# Springer Nature AG & Co. KGaA
# Berlin

## Short-form audit report
## Consolidated financial statements
## 31 December 2021

*Translation from the German language*

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Building a better working world

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**Note:**

We have issued the audit opinion presented below in compliance with legal and professional requirements subject to the conditions described in the enclosed "Engagement Terms, Liability and Conditions of Use".

## Independent auditor's report

To Springer Nature AG & Co. KGaA

### Opinions

We have audited the consolidated financial statements of Springer Nature AG & Co. KGaA, Berlin, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2021, consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the fiscal year from 1 January to 31 December 2021, and notes to the financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Springer Nature AG & Co. KGaA for the fiscal year from 1 January to 31 December 2021.

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 2021 and of its financial performance for the fiscal year from 1 January to 31 December 2021, 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.

**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, 24 March 2022

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

| | |
|---|---|
| - signed - | - signed - |
| Röders<br>Wirtschaftsprüfer<br>[German Public Auditor] | Weiß<br>Wirtschaftsprüfer<br>[German Public Auditor] |

# Springer Nature AG & Co. KGaA, Berlin

## Consolidated Financial Statements
## as at 31 December 2021

Heidelberger Platz 3
14197 Berlin
Germany

HRB 195463B, AG Berlin - Charlottenburg

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## Consolidated Statement of Profit or Loss
### for the year ended 31 December 2021

| in EUR million | Note | 2021 | 2020 |
|---|---|---|---|
| Revenues | 1 | 1,700.9 | 1,626.7 |
| Other operating income | 2 | 104.7 | 68.0 |
| Internal costs capitalised | 3 | 44.3 | 43.7 |
| Change in inventories | | (10.6) | (9.2) |
| Cost of materials | 4 | (155.1) | (153.4) |
| Royalty and licence fees | 5 | (122.1) | (118.3) |
| Personnel costs | 6 | (584.1) | (560.7) |
| Other operating expenses | 7 | (339.6) | (314.6) |
| Income from associates and other investments | 16 | 1.2 | 0.6 |
| Gains/losses from the acquisition/disposal of businesses/investments | 8 | 2.5 | 9.4 |
| **Earnings before interest, taxes, depreciation and amortisation (EBITDA)** | | **642.0** | **592.3** |
| Amortisation and impairment of intangible assets | 9 | (277.8) | (279.8) |
| Depreciation and impairment of property, plant and equipment and right-of-use assets | 9 | (56.8) | (47.8) |
| **Result from operations** | | **307.4** | **264.7** |
| Financial expenses | 10 | (395.7) | (414.5) |
| Financial income | 10 | 201.7 | 268.0 |
| **Financial result** | | **(194.0)** | **(146.5)** |
| **Earnings before taxes** | | **113.4** | **118.2** |
| Income taxes | 11 | (122.5) | (90.2) |
| **Net result for the period** | | **(9.0)** | **28.0** |

| **Net result attributable to:** | | |
|---|---|---|
| Owners of the parent | (9.9) | 26.7 |
| Non-controlling interests | 0.9 | 1.3 |
| **Net result for the period** | **(9.0)** | **28.0** |

| **Earnings per share in EUR** | **Note** | **2021** | **2020** |
|---|---|---|---|
| Net result for the period attributable to ordinary equity holders of the parent (in EUR million) | | (9.9) | 26.7 |
| Basic net result for the period attributable to ordinary equity holders of the parent (per share) | 12 | (0.05) | 0.14 |

The accompanying notes form an integral part of the consolidated financial statements.

## Consolidated Statement of Comprehensive Income
**for the year ended 31 December 2021**

| in EUR million | Note | 2021 | 2020 |
|---|---|---|---|
| **Net result for the period** | | **(9.0)** | **28.0** |
| **Other comprehensive income not to be reclassified to profit or loss in subsequent periods (after taxes):** | | | |
| Actuarial gains and losses on pension plans (net) | 25 | 19.5 | (15.6) |
| Deferred taxes on actuarial gains and losses (net) | 11 | (5.1) | 3.1 |
| **Items not to be reclassified to profit or loss** | | **14.4** | **(12.5)** |
| **Other comprehensive income to be reclassified to profit or loss in subsequent periods (after taxes):** | | | |
| Currency translation differences | 24 | 118.0 | (103.9) |
| **Items to be reclassified to profit or loss** | | **118.0** | **(103.9)** |
| | | | |
| **Other comprehensive income/loss for the period (net of tax)** | | **132.4** | **(116.4)** |
| | | | |
| **Total comprehensive income/loss for the period** | | **123.4** | **(88.4)** |

| | | |
|---|---|---|
| **Total comprehensive income/loss attributable to:** | | |
| Owners of the parent | 122.0 | (88.8) |
| Non-controlling interests | 1.4 | 0.4 |
| **Total comprehensive income/loss for the period** | **123.4** | **(88.4)** |

The accompanying notes form an integral part of the consolidated financial statements.

## Consolidated Statement of Financial Position
### as at 31 December 2021

| **Assets**<br>in EUR million | **Note** | **31.12.2021** | **31.12.2020** |
|---|---|---|---|
| Goodwill | 13 | 1,282.2 | 1,249.8 |
| Other intangible assets | 13 | 3,223.1 | 3,231.6 |
| Property, plant and equipment | 14 | 129.9 | 132.6 |
| Right-of-use assets | 15 | 95.6 | 128.3 |
| Investment in associates | 16 | 10.8 | 12.2 |
| Other non-current financial assets* | 17 | 7.8 | 5.5 |
| Deferred tax assets | 11 | 15.5 | 15.2 |
| **Non-current assets** | | **4,764.9** | **4,775.2** |
| Inventories | 18 | 38.3 | 46.5 |
| Trade receivables | 19 | 367.0 | 340.6 |
| Income tax receivables | | 26.4 | 15.0 |
| Other current financial assets* | 20 | 28.2 | 29.8 |
| Other current non-financial assets* | 21 | 55.2 | 42.3 |
| Cash and cash equivalents | 22 | 410.4 | 391.9 |
| **Current assets** | | **925.6** | **866.1** |
| Disposal Group held for sale | 23 | 48.4 | - |
| **Total assets** | | **5,738.9** | **5,641.3** |

| **Equity and liabilities**<br>in EUR million | **Note** | **31.12.2021** | **31.12.2020** |
|---|---|---|---|
| Share capital | | 190.0 | 190.0 |
| Capital reserves | | 531.6 | 531.6 |
| Retained earnings / Other accumulated equity | | (847.2) | (1,005.8) |
| Net result for the period attributable to owners of the parent | | (9.9) | 26.7 |
| **Shareholders' equity** | | **(135.5)** | **(257.5)** |
| Non-controlling interests | | 3.1 | 3.8 |
| **Equity** | **24** | **(132.4)** | **(253.7)** |
| Liabilities to shareholders | 26 | 1,253.3 | 1,261.6 |
| Provisions for pensions and other long-term employee benefits | 25 | 208.8 | 236.9 |
| Interest-bearing loans and borrowings | 26 | 2,381.0 | 2,566.7 |
| Lease liabilities | 15 | 118.4 | 128.6 |
| Other non-current provisions* | 27 | 17.1 | 5.3 |
| Other non-current financial liabilities* | 29 | 0.7 | 2.5 |
| Deferred tax liabilities | 11 | 807.8 | 735.7 |
| **Long-term provisions and non-current liabilities** | | **4,787.2** | **4,937.3** |
| Interest-bearing loans and borrowings | 26 | 202.9 | 165.0 |
| Lease liabilities | 15 | 21.7 | 24.3 |
| Provisions | 28 | 27.5 | 17.7 |
| Trade payables | | 113.5 | 109.2 |
| Income tax payables | | 50.7 | 48.2 |
| Other current financial liabilities* | 30 | 253.0 | 245.9 |
| Other current non-financial liabilities* | 31 | 38.1 | 39.3 |
| Contract liabilities | 32 | 368.9 | 308.1 |
| **Short-term provisions and current liabilities** | | **1,076.3** | **957.7** |
| Liabilities directly associated with disposal group held for sale | 23 | 7.7 | - |
| **Total equity and liabilities** | | **5,738.9** | **5,641.3** |

*Financial assets/liabilities are presented as separate line items for the current year and comparative figures.

The accompanying notes form an integral part of the consolidated financial statements.

## Consolidated Statement of Cash Flows
### for the year ended 31 December 2021

| in EUR million | Note | 2021 | 2020 |
|---|---|---|---|
| **Net result for the period** | | **(9.0)** | **28.0** |
| Financial expenses | 10 | 395.7 | 414.5 |
| Financial income | 10 | (201.7) | (268.0) |
| Income taxes | 11 | 122.5 | 90.2 |
| **Result from operations** | | **307.4** | **264.7** |
| Amortisation and impairment of intangible assets | 9 | 277.8 | 279.8 |
| Depreciation and impairment of property, plant and equipment and right-of-use assets | 9 | 56.8 | 47.8 |
| **Earnings before interest, taxes, depreciation and amortisation (EBITDA)** | | **642.0** | **592.3** |
| Non-cash expenses and income | | (8.4) | 2.3 |
| Change in non-current provisions and non-current receivables | 27/17 | (2.7) | (12.5) |
| Change in working capital | | 69.0 | 53.5 |
| Income tax payments | 11 | (89.2) | (65.4) |
| **Net cash from operating activities** | | **610.8** | **570.2** |
| Cash paid for investments in intangible assets | 13 | (32.8) | (34.4) |
| Cash paid for investment in content | 13 | (118.6) | (119.8) |
| Cash paid for investments in property, plant and equipment | 14 | (8.5) | (8.9) |
| Cash paid for investments in consolidated business (net of acquired cash)* | | (29.3) | (3.9) |
| Proceeds from divestiture of businesses and non-current assets | | 5.7 | 2.3 |
| **Net cash from investing activities** | | **(183.5)** | **(164.7)** |
| Interest paid | | (139.1) | (141.7) |
| Interest received | | 2.4 | 2.2 |
| Cash paid and received for interest | 10/26 | (136.7) | (139.5) |
| Cash repayment of financial liabilities to third parties | 26/35 | (252.5) | (72.7) |
| Cash repayments and other payments to shareholders | | (80.0) | - |
| Cash received from borrowings and financial liabilities from third parties | 26 | 80.0 | - |
| Cash paid for dividends to non-controlling interests | | (2.3) | (3.8) |
| Cash received from non-controlling interests | | - | 0.9 |
| Cash repayment of lease liabilities | 15 | (29.3) | (32.4) |
| **Net cash from financing activities** | | **(420.9)** | **(247.5)** |
| **Change in cash and cash equivalents** | | **6.4** | **158.0** |
| Foreign exchange rate difference | | 14.3 | (20.2) |
| **Cash and cash equivalents at beginning of the period** | | **391.9** | **254.1** |
| Reclassifications relating to disposal group held for sale | 23 | (2.1) | - |
| **Cash and cash equivalents at end of the period** | **22** | **410.4** | **391.9** |

* Please refer to section on additions for further details.

The accompanying notes form an integral part of the consolidated financial statements.

## Consolidated Statement of Changes in Equity
### for the year ended 31 December 2021

| in EUR million | Share capital | Capital reserves | Other accumulated equity | Retained earnings | Total shareholder's equity | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| Note | 24 | 24 | 24 | | | | |
| **Balance as at 01.01.2020** | **190.0** | **511.3** | **(210.7)** | **(659.6)** | **(169.0)** | **4.4** | **(164.6)** |
| Net result for the period | - | - | - | 26.7 | 26.7 | 1.3 | 28.0 |
| Other comprehensive loss | - | - | (115.5) | - | (115.5) | (0.9) | (116.4) |
| Total comprehensive income/loss | - | - | (115.5) | 26.7 | (88.8) | 0.4 | (88.4) |
| Contribution to Capital reserves | - | 20.0 | - | (20.0) | - | - | - |
| Chargeback transaction costs | - | 0.3 | - | - | 0.3 | - | 0.3 |
| Change in non-controlling interest | - | - | - | - | - | 3.4 | 3.4 |
| Dividends | - | - | - | - | - | (4.4) | (4.4) |
| **Balance as at 31.12.2020** | **190.0** | **531.6** | **(326.2)** | **(652.9)** | **(257.5)** | **3.8** | **(253.7)** |
| Net result for the period | - | - | - | (9.9) | (9.9) | 0.9 | (9.0) |
| Other comprehensive income | - | - | 131.9 | - | 131.9 | 0.5 | 132.4 |
| Total comprehensive income/loss | - | - | 131.9 | (9.9) | 122.0 | 1.4 | 123.4 |
| Change in non-controlling interest | - | - | - | - | - | 0.2 | 0.2 |
| Dividends | - | - | - | - | - | (2.3) | (2.3) |
| **Balance as at 31.12.2021** | **190.0** | **531.6** | **(194.3)** | **(662.8)** | **(135.5)** | **3.1** | **(132.4)** |

The accompanying notes form an integral part of the consolidated financial statements.

## Notes to the Consolidated Financial Statements

### Corporate Information

Springer Nature AG & Co. KGaA, a partnership limited by shares with Springer Nature Management Aktiengesellschaft as the general partner, is the parent of the Springer Nature Group. Springer Nature AG & Co. KGaA 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 AG & Co. KGaA is incorporated in Germany (Registered address: Heidelberger Platz 3, 14197 Berlin, Germany).

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 employs c. 8,700 people 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 AG & Co. KGaA, 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) and other co-investors.

The Management Board of Springer Nature Management Aktiengesellschaft submitted the consolidated financial statements to the Supervisory Board of the Company on 2 March 2021. The Supervisory Board has the task of reviewing the consolidated financial statements and stating whether it approves them.

### General Principles

The consolidated financial statements of Springer Nature AG & Co. KGaA ("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 2021. The reporting date of the company and of all subsidiaries, with the exception of entities in India, is 31 December.

For statutory reasons, the financial year of subsidiaries in India starts on 1 April and ends on 31 March. These entities report to Springer Nature as of 31 December. They apply the IFRS financial reporting principles and accounting policies applicable for the Group entities as if 31 December is 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" 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.

**Consolidation Principles**

The consolidated financial statements include Springer Nature AG & Co. KGaA as the ultimate parent company of the Group (smallest and largest consolidated group) and all significant entities controlled directly or indirectly by Springer Nature AG & Co. KGaA. A list of consolidated subsidiaries including their registered office and respective shareholding is set out in note 39. 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 statement of 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 the 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 the ability to exercise significant influence over the financial and operating policy are included in the consolidated financial statements using the equity method, based on separate 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 or 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 AG & Co. KGaA in 2021 and 2020:

| **Development in Scope of Consolidation** | **2021** | **2020** |
|---|---|---|
| Fully consolidated entities as at 1.1. | 123 | 128 |
| Additions | 7 | 2 |
| Mergers / Liquidations | (6) | (7) |
| Disposals | - | - |
| **Fully consolidated entities as at 31.12.** | **124** | **123** |
| Thereof German entities | 23 | 23 |

The Group has taken advantage of the exemption clause of section 264 paragraph 3 HGB to publish and file the separate financial statements of various German entities (see note 39). In accordance with section 291 paragraph 2 number 4 HGB all German parent companies made use of the exemption to prepare subgroup consolidated financial statements.

**Additions 2021**

In 2021, the following transaction had an impact on the consolidated financial statements of the Group.

**Atlantis Press Group B.V.**

On 9 March 2021, Springer Nature acquired all shares in Atlantis Press Group B.V. (Atlantis), located in Amsterdam, Netherlands, with 7 employees.

Atlantis Press Group B.V. is a leading open access proceedings publisher. Since its foundation in 2006 more than 1,200 proceedings were published comprising more than 130,000 articles recognised with editorial boards internationally. Atlantis also has a small but fast growing journal open access business and provides publishing services to research societies.

As there were no significant transactions between 1 January 2021 and 9 March 2021 at the level of the acquiree, 1 January 2021 was applied as the date of the first consolidation for Atlantis.
The purchase price amounted to EUR 8.7m.

The fair values of the identifiable assets and liabilities of Atlantis as at the date of acquisition are presented below:

| **Purchase price allocation of Atlantis**<br>in EUR million | **01.01.2021** |
|---|---|
| Other intangible assets | 4.2 |
| Trade receivables | 0.2 |
| Income tax receivables | 0.1 |
| Other current non-financial assets | 0.0 |
| Cash and cash equivalents | 0.7 |
| **Total assets** | **5.2** |
| Deferred tax liabilities | 1.0 |
| Trade payables | 0.3 |
| Other current non-financial liabilities | 0.2 |
| **Total provisions and liabilities** | **1.5** |
| **Total identifiable net assets at fair value** | **3.7** |
| Consideration | 8.7 |
| **Goodwill** | **5.0** |

| **Reconciliation of consideration to net cash flows**<br>in EUR million | **2021** |
|---|---|
| Cash consideration | 8.7 |
| Cash and cash equivalents acquired | (0.7) |
| **Net cash flows** | **8.0** |

The fair value and the gross amount of the acquired trade receivables amounted to EUR 0.2m and EUR 0.2m respectively. Atlantis expected to collect all contractual cash flows.

Goodwill of EUR 5.0m mainly reflects synergies, 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. The goodwill is not tax-deductible.

In 2021, Atlantis contributed EUR 1.6m to Group revenues, EUR 1.2m to EBITDA and EUR 0.7m to net result.

Acquisition-related costs of EUR 0.4m were recognised in other operating expenses in 2021.

**Other additions**

Other transactions conducted during the fiscal year did not have any significant impact.

**Additions 2020**

In 2020, the following transaction had an impact on the consolidated financial statements of the Group. Other transactions conducted did not have a significant impact.

