

## MagForce AG<sup>\*5a,5b,6a,11</sup>

**Rating: BUY**

**Target Price: €13.90**  
**(previous TP: €14.30)**

Current price: 4.30  
22/03/2017 / XETRA-closing  
price  
Currency: EUR

### Key information:

ISIN: DE000A0HGQF5  
WKN: A0HGQF  
Ticker symbol: MF6  
Number of shares<sup>3</sup>: 25.62  
Marketcap<sup>3</sup>: 110.08  
Enterprise Value<sup>3</sup>: 92.74  
<sup>3</sup> in € million

Transparency level:  
Scale  
Market segment:  
Open Market  
Accounting standard:  
HGB

Financial year-end: 31/12

Designated Sponsor::  
Hauck & Aufhäuser

### Analyst:

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\* catalogue of potential con-  
flicts of interests on page 7

Date of completion/ Date of  
publication:  
22/03/2017 / 23/03/2017

### Company Profile

Sector: Medical Technology

Specialty: Cancer Treatment

Employees: 25 Status: 31/12/2015

Founded: 1997

Registered Office: Berlin

Executive Board: Dr. Ben J. Lipps, Prof. Dr. Hoda Tawfik,  
Christian von Volkmann



By its own account, MagForce AG, located in Berlin, is a leading company in the field of nanomedicine with a focus on cancer treatment. The NanoTherm<sup>®</sup> therapy developed by the company is said to be suitable for the local treatment of almost all solid tumours. The treatment is based on heat that is created by the activation of injected super-paramagnetic nanoparticles. The components of this therapy, the medical devices NanoTherm<sup>®</sup>, NanoPlan<sup>®</sup>, the thermometric catheter TK01, NanoActivator<sup>®</sup> with the thermometric unit are certified across the EU for the treatment of brain tumours. The objective of the new cancer treatment is to establish itself as a further pillar of cancer therapy alongside conventional treatment methods such as surgery, radiation and chemotherapy. According to available data, the NanoTherm therapy displays a promising degree of efficacy as well as being well-tolerated.

P&L in EURm	2015	2016e	2017e	2018e	2019e
Sales	2.58	1.15	5.07	35.14	73.43
EBITDA	-1.42	-7.95	-4.57	18.17	32.46
EBIT	-1.88	-8.09	-4.73	18.00	32.29
Net profit*	-1.55	-8.09	-5.31	16.98	31.67

### Per Share Figures in EUR

Earnings per share*	-0.06	-0.32	-0.21	0.66	1.24
<i>*before minorities</i>					

### Key Figures

EV/Sales	36.00	80.43	18.31	2.64	1.26
EV/EBITDA	neg.	neg.	neg.	5.10	2.86
EV/EBIT	neg.	neg.	neg.	5.15	2.87
P/B before minorities	neg.	neg.	neg.	6.49	3.48

### Financial dates

30/06/2017: Annual Report 2016

29/09/2017: Half-Year Report 2017

### \*\*last research published by GBC:

Date: Publication / Target Price in EUR / Rating

21/10/2016: RS / 14.30 / BUY

12/08/2016: RS / 14.30 / BUY

11/05/2016: RS / 14.30 / BUY

\*\* the research reports can be found on our website  
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derstr. 27, D-86150 Augsburg

## Roll-out planned in Germany's neighbouring countries

MagForce AG has used its first published letter to shareholders of 2017 to announce the introduction and implementation of significant strategic measures. The main topic is the planned roll-out in Europe, which will involve MagForce technology being installed in additional treatment centers in Germany's neighbouring countries. A NanoActivator<sup>®</sup> is currently installed in six hospitals across Germany, including four hospitals that cover the commercial treatment of brain tumour patients. Although foreign patients are able to receive treatment in Germany, the planned roll-out should enable patients to be treated in their homeland, which is expected to result in a correspondingly greater number of treatments. On-site treatment also brings advantages in terms of costs, which is not only expected to benefit patients, but would in this case also lead to an easier reimbursement process.

We expect the NanoActivator<sup>®</sup> to be installed in treatment centers in a total of seven further countries. According to the company, five new devices (cost per device: €0.50m) are to be built, and the two non-commercial NanoActivator<sup>®</sup> devices in Germany are to be used for the planned roll-out. The contacts required for the roll-out have already been established by attending various conferences and congresses, which means, there are already fixed links with the treatment centers.

Another important step in the company's future development involves obtaining reimbursement of costs from insurance companies. Treatment costs are currently still borne privately. According to statements by the management, those issues still outstanding with regard to the reimbursement of costs are to be resolved in the course of the current financial year 2017. Furthermore, reimbursement studies are to be carried out in those countries where market entry is now on the agenda.

We expect total investment for these measures to amount to approx. €10m (new devices, reimbursement studies). MagForce AG is currently in detailed talks regarding the potential uptake of borrowed capital. In early March 2017, the Company also issued a three-year convertible bond with a volume of €5.0m at an interest rate of 5.0%.

