisions:

in EUR million	Provisions for legal and other risks	Provisions for returns	Other provisions	Total current provisions
Balance as at 1 Jan 2015	1.4	5.2	0.7	**7.3**
Acquisition/disposal of business	-	13.1	1.5	**14.6**
Additions	8.2	12.0	14.1	**34.3**
Utilisation	(0.9)	(18.3)	(1.6)	**(20.8)**
Release	(0.3)	0.0	(0.4)	**(0.7)**
Reclassification	-	-	0.0	**0.0**
Currency translation differences	0.2	0.0	(0.2)	**0.0**
Balance as at 31 Dec 2015	**8.6**	**12.0**	**14.1**	**34.7**

The provisions for returns related to deliveries in the current and previous period. They were measured on past experience, normal course of business, and on assumptions regarding future development in the book market.

27 Other Current Liabilities

in EUR million	31 Dec 2015	31 Dec 2014	1 Jan 2014
Derivative financial instruments	139.1	132.9	63.7
Royalty liabilities	81.4	45.8	38.1
Personnel-related liabilities	67.5	34.2	30.4
VAT liabilities	12.5	10.6	14.2
Debtors with credit balances	9.4	14.1	14.1
Sundry liabilities	37.7	14.1	11.8
Other current liabilities	**347.6**	**251.7**	**172.3**

The position "Sundry liabilities" included liabilities to Springer Hilfsfonds from a loan of EUR 3.2m (31 Dec 2014: EUR 3.2m; 1 Jan 2014: EUR 3.9m).

All "Other current liabilities" were classified as financial liabilities.

28 Deferred Income

Deferred income included invoiced sales and subscription payments received in advance, to the extent that the goods were not delivered or services not rendered. Invoiced costs that are charged for packaging and transport were also included in the position. In subsequent periods, the deferred income item is released to the statement of profit and loss, usually within the next 12 months.

29 Off-Balance Sheet Commitments/Contingent Liabilities

Guarantees and securities of EUR 37.6m were granted as at 31 December 2015 (31 Dec 2014: EUR 18.3m; 1 Jan 2014: EUR 12.6m). EUR 24.0m thereof (31 Dec 2014: EUR 6.4m; 1 Jan 2014: EUR 6.1m) is attributable to guarantees to secure day-to-day bank services (cash pool activities, overdraft facilities etc.), EUR 7.3m (31 Dec 2014: EUR 7.3m; 1 Jan 2014: EUR 1.6m) to securities relating to the purchase of software licences, and EUR 2.9m (31 Dec 2014: EUR 2.6m; 1 Jan 2014: EUR 2.5m) to securities on behalf of subsidiaries for existing rent agreements. There were other insignificant guarantees to secure company credit cards, business contracts and guarantees for income tax payments in several jurisdictions. The likelihood that the guarantees will result in any future cash outflow was very limited.

Springer Nature entered into journal content distribution deals under which Springer Nature is entitled to acquire the content, distribute and sell it in contractually agreed territories (co-publishing agreements). Springer Nature has to pay contractually agreed minimum royalties which are, however, subject to final adjustment based on quantity, quality and usage of delivered content. The remaining term of the contracts varies between two to five years and Springer Nature expects payment obligations of EUR 54.1m in 2016 and significantly falling obligations for the following years. There were no other contingent liabilities.

The maturity structure of the operating lease payments is summarised in the following table:

	31 Dec 2015	31 Dec 2014	1 Jan 2014
in EUR million	Nominal value	Nominal value	Nominal value
Less than 1 year	32.6	20.7	18.0
1 to 5 years	81.4	46.5	42.3
More than 5 years	56.8	20.1	24.8
Total lease payments	**170.8**	**87.3**	**85.1**

The majority of the multi-year lease contracts related to office space. The remainder represented leases for company cars, office equipment and IT infrastructure.

30 Financial Instruments and Risk Management

Springer Nature is exposed to various forms of financial risks through its international business operations and financing agreements. This includes amongst others risks from its financial instruments and in particular from movement in foreign exchange rates and interest rates.

The following tables show the carrying amounts and the amortised costs or the fair values of the Group's financial instruments applying the categories of IAS 39 as at 31 December 2015 and 2014 as well as 1 January 2014. For those financial instruments that were measured at amortised cost, the fair value equals amortised cost. Reported fair values can only be seen as indications of prices that might be achieved when selling these instruments in the market. As in the prior year, there were no reclassifications between the valuation categories in 2015.

	31 Dec 2015		
in EUR million	**Carrying amount**	**Amortised cost**	**Fair value**
Financial assets	5.3	5.3	-
Other non-current assets	5.2	5.2	-
Trade receivables	477.3	477.3	-
Other assets	37.4	37.4	-
Cash and cash equivalents	117.3	117.3	-
Loans and receivables	642.5	642.5	-
Available-for-sale financial assets	9.8	-	9.8
Financial assets measured at fair value not through profit or loss	9.8	-	9.8
Financial derivatives - held for trading	0.4	-	0.4
Other non-current assets	2.5	-	2.5
Financial assets at fair value through profit or loss	2.9	-	2.9
Total financial assets	**655.2**	**642.5**	**12.7**
Other long-term provisions and non-current liabilities	11.1	11.1	-
Liabilities to shareholders	67.3	67.3	
Interest-bearing loans and borrowings	3,136.0	3,136.0	-
Finance lease liabilities	8.3	8.3	-
Trade payables	127.1	127.1	-
Other liabilities	208.3	208.3	-
Liabilities measured at amortised cost	3,558.1	3,558.1	-
Liabilities to shareholders	815.0		815.0
Other financial derivatives - held for trading	41.3	-	41.3
Embedded financial derivatives (1% floor) - held for trading	97.8	-	97.8
Contingent consideration at fair value	1.4	-	1.4
Financial liabilities at fair value through profit or loss:	955.5	-	955.5
Total financial liabilities	**4,513.6**	**3,558.1**	**955.5**

in EUR million	31 Dec 2014 Carrying amount	 Amortised cost	 Fair value
Financial assets	7.2	7.2	-
Other non-current assets	4.3	4.3	-
Trade receivables	222.3	222.3	-
Other assets	10.8	10.8	-
Cash and cash equivalents	66.9	66.9	-
Loans and receivables	311.5	311.5	-
Available-for-sale financial assets	1.3	-	1.3
Financial assets measured at fair value not through profit or loss	1.3	-	1.3
Financial derivatives - held for trading	1.5	-	1.5
Other non-current assets	0.5	-	0.5
Financial assets at fair value through profit or loss	2.0	-	2.0
Total financial assets	**314.8**	**311.5**	**3.3**
Other long-term provisions and non-current liabilities	2.7	2.7	-
Liabilities to shareholders	579.5	579.5	-
Interest-bearing loans and borrowings	2,379.6	2,379.6	-
Finance lease liabilities	6.9	6.9	-
Trade payables	68.7	68.7	-
Other liabilities	117.5	117.5	-
Liabilities measured at amortised cost	3,154.9	3,154.9	-
Other financial derivatives - held for trading	39.4	-	39.4
Embedded financial derivatives (1% floor) - held for trading	93.5	-	93.5
Contingent consideration at fair value	1.6	-	1.6
Financial liabilities at fair value through profit or loss:	134.5	-	134.5
Total financial liabilities	**3,289.4**	**3,154.9**	**134.5**

in EUR million	01 Jan 2014 Carrying amount	 Amortised cost	 Fair value
Financial assets	26.4	26.4	-
Other non-current assets	3.1	3.1	-
Trade receivables	212.8	212.8	-
Other assets	8.0	8.0	-
Cash and cash equivalents	46.5	46.5	-
Loans and receivables	296.8	296.8	-
Available-for-sale financial assets	2.4	-	2.4
Financial assets measured at fair value not through profit or loss	2.4	-	2.4
Financial derivatives - held for trading	1.1	-	1.1
Other non-current assets	0.4	-	0.4
Financial assets at fair value through profit or loss	1.5	-	1.5
Total financial assets	**300.7**	**296.8**	**3.9**
Other long-term provisions and non-current liabilities	-	-	-
Liabilities to shareholders	533.4	533.4	-
Interest-bearing loans and borrowings	2,267.9	2,267.9	-
Finance lease liabilities	7.8	7.8	-
Trade payables	73.8	73.8	-
Other liabilities	108.6	108.6	-
Liabilities measured at amortised cost	2,991.5	2,991.5	-
Other financial derivatives - held for trading	16.9	-	16.9
Embedded financial derivatives (1% floor) - held for trading	46.8	-	46.8
Contingent consideration at fair value	2.4	-	2.4
Financial liabilities at fair value through profit or loss:	66.1	-	66.1
Total financial liabilities	**3,057.6**	**2,991.5**	**66.1**

The following table shows the reconciliation between financial instruments and the consolidated statement of financial position:

	31 Dec 2015		
in EUR million	**Financial instruments**	**Other**	**Total in statement of financial position**
Financial assets	5.3	-	**5.3**
Other non-current assets	5.2	4.8	**10.0**
Trade receivables	477.3	-	**477.3**
Other assets	37.4	43.7	**81.1**
Cash and cash equivalents	117.3	-	**117.3**
Loans and receivables	642.5	48.5	**691.0**
Available-for-sale financial assets*	9.8	-	**9.8**
Financial assets measured at fair value not through profit or loss	9.8	-	**9.8**
Financial derivatives - held for trading*	0.4	-	**0.4**
Other non-current assets	2.5	-	**2.5**
Financial assets at fair value through profit or loss	2.9	-	**2.9**
Total assets	**655.2**	**48.5**	**703.7**
Other long-term provisions and non-current liabilities	11.1	4.6	**15.7**
Liabilities to shareholders	67.3	-	**67.3**
Interest-bearing loans and borrowings**	3,136.0	-	**3,136.0**
Finance lease liabilities**	8.3	-	**8.3**
Trade payables	127.1	-	**127.1**
Other liabilities	208.3	-	**208.3**
Liabilities measured at amortised cost	3,558.1	4.6	**3.562.7**
Liabilities to shareholders	815.0		**815.0**
Other liabilities (financial derivatives) – held for trading purposes***	139.1	-	**139.1**
Contingent consideration at fair value****	1.3	-	**1.3**
Contingent consideration at fair value***	0.1	-	**0.1**
Financial liabilities at fair value through profit or loss:	955.5	-	**955.5**
Total provisions and liabilities	**4,513.6**	**4.6**	**4,518.2**

* "Other assets" item

** Short-term and long-term

*** "Other liabilities" item

**** "Other long-term provisions and non-current liabilities" item

	31 Dec 2014		
in EUR million	**Financial instruments**	**Other**	**Total in statement of financial position**
Financial assets	7.2	4.5	**11.7**
Other non-current assets	4.3	4.1	**8.4**
Trade receivables	222.3	-	**222.3**
Other assets	10.8	20.5	**31.3**
Cash and cash equivalents	66.9	-	**66.9**
Loans and receivables	311.5	24.6	**336.1**
Available-for-sale financial assets*	1.3	-	**1.3**
Financial assets measured at fair value not through profit or loss	1.3	-	**1.3**
Financial derivatives - held for trading*	1.5	-	**1.5**
Other non-current assets	0.5	-	**0.5**
Financial assets at fair value through profit or loss	2.0	-	**2.0**
Total assets	**314.8**	**24.6**	**339.4**
Other long-term provisions and non-current liabilities	2.7	1.4	**4.1**
Liabilities to shareholders	579.5	-	**579.5**
Interest-bearing loans and borrowings**	2,379.6	-	**2,379.6**
Finance lease liabilities**	6.9	-	**6.9**
Trade payables	68.7	-	**68.7**
Other liabilities	117.5	-	**117.5**
Liabilities measured at amortised cost	3,154.9	1.4	**3,156.3**
Other liabilities (financial derivatives) – held for trading purposes***	132.9	-	**132.9**
Contingent consideration at fair value****	0.3	-	**0.3**
Contingent consideration at fair value***	1.3	-	**1.3**
Financial liabilities at fair value through profit or loss:	134.5	-	**134.5**
Total provisions and liabilities	**3,289.4**	**1.4**	**3,290.8**

* "Other assets" item

** Short-term and long-term

*** "Other liabilities" item

**** "Other long-term provisions and non-current liabilities" item

in EUR million	01 Jan 2014 Financial instruments	 Other	 Total in statement of financial position
Financial assets	26.4	-	**26.4**
Other non-current assets	3.1	5.7	**8.8**
Trade receivables	212.8	-	**212.8**
Other assets	8.0	12.4	**20.4**
Cash and cash equivalents	46.5	-	**46.5**
Loans and receivables	296.8	18.1	**314.9**
Available-for-sale financial assets*	2.4	-	**2.4**
Financial assets measured at fair value not through profit or loss	2.4	-	**2.4**
Financial derivatives - held for trading*	1.1	-	**1.1**
Other non-current assets	0.4	-	**0.4**
Financial assets at fair value through profit or loss	1.5	-	**1.5**
Total assets	**300.7**	**18.1**	**318.8**
Other long-term provisions and non-current liabilities	-	0.8	**0.8**
Liabilities to shareholders	533.4	-	**533.4**
Interest-bearing loans and borrowings**	2,267.9	-	**2,267.9**
Finance lease liabilities**	7.8	-	**7.8**
Trade payables	73.8	-	**73.8**
Other liabilities	108.6	-	**108.6**
Liabilities measured at amortised cost	2,991.5	0.8	**2,992.3**
Other liabilities (financial derivatives) – held for trading purposes***	63.7	-	**63.7**
Contingent consideration at fair value****	2.4	-	**2.4**
Contingent consideration at fair value***	-	-	**-**
Financial liabilities at fair value through profit or loss:	66.1	-	**66.1**
Total provisions and liabilities	**3,057.6**	**0.8**	**3,057.6**

* "Other assets" item

** Short-term and long-term

*** "Other liabilities" item

**** "Other long-term provisions and non-current liabilities" item

The tables below show the financial instruments measured at fair value through profit or loss categorised by valuation levels:

in EUR million	31 Dec 2015 Carrying amount	 Level 1	 Level 2	 Level 3
Available for sale	9.8	9.8	-	-
Financial assets measured at fair value not through profit or loss	**9.8**	**9.8**	**-**	**-**
Held for trading	0.4	-	0.4	-
Other non-current assets	2.5	-	2.5	-
Financial assets at fair value through profit or loss	**2.9**	**-**	**2.9**	**-**
Held for trading	139.1	-	139.1	-
Liabilities to shareholders	815.0			815.0
Contingent consideration at fair value	1.4	-	-	1.4
Financial liabilities at fair value through profit or loss	**955.5**	**-**	**139.1**	**816.4**

in EUR million	31 Dec 2014 Carrying amount	Level 1	Level 2	Level 3
Available for sale	1.3	1.3	-	-
Financial assets measured at fair value not through profit or loss	**1.3**	**1.3**	**-**	**-**
Held for trading	1.5	-	1.5	-
Other non-current assets	0.5	-	0.5	-
Financial assets at fair value through profit or loss	**2.0**	**-**	**2.0**	**-**
Held for trading	132.9	-	132.9	-
Contingent consideration at fair value	1.6	-	-	1.6
Financial liabilities at fair value through profit or loss	**134.5**	**-**	**132.9**	**1.6**

in EUR million	01 Jan 2014 Carrying amount	Level 1	Level 2	Level 3
Available for sale	2.4	2.4	-	-
Financial assets measured at fair value not through profit or loss	**2.4**	**2.4**	**-**	**-**
Held for trading	1.1	-	1.1	-
Other non-current assets	0.4	-	0.4	-
Financial assets at fair value through profit or loss	**1.5**	**-**	**1.5**	**-**
Held for trading	63.7	-	63.7	-
Contingent consideration at fair value	2.4	-	-	2.4
Financial liabilities at fair value through profit or loss	**66.1**	**-**	**63.7**	**2.4**

The gains and losses (excluding interest) recognised in the financial result in 2015 and 2014 are summarised as follows:

in EUR million	2015	2014
Other financial liabilities	(79.4)	(50.5)
Held for trading	18.0	(58.6)
Loans and receivables	3.0	(7.3)
Total gains and losses (result for the period)	**(58.4)**	**(116.4)**

The following table presents the interest income and expenses recognised in 2015 and 2014 associated with financial instruments:

in EUR million	2015	2014
Loans and receivables	4.7	4.2
Other financial liabilities	(234.7)	(222.7)
Total gains and losses (result for the period)	**(230.0)**	**(218.5)**

The following table presents the gains and losses recognised in other comprehensive income:

in EUR million	2015	2014
Available for sale	(0.0)	0.1
Total gains and losses (other comprehensive income)	**(0.0)**	**0.1**

Financial Risk Management

As part of its Group policies, Springer Nature has established a risk management process aimed at identifying and quantifying the risks that Springer Nature as a group is exposed to. As part of the annual budget process, and with a review in the first half of the following year, each business of Springer Nature assesses and updates its risk portfolio for the likelihood of occurrence, potential financial impact and risk mitigation measures. This process is coordinated by Springer Nature's Internal Audit department and tested for compliance with the guidelines for the risk management process. The findings are then summarised in a risk management report and presented to the management and supervisory board of Springer Nature on a regular basis. Springer Nature has categorised potential risks as

- external,
- market-related,

- process-related,
- project-related or
- related to financing/financial instruments.

Springer Nature is exposed to a variety of financial risks, especially market risks resulting from movements in foreign exchange rates and interest rates.