**Research Square Platform LLC**

On 4 September 2020, Springer Nature acquired as part of a capital increase a further 28.1% of the shares in Research Square Platform LLC (R&D), located in Durham, USA, with approximately 40 employees. This acquisition brought Springer Nature's shareholding in R&D up to 58.4%, following an earlier acquisition of a 30.3% stake in 2018.

Research Square Platform LLC is a multidisciplinary publishing platform for preprints, which are scholarly manuscripts published before they are formally peer reviewed.

As there were no significant transactions between 1 September 2020 and 4 September 2020 at the level of the acquiree, 1 September 2020 was applied as the date of the first consolidation for R&D.

The purchase price for the 28.1% stake acquired in 2020 was EUR 6.1m. The carrying amount of the equity interest acquired in 2018 (30.3%) that was accounted for under the equity method was zero. This stake was revalued with a fair value of EUR 6.3m. The consideration for the 58.4% stake was the total of the purchase price for the 28.1% stake, the fair value of the stake acquired in 2018 as well as the cash paid in 2018 (EUR 0.3m), i.e. EUR 12.7m.

The revaluation of the equity interest acquired in 2018 resulted in a gain of EUR 6.6m which was recognised in position "gains/losses from the acquisition/disposal of businesses/investments" of the consolidated statement of profit or loss.

The fair values of the identifiable assets and liabilities of R&D as at the date of acquisition are presented below:

| **Purchase price allocation of R&D**<br>in EUR million | **01.09.2020** |
|---|---|
| Other intangible assets | 6.7 |
| Property, plant and equipment and other non-current assets | 0.1 |
| Trade receivables | 0.2 |
| Receivables to shareholders | 0.8 |
| Cash and cash equivalents | 6.0 |
| **Total assets** | **13.8** |
| Loans to shareholders | 2.0 |
| Deferred tax liabilities | 1.6 |
| Provisions and other current liabilities | 2.0 |
| **Total provisions and liabilities** | **5.6** |
| **Total identifiable net assets at fair value** | **8.2** |
| Net assets acquired for 58.4% stake | 4.8 |
| Consideration for 58.4% stake | 12.7 |
| **Goodwill** | **7.9** |

| **Reconciliation of consideration to net cash flows**<br>in EUR million | **2020** |
|---|---|
| Consideration for 58.4% stake | 12.7 |
| Cash paid in 2018 for 30.3% stake | (0.3) |
| Increase in value of 30.3% stake to reflect valuation of R&D at date of acquisition | (6.3) |
| **Fair value of consideration for 28.1% stake** | **6.1** |
| Settlement of an outstanding bridge funding | (0.4) |
| Cash and cash equivalents acquired | (6.0) |
| **Net cash flows** | **(0.3)** |

Springer Nature was entitled to set off its claim under a short-term loan agreement between Springer Nature as lender and R&D as borrower in the amount of EUR 0.4m against the purchase price for R&D.

The acquired trade receivables amounted to a fair value of EUR 0.2m and a gross amount of EUR 0.2m. R&D expected to collect all contractual cash flows.

The non-controlling interest recognised at the acquisition date amounted to EUR 3.9m and was measured at the net asset value owned by the minority shareholder of R&D.

Acquisition-related costs of EUR 0.3m were recognised in other operating expenses in 2020.

Goodwill of EUR 7.9m mainly reflects synergies, expected revenues from new products and services, 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. The goodwill is not tax-deductible.

From the date of acquisition in 2020, R&D's contribution to Group revenues, EBITDA and net result amounted to EUR 0.0m, EUR (1.1)m and EUR (1.3)m respectively. If the company had been consolidated as at 1 January 2020, its contribution to Group revenues, EBITDA and net result would had been EUR 0.1m, EUR (3.5)m and EUR (2.8)m respectively.

**Disposals 2021**

There were no disposals of entities and no significant disposals of business units in 2021.

**Disposals 2020**

There were no disposals in 2020.

**Summary of significant Accounting Policies**

**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 or 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 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 per EUR 1** | **Average rate 2021** | **Closing rate 31.12.2021** | **Average rate 2020** | **Closing rate 31.12.2020** |
|---|---|---|---|---|
| British Pounds | 0.8486 | 0.8401 | 0.8891 | 0.8981 |
| Japanese Yen | 128.7900 | 130.4100 | 121.7708 | 126.4500 |
| Swiss Francs | 1.0407 | 1.0329 | 1.0703 | 1.0804 |
| US Dollar | 1.1304 | 1.1327 | 1.1413 | 1.2268 |

Hyperinflationary economies

Since 2018 Argentina is considered as a hyperinflationary economy. For those subsidiaries of the Group which use Argentine Peso as their functional currency, their financial statements have been restated in terms of the measuring unit applicable at the balance sheet date, in accordance with IAS 29.

The price index used to restate the financial statements of these entities is the 'homogenised index currency to be used according to the resolution of JG 539/18' issued by the Argentine Federation of Professional Councils of Economic Sciences. On an annual basis the rate of inflation was 48.4% for 2021 and 42.0% for 2020 (Source: OECD Inflation (CPI) data).

For those entities reporting in Argentine Pesos (ARS), their reported results, cash flows and financial positions are converted to the presentation currency at the closing exchange rate on the date of the consolidated financial statements. The exchange rate used to translate the inflation-adjusted ARS figures was ARS 116.3764 to the Euro for 2021 and ARS 103.2341 for 2020.

Restatements due to hyperinflation will continue until the period in which the Argentine economy ceases to be considered as hyperinflationary. At that time the adjustments made in relation to hyperinflation will be part of the cost of non-monetary assets and liabilities.

**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**

Revenue is recognised based on IFRS 15 - Revenue from contracts with customers. Revenue arises from the provision of products and services under contracts with customers. In all cases, revenue is recognised with fulfilment of the underlying performance obligation at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services, and is recognised when the customer obtains control of the goods or services.

Revenue is stated at the transaction price, which includes allowance for anticipated discounts and returns and excludes customer sales taxes and other amounts to be collected on behalf of third parties. Where the goods or services promised within a contract are distinct, they are identified as separate performance obligations and are accounted for separately.

Springer Nature's main revenue stream of subscription revenues is based on the periodic distribution of print journals and the regular and periodic update of online journals, eBook packages as well as database products. Subscription revenues are generally invoiced in advance and also payment from the customer is received in advance. Therefore, a contract liability is set up in the statement of financial position to reflect the portion of the performance obligation that has not yet been fulfilled. Revenues for these products are recognised over time; either on a pro-rata basis, where the performance obligation to the customer is fulfilled on a consistent manner over a certain period of time or based on content delivered to the customer, if the fulfilment doesn't follow a consistent pattern.

Revenues from the sale of products are recognised when the control of the goods is transferred to the customer, the sales price is determinable and receipt of payment can be assumed. Revenues from the sale of print books, advertisement revenues and revenues from most of the other services Springer Nature provides are recognised when the control of the product is passed to the customer, which is usually the time of delivery for physical products, when the advertisement has been published or the service has been performed. Revenue recognition for these revenue streams is therefore based on the point-in-time concept of IFRS 15. This also includes revenues from granting access to archive products and eBook packages, where the content is already fully published.

For print books, expected sales returns are taken into account based on historical return rates and revenues are reduced accordingly.

**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 the statement of profit or loss and is not subsequently reversed.

**Other Intangible Assets**

Intangible assets acquired as part of a business combination are recognised 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 recorded 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 finite useful 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 useful 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 40 years |
| Plant, technical equipment and machinery | 3 to 15 years |
| Furniture, fixtures and office equipment | 3 to 15 years |

**Non-current Assets and Disposal Groups Held for Sale**

Non-current assets and disposal groups held for sale are classified as such if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. These assets are measured at the lower of the carrying amount and fair value less costs of disposal and classified as non-current assets and disposal groups held for sale. Such assets are no longer depreciated. Impairment of such assets is recognised if fair value less costs of disposal is lower than the carrying amount.

**Leases**

According to IFRS 16, the Group assesses whether a contract represents or contains a lease. This assessment involves the exercise of judgement about whether the agreement depends on a specified asset, whether the Group obtains substantially all the economic benefits from the use of the asset and whether the Group has the right to direct the use of the asset.

The Group recognises a right-of-use asset and a lease liability at the commencement of the lease. The right-of-use asset is initially measured based on the present value of lease payments plus initial direct costs and the costs of obligations to refurbish the asset, less any incentives received. The right-of-use asset is depreciated over the shorter of the lease term or the useful life of the underlying asset. Note 15 shows the development of right-of-use assets in the reporting period and in the prior year. The right-of-use asset is subject to testing for impairment if there is an indicator for impairment. Lease payments generally include fixed payments and variable payments that depend on an index (such as an inflation index). When the lease contains an extension or purchase option that the Group considers reasonably certain to be exercised, the additional lease payments (extension option) or purchase price payments (purchase option) are included in the lease payments. The Group has elected not to recognise right-of-use assets and liabilities for leases of other equipment where the total lease term is less than or equal to 12 months, or for which the underlying asset is of low value. The payments for such leases are recognised in the statement of profit or loss on a straight-line base over the term of the lease as shown in note 15. The Group has elected not to separate leases and non-lease components for leases of vehicles. For leases of offices and buildings lease and non-lease components were separated.

**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 impairment. For intangible assets with a finite 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, or when annual impairment testing for an asset is required, 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 of disposal and its value in use. An impairment is recognised if the carrying amount of an asset's CGU exceeds its recoverable amount. In this case, the asset is written down to 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 or its value in use. 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. No reversals of previously recorded impairments were recorded in 2021 or 2020.

In 2021 and 2020, 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.

Further disclosures relating to the impairment of non-financial assets are also provided in the following notes: "Judgements, Assumptions and Estimates" and Note 13 "Goodwill and Other Intangible Assets".

**Financial Assets**

Initial Recognition and Measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost (AC), fair value through other comprehensive income (FVTOCI), or fair value through profit or loss (FVTPL). The Group determines the classification of its financial assets at initial recognition.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value and plus transaction cost for those financial assets not measured at FVTPL. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under IFRS 15.

In order for a financial asset to be classified and measured at AC or FVTOCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

Subsequent Measurement

Financial assets are designated as financial assets at AC (debt instruments), if (a) the financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows and (b) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at AC are subsequently measured using the effective interest rate (EIR) method and are subject to impairment. Gains or losses are recognised in the statement of profit or loss when the asset is derecognised, modified or impaired or when there is a change in cash flow projections.

Financial assets at FVTPL include financial assets held for trading, financial assets designated upon initial recognition at fair value through the statement of profit or loss, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through the statement of profit or loss, irrespective of the business model.

Financial assets at FVTPL are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of 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; 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 recognises an allowance for expected credit losses (ECL) for all debt instruments not held at FVTPL. ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months. For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default. If a customer has become insolvent or other circumstances indicate default, the corresponding receivables are written off in full.

For trade receivables, Springer Nature applies a simplified approach in calculating ECLs by recognising a loss allowance based on lifetime expected credit losses at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors such as sector specific market developments and the economic environment.

**Financial Liabilities**

Initial Recognition and Measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at FVTPL, loans and borrowings or payables.

All financial liabilities are recognised initially at fair value, and in the case of loans and borrowings and payables, net of 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.

Subsequent Measurement

Financial liabilities at FVTPL include financial liabilities designated upon initial recognition as at FVTPL. These include derivative financial instruments that are not designated as hedging instruments. Gains or losses from the subsequent measurement are recognised in the statement of profit or loss.

After initial recognition, interest-bearing loans and borrowings are subsequently measured at AC using the effective interest rate method. Gains and losses are recognised in the statement of profit or loss when the liabilities are derecognised, as well as through the effective interest rate amortisation process.

Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expired. 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 the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit or loss.

**Offsetting of Financial Instruments**

Financial assets and financial liabilities are offset with the net amount reported in the 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**

All derivative financial instruments are recognised at fair value in the 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 for applying hedge accounting, even though it is the economic purpose of the derivative. Changes in their fair values are, therefore, recognised in the 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 FVTPL. These embedded derivatives are measured at fair value with changes in fair value recognised in the 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.

Similar inventories are measured either by using the first-in, first-out (FIFO) or the weighted average costs method. 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, checks and cash in hand. Amounts in foreign currency are translated at closing rates.

**Income Taxes**

Income taxes comprise current and deferred taxes. They are recognised in the statement of profit or loss except to the extent that they arise from a business combination or transaction or event which are recognised in other comprehensive income or directly in equity. Springer Nature has determined that interest and penalties related to income taxes do not meet the definition of income taxes, and therefore accounted for them under IAS 37.

Current tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. It is measured using tax rates enacted or substantively enacted at the reporting date.

Current tax receivables or liabilities are offset only if certain criteria are met.

Deferred tax is recognised for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the statement of financial position under IFRS. Deferred tax is calculated with the tax rate that is expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled, using tax rates enacted or substantively enacted at the reporting date. Deferred tax is not discounted.

Deferred tax is not recognised for:

- Temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- Temporary differences related to investments in subsidiaries, associates and joint arrangements to the extent that the Group is able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future; and
- Taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax assets are recognised for unused tax losses, unused tax credits and deductible temporary differences to the extent that it is probable that future taxable profits will be available against which they can be used. The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are re-assessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

In accounting for the deferred tax on leases, the Group recognises a separate deferred tax asset and a deferred tax liability.

Deferred tax assets and liabilities are offset only if certain criteria are met.

**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 applying appropriate market interest rates.

**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 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, including 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 statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. These remeasurements recorded in OCI are not reclassified to the statement of 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. All estimates and underlying assumptions are reviewed on an ongoing basis. Actual amounts may differ from the estimates and management judgements. With the update of the accounting estimates and management judgements, any available information related to the expected economic developments has been taken into account.

Due to the currently unpredictable global consequences of the COVID-19 pandemic, the accounting estimates and management judgements are subject to increased uncertainty. Nevertheless, the management concludes that there are no significant impacts on the going concern assumption.

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 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 assessment of uncertain tax positions, 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 25), the impairment of non-financial assets (note 13) and fair value measurement of financial instruments (note 34). A description of the relevant input parameters which include estimates/assumptions are disclosed in the respective notes section together with sensitivity analyses.

**Adoption of new and revised Standards**

New and amended IFRS Standards that were effective for the current year

The following table lists the changes to the Standards that were required to be applied for annual periods beginning on 1 January 2021 and their impact on the Group's consolidated financial statements.

| **New standard or amendments** | **Impact on the Group's consolidated financial statements** |
|---|---|
| Amendments to IFRS 9, IAS 39 and IFRS 7 *Interest Rate Benchmark Reform – Phase 2* | These amendments had no significant impact on the Group's consolidated financial statements. As at the reporting date we did not use alternative benchmarks. |
| Amendments to IFRS 16 *COVID-19-Related Rent Concessions beyond 30 June 2021* | These amendments had no significant impact on the Group's consolidated financial statements. |

New and revised IFRS Standards in issue but not yet effective

The IASB or IFRS Interpretations Committee have published pronouncements that are not yet effective and have not yet been adopted by Springer Nature. The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's financial statements and that might have an impact on the Group's financial statements are listed below. The Group does not expect a significant impact from the application of these standards and intends to adopt these new and amended standards and interpretations, if applicable, when they become effective.

- Amendments to IAS 1: Classification of Liabilities as Current or Non-current. The amendments are effective for annual reporting periods beginning on or after 1 January 2023 and must be applied retrospectively.
- Amendments to IAS 1 and IFRS Practice Statement 2: Making Materiality Judgements. The amendments are effective for annual reporting periods beginning on or after 1 January 2023.
- Amendments to IAS 8: Definition of 'accounting estimates'. The amendments are effective for annual reporting periods beginning on or after 1 January 2023.
- Amendments to IAS 12: Deferred Tax related to Assets and Liabilities arising from a Single Transaction. The amendments are effective for annual reporting periods beginning on or after 1 January 2023.
- Narrow-scope amendments to IAS 16 (Proceeds before intended use), IAS 37 (Onerous Contracts-Cost of fulfilling a contract) and IFRS 3 (References to the Conceptual Framework). The amendments are effective for annual reporting periods beginning on or after 1 January 2022.
- Annual improvements to IFRSs 2018-2020 Cycle. The amendments are effective for annual reporting periods beginning on or after 1 January 2022.

## 1. Revenues

| **Revenues 2021** in EUR million | **Research** | **Education** | **Professional** | **Consolidation** | **Group** |
|---|---|---|---|---|---|
| Journals | 854.5 | 3.9 | 64.8 | 0.3 | 923.5 |
| Books | 244.6 | 174.1 | 56.1 | 0.0 | 474.8 |
| Other revenues | 211.3 | 10.9 | 99.6 | (1.5) | 320.3 |
| Discounts and allowances | (3.1) | (5.1) | (9.2) | (0.3) | (17.7) |
| **Total revenues** | **1,307.3** | **183.8** | **211.3** | **(1.5)** | **1,700.9** |

| **Revenues 2020** in EUR million | **Research** | **Education** | **Professional** | **Consolidation** | **Group** |
|---|---|---|---|---|---|
| Journals | 823.3 | 1.6 | 64.5 | (0.5) | 888.9 |
| Books | 234.2 | 170.6 | 53.0 | 0.0 | 457.8 |
| Other revenues | 202.1 | 12.6 | 84.0 | (1.6) | 297.1 |
| Discounts and allowances | (1.1) | (9.0) | (7.3) | 0.3 | (17.1) |
| **Total revenues** | **1,258.5** | **175.8** | **194.2** | **(1.8)** | **1,626.7** |

The line item “Journals” mainly consisted of online and print subscription revenues as well as article processing charges. The line item “Books” comprised the revenues from the sale of books in print and eBook formats. The line item “Other revenues” included revenues related to advertising, consultancy, congresses/seminars, author services and custom publishing.

