



MAINFIRST

Benjamin Kohnke | 07 August 2018

GERMAN STARTUPS GROUP

Democratising venture capital in Germany

Outperform, Price Target: EUR 3.00

For important disclosure information please see Appendix section at the end of this report



GERMAN STARTUPS GROUP

GSJ GY | 40 Pages | 07 August 2018

Technology Hardware
Germany

*** SPONSORED RESEARCH ***

OUTPERFORM

Price Target: EUR 3.00

Democratising venture capital in Germany

We initiate coverage of German Startups Group with an Outperform rating and PT of EUR 3.0, implying c. 80% upside potential. GSG is in the early stage of transforming from a VC-investor to a FinTech which, in our view, is clearly underappreciated by the market.

The NAV of GSG's VC-portfolio amounts to EUR 2.77 per share. We believe that potential value crystallisation events should cause the 40% discount to narrow significantly over the next 12 months.

The launch of G|S Market™, a secondary market for VC shares, funds and loans, has the potential to disrupt the German VC industry. We estimate that G|S Market™ has a value of c. EUR1.5 per GSG share.

VALUE CRYSTALLISATION EVENTS AHEAD – DISCOUNT TO NAV SEEMS HIGH

GSG owns stakes in 38 growth companies. The NAV of those assets – as implied by the last third-party financing round – amounts to EUR 2.77 per share, a 40% discount to the current share price. We see limited downside to current valuation levels but rather potential for a positive re-valuation of large parts of the portfolio, starting with the disposal of Exozet and future financing rounds of attractive assets such as Mister Spex, Chrono24 or AuctionTech.

THE GROWTH POTENTIAL OF G|S MARKET™ APPEARS CLEARLY UNDERAPPRECIATED

Based on its long-standing expertise in the VC-industry, GSG launched German Startups Market on 19 June – a platform designed to match supply of VC-shares and VC-Funds with demand from qualified investors below traditional minimum investment thresholds (up to EUR 10m). While still at an early stage, we see G|S Market™ well positioned to grow the platform to a transaction volume of c. EUR 180m p.a. over the next three years which should translate into revenues of c. EUR9m and EBIT of c. EUR6m in FY21e. We also note that we attach zero value to GSG's VC-asset management business (planned to launch in Q4'18) which, in our view, provides another free option for investors.

DETAILED SOTP-ANALYSIS YIELDS AN EQUITY VALUE OF EUR 3.0 PER SHARE

We value GSG on a SotP-analysis which yields an equity value of EUR 3.0 per share. This consists of EUR 3.0 for GSG's VC-portfolio and EUR 1.5 for G|S Market™. We apply a 30% discount to reflect dilution risks and the fact that the new ventures are still at an early stage. Main risks to the investment case are potential downrounds in important portfolio assets, a slower than expected adoption of G|S Market™ and key people risk within GSG's corporate governance structure.

LAST CLOSE (EUR)	1.67
MKTCAP (EUR m)	20
UPSIDE (%)	80.2
DAILY T/O (EUR m)	0.03

CHANGES TO ESTIMATES		2018E	2019E	2020E
YEAR TO DEC (EUR M)				
Group revenue	13	15	20	
EBITDA (rep.)	1	2	4	
EBIT (rep.)	2	2	5	
EPS (adj.) (EUR)	0.08	0.08	0.24	
EPS (Cons.) (EUR)	0.00	0.00	0.00	
DPS (EUR)	0.00	0.00	0.00	
Net debt (cash)	(3)	(4)	(7)	
RoCE (NOPAT)	5.1	5.8	13.4	
EPS y/y (%)	-44.3	8.3	191.7	
ND/EBITDA (adj.)	n/m	n/m	n/m	
EV/Sales	1.38	1.19	0.78	
EV/EBITDA (adj.)	8.35	6.88	2.84	
EV/EBIT (adj.)	10.4	8.62	3.22	
P/E (adj.)	22.1	20.4	6.99	
Dividend yield (%)	0.0	0.0	0.0	
Free CF yield (%)	4.9	4.3	10.4	
EV/CE	0.53	0.50	0.43	

Next event: Q2/H1 Results (01 Sep 2018)

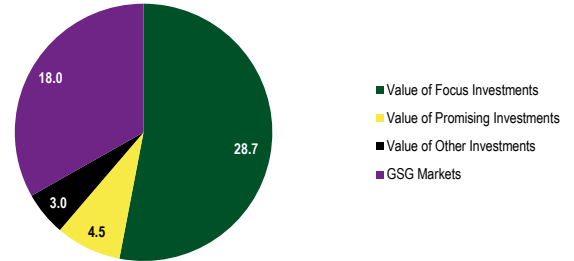
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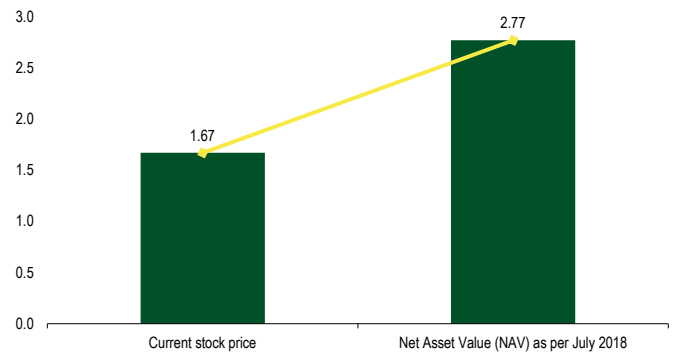
YEAR TO DECEMBER (EUR M)	2018E	2019E	2020E
PROFIT & LOSS ACCOUNT			
Group revenue (as reported)	13	15	20
EBITDA	1	2	4
EBIT	2	2	5
t/o: At-equity result	0	0	0
Pre-tax result	1	1	4
Income tax, other items	(0)	(0)	(1)
Net result group	1	1	3
Minorities, other	(0)	(0)	(0)
Net result shareholders	1	1	3
EPS, fully diluted (EUR)	0.08	0.08	0.24
MainFirst adjustments			
Exceptionals in EBIT	0	0	0
Profit & Loss Account (adj.)			
EBITDA	2	3	5
EBIT	2	2	5
Op. result (Co. def.)	2	2	5
Net result, shareholders	1	1	3
EPS, fully diluted (EUR)	0.08	0.08	0.24
CASH FLOW STATEMENT			
EBITDA	1	2	4
Cash interest and tax	0	0	0
Changes in working capital	(0)	(0)	(1)
Other operating CF items	0	0	(1)
Net operating cash flow	1	1	3
Capital expenditure (intangibles, tangibles)	0	0	1
Free cash flow	1	1	2
Acquisitions, Disposals, Financial assets	3	0	0
Dividends, minority payouts	0	0	0
Capital measures, other	0	0	0
Change in net cash (debt)	4	1	2
Net cash (debt)	3	4	7
BALANCE SHEET			
Fixed assets	32	32	32
Current assets	9	10	13
t/o Inventories	1	1	1
t/o Trade receivables	2	3	4
t/o Cash and equivalents	5	5	8
Group equity	32	33	36
t/o Shareholders equity	30	31	34
Interest-bearing liabilities	1	1	1
Other liabilities and provisions	8	8	8
t/o Pension provisions	0.00	0.00	0.00
t/o Trade liabilities	1	1	1
Balance sheet total	41	42	45
Net working capital	2	3	4
Capital employed (incl. Goodwill)	34	35	36
RATIOS			
Revenue y/y	0.8%	10.5%	34.5%
EBITDA margin (adj.)	16.6%	17.3%	27.6%
EBIT margin (adj.)	13.3%	13.8%	24.3%
EPS (adj.), y/y	-44.3%	8.3%	191.7%
Net working capital intensity (as a % of sales)	18.0%	18.0%	18.0%
DSOs (trade receivables as days of revs)	66.3	66.3	66.3
Inventory turnover (Days)	16.9	16.9	16.9
Net debt (cash) / EBITDA (adj.)	n/m	n/m	n/m
EBITDA (adj.) / Capex	5.52	5.78	9.19
Free CF yield (FCF / market cap)	4.9%	4.3%	10.4%
Oper. FCF yield ([FCF - net int. taxed] / EV)	9.4%	9.9%	19.2%

SOTP ANALYSIS YIELD EQUITY VALUE OF EUR36M OREUR3 / SHARE



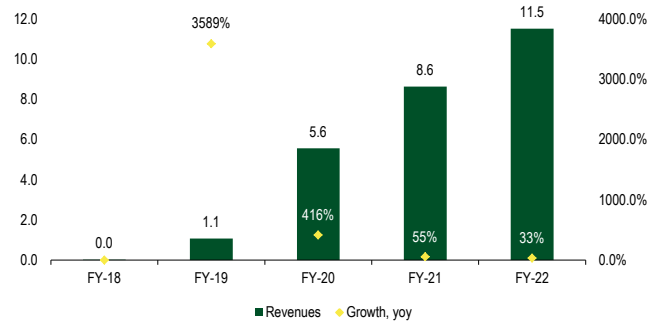
Source: MainFirst

CURRENT SHARE PRICE SIGNALS 40% DISCOUNT TO NAV



Source: MainFirst

WE EXPECT EXPONENTIAL REVENUE GROWTH AT GJS Market™



Source: MainFirst

Executive Summary

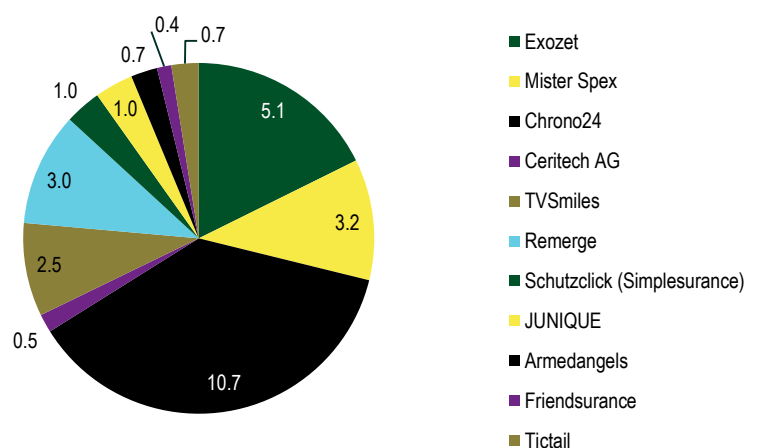
German Startups Group (GSG) launched its operations in April 2012, founded and led by serial entrepreneur Christoph Gerlinger after the successful disposal of online gaming operator Frogster. The company went public in November 2015, one year after its bigger peer Rocket Internet (Not Rated). GSG originally focused on the acquisition of minority stakes in high-growth online business models, domiciled in Germany, either via participation in capital increases or the purchase of secondary shares.

We value GSG's VC-portfolio at EUR 3.0 per share pre discounts

At the end of FY-17, GSG held minority stakes 38 companies as well as a majority participation in online advertising service provider Exozet, which is fully consolidated in GSG's accounts. The portfolio is a mix of early stage and growth stage assets of which GSG management believes a few are ready for exit. **21 of those assets comprise 90% of the portfolio's net asset value (NAV)** as per the end FY-17, defined by the implied value in the last third-party financing round. The NAV stood at EUR 2.64 per share and in a recent press release, published on 23 July, GSG announced the mark-up of one of its key investments which moved up the NAV by EUR1.6m or EUR0.13 per share to EUR2.77, according to the company. This implies a 40% discount to yesterday's closing price (7 August) 2018.

While we concede that a NAV-discount is justified due to the likely future dilution risk as well as the holding costs, we believe the risk for downrounds in the most important investments is limited. We rather see upside to the current valuation in case of value crystallisation events such as trade sale transactions or IPO exits in some of GSG's focus investments. While GSG does not provide more granularity on the NAV composition, we see upside to the valuations for selected assets, such as **Mister Spex** or **Chrono24**, two companies which we believe command a highly compelling market position in their respective industries. We also highlight the growth potential for **AuctionTech**, which emerged from the insolvency of Auctionata, an asset which had been valued at more than EUR 200m at peak levels. In summary, we value GSG's venture capital portfolio at EUR 3.0 per share, notably before any discounts for the reasons outlined above.

