Media and Games Invest plc Germany - Others



Buy (Initiation)

Price target: EUR 1.80

Price:EUR 1.16Next result:FY'19: tbaBloomberg:M8G GRMarket cap:EUR 104.4 mReuters:M8G.DEEnterprise Value:EUR 157.6 m

Raising its game - Initiate with BUY

MGI is a holding company pursuing a buy and build strategy in Gaming (FY'19E: 57% of sales / online gaming platform) and Media (FY'19E: 43% of sales / software to win and monetize users).

Its flagship subsidiary gamigo operates a scalable online gaming platform (30+ massive multiplayer online games / 5000+ casual games) with access to millions of users in Europe and the USA, and a **tight focus on the niche** for long-live multiplayer role plays.

Rather than engaging in the risky and expensive development of new games, gamigo operates a **scalable and low-risk business model** centred around:

- The selected optimization and "milking" of existing games, **supporting long lifecycles of 10+ years** per game on average.
- The acquisition of sub-scale rivals at accretive multiples (20+ deals in past 5 years), which gives access to an existing client base and game portfolio, as well as to low-hanging synergies in admin and IT.

Thus, gamigo has managed to build **critical size** over the past years and now holds a **distinct scale advantage** over the typical sub-scale rival, which is **a testament to its high competitive quality**.

This puts gamigo in a position to **capitalize on its key asset**: a loyal base of 5m monthly users active on its gaming platform (plus a 50m client list), which should be **highly valuable** to pure game developers (e.g. from Asia) as a scalable distribution vehicle.

gamigo thus looks set to **kick-start a phase of dynamic and scalable growth** by licensing games and cross-selling them to the existing user base, with support offered by the Media segment's software tools to win new and monetize existing gaming users. This explains our expectation of 29% sales growth (CAGR 18-21E), aided by M&A, and disproportionate 68% EBIT growth in the same time frame thanks to scale in IT and marketing.

Using a DCF model to capture the scalable and dynamic growth prospects offered by MGI's synergistic business model, we derive a **fair value of € 1.80**, yielding more than 50% upside.

Y/E 31.12 (EUR m)	2016*	2017*	2018*	2019E	2020E	2021E
Sales	39.0	42.1	45.3	70.0	87.5	98.0
Sales growth	80 %	8 %	8 %	55 %	25 %	12 %
EBITDA	2.6	7.0	11.1	15.1	21.9	26.0
EBIT	-9.2	-2.0	2.6	0.9	8.1	12.2
Net income	-9.1	-5.0	1.5	-3.9	2.6	5.8
Net debt	23.6	25.3	38.6	53.2	45.0	34.9
Net gearing	73.9 %	94.1 %	135.1 %	56.1 %	46.2 %	33.8 %
Net Debt/EBITDA	8.9	3.6	3.5	3.5	2.1	1.3
EPS pro forma	-0.10	-0.05	0.02	0.02	0.08	0.12
CPS	0.00	0.00	0.07	0.05	0.10	0.12
DPS	0.00	0.00	0.00	0.00	0.00	0.00
Dividend yield	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Gross profit margin	57.9 %	64.5 %	64.3 %	64.3 %	64.3 %	64.4 %
EBITDA margin	6.8 %	16.7 %	24.4 %	21.5 %	25.0 %	26.5 %
EBIT margin	-23.5 %	-4.9 %	5.7 %	1.4 %	9.2 %	12.4 %
ROCE	-27.4 %	-3.5 %	3.7 %	0.8 %	5.8 %	6.0 %
EV/sales	3.3	3.1	3.2	2.3	1.7	1.4
EV/EBITDA	48.5	18.4	12.9	10.5	6.8	5.4
EV/EBIT	-14.0	-63.4	55.3	23.3	11.0	7.9
PER	-11.5	-21.0	67.5	55.2	13.9	10.0
Adjusted FCF yield	1.2 %	2.9 %	5.7 %	5.8 %	9.1 %	11.7 %

Source: Company data, H&A Close price as of: 07.01.2020: *Note: 2016-18 reflect only gamigo AG

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Source: Company data, Hauck & Aufhäuser

High/low 52 weeks: 1.40 / 1.00

Price/Book Ratio: 1.1

Relative performance (TecDAX):

3 months 1.6 % 6 months -6.9 %

12 months -

Changes in estimates

_				
		Sales	EBIT	EPS
2019	old:	70.0	0.9	0.02
	Δ	-	-	-
2020	old:	87.5	8.1	0.08
	Δ	-	-	-
2021	old:	98.0	12.2	0.12
	Δ	-	-	-

Key share data:

Number of shares: (in m pcs) 90.8 Authorised capital: $(in \in m)$ -Book value per share: $(in \in)$ 1.0 Ø trading volume: (12 months) 50,600

Major shareholders:

Bodhivas GmbH 61.6 % Free Float 38.4 %

Company description:

Holding company pursuing a buy and build strategy in media and gaming

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Introducing Media and Games Invest plc (MGI)

MGI is a holding company pursuing a buy-and-build strategy within its two segments:

- Gaming Scalable online gaming platform with a core asset: 5m monthly active users and a 50m customer list. Strategy is to monetize this asset by cross-selling licensed games to existing clients
- Media Software solutions to win and monetize mobile gaming users.

Segment Gaming (FY'21E: 53% of sales)

Key subsidiary gamigo operates an **online gaming platform** with a focus on long-life role plays. Its portfolio comprises 30+ massive multiplayer online games (free to play / in-game purchases) as well as 5,000+ casual games (subscription / advertising), which are either owned or licensed.

Rather than engaging in the risky and expensive development of own games (10% success rate / up to € 50m development costs), gamigo pursues a strategy of predictable and scalable growth by:

- Investing to optimize and "milk" existing games, resulting in a **typical game lifecycle of more than 10 years**.
- Acquiring sub-scale rivals at accretive multiples to snatch up their client base and game portfolio, and quickly improve the target's profitability through lowhanging synergies in admin and IT.
- Licensing IP from game developers (20-30% sales fee / no up-front fee), and cross-sell these games to its existing client base. While this scalable part of the strategy should be the major growth thrust going forward, it has become possible only recently as gamigo first needed to build critical size.

Its client base can be seen as gamigo's key asset, comprising some five million monthly active users as well as a 50 million customer list, explaining gamigo's strong appeal as a scalable gaming platform to pure game developers (i.e. from whom it can license IP).