Exchange Rate Risk

The Group is exposed to risks in various currencies. Foreign currency exchange rate exposure is partly balanced by having operating costs in the countries in which Springer Nature is selling its products and services.

Another central measure aimed at offsetting exchange rate risk consists of Springer Nature's split of debt tranches into Euro and US dollar denominated sub-tranches. Springer Nature has taken up financial debt denominated in US dollars which leads to interest and regular debt repayments in US dollars. The nominal values of the loans are structured such that the corresponding interest and amortisation payments approximately equal the amount of operating cash inflows in US dollars which reduces the structural currency risk that could arise from currency imbalances in cash flows significantly which reduces the structural currency risk that could arise from currency imbalances in cash flows significantly.

Any significant currency item subject to exchange rate risk that is not covered by natural structural hedges is hedged separately and individually. In these cases, hedging instruments are entered into to minimise the risks arising from exchange rate fluctuations, between the date on which the hedges were entered into and the expected date of the cash inflow relating to the underlying business transaction. The counterparty risk of these transactions is closely monitored and contracts are only entered into with banks that meet certain tight rating criteria.

The following table summarises the nominal amounts, the fair values and the gains and losses recognised in each period for the forward exchange contracts and as at 31 December 2015 and 1 January 2014. The nominal amounts represent the total of all underlying selling amounts.

Forward exchange contracts in EUR million	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2015	37.0	(0.3)	1.2
31 Dec 2014	25.2	1.3	2.4
1 Jan 2014	22.8	1.1	n.a.

Another risk arises from Group entities with functional currencies other than the Euro. The income and expenses of these group entities were translated into Euro using the annual average rate, while assets and liabilities were translated into Euro using the closing rate in order to include them in the consolidated financial statements. Changes in the exchange rates may affect, for example, the Group's revenues and net result as well as the equity position of Springer Nature.

The Group's exposure to changes in the fair value of its monetary assets and liabilities depends mainly on the movement in the exchange rate of the US dollar against the Euro. The positive exchange rate effect from financial assets and liabilities denominated in USD in each of Springer Nature's subsidiaries on the Group's net result before taxes is EUR 35.3m (2014: EUR 17.5m) in the case that the US dollar depreciates by 5.0% against the Euro with all other variables held constant. Because of the natural hedge relationship through the financing in US dollars, the effect on cash flow is substantially less significant.

Interest Rate Risk

The Group is exposed to interest rate risk as Springer Nature's financial debt is subject to variable interest rates. More specifically, as Springer Nature has agreed to a 1.0% floor on its lending rates, any fluctuation of the base interest rates in the US dollar and Euro markets above 1.0% impact Springer Nature's interest expense. Furthermore, negative interest rates have an adverse impact on Springer Nature's result as well given the fact that interest rate swaps are not floored at 0.0%.

To mitigate the risk resulting from movements in interest rates the Group entered into payer swaps (i.e. Springer Nature pays a fixed rate and receives a variable interest rate) to hedge the floating interest rate loans. The hedges have a maturity up to September 2018. As at 31 December 2015, 41.0% of the outstanding nominal amounts of the senior loans and PHY loan (EUR 1,334.9m; 31 Dec 2014: EUR 1,270.7m; 1 Jan 2014: EUR 1,202.1m) were hedged at an average fixed hedge rate of 1.3% (31 Dec 2014: 1.3%; 1 Jan 2014: 2.2%).

The derivatives used by the Group are not traded on an organised exchange (OTC instruments) and were only concluded with banks of impeccable credit standing that were approved by management. All derivatives were reported at fair value through profit and loss. No financial derivatives are used for speculative purposes.

The following table summarises the nominal amounts, the fair values at year-end (translated at closing exchange rates), as well as the gains and losses recognised in the respective financial year (translated at average exchange rates) for the interest rate swaps.

Interest rate swaps **in EUR million**	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2015	1,334.9	(40.7)	(1.0)
31 Dec 2014	1,270.7	(39.4)	(21.7)
1 Jan 2014	1,202.1	(16.8)	n.a.

The nominal amounts are the amounts used to calculate the fixed rate and floating rate interest payments. The fair values of the different interest rate swaps were determined using a discounted cash flow calculation, based on the valuations and available market data as at the reporting date provided by the respective banks with which the contracts were concluded.

The fair value of the 1.0% floor component embedded in the senior loans and the PHY loan was calculated using the Black-76 model and is presented below:

Floor instruments **in EUR million**	**Nominal amount**	**Fair value**	**Gains/losses**
31 Dec 2015	3,213.7	(97.8)	17.4
31 Dec 2014	2,517.1	(93.5)	(39.6)
1 Jan 2014	2,404.3	(46.8)	n.a.

Springer Nature is constantly monitoring the interest rate risk. In order to assess the impact of interest rate changes on the Group's interest expense for upcoming periods as well as on future fair values of its interest rate hedging derivatives, Springer Nature simulates variations both in the Euro and US dollar interest rates scenario analyses, whereby current yield curves and implied forward rates are used to forecast future cash interest payments and fair market values respectively. For the scenario analyses, forward rates are shifted or adjusted based on the scenario to be analysed.

The following tables show scenario analyses for interest expenses based on parallel shifts in market rates. The additional interest expenses represent the net effect, i.e. including the effects of opposing interest rate derivatives.

EURIBOR scenarios **in EUR million**	**2015**	**2014**
Actual interest expenses (-) and income (+) in the period	(112.0)	(99.3)
Change in interest expenses with parallel rate curve shift by:		
+300 bp	(11.1)	(11.4)
+200 bp	(2.5)	(4.1)
+100 bp	6.0	3.3
-50 bp	(3.1)	(3.1)

USD LIBOR scenarios **in USD million**	**2015**	**2014**
Actual interest expenses (-) and income (+) in the period	(75.6)	(87.0)
Change in interest expenses with parallel rate curve shift by:		
+300 bp	(0.3)	(9.2)
+200 bp	2.3	(2.3)
+100 bp	4.9	4.5
-50 bp	(4.0)	(4.0)

The following table summarises changes in market values and the effects of these changes in value on the statement of profit or loss with a parallel shift of the interest curve as at 31 December. For example, the scenario of an interest reduction of 50 basis points (bps) would have led to an additional expense of EUR 17.7m as at 31 December 2015.

in EUR million	31 Dec 2015	31 Dec 2014
Changes to the market value of swaps from changes to the interest rate by		
-50 bps	(17.7)	(23.8)
+100 bps	33.8	45.8
+200 bps	66.8	89.6
+300 bps	98.6	131.6

Credit Risk

The maximum exposure resulting from credit risks is the total of carrying amounts of each class of financial assets as at the reporting date. Springer Nature's credit risk is, however, mainly the default of customers with open accounts receivable balances. The Group manages its credit risk from trade receivables based on internal guidelines, e.g., internal limits for each customer and customers with large outstanding or overdue trade receivables are monitored regularly.

An amount of EUR 455.2m (2014: EUR 197.4m) of the Group's trade receivables stem mainly from the STM, MSS and Education businesses, with a customer base that comprises to a large extent administrations, universities, companies, wholesalers and agencies with strong creditworthiness.

A further component of credit risk management is the constant monitoring of countries (and customers in the respective countries) with political instability and/or under financial distress.

Management had no evidence with respect to other given loans that any impairment was necessary.

Liquidity Risk

Liquidity risk for Springer Nature is the risk of not being able to meet financial obligations in full when these become due for payment. The primary sources of liquidity are the operating businesses, external borrowings and borrowings from related parties.

Springer Nature manages its liquidity by pooling and aggregating funds from group entities. Short-term liquidity needs are financed through existing cash balances or by drawing on the revolver. As at 31 December 2015, EUR 13.0m of the revolver was earmarked for letters of credit and other purposes in context of the operational business and was not available for liquidity drawings. Furthermore, two ancillary facilities with a total amount of EUR 16.0m are in place in order to facilitate efficient cash management. Those facilities can be used as overdraft facilities but also for other operational purposes like guarantees.

The Group uses foreign currency exchange swaps to efficiently close liquidity gaps in individual currencies using the available funds.

The following table summarises the nominal amounts, the outstanding foreign exchange swaps as at 31 December 2015 and 2014, as well as the gains and losses recognised in the respective financial year (translated at average exchange rate).

Foreign exchange swaps in EUR million	Nominal amount	Fair value	Gains/losses
31 Dec 2015	20.2	(0.1)	0.5
31 Dec 2014	13.8	0.2	0.3
1 Jan 2014	10.8	(0.1)	n.a.