Figure 1: German Startups Group, valuation of focus investments (EV in EURm)



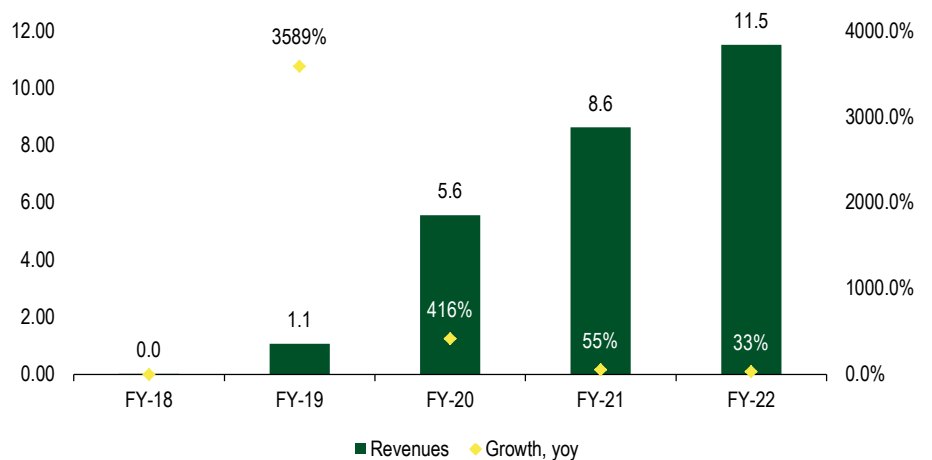
Source: MainFirst Research

On 11 April 2018, GSG announced the start of the transformation of its business model from an exclusive asset owner to an asset manager and platform operator. The company successfully launched **German Startups Market (G|S Market™)** on 19 June. G|S Market™ is an online platform set-out to match supply of shares in non-stock exchange-listed early-stage or growth-stage companies with demand from investors.

In a first step, supply consists of secondary shares but will be extended to stakes in Venture Capital Funds (VC-Funds), either closed or in the launch process. Hence, G|S Market™ increases trading liquidity in secondary shares and VC-funds. The platform also opens up what we believe is highly attractive asset class, i.e. venture capital, to a new group of investors, i.e. those who are not in a position to invest the traditional minimum thresholds of EUR 2-10m in VC-Funds. In our view, GSG’s business model therefore has the potential to disrupt the venture capital investment process in Germany.

Based on its first mover advantage, its long-lasting expertise in the asset class, as well as the deep network in the venture capital industry in Germany, we believe G|S Market™ should be able to attract c. EUR 180m in transaction volume on the platform over the next three years, which, based on an average commission of 4.8% (charged to the investor), should translate into revenues of EUR 8.6m.

Figure 2: G|S Market™, transaction volume and revenue forecasts (EURm)



Source: MainFirst Research

Given the B2B-approach, initial marketing efforts to establish the platform should be limited and capital expenditures related to the build-up have largely been digested over the last 12-months. In other words, platform economics should start to kick-in shortly after the launch as we estimate G|S Market™ to show EBITDA margins of c.60% in the medium-term.

We value GSG’s equity at EUR 3.0 per share post 30% discount

We value GSG on a sum-of-the-parts analysis not only to accurately reflect the value of each holding in the company’s venture capital portfolio but to model the standalone value of the new ventures, namely the G|S Market™ and potentially new businesses such as GS Asset Management. The constituents of our analysis are (1) ‘Focus Investments’, (2) ‘Promising Investments’, (3) ‘Other Investments’ and (4) G|S Market™.

While we concede that detailed financial information about GSG’s portfolio constituents are difficult to obtain (which is not surprising given their status as

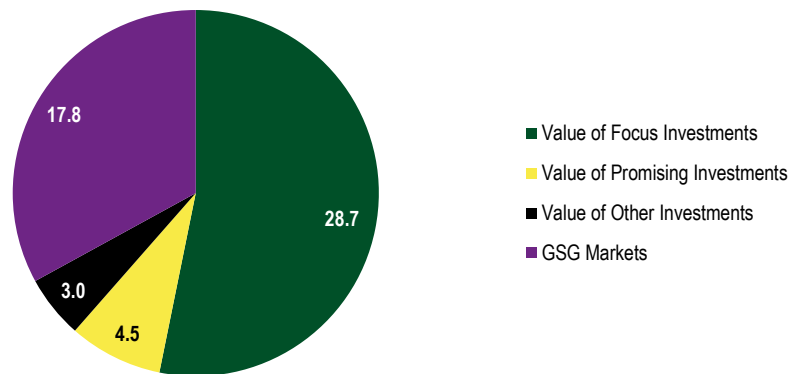
private companies), we conducted a thorough, bottom-up valuation of the group's so called '**focus investments**' (EUR 2.40 per share) and '**promising investments**' (EUR 0.4 per share). We then add an estimated value of the stakes in the remaining 17 start-up companies ('**other investments**') which, according to the company, comprise c. 10% of the current NAV (EUR 0.3 per share).

Lastly, we value **G|S Market™** at an EV/sales multiple of 3x, based on our revenue projections for FY-20, which implies a 50% discount to other publicly listed online marketplace business models, such as Delivery Hero or Scout24. The discount reflects the fact that those models are significantly more advanced (and valuable) while G|S Market™'s proof of concept is still pending.

The positive flipside to this is that the business offers materially higher growth potential in case of a successful penetration story. We note that similar business models are valued at considerably higher levels: For instance, UK-based VC-crowd-funding platform **Seedrs** was valued at GBP50m in the last financing round in October 2017 despite being reportedly loss-making on 2016 revenues of GBP1m.

We apply a **30% discount** not only to GSG's investment portfolio (due to illiquidity and potential future dilution risks) but also to **G|S Market™** to reflect the nascent stage of the business.

Figure 3: German Startups Group, aggregated sum-of-the-parts (SotP-) valuation analysis



Source: Company accounts, MainFirst Research

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German Startups Group at a glance

Founded in 2012 by current CEO Christoph Gerlinger, German Startups Group (GSG) is a venture capital investment firm (VC) based in Berlin, Germany. According to data from CB Insights, GSG was the second most active VC in the German market in the period 2012-2016, trailing only High Tech Gründerfonds and ahead of well-known VC-investors such as Holtzbrinck Group and Earlybird Venture Capital. On 19 June, GSG successfully launched G|S Market™, a marketplace for venture capital related assets, which the company plans to establish as second leg of its business model.

Investment approach: Stage agnostic with focus on tech

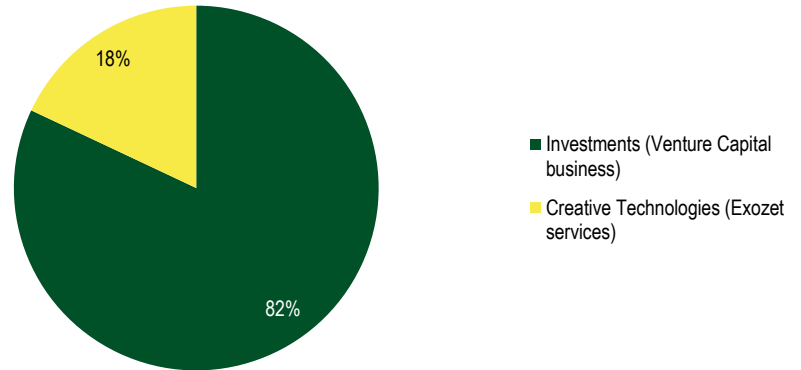
German Startups Group's investment approach is stage-agnostic and focused on technology start-ups based in Germany. As per the end of 2017, the portfolio consisted of 38 holdings. Due to its specific investment focus, all of GSG's investments, with the notable exception of Exozet, are minority stakes. The total portfolio has an estimated net asset value (NAV) of EUR 33.3m, equivalent to EUR 2.77 per share – a discount of c. 40% to yesterday's closing price. The 20 largest holdings accounted for 89% of the NAV, according to the company. In addition, management believes there are hidden reserves of c. EUR 0.20-0.30 per share in Exozet alone.

Since the launch of its operations, GSG has successfully executed on four exits, which translated into money-on-money multipliers of c. 3x for Fyber and Amorelie, 6.5x for Delivery Hero, and 11x for Scalable Capital which, in our view, is a clear proof of GSG's competitive advantages, i.e. patient money (evergreen), openness for secondary shares, and last but clearly not least, deep roots in the German start-up ecosystem centred around its founder, serial entrepreneur Christoph Gerlinger (CDV Software and Frogster Interactive Pictures). According to the company, GSG achieved a gross performance across its secondary share holdings of c. 19.8% p.a. in the 2012-2017 period and c. 15.0% across primary and secondary shares combined.

Segment reporting: Investments and Creative Technologies

The company's operations are divided into two segments, *Investments* and *Creative Technologies*. As depicted in Figure 1 below, the *Investments* segment accounted for 82% of EBIT in FY-17, with the remaining 18% generated by *Creative Technologies*.

Figure 4: German Startups Group EBIT split FY-17



Source: Company accounts, MainFirst Research

Given the nature of the company’s business model, we believe the segment reporting does not provide sufficient transparency on the group’s underlying value drivers. We would rather advise investors to conduct a thorough bottom-up analysis of GSG’s most relevant portfolio constituents (e.g. Mister Spex, Auction Tech, Chrono24 and Exozet) as outlined in this research report.

We also note that the segment reporting is likely to change going forward as GSG’s business model is transforming from an asset-owner model to an asset-manager and platform model.

Investments segment: Venture capital stakes

GSG’s *Investment* segment focuses on the entire investment process, which includes the identification of promising targets, the development of portfolio companies as well as the constant management of the stakes until the exit or trade sale. As mentioned, the portfolio currently consists of stakes in 37 companies (plus Exozet which makes up the *Creatives Technologies* segment). German Startups Group invests in companies from seed, over growth, to early stage and provides its portfolio companies with valuable knowledge transfer and support in marketing, distribution and financing. In FY-17 the Investments segment recorded an EBIT of EUR 1.86m.

Creative Technologies: Exozet

The *Creative Technologies* segment consists of the group’s majority stake in Exozet Berlin GmbH, an agency for digital transformation. The company is fully consolidated in GSG’s financials. Exozet offers consulting services around the digital transformation in specific business areas, in particular multimedia solutions with a focus on mobile, video, virtual and augmented reality, e-commerce and online marketing. With c.150 employees Exozet’s customer portfolio includes Axel Springer, BBC, Audi, and Deutsche Telekom. Exozet contributed 12% of group EBIT in FY-17.

German Startups Group - management & supervisory board
Management Board

Christoph Gerlinger has over 20 years of experience in the Internet industry. He is a serial entrepreneur with CDV Software Entertainment AG and Frogster Interactive Pictures AG as well-known examples. CDV Software, where Mr. Gerlinger acted as CFO, had over 200 employees and IPO’d in 2000. Frogster

Interactive Pictures AG was founded by Mr. Gerlinger and IPO'd in 2006. The company was taken private through a takeover offer by Gameforge in 2011. Mr. Gerlinger holds a graduate degree in Business Administration from Goethe University Frankfurt. He, through various investment vehicles, holds c.8% of the outstanding shares in German Startups Group.

Supervisory Board

Gerhard Koning is the chairman of the supervisory board. He has held long-standing positions in various supervisory boards and has more than 35 years of experience in leading positions in the banking sector. Prior to his appointment to the supervisory board in April 2012 Mr. Koning served as CEO of AXG Investmentbank for more than 10 years and was Head of Corporate Finance at Commerzbank AG.

Martin Korbmacher was appointed as deputy chairman of the supervisory board at the same time as Mr. Koning. Mr. Korbmacher is founder and managing director of a corporate advisory and investment company. He has a track record in investment banking as former head of investment banking at Credit Suisse and led roles in over 20 different M&A transactions. Mr. Korbmacher was also member of the management board at Dresdner Kleinwort.

Markus Kronenberg is a member of the supervisory board since June 2017 and currently managing director of the asset management company Cara Investment GmbH. Prior to his appointment he held different leading positions in the asset management sector across various asset classes, including a director position at INDUC GmbH and investment manager at Kedge Capital.

German Startups Group – corporate milestones

Since its foundation in 2012 the German Startups Group was able to build a strong portfolio of participations, which today consists of a total of 37 minority stakes in different technology companies which are at early stage or growth stage.