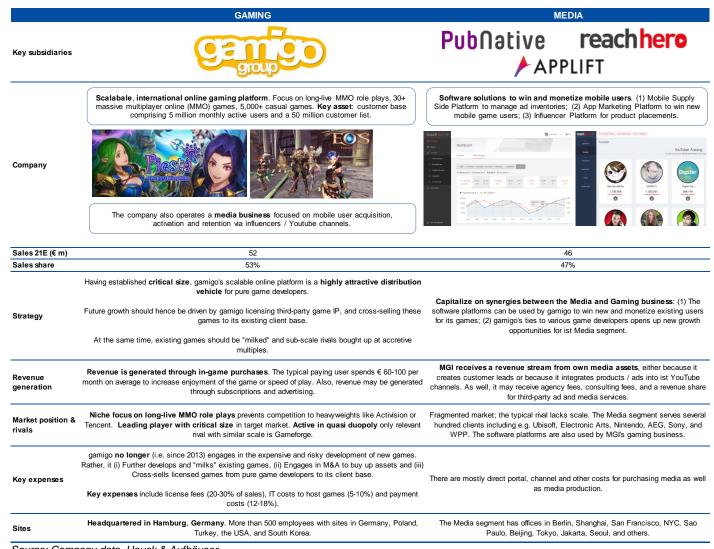
Its game portfolio is well-diversified, with the top game "Fiesta" accounting for some 8% of sales (2018), followed by "Desert Operation" (7%) and "Aura Kingdom" (7%). Games are available in up to 18 European languages, and the regional split of gaming revenue is approx. 45% USA, 45% EU and 10% Rest of World.

Segment Media (FY'21E: 47% of sales)

The Media segment is all about software, mostly for mobile game publishers, **to win and monetize mobile users**. There are three different software solutions / software platforms:

- Mobile Supply Side Platform enables app publishers to fill available advertising inventory (i.e. ad space within an app) with advertisements in real-time, and track revenue generated.
- App Marketing Platform helps mobile game (or other app) publishers win and maintain high-quality users through carefully placed advertisements (within apps).

• Influencer Platform – A marketplace for social marketing involving advertisers / brands and some 70,000 influencers. The latter can look for product placements to monetize their follower base across various social channels (e.g. Instagram, YouTube).



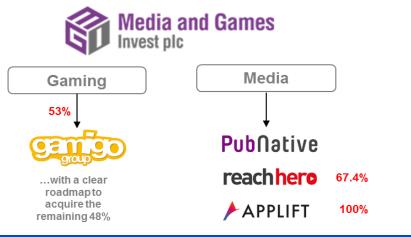
Source: Company data, Hauck & Aufhäuser

There are various synergies between the two segments:

- MGI can use the Media segment to win new and monetize existing users of its Gaming segment.
- Ties to game developers and publishers should help cross-sell the Media Segment's software solutions.
- The same systems and infrastructures are used in the background of both systems.

MGI: Corporate and Shareholder Structure

MGI: Corporate Structure with key subsidiaries

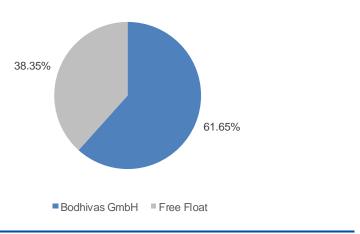


Source: Company data, Hauck & Aufhäuser

MGI owns roughly 53% of gamigo. It is currently in negotiations with the other major stakeholders to purchase the remaining 48% minority stake. We expect these discussions to conclude successfully within the coming months. Hence, in this note **we assume 100% ownership of gamigo**.

The 48% stake is expected to cost MGI up to € 40m (eH&A), which should partly be paid in shares. The implied valuation is below the fair value indicated by our DCF model (see *chapters Valuation and Newsflow*), **suggesting the transaction should be value-accretive**.

MGI: Shareholder Structure



Source: Company data, Hauck & Aufhäuser

Bodhivas GmbH is the investment vehicle of MGI CEO Westermann.

Quality

- Niche focus in Gaming prevents competition with heavyweights like Activision or Tencent
- Low-risk business model: no own game development
- Focus so far on building scale now ready to monetize its key asset: a valuable user base
- Strategy: use existing gaming platform and user base to cross-sell licensed games at high margins
- Synergistic business model: Media technology to help win new and monetize existing gaming users

Within the large global gaming market (\$ 150bn per year), gamigo focuses exclusively on online / browser PC games, and here specifically **on the niches** of long-life MMO role plays, strategy games and shooters thanks to which **it sees little competition with gaming heavyweights** like Tencent or Activision Blizzard.

In this niche, it has managed to **build up critical mass**, a diversified game portfolio and a loyal fan base while strictly adhering to its strategy of **no longer** investing into the risky and expensive development of new games (<10% success rate / up to € 50m development costs). This it achieved through:

- M&A gamigo typically buys inefficiently managed sub-scale rivals to get its hands on the game portfolio and customers, and quickly improves profitability through synergies in IT and admin. In the past five years, it thus acquired and successfully integrated more than 20 businesses, driving market consolidation.
- Selected further development and cross-marketing of existing own-IP games, supporting lifecycles of >10 years per game on average while enabling best-in-class capital efficiency and scalability.

As a result, gamigo today benefits from a distinct **scale advantage** over the remaining smaller players in its target market, which are typically overwhelmed by IT expenses (oftentimes these account for more than 50% of sales vs. 5-10% for gamigo).

Indeed, there exist few rivals on eye-level, mostly gameforge, innogames, and goodgames.

In consequence, gamigo is now in a position to enter a **highly profitable harvesting phase by monetizing its key asset**: a client base comprising five million monthly active users and 50 million customer leads in total, built up over recent years. Two main thrusts:

- Game IP licensing gamigo has first and oftentimes exclusive access (i.e. in its core regions) to game IP from e.g. Asian developers, which strongly appreciate its scalable gaming platform providing direct access to multi-million clients in Europe and the USA. The value of this platform is shown by the fact that gamigo can typically keep 70-80% of revenues to itself.
- Advertising Geared towards its 5,000+ casual games, advertising has so far been a limited endeavor but has strong potential considering gamigo's >5 million monthly active users and in-app ad space.