The following tables summarise the contractual cash flows of the financial liabilities and derivative financial instruments including the estimated and implied interest payments:

	31 Dec 2015						
in EUR million	**Carrying amount**	**Contractual cash flows**	**Less than 6 months**	**7-12 months**	**1 to 2 years**	**2-5 years**	**More than 5 years**
Non-derivative financial liabilities	**4,374.7**	**(5,186.0)**	**(441.1)**	**(104.7)**	**(216.0)**	**(3,003.4)**	**(1,420.9)**
Other long-term provisions and non-current liabilities	11.1	(11.7)	(0.3)	(0.0)	(4.2)	(3.5)	(3.7)
Interest-bearing loans and borrowings	3,136.0	(4,094.0)	(104.6)	(104.0)	(210.3)	(2,991.7)	(683.4)
Liabilities to shareholders	882.3	(733.8)	-	-	-	-	(733.8)
Finance lease liabilities	8.3	(9.3)	(0.7)	(0.7)	(1.3)	(6.7)	-
Trade payables	127.1	(127.1)	(127.1)	-	-	-	-
Other liabilities	208.3	(208.31)	(208.3)	-	-	-	-
Contingent consideration	1.4	(1.8)	(0.1)	-	(0.2)	(1.5)	-
Derivative financial instruments	**138.7**	**(126.0)**	**(19.5)**	**(18.6)**	**(42.5)**	**(45.3)**	**(0.1)**
Forward exchange contracts (financial liabilities)	0.3						
Cash inflows		33.4	27.2	6.2	-	-	-
Cash outflows		(32.5)	(26.6)	(5.2)	-	-	-
Currency swaps (financial asset)	(0.1)						
Cash inflows		20.0	20.0	-	-	-	-
Cash outflows		(20.1)	(20.1)	-	-	-	-
Financial liabilities – 1.00% floor components	97.8	(76.9)	(13.0)	(11.6)	(21.3)	(30.9)	(0.1)
Interest rate swaps (financial liabilities)	40.7						
Cash inflows		11.1	1.6	0.4	4.4	4.7	-
Cash outflows		(61.0)	(8.6)	(7.7)	(25.6)	(19.1)	-

	31 Dec 2014						
in EUR million	**Carrying amount**	**Contractual cash flows**	**Less than 6 months**	**7-12 months**	**1 to 2 years**	**2-5 years**	**More than 5 years**
Non-derivative financial liabilities	**3,157.0**	**(4,518.6)**	**(268.8)**	**(84.1)**	**(164.5)**	**(486.8)**	**(3,514.4)**
Other long-term provisions and non-current liabilities	3.0	(3.0)	-	-	(2.2)	(0.5)	(0.3)
Interest-bearing loans and borrowings	2,379.6	(3,324.9)	(81.9)	(82.1)	(160.6)	(480.9)	(2,519.4)
Liabilities to shareholders	579.5	(994.7)	-	-	-	-	(994.7)
Finance lease liabilities	7.0	(8.0)	(0.6)	(0.7)	(1.3)	(5.4)	-
Trade payables	68.8	(68.8)	(68.8)	-	-	-	-
Other liabilities	117.5	(117.5)	(117.5)	-	-	-	-
Contingent consideration	1.6	(1.7)	-	(1.3)	(0.4)	-	-
Derivative financial instruments	**134.4**	**(104.6)**	**(17.4)**	**(16.0)**	**(20.3)**	**(46.7)**	**(4.2)**
Forward exchange contracts (financial assets)	1.3						
Cash inflows		30.7	20.6	10.1	-	-	-
Cash outflows		(28.4)	(19.2)	(9.2)	-	-	-
Currency swaps (financial asset)	0.2						
Cash inflows		14.0	14.0	-	-	-	-
Cash outflows		(13.8)	(13.8)	-	-	-	-
Financial liabilities – 1.00% floor components	93.5	(64.5)	(10.4)	(9.2)	(10.9)	(29.8)	(4.2)
Interest rate swaps (financial liabilities)	39.4						
Cash inflows		35.7	1.0	1.9	8.2	24.6	-
Cash outflows		(78.3)	(9.6)	(9.6)	(17.6)	(41.5)	-

	1 Jan 2014						
in EUR million	Carrying amount	Contractual cash flows	Less than 6 months	7-12 months	1 to 2 years	2-5 years	More than 5 years
Non-derivative financial liabilities	**2,993.9**	**(4,857.5)**	**(288.7)**	**(88.7)**	**(174.7)**	**(552.9)**	**(3,752.5)**
Other long-term provisions and non-current liabilities	-	-	-	-	-	-	-
Interest-bearing loans and borrowings	2,267.9	(3,668.5)	(105.7)	(86.7)	(172.1)	(549.0)	(2,755.0)
Liabilities to shareholders	533.4	(994.7)	-	-	-	(994.7)	-
Finance lease liabilities	7.8	(9.3)	(0.6)	(0.7)	(1.3)	(3.9)	(2.8)
Trade payables	73.8	(73.8)	(73.8)	-	-	-	-
Other liabilities	108.6	(108.6)	(108.6)	-	-	-	-
Contingent consideration	2.4	(2.6)	-	(1.3)	(1.3)	-	-
Derivative financial instruments	**64.7**	**(67.2)**	**(18.2)**	**(18.1)**	**(24.0)**	**(6.9)**	**-**
Forward exchange contracts (financial assets)	1.1						
Cash inflows		23.3	18.0	5.3	-	-	-
Cash outflows		(21.7)	(16.9)	(4.8)	-	-	-
Currency swaps (financial asset)	0.1						
Cash inflows		10.6	10.6	-	-	-	-
Cash outflows		(10.8)	(10.8)	-	-	-	-
Financial liabilities – 1.00% floor components	46.8	(36.6)	(10.0)	(12.3)	(13.5)	(0.8)	-
Interest rate swaps (financial liabilities)	16.8						
Cash inflows		62.6	1.7	1.7	5.4	53.8	-
Cash outflows		(94.6)	(10.8)	(8.0)	(15.9)	(59.9)	-

31 Consolidated Statement of Cash Flows

Springer Nature's statement of cash flows is based on IAS 7 and is intended to enable the reader of the consolidated financial statements to assess the Group's ability to generate cash and cash equivalents. Cash flows are subdivided into net cash flows from operating, investing and financing activities. The statement of cash flows includes the effects of movements in exchange rates and changes in the scope of consolidation. The net cash flows from operating activities are presented using the indirect method, which adjusts the net result for the period for items not generating or using cash for the year.

Investing activities includes purchases of non-current assets, cash payments and proceeds related to the acquisition and divestiture of businesses, as well as proceeds from disposals of non-current assets. Financing activities include changes in shareholders' equity affecting cash, changes in financial liabilities and shareholder loans. Cash and cash equivalents comprise the total volume of liquid funds.

32 Related-Party Transactions and Management Remuneration

Springer SBM Zero GmbH, Berlin, is the parent of the Group in which GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart holds 53.0% and Springer Science+Business Media GP Acquisition S.C.A., Luxembourg, holds 47.0%. GvH Vermögensverwaltungsgesellschaft XXXIII mbH is a 100.0% subsidiary of the Holtzbrinck Publishing Group. Springer Science+Business Media GP Acquisition S.C.A. is a partnership limited by shares and its managing general partner is Springer Science+Business Media GP S.à.r.l., Luxembourg. The shares in Springer Science+Business Media GP Acquisition S.C.A. are held by funds that are advised by BC Partners Limited, EQT Partners AB and GIC (sovereign fund of the Government of Singapore) as well as by investment companies in which management holds the shares.

The members of the supervisory board are listed in the following table:

Name	Appointment date
von Holtzbrinck, Stefan (chairman)	5 May 2015
Walgenbach, Ewald (deputy chairman)	5 May 2015
Brockhaus, Michael	5 May 2015
Haderer, Hans	5 May 2015
Mogge, Christian	5 May 2015
Schwanewedel, Jens	5 May 2015

The following table shows the management directors of Springer Nature:

Name	Appointment	Resignation
Haank, Derk	28 Feb 2014	
Inchcoombe, Steven Charles	18 Mar 2016	
Jacobs, Rachel	18 Mar 2016	
Mos, Martin	28 Feb 2014	
Thomas, Annette	5 May 2015	9 Mar 2016
Vest, Ulrich	28 Feb 2014	

Related parties are regarded as those persons and entities that control the Group or that are controlled or subject to significant influence by the Group.

Other related parties (entities) include the entities that Springer Nature controls but that are not consolidated because there are no material business dealings with them and they are not material for the Group on aggregate.