## 2. Other Operating Income

| **Other operating income** in EUR million | **2021** | **2020** |
|---|---|---|
| Currency exchange gains | 60.3 | 30.8 |
| Income from the release of provisions and other liabilities | 11.6 | 8.1 |
| Sundry operating income | 32.8 | 29.1 |
| **Total other operating income** | **104.7** | **68.0** |

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 subsidiaries’ trade receivables and payables denominated in currencies other than the functional currency of the respective subsidiary.

The line item “Sundry operating income” mainly included income related to the reversal of bad debt allowances of EUR 18.2m (2020: EUR 16.0m) as well as rental and service income.

## 3. Internal Costs Capitalised

The position “Internal costs capitalised” comprised the capitalised costs of self-developed software, as well as internal costs for the creation of content.

## 4. Cost of Materials

| **Cost of materials**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Purchased services | (121.4) | (126.3) |
| Raw materials and supplies | (33.7) | (27.1) |
| **Total cost of materials** | **(155.1)** | **(153.4)** |

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**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Wages and salaries | (472.7) | (456.3) |
| State social security contributions | (62.6) | (60.2) |
| Pension and similar expenses | (24.4) | (23.3) |
| Other employee benefits | (24.4) | (20.9) |
| **Total personnel costs** | **(584.1)** | **(560.7)** |

The absolute number of FTE was 8,728 as at 31 December 2021 (31.12.2020: 9,137).

In 2021, the average number of employees (full-time equivalents - FTE) was 8,907 (2020: 9,286). The average number of employees in the Group per segment is presented below.

| **Average number of employees**<br>in full-time equivalents | **2021** | **2020** |
|---|---|---|
| Research | 6,060 | 6,214 |
| Education | 1,920 | 2,136 |
| Professional | 927 | 936 |
| **Total average number of employees** | **8,907** | **9,286** |

## 7. Other Operating Expenses

| **Other operating expenses**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Administrative expenses and fees | (110.4) | (104.3) |
| Marketing and sales costs | (76.4) | (73.4) |
| Currency exchange losses | (46.9) | (49.7) |
| Rent and building costs | (29.6) | (21.1) |
| Sundry expenses | (76.3) | (66.1) |
| **Total other operating expenses** | **(339.6)** | **(314.6)** |

The line item “Administrative expenses and fees” mainly included expenses relating to information technology, consulting fees, travel and communication costs.

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 of the respective subsidiary.

“Sundry expenses” mainly consisted of allowances for doubtful trade receivables and other assets of EUR 34.4m (2020: EUR 28.9m), costs for temporary staff and purchased services, as well as other taxes.

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**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Audit of the financial statements | (2.0) | (1.9) |
| Tax advisory services | (0.5) | (0.5) |
| Other certification services | (0.1) | (0.9) |
| **Total professional fees for Ernst & Young** | **(2.6)** | **(3.3)** |

Professional fees for the audit of the financial statements included the audit of subsidiaries and the audit of the consolidated financial statements. Tax advisory fees included assistance with specific tax issues. Other certification and appraisal services included e.g. audit fees to verify compliance with certain contractual agreements.

## 8. Gains/ Losses from Acquisitions/ Disposals of Businesses/ Investments

| **Gains/losses from acquisitions and disposal of businesses/ investments**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Gains/losses from acquisitions | 0.3 | 9.4 |
| Gains/losses from disposals | 2.2 | - |
| **Total Gains/losses from acquisitions and disposal of businesses/ investments** | **2.5** | **9.4** |

The “Gains/losses from disposals” related mainly to the divestment of the Higher Education business in 2021.

In 2020, the line item “Gains/losses from acquisitions” included mainly the gain from the revaluation of the in 2018 acquired equity interest in Research Square Platform LLC in conjunction with the full consolidation of the business in 2020 (EUR 6.6m) as well as a gain from the reassessment of certain earn-out liabilities (EUR 3.3m).

## 9. Amortisation and Impairment of Intangible Assets and Depreciation and Impairment of Property, Plant and Equipment and Right-of-use Assets

| **Amortisation, depreciation and impairment losses** in EUR million | **2021** | **2020** |
|---|---|---|
| Amortisation of other intangible assets | (253.7) | (261.5) |
| Impairment of goodwill and other intangible assets | (24.1) | (18.3) |
| Depreciation and impairment of property, plant and equipment | (14.9) | (15.0) |
| Depreciation and impairment of right-of-use assets | (41.9) | (32.8) |
| **Total amortisation, depreciation and impairment losses** | **(334.6)** | **(327.6)** |

In 2021, amortisation expenses of EUR 100.1m for intangible assets (2020: EUR 101.7m) and depreciation charges of EUR 0.7m for property, plant and equipment (2020: EUR 0.7m) were recognised in connection with fair value adjustments resulting from business combinations. Impairment losses of EUR 11.9m on other intangible assets (2020: EUR 17.8m), identified in business combinations, were charged to the statement of profit or loss. Please refer to note 13 for further details on the impairment losses.

An impairment on right-of-use assets of EUR 17.5m (2020: EUR 3.7m) was recognised in the statement of profit or loss due to the reassessment of the property market for a larger vacated office location.

In 2021, amortisation expenses of EUR 118.6m (2020: EUR 126.3m) were recognised on content assets. In Research, EUR 52.7m related to co-publishing agreements (2020: EUR 55.6m), EUR 41.3m related to capitalised pre-publishing costs (2020: EUR 44.9m) and EUR 6.9m (2020: EUR 7.6m) related to content creation and content acquisition costs for database products. In Education, amortisation expenses of EUR 17.7m (2020: EUR 18.2m) were recognised on capitalised pre-publishing costs.

In total , the line item “amortisation of other intangible assets” included EUR 88.2m (2020: EUR 94.9m) for the amortisation of internally generated intangible assets.

## 10. Financial Expenses and Financial Income

| **Financial expenses** in EUR million | **2021** | **2020** |
|---|---|---|
| Interest expenses | (226.8) | (249.9) |
| Other financial expenses | (168.9) | (164.6) |
| **Total financial expenses** | **(395.7)** | **(414.5)** |

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 rate method, as well as the net interest expense from pension obligations.

The line item “Other financial expenses” was composed as follows:

| **Other financial expenses**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Losses from the year-end valuation of intra-group balances | (72.2) | (26.9) |
| Losses from measuring the fair value of financial instruments | (75.8) | (79.6) |
| Losses from the market valuation of the Group's financial derivatives | (12.2) | (49.1) |
| Other financing-related costs | (5.2) | (6.0) |
| Realised currency exchange losses from financing activities | (2.3) | - |
| Losses from impairments on investments in associated companies and other investments | (1.2) | (3.0) |
| **Total other financial expenses** | **(168.9)** | **(164.6)** |

Losses from the year-end valuation of intra-group balances relate to the year-end valuation of subsidiaries' intra-group financing related receivables and liabilities incurred in other currencies than their functional currency.

| **Financial income**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Interest income | 2.7 | 2.9 |
| Other financial income | 199.0 | 265.1 |
| **Total financial income** | **201.7** | **268.0** |

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" was composed as follows:

| **Other financial income**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Modification gains | 114.8 | 203.7 |
| Gains from the year-end valuation of intra-group balances | 48.1 | 46.3 |
| Gains from the market valuation of the Group's financial derivatives | 36.0 | 13.8 |
| Realised currency exchange gains from financing activities | 0.1 | 1.3 |
| **Total other financial income** | **199.0** | **265.1** |

The modification gains in 2021 were a result of changing the assumed repayment date for the senior loans from mid-2022 to end of 2023. 2020 included modification gains from changing the assumed repayment date from April 2020 to mid-2022 of EUR 195.9m and EUR 7.8m for the senior loans and GvH loan respectively.

Gains from the year-end valuation of intra-group balances relate to the year-end valuation of subsidiaries' intra-group financing related receivables and liabilities incurred in other currencies than their functional currency.

In 2021, the gains from the market valuation of the Group's financial derivatives included a loss of EUR 25.0m, which reduced the total gain, from the changed assumption regarding the expected term of the floor instrument from mid-2022 to end of 2023. In 2020, the losses from the market valuation of the Group's financial derivatives included EUR 52.9m from the changed assumption regarding the expected term of the floor instrument.

### 11. Income Taxes

Current income taxes and deferred taxes recognised in the statement of profit or loss were as follows:

| **Income taxes**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Earnings before taxes | 113.4 | 118.2 |
| Current income taxes | (80.6) | (85.9) |
| Deferred taxes | (41.9) | (4.3) |
| Total income taxes | (122.5) | (90.2) |
| **Net result for the period** | **(9.0)** | **28.0** |

The deferred taxes included expenses of EUR 24.4m (2020: income of EUR 10.1m) relating to deferred tax liabilities recognised on the fair value adjustments identified in the purchase price allocations after the acquisition of Springer in 2013 and the establishment of Springer Nature in 2015.

Set out below is a reconciliation of the difference between the actual tax expense for the period and the theoretical expense calculated by multiplying earnings before taxes with the applicable tax rate. The applicable tax rate was, as in the prior year, the German combined statutory tax rate of 30.2% (consisting of tax rates of 15.8% related to corporate tax and 14.4% related to trade tax).

| **Reconciliation between expected and actual income taxes**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Earnings before taxes | 113.4 | 118.2 |
| Statutory German income tax rate | 30.2% | 30.2% |
| Expected income taxes | (34.2) | (35.7) |
| Different national tax rates | 26.6 | 15.8 |
| Changes in tax regulations or tax status | (53.7) | (18.4) |
| Current tax income/expenses relating to prior periods | 4.2 | 2.8 |
| Deferred tax income/expenses relating to prior periods | 0.8 | 3.0 |
| Changes in recognition of deferred tax assets | (37.7) | (26.8) |
| Effect of permanent differences | (28.5) | (31.0) |
| Other | 0.0 | 0.1 |
| **Total income taxes** | **(122.5)** | **(90.2)** |

In the United Kingdom the corporate tax rate will increase from 19% to 25% from 1 April 2023. In the Netherlands the corporate tax rate increased from 25% to 25.8% from 1 January 2022. The adjusted tax rates were taken into consideration for the recognition of deferred taxes resulting in deferred tax expenses of EUR 53.7m in 2021.

The line item “Changes in recognition of deferred tax assets” included an amount of EUR 27.7m (2020: EUR 22.5m) with respect to interest expenses of the year for which no deferred tax asset was recognised as the corresponding interest carry forward was considered not to be utilisable under the current Group’s (financing) structure; thereof EUR 22.8m (2020: EUR 21.2m) related to entities in Germany and EUR 4.9m (2020: EUR 1.3m) to entities in the USA.

The permanent differences included consolidation effects, the impact of the Base Erosion and Anti-Abuse Tax (BEAT) in the USA, controlled foreign corporation (CFC) and trade tax add-backs in Germany, other non-deductible expenses as well as foreign withholding taxes.

The deferred tax assets and liabilities resulted from the following items:

| **Deferred tax assets (DTA) and liabilities (DTL) as at 31.12.** in EUR million | **2020** | | **Recognised in** | | | | **2021** | |
|---|---|---|---|---|---|---|---|---|
| | **DTA** | **DTL** | **Profit or (loss)** | **OCI/ directly in equity** | **Acqui-sition** | **FX/ Other** | **DTA** | **DTL** |
| Goodwill and other intangible assets | 2.3 | 767.2 | (26.9) | - | (1.4) | (25.2) | 1.2 | 819.6 |
| Property, plant and equipment | 1.8 | 22.0 | 2.2 | - | - | (1.0) | 2.1 | 21.1 |
| Other financial assets | 0.0 | 0.0 | - | - | - | - | 0.0 | 0.0 |
| Inventories | 7.7 | 0.4 | (2.7) | - | - | 0.4 | 5.0 | - |
| Trade receivables | 5.2 | 1.7 | 0.5 | - | - | 0.3 | 5.7 | 1.4 |
| Other current financial + non-financial assets | 1.3 | 21.6 | 9.7 | - | - | 0.1 | 2.2 | 12.7 |
| Provisions for pensions and similar obligations | 30.8 | 1.8 | (2.5) | (5.1) | - | 0.1 | 26.7 | 5.2 |
| Interest-bearing loans and borrowings | - | 33.7 | (9.9) | - | - | (0.4) | - | 44.0 |
| Lease liabilities | 19.2 | 7.4 | (3.9) | - | - | 0.0 | 13.5 | 5.6 |
| Short-term provisions | 2.7 | 4.5 | 6.2 | - | - | (0.1) | 4.3 | - |
| Other current financial + non-financial liabilities | 51.6 | 1.3 | (11.0) | - | - | 0.2 | 40.9 | 1.4 |
| Contract liabilities | 0.2 | 9.9 | 2.2 | - | - | (0.1) | 0.3 | 7.9 |
| Total deferred taxes for temporary differences | 122.8 | 871.5 | (36.1) | (5.1) | (1.4) | (25.7) | 101.9 | 918.9 |
| thereof unrecognised | (2.6) | - | (1.9) | - | - | 0.3 | (4.2) | - |
| Deferred taxes for tax loss carry forwards | 57.8 | - | 4.1 | 0.0 | - | 1.9 | 63.8 | - |
| thereof unrecognised | (27.0) | - | (8.0) | - | - | 0.1 | (34.9) | - |
| Deferred taxes for interest carry forwards | 177.2 | - | 27.7 | - | - | 3.1 | 208.0 | - |
| thereof unrecognised | (177.2) | - | (27.7) | - | - | (3.1) | (208.0) | - |
| **Tax assets and liabilities before set-off** | **151.0** | **871.5** | **(41.9)** | **(5.1)** | **(1.4)** | **(23.4)** | **126.6** | **918.9** |
| Offsetting | (135.8) | (135.8) | - | - | - | - | (111.1) | (111.1) |
| **Net tax assets and liabilities** | **15.2** | **735.7** | **(41.9)** | **(5.1)** | **(1.4)** | **(23.4)** | **15.5** | **807.8** |

| **Deferred tax assets (DTA) and liabilities (DTL) as at 31.12.** in EUR million | **2019** | | | | | | **2020** | |
|---|---|---|---|---|---|---|---|---|
| | | | **Recognised in** | | | | | |
| | **DTA** | **DTL** | **Profit or (loss)** | **OCI/ directly in equity** | **Acqui-sition** | **FX/ Other** | **DTA** | **DTL** |
| Goodwill and other intangible assets | 2.0 | 797.8 | 9.2 | - | (1.6) | 23.2 | 2.3 | 767.2 |
| Property, plant and equipment | 0.6 | 22.7 | 0.3 | - | - | 1.6 | 1.8 | 22.0 |
| Other financial assets | - | 0.0 | - | - | - | - | 0.0 | 0.0 |
| Inventories | 8.4 | 0.5 | (0.4) | - | - | (0.2) | 7.7 | 0.4 |
| Trade receivables | 3.7 | 12.2 | 11.9 | - | - | 0.1 | 5.2 | 1.7 |
| Other current financial + non-financial assets | 1.5 | 13.0 | (9.3) | - | - | 0.5 | 1.3 | 21.6 |
| Provisions for pensions and similar obligations | 28.7 | 1.2 | (0.7) | 3.1 | - | (0.9) | 30.8 | 1.8 |
| Interest-bearing loans and borrowings | - | 8.4 | (25.5) | - | - | 0.2 | - | 33.7 |
| Lease liabilities | 19.6 | 5.4 | (1.8) | - | - | (0.6) | 19.2 | 7.4 |
| Short-term provisions | 3.2 | 5.7 | 1.0 | - | - | (0.3) | 2.7 | 4.5 |
| Other current financial + non-financial liabilities | 49.5 | 2.4 | 6.0 | - | - | (2.8) | 51.6 | 1.3 |
| Contract liabilities | 0.2 | 11.8 | 1.5 | - | - | 0.4 | 0.2 | 9.9 |
| Total deferred taxes for temporary differences | 117.4 | 881.1 | (7.8) | 3.1 | (1.6) | 21.2 | 122.8 | 871.5 |
| thereof unrecognised | (1.5) | - | (1.4) | - | - | 0.3 | (2.6) | - |
| Deferred taxes for tax loss carry forwards | 54.4 | - | 7.7 | 0.0 | (0.4) | (3.9) | 57.8 | - |
| thereof unrecognised | (24.9) | - | (2.8) | - | 0.4 | 0.3 | (27.0) | - |
| Deferred taxes for interest carry forwards | 157.8 | - | 22.5 | - | - | (3.1) | 177.2 | - |
| thereof unrecognised | (157.8) | - | (22.5) | - | - | 3.1 | (177.2) | - |
| **Tax assets and liabilities before set-off** | **145.4** | **881.1** | **(4.3)** | **3.1** | **(1.6)** | **17.9** | **151.0** | **871.5** |
| Offsetting | (132.2) | (132.2) | - | - | - | - | (135.8) | (135.8) |
| **Net tax assets and liabilities** | **13.2** | **748.9** | **(4.3)** | **3.1** | **(1.6)** | **17.9** | **15.2** | **735.7** |

Deferred tax assets in respect of tax losses and other deductible temporary differences were only recognised to the extent that 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.

Accordingly, no deferred tax assets were recognised in respect of the following deductible temporary differences, tax losses and interest carry forwards:

| **Base value of unrecognised deferred tax assets as at 31.12.** in EUR million | **2021** | **2020** |
|---|---|---|
| Temporary differences | 14.7 | 9.7 |
| Tax loss carry forwards | 115.5 | 94.0 |
| Interest carry forwards | 790.8 | 672.3 |
| Total base values | 921.0 | 776.0 |

Deferred tax assets for interest carry forwards of EUR 165.8m (31.12.2020: EUR 143.1m) and EUR 42.2m (31.12.2020: EUR 34.1m), which were not recognised in 2021, related to entities in Germany and the USA.

A tax charge of EUR 5.1m (2020 tax credit: EUR 3.1m) resulted from actuarial gains and losses from pension obligations and was recognised in other comprehensive income.