## Progress in US approval for prostate cancer treatment

Another important milestone for the forthcoming financial year 2018 will be reached when approval is granted for MagForce technology to treat prostate cancer. On the recommendation of the FDA, the foundations for market approval in the USA were laid in the last financial year with the company successfully repeating the pre-clinical trial it had already conducted in Germany. The study demonstrated once again that the nanoparticles are non-toxic and that they remain in the region of application.

Following the submission of the results at the end of 2016, we still expect the clinical approval trial to begin within the first six months of 2017. According to the schedule we have adopted, we should receive market approval in mid-2018, i.e. around six months later than previously expected. We have adapted our sales projections in line with this amended schedule.

In the meantime, however, MagForce AG has successfully identified other treatment centres, thereby establishing an extensive network of prospective investors prior to market approval.

## Forecasts and model assumptions

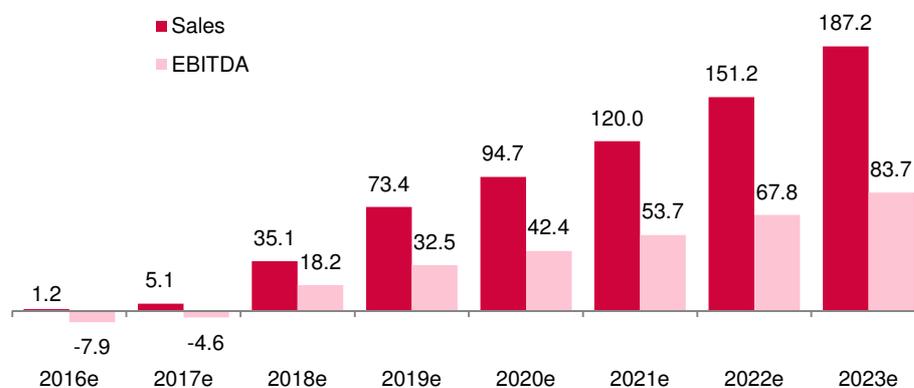
in €m	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e
Sales	1.15	5.07	35.14	73.43	94.70	119.96	151.21	187.16
EBITDA	-7.95	-4.57	18.17	32.46	42.43	53.68	67.79	83.74
EBIT	-8.09	-4.73	18.00	32.29	42.26	53.51	67.62	83.57
Net profit*	-8.09	-5.31	16.98	31.67	30.06	37.46	47.33	58.50

Source: GBC AG; \* before minorities

In our projections, we have primarily factored an increasing number of treatments of brain tumour patients in Germany for the current financial year 2017. According to the company, there has been a recent surge to around 600 requests per year due to greater awareness of NanoTherm<sup>®</sup> therapy. On this basis, we are assuming that the number of treatments will increase over the current financial year.

In the forthcoming financial year, sales revenue is expected to include commercialisation income as part of prostate cancer treatment in the USA for the first time. We are expecting small market shares in this field, but this indication is demonstrating a significantly higher number of cases than for glioblastoma. We are also expecting a positive reception for this new form of treatment from the funding bodies, as the MagForce technology allows for minimally invasive and therefore cost-saving treatment of the groups of patients addressed (Gleason score: 7) with a very high success rate. This process avoids the side effects typically associated with an operation or radiation treatment. We therefore expect sales to increase quickly following the successful market launch.

### Sales and EBITDA (in €m)



Source: GBC AG

Based on the significant expected increase in sales revenue, we expect EBITDA – the output value for our valuation model – to record a margin of around 45%, which should mean that any increase in sales is reflected in a corresponding increase in EBITDA.

Sales revenue in the USA (glioblastoma and prostate cancer) is achieved at the level of our 76.9% MagForce USA, Inc. subsidiary. We have therefore taken minority interests into account in our DCF valuation model, resulting in a reduction in the fair company value.

## Valuation

### *Model assumptions*

We rated MagForce AG using a DCF model. Based on the company's commercialisation plan for the years 2016 to 2023, we have created concrete sales and profit estimates. Due to the accumulated losses carried forward, we have only taken into account a tax rate of 30% from the 2020e financial year. Additionally, a residual value is determined in the third phase by using the perpetual annuity by the end of the forecast horizon. As the final value, we assume a sales growth rate of 4.0%.

### *Determining of capital costs*

The weighted average cost of capital (WACC) of MagForce AG is calculated from the equity cost and the cost of debt. The market premium, the company-specific beta, as well as the risk-free interest rate have to be determined in order to determine the equity cost.

The risk-free interest rate is derived from the current structured interest rate curves for risk-free bonds in accordance with the recommendations from the "Fachausschuss für Unternehmensbewertung und Betriebswirtschaft" (FAUB, Special Committee for Business Valuation and Business Management) of the "Institut der Wirtschaftsprüfer in Deutschland e.V." (Institute of Public Auditors in Germany). This is based on the zero bond interest rate calculated using the Svensson Method published by the German Bundesbank. In order to compensate for short-term market fluctuations, the average returns for the previous three months are used and the result is rounded up to the nearest 0.25 basis points. The value currently used for the risk-free interest rate is 1.25% (until now: 1.50%).