The following tables show the transactions with parties with significant influence over the Group:

Related party transactions 2015 in EUR million	Sale of goods/ services to related parties in 2015	Purchases of goods/services from related parties in 2015	Financial result 2015	Amounts owed by related parties 31 Dec 2015	Amounts owed to related parties 31 Dec 2015
Holtzbrinck Publishing Group*	12.1	13.4	(28.6)	21.0	510.3
Springer Science+Business Media GP Acquisition S.C.A.	0.1	0.2	(51.5)	5.0	383.1

* transactions relate to different legal entities of Holtzbrinck Publishing Group

Related party transactions 2014 in EUR million	Sale of goods/ services to related parties in 2014	Purchases of goods/services from related parties in 2014	Financial result 2014	Amounts owed by related parties as at 31 Dec 2014	Amounts owed to related parties as at 31 Dec 2014
Springer Science+Business Media GP Acquisition S.C.A.	-	-	(46.1)	2.2	579.7

The financial liabilities include the shareholder loans and shareholder loan instruments granted by Springer Science+Business Media GP Acquisition S.C.A. and GvH Vermögensverwaltungsgesellschaft XXXIII mbH; the expense in the financial result corresponds to the interest calculated using the effective interest method as well as the measurement gain from financial instruments recognised at fair value in income.

An indefinite license agreement was concluded with Holtzbrinck Publishing Group to use the Macmillan trade name.

Management Participation

Managing directors of Springer Nature, as well as certain managers of the Group ("management"), purchased interests in Springer Science+Business Media GP Acquisition S.C.A. via investment companies, i.e. German limited partnerships and Dutch foundations. The acquisition was carried out at fair value and management was not awarded any benefits from the acquisition and thus no remuneration expense was recorded for this transaction.

Remuneration of Springer Nature Management

The short-term benefits paid in 2015 to the managing directors of Springer Nature amounted to EUR 3.6m (2014: EUR 2.9m). Long-term benefits amounted to EUR 0.1m (2014: EUR 0.0m). The related payments were made by the different subsidiaries of Springer Nature.

33 Subsequent Events

In March 2016, Annette Thomas, CSO of Springer Nature, resigned from her position.

On 15 April 2016, Springer Nature entered into an agreement to sell the assets of the Paper business to the Holtzbrinck Publishing Group. Depending on the future performance of the unit, an earn-out payment of up to EUR 0.3m will become payable to Springer Nature.

Following the decision of the Federal Supreme Court in the court case Martin Vogel against VG Wort, the Group provided in its 2015 financial statements for the risk that Springer Nature may have to repay proceeds received in prior years from VG Wort.

On 28 April 2016, Springer Nature entered into a settlement agreement with Pleiades Publishing Inc. ("Pleiades"). Pleiades had filed a claim for an alleged breach of a distribution agreement under which Springer Science+Business Media LLC had the worldwide exclusive right to distribute English-language versions of journals, books and other literary works originally published in Russian or other languages of territories that were part of the former USSR. Based on this settlement agreement the claim was formally discontinued on 5 May 2016. Any impact resulting from the litigation and settlement agreement has been considered in the consolidated financial statements as at 31 December 2015. Furthermore, the parties terminated the old contract and entered into new distribution agreements under which Springer Nature will continue to have the exclusive worldwide right to distribute the English-language version of journals of the Russian Library of Science published by Pleiades covering the period until 31 December 2021.

In August 2016, EUR 420m of the PHY loan was refinanced by taking on an additional senior loan of EUR 419.2m and using own cash and cash equivalents. Compared to the PHY loan, the term of the senior loan was shortened by one year to 14 August 2020. The interest savings in 2016 come to 4.25% p.a.

On 24 August 2016, Springer Nature concluded an acquisition agreement for 30% of the shares in a company located in the US.

In March 2017, Springer Nature successfully negotiated a repricing of its senior loans denominated in EUR. As a result the floor will be reduced by 0.5% to 0.5% and the margin will decrease to 3.25%. Furthermore, new money proceeds in EUR were used to repay a portion of the approximate USD 133m in senior loans denominated in US dollars. The effective date of the repricing was 7 April 2017.

On 27 June 2017, Springer Nature made it known that Derk Haank will step down from his role as chief executive officer (CEO) by the end of 2017. His successor is Daniel Ropers, currently the CEO of bol.com. To ensure a smooth handover, Daniel Ropers will work together with Derk Haank for a transition period starting 1 October 2017.

There were no further events after the reporting date, which had a significant influence on the net assets, financial position or results of operations of the Group.

Berlin, 26 July 2017

Derk Haank

Steven Inchcoombe

Rachel Jacobs

Martin Mos

Ulrich Vest

Name and registered office of entity	% shareholding	
	2015	2014
Parent company		
Springer SBM Zero GmbH, Berlin		
Subsidiaries		
Argentina		
Editorial Estrada S.A., Buenos Aires	100.00	-
Editorial Puerto de Palos S.A., Buenos Aires	100.00	-
Macmillan Publishers S.A., Buenos Aires	100.00	-
Springer ADIS Argentina S.A., Buenos Aires	100.00	100.00
Australia		
Macmillan Science and Education Australia Pty Ltd., Victoria	100.00	-
Springer Science and Business Media Australia Pty Ltd., Sydney	100.00	100.00
Austria		
Hubert Ebner Verlags GmbH, Thalheim bei Wels	100.00	100.00
Springer Austria GmbH, Vienna**	-	100.00
Springer Austria Holding GmbH, Vienna	100.00	100.00
Springer-Verlag GmbH, Vienna	100.00	100.00
Botswana		
Macmillan Botswana Publishing Company (Pty), Gaborone	100.00	-
Brazil		
Macmillan do Brasil Editora, Commercializdora, Importadora e Distribuitora Ltda., São Paulo	100.00	-
Springer Health Do Brasil Ltda., São Paulo	100.00	100.00
China		
Macmillan Information Consulting Services Co. Ltd., Shanghai	100.00	-
Shanghai Springer Information Consulting Services Co., Ltd, Shanghai	100.00	100.00
Colombia		
Macmillan Publishers S.A.S., Bogotá	100.00	-
Egypt		
Kawkab Distribution Ltd., Cairo	98.00	-
Macmillan Publishers Egypt Ltd., Cairo	100.00	-
France		
Codes Rousseau S.A.S., Château d'Olonne	100.00	100.00
Planète Permis S.A.S., Goxwiller	100.00	100.00
Springer Science+Business Media France S.A.R.L., Paris	100.00	100.00
Springer Science+Business Media France S.A.S., Paris	100.00	100.00
Springer-Verlag France S.A.S., Paris	100.00	100.00
Germany		
Ärzte Zeitung Verlags-GmbH, Neu-Isenburg**	-	100.00
BSMO GmbH, Berlin**	-	100.00
FUCHSBRIEFE Dr. Hans Fuchs GmbH, Berlin*	100.00	100.00
DriversCoach GmbH, Rahden*	100.00	-
InfoChem Gesellschaft für chemische Information mbH, Munich*	100.00	100.00
InfoChimia Gesellschaft für chemische Information mbH, Berlin**	-	100.00
J.B. Metzler Verlag GmbH, Stuttgart*	100.00	-
MSE Beteiligungungen GmbH, Berlin*	100.00	-
Spektrum der Wissenschaft Verlagsgesellschaft mbH, Heidelberg*	100.00	-
Springer Customer Service Center GmbH, Heidelberg*	100.00	100.00
Springer Fachmedien München GmbH, Munich*	100.00	100.00
Springer Fachmedien Wiesbaden GmbH, Wiesbaden*	100.00	100.00

	% shareholding	
Name and registered office of entity	**2015**	**2014**
Germany (continued)		
Springer Gesundheits- und Pharmazieverlag GmbH, Neu-Isenburg**	-	100.00
Springer Medizin Verlag GmbH, Berlin*	100.00	100.00
Springer SBM One GmbH, Berlin	73.12	100.00
Springer SBM Two GmbH, Berlin*	100.00	100.00
Springer Science+Business Media Deutschland GmbH, Berlin*	100.00	100.00
Springer Science+Business Media Real Estate GmbH, Berlin*	100.00	100.00
Springer Science+Business Media Real Estate Holding GmbH, Berlin*	100.00	100.00
Springer SBM International GmbH, Berlin*	100.00	100.00
Springer Science+Business Media GmbH, Berlin*	100.00	100.00
Springer Verlag GmbH, Heidelberg*	100.00	100.00
Tiega 15 GmbH, Berlin*	100.00	-
Urban & Vogel GmbH, Munich**	-	100.00
Wendel-Verlag GmbH, Kassel*	100.00	100.00
Hong Kong		
Macmillan Production (Asia) Limited, Hong Kong	100.00	-
Macmillan Publishers (China) Limited, Hong Kong	100.00	-
Springer Asia Ltd., Hong Kong	100.00	100.00
India		
Crest Premedia Solutions Private Limited, Pune	90.00	90.00
Macmillan Publishers India Private Limited, Chennai	88.10	-
Scientific Publishing Services Private Ltd., Chennai	90.00	90.00
Springer Editorial Services Private Limited, New Delhi	100.00	100.00
Springer (India) Private Ltd., New Delhi	100.00	100.00
Italy		
Springer-Verlag Italy S.r.l., Milan	100.00	100.00
Springer Healthcare Italy S.r.l., Milan	100.00	100.00
Japan		
Macmillan Language House Limited, Tokyo	100.00	-
Nature Japan KK, Tokyo	100.00	-
Springer Japan KK, Tokyo	100.00	100.00
Lesotho		
Macmillan Boleswa Publishers (Lesotho) (Pty) Limited, Maseru	100.00	-
Mauritius		
Springer SBM Holding Ltd., Ebene	100.00	100.00
Springer SBM Services Ltd., Ebene	100.00	100.00
Mexico		
Ediciones Castillo, S.A. de C.V., Mexico City	100.00	-
Heinemann Mexico S.A. de C.V., Mexico City	100.00	-
Macmillan Administracion Corporativa, S.A. de C.V., Mexico City	100.00	-
Macmillan Publishers, S.A. de C.V., Mexico City	100.00	-
Springer Science+Business Media Mexico, S.A. de C.V., Mexico City	100.00	100.00
Mozambique		
Editora Nacional de Mocambique, Maputo	90.00	-
Macmillan Educacao Mozambique Limitada, Maputo	80.00	-
Namibia		
Edumeds (Pty) Limited, Windhoek	100.00	-
Edumeds (Rundu) (Pty) Limited, Windhoek	100.00	-
Macmillan Education Namibia Publishers (Pty) Limited, Windhoek	100.00	-
Namibia Educational Services (Pty) Limited, Windhoek	100.00	-
Namibia Publishing House (Pty) Limited, Windhoek	100.00	-