## 12. Earnings Per Share

Basic earnings per share (EPS) was calculated by dividing the net result for the year attributable to ordinary equity holders of the parent by the weighted average number of ordinary shares in issue during the year.

The following table reflects the income and share data used in the basic EPS calculations:

| **Earnings per share in EUR** | **2021** | **2020** |
|---|---|---|
| Net result for the period attributable to ordinary equity holders of the parent (in EUR million) | (9.9) | 26.7 |
| Weighted average number of ordinary shares for EPS (basic) in thousands | 190.000 | 190.000 |
| Basic net result for the period attributable to ordinary equity holders of the parent | (0.05) | 0.14 |

There have been no transactions involving ordinary shares between the reporting date and the date of authorisation of these financial statements.

## 13. Goodwill and Other Intangible Assets

### Goodwill

| **Carrying amount of goodwill**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Carrying amount as at 01.01. | 1,249.8 | 1,286.6 |
| Acquisitions | 7.6 | 7.9 |
| Impairments | (9.4) | - |
| Currency translation differences | 44.3 | (44.7) |
| Disposal group held for sale | (10.1) | - |
| **Carrying amount as at 31.12.** | **1,282.2** | **1,249.8** |

Goodwill primarily resulted from the acquisition of Springer in 2013 and the acquisition of Macmillan Science and Education in 2015. The carrying amount of goodwill is net of EUR 78.6m accumulated impairment losses as at 31 December 2021 (31.12.2020: EUR 69.2m). In 2021 an impairment loss of EUR 9.4m was recognised in accordance with a disposal group held for sale (note 23). Minor acquisitions added goodwill of EUR 7.6m in 2021 (2020: EUR 7.9m).

**Other Intangible Assets**

The following table shows the movement of the position other intangible assets:

| **Other intangible assets** | **2021** | | **2020** | |
|---|---|---|---|---|
| in EUR million | **Other intangible assets** | **thereof Internally generated** | **Other intangible assets** | **thereof Internally generated** |
| **Acquisition/production cost** | | | | |
| Balance as at 01.01. | 5,051.5 | 669.9 | 5,089.1 | 592.3 |
| Acquisition of business | 10.5 | - | 7.9 | - |
| Disposal of business | (4.1) | (4.0) | - | - |
| Additions | 160.2 | 92.4 | 152.9 | 93.7 |
| Disposals | (132.9) | (129.8) | (22.4) | (0.9) |
| Reclassifications | 0.4 | - | - | - |
| Hyperinflation adjustments | 3.0 | 1.0 | 1.5 | 0.3 |
| Currency translation differences | 210.4 | 26.8 | (177.5) | (15.5) |
| Disposal group held for sale | (64.7) | - | - | - |
| Balance as at 31.12. | 5,234.3 | 656.3 | 5,051.5 | 669.9 |
| **Amortisation** | | | | |
| Balance as at 01.01. | 1,819.9 | 538.1 | 1,624.8 | 454.4 |
| Disposal of business | (3.8) | (3.7) | - | - |
| Additions | 253.7 | 88.2 | 261.5 | 94.9 |
| Impairments | 14.7 | 2.6 | 18.3 | 0.5 |
| Disposals | (133.2) | (130.1) | (22.3) | (0.8) |
| Reclassifications | - | - | - | - |
| Hyperinflation adjustments | 2.9 | 0.9 | 0.7 | 0.3 |
| Currency translation differences | 87.3 | 21.2 | (63.1) | (11.2) |
| Disposal group held for sale | (30.3) | - | - | - |
| Balance as at 31.12. | 2,011.2 | 517.2 | 1,819.9 | 538.1 |
| **Carrying amount as at 31.12.** | **3,223.1** | **139.1** | **3,231.6** | **131.8** |

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:

| **Other intangible assets** | **31.12.2021** | | **31.12.2020** | |
|---|---|---|---|---|
| in EUR million | **Gross amount** | **Carrying amount** | **Gross amount** | **Carrying amount** |
| Customer relationships/subscriptions | 1,355.4 | 918.5 | 1,324.9 | 942.3 |
| Publishing rights | 1,379.9 | 1,099.2 | 1,310.8 | 1,079.7 |
| Trademarks | 1,018.5 | 968.4 | 1,024.0 | 973.3 |
| Co-publishing rights | 553.9 | 32.4 | 476.2 | 43.7 |
| Content assets | 478.7 | 71.5 | 525.5 | 73.5 |
| Self-developed/acquired software | 290.8 | 85.6 | 249.9 | 80.6 |
| Other publishing rights/licenses | 157.1 | 47.5 | 140.2 | 38.5 |
| **Total other intangible assets** | **5,234.3** | **3,223.1** | **5,051.5** | **3,231.6** |

The line item “Customer relationships/subscriptions” included customer relationships in the journal and books business.

The line item “Publishing rights” included rights to academic journals and specialist journals. EUR 77.5m (31.12.2020: EUR 72.1m) of which was attributable to the rights for the title “Nature”, that has an indefinite useful life.

Included in the line item “Trademarks” were the following brands with an indefinite useful life based on an assessment of their historical longevity and stable market positions.

| **Trademarks with indefinite useful life**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| “Springer” brand | 599.2 | 599.2 |
| “Nature” brand | 197.3 | 184.5 |
| “Macmillan” brand | 45.1 | 42.2 |
| “Estrada” brand | 0.3 | 0.4 |
| **Carrying amount** | **841.9** | **826.3** |

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 line item “Content assets” included assets mainly consisting of pre-publishing costs.

**Impairment Testing of Goodwill and Other Intangible Assets**

As at 31 December 2021 the number of cash generating units (CGUs) was 6 (2020: 8). The Higher Education business which formed a separate CGU was sold in mid-2021. The other CGU related to some Dutch publishing assets that were reclassified according to IFRS 5. An impairment loss was recorded for the goodwill due to the measurement requirements in IFRS 5 before the initial classification as disposal group as held for sale (note 23). The carrying amount of goodwill and intangible assets with indefinite useful lives allocated to the different CGUs is set out in the tables below.

| **Carrying amount of goodwill**<br>in EUR million | | **31.12.2021** | | **31.12.2020** |
|---|---|---|---|---|
| CGU Research Publishing | 1,217.6 | 95.0% | 1,177.1 | 94.2% |
| Other CGUs | 64.6 | 5.0% | 72.7 | 5.8% |
| **Carrying amount** | **1,282.2** | **100.0%** | **1,249.8** | **100.0%** |

| **Carrying amount of intangible assets with indefinite useful life**<br>in EUR million | | **31.12.2021** | | **31.12.2020** |
|---|---|---|---|---|
| CGU Research Publishing | 874.0 | 95.1% | 855.9 | 95.3% |
| CGU Language Learning & Schools | 45.4 | 4.9% | 42.6 | 4.7% |
| Other CGUs | - | 0.0% | - | 0.0% |
| **Total carrying amount** | **919.4** | **100.0%** | **898.5** | **100.0%** |

The underlying key assumptions regarding the impairment test for the two major CGUs were as follows:

| **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** |
|---|---|---|---|
| **31.12.2021** | | | |
| CGU Research Publishing | 6.97% | 9.34% | 1.00% |
| CGU Language Learning & Schools | 8.10% | 10.31% | 0.00% |
| **31.12.2020** | | | |
| CGU Research Publishing | 6.69% | 8.99% | 1.00% |
| CGU Language Learning & Schools | 7.96% | 10.35% | 0.00% |

Springer Nature completed the impairment test based on the Group's latest budget and mid-term plan. The recoverable amounts of the CGUs were calculated using estimated free cash flows with detailed projections over a five-year period.

The assumptions used for the goodwill impairment test as of 31 December 2021 represented management's best estimate for the period under consideration.

The impairment test is sensitive to changes in the underlying assumptions, especially the yearly free cash flow growth rates and the discount rates.

**CGU Research Publishing**

The recoverable amount of the CGU Research Publishing based on its value in use was calculated to be EUR 5,706.4m as at 31 December 2021 (31.12.2020: EUR 5,613.0m). The excess of the recoverable amount over the carrying amount of this CGU amounted to EUR 2,344.9m (31.12.2020: EUR 2,143.5m). The excess value increased due to an increase in the value in use while the carrying amount of the CGU decreased, mainly as a result of regular amortisation of intangible assets.

The value in use calculation was based on the latest mid-term plan of the Group. For the CGU Research Publishing this was based on assumptions in line with overall market/industry expectations and took into account Springer Nature´s individual position in the relevant segments of the STM/academic publishing market. Given the strong position in high quality/IF[1] journals, Open Access publishing, the growing segment of Researcher Services, Springer Nature´s Research Publishing activities were expected to continue to outperform expected market revenue growth. Growth was expected to mainly come from the further increase in article output, increasing the share of high value/high usage book publications, launch of new journals, moderate price increases, maintaining the market share in the growing open access market, and additional service offerings to authors and researchers.

An increase in the discount rate by 404 base points would have reduced the headroom between the recoverable amount and the carrying amount of the CGU to zero (2020: 342 base points). A reduction in the annual free cash flow mid-term growth rate of 834 base points would also have reduced the headroom to zero (2020: 735 base points). If both measurement assumptions were to vary, an increase

[1] IF – impact factor

in the discount rate by 50 base points and at the same time a decrease in the annual free cash flow mid-term growth rate of 723 base points would have reduced the headroom to zero (2020: increase of 50 base points in discount rate and decrease of 620 base points in the annual free cash flow medium-term growth rate).

In 2021, an impairment charge of EUR 13.1m (2020: EUR 7.0m) was recognised in the CGU Research Publishing for specific intangible assets, such as brands, publishing rights and customer bases.

**CGU Language Learning & Schools**

The CGU Language Learning & Schools is part of the segment Education. The recoverable amount of this CGU based on its value in use was calculated to be EUR 231.3m as at 31 December 2021 (31.12.2020: EUR 219.6m). The excess of the recoverable amount over the carrying amount of this CGU amounted to EUR 87.7m (31.12.2020: EUR 63.4m).

The value in use calculation was based on the Group's latest budget and mid-term plan that assumed a gradual recovery to pre-crisis revenue and profit level over the medium-term for the CGU Language Learning & Schools.

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 444 base points (2020: 285 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 483 base points (2020: 348 base points) would also have reduced the headroom to zero.

### 14. 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** | | | | | **2021** |
|---|---|---|---|---|---|
| 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 01.01. | 146.9 | 7.5 | 56.9 | 0.5 | **211.8** |
| Acquisition of business | - | 0.2 | 1.0 | - | **1.2** |
| Additions | 1.0 | 0.2 | 5.8 | 1.5 | **8.5** |
| Disposals | (4.2) | 0.0 | (3.5) | (0.1) | **(7.8)** |
| Reclassifications | 1.0 | (0.1) | (0.9) | (0.4) | **(0.4)** |
| Hyperinflation adjustments | 0.3 | 0.0 | 0.3 | - | **0.6** |
| Currency translation differences | 6.1 | 0.4 | 1.3 | 0.1 | **7.9** |
| Disposal group held for sale | 0.0 | - | (0.1) | - | **(0.1)** |
| Balance as at 31.12. | 151.1 | 8.2 | 60.8 | 1.6 | **221.7** |
| **Depreciation** | | | | | |
| Balance as at 01.01. | 31.5 | 5.7 | 42.0 | - | **79.2** |
| Additions | 4.2 | 0.3 | 6.5 | - | **11.0** |
| Impairment | 3.2 | 0.7 | - | - | **3.9** |
| Disposals | (1.2) | 0.0 | (3.7) | - | **(4.9)** |
| Reclassifications | 0.6 | - | (0.6) | - | **-** |
| Hyperinflation adjustments | 0.0 | 0.0 | 0.4 | - | **0.4** |
| Currency translation differences | 1.0 | 0.4 | 0.9 | - | **2.3** |
| Disposal group held for sale | 0.0 | - | (0.1) | - | **(0.1)** |
| Balance as at 31.12. | 39.3 | 7.1 | 45.4 | - | **91.8** |
| **Carrying amount as at 31.12.** | **111.8** | **1.1** | **15.4** | **1.6** | **129.9** |

| **Property, Plant and Equipment** | | | | | **2020** |
|---|---|---|---|---|---|
| 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 01.01. | 151.5 | 7.8 | 58.9 | 0.1 | **218.3** |
| Acquisition/disposal of business | - | - | 0.0 | - | **0.0** |
| Additions | 2.9 | 0.2 | 5.8 | 0.5 | **9.4** |
| Disposals | (1.0) | 0.0 | (5.4) | - | **(6.4)** |
| Reclassifications | 0.0 | 0.0 | 0.1 | (0.1) | **0.0** |
| Hyperinflation adjustments | 0.3 | 0.0 | 0.2 | - | **0.5** |
| Currency translation differences | (6.8) | (0.5) | (2.7) | 0.0 | **(10.0)** |
| Balance as at 31.12. | 146.9 | 7.5 | 56.9 | 0.5 | **211.8** |
| **Depreciation** | | | | | |
| Balance as at 01.01. | 27.3 | 5.6 | 40.5 | - | **73.4** |
| Additions | 4.5 | 0.3 | 7.9 | - | **12.7** |
| Impairment | 1.6 | - | 0.7 | - | **2.3** |
| Disposals | (0.6) | 0.0 | (5.3) | - | **(5.9)** |
| Hyperinflation adjustments | 0.1 | 0.0 | 0.2 | - | **0.3** |
| Currency translation differences | (1.4) | (0.2) | (2.0) | - | **(3.6)** |
| Balance as at 31.12. | 31.5 | 5.7 | 42.0 | - | **79.2** |
| **Carrying amount as at 31.12.** | **115.4** | **1.8** | **14.9** | **0.5** | **132.6** |

### 15. Right-of-use Assets and Lease Liabilities

The following table shows the development of right-of-use assets in the reporting period and in the prior year:

| **Right-of-use assets** | | | **2021** |
|---|---|---|---|
| in EUR million | **Right-of-use office space** | **Right-of-use other** | **Total** |
| **Cost** | | | |
| Balance as at 01.01. | 197.7 | 11.0 | 208.7 |
| Additions | 4.1 | 1.9 | 6.0 |
| Disposals | (12.8) | (2.5) | (15.3) |
| Currency translation differences | 10.6 | - | 10.6 |
| Disposal group held for sale | (1.4) | (0.1) | (1.5) |
| **Balance as at 31.12.** | **198.2** | **10.3** | **208.5** |
| **Depreciation** | | | |
| Balance as at 01.01. | 73.6 | 6.8 | 80.4 |
| Additions | 21.9 | 2.5 | 24.4 |
| Impairments | 17.5 | - | 17.5 |
| Disposals | (10.0) | (2.4) | (12.4) |
| Currency translation differences | 4.1 | (0.1) | 4.0 |
| Disposal group held for sale | (0.9) | (0.1) | (1.0) |
| **Balance as at 31.12.** | **106.2** | **6.7** | **112.9** |
| **Carrying amount as at 31.12.** | **92.0** | **3.6** | **95.6** |

| **Right-of-use assets** | | | **2020** |
|---|---|---|---|
| in EUR million | **Right-of-use office space** | **Right-of-use other** | **Total** |
| **Cost** | | | |
| Balance as at 01.01. | 205.7 | 11.8 | 217.5 |
| Additions | 13.2 | 2.3 | 15.5 |
| Disposals | (9.3) | (2.7) | (12.0) |
| Currency translation differences | (11.9) | (0.4) | (12.3) |
| **Balance as at 31.12.** | **197.7** | **11.0** | **208.7** |
| **Depreciation** | - | - | - |
| Balance as at 01.01. | 54.0 | 6.4 | 60.4 |
| Additions | 25.9 | 3.2 | 29.1 |
| Impairments | 3.7 | - | 3.7 |
| Disposals | (6.9) | (2.5) | (9.4) |
| Currency translation differences | (3.1) | (0.3) | (3.4) |
| **Balance as at 31.12.** | **73.6** | **6.8** | **80.4** |
| **Carrying amount as at 31.12.** | **124.1** | **4.2** | **128.3** |

The long-term and short-term lease liabilities break down into the different lease categories as follows:

| **Lease liability as at 31.12.2021**<br>in EUR million | **Long-term** | **Short-term** | **Total** |
|---|---|---|---|
| Office space | 116.2 | 19.7 | 135.9 |
| Other | 2.2 | 2.0 | 4.2 |
| **Carrying amount** | **118.4** | **21.7** | **140.1** |

| **Lease liability as at 31.12.2020**<br>in EUR million | **Long-term** | **Short-term** | **Total** |
|---|---|---|---|
| Office space | 126.5 | 22.1 | 148.6 |
| Other | 2.1 | 2.2 | 4.3 |
| **Carrying amount** | **128.6** | **24.3** | **152.9** |

The following tables show the future lease payments as at 31 December 2021 and 2020 broken down by maturities:

| **Future Lease payments as at 31.12.2021**<br>in EUR million | **Nominal value** | **Discounted amount** | **Present value** |
|---|---|---|---|
| Less than 1 year | 27.6 | 5.9 | 21.7 |
| 1 to 5 years | 81.3 | 16.3 | 65.0 |
| More than 5 years | 60.3 | 6.9 | 53.4 |
| **Total lease payments** | **169.2** | **29.1** | **140.1** |

| **Future Lease payments as at 31.12.2020**<br>in EUR million | **Nominal value** | **Discounted amount** | **Present value** |
|---|---|---|---|
| Less than 1 year | 30.7 | 6.4 | 24.3 |
| 1 to 5 years | 85.5 | 17.5 | 68.0 |
| More than 5 years | 69.4 | 8.8 | 60.6 |
| **Total lease payments** | **185.6** | **32.7** | **152.9** |

The financial expenses in the statement of profit or loss included interest expenses of EUR 6.7m (2020: EUR 7.7m) related to lease liabilities.