In this regard, the Media business offers attractive synergies. Most importantly, gamigo can use the software platforms to win new and monetize

existing gaming users. At the same time, its ties to game developers worldwide should open up new growth opportunities for the Media business.

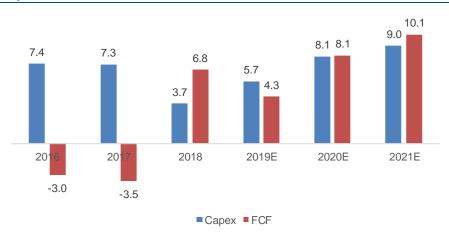
Notably, having acquired three different Media companies in 2019 (PubNative, reachhero and Applift), **MGI** is in the process of building scale, which should present a competitive advantage in a rather fragmented market.

Due to all of this, MGI looks set to enter a **phase of scalable growth** with positive knock-on effects for margins.

Notably, business model scalability should allow for incremental EBITDA margins of up to 40% thanks to economies of scale in IT (volume-based price discounts for computing power & storage) and marketing (cross-selling to existing client base). More proof of **healthy business quality** can be found in:

- **Visibility** Existing games provide a high share of quasi recurring revenues as they benefit from a loyal user base with strong lifetime revenue: (i) more than 50% of revenue is generated by users who entered the platform >5 years ago; (ii) some 90% of the paying MMO customers are recurring.
- **Diversification** No single game accounts for more than 10% of sales.
- Capex and FCF The capex cycle should turn favourable as gamigo will focus on licensing games and cross-selling these to its existing user base a capital light strategy. At the same time, w/c is negative, as payables are largely in-line with receivables, and inventories do not exist. As a result, we expect FCF generation to reach € 10m by 2021E (vs. € 7m in 2018).

Capex and FCF 2016-21E

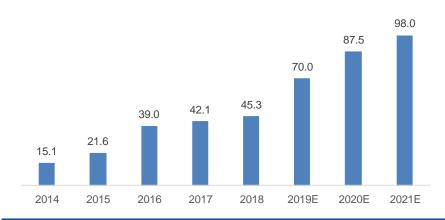


Source: Company data, Hauck & Aufhäuser Note: 2016-18 depicts gamigo on a stand-alone basis 2019E onward reflects consolidated MGI plc

Growth

- Latest results instil confidence in MGI's scalable growth strategy
- Sales to grow at 29% (CAGR 18-21E) carried by favourable market backdrop, cross-selling of licensed games, synergies between segments, and M&A
- EBITDA to rise disproportionately reflecting business model scalability
- Close to 30% EBITDA margins & 15%+ EBIT margins sustainable as PPA set to subside

An overview of the trend in sales 2014-21E (pro forma)



Source: Company data, H&A

Note: 2016-2018 depict only the pro forma figures of key subsidiary gamigo Consolidated results of MGI plc (holding + Gaming + Media) start from 2019E

Latest performance: Excellent H1'19

Below we show the H1'19 performance of the Gaming segment (subsidiary gamigo) given that the Media subsidiaries were only acquired in the course of H1'19, and hence contributed very little to results. At the same time, MGI consolidated key gaming subsidiary gamigo only in May 2018, meaning that a year-on-year comparison for MGI is not applicable.

EUR	H 1'19	H 1'18	yoy
Sales	28.4	21.5	32%
EBITDA	8.3	5.2	60%
EBITDA margin	29.2%	24.2%	+ 5.0 pp
EBIT	3.2	1.3	146%
EBIT margin	11.3%	6.0%	+5.2 pp

Source: Company data, Hauck & Aufhäuser

gamigo showed strong H1 figures, revealing initial benefits of its **strategy to monetize the user base** of its scalable gaming platform (i.e. subsidiary gamigo).

H1 sales soared by 32% to € 28m carried by rising revenues from licensed games and supported by M&A (i.e. Trion and WildTangent). Importantly, despite

M&A-related expenses of some € 0.3-0.4m (eH&A), **EBIT more than doubled** to € 3.2m benefitting from economies of scale in IT (i.e. volume-based price discounts from amazon web services) and marketing (i.e. cross-selling licensed games to existing users).

Results should instill confidence in gamigo's scalable growth strategy and provide visibility on dynamic growth and margin expansion in 2019E, especially considering that three major game launches are planned for H2, which should accelerate growth.

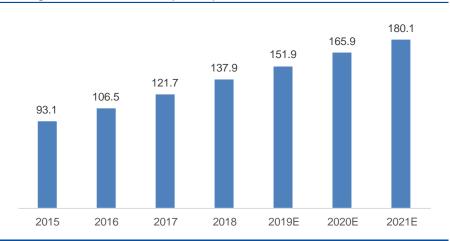
Future performance: sales to grow at 29% CAGR 2018-21E

– NB: our growth estimates assume MGI plc will pay € 16m in cash and issue 18m new shares to acquire the remaining 48% stake, and consequently own 100% of gamigo AG. Hence, we do not show gamigo-related minority interest and calculate EPS using a fully diluted share count of 90.8m –

MGI targets two growth markets:

- The global gaming market is expected to **grow at an almost 10% CAGR** between 2018 and 2021E to reach \$ 180bn.
- The worldwide market for digital advertising is worth approx. \$ 300bn in 2019 and **growing at 10% per year**.

Global games market 2015-21E (USD bn)



Source: newzoo

We expect MGI to **outperform market growth** and increase revenues by 29% p.a. to € 98m in the same timeframe. Key growth drivers:

(1) User monetisation and synergies

- Cross-selling licensed games to the existing user base should be the main growth driver going forward, contributing more than € 6m incremental sales by 2021E, reflecting the strong appeal of gamigo's user base and scalable gaming platform to pure game developers (e.g. from Asia). Major game launches planned for H2'19 are expected support incremental growth in this field.
- In-game advertising is seen to contribute incremental sales of more than
 € 4m by 2021E as gamigo should open up the client base of its 5,000+ casual
 games to outside parties, which should be willing to pay top dollars to access

the millions of existing users. Here, the monetization tools of the Media segment should support growth.

Meanwhile, investments into the further development of existing games (eH&A: € 4m capitalized R&D p.a. / equal to related annual amortization) should compensate for natural churn, so that revenues from existing games (e.g. Fiesta, Echo of Soul, Desert Operations) are set to **remain roughly constant** in the coming years.