Name and registered office of entity	% shareholding 2015	 2014
Netherlands		
Checklist Publishing B.V., Dordrecht	100.00	100.00
College Press Netherlands B.V., Amsterdam	100.00	-
Mekentosj B.V., Dordrecht	100.00	100.00
Publicount B.V., Rotterdam	100.00	100.00
Rendement Uitgeverij B.V., Rotterdam	100.00	100.00
Springer Media B.V., Houten	100.00	100.00
Springer Science+Business Media B.V., Dordrecht	100.00	100.00
Springer Science+Business Media Finance B.V., Dordrecht	100.00	100.00
New Zealand		
Adis International Limited, Auckland	100.00	100.00
Peru		
Macmillan Publishers S.A., Lima	95.00	-
Poland		
Macmillan Polska Sp. z o.o., Warsaw	100.00	-
Singapore		
Springer Science+Business Media Singapore Private Ltd., Singapore	100.00	100.00
South Africa		
Macmillan Author's Share Trust, Johannesburg***	100.00	-
Macmillan Employee Share Trust, Johannesburg***	100.00	-
Macmillan South Africa (Pty) Limited, Johannesburg	75.00	-
Springer Science Business Media South Africa (Pty) Ltd., Midrand	100.00	100.00
Spain		
Editorial Trafico Vial S.A., Móstoles (Madrid)	100.00	100.00
Macmillan Iberia S.A., Madrid	100.00	-
Nature Publishing Group Iberoamerica, S.L., Madrid	100.00	-
Prensa Cientifica S.A., Barcelona	100.00	-
Springer Healthcare Iberica S.L., Madrid	100.00	100.00
South Korea		
Macmillan Korea Publishers Limited, Seoul	100.00	-
Springer Korea Ltd., Seoul	100.00	100.00
Swaziland		
Macmillan Boleswa Publishers (Pty) Limited, Mbabane	100.00	-
Macmillan Education Swaziland (Pty) Limited, Mbabane	100.00	-
MSNP Pty Limited, Mbabane	70.00	-
Switzerland		
Springer Basel AG, Basel**	-	100.00
Springer International Publishing AG, Cham	100.00	100.00
Springer Transport Media Schweiz GmbH, Urdorf	100.00	100.00
Taiwan		
Macmillan Taiwan Limited, Taipei	100.00	-
Springer Taiwan Limited, Taipei	100.00	-
Thailand		
Macmillan Publishers (Thailand) Limited, Bangkok	100.00	-
Turkey		
Springer Yayincilik Ticaret Limited Sirketi, Istanbul	100.00	100.00
UK		
BioMed Central Limited, London	100.00	100.00
Current Controlled Trials Limited, London	100.00	100.00
Current Science Limited, London	100.00	100.00
Genome Biology Limited, London	100.00	100.00

Name and registered office of entity	% shareholding 2015	% shareholding 2014
UK (continued)		
HM Publishers Holdings Limited, London	100.00	-
Holtzbrinck Publishers Holdings Limited, London	100.00	-
Livfe Limited, London	100.00	100.00
Macmillan (SLP) General Partner Limited, Edinburgh	100.00	-
Macmillan Limited, London	100.00	-
Macmillan Magazines Limited, London	100.00	-
Macmillan Pension Plan Limited, London	100.00	-
Macmillan Publishers Holdings Limited, London	100.00	-
Macmillan Publishers Limited, London	100.00	-
Macmillan Scottish Limited Partnership, Edinburgh	100.00	-
Macmillan Subscriptions Limited, London	100.00	-
Springer Healthcare Limited, London	100.00	100.00
Springer Science+Business Media UK Limited, London	100.00	100.00
Springer-Verlag London Limited, London	100.00	100.00
Stampdew Limited, London	100.00	100.00
USA		
Apress LLC, Sacramento	100.00	100.00
KC & COF Inc., Emeryville	100.00	100.00
Macmillan Academic Publishing Inc., New York	100.00	-
Nature America Inc., New York	100.00	-
Rednova Learning Inc., Florida	100.00	-
Springer Customer Service Center LLC, Wilmington	100.00	100.00
Springer Healthcare LLC, Wilmington	100.00	100.00
Springer Science+Business Media LLC, Boston	100.00	100.00
Springer Science+Business Media Finance Inc., Wilmington	100.00	100.00

The Group has an interest in the Macmillan Scottish Limited Partnership which is fully consolidated into the consolidated financial statements. The Group has made use of the exemption conferred by Regulation 7 of the Partnerships (Accounts) Regulations 2008 and has, therefore, not appended the accounts of this qualifying partnership to these financial statements. Separate accounts for the partnership are not required to be, and have not been, filed at Companies House in the UK.

* Furthermore, the Group has made use of the exemption clause of section 264 paragraph 3 number 4a HGB, relieving it from the duty to publish and file the separate financial statements of various German entities.

** merged in 2015

*** Springer Nature controls the trusts through the trustees which are nominated by a subsidiary of the Group.

35 *Associates as at 31 December 2015/2014*

Name and registered office of entity	% shareholding 2015	% shareholding 2014
Germany		
GbR Musik in Geschichte und Gegenwart, Kassel	50.00	-
med update GmbH, Wiesbaden*	50.00	50.00
Springer-VDI-Verlag GmbH, Düsseldorf	45.00	45.00
Springer-VDI-Verlag GmbH & Co. KG, Düsseldorf	45.00	45.00
France		
Pour la Science S.A.R.L., Paris	50.00	-
Italy		
Le Scienze S.p.A., Rome	50.00	-
Japan		
Nikkei Science Inc., Tokyo	50.00	-
Spain		
Ediciones Bilingues SL, Madrid	50.00	-
Zimbabwe		
College Press Publishers (Pty) Limited, Harare	48.91	-

*49.00% of voting rights

36 Other Investments as at 31 December 2015/2014

	% shareholding	
Name and registered office of entity	**2015**	**2014**
Akademie der Deutschen Medien gGmbH, Munich, Germany	5.00	5.00
Editorial Delti Mexico S.A. DE C.V., Mexico City, Mexico	15.18	15.18
Inchi Trust Ltd. (Limited by Guarantee), London, UK	50.00	-
King's Cross and ST. Pancras Business Partnership Ltd., London, UK	12.50	-
Princeton Architectural Press, Inc., New York, USA	1.10	1.10
Repro India Limited, Mumbai, India	15.00	-

The following English-language translation of the German-language audit opinion (Bestätigungsvermerk) refers to the consolidated financial statements, prepared in accordance with International Financial Reporting Standards as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB ("Handelsgesetzbuch": German Commercial Code), as well as the group management report, prepared on the basis of German commercial law (HGB), of Springer SBM Zero GmbH, Berlin, as of and for the year ended December 31, 2015 as a whole and not solely to the consolidated financial statements presented in this prospectus on the preceding pages. The group management report is not part of this prospectus.