For short-term and low value leases EUR 1.2m (2020: EUR 0.6m) were expensed in 2021.

### 16. Investment in Associates

The Group held investments in several associates that were individually not material and are listed in note 40. 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**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Assets | 22.9 | 24.3 |
| Liabilities | (12.7) | (12.7) |

The position "Investment in associates" was as follows:

| **Investments in associates**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Investment in associates | 10.8 | 12.2 |

In 2021, Springer Nature recognised EUR 1.2m income from associates (2020: EUR 0.6m).

The cumulated income and expenses of associates for 12months is presented as follows:

| **Cumulated income and expenses of associates for 12-months period**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Income | 33.8 | 38.8 |
| Expenses | (32.1) | (37.5) |

### 17. Other Non-Current Financial Assets

| **Other non-current financial assets**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Loans | 3.6 | 0.8 |
| Other non-current receivables | 2.5 | 2.3 |
| Non-current sales price receivables from divested businesses | 0.8 | 0.3 |
| Pension assets | 0.1 | 0.1 |
| Other financial assets | 0.8 | 2.0 |
| **Total other non-current financial assets** | **7.8** | **5.5** |

### 18. Inventories

The total carrying amount of inventories constituted as follows:

| **Inventories**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Finished goods and merchandise | 26.5 | 30.8 |
| Work in progress | 8.6 | 13.1 |
| Raw materials and supplies | 2.5 | 1.8 |
| Advance payments | 0.7 | 0.8 |
| **Total inventories** | **38.3** | **46.5** |

### 19. Trade Receivables

The following table gives an overview of the expected credit loss arising from trade receivables:

| **Trade receivables**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| **Gross values** | | |
| Not due | 276.0 | 266.7 |
| Due 1-90 days | 76.7 | 62.9 |
| Due 91-180 days | 23.3 | 13.1 |
| Due 181-360 days | 20.3 | 16.8 |
| Due >360 days | 31.3 | 37.6 |
| **Total gross values** | **427.6** | **397.1** |
| **Bad debt allowance** | | |
| Not due | (12.5) | (7.3) |
| Due 1-90 days | (15.9) | (7.4) |
| Due 91-180 days | (2.9) | (3.0) |
| Due 181-360 days | (6.8) | (7.5) |
| Due >360 days | (22.5) | (31.3) |
| **Total bad debt allowance** | **(60.6)** | **(56.5)** |
| **Net trade receivables** | **367.0** | **340.6** |

If a customer has become insolvent or other circumstances indicate default, corresponding receivables are written off in full.

The following table presents the changes in the valuation allowance for trade receivables:

| **Valuation allowances for trade receivables**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Balance as at 01.01. | 56.5 | 51.6 |
| Utilisation | (12.2) | (5.1) |
| Additions | 32.6 | 28.9 |
| Release | (18.2) | (16.0) |
| Currency translation differences | 1.9 | (2.9) |
| **Balance as at 31.12.** | **60.6** | **56.5** |

### 20. Other Current Financial Assets

The position "Other current financial assets" consisted of the following components:

| **Other current financial assets**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Derivative financial instruments | 6.4 | 7.0 |
| Receivables from related parties | 3.4 | 7.5 |
| Creditors with debit balances | 1.7 | 1.5 |
| Short-term sales price receivables from divested businesses | 1.3 | 1.6 |
| Other current financial assets | 15.4 | 12.2 |
| **Total other current financial assets** | **28.2** | **29.8** |

As in prior year, the line item "Other current financial assets" included EUR 10.0m which were pledged to secure day-to-day cash management activities.

### 21. Other Current Non-Financial Assets

The position "Other current non-financial assets" consisted of the following components:

| **Other current non-financial assets**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Prepaid expenses | 21.6 | 17.4 |
| VAT receivables | 24.9 | 17.2 |
| Advance payments for royalties and licenses | 2.3 | 2.9 |
| Other receivables | 6.4 | 4.8 |
| **Total other current non-financial assets** | **55.2** | **42.3** |

### 22. Cash and Cash Equivalents

Cash and cash equivalents consisted of cash in hand, checks and bank balances.

## 23. Disposal Group Held for Sale

Towards the end of 2021 Management decided to divest some Dutch publishing assets belonging to the Professional segment. The associated assets and liabilities were consequently presented as assets and liabilities held for sale in the 2021 consolidated financial statements. Measuring the business at the lower of their carrying amount or fair value less costs to sell resulted in the recognition of an impairment on goodwill of EUR 9.4m. Management expects this sale to become effective in early 2022.

The major classes of assets and liabilities classified as held for sale as at 31 December 2021 were, as follows:

| **Assets**<br>in EUR million | **31.12.2021** |
|---|---:|
| Goodwill | 10.1 |
| Other intangible assets | 34.4 |
| Property, plant and equipment | 0.1 |
| Right-of-use assets | 0.5 |
| Trade receivables | 1.1 |
| Other current non-financial assets | 0.1 |
| Cash and cash equivalents | 2.1 |
| **Disposal group held for sale** | **48.4** |

| **Liabilities**<br>in EUR million | **31.12.2021** |
|---|---:|
| Provisions for pensions and other long-term employee benefits | 0.1 |
| Lease liabilities | 0.6 |
| Trade payables | 1.5 |
| Other current financial liabilities | 0.3 |
| Other current non-financial liabilities | 0.7 |
| Contract liabilities | 4.5 |
| **Liabilities directly associated with disposal group held for sale** | **7.7** |

## 24. Equity

### Share Capital

As at 31 December 2021, the share capital was EUR 190.0m (31.12.2020: EUR 190.0m) and consisted of 190 million ordinary shares with a par value of EUR 1 per share.

### Capital Reserves

As at 31 December 2021, the capital reserve of EUR 531.6m (31.12.2020: EUR 531.6m) mainly comprised shareholder contributions.

### 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. The currency translation effects were mainly driven by the fluctuations and changes in EUR/GBP and EUR/USD exchange rates applied on goodwill, other intangible assets as well as property plant and equipment.

## 25. Provisions for Pensions and Other Long-Term Employee Benefits

The position “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 | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Provision for pension obligations | 189.8 | 219.4 |
| Provisions for other long-term employee benefits | 19.1 | 17.5 |
| Liabilities associated with disposal group held for sale | (0.1) | - |
| **Total** | **208.8** | **236.9** |

### 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 were in the UK, Germany and USA. The plan participants were as follows:

| **Pension plan participants as at 31.12.2021** | **Active** | **Deferred members** | **Retirees** | **Total** |
|---|---|---|---|---|
| Germany | 249 | 312 | 892 | 1,453 |
| UK | 19 | 605 | 685 | 1,309 |
| USA | 73 | 169 | 101 | 343 |
| Other countries | 195 | - | 7 | 202 |
| **Total pension plan participants** | **536** | **1,086** | **1,685** | **3,307** |

| **Pension plan participants as at 31.12.2020** | **Active** | **Deferred members** | **Retirees** | **Total** |
|---|---|---|---|---|
| Germany | 265 | 309 | 917 | 1,491 |
| UK | 24 | 699 | 658 | 1,381 |
| USA | 74 | 171 | 102 | 347 |
| Other countries | 191 | - | 6 | 197 |
| **Total pension plan participants** | **554** | **1,179** | **1,683** | **3,416** |

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 re-valued earnings component commenced in 2010, and there is 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 2021 and 2020, the defined benefit obligations (DBO), fair value of plan assets and net pension obligations by country were as follows:

| **Pension obligations as at 31.12.2021**<br>in EUR million | **Defined benefit obligation** | **Plan assets** | **Net pension obligation** |
|---|---|---|---|
| UK | 376.4 | 350.3 | 26.1 |
| Germany | 154.0 | 0.8 | 153.2 |
| USA | 33.7 | 28.8 | 4.9 |
| Other | 12.0 | 6.4 | 5.6 |
| **Total** | **576.1** | **386.3** | **189.8** |

| **Pension obligations as at 31.12.2020**<br>in EUR million | **Defined benefit obligation** | **Plan assets** | **Net pension obligation** |
|---|---|---|---|
| UK | 376.2 | 337.4 | 38.8 |
| Germany | 166.2 | 0.8 | 165.4 |
| USA | 33.3 | 23.9 | 9.4 |
| Other | 10.5 | 4.7 | 5.8 |
| **Total** | **586.2** | **366.8** | **219.4** |

The following table shows the development of defined benefit obligations in 2021 and 2020:

| **Reconciliation of defined benefit obligation**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Balance as at 01.01. | 586.2 | 558.0 |
| Service costs | 2.5 | 2.6 |
| Interest expenses | 7.8 | 10.0 |
| Expenses recognised in profit or loss | 10.3 | 12.6 |
| Effect of changes: | | |
| Demographic assumptions | (5.7) | (0.5) |
| Financial assumptions | (18.8) | 58.7 |
| Experience adjustments | (6.2) | 2.1 |
| Re-measurement included in OCI | (30.7) | 60.3 |
| Benefits paid from plan assets | (11.0) | (15.4) |
| Benefits paid by the company | (7.0) | (7.4) |
| Plan participants' contributions | 0.2 | 0.2 |
| Insurance contributions paid | (0.1) | (0.1) |
| Currency translation differences | 28.2 | (22.0) |
| **Balance as at 31.12.** | **576.1** | **586.2** |

The following table shows the development of plan assets in 2021 and 2020:

| **Reconciliation of plan assets**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Balance as at 01.01. | 366.8 | 339.5 |
| Administrative expenses/fees | (0.1) | (0.1) |
| Expected return on plan assets | 5.5 | 7.0 |
| Expenses and income recognised profit or loss | 5.4 | 6.9 |
| Re-measurement of plan assets | (11.1) | 44.3 |
| Re-measurement included in OCI | (11.1) | 44.3 |
| Benefits paid from plan assets | (11.0) | (15.4) |
| Employer contributions | 10.7 | 10.2 |
| Plan participants' contributions | 0.2 | 0.2 |
| Insurance contributions paid | (0.1) | (0.1) |
| Currency translation differences | 25.4 | (18.8) |
| **Balance as at 31.12.** | **386.3** | **366.8** |

The portfolio structure of the plan assets as at 31 December 2021 and 2020 was as follows:

| **Portfolio structure of plan assets as at 31.12.2021**<br>in EUR million | **UK** | **Germany** | **USA** | **Other countries** | **Total** |
|---|---|---|---|---|---|
| Debt instruments | 273.7 | - | 9.1 | 2.1 | **284.9** |
| Assets held by insurance company | 55.0 | 0.8 | - | - | **55.8** |
| Equity instruments | 7.3 | - | 18.4 | 2.2 | **27.9** |
| Cash and cash equivalents | 13.7 | - | 0.3 | 0.1 | **14.1** |
| Other instruments | 0.6 | - | 1.0 | 2.0 | **3.6** |
| **Total plan assets** | **350.3** | **0.8** | **28.8** | **6.4** | **386.3** |

| **Portfolio structure of plan assets as at 31.12.2020**<br>in EUR million | **UK** | **Germany** | **USA** | **Other countries** | **Total** |
|---|---|---|---|---|---|
| Debt instruments | 259.1 | - | 7.3 | 1.6 | **268.0** |
| Assets held by insurance company | 55.8 | 0.8 | - | 0.8 | **57.4** |
| Equity instruments | 6.0 | - | 15.6 | 1.5 | **23.1** |
| Cash and cash equivalents | 15.9 | - | 0.2 | - | **16.1** |
| Other instruments | 0.6 | - | 0.8 | 0.8 | **2.2** |
| **Total plan assets** | **337.4** | **0.8** | **23.9** | **4.7** | **366.8** |

The following table summarises the estimated payments for 2022 and the payments in 2021:

| **Employer payments**<br>in EUR million | **Estimated payments 2022** | **Payments 2021** |
|---|---|---|
| Employer contributions to plan assets | 11.5 | 10.7 |
| Benefits paid by the company | 7.5 | 7.0 |
| **Total payments** | **19.0** | **17.7** |

The weighted average duration of Springer Nature's defined benefit obligation was 16 years (31.12.2020: 17 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 group and are based on statutory obligations. Springer Nature's severance payment obligations are primarily in Austria, France, Italy, India and Mexico.

Springer Nature provides bonuses for employee service anniversaries. These obligations are disclosed as loyalty benefits.

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 were recognised in the same way as defined benefit plans, but with actuarial gains or losses recognised in the statement of profit or loss rather than OCI.

As at 31 December 2021 and 2020, the defined benefit obligations (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 31.12.2021**<br>in EUR million | **Defined benefit obligation** | **Plan assets** | **Net obligation** |
|---|---|---|---|
| Severance payments | 9.5 | 1.5 | 8.0 |
| Loyalty benefits | 8.9 | 0.1 | 8.8 |
| Old-age part-time schemes | 1.8 | 1.3 | 0.5 |
| Deferred compensation plan | 0.5 | 0.5 | - |
| Other | 1.8 | - | 1.8 |
| Liabilities associated with disposal group held for sale | (0.1) | - | (0.1) |
| **Total** | **22.4** | **3.4** | **19.0** |

| **Other long-term employee benefits as at 31.12.2020**<br>in EUR million | **Defined benefit obligation** | **Plan assets** | **Net obligation** |
|---|---|---|---|
| Severance payments | 9.5 | 1.5 | 8.0 |
| Loyalty benefits | 9.0 | - | 9.0 |
| Old-age part-time schemes | 1.3 | 0.8 | 0.5 |
| Deferred compensation plan | 0.5 | 0.5 | 0.0 |
| **Total** | **20.3** | **2.8** | **17.5** |

**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 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 31.12.2021** | **Discount rate** | **Salary increase rate** | **Pension increase rate** | **Employee turnover** |
|---|---|---|---|---|
| UK | 1.80% | 3.50% - 3.70% | 3.50% - 3.70% | based on experience |
| Germany | 1.20% | 2.50% | 1.50% | |
| USA | 2.65% - 2.85% | n/a | n/a | |

| **Actuarial assumptions as at 31.12.2020** | **Discount rate** | **Salary increase rate** | **Pension increase rate** | **Employee turnover** |
|---|---|---|---|---|
| UK | 1.40% | 2.80% - 2.90% | 3.30% - 3.50% | based on experience |
| Germany | 0.90% | 2.50% | 1.50% | |
| USA | 2.20% - 2.40% | n/a | n/a | |

Springer Nature applied the following mortality tables:

| **Applied mortality tables for valuation as at 31.12.2021** | |
|---|---|
| UK | S3PA CMI 2018 with 1.25% long-term average mortality rate |
| | 90% and 95% of S3PA table (males/females) with CMI 2020 projections, long-term trend rate of 1.25% p.a. and a smoothing parameter of 7.5 |
| Germany | Heubeck mortality tables 2018G |
| USA | PRI-2012 Generational White Collar with MMP-2020 projection scale |

| **Applied mortality tables for valuation as at 31.12.2020** | |
|---|---|
| UK | S3PA CMI 2018 with 1.25% long-term average mortality rate |
| | 88% and 92% of SAPS S2 (males/females) with CMI 2017 projections, long-term trend rate of 1.25% p.a. |
| Germany | Heubeck mortality tables 2018G |
| USA | MRP2007 Generational White Collar with MMP-2018 projection scale |

**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 2021 and 2020:

| **Change in present value of DBO**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Increase in discount rate of 25 bps | (22.0) | (24.5) |
| Decrease in discount rate by 25 bps | 23.4 | 26.1 |
| Increase in pension increase rate by 25 bps | 8.0 | 9.1 |
| Decrease in pension increase rate by 25 bps | (7.6) | (8.6) |
| Increase in salary increase rate by 25 bps | 0.5 | 0.9 |
| Decrease in salary increase rate by 25 bps | (0.5) | (0.9) |
| Increase in life expectancy by one year | 23.3 | 24.1 |
| Decrease in life expectancy by one year | (23.8) | (23.5) |

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 was 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 19.9m (2020: EUR 18.4m) in the reporting period.

**26. 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 senior loans and the RCF are syndicated loans under the terms of standard leverage loan facility and inter-creditor agreements Springer Nature entered into with lenders. The lenders are mainly institutional investors.

In 2021, the Group refinanced its senior loans. The transaction took place in February and replaced the USD tranche B16 with B18 and the EUR tranche B15 with B17. The new maturity of the tranches B17 and B18 is August 2026, and February 2024 (EUR 26.5m) and Febuary 2026 (EUR 223.5m) for the two RCF tranches respectively. The interest rate floor for the EUR loan remained unchanged at 0.50%, while the interest rate floor for the USD loan was reduced from 1.00% to 0.75%. An additional stepdown for the RCF margin was introduced for the tranche maturing in Febuary 2026 and the margins for the EUR and USD tranches were reduced by 25bps each (EUR loan from 3.25% to 3.00%, USD loan from 3.50% to 3.25%). Except for the EUR 26.5m RCF tranche, a further stepdown of 25 bps was introduced to the margin grid of all other tranches in the case the total net leverage ratio should fall below 4.0.

The amendments of the facilities are summarised in the following table:

| | Before refinancing | | After refinancing | |
|---|---|---|---|---|
| in million | Nominal | Interest rate | Nominal | Interest rate |
| B17 | EUR 2,153.6 | Max (0.5%; EURIBOR) + 3.25% | EUR 2,153.6 | Max (0.5%; EURIBOR) + 3.00% |
| B18 | USD 868.1 | Max (1.0%; USD LIBOR) + 3.50% | USD 868.1 | Max (0.75%; USD LIBOR) + 3.25% |
| Revolver | EUR 250.0 | EURIBOR + 3.00% | EUR 250.0 | EURIBOR + 3.00% |

Shortly after the refinancing, the leverage level did decrease to below 4.0 so that the newly established margin step downs came into effect reducing the margins of the term loan tranches to the lowest possible level of 2.75% and 3.00% respectively. The average margin for both RCF trances decreased to 2.78% as a result of that reduction.