We set the historical market premium of 5.50% as a reasonable expectation of the market premium. This is supported by historical analyses of stock market returns. The market premium reflects by which percentage the stock market is expected to be more profitable than the low-risk government bonds.

According to GBC estimates, a beta of 2.04 is currently determined.

Using the assumptions implied, cost of equity is calculated to amount to 12.45% (Beta multiplied by the risk premium plus the risk-free interest rate). Since we assume a sustainable weighting of the equity costs of 90%, the resulting weighted average costs of capital (WACC) amount to 11.52% (until now: 11.70%).

### *Evaluation results*

The discounting of future cash flows is based on the entity approach. The resulting fair value per share at the end of the 2017 financial year corresponds to the stock price target of €13.90 (until now: €14.30).

## MagForce AG - Discounted Cashflow (DCF) Valuation

Value driver of DCF-model after the estimate phase:

consistency - Phase		final - Phase	
EBITDA-margin	48.7%	Perpetual growth rate	3.0%
Working Capital to sales	30.0%	Perpetual EBITA margin	40.0%
		Tax rate terminal value	30.0%

### Three phases DCF - Model:

Phase in €m	estimate									Terminal value
	FY 16e	FY 17e	FY 18e	FY 19e	FY 20e	FY 21e	FY 22e	FY 23e		
Sales	1.15	5.07	35.14	73.43	94.70	119.96	151.21	187.16		
Sales change	neg.	339.5%	593.8%	108.9%	29.0%	26.7%	26.1%	23.8%		4.0%
EBITDA	-7.95	-4.57	18.17	32.46	42.43	53.68	67.79	83.74		
EBITDA-margin	neg.	neg.	51.7%	44.2%	44.8%	44.8%	44.8%	44.7%		
EBITA	-8.09	-4.73	18.00	32.29	42.26	53.51	67.62	83.57		
EBITA-margin	neg.	neg.	51.2%	44.0%	44.6%	44.6%	44.7%	44.7%		40.0%
Taxes on EBITA	0.00	0.00	0.00	0.00	-12.68	-16.05	-20.29	-25.07		
Taxes to EBITA	0.0%	0.0%	0.0%	0.0%	30.0%	30.0%	30.0%	30.0%		30.0%
EBI (NOPLAT)	-8.09	-4.73	18.00	32.29	29.58	37.46	47.33	58.50		
Return on capital	-107%	-63.0%	101.5%	100.9%	68.0%	67.6%	68.4%	67.9%		49.0%
Working Capital (WC)	3.00	8.40	15.00	22.03	28.41	35.99	45.36	56.15		
WC to sales	neg.	165.8%	42.7%	30.0%	30.0%	30.0%	30.0%	30.0%		
Investment in WC	0.09	-5.40	-6.60	-7.03	-6.38	-7.58	-9.38	-10.78		
Operating fixed assets (OFA)	4.50	9.34	17.00	21.50	27.00	33.25	40.75	55.00		
Depreciation on OFA	-0.14	-0.16	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17		
Depreciation to OFA	3.1%	1.7%	1.0%	0.8%	0.6%	0.5%	0.4%	0.3%		
Investment in OFA	-0.14	-5.00	-7.83	-4.67	-5.67	-6.42	-7.67	-14.42		
Capital employed	7.50	17.74	32.00	43.53	55.41	69.24	86.11	111.15		
EBITDA	-7.95	-4.57	18.17	32.46	42.43	53.68	67.79	83.74		
Taxes on EBITA	0.00	0.00	0.00	0.00	-12.68	-16.05	-20.29	-25.07		
Total investment	-0.05	-10.40	-14.43	-11.70	-12.05	-14.00	-17.05	-25.20		
Investment in OFA	-0.14	-5.00	-7.83	-4.67	-5.67	-6.42	-7.67	-14.42		
Investment in WC	0.09	-5.40	-6.60	-7.03	-6.38	-7.58	-9.38	-10.78		
Investment in Goodwill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Free Cashflow	-8.00	-14.97	3.74	20.76	17.70	23.63	30.46	33.46		665.37

Value operating business (due date)	371.23	428.98
Net present value explicit free CF	61.12	83.13
Net present value of terminal value	310.11	345.85
Net debt	-7.29	8.15
Value of equity	378.52	420.83
Minority interests	-58.20	-64.71
Value of share capital	320.32	356.12
Outstanding shares in m	25.62	25.62
Fair value per share in €	12.50	<b>13.90</b>

### Cost of capital:

Risk free rate	1.3%
Market risk premium	5.5%
Beta	2.04
Cost of equity	12.4%
Target weight	90.0%
Cost of debt	4.5%
Target weight	10.0%
Taxshield	28.7%
<b>WACC</b>	<b>11.5%</b>

Return on capital	WACC				
	9.5%	10.5%	11.5%	12.5%	13.5%
47.0%	19.05	15.76	13.39	11.61	10.23
48.0%	19.43	16.07	13.64	11.82	10.41
49.0%	19.82	16.38	<b>13.90</b>	12.03	10.59
50.0%	20.20	16.69	14.15	12.24	10.77
51.0%	20.59	17.00	14.41	12.46	10.95

## ANNEX

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