Incremental revenue growth MGI								
€m	2019E	2020E	2021E					
Game licensing	1.4	6.0	6.2					
Advertising	0.3	1.5	4.3					
M&A	23.0	10.0	0.0					

Source: Company data, Hauck & Aufhäuser

(2) M&A effects

M&A is set to remain a key pillar of the growth strategy. Acquired Trion (Q4'18), Applift, PubNative and ReachHero should contribute € 23m to revenues in FY'19E and an incremental € 10m in FY'20E. While we conservatively do not factor in any further M&A, MGI pursues a buy-and-build strategy and should have a short list of small targets available at attractive multiples in its fragmented markets. Additional acquisitions would yield upside to our estimates.

MGI revenue growth 2016-2021E								
€m	2016	2017	2018	2019E	2020E	2021E		
Sales	39.0	42.1	45.3	70.0	87.5	98.0		
yoy	80%	8%	8%	55%	25%	12%		
Gaming				40.0	46.0	52.2		
yoy				n/a	15%	13%		
in % of sales				57%	53%	53%		
Media				30.0	41.5	45.8		
yoy				n/a	38%	10%		
in % of sales				43%	47%	47%		

Source: Company data, Hauck & Aufhäuser

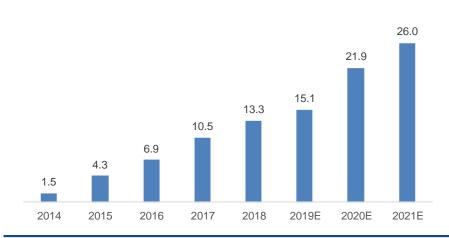
Note: 2016-2018 depict the pro forma figures of subsidiary gamigo

Consolidated results of MGI plc (holding + gaming + media) start from 2019E

Disproportionate bottom-line growth carried by scalability and synergies

MGI is expected to report **strongly disproportionate EBITDA growth** of 33% (CAGR 18-21E) to € 26.0m, with the EBITDA margin expanding by 2pp to 26.5% in the same time frame.

An overview of the trend in adjusted EBITDA 2014-21E



Source: Company data, Hauck & Aufhäuser. EBITDA adjusted for M&A-related one-offs Note: 2016-2018 depict the pro forma figures of subsidiary gamigo only Consolidated results of MGI plc start from 2019E

Key driver should be platform scalability in Gaming (i.e. gamigo). In fact, when licensing new games, direct costs are seen to relate to IT (5-10%), payment (12-18%) and the developer share (25-30%) while marketing costs should be comparatively low (c. 8%) thanks to the existing client base. At the same time, IT costs are seen to rather move towards the low end (i.e. 5%) as gamigo's growing size should allow for volume-based discounts from cloud providers like AWS / Google.

Next to this, gamigo is seen to have to invest into personnel (e.g. community & product managers) and other operating expenses to accommodate to the growing size of its business, which we conservatively set at 10% of incremental sales.

In Media, MGI is in the process of implementing efficiency measures and capitalizing on synergies between the three core subsidiaries, improving profitability. Further, the software platforms (mobile supply side, influencer, app marketing) should exhibit natural scalability.

In sum, all of this means that MGI should be able to generate **EBITDA margins** of up to 40% on incremental sales growth.

MGI plc: bottom-line growth 2016-2021E									
€m	2016	2017	2018	2019E	2020E	2021E			
Gross Profit (incl. OWC)	23.8	29.4	31.8	48.2	59.9	66.9			
Gross Margin	61.1%	70.0%	70.3%	68.8%	68.5%	68.3%			
Personnel	10.5	13.9	14.7	19.0	22.3	24.1			
in % of sales	26.9%	33.1%	32.5%	27.1%	25.5%	24.6%			
Other expenses	11.3	10.9	12.7	18.9	21.0	22.5			
in % of sales	29.0%	25.8%	28.1%	27.0%	24.0%	23.0%			
Other income	0.6	2.4	6.7	4.8	5.3	5.7			
in % of sales	1.5%	5.6%	14.7%	6.8%	6.0%	5.8%			
adjusted EBITDA	6.9	10.5	13.3	17.1	21.9	26.0			
adjusted EBITDA margin	17.7%	25.0%	29.4%	24.4%	25.0%	26.5%			
EBITDA	2.6	7.0	11.1	15.1	21.9	26.0			
EBITDA margin	6.8%	16.7%	24.4%	21.5%	25.0%	26.5%			
D&A	11.8	9.1	8.5	14.1	13.8	13.8			
in % of sales	30.3%	21.6%	18.7%	20.1%	15.8%	14.1%			
EBIT	-9.2	-2.0	2.6	0.9	8.1	12.2			
EBIT margin	n/a	n/a	5.7%	1.4%	9.2%	12.4%			
Financial result	-2.8	-3.6	-2.1	-4.5	-4.5	-4.5			
Tax result	-2.9	-0.7	-1.1	0.0	0.4	1.1			
tax rate	n/a	n/a	n/a	0%	10%	15%			
Minorities	0.0	0.0	0.1	0.3	0.6	0.7			
Net income	-9.1	-5.0	1.5	-3.9	2.6	5.8			
EPS (fully diluted)	-0.10	-0.05	0.02	-0.04	0.03	0.06			

Source: Company data, Hauck & Aufhäuser

Note: 2016-2018 depict the pro forma figures of subsidiary gamigo

Consolidated results of MGI plc start from 2019E

Meanwhile, **EBIT** is seen to grow even more strongly by 68% to € 12.2m (CAGR 18-21E) as the business model is not capex-intensive given the focus on licensing (no own development) and software, suggesting D&A should be scaled with higher revenues despite a one-time step-up in amortization due to PPA in 2019E.

Note that we have accounted for an increase in debt to finance the 100% takeover of gamigo, **explaining why the financial result should deteriorate** in 2019E. However, strong FCF generation is seen to ensure quick balance sheet deleveraging in the coming years, improving the financial result from 2019E to 2021E.

At the same time, our EPS calculation assumes **fully diluted share count of 90.8m** versus 67m currently.

The tax rate is expected to remain below its long-term steady state of 30% in the forecasting period thanks to tax loss carryforwards.

Newsflow

 Pending gamigo transaction. In July, MGI increased its shareholding in gamigo to 52.6%, purchasing a 13.8% stake from Axel Springer for an undisclosed amount.