In October 2021, Springer Nature borrowed a short-term loan (1-year period) in the amount of EUR 80.0m to partially prepay term loan tranche B17. The instrument includes a 0.00% floor and a margin of 1.75% on the EURIBOR.

The senior loans, except for the revolving credit facility, are subject to a base interest rate of the maximum of EURIBOR and a floor of 0.50% for the tranche B17 and LIBOR and a floor of 0.75% for the tranche B18. 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. Depending on the cash flow performance of the business in the preceding year, a mandatory repayment obligation exists for a certain share of any excess cash flow, which is linked to the leverage level at year-end. With a total leverage below 4.0 no excess cash flow payment is further due.

In addition to the senior loans, the Group was also financed by a shareholder loan issued in 2013 by Springer Science+Business Media Galileo Participation S.à.r.l. (BCP shareholder loan).

The BCP shareholder loan accrues interest at a nominal rate of 10.23%. As at 31 December 2021, the loan comprised of two tranches, EUR 306.7m (31.12.2020: EUR 308.9m) and EUR 33.4m (31.12.2020: EUR 33.4m), maturing in August 2027. 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 (31.12.2021: 6.0%; 31.12.2020: 6.4%). Cash flows were derived from the contractual rights and the assumption of an expected term of the loan. The fair value as at 31 December 2021 was EUR 574.0m (31.12.2020: EUR 542.8m). Provided that the right to exchange the BCP shareholder loan for the company's equity instruments is exercised, Springer Nature has no payment obligations under the BCP shareholder loan.

Furthermore, when Springer Nature was formed in 2015 through the merger of Nature Publishing Group, Palgrave Macmillan, Macmillan Education and Springer Science+Business Media, preference shares were issued by Springer SBM One GmbH to GvH Vermögensverwaltungsgesellschaft XXXIII mbH, a subsidiary of the Holtzbrinck Publishing Group, on 5 May 2015.

Utilisation of the preference shares was limited by contractual obligations, so as to give them the structural equivalence of the BCP shareholder loan (henceforth: shareholder loan instruments). 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 AG & Co. KGaA 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 a 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 were derived from the contract rights of the shareholder loan instruments, which were discounted using the respective market interest rate for this instrument. The discount rate applied was 6.0% (31.12.2020: 6.4%). The fair value as at 31 December 2021 was EUR 679.3m (31.12.2020: EUR 638.2m). There is no contractual obligation to repurchase the shareholder loan instruments.

An increase of twenty basis points in the discount rate for the shareholder loan instruments and the BCP shareholder loan would have led to an accumulated decrease in financial liabilities of less than EUR 4.8m as at 31 December 2021 (31.12.2020: EUR 3.4m). A decrease of twenty basis points in the discount rate would have resulted in an increase in financial liabilities of less than EUR 4.8m (31.12.2020: EUR 3.4m). The sensitivity analyses were calculated by adjusting one parameter while keeping all other parameters unchanged.

A further shareholder loan of EUR 80.0m which was provided by GvH Vermögensverwaltungs-gesellschaft XXXIII mbH on 5 May 2015 (GvH shareholder loan) was repaid in 2021 including accrued interests of EUR 10.1m.

All shareholder loans were subordinated to the senior loans. The following tables show the carrying amount of the financial debt of the Group, as well as the respective contractual maturities:

| **Carrying amount of interest bearing loans and borrowings** in EUR million | **Effective interest rate** | | | | | | | **31.12.2021** |
|---|---|---|---|---|---|---|---|---|
| | | **Carrying amount** | **Remaining term in years** | | | | | **Total** |
| | | | **< 1 to 1** | **> 1 to 2** | **> 2 to 3** | **> 3 to 5** | **> 5** | |
| Shareholder Loan Instruments | 6.0% | 679.3 | - | - | - | - | 679.3 | 679.3 |
| Shareholder Loan – BCP | 6.0% | 574.0 | - | - | - | - | 574.0 | 574.0 |
| Shareholder Loan – GvH | - | - | - | - | - | - | - | - |
| Liabilities to shareholders | | 1,253.3 | - | - | - | - | 1,253.3 | 1,253.3 |
| Senior loans | 5.9% | 2,499.9 | 120.0 | - | - | 2,379.9 | - | 2,499.9 |
| Short-term bank loans | 2.3% | 79.8 | 79.8 | - | - | - | - | 79.8 |
| Other financial liabilities | - | 4.2 | 4.2 | - | - | - | - | 4.2 |
| Interest-bearing loans and borrowings | | 2,583.9 | 204.0 | - | - | 2,379.9 | - | 2,583.9 |
| **Total** | | **3,837.2** | **204.0** | **-** | **-** | **2,379.9** | **1,253.3** | **3,837.2** |

| **Carrying amount of interest bearing loans and borrowings** in EUR million | **Effective interest rate** | | | | | | | **31.12.2020** |
|---|---|---|---|---|---|---|---|---|
| | | **Carrying amount** | **Remaining term in years** | | | | | **Total** |
| | | | **< 1 to 1** | **> 1 to 2** | **> 2 to 3** | **> 3 to 5** | **> 5** | |
| Shareholder Loan Instruments | 6.4% | 638.2 | - | - | - | - | 638.2 | 638.2 |
| Shareholder Loan – BCP | 6.4% | 542.8 | - | - | - | 542.8 | - | 542.8 |
| Shareholder Loan – GvH | 9.3% | 80.6 | - | - | - | - | 80.6 | 80.6 |
| Liabilities to shareholders | | 1,261.6 | - | - | - | 542.8 | 718.8 | 1,261.6 |
| Senior loans | 6.1% | 2,728.6 | 52.2 | 10.5 | 11.8 | 2,654.1 | - | 2,728.6 |
| Other financial liabilities | - | 3.1 | 3.1 | - | - | - | - | 3.1 |
| Interest-bearing loans and borrowings | | 2,731.7 | 55.3 | 10.5 | 11.8 | 2,654.1 | - | 2,731.7 |
| **Total** | | **3,993.3** | **55.3** | **10.5** | **11.8** | **3,196.9** | **718.8** | **3,993.3** |

The carrying amounts of the senior and short-term bank loans were 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 rate method. The effective interest was calculated based on the assumption that the senior loans will be repaid at 31 December 2023.

The line item "Other financial liabilities" contained accrued interests and bank fees.

The carrying amounts of the senior loans denominated in Euro and US Dollars as at 31 December 2021 and 2020 were as follows:

| **Senior loans** | **31.12.2021** | | **31.12.2020** | |
|---|---|---|---|---|
| in million | **EUR** | **USD** | **EUR** | **USD** |
| Carrying amounts | 1,832.0 | 756.6 | 2,046.9 | 836.4 |

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 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 were 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 or in the prior year.

At the end of reporting period the revolving credit facility was undrawn (31.12.2020: EUR - ). 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.

Contractual as well as budgeted voluntary repayments in 2022 were presented as current financial liabilities in the consolidated statement of financial position.

## 27. Other Non-Current Provisions

The following table provides the movements in other non-current provisions:

| **Other non-current provisions**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Balance as at 01.01. | 5.3 | 3.9 |
| Additions | 11.7 | 1.5 |
| Discount rate adjustments | 0.0 | 0.1 |
| Utilisation | (0.1) | (0.1) |
| Release | (0.2) | - |
| Currency translation differences | 0.4 | (0.1) |
| **Balance as at 31.12.** | **17.1** | **5.3** |

The other non-current provisions mainly include provisions related to occupancy cost for unused office space and provisions for reinstatement costs under existing lease contracts.

**28. Provisions**

The following tables provide details for the composition of and movements in current provisions:

| **Current provisions** | | | | **2021** |
|---|---|---|---|---|
| in EUR million | **Provisions for legal and other risks** | **Provisions for returns** | **Sundry provisions** | **Total current provisions** |
| Balance as at 01.01. | 1.3 | 13.3 | 3.2 | **17.8** |
| Additions | 2.0 | 9.0 | 11.1 | **22.1** |
| Utilisation | (0.6) | (7.8) | (2.7) | **(11.1)** |
| Release | (0.4) | (1.1) | (0.5) | **(2.0)** |
| Currency translation differences | 0.1 | 0.5 | 0.1 | **0.7** |
| **Balance as at 31.12.** | **2.4** | **13.9** | **11.2** | **27.5** |

| **Current provisions** | | | | **2020** |
|---|---|---|---|---|
| in EUR million | **Provisions for legal and other risks** | **Provisions for returns** | **Sundry provisions** | **Total current provisions** |
| Balance as at 01.01. | 1.3 | 11.0 | 6.9 | **19.2** |
| Additions | 0.9 | 12.2 | 4.6 | **17.7** |
| Utilisation | (0.7) | (4.9) | (5.8) | **(11.4)** |
| Release | (0.1) | (3.9) | (2.0) | **(6.0)** |
| Currency translation differences | (0.2) | (1.1) | (0.5) | **(1.8)** |
| **Balance as at 31.12.** | **1.2** | **13.3** | **3.2** | **17.7** |

The provisions for expected returns related to deliveries in the current and previous period. They were measured based on past experience, course of business in 2021, contractual agreements and on assumptions regarding future development in the book market.

**29. Other Non-Current Financial Liabilities**

The position “Other non-current financial liabilities” consisted of the following components:

| **Other non-current financial liabilities**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Purchase price liabilities | 0.6 | 0.6 |
| Other non-current financial liabilities | 0.1 | 1.9 |
| **Total other non-current financial liabilities** | **0.7** | **2.5** |

### 30. Other Current Financial Liabilities

The position "Other current financial liabilities" consisted of the following components:

| **Other current financial liabilities**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Royalty liabilities | 82.1 | 70.7 |
| Personnel-related liabilities | 71.3 | 53.3 |
| Derivative financial instruments | 69.2 | 92.8 |
| Debtors with credit balances | 16.7 | 16.6 |
| Sundry financial liabilities | 13.7 | 12.5 |
| **Total other current financial liabilities** | **253.0** | **245.9** |

The line item „Sundry financial liabilities" included among others liabilities to Springer Hilfsfonds from a loan of EUR 3.2m (2020: EUR 3.2m) and purchase price/earn-out liabilities.

### 31. Other Current Non-Financial Liabilities

The position "Other current non-financial liabilities" consisted of the following components:

| **Other current non-financial liabilities**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| VAT liabilities | 17.4 | 17.3 |
| Personnel-related liabilities | 12.3 | 13.2 |
| Sundry non-financial liabilities | 8.4 | 8.8 |
| **Total other current non-financial liabilities** | **38.1** | **39.3** |

### 32. Contract Liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration, or an amount of consideration is due from the customer prior to transferring goods or services to the customer. Contract liabilities are recognised as revenue when the Group performs under the contract.

The total contract liability balance of EUR 308.1m as at 1 January 2021 was realised and included in revenues in 2021.

The transaction price of EUR 571.2m (31.12.2020: EUR 493.8m) was allocated to unsatisfied or partially unsatisfied performance obligations as at 31 December 2021. All were expected to be realised within one year. Undue and unsatisfied performance obligations of EUR 202.3m for which no customer payments had been received by year-end were not recognised as contract liabilities as at 31 December 2021 (31.12.2020: EUR 185.7m).

### 33. Off-Balance Sheet Commitments/Contingent Liabilities

Guarantees and securities of EUR 30.2m (31.12.2020: EUR 28.5m) were granted as at 31 December 2021. An amount of EUR 15.9m (31.12.2020: EUR 15.2m) thereof was attributable to guarantees to secure day-to-day bank services (cash pool activities, overdraft facilities, etc.), EUR 2.3m (31.12.2020: EUR 2.2m) to securities on behalf of subsidiaries for existing rent agreements and EUR 6.4m (31.12.2020: EUR 5.0m) to securities on behalf of subsidiaries for contract performance guarantees. 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 publish 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 one to five years and Springer Nature expects payment obligations of EUR 50.6m in 2022 and slightly increasing obligations for the years thereafter. There were no other contingent liabilities beyond that.

### 34. 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 movements 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 in the scope of IFRS 9, as at 31 December 2021 and 2020, respectively:

| **Financial instruments** | | | **31.12.2021** |
|---|---|---|---|
| in EUR million | **Carrying amount** | **Amortised cost** | **Fair value** |
| **Financial assets** | | | |
| Other non-current financial assets | 7.7 | 7.7 | - |
| Trade receivables | 367.0 | 367.0 | - |
| Other current financial assets | 21.8 | 21.8 | - |
| Cash and cash equivalents | 410.4 | 410.4 | - |
| Financial assets at amortised cost | 806.9 | 806.9 | - |
| Financial derivatives | 6.4 | - | 6.4 |
| Other non-current financial assets | 0.1 | - | 0.1 |
| Financial assets at FVTPL | 6.5 | - | 6.5 |
| **Total Financial assets** | **813.4** | **806.9** | **6.5** |
| **Financial liabilities** | | | |
| Other non-current financial liabilities | 0.1 | 0.1 | - |
| Liabilities to shareholders | - | - | - |
| Interest-bearing loans and borrowings | 2,583.9 | 2,583.9 | - |
| Trade payables | 113.5 | 113.5 | - |
| Other current financial liabilities | 183.4 | 183.4 | - |
| Financial liabilities at amortised cost | 2,880.9 | 2,880.9 | - |
| Liabilities to shareholders | 1,253.3 | - | 1,253.3 |
| Other financial derivatives | 31.9 | - | 31.9 |
| Embedded financial derivatives (floor) | 37.3 | - | 37.3 |
| Contingent consideration | 1.0 | - | 1.0 |
| Financial liabilities at FVTPL | 1,323.5 | - | 1,323.5 |
| **Total Financial liabilities** | **4,204.4** | **2,880.9** | **1,323.5** |
| **Net Financial liability** | **3,391.0** | **2,074.0** | **1,317.0** |

| **Financial instruments** | | | **31.12.2020** |
|---|---|---|---|
| in EUR million | **Carrying amount** | **Amortised cost** | **Fair value** |
| **Financial assets** | | | |
| Other non-current financial assets | 5.4 | 5.4 | - |
| Trade receivables | 340.6 | 340.6 | - |
| Other current financial assets | 22.8 | 22.8 | - |
| Cash and cash equivalents | 391.9 | 391.9 | - |
| Financial assets at amortised cost | 760.7 | 760.7 | - |
| Financial derivatives | 7.0 | - | 7.0 |
| Other non-current financial assets | 0.1 | - | 0.1 |
| Financial assets at FVTPL | 7.1 | - | 7.1 |
| **Total Financial assets** | **767.8** | **760.7** | **7.1** |
| **Financial liabilities** | | | |
| Other non-current financial liabilities | 1.9 | 1.9 | - |
| Liabilities to shareholders | 80.6 | 80.6 | - |
| Interest-bearing loans and borrowings | 2,731.7 | 2,731.7 | - |
| Trade payables | 109.2 | 109.2 | - |
| Other current financial liabilities | 153.1 | 153.1 | - |
| Financial liabilities at amortised cost | 3,076.5 | 3,076.5 | - |
| Liabilities to shareholders | 1,181.0 | - | 1,181.0 |
| Other financial derivatives | 51.3 | - | 51.3 |
| Embedded financial derivatives (floor) | 41.4 | - | 41.4 |
| Contingent consideration | 0.7 | - | 0.7 |
| Financial liabilities at FVTPL | 1,274.4 | - | 1,274.4 |
| **Total Financial liabilities** | **4,350.9** | **3,076.5** | **1,274.4** |
| **Net Financial liability** | **3,583.1** | **2,315.8** | **1,267.3** |

For those financial instruments that were measured at amortised cost, the fair value equaled amortised cost. Reported fair values can only be seen as indications of prices that might be achieved when selling these instruments in the market. There were no reclassifications between valuation categories in 2020 and 2021.

The tables below show the financial instruments measured at FVTPL categorised by valuation levels:

| **Financial instruments categories by valuation levels** | | | | **31.12.2021** |
|---|---|---|---|---|
| in EUR million | **Carrying amount** | **Level 1** | **Level 2** | **Level 3** |
| Financial derivatives | 6.4 | - | 6.4 | - |
| Other non-current financial assets | 0.1 | - | 0.1 | - |
| **Financial assets at FVTPL** | **6.5** | **-** | **6.5** | **-** |
| Financial derivatives | 69.2 | - | 69.2 | - |
| Liabilities to shareholders | 1,253.3 | - | - | 1,253.3 |
| Contingent consideration | 1.0 | - | - | 1.0 |
| **Financial liabilities at FVTPL** | **1,323.5** | **-** | **69.2** | **1,254.3** |

| **Financial instruments categories by valuation levels** | | | | **31.12.2020** |
|---|---|---|---|---|
| in EUR million | **Carrying amount** | **Level 1** | **Level 2** | **Level 3** |
| Financial derivatives | 7.0 | - | 7.0 | - |
| Other non-current financial assets | 0.1 | - | 0.1 | - |
| **Financial assets at FVTPL** | **7.1** | **-** | **7.1** | **-** |
| Financial derivatives | 92.7 | - | 92.7 | - |
| Liabilities to shareholders | 1,181.0 | - | - | 1,181.0 |
| Contingent consideration | 0.7 | - | - | 0.7 |
| **Financial liabilities at FVTPL** | **1,274.4** | **-** | **92.7** | **1,181.7** |

The gains or losses (excluding interest and currency effects) recognised in the financial result in 2021 and 2020 are summarised as follows:

| **Gains or losses recognised in the financial result associated with financial instruments at FVTPL**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Financial liabilities | (75.8) | (79.6) |
| Financial derivatives | 23.8 | (35.3) |
| **Net losses associated with financial instruments** | **(52.0)** | **(114.9)** |

The following table presents the interest income and expenses recognised in 2021 and 2020 associated with financial instruments:

| **Recognised interest income and expenses associated with financial instruments at amortised cost**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Financial assets | 2.7 | 2.9 |
| Financial liabilities | (179.1) | (205.0) |
| **Net interest expenses associated with financial instruments** | **(176.4)** | **(202.1)** |

**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 categorised potential risks as:

- external,
- market-related,
- process-related,
- project-related,
- related to financing/financial instruments or
- related to legal disputes.