GSG was able to realize some profitable exits from its investments over the past six years including some well-known companies like Delivery Hero or Amorelie. In November 2015 German Startups Group went public and is now listed in the SCALE segment at the Frankfurt Stock Exchange.

Announcement of strategic expansion

In early 2018, German Startups Group announced its strategic plans to launch a matchmaking platform for secondary shares in venture capital in the second half of the year with the launch date set for 19 June 2018. The economic rationale for the platform is to allow smaller qualified investors to participate in the venture capital asset class. Shareholders in early stage, non-listed, companies, on the other hand gain the opportunity to sell (parts) of their stakes at any time. Ultimately the GSG venture capital marketplace should boost liquidity in an asset class which has historically been very sticky.

We list what we believe were the key accomplishments of German Startups Group in Figure 5 below.

Figure 5: Summary of Key Accomplishments

- IPO in November 2015
- Second most active Venture Capital investor in Germany just behind government-funded "High-Tech Gründerfonds" according to CB Insights in 2015
- Creation of a diversified portfolio of minority stakes in currently 38 companies from seed to growth stage; in addition, GSG owns a majority stake in online advertising company Exozet
- A number of successful exits, including Amorelie, Delivery Hero, Fyber, Scalable Capital, eWings, CRX Markets and realbest
- Issue of a convertible bond with a total value of EUR 3m; trading at Frankfurt Stock Exchange since April 2018
- GSG was profitable throughout the company's history with the exception of 2016.
- Preparation to expand the current business model via G|S Market™, an online market place for VC-shares and VC-Funds stakes; launch date set for 19 June 2018.
- Start of negotiations for the sale of the 50.8% stake in Exozet with a large international consulting firm
- Announcement of public tender offer to buy-back 200,000 shares for an offer price of EUR 1.85 per share, which is expected to be closed by mid-July

Source: Company accounts, MainFirst Research

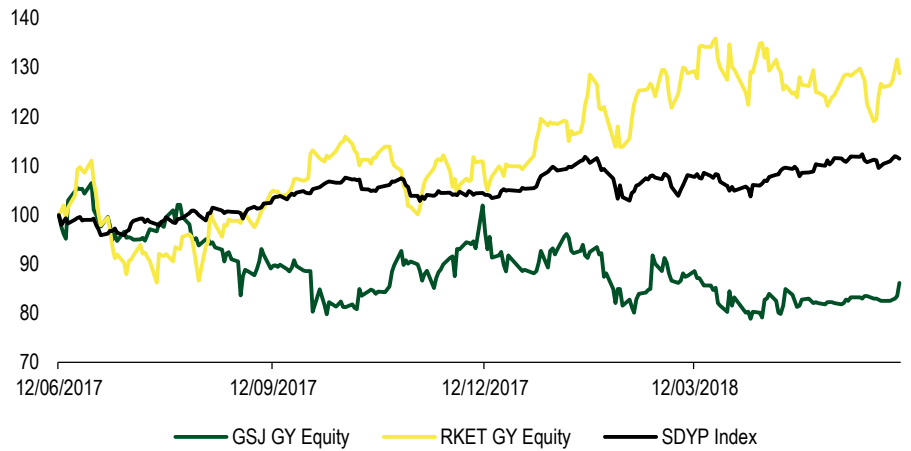
Share price development

German Startups Group's share capital amounts to EUR 11,984,400 divided by 11,984,400 ordinary shares. At the initial public offering (IPO) in November 2015, the shares were issued at EUR 2.50 per share.

In the first few months post IPO, the stock climbed to levels of above EUR 3.50 and reached an all-time high on the 23rd of November 2015. Subsequently, GSG shares saw a heavy decline, in line with a general de-rating of Internet business models, but recovered to levels of above EUR 3.00 in May 2016, driven by positive developments within their portfolio companies, e.g. the closing of a substantial financing round in Scalable Capital and the planned IPO of the social trading platform ayondo.

At the beginning of 2017 German Startups Groups shares were negatively affected by the insolvency of auctionata, one of the group's most significant portfolio constituents. Since the beginning of 2018, the shares showed an underperformance of 12% vs. the German SDAX. The stock closed at EUR 1.67 last night (6 August 2018).

Figure 6: German Startups Group vs SDAX y-o-y



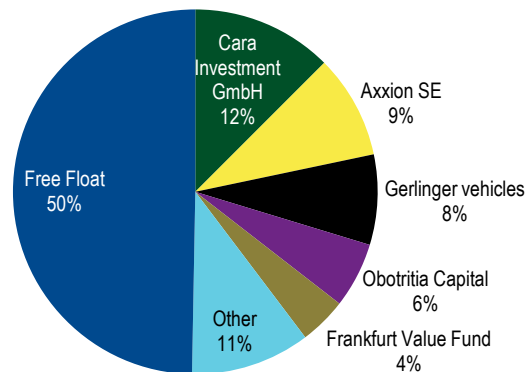
Source: Company accounts, MainFirst Research

Shareholder Structure

German Startups Group is listed in the SCALE segment of Deutsche Boerse. This segment is part of the open market and, hence, investors are only obliged to publish the crossing of the 25% and 50% threshold which complicates the analysis of the group’s shareholder structure. As a consequence, the shareholder structure, as displayed in Figure 7 below, is largely based on information provided by German Startups Group.

Notable shareholders include Christoph Gerlinger the founder and current CEO of the company with a total stake of c. 8%, Cara Investment GmbH (12.5%), an asset management company based in Frankfurt, which holds one seat in GSG’s supervisory board, Frankfurter Aktienfonds fuer Stiftungen, through Axxion (9.2%), and Frankfurter Value Fonds (4.2%). Lastly, we note that Rolf Elgeti announced the purchase of a c. 8% stake in GSG through his investment vehicle Obotritia Capital (as per February 2018), which consists of a c. 5.8% stake in shares as well as the full stake in GSG’s convertible bond (interest rate of 8% p.a., maturity of five years, convertible into 1,198,330 shares at a conversion price of EUR2.50 per share).

Figure 7: German Startups Groups shareholder structure



Source: Company accounts, Bloomberg, MainFirst Research

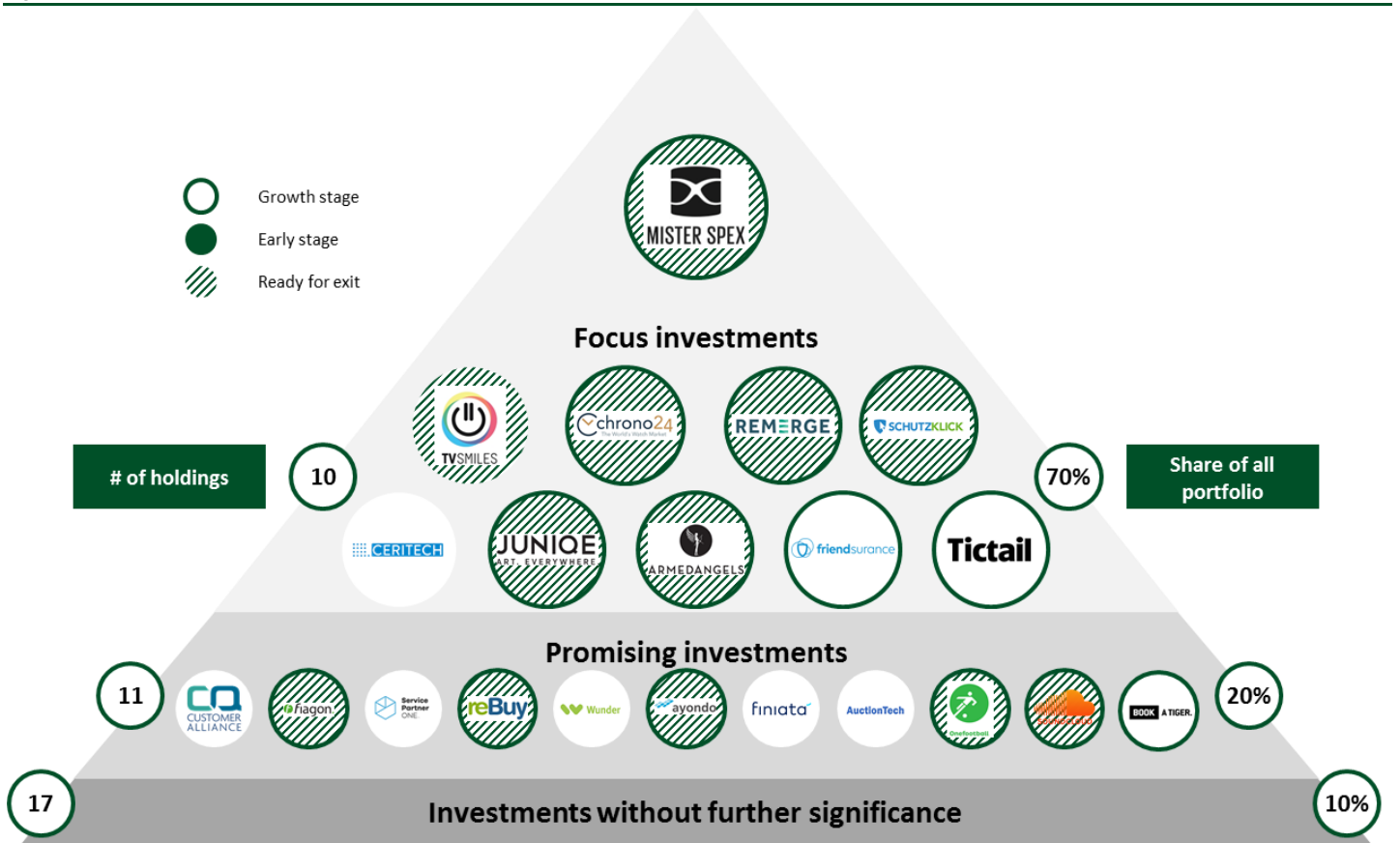
Valuation upside in the current venture capital portfolio

The investment portfolio of German Startups Group consists of stakes in 38 different companies which are all in early stage or growth stage, as displayed in Figure 8 below. Management considers 21 of those stakes as 'significant' for the future development of GSG. Of those 21 companies ten are classified as 'focus investments' and the remaining 11 are labelled 'promising investments'. The focus investments account for c.70% of GSG's current NAV, the promising investments c.20%, and the remaining 17 c.10%.

According to the company, seven out of ten 'focus investments' and five out of the 11 'promising investments' are ready for an exit either as IPO or trade sale.

German Startups Group currently trades at a c. 40% discount to the last NAV, set at the end of 2017, which we see as unjustified. Moreover, we see clear upside to selected holdings.

Figure 8: German Startups Group portfolio



Source: Company accounts, MainFirst Research

A closer look at selected portfolio constituents

In the next few paragraphs we provide a brief description of the business models of GSG's most relevant portfolio companies. The main focus of our analysis lies on **Mister Spex**, **Chrono24** and **AuctionTech**, where GSG holds stakes of 1.4%, 2.1%, and 18.1%, respectively, and which we estimate account for c. 9%, c. 30%, c. 4% of GSG's overall portfolio value, respectively.

Growth Stage Investments:

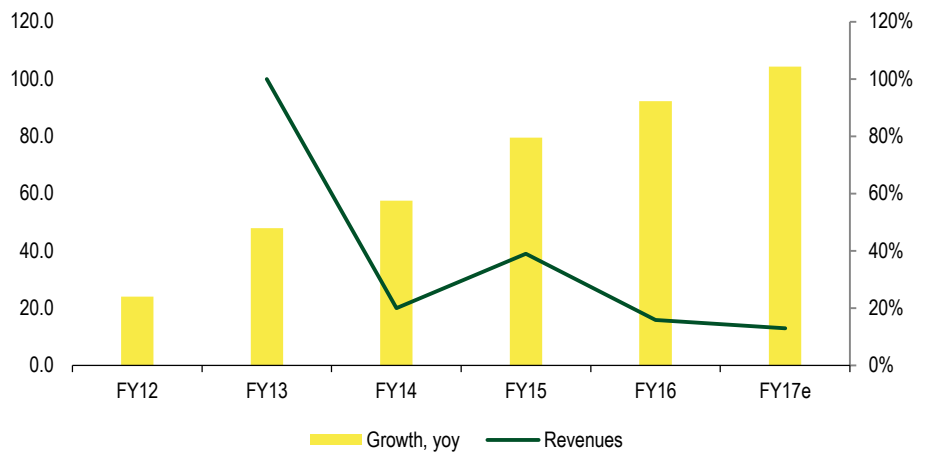
Mister Spex (GSG stake: 1.4%) was founded in 2010 and has developed into a leading European online retailer for branded eyewear and contact lenses. The company offers a wide range of high quality glasses, sunglasses and contact lenses via their online shop which Mr. Spex claims are available at a relevant discount compared to offline retailers.