The company is seen to be in discussions with the remaining minority shareholders and is expected to soon announce closing. The total compensation for the remaining 47% stake should be up to € 40m, paid partly in cash and partly in shares (eH&A / included in our model).

The implied valuation for gamigo in these transactions should be **substantially below our fair value** – and hence accretive – as divesting shareholders are looking to streamline their businesses and consider gamigo a non-strategic asset.

At the same time, the deal is set to simplify the corporate structure, as MGI would own 100% of gamigo, erasing a large part of the minorities, and raising the appeal of the entity for institutional investors.

• A fairly new company just starting IR activity. MGI in its current form, i.e. with a focus on Gaming and Media, has emerged only in the course of 2018, when it initially consolidated gamigo and acquired the Media subsidiaries. The company is now starting to ramp its IR activity (e.g. broader coverage, more roadshows) to raise awareness amongst institutional investors for the Equity Story, which should drive a positive re-rating of the shares, in our view.

Valuation

- Our valuation of MGI assumes 100% ownership of gamigo (current: 53%). In return, we model € 53m net debt (2019E) and a fully diluted share count of 90.8m (vs. 67m current share count)
- The DCF model yields a € 1.80 price target based on a 15% LT EBIT margin and 7.5% WACC
- The FCF Yield indicates a fair value of € 1.70 per share for MGI based on halfway 2020/21E

DCF valuation

Best suited to capture the scalable growth potential of MGI's business model, the DCF model results in a fair value of € 1.80 per share, pointing towards significant upside. Key assumptions include:

- A 15% terminal year EBIT margin, as PPA amortization should subside. This compares to a c. 12.4% EBIT margin expected for FY'21E.
- The long term growth rate is set at 2.0%.
- A WACC of 7.5%, beta of 1.2x and 7.5% cost of borrowing pre tax.
- We have included a **fully diluted share count** of 90.8m shares and € 53m net debt in our model to account for the acquisition of a 100% stake in gamigo.

DCF (EUR m) (except per share data and beta)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	Terminal value
NOPAT	0.6	6.7	9.7	13.1	12.8	14.3	15.6	13.1
Depreciation	14.1	13.8	13.8	11.3	11.3	11.3	11.1	11.3
Increase/decrease in working capital	-0.5	-0.8	-1.2	0.0	0.0	0.0	0.0	0.0
Increase/decrease in long-term provisions and accruals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capex	-5.7	-8.1	-9.0	-9.9	-10.5	-11.0	-11.1	-11.3
Acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital increase	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow	8.5	11.6	13.2	14.4	13.5	14.7	15.6	13.1
Present value	8.5	10.8	11.5	11.7	10.2	10.2	10.0	145.8
WACC	7.6%	7.3%	7.3%	7.3%	7.4%	7.4%	7.6%	7.5%

DCF per share derived from	
Total present value	219
thereof terminal value	67%
Net debt (net cash) at start of year	53
Financial assets	2
Provisions and off balance sheet debt	6
Equity value	161
No. of shares outstanding	90.8
Discounted cash flow per share	1.8
upside/(downside)	54%

Terminal year EBIT margin	15.0%
WACC derived from	
Cost of borrowings before taxes	7.5%
Tax rate	30.0%
Cost of borrowings after taxes	5.7%
Required return on invested capital	7.6%
Risk premium	5.5%
Risk-free rate	1.0%

DCF avg. growth and earnings assumptions

Short term growth (2018-2021)

Medium term growth (2021 - 2025) Long term growth (2025 - infinity)

Sensitivity analysis DCF							
			Long ter	m growth			
		0%	1.0%	2.0%	2.5%	3.0%	
	9.5%	1.0	1.1	1.2	1.3	1.4	
္ပ	8.5%	1.1	1.2	1.4	1.6	1.7	
WACC	7.5%	1.3	1.5	1.8	1.9	2.2	
>	6.5%	1.6	1.8	2.3	2.5	2.9	
	5.5%	1.9	2.4	3.0	3.6	4.3	

Sensitivity analysis DCF							
		E	BIT margin	terminal ye	ar		
		13.0%	14.0%	15.0%	16.0%	17.0%	
	9.5%	1.1	1.1	1.2	1.3	1.3	
ပ္ပ	8.5%	1.3	1.3	1.4	1.5	1.6	
WACC	7.5%	1.5	1.7	1.8	1.9	2.0	
>	6.5%	2.0	2.1	2.3	2.4	2.6	
	5.5%	2.6	2.8	3.0	3.3	3.5	

Source: Company data, Hauck & Aufhäuser

Share price

Beta

1.15

29.3%

2.0%

FCF Yield valuation

The adjusted FCF yield fully supports the DCF, **yielding a fair value for MGI plc of € 1.70** based on halfway 2020/21E, with further upside to € 2.00 on 2021E estimates.

Our estimates once again include the dilutive effect from the gamigo acquisition as well as \in 53m total net debt 2019E.

FCF yield, year end Dec. 31		2019E	2020E	halfway 20/21E	2021E
EBITDA		15.1	21.9	23.9	26.0
- Maintenance capex		5.7	7.5	7.8	8.0
- tax expenses		0.0	0.4	0.8	1.1
= Adjusted Free Cash Flow		9.0	13.4	14.8	16.1
Actual Market Cap		104.4	104.4	104.4	104.4
+Net debt (cash)		53.2	45.0	39.9	34.9
- Financial assets		-1.8	-1.8	-1.8	-1.8
EV Reconciliations		51.4	43.2	38.1	33.1
= Actual EV'		155.8	147.6	142.5	137.5
Adjusted Free Cash Flow yield		5.8%	9.1%	10.4%	11.7%
Sales		70.0	87.5	92.8	98.0
Actual EV/sales		2.2x	1.7x	1.5x	1.4x
Hurdle rate		7.5%	7.5%	7.5%	7.5%
FCF margin		12.9%	15.3%	15.9%	16.5%
Fair EV/sales		1.7x	2.0x	2.1x	2.2x
Fair EV		120.5	178.8	197.0	215.2
- EV Reconciliations		51.4	43.2	38.1	33.1
Fair Market Cap		69.1	135.6	158.9	182.1
No. of shares (million)		90.8	90.8	90.8	90.8
Fair value per share		0.8	1.5	1.7	2.0
Premium (-) / discount (+) in %		-33.8%	29.9%	52.1%	74.4%
Sensitivity analysis fair value					
	5.0%	1.4	2.5	2.8	3.2
Hurdle rate	7.5%	0.8	1.5	1.7	2.0
nuiule late	10.0%	0.4	1.0	1.2	1.4
	12.5%	0.2	0.7	0.9	1.1

Investment risks

- MGI may not be able to reach an agreement with gamigo's minority shareholders, which would hurt the appeal of the investment case.
- Churn amongst existing games may accelerate if further development is neglected or not geared towards users' wishes.
- Larger MMO (massive multiplayer online) rivals may focus more strongly on gamigo's niche of PC- / browser-based long-live role plays.