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 incurring 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, which leads to interest and regular debt repayments in US Dollars. The nominal values of the loans provide for regular interest and amortisation payments partially offsetting 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 2021 and 2020, and the gains or 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**<br>in EUR million | **Nominal amount** | **Fair value Assets/ (Liabilities)** | **Gains/ (losses)** |
|---|---|---|---|
| 31 December 2021 | 331.5 | 0.2 | (1.2) |
| 31 December 2020 | 186.0 | 6.8 | 9.7 |

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 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 would be EUR 28.4m (2020: EUR 29.3m), if the US Dollar depreciated by 5.0% against the Euro with all other variables held constant. The effect on cash flow is less significant because of the natural hedge relationship through the financing in US Dollars.

**Interest Rate Risk**

The Group is exposed to interest rate risks as Springer Nature's financial debt is subject to variable interest rates. More specifically, as Springer Nature has agreed to a 0.5%/0.75% floor on its lending rates, any fluctuation of the base interest rates in the US Dollar and Euro markets above 0.75% and 0.5% respectively impacts Springer Nature's interest expense. Furthermore, negative interest rates have an adverse effect on Springer Nature's result as well given the fact that interest rate swaps are not floored.

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 2021, 64.9% of the outstanding nominal amounts of the senior loans (EUR 1,781.8m; 31.12.2020: EUR 1,801.7m) were hedged at an average fixed hedge rate of 1.00% (31.12.2020: 1.12%). These hedges will mature in June 2023.

The derivatives used by the Group were 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 were used for speculative purposes.

The following table summarises the nominal amounts, the fair values at year-end, as well as the gains or losses recognised in the respective financial year for the interest rate swaps.

| **Interest rate swaps**<br>in EUR million | **Nominal amount** | **Fair value Assets/ (Liabilities)** | **Gains/ (losses)** |
|---|---|---|---|
| 31 December 2021 | 1,781.8 | (25.7) | 27.8 |
| 31 December 2020 | 1,801.7 | (51.2) | (13.2) |

The nominal amounts were 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%/0.75% floor component embedded in the senior loans was calculated using the Black-76 model and is presented below:

| **Floor instruments**<br>in EUR million | **Nominal amount** | **Fair value Assets/ (Liabilities)** | **Gains/ (losses)** |
|---|---|---|---|
| 31 December 2021 | 2,743.6 | (37.3) | 2.5 |
| 31 December 2020 | 2,861.2 | (41.4) | (35.5) |

In 2021, the valuation of the floor instruments contained a loss of EUR 25.0m (2020: EUR 52.9m) 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**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Actual interest expenses (-) and income (+) in the period | (78.2) | (91.4) |
| Change in interest expenses with parallel rate curve shift by: | | |
| +300 bps | (6.2) | (13.6) |
| +200 bps | 1.2 | (3.6) |
| +100 bps | 10.1 | 8.5 |
| -50 bps | (5.2) | (4.2) |

| **USD LIBOR scenarios**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Actual interest expenses (-) and income (+) in the period | (37.6) | (45.4) |
| Change in interest expenses with parallel rate curve shift by: | | |
| +300 bps | (1.2) | (3.4) |
| +200 bps | 0.8 | (0.8) |
| +100 bps | 2.9 | 1.8 |
| -50 bps | (2.4) | (1.6) |

The following table summarises changes in the market values of the interest rate swaps and their impact on the statement of profit or loss in the event of a parallel shift in the interest rate 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 17.0m as at 31 December 2021 (31.12.2020: EUR 18.4m).

| **Effect of changes in market values of swaps on profit or (loss )**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Changes to the market value of swaps from changes to the interest rate by: | | |
| -50 bps | (17.0) | (18.4) |
| +100 bps | 29.4 | 34.8 |
| +200 bps | 61.8 | 71.0 |
| +300 bps | 94.3 | 109.5 |

**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 accounts receivable balances. The Group manages its credit risk from trade receivables based on internal guidelines, e.g. internal limits for each customer and regular monitoring of customers with large outstanding or overdue trade receivables.

An amount of EUR 320.4m (31.12.2020: EUR 302.4m) 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 indications of any impairments with respect to other loans granted.

**Liquidity Risk**

Liquidity risk for Springer Nature is the risk of not being able to meet financial obligations when they become due for payment, or not being able to meet them in full. 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 2021, an amount of EUR 10.0m was pledged to secure a credit line used for operational purposes. Furthermore, two ancillary facilities with a total amount of EUR 30.0m (31.12.2020: EUR 30.0m) were 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 during the year to efficiently close liquidity gaps in individual currencies using the available funds.

As at 31 December 2021 and 2020, there were no outstanding foreign exchange swaps. In 2020 gains of EUR 0.3m were recognised.

The following tables summarise the carrying amount, contractual cash flows[2] of the financial liabilities and derivative financial instruments including the estimated and implied interest payments:

| **Carrying amount and contractual cash flows** | | | | | | | **31.12.2021** |
|---|---|---|---|---|---|---|---|
| in EUR million | **Carrying amount** | **Total cash flows** | **Less than 6 months** | **7-12 months** | **1 - 2 years** | **2 - 5 years** | **More than 5 years** |
| Other non-current financial liabilities | 0.1 | (0.1) | - | - | - | - | (0.1) |
| Interest-bearing loans and borrowings | 2,583.9 | (3,118.1) | (166.5) | (127.0) | (92.0) | (2,732.6) | - |
| Liabilities to shareholders | 1,253.3 | (773.6) | - | - | - | - | (773.6) |
| Lease liabilities | 140.1 | (164.6) | (14.2) | (12.7) | (23.0) | (56.3) | (58.4) |
| Trade payables | 113.5 | (113.5) | (113.5) | - | - | - | - |
| Other current financial liabilities | 183.4 | (183.4) | (183.4) | - | - | - | - |
| Contingent considerations | 1.0 | (1.3) | (0.2) | (0.2) | (0.7) | (0.2) | - |
| **Total non-derivative financial liabilities** | **4,275.3** | **(4,354.6)** | **(477.8)** | **(139.9)** | **(115.7)** | **(2,789.1)** | **(832.1)** |
| Forward exchange contracts (financial assets) | (0.2) | | | | | | |
| Cash inflows | | 362.5 | 156.8 | 85.0 | 120.7 | - | - |
| Cash outflows | | (362.3) | (154.5) | (86.1) | (121.7) | - | - |
| Floor component (financial liabilities) | 37.3 | (18.2) | (9.4) | (6.4) | (2.4) | - | - |
| Interest rate swaps (financial liabilities) | 25.7 | | | | | | |
| Cash inflows | | 6.2 | - | - | 3.7 | 2.5 | - |
| Cash outflows | | (30.7) | (8.6) | (7.2) | (10.7) | (4.2) | - |
| **Total derivative financial instruments** | **62.8** | **(42.5)** | **(15.7)** | **(14.7)** | **(10.4)** | **(1.7)** | **-** |

| **Carrying amount and contractual cash flows** | | | | | | | **31.12.2020** |
|---|---|---|---|---|---|---|---|
| in EUR million | **Carrying amount** | **Total cash flows** | **Less than 6 months** | **7-12 months** | **1 - 2 years** | **2 - 5 years** | **More than 5 years** |
| Other non-current financial liabilities | 1.9 | (2.0) | - | - | (1.9) | - | (0.1) |
| Interest-bearing loans and borrowings | 2,731.7 | (3,338.7) | (112.1) | (59.4) | (127.4) | (3,039.8) | - |
| Liabilities to shareholders | 1,261.6 | (920.7) | - | - | - | (814.1) | (106.6) |
| Lease liabilities | 152.9 | (193.4) | (16.2) | (15.2) | (26.2) | (61.1) | (74.7) |
| Trade payables | 109.2 | (109.2) | (109.2) | - | - | - | - |
| Other current financial liabilities | 153.1 | (153.1) | (153.1) | - | - | - | - |
| Contingent considerations | 0.7 | (0.7) | - | (0.1) | (0.1) | (0.5) | - |
| **Total non-derivative financial liabilities** | **4,411.1** | **(4,717.8)** | **(390.6)** | **(74.7)** | **(155.6)** | **(3,915.5)** | **(181.4)** |
| Forward exchange contracts (financial assets) | (6.8) | | | | | | |
| Cash inflows | | 186.4 | 97.4 | 43.6 | 45.4 | - | - |
| Cash outflows | | (179.6) | (94.9) | (41.7) | (43.0) | - | - |
| Floor component (financial liabilities) | 41.4 | (92.2) | (13.6) | (14.0) | (26.2) | (38.4) | - |
| Interest rate swaps (financial liabilities) | 51.2 | | | | | | |
| Cash inflows | | 0.5 | - | - | - | 0.5 | - |
| Cash outflows | | (42.9) | (9.1) | (9.1) | (16.7) | (8.0) | - |
| **Total derivative financial instruments** | **85.8** | **(127.8)** | **(20.2)** | **(21.2)** | **(40.5)** | **(45.9)** | **-** |

[2] The presentation of the contractual cash flows was purely based on the contract term of the underlying financial liability/ financial instrument, which might deviate from management’s expectation regarding the actual (re-)payment date.

## 35. 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 included purchases of non-current assets, cash payments and proceeds related to the acquisition and divestiture of businesses (major acquisitions described in the section "Scope of consolidation), as well as proceeds from disposals of non-current assets. Financing activities included, changes in financial liabilities and shareholder loans as well as changes in shareholders' equity affecting cash. Cash and cash equivalents comprised the total volume of liquid funds.

The liabilities arising from financing activities are reconciled as follows:

| **Reconciliation of financing activities** in EUR million | | | **Non-cash changes** | | | | |
|---|---|---|---|---|---|---|---|
| | **31.12.2020** | **Cash Flow** | **Fair value changes** | **Accrued interests** | **FX Effects** | **Change offset/ Other** | **31.12.2021** |
| Liabilities to shareholders | 1,261.6 | (90.1) | 75.8 | 9.5 | - | (3.5) | 1,253.3 |
| Interest-bearing loans and borrowings (current and non-current) | 2,731.7 | (172.7) | - | 90.5 | 53.7 | (119.3) | 2,583.9 |
| Lease liabilities | 152.9 | (30.6) | - | 6.7 | 8.5 | 2.6 | 140.1 |
| **Long-term financial debt** | **4,146.2** | **(293.4)** | **75.8** | **106.7** | **62.2** | **(120.2)** | **3,977.3** |

| **Reconciliation of financing activities** in EUR million | | | **Non-cash changes** | | | | |
|---|---|---|---|---|---|---|---|
| | **31.12.2019** | **Cash Flow** | **Fair value changes** | **Accrued interests** | **FX Effects** | **Change offset/ Other** | **31.12.2020** |
| Liabilities to shareholders | 1,184.3 | - | 79.6 | 7.4 | - | (9.7) | 1,261.6 |
| Interest-bearing loans and borrowings (current and non-current) | 2,968.8 | (73.1) | - | 94.6 | (63.6) | (195.0) | 2,731.7 |
| Lease liabilities | 176.3 | (33.9) | - | 7.7 | (10.1) | 12.9 | 152.9 |
| **Long-term financial debt** | **4,329.4** | **(107.0)** | **79.6** | **109.7** | **(73.7)** | **(191.8)** | **4,146.2** |

Changes of the offset resulted from the presentation of the carrying amounts 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 rate method.

**36. Related-Party Transactions and Management Remuneration**

Springer Nature AG & Co. KGaA, Berlin, is the parent of the Group in which GvH Vermögensverwaltungsgesellschaft XXXIII mbH, Stuttgart, holds 53.0% and Springer Science+Business Media Galileo Participation S.à.r.l., Luxembourg, holds 47.0% of the limited liability shares ("Kommanditaktien"). The general partner ("Komplementärin") is Springer Nature Management AG, Berlin. GvH Vermögensverwaltungsgesellschaft XXXIII mbH is a 100.0% subsidiary of the Holtzbrinck Publishing Group. Springer Science+Business Media Galileo Participation S.à.r.l. is a partnership limited by shares. The shares in Springer Science+Business Media Galileo Participation S.à.r.l. are indirectly held by funds which are advised by BC Partners LLP, EQT Partners AB, GIC (sovereign fund of the Government of Singapore), and other co-investors including companies in which the management of Springer Nature and other managers of the Group hold shares.

The members of the supervisory board are listed in the following table:

| Member of supervisory board<br>Springer Nature AG & Co. KGaA | Appointment | Resignation |
|---|---|---|
| von Holtzbrinck, Dr. Stefan (chairman) | 05.05.2015 | |
| Stathopoulos, Nikos (deputy chairman) | 16.07.2019 | |
| Felten, Bettina (Obi) | 20.04.2018 | |
| Haderer, Birgit | 03.03.2020 | |
| Oschmann, Dr. Stefan | 20.04.2018 | |
| Scheifele, Dr. Bernd | 20.04.2018 | |
| Schwanewedel, Jens | 05.05.2015 | 31.12.2021 |
| Waldow, Björn | 01.01.2022 | |
| Walgenbach, Dr. Ewald | 05.05.2015 | |

The following table shows the members of the management board of Springer Nature Management AG being the general partner of Springer Nature AG & Co. KGaA:

| Members of Management Board<br>Springer Nature Management AG | Appointment | Resignation |
|---|---|---|
| Peeters, Franciscus Vrancken (chairman) | 10.04.2018 | |
| Vest, Dr. Ulrich (deputy chairman) | 07.03.2018 | |
| Honour, Carolyn | 01.02.2021 | |
| Inchcoombe, Steven | 10.04.2018 | |
| Jacobs, Rachel | 10.04.2018 | |
| Liu, Charlotte | 01.02.2020 | 31.01.2021 |
| Mos, Martin | 10.04.2018 | |

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 in aggregate.

The following tables show the transactions with parties with significant influence over the Group and with associates:

| **Related party transactions 2021** in EUR million | **Sale of goods/ services to related parties in 2021** | **Purchases of goods/ services from related parties in 2021** | **Financial result 2021** | **Amounts owed by related parties 31.12.2021** | **Amounts owed to related parties 31.12.2021** |
|---|---|---|---|---|---|
| Holtzbrinck Publishing Group* | 3.6 | 10.4 | (52.9) | 2.7 | 769.4 |
| Springer Science+Business Media Galileo Participation S.à.r.l. | - | - | (34.8) | - | 574.0 |
| Associates | 2.1 | 0.8 | - | 0.4 | 0.8 |

*Transactions relate to different legal entities of Holtzbrinck Publishing Group.

| **Related party transactions 2020** in EUR million | **Sale of goods/ services to related parties in 2020** | **Purchases of goods/ services from related parties in 2020** | **Financial result 2020** | **Amounts owed by related parties 31.12.2020** | **Amounts owed to related parties 31.12.2020** |
|---|---|---|---|---|---|
| Holtzbrinck Publishing Group* | 1.5 | 9.6 | (53.1) | 0.8 | 785.0 |
| Springer Science+Business Media GP Acquisition S.C.A. | - | - | (36.5) | 3.6 | 546.0 |
| Associates | 2.6 | 2.3 | - | 1.0 | 0.5 |

*Transactions relate to different legal entities of Holtzbrinck Publishing Group.

For details on financial liabilities from shareholders please refer to note 26.

Furthermore, an indefinite license agreement was concluded with Holtzbrinck Publishing Group to use the Macmillan trade name.

**Management Participation**

In connection with the sale of the shareholding in the Group from Springer Science+Business Media GP Acquisition S.C.A. to Springer Science+Business Media Galileo Participation S.à.r.l. managing directors of Springer Nature, as well as certain managers of the Group ("management"), entered into a management equity programme with Springer Science+Business Media Galileo Participation S.à.r.l. 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 the management of Springer Nature and the supervisory board**

In 2021, payments for short-term and long-term benefits of EUR 5.2m (2020: EUR 5.2m) and EUR 0.1m (2020: EUR 0.2m) respectively were made to former and current managing directors. In addition, one-off payments of EUR 4.5m were made to current managing directors and at year-end a loan granted of EUR 0.3m was outstanding. The related payments were made by different subsidiaries of Springer Nature.

The remuneration of the supervisory board amounted to EUR 0.5m (2020: EUR 0.5m).

**37. Segment Information**

Springer Nature's operating business activities are reported in three segments: Research, Education and Professional.

The Research segment focuses on the worldwide publication of Science, Technical and Medical (STM) content primarily through journals and books and offers also research solutions.

In the division Journals we publish and sell academic journals under our Nature and Springer brand families across all research disciplines to academic research libraries, libraries of research-intensive institutions, libraries at government agencies, and corporate libraries worldwide. The majority of Nature and Springer 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. The subscription models are generally based on multi-year terms with contract terms for journals typically ranging from one to three years. The vast majority of the usage and readership takes place online but there remains a material print customer base. In addition, we have started to enter in so-called "transformative" agreements with respect to our Springer journal portfolio where academic institutions pay a publish and read fee to publish an agreed number of open access articles in the respective journal portfolio and obtain access to a defined portfolio of our Springer subscription journals. Brands of our Nature portfolio include the flagship journal Nature, the Nature Research and Nature Review journals. Brands of our Springer portfolio include Journal of Mathematical Sciences, Journal of Materials Science and Nano Research. Our full open access (OA) offering consists of a portfolio of research journals based on the so-called "gold" open access model. All activities in this area are online-only. While article authors pay a single article processing charge for the publication of their work, access to the article for consumers to such content is free of charge. Brands within this portfolio include BioMed Central (BMC), Scientific Reports and Nature Communications.