In addition to the broad range of products at attractive price points, the company offers free services like eye tests from over 550 certified optometrists to their customers. Mister Spex has extended its presence with three brick-and-mortar stores and plans to selectively expand the shop network in the future.

Mister Spex recorded over 3m active customers in ten European countries, including Germany, Austria, Switzerland, Scandinavia, Central Europe, the UK and Spain. The company has more than 450 employees.

In FY-16, the company generated EUR 92.3m in revenues, based on a press article which cites the company's entry into the commercial register in Germany. This implies a growth rate of c.16% vs. FY-15. For FY-17 Mister Spex aimed to generate revenues of more than EUR 100m. While group profitability improved by c.EUR 2.1m versus FY-15, at EUR -2.9m the company remained loss making on EBITDA levels in FY-16. However, according to Mister Spex management, the company has meanwhile almost reached breakeven.

Figure 9: Mister Spex, revenues and revenue growth



Source: MainFirst Research

In 2013, Goldman Sachs led a large financing round which injected EUR 32m in cash into the company and left Goldman Sachs with a 20% equity stake in Mister Spex. Assuming a capital contribution of c. EUR 20-25m from Goldman Sachs would imply a valuation of c. EUR 100-125m for the company.

We estimate that the total addressable market (TAM) in Germany has a size of EUR 8.9bn in FY-17, including glasses (EUR 4.5bn), sunglasses (EUR 2bn), frames (EUR 2bn) and contact lenses (EUR 0.3bn). The market is expected to grow by 1% p.a. till 2021, with sunglasses posting the strongest growth at 2.6%. The biggest markets besides Germany where Mister Spex operates are France (EUR 9.4bn) and UK (EUR 6.1bn).

Compared to other retail categories, such as home electronics and fashion, the online share in the market for eyewear and contact lenses is still low at c.6% in

2017, according to a study by Statista. As a result, we expect continued double-digit growth over the coming years as Statista estimates the online penetration rate to rise to 9% by 2021, supported by the emergence of new technology such as online eye tests. We note that Mister Spex follows an omni-channel approach (currently only in Germany) which we believe should allow the company to win share versus pure online competitors.

Chrono24 (GSG stake: 2.1%) is a globally leading online marketplace for luxury watches with a large inventory of new, pre-owned or vintage luxury watches. In 2017 Chrono24 sold watches with a total merchandise value of over EUR 1bn (EUR 700m in 2015), according to the company. More than 10,000 dealers and private sellers are active on Chrono24 and offer more than 300,000 watches with a total value of EUR 2.5bn. The app has been downloaded over 3 million times since inception of the company and has 350,000 users per day.

Chrono24 serves not only the demand side with their active private customers on their platform but also the supply side with over 2,500 registered and certified watch traders. Customers can upload their whole watch collection without offering them and add watches they are interested in to their wish list. This feature allows Chrono24, in addition to the search history, to get insights not only about the purchasing behaviour of its customers but also to provide a matching service for interested customers. The incorporation of bigger brands in the watch industry with own brand boutique stores on the Chrono 24 marketplace has just started. We note that it is quite difficult for them to get big brands like Rolex or Patek Philippe incorporated due to their high price transparency and the lack of exclusivity.

The CEO of Audemars Piquet François-Henry Bennahmias estimates that the market for preowned and resale of luxury watches could be between ten and twenty times the size of the market for new watches. According to a survey, c.80% of people in the US are indifferent between buying new or preowned watches or jewellery which, in our view, shows the attractiveness of Chrono24's underlying market.

Moreover, we believe that there may be a material shift in shopping habits in the retail vertical, as millennials may be increasingly inclined to purchase luxury goods online. Our view is supported by data from Bain & Company which stated that the value of personal luxury goods bought online rose from EUR 12bn in 2014 to EUR 23.5bn in 2017, with an underlying growth rate of c.25% over the past ten years.

Remerge (GSG stake: 2.0%) is an AdTech service provider which allows its customers to place their advertising via retargeting in over 350,000 apps. According to the company, Remerge reaches over 750,000 consumers per second and allows its customers to clearly define their target groups to reduce scatter losses and achieve a higher marketing impact.

While financial details about Remerge are difficult to obtain, the company stated that it recorded higher monthly revenue numbers in 2016 than the entire fiscal year 2015. According to an article in OMR in October 2017, the company was already profitable at an EBIT level in FY-16 and generated c. EUR 1m in EBIT per month in FY-17.

Schutzclick (GSG stake: 2.4%) was founded in 2012 and grew to a total FTE base of 140. The company is the German online platform of **Simplesurance**, a leading online broker of retail insurance contracts with a presence in 27 countries. The company partners with insurance companies to offer customers individual product insurance, for instance against smartphone damage. and

earns a commission on each insurance contract sale. Additionally Schutzlick offers direct insurance plans in nine different European countries.

In March 2017, Simpleurance raised a total amount of EUR 30m in a financing round led by Japanese eCommerce company Rakuten (Not Rated); existing shareholders like Allianz and Rheingau Partners also participated in the transaction. According to several online sources, Simpleurance generated an 8-digit amount of revenues in FY-15 and reached breakeven levels in Q2 2016.

JUNIQUE (GSG stake: 1.7%) operates an online shop for designs of international artists in the form of posters, shirts or home accessories. According to the company, the business has close to zero inventory costs as all products are made to order which should translate into a superior margin profile.

JUNIQUE was founded in 2015 and today ships its products to eight European countries with c. 60% of sales generated in Germany, Switzerland and France. The company posted eight-digit EUR revenue numbers in 2015, double the level of 2016.

JUNIQUE had a financing round in June 2016, led by Highland Capital Partners in which the company raised EUR 14m.

Armedangels (GSG stake: 2.5%) is a Cologne based social fashion company, focused on sustainability, fair working conditions and environmentally friendly non-hazardous materials. The young brand attracts a growing group of customers who value these criteria. Armedangels sells their clothes online and via conventional offline distribution channels in five different countries.

According to Textilwirtschaft, Armedangels generated EUR 23m in revenues in 2016, up 44% compared to the previous year with the online shop accounting for c. 40% of revenues.

Friendsurance (GSG stake: 3.8%) capitalises on the fact that most people own insurance policies that they rarely or never use. The company invented a new insurance principle to reward customers for cautious and fair behaviour by giving cash paybacks to those who are claim free. Customers are pooled in groups and, according to the company, 75% receive cashbacks.

Friendsurance was founded in 2010 and had its last financing round in March 2016 when it raised c.USD 15m, led by Horizon Ventures.

Tictail (GSG stake: 1.2%) enables its customers to open a free online shop within a few minutes and without prior knowledge via their desktop application or app. Tictail aggregates all online shops on their site to create an online shopping mall which supports the shops in attracting more customers. Tictail has more than 125,000 retailers from 140 countries using their services and had a financing round in Jul 2015, raising c.USD 22m.

Early Stage Investments:

Ceritech (GSG stake: 6.1%) has developed a method to gather rare earth metals from production residues which contain gypsum. Ceritech is currently preparing future partnerships with two foreign plants for the production of phosphoric acids, which produce phosphogypsum as a residue from which Ceritech can extract the rare earth metals.

TVSmiles (GSG stake: 8.5% - plus a stake in the convertible loan) has developed quiz-ads which are part of the growing mobile advertising market. Advertising companies can set up a quiz in the TVSmiles app, which launched

in 2013. In that way consumers can get involved on a voluntarily basis by answering the questions from the quiz and inform themselves about the company in a playful way. According to advertising companies, customers are much more receptive for the content which leads to higher customer loyalty. This is a cornerstone for a sustainable relationship, which allows the company to gather more information about their customer base.

With their new ad platform Kwizzard, TVSmiles enables its customers to upload and design their quizzes themselves, which should lead to higher scalability of the business.

According to TVSmiles the app was downloaded more than 3 million times and users spend more than 90 minutes a month using the app. Furthermore, this form of advertising posts the strongest conversion rate in revenue per contact compared to other digital forms of advertising. TVSmiles was ranked first place in the category “mobile/app” in the Gründerszene Growth Ranking 2016.

Other relevant holdings:

Exozet (GSG stake: 50.8%) offers consultancy and execution services around digital transformation processes, including design, realisation and in particular the operation of multimedia solutions. The company offers solutions for mobile, VR, desktop or Smart TV applications as well as e-commerce. Exozet worked on several projects for well-known customers including Audi, Deutsche Telekom, ZDF and BBC.

As GSG's only majority investment, Exozet is fully consolidated in the company's accounts and shown in the Creative technologies segment. In FY-17 Exozet generated sales of EUR 9.5m, down 13% yoy versus elevated FY-16 levels. Segment EBIT amounted to EUR 0.4m after EUR 0.7m in FY-16. For FY-18, management expects a strong pick-up in top-line growth, after a weak 2017, based on rising order volumes.

On 14 May, GSG announced that it received a bid for its stake in Exozet for c.EUR5m, which would translate into a book gain of c.EUR 1m and cash gain of c.EUR 1.5m. We understand that management is currently evaluating the offer.

AuctionTech (GSG stake: 18.1%) was founded by the former product and technology team of auctionata. auctionata had developed an online marketplace for auctions, based on a sophisticated end-to-end software solution. AuctionTech acquired the software with the help of German Startups Group out of auctionata's insolvency assets.

AuctionTech now provides the cloud-based technology to auction houses and marketplaces as white label solution. This allows customers to operate live auctions worldwide and without latency. Focus areas are luxury goods of all kinds, including antiques, classic cars, art and watches.

According to various press articles, auctionata's insolvency was likely caused by the combination of an underwhelming financial performance, which was accelerated by the acquisition of Paddle8 and a poorly orchestrated financing round which was cancelled at the last minute. This triggered a debate as to whether auctionata's service offering as an online marketplace for fine art could ultimately disrupt the market for luxury auctions, an industry dominated by strong market participants like Sotheby's, Christies or Ketterer. In addition, the attractiveness of auctions is driven by the “seen and be seen” factor which makes the online experience less of a viable substitution. In response to this potential strategic flaw, AuctionTech is now focusing on a pure B2B-white-label software strategy designed for small auctions houses.

Figure 10: German Startups Group, exits



Source: Company accounts, MainFirst Research

History of successful exits in the recent years

In our view, GSG has built a solid track record as asset owner which translated into four successful exits of portfolio companies as well as several trade sales. Since its inception, German Startups Group management executed on a total of four exits as well as a number of trade sales, including Scalable Capital, realbest, Pyreg, CRX Markets, Delivery Hero and eWings.

As previously highlighted, the exits were achieved on money-on-money multipliers of c. 3x for **Fyber** and **Amorelie**, respectively.

Other examples include the sale of shares in **Scalable Capital** on 14 June 2017. GSG earned a multiple of 11x based on the capital invested, equalling in an Internal Rate of Return (IRR) of c.200% p.a. and a book gain of EUR 2.4m.

In 2013 and 2014 GSG invested in **Delivery Hero** and sold its shares in the IPO of Delivery Hero in June 2017. GSG was able to realise a money-on-multiple of c. 5x, an IRR of 60% p.a. and a book gain of EUR 1.3m (EUR 0.11 per share).

G|S Market™ and GS Asset Management - transition from asset owner to platform operator and asset manager

G|S Market™ should add EUR 1.50 to GSG's equity value

German Startups Group is in the process of transforming its business model from a pure asset owner to a platform operator and asset manager. In an attempt to generate **recurring revenue streams and profits and drive a sustainable re-rating of the shares**, management has carefully planned the expansion of its business model through a series of strategic moves: In a first step, the company has launched **German Startups Market GmbH (G|S Market™)**, a marketplace to match buyers and sellers of several venture capital-related asset classes such as secondary VC-shares, VC-funds and VC-loans. The platform aims to make venture capital available to a broader circle of investors and, as a consequence, improve liquidity in a structurally growing asset class in Germany.