Financials

Profit and loss (EUR m)	2016	2017	2018	2019E	2020E	2021E
Net sales	39.0	42.1	45.3	70.0	87.5	98.0
Sales growth	80.4 %	8.0 %	7.6 %	54.6 %	25.0 %	12.0 %
Increase/decrease in finished goods and work-in-process	2.2	3.6	4.2	4.9	5.7	5.9
Total sales	41.1	45.7	49.5	74.9	93.2	103.9
Other operating income	0.6	2.4	6.7	4.8	5.3	5.7
Material expenses	17.3	16.2	17.6	26.7	33.3	36.9
Personnel expenses	10.5	13.9	14.7	19.0	22.3	24.1
Other operating expenses	11.3	10.9	12.7	18.9	21.0	22.5
Total operating expenses	38.5	38.6	38.4	59.9	71.3	77.9
EBITDA	2.6	7.0	11.1	15.1	21.9	26.0
Depreciation	1.1	0.7	1.5	1.3	1.3	1.3
EBITA	1.6	6.3	9.6	13.8	20.6	24.7
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	10.8	8.4	7.0	12.8	12.5	12.5
Impairment charges	0.0	0.0	0.0	0.0	0.0	0.0
EBIT (inc revaluation net)	-9.2	-2.0	2.6	0.9	8.1	12.2
Interest income	0.0	0.1	0.0	0.0	0.0	0.0
Interest expenses	1.9	2.4	2.1	4.6	4.6	4.6
Other financial result	0.9	1.3	0.0	0.0	0.0	0.0
Financial result	-2.8	-3.6	-2.1	-4.5	-4.5	-4.5
Recurring pretax income from continuing operations	-12.0	-5.7	0.5	-3.6	3.5	7.6
Extraordinary income/loss	0.0	0.0	0.0	0.0	0.0	0.0
Earnings before taxes	-12.0	-5.7	0.5	-3.6	3.5	7.6
Taxes	-2.9	-0.7	-1.1	0.0	0.4	1.1
Net income from continuing operations	-9.1	-5.0	1.6	-3.6	3.2	6.5
Result from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0
Net income	-9.1	-5.0	1.6	-3.6	3.2	6.5
Minority interest	0.0	0.0	0.1	0.3	0.6	0.7
Net profit (reported)	-9.1	-5.0	1.5	-3.9	2.6	5.8
Average number of shares	90.8	90.8	90.8	90.8	90.8	90.8
EPS reported	-0.10	-0.05	0.02	-0.04	0.03	0.06

Profit and loss (common size)	2016	2017	2018	2019E	2020E	2021E
Net sales	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Increase/decrease in finished goods and work-in-process	5.5 %	8.5 %	9.2 %	7.0 %	6.5 %	6.0 %
Total sales	105.5 %	108.5 %	109.2 %	107.0 %	106.5 %	106.0 %
Other operating income	1.5 %	5.6 %	14.7 %	6.8 %	6.0 %	5.8 %
Material expenses	44.4 %	38.6 %	38.9 %	38.2 %	38.0 %	37.7 %
Personnel expenses	26.9 %	33.1 %	32.5 %	27.1 %	25.5 %	24.6 %
Other operating expenses	29.0 %	25.8 %	28.1 %	27.0 %	24.0 %	23.0 %
Total operating expenses	98.8 %	91.8 %	84.8 %	85.5 %	81.5 %	79.5 %
EBITDA	6.8 %	16.7 %	24.4 %	21.5 %	25.0 %	26.5 %
Depreciation	2.7 %	1.7 %	3.3 %	1.9 %	1.5 %	1.3 %
EBITA	4.1 %	15.0 %	21.1 %	19.6 %	23.5 %	25.2 %
Amortisation of goodwill	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Amortisation of intangible assets	27.6 %	19.8 %	15.4 %	18.3 %	14.3 %	12.8 %
Impairment charges	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
EBIT (inc revaluation net)	neg.	neg.	5.7 %	1.4 %	9.2 %	12.4 %
Interest income	0.1 %	0.1 %	0.0 %	0.0 %	0.0 %	0.0 %
Interest expenses	4.9 %	5.6 %	4.7 %	6.5 %	5.2 %	4.7 %
Other financial result	2.4 %	3.1 %	0.0 %	0.0 %	0.0 %	0.0 %
Financial result	neg.	neg.	neg.	neg.	neg.	neg.
Recurring pretax income from continuing operations	neg.	neg.	1.1 %	neg.	4.1 %	7.8 %
Extraordinary income/loss	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Earnings before taxes	neg.	neg.	1.1 %	neg.	4.1 %	7.8 %
Tax rate	24.3 %	11.9 %	-229.8 %	0.0 %	10.0 %	15.0 %
Net income from continuing operations	neg.	neg.	3.6 %	neg.	3.6 %	6.6 %
Income from discontinued operations (net of tax)	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Net income	neg.	neg.	3.6 %	neg.	3.6 %	6.6 %
Minority interest	0.1 %	neg.	0.2 %	0.5 %	0.7 %	0.7 %
Net profit (reported)	neg.	neg.	3.4 %	neg.	2.9 %	5.9 %