In our division Books we offer books in print and eBook formats across all scientific disciplines and in areas of applied research. Our Books portfolio includes a broad range of book types such as monographs, textbooks, proceedings, handbook series, reference works, briefs and more. While print books are typically sold as individual copies, eBooks are sold in packages relating to a specific research discipline, as customised/flexible eBook collections and as individual titles. Renewable eBook package subscription contracts typically have a one-year term and relate to the new frontlist titles of a full copyright year but may also include limited backlist publications as part of the license agreement, particularly in new customer contracts. Due to the growing demand for open access and the success of our open access journals, we expanded our offering to open access books where the author is paying a book processing charge and access to the content is free of charge. Brands within this portfolio include Springer and Palgrave Macmillan.

Our Solutions business unit includes research author tools and services, scientific discovery and expert database offerings and services, tools and publications for the healthcare sector and legacy individual and advertising business. The author services focuses on language and scientific editing while our authors tools facilitate collaboration and rapid dissemination of research results, as e.g. our preprint platform. The discovery services comprise a range of databases that provide access to content from life science protocols and methods to material and nano science to pharmacology and biomedicine.

Our offerings for the healthcare sector include clinical publications and scientific communication services as well as medical education and pharma sales force training materials. Clinical publications include hybrid and full open access journals and books, primarily in the field of pharmacotherapy. We also offer journal reprints and e-prints, customised 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.

Springer Nature's Education business focuses on producing teaching and learning materials for global educational markets that are published under the Macmillan Education brand, as well as under local brands and imprints. Key customers are the public and private school systems, individual schools in the local markets Springer Nature is active in, as well as individual teachers, students and learners. The Education business comprises three different business 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. The K12 Curriculum division creates learning material to fit with the general school (K12) curricula of countries around the world with key markets in Mexico, India and South Africa. The Higher Education division which publishes books and educational material used at university/post graduate level across a wide range of subject areas was sold in mid-2021.

Our Professional segment provides tailored information and services for several professional markets in Europe and is organised in four business units. Medicine focuses on publications and events for medical professionals in Germany, Austria and the Netherlands. Driving Schools provide workflow solutions in teaching, learning and administration for driving schools and training institutes for professional drivers as well as professional publications for the logistics, transportation and automotive sectors. The Business division is active in Germany, France, Spain, Austria and Switzerland. Other B2B Media consists of Engineering and Management, focusing on publications and events for professionals in the areas of engineering and management in Germany, and Legislation which offers a variety of law-related content for small and medium-sized enterprises in the Netherlands.

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 for transactions between operating segments are on an arm's length basis.

Segment information tables[3]:

| **Segment information 2021**<br>in EUR million | **Research** | **Education** | **Professional** | **Conso-lidation** | **Group** |
|---|---|---|---|---|---|
| Revenues | 1,307.3 | 183.8 | 211.3 | (1.5) | 1,700.9 |
| Thereof from external customers | 1,305.8 | 183.8 | 211.3 | - | 1,700.9 |
| Thereof from internal customers | 1.5 | - | - | (1.5) | - |
| Share of profit/loss of associated companies | - | 0.3 | 0.9 | - | 1.2 |
| EBITDA | 556.5 | 32.6 | 52.9 | - | 642.0 |
| Gains/losses from the acquisition/ disposal of businesses/investments | 0.6 | (3.1) | - | - | (2.5) |
| Adjustments (exceptional items)[a] | 16.1 | 0.1 | - | - | 16.2 |
| Adjusted EBITDA | 573.2 | 29.6 | 52.9 | - | 655.8 |
| Depreciation[b] | (45.8) | (5.7) | (4.5) | - | (56.0) |
| Amortisation[c] | (126.8) | (24.7) | (4.9) | - | (156.4) |
| Adjusted operating profit | 400.6 | (0.8) | 43.5 | - | 443.4 |

| **Segment information 2020**<br>in EUR million | **Research** | **Education** | **Professional** | **Conso-lidation** | **Group** |
|---|---|---|---|---|---|
| Revenues | 1,258.5 | 175.8 | 194.2 | (1.8) | 1,626.7 |
| Thereof from external customers | 1,256.7 | 175.8 | 194.2 | - | 1,626.7 |
| Thereof from internal customers | 1.8 | - | - | (1.8) | - |
| Share of profit/loss of associated companies | (0.1) | 0.1 | 0.6 | - | 0.6 |
| EBITDA | 528.9 | 14.0 | 49.4 | - | 592.3 |
| Gains/losses from the acquisition/ disposal of businesses/investments | (6.0) | (0.1) | (3.3) | - | (9.4) |
| Adjustments (exceptional items)[a] | 15.6 | 4.2 | (0.3) | - | 19.5 |
| Adjusted EBITDA | 538.5 | 18.1 | 45.8 | - | 602.4 |
| Depreciation[b] | (31.6) | (9.0) | (5.2) | - | (45.8) |
| Amortisation[c] | (132.8) | (21.8) | (5.8) | - | (160.4) |
| Adjusted operating profit | 374.1 | (12.7) | 34.8 | - | 396.2 |

“Consolidation” includes the effects from eliminating transactions between the segments, as well as profit or loss relating to discontinued operations.

3

a Adjustments (exceptional items) relate to gains and losses from the acquisition or disposal of assets or businesses, the integration of assets or businesses, the restructuring of businesses or business units, as well as to other exceptional or non-recurring business transactions or events.

b Depreciation and impairment of property, plant and equipment and right-of-use assets excluding impairments and depreciation on fair value adjustments recognised in connection with business combinations.

c Amortisation and impairment of intangible assets excluding impairments and amortisation on fair value adjustments recognised in connection with business combinations.

| **Segment reconciliation**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Adjusted operating profit | 443.4 | 396.2 |
| Gains/losses from the acquisition/disposal of businesses/investments | 2.5 | 9.4 |
| Adjustments (exceptional items) | (16.2) | (19.5) |
| Amortisation/depreciation and impairment on acquisition-related assets | (122.3) | (121.4) |
| Result from operations | 307.4 | 264.7 |
| Financial result | (194.0) | (146.5) |
| Earnings before taxes | 113.4 | 118.2 |
| Income taxes | (122.5) | (90.2) |
| **Net result for the period** | **(9.0)** | **28.0** |
| Adjustments (exceptional items) | 16.2 | 19.5 |
| Tax effect on adjustments (exceptional items) | (4.6) | (5.4) |
| **Adjusted net result for the period** | **2.6** | **42.1** |

Acquisition-related assets relate to fair value adjustments recognised in connection with business combinations.

The break-down of revenues by geographical markets was based on the country the customer is located in:

| **Revenues by geographical market**<br>in EUR million | **2021** | **2020** |
|---|---|---|
| Other EMEA | 536.2 | 496.7 |
| Americas | 489.8 | 489.5 |
| APAC | 405.1 | 379.1 |
| Germany | 269.8 | 261.4 |
| **Total revenues by geographical market** | **1,700.9** | **1,626.7** |

The break-down of non-current assets by country/region was based on the country/region the asset is located in. The non-current assets include other intangible assets, property, plant and equipment and right-of-use-assets.

| **Non-current assets**<br>in EUR million | **31.12.2021** | **31.12.2020** |
|---|---|---|
| Germany | 1,157.0 | 1,190.1 |
| UK | 1,016.8 | 990.4 |
| USA | 722.9 | 705.7 |
| Rest of World | 551.9 | 606.3 |
| **Total non-current assets** | **3,448.6** | **3,492.5** |

**38. Subsequent Events**

As these financial statements were prepared the Russian/Ukraine conflict escalated. As a consequence, in particular the US, EU and the UK imposed sanctions against Russia and two breakaway regions in eastern Ukraine. As this conflict lasts or even escalates further additional sanctions and restrictions might be imposed. The sanctions and restrictions may further limit Springer Nature in conducting business in these regions and countries and any general downturn of economies as a consequence of this crisis may also negatively affect our financial performance. At this stage a minor negative impact on the Group's earnings, financial and asset position is expected.

There were no other events after the balance sheet date that could have a significant influence on the net assets, financial position or financial result of the Group.

Berlin, 2 March 2022

Carolyn Honour | Steven Inchcoombe | Rachel Jacobs

Martin Mos | Franciscus Vrancken Peeters | Ulrich Vest

## 39. Significant Subsidiaries and Participations as at 31 December 2021/2020

| Name and registered office of entity | % shareholding 2021 | 2020 |
|---|---|---|
| **Parent company** | | |
| Springer Nature AG & Co. KGaA, Berlin | | |
| **Subsidiaries** | | |
| **Argentina** | | |
| Editorial Estrada S.A., Buenos Aires | 100.00 | 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 |
| **Australia** | | |
| Macmillan Science and Education Australia Pty Ltd., Victoria | 100.00 | 100.00 |
| Springer Nature 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 (Shanghai) Co. Ltd., Shanghai | 100.00 | 100.00 |
| Shanghai Springer Nature Information Consulting Services Co., Ltd., Shanghai | 100.00 | 100.00 |
| American Journal Online (Beijing) Information Consulting Co. Ltd., Beijing | 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 |
| **Eswatini** | | |
| Macmillan Boleswa Publishers (Pty) Limited, Mbabane | 100.00 | 100.00 |
| Macmillan Education Eswatini (Pty) Limited, Mbabane (formerly Macmillan Education Swaziland (Pty) Limited) | 100.00 | 100.00 |
| Macmillan Eswatini National Publishers (Pty) Limited, Mbabane (formerly MSNP Pty Limited) | 70.00 | 70.00 |
| **France** | | |
| Atlantis Press SARL, Paris | 100.00 | - |
| Codes Rousseau S.A.S., Château d'Olonne | 100.00 | 100.00 |
| Planète Permis S.A.S., Goxwiller | 100.00 | 100.00 |

| Name and registered office of entity | % shareholding 2021 | 2020 |
|---|---|---|
| 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** | | |
| digital advisors GmbH, Ludwigsburg | 75.00 | 75.00 |
| FUCHSBRIEFE Dr. Hans Fuchs GmbH, Berlin* | 100.00 | 100.00 |
| FUMO Solutions GmbH, Dornstadt* | 100.00 | 100.00 |
| iversity Learning Solutions GmbH, Berlin | 100.00 | 100.00 |
| Medizinisches Bildungszentrum Deutschland GmbH, Hamburg* | 100.00 | 100.00 |
| Spektrum der Wissenschaft Verlagsgesellschaft mbH, 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 Nature Campus GmbH, Berlin* | 100.00 | 100.00 |
| Springer Nature Customer Service Center GmbH, Heidelberg* | 100.00 | 100.00 |
| Springer Nature Deutschland GmbH, Berlin* | 100.00 | 100.00 |
| Springer Nature International GmbH, Berlin* | 100.00 | 100.00 |
| Springer Nature One GmbH, Berlin | 73.12 | 73.12 |
| Springer Nature Real Estate Holding GmbH, Berlin* | 100.00 | 100.00 |
| Springer Nature Three GmbH, Berlin* | 100.00 | 100.00 |
| Springer Nature Two GmbH, Berlin* | 100.00 | 100.00 |
| Springer Science+Business Media Real Estate GmbH, Berlin* | 100.00 | 100.00 |
| Springer Verlag GmbH, Berlin* | 100.00 | 100.00 |
| Tiega 15 GmbH, Berlin* | 100.00 | 100.00 |
| Wendel-Verlag GmbH, Kassel* | 100.00 | 100.00 |
| WISO Socio Economic Consulting GmbH, Berlin | 100.00 | 100.00 |
| **Hong Kong** | | |
| Macmillan Publishers (China) Limited, Hong Kong | 100.00 | 100.00 |
| Springer Nature Hong Kong Ltd., Hong Kong | 100.00 | 100.00 |
| **India** | | |
| Springer Nature Technology and Publishing Solutions Private Limited, Pune | 100.00 | 100.00 |
| Macmillan Publishers India Private Limited, Chennai | 99.44 | 99.44 |
| Springer Nature India Private Ltd., New Delhi | 100.00 | 100.00 |
| **Italy** | | |
| Springer Healthcare Italia S.r.l., Milan | 100.00 | 100.00 |
| Springer-Verlag Italia S.r.l., Milan | 100.00 | 100.00 |
| **Japan** | | |
| 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 |
| **Mexico** | | |
| Ediciones Castillo, S.A. de C.V., Mexico City** | - | 100.00 |
| Macmillan Educación, S.A. de C.V. | 100.00 | 100.00 |
| Macmillan Publishers, S.A. de C.V., Mexico City** | - | 100.00 |
| Springer Nature Mexico, S.A. de C.V., Mexico City | 100.00 | 100.00 |

| Name and registered office of entity | % shareholding 2021 | 2020 |
|---|---|---|
| **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 |
| 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** | | |
| Atlantis Press Group B.V.**** | 100.00 | - |
| Atlantis Press B.V.**** | 100.00 | - |
| Atlantis Press International B.V.**** | 100.00 | - |
| Checklist Publishing B.V., Dordrecht**** | 100.00 | 100.00 |
| College Press Netherlands B.V., Amsterdam | 100.00 | 100.00 |
| Dentallect BV**** | 100.00 | - |
| Publicount B.V., Rotterdam** | - | 100.00 |
| Rendement Uitgeverij B.V., Rotterdam**** | 100.00 | 100.00 |
| Springer Media B.V., Houten**** | 100.00 | 100.00 |
| Springer Nature B.V., Dordrecht**** | 100.00 | 100.00 |
| Springer Nature 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 |
| **Portugal** | | |
| Springer Nature Portugal, Unipessoal LDA | 100.00 | 100.00 |
| **Singapore** | | |
| Springer Nature Singapore Private Ltd., Singapore | 100.00 | 100.00 |
| **South Africa** | | |
| Macmillan Khula Nathi Trust*** | - | - |
| Macmillan South Africa (Pty) Ltd., Midrand, (Johannesburg) | 80.00 | 80.00 |
| Springer Nature South Africa Proprietary Limited, Midrand (Johannesburg) | 100.00 | 100.00 |
| **South Korea** | | |
| Macmillan Korea Publishers Limited, Seoul | 100.00 | 100.00 |
| Springer Nature 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 |

| **Name and registered office of entity** | **% shareholding 2021** | **2020** |
|---|---|---|
| **Switzerland** | | |
| Springer Nature Switzerland AG, Cham | 100.00 | 100.00 |
| Springer Transport Media Schweiz GmbH, Urdorf | 100.00 | 100.00 |
| **Taiwan** | | |
| Springer Nature 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 |
| Macmillan Education Limited, London (formerly Macmillan Publishers Holdings Limited) | 100.00 | 100.00 |
| Macmillan (SLP) General Partner Limited, Edinburgh | 100.00 | 100.00 |
| Macmillan Magazines Limited, London | 100.00 | 100.00 |
| Macmillan Pension Plan 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 (UK) Limited, London | 100.00 | 100.00 |
| Springer Nature Holdings Limited, London | 100.00 | 100.00 |
| Springer Nature Limited, London | 100.00 | 100.00 |
| Springer Nature One Limited, London | 100.00 | 100.00 |
| Springer Nature Publishers Holdings Limited, London | 100.00 | 100.00 |
| Springer Nature Two Limited, London | 100.00 | 100.00 |
| Springer Pension 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 |
| Rednova Learning Inc., Wilmington | 100.00 | 100.00 |
| Research Square AJE LLC, Durham | 60.00 | 60.00 |
| Research Square R&D LLC, Durham | 58.40 | 58.40 |
| Springer Healthcare LLC, Wilmington | 100.00 | 100.00 |
| Springer Nature Academic Publishing Inc., Austin | 100.00 | 100.00 |
| Springer Nature America Inc., New York | 100.00 | 100.00 |
| Springer Nature Customer Service Center LLC, Wilmington | 100.00 | 100.00 |
| Springer Science+Business Media Finance Inc., Wilmington | 100.00 | 100.00 |
| Springer Science+Business Media LLC, Boston | 100.00 | 100.00 |
| **Zimbabwe** | | |
| College Press Publishers (Pty) Limited****** | 48.91 | 48.91 |
| Harold Macmillan Share Trust****** | - | |

* The Group has made use of the exemption clause of section 264 paragraph 3 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.

****** As at 31 December 2021, Springer Nature obtained control over College Press Publishers (Pty) Limited, thus fully consolidated the assets/liabilities of the business.

## 40. Associates as at 31 December 2021/2020

| Name and registered office of entity | % shareholding 2021 | 2020 |
|---|---|---|
| **France** | | |
| Pour la Science S.A.R.L., Paris | 50.00 | 50.00 |
| **Germany** | | |
| 11 Academia Networks GmbH, Berlin | 40.00 | 40.00 |
| GbR Musik in Geschichte und Gegenwart, Kassel | 50.00 | 50.00 |
| med update GmbH, Wiesbaden* | 50.00 | 50.00 |
| **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 States** | | |
| Get Full Text Research LLC, Washington, D.C. | 20.00 | 20.00 |
| **United Kingdom** | | |
| FMC 2011 Limited, Shenley** | 31.00 | 31.00 |

*49.0% of voting rights
**33.9% of voting and capital rights

## 41. Other Investments/ Interests as at 31 December 2021/2020

| Name and registered office of entity | % shareholding/ interest 2021 | 2020 |
|---|---|---|
| DeepMatter Group PLC, Bristol, UK | 7.42 | 7.42 |
| Inchi Trust Ltd. (Limited by Guarantee), Cambridge, UK | 6.66 | 6.66 |
| King's Cross and St. Pancras Business Partnership Ltd., London, UK | 7.70 | 7.70 |
| Springer Tudományos Kiadó Kft., Budapest, Hungary | 15.00 | 15.00 |