Audit Opinion

We have audited the consolidated financial statements prepared by Springer SBM Zero GmbH, Berlin, comprising the statement of profit or loss, the statement of comprehensive income, the statement of financial position, the statement of cash flows, the statement of changes in equity, the notes to the consolidated financial statements, together with the group management report for the financial year from 1 January to 31 December 2015. The preparation of the consolidated financial statements and the group management report in accordance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB ("Handelsgesetzbuch": German Commercial Code) is the responsibility of the company's management. Our responsibility is to express an opinion on the consolidated financial statements and the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with Sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315a HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The group management report is consistent with the consolidated financial statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Berlin, 26 July 2017

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

(signed)	*(signed)*
Kausch-Blecken von Schmeling Wirtschaftsprüfer (German Public Auditor)	Weiß Wirtschaftsprüfer (German Public Auditor)

Unconsolidated Financial Statements of

Springer Nature GmbH (formerly Springer SBM Zero GmbH)

as of and for the year ended December 31, 2017 (HGB)

BALANCE SHEET of
Springer Nature GmbH
(formerly: Springer SBM Zero GmbH, Berlin)

	31 Dec 2017	31 Dec 2016		31 Dec 2017	31 Dec 2016
ASSETS	**EUR**	**EUR k**	**EQUITY AND LIABILITIES**	**EUR**	**EUR k**
Non-current assets			Equity		
Financial assets	779,747,664.72	778,712	Share Capital	100,000.00	100
			Capital reserves	755,884,074.79	778,464
			Accumulated profits (py: Accumulated losses)	30,000,000.00	(824)
Current assets				785,984,074.79	777,740
Receivables due from shareholders	8,337,502.08	-	Provisions		
Cash and cash equivalents	12,045.30	12	Other provisions	840,986.56	88
	8,349,547.38	12			
			Liabilities		
			Trade payables	71,961.25	-
			Liabilities to affiliates	1,200,189.50	896
				1,272,150.75	896
	788,097,212.10	778,724		788,097,212.10	778,724

INCOME STATEMENT of
Springer Nature GmbH
(formerly: Springer SBM Zero GmbH, Berlin)

	From 1 Jan to 31 Dec 2017 EUR	From 1 Jan to 31 Dec 2016 EUR k
Other operating income	51,572.22	0
thereof income from currency translation: EUR 0.00 (prior year: EUR 0k)		
Other operating expenses	(1,303,790.28)	(58)
thereof expenses from currency translation: EUR 183,013.65 (prior year: EUR 0k)		
Interest and similar expenses	(31,575.81)	(31)
thereof from affiliates: EUR 31,475.21 (prior year: EUR 31k) thereof		
Result after taxes	(1,283,793.87)	(89)
Other taxes	(28,304.52)	-
Net loss for the year	(1,312,098.39)	(89)
Loss carry forward from prior year	(824,866.57)	(735)
Drawing from capital reserves	32,136,964.96	-
Accumulated profits (py: Accumulated losses)	30,000,000.00	(824)

NOTES TO THE FINANCIAL STATEMENTS FOR FISCAL YEAR 2017
of
Springer Nature GmbH, Berlin
(formerly: Springer SBM Zero GmbH)

Legal background

Springer Nature GmbH, Berlin, is entered in the Berlin Charlottenburg commercial register under HRB no. 153763 B.

The Company has prepared its financial statements for the fiscal year from 1 January to 31 December 2017 in accordance with the provisions of the HGB ("Handelsgesetzbuch": German Commercial Code) for small corporations.

The income statement is classified using the nature of expense method.

Accounting and valuation methods

The following accounting and valuation methods, which remain unchanged on the prior year, were used to prepare the financial statements.

Equity investments are valued at the lower of cost or market.

Receivables and other assets are stated at nominal value. Value adjustments are made in the form of a specific bad debt allowance.

Receivables denominated in foreign currency are translated at the exchange rate valid on the transaction date or at closing rate in accordance with the provisions of Sec. 256a HGB.

Cash and cash equivalents are recognized at their nominal value. Amounts in foreign currency are translated at the closing rate.

Share capital is stated at nominal value.

Other provisions account for all discernable risks and uncertain liabilities using prudent commercial judgment and are recorded at the settlement value.

If available, provisions due in more than one year are discounted pursuant to Sec. 253 (2) Sentence 1 HGB.

Liabilities are recorded at their settlement value. Liabilities denominated in foreign currency are translated at the exchange rate valid on the transaction date or at closing rate in accordance with the provisions of Sec. 256a HGB.

Notes to the balance sheet

(1) Receivables due from shareholders

Receivables due from shareholders exclusively comprise a receivable due from Springer Science+Business Media GP Acquisition S.C.A. and have a remaining term of less than one year.

(2) Capital reserves

Springer Science+Business Media GP Acquisition S.C.A. contributed EUR 9.5m into the capital reserves of the company. Further, an amount of EUR 32.1m was withdrawn from capital reserves to completely balance the loss carryforward and net loss for the year. The exceeding amount of EUR 30.0m is shown as accumulated profits.

(3) Liabilities

Liabilities are due in less than one year and are unsecured. Liabilities to affiliates contain cash pooling liabilities owed to Springer Science+Business Media GmbH.

Other notes

Contingent liabilities

Together with other affiliates, the Company has provided collateral of EUR 3,048.0m for the liabilities and the credit lines of group companies pursuant to Sec. 251 HGB (contingent liabilities).

The Company does not expect this to be utilized, as medium-term group planning does not foresee any breach of the covenants, and thus no grounds for utilization are expected.

Off-balance-sheet transactions

There were no off-balance-sheet transactions as of the balance sheet date.

Management

The members of management in the fiscal year are:

- Derk Haank
  Managing Director
  (stepped down 31 December 2017)
- Steven Inchcoombe
  Managing Director
- Rachel Jacobs
  Managing Director
- Martin Mos
  Managing Director
- Daniel Ropers
  Managing Director
  (appointed 1 October 2017)
- Dr. Ulrich Vest
  Managing Director
- Franciscus Vrancken Peeters
  Managing Director
  (appointed 22 September 2017)

Consolidated financial statements

The Company is the parent company of the Springer Nature Group within the meaning of Sec. 290 HGB.

The annual financial statements of Springer Nature GmbH are included in the consolidated financial statements of Springer Nature GmbH, Berlin (smallest consolidated group). The consolidated financial statements of Springer Nature GmbH, Berlin, are published in the *Bundesanzeiger* (German Federal Gazette).

The consolidated financial statements have been prepared based on the International Financial Reporting Standards (IFRS/IAS) and the accounting and valuation principles used differ from German provisions in the following material respects:

Receivables and liabilities in foreign currencies are always translated at the closing rate.

Under IFRS, deferred taxes arise from the difference between the carrying amounts in the consolidated statement of financial position and the tax carrying amounts. Any expected tax effect arising from differences between the carrying amounts of assets and liabilities must be recognized under IFRS. Under German commercial law, only deferred tax liabilities must be recognized, while recognition of deferred tax assets is optional. Under IFRS, deferred tax assets on unused tax losses must be recognized; any anticipated restrictions in recoverability are accounted for as a reduction of deferred taxes.

Berlin, 23 March 2018

Daniel Ropers	Martin Mos	Dr. Ulrich Vest
Rachel Jacobs	Steven Charles Inchcoombe	Frank Vrancken Peeters

The following English-language translation of the German-language independent auditor's report (Bestätigungsvermerk des unabhängigen Abschlussprüfers) refers to the annual financial statements of Springer Nature GmbH, Berlin, as of and for the year ended December 31, 2017, prepared in accordance with German commercial law (HGB) ("Handelsgesetzbuch": German Commercial Code) applicable to business corporations.

Independent Auditor's Report

To Springer Nature GmbH

Opinions

We have audited the annual financial statements of Springer Nature GmbH, which comprise the balance sheet as at 31 December 2017, and the income statement for the fiscal year from 1 January 2017 to 31 December 2017, and notes to the financial statements, including the recognition and measurement policies presented therein.

In our opinion, on the basis of the knowledge obtained in the audit, the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law applicable to business corporations and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2017 and of its financial performance for the fiscal year from 1 January 2017 to 31 December 2017 in compliance with German legally required accounting principles, and

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements.

Basis for the opinions

We conducted our audit of the annual financial statements in accordance with Sec. 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the annual financial statements" section of our auditor's report. We are independent of the Company in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the annual financial statements.

Responsibilities of the executive directors and the supervisory board for the annual financial statements

The executive directors are responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law applicable to business corporations, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German legally required accounting principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the executive directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

The supervisory board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements.

Auditor's responsibilities for the audit of the annual financial statements

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, as well as to issue an auditor's report that includes our opinions on the annual financial statements.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the annual financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems of the Company.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Berlin, 23 March 2018

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

(signed)	*(signed)*
Kausch-Blecken von Schmeling Wirtschaftsprüfer (German Public Auditor)	Weiß Wirtschaftsprüfer (German Public Auditor)

22. GLOSSARY

Academic Research . . . . Scientific, technical and medical. This includes various fields of science (*e.g.* physics, biomedicine, life science, chemistry, material science, earth), technology (*e.g.* engineering, computer science, etc.), medicine (*e.g.* clinical), mathematics, humanities (*e.g.* history, literature), and social sciences (*e.g.* economics, politics, psychology), finance, management and business.