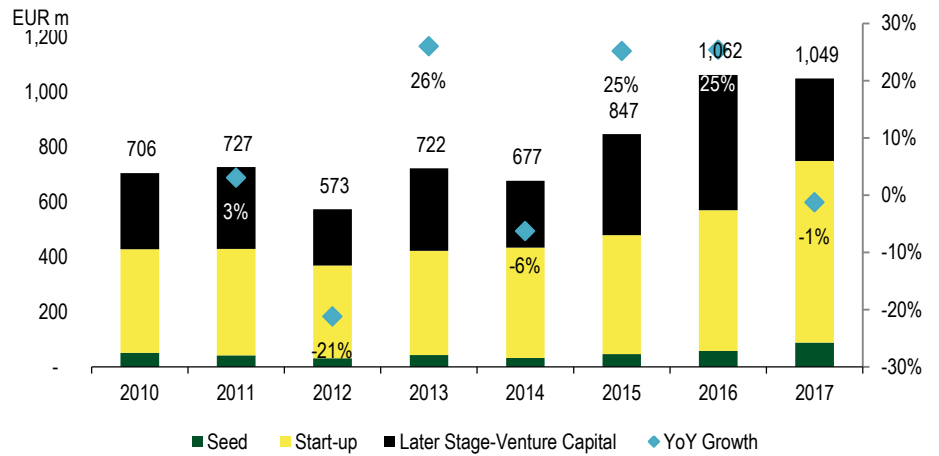
As intermediary, **G|S Market™** will charge investors an **average fee of 4.8%**. Based on an estimated transaction volume of c. EUR 115m in FY20e, the new business line should add sales of EUR 5.6m and EBITDA of EUR 2.8m. In the long-term, we estimate the marketplace economics to translate into EBITDA margins of c.60%.

Based on an average valuation multiple of c. 9x 1-year forward EV/sales – the average of European online marketplace businesses like, for instance, Scout24 (NR) or Delivery Hero (NR) – we derive an equity value of EUR 18m for G|S Market™, equivalent to EUR 1.50 per share, which we incorporate in our SotP-valuation approach. As previously mentioned, we attach a 30% discount to our result to reflect the nascent stage of the business model. However, we argue that this approach could prove conservative as similar assets in the private space, like, for instance, Seedrs, a UK-based crowd-funding platform for venture capital shares, achieved an equity value of GBP50m in its latest financing round in October 2017, despite being loss-making on c. GBP1m of revenues in 2016. Syndicate Room, a similar business model to Seedrs (but FCA-approved to participate in IPOs and public market placements), was valued at GBP25m in a GBP2.3m financing round in May 2016.

Venture capital in Germany – a growing asset class

Venture capital investments in Germany amounted to c.EUR 1bn in 2017, according to data collected by the German association of investment managers (BVK), based on the data by the European Data Collective (EDC). Over the last seven years, venture capital investments in German companies, from seed to start-up and later stage financing, have seen a CAGR of 5.8% as displayed in Figure 11 below.

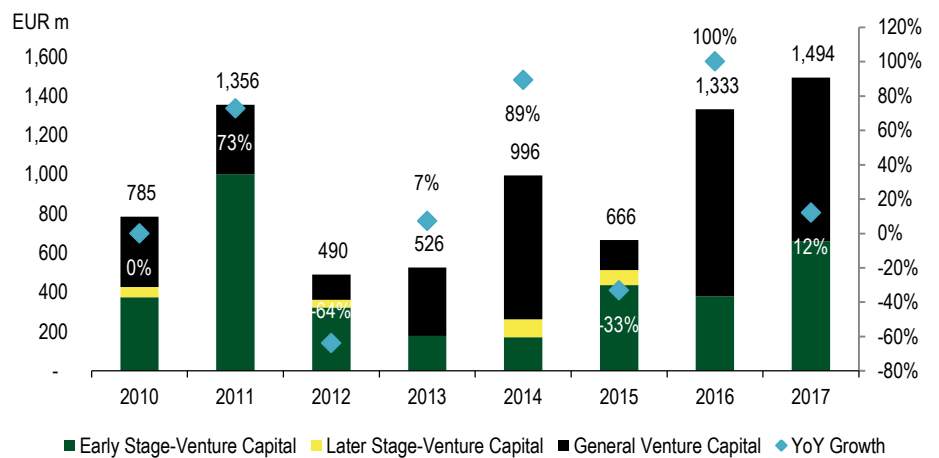
Figure 11: Venture capital investments in Germany



Source: BVK, MainFirst Research

Fundraising in the venture capital space in Germany increased by c.12% in 2017 and amounted to EUR 1.5bn, a multi-year high as depicted in Figure 12, which, in our view, shows the rising attractiveness of the asset class, especially in the current low interest rate environment.

Figure 12: VC fundraising in Germany



Source: BVK, MainFirst Research

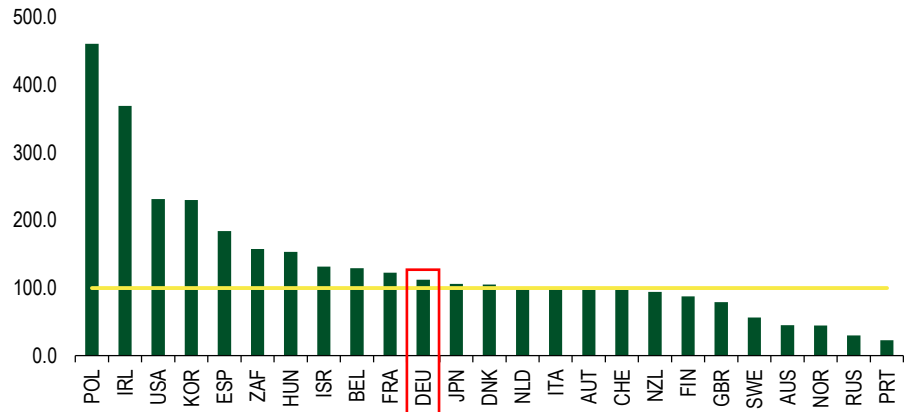
While the total amount of VC-financing rose, as outlined in the charts above, the number of VC-backed companies fell to 663 in 2016, according to OECD, compared to 991 in 2010. With regard to the average size of investments Germany ranks in the upper third of OECD member states with a little less than USD 2m per transaction (company).

The EU and Germany still significantly lagging behind the US

While the trend towards higher venture capital investment is clearly encouraging, we note that Germany shows slower growth rates than some other countries. An analysis by OECD, which indexed VC-investments in several member countries at 100 in the base year 2010, shows a clear shift towards higher VC investments in countries like Poland, Ireland and the USA but also in South Korea, Spain, Hungary, Israel and Belgium. According to the same study, the share of venture capital invested in companies with less than 20 employees rose from 30% to 40% in Europe from 2007-2016. In

comparison, Germany shows a trend index number of 112.5 in 2016, compared with Poland 460.9, or Ireland 369.1, as we summarise in Figure 13 below.

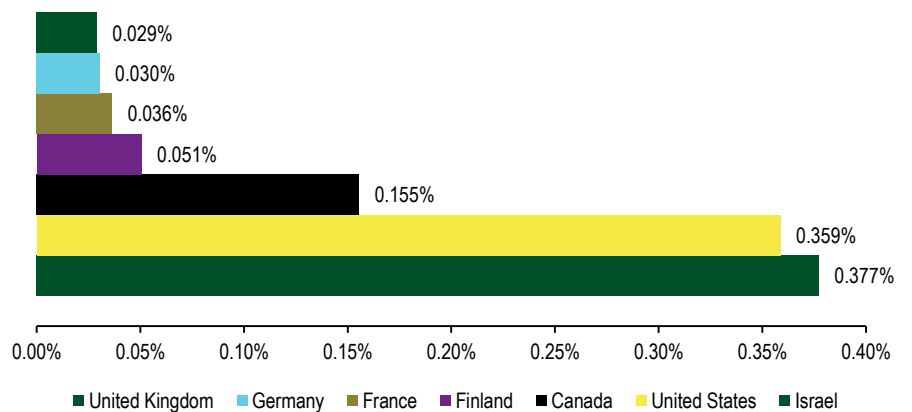
Figure 13: Trends in venture capital via index – 2010 vs. 2016



Source: OECD, MainFirst Research; Note: Israel 2014 numbers

Despite the volume growth in recent years, the VC-market in Europe still appears underdeveloped compared to the UK and the US, as indicated by VC investment as percentage of GDP, summarised in Figure 14, below. While the overall amount of VC investments has risen almost 4-fold since 2012, the total volume gap to the US is still significant, i.e. c. EUR 48bn. Total VC investments in Europe amounted to c. 0.102% of GDP in 2017, according to consultants Roland Berger.

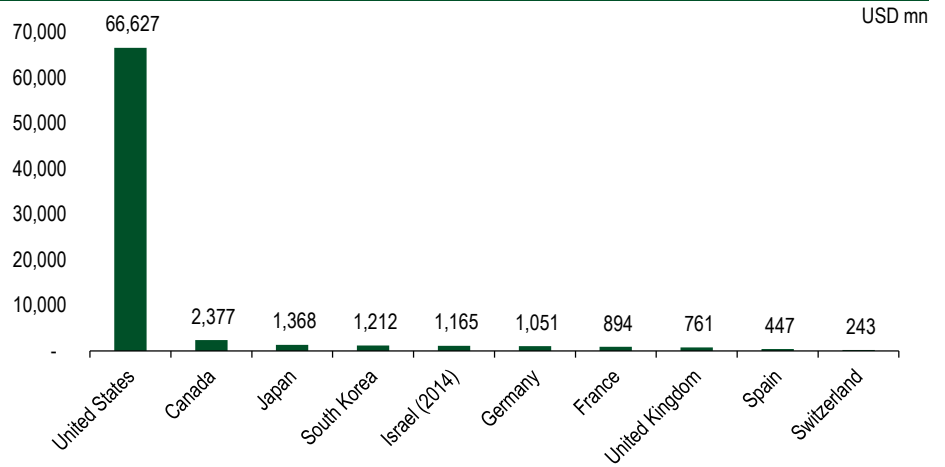
Figure 14: VC investments in % of GDP FY-16



Source: OECD, MainFirst Research

A recent OECD study, published in 2017, found that Germany still ranked sixth worldwide and first among EU countries with regard to the overall size of venture capital investments, with a total volume of c.EUR 1bn, only behind the USA, Canada, Japan, South Korea and Israel.

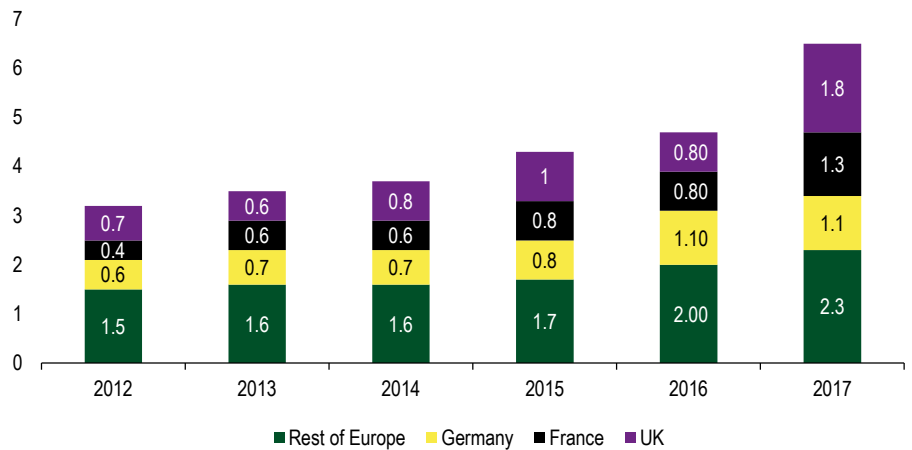
Figure 15: Venture capital investments in selected countries



Source: OECD, MainFirst Research

However, according to data collected by Roland Berger, IEF and BVK, Germany was surpassed by France and the UK in 2017, as depicted below.

Figure 16: VC investments in selected countries



Source: Roland Berger, IEF, BVK, MainFirst Research

In our view, the reasons for this may not only be a general lack of risk capital, but also the lack of entrepreneurial mind-set in the country.

Our analysis suggests that it is difficult for German start-ups to receive proper financing from German VC funds. When it comes to financing rounds with ticket sizes of EUR 10- 30m, those are usually filled by risk capital from outside of Germany.