Media and Games Invest plc

Balance sheet (EUR m)	2016	2017	2018	2019E	2020E	2021E
Intangible assets	51.1	47.5	67.6	168.3	162.8	158.1
Property, plant and equipment	2.3	1.7	4.2	3.7	3.5	3.4
Financial assets	1.7	0.5	1.8	1.8	1.8	1.8
FIXED ASSETS	55.2	49.6	73.6	173.8	168.1	163.3
Inventories	0.0	0.0	0.0	0.0	0.0	0.0
Accounts receivable	4.9	4.9	6.3	11.5	14.4	16.1
Other current assets	2.5	4.1	1.6	1.6	1.6	1.6
Liquid assets	2.8	1.0	4.2	22.8	31.0	41.1
Deferred taxes	7.5	7.1	8.1	8.1	8.1	8.1
Deferred charges and prepaid expenses	0.0	0.0	0.0	0.0	0.0	0.0
CURRENT ASSETS	17.7	17.2	20.2	44.1	55.1	67.0
TOTAL ASSETS	72.9	66.8	93.8	217.9	223.2	230.2
SHAREHOLDERS EQUITY	31.9	26.8	28.6	94.7	97.3	103.1
MINORITY INTEREST	0.0	-0.1	-0.1	20.0	20.0	20.0
Long-term debt	25.4	19.3	42.8	76.0	76.0	76.0
Provisions for pensions and similar obligations	n/a	0.0	0.0	0.0	0.0	0.0
Other provisions	4.3	3.0	6.5	6.5	6.5	6.5
Non-current liabilities	29.7	22.3	49.2	82.4	82.4	82.4
short-term liabilities to banks	0.9	7.0	0.0	0.0	0.0	0.0
Accounts payable	6.8	7.2	8.7	13.5	15.6	16.1
Advance payments received on orders	0.0	0.0	0.0	0.0	0.0	0.0
Other liabilities (incl. from lease and rental contracts)	2.5	3.4	5.5	5.5	5.5	5.5
Deferred taxes	1.0	0.2	1.8	1.8	2.4	3.1
Deferred income	0.0	0.0	0.0	0.0	0.0	0.0
Current liabilities	11.2	17.7	16.1	20.8	23.5	24.7
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	72.9	66.8	93.8	217.9	223.2	230.2

Balance sheet (common size)	2016	2017	2018	2019E	2020E	2021E
Intangible assets	70.1 %	71.1 %	72.1 %	77.2 %	72.9 %	68.7 %
Property, plant and equipment	3.2 %	2.5 %	4.5 %	1.7 %	1.6 %	1.5 %
Financial assets	2.4 %	0.7 %	1.9 %	0.8 %	0.8 %	0.8 %
FIXED ASSETS	75.7 %	74.3 %	78.5 %	79.8 %	75.3 %	70.9 %
Inventories	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Accounts receivable	6.7 %	7.3 %	6.7 %	5.3 %	6.4 %	7.0 %
Other current assets	3.5 %	6.2 %	1.8 %	0.8 %	0.7 %	0.7 %
Liquid assets	3.8 %	1.5 %	4.4 %	10.5 %	13.9 %	17.9 %
Deferred taxes	10.3 %	10.7 %	8.7 %	3.7 %	3.6 %	3.5 %
Deferred charges and prepaid expenses	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
CURRENT ASSETS	24.3 %	25.7 %	21.5 %	20.2 %	24.7 %	29.1 %
TOTAL ASSETS	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
SHAREHOLDERS EQUITY	43.8 %	40.2 %	30.5 %	43.5 %	43.6 %	44.8 %
MINORITY INTEREST	neg.	neg.	neg.	9.2 %	9.0 %	8.7 %
Long-term debt	34.9 %	28.9 %	45.6 %	34.9 %	34.0 %	33.0 %
Provisions for pensions and similar obligations	n/a	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Other provisions	5.9 %	4.5 %	6.9 %	3.0 %	2.9 %	2.8 %
Non-current liabilities	40.8 %	33.4 %	52.5 %	37.8 %	36.9 %	35.8 %
short-term liabilities to banks	1.3 %	10.4 %	0.0 %	0.0 %	0.0 %	0.0 %
Accounts payable	9.3 %	10.8 %	9.3 %	6.2 %	7.0 %	7.0 %
Advance payments received on orders	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Other liabilities (incl. from lease and rental contracts)	3.4 %	5.0 %	5.9 %	2.5 %	2.5 %	2.4 %
Deferred taxes	1.4 %	0.3 %	1.9 %	0.8 %	1.1 %	1.3 %
Deferred income	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Current liabilities	15.4 %	26.6 %	17.1 %	9.5 %	10.5 %	10.7 %
TOTAL LIABILITIES AND SHAREHOLDERS EQUITY	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Media and Games Invest plc

Cash flow statement (EUR m)	2016	2017	2018	2019E	2020E	2021E
Net profit/loss	-9.1	-5.0	1.6	-3.6	3.2	6.5
Depreciation of fixed assets (incl. leases)	1.1	0.7	1.5	1.3	1.3	1.3
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	10.8	8.4	7.0	12.8	12.5	12.5
Others	-1.2	0.7	0.3	0.0	0.0	0.0
Cash flow from operations before changes in w/c	1.5	4.8	10.4	10.5	17.0	20.3
Increase/decrease in inventory	0.0	0.0	0.0	0.0	0.0	0.0
Increase/decrease in accounts receivable	2.2	0.6	-1.4	-5.2	-2.9	-1.7
Increase/decrease in accounts payable	0.7	-1.6	1.5	4.8	2.1	0.5
Increase/decrease in other working capital positions	0.0	0.0	0.0	0.0	0.0	0.0
Increase/decrease in working capital	2.9	-1.0	0.1	-0.5	-0.8	-1.2
Cash flow from operating activities	4.4	3.8	10.5	10.0	16.2	19.1
CAPEX	7.4	7.3	3.7	5.7	8.1	9.0
Payments for acquisitions	-6.3	2.2	3.5	28.0	0.0	0.0
Financial investments	0.6	0.0	0.0	0.0	0.0	0.0
Income from asset disposals	0.0	0.7	0.8	0.0	0.0	0.0
Cash flow from investing activities	-1.7	-8.7	-6.3	-33.7	-8.1	-9.0
Cash flow before financing	2.7	-4.9	4.1	-23.7	8.1	10.1
Increase/decrease in debt position	-0.2	0.0	5.2	33.2	0.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.0	0.0	9.2	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0
Others	-1.1	-0.8	-1.5	0.0	0.0	0.0
Effects of exchange rate changes on cash	0.0	0.0	0.2	0.0	0.0	0.0
Cash flow from financing activities	-1.2	-0.9	3.8	42.4	0.0	0.0
Increase/decrease in liquid assets	1.5	-5.8	8.1	18.7	8.1	10.1
Liquid assets at end of period	1.9	3.9	4.2	22.8	31.0	41.1