AJE . . . . American Journal Experts. American Journal Experts is the language editing division of Research Square. It provides services for language editing driven by artificial intelligence, and other innovative author services outside the area of language editing.

APC . . . . Article processing charge. In open access publication models, rather than charging users a fee to read the content, an APC is levied at the start of the process. This flat fee covers the cost of publication and allows free and immediate access to research articles. While the authors submitting the respective manuscript are responsible for making or arranging the payment, they usually do not have to pay the fee themselves, but can rely on institutions and funders, who take on the involved fees in various ways, *e.g.* by establishing a central open access fund, by making open access fees part of their general funding, or paying open access fees as part of a membership model.

Big Deal . . . . A "Big Deal" is a pricing model under which journals are offered based on a flat fee. This pricing model bundles journals at a discounted rate compared to relevant the single unit price.

CAGR . . . . Compound annual growth rate.

eBook . . . . Electronic book. Digitalized publication of books containing text, images, or both. It can be read on electronic devices.

Flipping . . . . "Flipping" refers to the transition from existing subscription journals to open access publications.

Gold open access . . . . See "Open access".

Green open access . . . . See "Open access".

Hybrid open access . . . . See "Open access".

Impact factor . . . . A common metric to measure the frequency of an average journal article's citation over a given period, used to evaluate the relative importance of a journal within its field. The impact factor is relevant to authors deciding in which journal they intend to publish, to researchers deciding which articles to read and to funding institutions for research evaluation purposes. It is published in the Clarivate Journal Citation Reports database.

Institutional sales . . . . Institutional sales comprise sales of print subscriptions, journal print sale surcharges, online subscriptions, online subscription compact, online journal archives, journal licenses, journal article deposits, online book archives, book licenses and book pay-per-view deposits. Institutional sales are made directly to higher education institutions, government research centers and corporations across the world and also via consortia that act as representatives of groups of these entities.

JCR . . . . Journals Citation Reports. A database issued by Clarivate that provides statistical information for English-language journals based on citation data, *i.e.,* the number of times a certain article is cited in another peer-reviewed article. It contains roughly 11,000 journals and is generally considered to be a collection of the highest quality journals in the world.

K-12 curriculum . . . . Materials for use in primary and secondary education. K-12 curriculum materials are published by the Curriculum business unit of our Education segment.

Offset deal . . . . Under an "offset deal", in exchange for a centrally paid reading and publishing costs lump sum (including article processing charges), a consortium of institutions located in a country gains access to journals available under subscription based models. "Offset deals" have become a common feature in publishing markets in Europe.

Open access

The term “open access” refers to publishing models under which free and unrestricted access via the Internet is provided to Academic Research journal articles, as well as other content such as thesis, scholarly monographs and book chapters. Open access content is primarily delivered through two main approaches referred to as “green” and “gold” open access models:

The green approach of self-archiving makes articles freely available by posting them or their preliminary manuscript version into institutional or funder repositories, or in a central repository, sometimes after a so-called “embargo time”.

The gold approach operates under a reversed business model to traditional journals and treats publication as the last phase of the research process. Instead of charging users a fee to read the content, an article processing charge (see “APC”), which covers the costs of the peer review process, editing and publication, is levied upon publication, at the beginning of the process and allows free and immediate access to the research articles.

In addition, there are a number of “hybrid” open access models that grant free access for research content with different levels of additional revenue streams, such as Academic Research journals that contain some open access articles that are freely available to all while the remaining content requires a subscription.

POD

Print-on-demand. A printing technology and business process in which new copies of a book or another document are not printed until an order has been received, which means books can be printed one at a time. POD developed only after digital printing began and is used as a way of printing items for a fixed cost per copy, regardless of the size of the order. While the unit price of each physical copy printed is higher than with offset printing, the average cost is lower for very small print runs, because setup costs are much higher for offset printing.

PTO

Print-to-order. Similarly to POD, PTO is a technique that allows publishers such as Springer Nature to postpone printing and even to transfer the printing process to a wholesaler. The wholesaler orders the publication by ISBN identification and takes care of the printing process. While POD and PTO are different concepts, they are often used as interchangeable in practice.

R&D

Research & Development.

SEO

Search engine optimization. The process of maximizing the number of visitors to a particular website by ensuring that the website appears high on the list of results returned by a search engine.

Trade and eCommerce sales

Trade / eCommerce sales comprise revenues from journal document delivery, print books, single online books, bulk books, eRetail revenues and book pay-per-view delivery.

User experience

Encompasses all aspects of the end-user’s interaction with a publisher, its services, and products.

Workflow tools

A workflow consists of a sequence of concatenated (connected) steps. In Academic Research publishing, the term workflow tool (sometimes also referred to as “workflow and collaboration tool”) is used to denote tools that engage scientists by providing solutions and networks to discover, organize, share and discuss research related content and address other workflow needs (*e.g.* reference management). These tools increase research effectiveness and efficiency and are thus becoming essential to researchers, institutions and funders.

XML

“Extensible markup language”. A markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

23. Recent Developments and Outlook

23.1 Recent Developments

On February 15, 2018, we acquired an additional stake of 30% in Research Square AJE LLC bringing the total share up to 60% for a preliminary contribution of USD 15.2 million. The U.S. based business primarily offers language and manuscript editing and translation services to authors of scientific content.

On February 16, 2018, we acquired all shares in a German-based congress business with 11 employees located in Germany, for a preliminary purchase price of €12.0 million.

In April 2018, several publishers, including us, entered into a cooperation agreement with ResearchGate GmbH ("**ResearchGate**"). ResearchGate is an online platform for members of the scientific community to share work, ask and answer questions and find collaborators. This agreement governs the cooperation between ResearchGate and publishers with respect to user education about rights in relation to copyright protected content. Furthermore, ResearchGate will continue to remove copyright-infringing content from its platform upon request by publishers such as us. In addition, we will gain more insights into content usage on the ResearchGate platform.

In connection with the Offering, the Issuer rearranged its external financing structure and entered into various financing agreements on April 12, 2018. Together with the net proceeds from the Offering, the drawings under these financing agreements will be used to repay remaining amounts outstanding under the existing Senior Credit Agreement (see "*5. Reasons for the offering and listing and use of proceeds*"). The fees related to this refinancing are expected to amount to €13 million.

Based on preliminary numbers and adjusted for foreign exchange effects, revenues and adjusted EBITDA in the three months ended March 31, 2018 developed in line with our expectations and the typical seasonal patterns of our business.

In our Research segment, realized institutional renewals are phased somewhat negatively compared to the three months ended March 31, 2017, but fully in line with expectations. The overall status of institutional contract renewals is in line with prior year patterns, with negotiations with a French consortium being the only noteworthy renewal situation that is delayed for non-administrative reasons. Underlying revenues development shows solid growth across all institutional product categories. Trade and eCommerce revenues grew in the three months ended March 31, 2018 and also open access APC revenues grew in line with expectations. Likewise, healthcare revenues showed solid underlying growth.

In our Education segment, the underlying development was positive in the three months ended March 31, 2018. Revenues development saw slightly different regional trends, with our operations in Latin America making a positive contribution and our operations in India making a negative contribution, resulting in overall net underlying growth.

In our Professional segment, in the three months ended March 31, 2018, underlying development was above full year growth rate expectations.

Except as described above, between December 31, 2017 and the date of this prospectus, there have been no material changes to the Issuer's or the Group's financial position, financial performance or cash flows, or in the Issuer's or the Group's trading position.

23.2 Outlook

This section includes forward-looking statements. These forward-looking statements are not guarantees of future financial performance and the Issuer's actual results could differ materially from those expressed or implied by these forward-looking statements as a result of many factors, including, but not limited to, those described under "*1. Risk Factors*", "*2.3 Forward-looking Statements*" and "*12. Business Description*". In particular, the financial and operational targets discussed in this section are only targets and are not, and should not be, viewed as forecasts, projections or estimates of the Issuer's future performance. Investors are urged not to place undue reliance on any of the statements set forth below. The statements in this section are made before application of IFRS 16 for all periods and dates.

We expect revenues to increase on an underlying basis, *i.e.*, adjusted for currency exchange rate effects and the effects of changes in business scope, at a CAGR of more than 3% per year during the period from 2018 to 2020, with institutional sales expected to grow above the level of 2017 driven by growth in eBooks, license value increases and new launches in the Nature journal line. Following completion of the merger integration, we expect our operating leverage to have a positive impact on our adjusted EBITDA margin.

In the medium term, we expect total capital expenditure to remain in line with our total capital expenditure in 2017. We expect our net financial leverage ratio, which corresponds to the ratio of the sum of interest-bearing loans and borrowings, finance lease liabilities, purchase price liabilities and sundry liabilities adjusted for cash and cash equivalents to adjusted EBITDA, from 5.4 to 1 as of December 31, 2017 to decrease to approximately 3.5 to 1 following the Offering and further to 3.0 to 1 by 2019.