The less-supportive regulatory environment in Germany may also be a decisive factor. For instance, US pension funds are allowed to invest in private equity, including venture capital, since the late 1950's. Elsewhere, France implemented a tax regime which motivates citizens to invest in venture capital funds, to get up to 50% of their investments back via their income or wealth tax. Hence, we see upside risk from any potential change in the venture capital related regulatory environment in Germany which would naturally have a positive effect on GSG's business model.

G|S Market™: Democratizing the VC-asset class in Germany

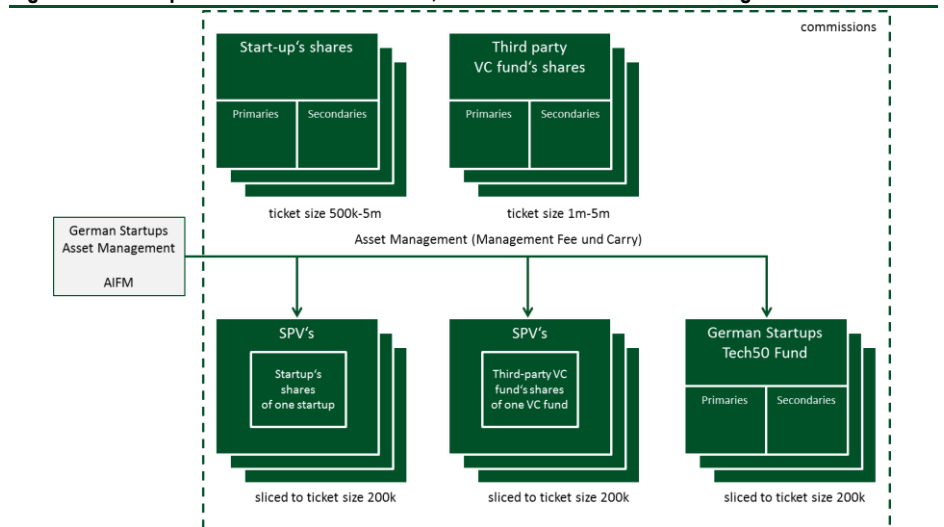
In a first move in its transformation process from asset owner to a platform and an asset manager, GSG launched an **online marketplace for venture capital investments** on 19 June with an initial focus on secondary shares in venture capital financed companies; for this purpose, GSG has set up a 100% subsidiary named **German Startups Market GmbH**.

In a next step, management also plans the launch of **asset management services with a focus on venture capital**. GS Asset Management is set to launch in Q4 with a first VC-Fund focused on the 50 most valuable privately held growth companies in the German technology sector (G|S Tech50™) which we will outline in more detail later in this research report.

Branded as G|S Market™ GSG's online marketplace for venture capital investments is designed to match the interests of sellers and buyers of shares in early stage or growth stage companies which are not listed on a stock exchange. Potential sellers of **secondary shares** include founders, business angels, venture capital funds or other shareholders of start-ups (e.g. management who received shares as part of stock option programs).

In a second step, G|S Market™ will also offer (tickets) in third-party **venture capital funds** which may have an interest to be offered on a market to create additional demand.

Figure 17: Concept of the new business lines, GS Markets and GS Asset Management

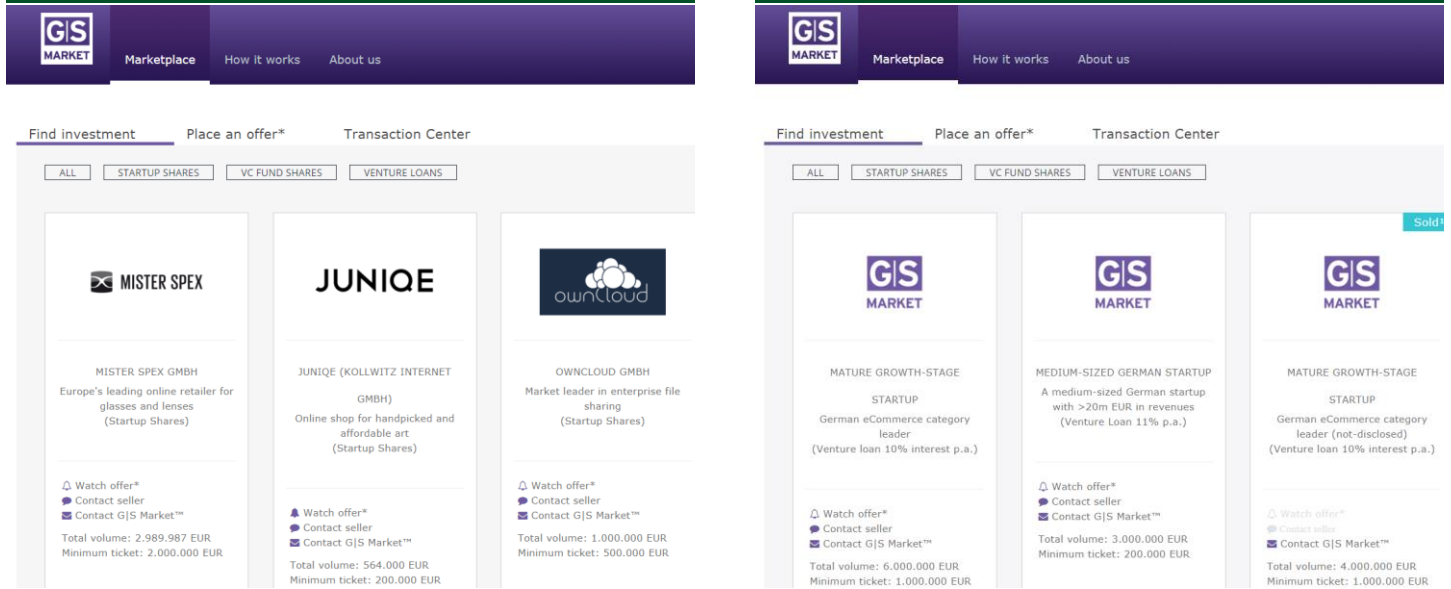


Source: Company accounts, MainFirst Research

Despite the fact that only be qualified investors will have access to the platform, G|S Market™ will **significantly reduce the entry threshold to VC-investments from traditional minimum investment tickets of c.EUR 0.5-5.0m to EUR 200k**. While we acknowledge that this is still high compared to the UK where the ticket size for unregulated investments for already start at GBP50k, we believe GSG's move will open the VC asset class to a broader investment community, e.g. smaller family offices as well as high net worth individuals who may be eager to invest in the asset class but either in a more concentrated way or with more flexibility than the closed funds concept traditionally offered. As a result, G|S Market™ should ultimately create significantly more trading liquidity in a historically illiquid asset class and, in our view, make venture capital more attractive.

The principle of the platform is similar to well-established B2C marketplaces: Potential investors can register on www.german-startups.market and will receive their approval as qualified investor. They can then browse the investment opportunities on the platform as displayed in Figure 18 below.

Figure 18: Screenshots from GS Market Place



Source: German Startups Group

According to a press release on the day of the official launch, **GJS Market™** has initially launched with a total supply of EUR 15m, consisting of investment opportunities in shares of ten start-ups, arguably with the major.

Moreover, management expects the addition of an incremental volume of EUR 15m to the platform in the short-term which we understand could also be made up of selected VC-Funds and venture loans. As per 19 July, **GJS Market™** listed 13 assets with a total investment volume of more than EUR20m and, according to another press release, the platform generated total demand of c. EUR5m within four weeks after the launch. By the end of 2018, GSG expects that shares in more than 50 technology start-ups and VC funds will be available on GJS Market™.

GJS Market™ act as value-add intermediary which offers pre-selection and valuation of the underlying assets, i.e. companies, venture capital funds, venture loans, etc. to ensure a high quality level. The purchase of most venture capital stakes still requires a notarial certification which, however, will still be conducted offline. While we concede that this, in combination with a relatively high ticket size of EUR200k will still hamper a stronger adoption by investors, we note that any potential change in the regulation of the venture (private) capital asset class in Germany (similar to the liberalisation of the market in the UK) constitutes a clear upside to GSG's new business model.

Last but not least, we note that GSG has entered a **partnership with a US-based secondary market platform for venture capital stakes**. This will allow German investors to participate in venture capital investments outside GJS Market™ via the help of special purpose vehicles (SPVs), i.e. capital pooling vehicles, which will be issued by German Startups Asset Management GmbH a fully licensed asset management firm ('KVG').

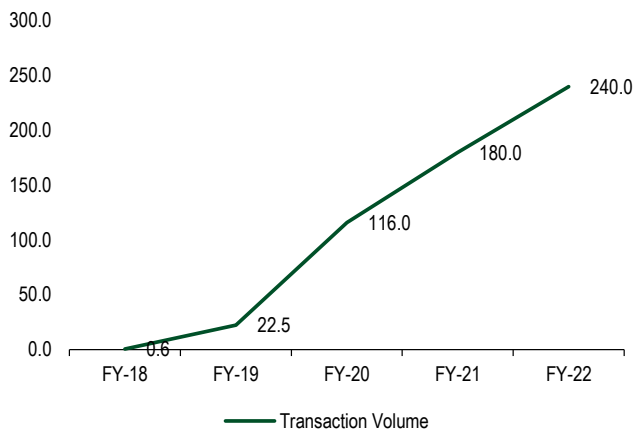
An early attempt at financial forecasts for G|S Market™

German Startups Group is a **clear first mover** into the field of marketplaces for venture capital. As we will outline in more detail in the paragraph on the competitive environment, we are not aware of any direct competitors in Continental Europe at this stage but note the attempt of start-ups such as *Moonfare* to establish a similar business model around the asset class of private equity or more established models around private equity online marketplaces in the US. We also note that a few equity crowd-funding platforms, such as Seedrs and Syndicate Room, have emerged in the UK.

While we believe that GSG will be able to capitalise on its first mover advantage into the space, financial modelling is difficult given the uniqueness and nascent stage of the business.

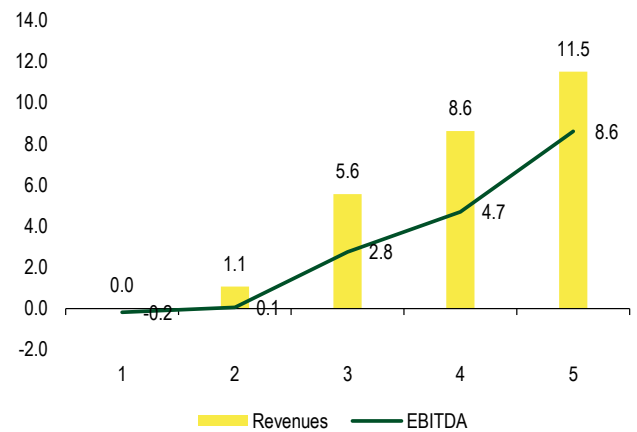
Our base case assumes a total transaction volume of EUR 115m in FY-20 and EUR 240m in FY-22, which should translate into revenue of EUR 5.5m and EUR 11.5m, respectively. Given the modest needs for marketing and platform investments over the coming years, EBITDA margins should cross the 40% threshold in FY-20 and reach around 50% levels by FY-22.

Figure 19: Transaction projection till FY-22



Source: MainFirst Research and company data

Figure 20: Revenue and EBITDA projection till FY-22



Source: MainFirst Research and company data

The economics of G|S Market™ in more detail

The economics for G|S Market™ consist of a transparent commission structure which we outline in the bullet points below; for modelling purposes we apply blended commission number of 4.8% to our projected transaction volume on G|S Market™ over the next five years.

- **Startups:**
 - **Primaries:** 3% of deal volume, charged to the issuer after successful completion of the deal;
 - **Secondaries:** 6% of deal volume, charged to the seller after successful completion of the deal.
- **VC Funds:**
 - **Primaries:** 2% of deal volume, charged to the issuer after successful completion of the deal.
 - **Secondaries:** 4% of deal volume, charged to the seller after successful completion of the deal.

We understand that the entire programming work around the set-up of the online platform was accomplished by GSG’s majority holding Exozet. Aside from IT-related expense, overall operating costs appear limited at this stage, as marketing will largely be based on mouth-to-mouth given the narrowness of the venture capital eco-system in Germany. Nevertheless, we expect GSG’s success with GJS Market™ to attract competition which will likely force the company to keep IT-spending on elevated levels to continuously improve customer experience on the platform by adding new services.