Source: Company data, Hauck & Aufhäuser

Regional split (EUR m)	2016	2017	2018	2019E	2020E	2021E
Domestic	n/a	n/a	n/a	n/a	n/a	n/a
yoy change	n/a	n/a	n/a	n/a	n/a	n/a
Rest of Europe	19.5	21.0	22.6	35.0	43.8	49.0
yoy change	80.4 %	8.0 %	7.6 %	54.6 %	25.0 %	12.0 %
NAFTA	19.5	21.0	22.6	35.0	43.8	49.0
yoy change	80.4 %	8.0 %	7.6 %	54.6 %	25.0 %	12.0 %
Asia Pacific	n/a	n/a	n/a	n/a	n/a	n/a
yoy change	n/a	n/a	n/a	n/a	n/a	n/a
Rest of world	n/a	n/a	n/a	n/a	n/a	n/a
yoy change	n/a	n/a	n/a	n/a	n/a	n/a
TTL	39.0	42.1	45.3	70.0	87.5	98.0
yoy change	80.4 %	8.0 %	7.6 %	54.6 %	25.0 %	12.0 %

Key ratios (EUR m)	2016	2017	2018	2019E	2020E	2021E
P&L growth analysis						
Sales growth	80.4 %	8.0 %	7.6 %	54.6 %	25.0 %	12.0 %
EBITDA growth	-38.7 %	166.8 %	319.2 %	113.9 %	97.9 %	72.6 %
EBIT growth	-313.2 %	-77.7 %	-128.2 %	-146.4 %	212.3 %	1181.1 %
EPS growth	-312.1 %	-45.4 %	-117.0 %	-21.5 %	66.5 %	-248.7 %
Efficiency						
Total operating costs / sales	98.8 %	91.8 %	84.8 %	85.5 %	81.5 %	79.5 %
Sales per employee	129.9	116.6	132.4	196.8	250.2	274.7
EBITDA per employee	8.8	19.5	32.3	42.3	62.5	72.8
Balance sheet analysis						
Avg. working capital / sales	neg.	neg.	neg.	neg.	neg.	neg.
Inventory turnover (sales/inventory)	0.0	0.0	0.0	0.0	0.0	0.0
Trade debtors in days of sales	45.7	42.4	50.6	60.0	60.0	60.0
A/P turnover [(A/P*365)/sales]	63.5	62.6	70.4	70.4	65.0	60.0
Cash conversion cycle (days)	n/a	n/a	n/a	n/a	n/a	n/a
Cash flow analysis						
Free cash flow	-3.0	-3.5	6.8	4.3	8.1	10.1
Free cash flow/sales	-7.6 %	-8.3 %	15.0 %	6.1 %	9.3 %	10.3 %
FCF / net profit	neg.	neg.	439.7 %	neg.	315.9 %	173.5 %
Capex / depn	67.4 %	80.4 %	43.4 %	40.7 %	58.3 %	65.3 %
Capex / maintenance capex	n/a	9.2 %	0.0 %	14.7 %	14.0 %	14.7 %
Capex / sales	n/a	n/a	n/a	n/a	n/a	n/a
Security						
Net debt	23.6	25.3	38.6	53.2	45.0	34.9
Net Debt/EBITDA	8.9	3.6	3.5	3.5	2.1	1.3
Net debt / equity	0.7	0.9	1.4	0.6	0.5	0.3
Interest cover	0.0	0.0	1.2	0.2	1.8	2.7
Dividend payout ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Asset utilisation						
Capital employed turnover	0.6	8.0	0.6	0.4	0.4	0.5
Operating assets turnover	90.0	-65.8	26.2	40.5	38.4	29.2
Plant turnover	16.7	24.9	10.8	18.8	25.2	29.2
Inventory turnover (sales/inventory)	0.0	0.0	0.0	0.0	0.0	0.0
Returns						
ROCE	-27.4 %	-3.5 %	3.7 %	0.8 %	5.8 %	6.0 %
ROE	-28.6 %	-18.6 %	5.4 %	-4.1 %	2.6 %	5.6 %
Other						
Interest paid / avg. debt	7.3 %	9.0 %	6.1 %	8.9 %	7.7 %	6.0 %
No. employees (average)	300	361	342	356	350	357
Number of shares	90.8	90.8	90.8	90.8	90.8	90.8
DPS	0.0	0.0	0.0	0.0	0.0	0.0
EPS reported	-0.10	-0.05	0.02	-0.04	0.03	0.06
Valuation ratios						
P/BV	3.3	3.9	3.7	1.1	1.1	1.0
EV/sales	3.3	3.1	3.2	2.3	1.7	1.4
EV/EBITDA	48.5	18.4	12.9	10.5	6.8	5.4
EV/EBITA	80.8	20.6	15.0	11.5	7.3	5.6
EV/EBIT	-14.0	-63.4	55.3	23.3	11.0	7.9
EV/FCF	-43.2	-37.0	21.0	36.6	18.3	13.8
Adjusted FCF yield	1.2 %	2.9 %	5.7 %	5.8 %	9.1 %	11.7 %
Dividend yield Source: Company data, Hauck & Aufhäuser	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %

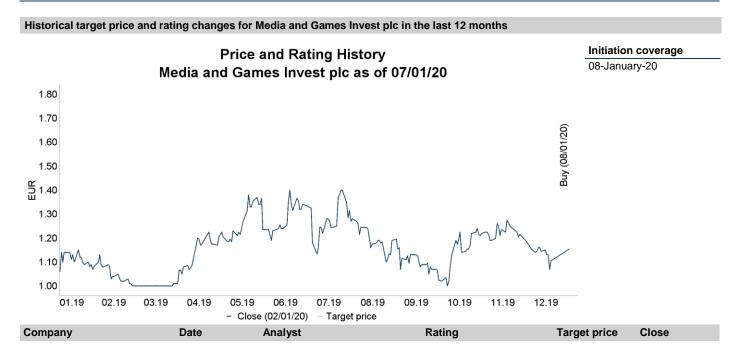
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Media and Games Invest plc

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Buy	65.41 %	75.00 %
Sell	11.32 %	5.00 %
Hold	23.27 %	20.00 %

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