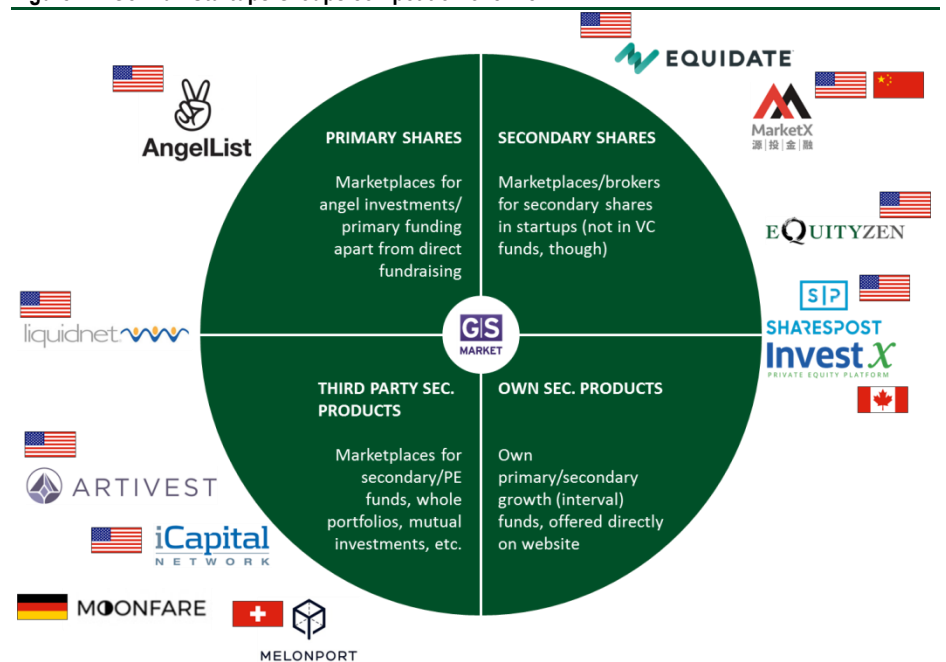
Hence, we believe that EBITDA margin levels of c.60% are feasible, in-line with well-established marketplace operator peers in other verticals such as Scout24, Delivery Hero and other verticals.

Competitive landscape: GJS Market™ a clear first mover

In our view, German Startups Group is a clear first mover as provider of secondary market trading opportunities for venture capital shares in Germany and, to our best knowledge, in Continental Europe.

Unsurprisingly, as displayed in Figure 21, we have identified a number of similar business models in the US of which we believe Sharespost is the most comparable (but arguably in a clearly more advanced version). We briefly describe the peers in the paragraphs below.

Figure 21: German Startups Groups competition overview



Source: Company accounts, MainFirst Research

SharesPost

The company was founded in 2009 in San Francisco, USA. Similar to GSG, Sharespost is an online platform that connects venture-back private companies, investors and shareholders. According to the website, the company has created one of the largest, most active networks of shareholders, investors, issuers, and entrepreneurs. By providing clients with access to information and liquidity, SharesPost has recently surpassed USD4bn in transaction volume in more than 200 private growth companies. In June 2018, the company raised USD15m in a Series C funding round to build out its alternative trading system for private company shares and security tokens and

to expand the reach into Asia. Main competitors in the US include Equidate (founded in 2014), Equityzen (founded in 2013)

iCapital – focused exclusively on private equity

iCapital's online platform offers investors and their advisors access to select alternative investments such as hedge funds and private equity funds (rather than venture capital shares). The platform is powered by iCapital's end-to-end technology solution, which automates the unique subscription, administration and reporting processes of these investments and allows the high-net-worth community to bypass the complicated procedural hurdles that often come with private investments. The firm will use this latest capital infusion to further enhance its platform as both an operational solution for the wealth management community and as a conduit between high-net-worth investors and capital managers. The company closed its latest financing round in June 2017, led by Morgan Stanley Investment Management. According the Business Wire, together with UBS Financial Services and Blackrock, iCapital's total funding to date is over USD50m.

Moonfare

Moonfare, founded in Berlin in 2016, is a technology-enabled investment platform that provides access to best-in-class private equity funds. The company strives to bring transparency, security, and ease to its clients to disrupt what management believes is an expensive, complex, and time-consuming investment process. Similar to GSG in the venture capital space, Moonfare offer investment minimums of EUR 200,000 with low service fees. The commission is exclusively charged to the investor.

Seedrs

UK-based Seedrs was founded in 2009 and today is one of the leading platforms for investing in the equity of startups and other growth companies in Europe. The company currently has some 25 investments on its equity crowdfunding platform. Seedrs allows all types of investors to participate in investments, including retail and was the first equity platform to receive regulatory approval from the FCA in 2012. The company recorded revenues of GBP1m in 2016, up 30% yoy and incurred losses of c. GBP3.8m. In 2017 management expects a doubling of revenues.

GS Asset Management – a closer look

In addition to the launch of GJS Market™, management plans to raise a VC fund via their newly founded 50% subsidiary “German Startups Asset Management GmbH”, a company active as “Kapitalverwaltungsgesellschaft” under KAGB (“Kapitalanlagegesetzbuch”) which should be completed in Q4 2018. The fund, named **GJS Tech50™**, will allow potential investors to participate in a pool of the top 50 most valuable start-ups in Germany with only a single share of the fund.

We understand that the fund will be evaluated on a rolling basis to assure its investors to be always invested in the 50 most valuable late stage tech start-up's in Germany. GSG has posted a strong track record in the recent years with an overall gross performance of 19.8% p.a. in its portfolio over a timeframe of six years which provides a solid basis for raising money, in our view.

With the transformation from asset owner to asset manager, a new stream of income is created. The minimum ticket size of the fund will be EUR 200k with a management fee of 2% p.a. and a high watermark carry of 20%. The target net



returns deducted by carry and all other cost items is estimated to be around 10% p.a non-leveraged.

We note that there is clear upside to our current financial forecasts from GS Asset Management as we have not incorporated any contribution from the new business line in our current estimates.

The aforementioned entity will also issue **single-asset special purpose vehicles** to facilitate the pooling of smaller investor tickets from EUR200k to acquire larger sizes of direct shareholdings in startups and of leading VC funds.

Valuation shows 80% upside potential

SotP-approach yields initial target price of EUR3.0

We value GSG on a sum-of-the-parts analysis not only to accurately reflect the value of each holding in the company's venture capital portfolio but to model the standalone value of the new ventures, namely the G|S Market™ and potentially new businesses such as GS Asset Management. The constituents of our analysis are (1) 'Focus Investments', (2) 'Promising Investments', (3) 'Other Investments' and (4) G|S Market™.

While we concede that detailed financial information about GSG's portfolio constituents are difficult to obtain (which is not surprising given their status as private companies), we conducted a thorough, bottom-up valuation of the group's so called '**focus investments**' (EUR 2.40 per share) and '**promising investments**' (EUR 0.4 per share). We then add an estimated value of the stakes in the remaining 17 start-up companies ('**other investments**') which, according to the company, comprise c. 10% of the current NAV (EUR 0.3 per share).

Lastly, we value **G|S Market™** at an EV/sales multiple of 3x, based on our revenue projections for FY-20, which implies a > 50% discount to other publicly listed online marketplace business models, such as Delivery Hero or Scout24. Based on our FY20e revenue forecast of EUR5.6m we derive an EV of EUR1.50 per share for the new venture.

The discount reflects the fact that the other models in our broadly defined peer group (in absence of direct peers listed on the stock exchange) are significantly more advanced (and valuable) while G|S Market™'s proof of concept is still pending. The positive flipside to this is that we believe the business offers materially higher growth potential in case of a successful adoption story.

We also note that similar business models are valued at considerably higher levels: For instance, UK-based VC-crowd-funding platform **Seedrs** was valued at GBP50m in the last financing round in October 2017 despite being reportedly loss-making on 2016 revenues of GBP1m.

We apply a **30% discount** not only to GSG's investment portfolio (due to illiquidity and potential future dilution risks) but also to **G|S Market™** to reflect the nascent stage of the business.

We display our SotP-analysis in full detail in Figure 22 below.

Figure 22: German Startups Group, SotP-analysis

ASSET	BUSINESS MODEL	VALUATION MULTIPLE	TOTAL EV	GSG STAKE	EV	PER SHARE
Exozet	AdTech	1.0x	10	50.8%	5	0.4
Mister Spex	eCommerce	1.8x	229	1.4%	3	0.3
Chrono24	Marketplace	6.0x	510	2.1%	11	0.9
Ceritech AG	Industrial	8.0x	8	6.1%	0	0.0
TVSmiles	AdTech	2.0x	29	8.5%	2	0.2
Remerge	AdTech	2.0x	150	2.0%	3	0.3
Schutzclick (Simplesurance)	InsureTech	2.0x	40	2.4%	1	0.1
JUNIQUE	Marketplace	2.0x	60	1.7%	1	0.1
Armedangels	Green fashion	0.8x	28	2.5%	1	0.1
Friendsurance	InsureTech	2.0x	10	3.8%	0	0.0
Tictail	Software / Marketplace	2.0x	60	1.2%	1	0.1
TOTAL Portfolio of Focus Investments (# 11)			1,134		29	2.4
AuctionTech	Software / marketplace	4.0x	8	18.1%	1	0.1
Customer Alliance	eCommerce	1.5x	6	1.9%	0	0.0
Fiagon	Medtech	1.5x	8	1.4%	0	0.0
Service Partner One	Software	1.5x	8	3.4%	0	0.0
reBuy	Re-Commerce	1.5x	6	1.0%	0	0.0
Wunder	AdTech	1.5x	8	0.7%	0	0.0
Ayondo	FinTech	2.0x	6	0.5%	0	0.0
Finiata	FinTech	8.0x	16	1.7%	0	0.0
One Football	Publisher (ad based)	1.5x	45	0.3%	0	0.0
Soundcloud	Music streaming	0.5x	10	0.2%	0	0.0
Book-a-Tiger	Online B2B marketplace	5.0x	100	2.0%	2	0.2
TOTAL Value of Promising Investments (# 11)			220		4	0.4
TOTAL Value of Other Investments (# 17)			3		3	0.3
TOTAL Value of VC Portfolio			1,357		36	3.0
GS Markets		3.0x	18	100.0%	18	1.5
Other growth opportunities			--		--	--
TOTAL EV					54.2	4.5
Discount (holding, liquidity, dilution, uncertainty)					30%	(1.4)
TOTAL EV post discount					37.9	3.2
Net (debt) / cash, end FY18e					(1.8)	(0.2)
Equity value					36.1	3.0
Number of shares outstanding (m)					12.0	
EQUITY VALUE PER SHARE					3.0	

Source: MainFirst Research

Risks

In the bullet points below, we list what we believe are the main risks to our positive investment case for German Startups Group.

- On the one hand, there is an inherent downside risk to the valuation of (parts) of GSG's portfolio which is comprised of stakes in a number of early- or growth-stage companies which have relatively young business models in competitive markets.
- Moreover, GSG may be forced to take part in future financing rounds in order to avoid dilution, which may require additional capital.
- In February 2018, GSG has launched a convertible bond with a maturity of five years, a coupon of 8% p.a. and a conversion price of EUR2.50. This could potentially lead to a dilution risk for existing shareholders (1,198,330 shares).



- While the prospects of G|S Market™ may seem highly promising, we note that the business is still at a nascent stage which exposes our financial forecasts to a high level of uncertainty.
- We note that GSG's board is currently comprised only of Mr. Christoph Gerlinger, which constitutes a key people risk to the investment case, in our view.
- Last but not least, trading liquidity for GSG shares is low, which may result in disproportionately high volatility in the share price around material news events and may make it difficult for institutional investors to build a stake.

Financial Estimates

In this paragraph we outline how we derive our financial estimates for German Startups Group and display the company's P&L, balance sheet and cash flow statement in more detail.

Revenue and Earnings Model

German Startups Group's traditional business model as investment company in secondary shares of venture capital backed companies made it impossible for external analysts to set-up a reliable revenue and earnings model for the company.

- Revenues in the '**Investments**' segment are entirely made up of disposal gains from potential exits or trade sales. As those are very difficult to model, we leave our forecast at approximately the same levels than FY17, i.e. EUR3m for FY18e, FY19e and FY20e.
- As we outlined in the main part of the research report, Exozet is the only company which is fully consolidated in GSG's P&L, accounting for c. 73% of total revenues in FY17. Despite GSG's announcement that it has been approached by a potential buyer of its majority stake in Exozet, our model assumes the asset to stay with GSG during our detailed forecast period. Consequently, we maintain the '**Creative Technologies**' segment.
- Most importantly for GSG's P&L, in our view, will be the performance of the newly launched revenue streams generated by G|S Market™ and GS Asset Management, as outlined in detail in the main part of our research report. We do not yet incorporate the potential contribution by GS Asset Management in our financial model. Our base case for G|S Market™ assumes sales of EUR1.1m in FY19e, EUR5.6m in FY20e and EUR8.6m in F21e. While operating margins a B2B online marketplace model like G|S Market™ can reach levels of c. 60% we decide to stay more cautious as we expect a step-up in investments to improve customer experience as well as marketing efforts over the next few years.

Our segment P&L is displayed in Figure 22 below.

Figure 13: GSG, segment reporting (in EUR m)

	2015	2016	2017	2018E	2019E	2020E
Investments (Venture Capital)	4.8	-1.9	3.4	3.0	3.0	3.0
as % of sales	46%	-21%	26%	23%	21%	15%
growth y-o-y	NM	-138.8%	-285.1%	-12.8%	0.0%	0.0%
Segment Result (EBIT)	3.3	-5.9	1.9	1.6	1.6	1.6
Margin	68.9%	316.5%	54.2%	52.0%	54.0%	54.0%
Creative Technologies (Exozet)	5.6	10.9	9.5	10.0	10.5	11.0
as % of sales	53%	120%	73%	76%	72%	56%
growth y-o-y	NM	95.6%	-12.6%	5.0%	5.0%	5.0%
Segment Result (EBIT)	0.4	0.7	0.4	0.5	0.5	0.5
Margin		6.4%	4.3%	5.0%	5.0%	5.0%
German Startups Market	0.1	0.1	0.1	0.2	1.1	5.6
as % of sales	0%	1%	1%	2%	7%	28%
growth y-o-y	NM	0.0%	147.3%	58.6%	440.0%	415.6%
Segment Result (EBIT)	0.0	0.0	0.0	-0.3	0.0	2.7
Margin	0.0%	0.0%	0.0%	-135.5%	-3.3%	47.7%

Source: MainFirst Research

Profit & Loss Account

Figure 24: German Startups Group, Group P&L (EUR m)

	2015	2016	2017	2018E	2019E	2020E
Sales Revenues	10.4	9.1	13.1	13.2	14.5	19.5
growth y-o-y	NM	-12.9%	44.2%	0.8%	10.5%	34.5%
Result from investment business	4.8	-1.9	3.4	3.0	3.0	3.0
growth y-o-y	NM	-138.8%	-285.1%	-12.8%	0.0%	0.0%
Result from other components	5.6	10.9	9.6	10.2	11.5	16.5
growth y-o-y	NM	94.7%	-11.9%	5.7%	13.6%	43.4%
Other operating Income	0.5	0.2	0.4	0.4	0.4	0.4
Change in inventories	-0.9	0.0	0.4	0.4	0.4	0.4
Income from own work capitalized	0.2	0.7	0.9	0.8	0.8	0.8
Total sales	10.2	10.0	14.8	14.8	16.2	21.2
Cost of materials and services received	-2.1	-2.2	-2.3	-2.5		
as % of sales			9.3%	22.6%	14.3%	14.6%
Gross profit	9.3	7.7	12.7	12.6	13.9	18.7
Gross margin	90.7%	77.4%	85.7%	85.4%	86.0%	88.0%
% change	NM	-16.8%	64.1%	-0.1%	10.2%	34.1%
Personnel expenses	-3.1	-6.8	-6.8	-6.8	-7.5	-8.8
as % of sales	30.0%	74.6%	51.9%	52.0%	51.5%	45.0%
Other operating expenses	-2.1	-4.2	-3.2	-3.6	-3.9	-4.5
as % of sales	19.9%	45.9%	24.2%	27.5%	27.0%	23.0%
Unfrequent items (incl. In COGS / Opex)	-0.1	-0.1	0.0	0.0	0.0	0.0
EBITDA, reported	4.0	-3.3	2.7	2.2	2.5	5.4
EBITDA margin	39.0%	-32.7%	18.3%	14.7%	15.6%	25.4%
% change	NM	-181.6%	-183.0%	-19.3%	15.7%	113.7%
Total D&A	-0.3	-0.4	-0.4	-0.4	-0.5	-0.6
as % of sales	2.5%	4.7%	3.3%	3.3%	3.5%	3.3%
EBIT reported	3.7	-3.7	2.3	1.7	2.0	4.7
EBIT margin	35.8%	41.1%	17.4%	13.3%	13.8%	24.3%
% change		0.0%	-38.9%	-30.0%	13.1%	57.6%
Financial result	(0.1)	(1.7)	(0.5)	(0.7)	(0.9)	(0.9)
At-equity result	0.0	-1.5	0.0	0.0	0.0	0.0
Interest income/(expense), net	-0.1	-0.2	-0.5	-0.7	-0.9	-0.9
EBT	3.6	-5.4	1.8	1.0	1.1	3.9
Pretax margin	34.5%	-59.3%	13.5%	7.6%	7.9%	19.8%
% change	NM	NM	NM	-42.9%	14.4%	237.9%
Income taxes/benefits	0.3	2.0	-0.1	0.0	-0.1	-1.0
Tax rate	-7.3%	37.8%	4.6%	4.6%	10.0%	25.0%
Net income	3.8	-3.3	1.7	1.0	1.0	2.9
Minorities	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Net income, post minorities	3.6	-3.5	1.6	0.9	1.0	2.9
Net margin	37.0%	-36.9%	12.8%	7.3%	7.1%	14.9%
% change	NM	NM	NM	-42.9%	7.9%	181.6%
Number of shares (m)	7.5	11.8	12.0	12.0	12.0	12.0
EPS (EUR)	0.49	-0.29	0.14	0.08	0.08	0.24
% change	NM	NM	NM	-44.3%	8.3%	191.7%
DPS (EUR)	0.00	0.00	0.00	0.00	0.00	0.00

Source: MainFirst Research

Cash-Flow and Balance Sheet

Figure 2: Cash flow statement

YEAR TO DECEMBER (EUR M)	2015	2016	2017	2018E	2019E	2020E
EBITDA (as reported)	3	(4)	2	1	2	4
Cash interest and tax payments	0	0	0	0	0	0
thereof: Cash tax payments	0	0	0	0	0	0
Change in working capital	1	2	(0)	(0)	(0)	(1)
Inventories	0	2	(0)	(0)	(0)	(1)
Trade receivables	1	1	0	0	0	0
Trade liabilities & prepayments	0	0	(0)	0	(0)	0
Other operating CF items	(5)	1	(4)	0	0	(1)
Operating cash flow	0	(1)	(2)	1	1	3
Capex	7	9	6	0	0	1
Tangible fixed assets	(7)	(9)	6	(0)	(0)	(1)
Free cash flow	(7)	(10)	4	1	1	2
Acquisitions/Disposals/Financial assets	0	6	(4)	3	0	0
Dividends, minority payouts	0	0	0	0	0	0
Equity measures	4	0	0	0	0	0
Other changes in net cash	6	1	(0)	0	0	0
Change in net cash	3	(2)	(1)	4	1	2
Net cash (debt)	3	1	(0)	3	4	7
CASH FLOW RATIOS						
Operating cash flow/Sales	3.1%	-8.9%	-15.3%	10.4%	8.9%	13.6%
Free cash flow/Sales	-66.5%	-106.4%	27.5%	7.4%	5.9%	10.6%
Dividend payout ratio	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Capex/Sales	69.6%	97.5%	42.8%	3.0%	3.0%	3.0%
Capex/D&A	-2,752.3%	-2,058.4%	1,305.9%	-91.5%	-85.7%	-90.9%
D&A/Sales	2.5%	4.7%	3.3%	3.3%	3.5%	3.3%

Source: Company reports, MainFirst estimates

Figure 3: Balance Sheet

YEAR TO DECEMBER (EUR M)	2015	2016	2017	2018E	2019E	2020E
Fixed assets	25	34	32	32	32	32
Tangibles	25	34	32	32	32	32
Other fixed assets	0	0	0	0	0	0
Current assets	11	7	5	9	10	13
Inventories	0	0	1	1	1	1
Trade receivables	3	3	2	2	3	4
Other current assets	4	3	1	1	1	1
Cash & equivalents	5	2	1	5	5	8
Group equity	30	29	31	32	33	36
Minorities	1	2	2	2	2	2
Shareholders' equity	29	28	29	30	31	34
Provisions	0	0	0	0	0	0
Pension	0.32	0.47	0.00	0.00	0.00	0.00
Other	0	0	0	0	0	0
Liabilities	5	11	6	9	9	9
Interest-bearing liabilities	1	1	1	1	1	1
Interest-free liabilities	4	11	5	8	8	8
Trade liabilities	1	1	1	1	1	1
Other interest-free liabilities	4	10	4	7	7	7
Balance sheet total	36	41	37	41	42	45
CAPITAL AND LIQUIDITY RATIOS						
Net working capital	2	2	2	2	3	4
Capital employed	27	36	35	34	35	36
Tangible group equity	30	29	31	32	33	36
Number of shares, fully diluted (m)	7.52	11.8	12.0	12.0	12.0	12.0
Fixed asset intensity (as a % of revenue)	241.3%	373.7%	246.4%	244.0%	220.4%	163.6%
Net working capital intensity	21.6%	25.1%	18.0%	18.0%	18.0%	18.0%
Fixed assets as a % of total assets	69.2%	82.4%	86.9%	78.3%	76.0%	70.5%
Net debt (cash) as a % of BS total	-9.5%	-2.4%	0.9%	-8.5%	-10.4%	-14.4%
Equity ratio (Group equity/BS total)	84.0%	71.7%	84.0%	78.3%	78.7%	79.7%
Net gearing (Net debt/Group equity)	(0.11)	(0.03)	0.01	(0.11)	(0.13)	(0.18)
Net debt/EBITDA (adj.)	n/m	n/m	0.12	n/m	n/m	n/m
Interest cover (EBITDA/Net interest)	28.7	n/m	5.24	2.93	2.92	6.23
DSOs (trade receivables as days of revs)	91.3	109	66.3	66.3	66.3	66.3
Inventory turnover (Days)	5.66	7.88	16.9	16.9	16.9	16.9
RETURN RATIOS						
Price/NAV	0.81	1.13	0.77	0.66	0.64	0.58
Price/Tangible NAV	0.78	1.07	0.73	0.62	0.60	0.55
RoE (Net result/Shareholders' equity)	12.4%	-12.5%	5.5%	3.0%	3.1%	8.3%
RoCE (EBIT)	13.6%	-10.2%	6.6%	5.1%	5.8%	13.4%
RoCE (NOPAT)	13.6%	-10.2%	6.6%	5.1%	5.8%	13.4%
Return on total assets (NOPAT)	10.3%	-9.0%	6.1%	4.3%	4.8%	10.5%
ENTERPRISE VALUE COMPONENTS						
Enterprise value	22	33	25	18	17	15
Market Cap (EUR m)	24	32	23	20	20	20
Net debt (cash)	(3)	(1)	0	(3)	(4)	(7)
Pension provisions	0.32	0.47	0.00	0.00	0.00	0.00
Market value of minorities	1	2	2	2	2	2
Other items	0	0	0	0	0	0

Source: Company reports, MainFirst estimates



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COMPANY

German Startups Group

Source: MainFirst

KEY

5, 11

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Source: MainFirst

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Source: MainFirst, daily update also available on <http://www.mainfirst.com/en/downloads/legal-disclaimer-clauses.html> under "Equity Research Disclosure of Interests and Conflicts of Interest"

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German Startups Group	05 Jul 2018	Not Rated	Not Rated	EUR 1.7

Source: MainFirst, Bloomberg (*) O – Outperform, U – Underperform, N – Neutral, NR – Not rated

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