GBC AG
Investment Research

Research Report (Anno)

MagForce AG

magforce®
THE NANOMEDICINE COMPANY

Stage 2b of the trial for approval in the USA is currently ongoing;
Billing code by the American Medical Association is available
Break-even expected from 2024

Target price: € 9.15

Rating: BUY

IMPORTANT NOTE:
Please take note of the disclaimer/risk warning, as well as the disclosure of potential conflicts of interest as required by section § 85 WpHG und Art. 20 MAR on page 16

Note on research as a "minor non-monetary benefit" according to the MiFID II regulation: This research meets the requirements for being classified as a "minor non-monetary benefit". For more information, see the disclosure under "I. Research under MiFID II

Date and time of completion of the study: 12.07.2022 (4:16 pm)
Date and time of the first disclosure of the study: 13.07.2022 (10:00 am)
Validity of the target price: until max. 31.12.2023

MagForce AG*5a,11

Buy
Target price: € 9.15
(previously: € 11.00)

Current price: 1.65
11.07.22 / XETRA / 2:05 pm
Currency: EUR

Master data:

ISIN: DE000A0HGQF5
WKN: A0HGQF
Ticker symbol: MF6
Number of shares[3]: 29.36
Market cap[3]: 49.39
EnterpriseValue[3]: 74.91
[3] in million / in EUR million

Transparency level:
Entry Standard
Market segment:
Open Market
Accounting:
HGB

Financial year: 31.12.

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* Catalogue of possible conflicts of interest on page 17

Company profile

Industry: Medical technology

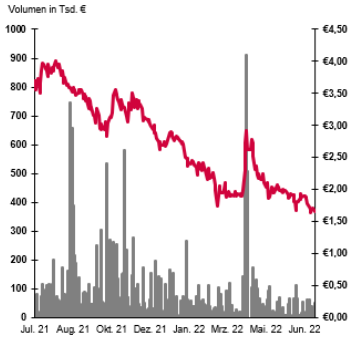
Focus: Cancer therapy

Employees: 33 Status: 31.12.2021

Foundation: 1997

Headquarters: Berlin

Board of Directors: Dr Ben J. Lipps, Christian von Volkmann



By its own account, MagForce AG, with its registered office in Berlin, is a leading company in the field of nanomedicine with a focus on cancer treatment. The NanoTherm® treatment developed by the company could 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 superparamagnetic nanoparticles. The components of this treatment, the medical devices NanoTherm® and NanoPlan® and the thermometric catheter TK01 and NanoActivator® with a thermometric unit are certified in the EU for the treatment of brain tumours. The objective of this new cancer treatment is to establish itself as a further pillar of cancer treatment alongside conventional treatment methods such as surgery, radiotherapy and chemotherapy. In addition, the MagForce technology is currently conducting a pivotal study for the treatment of intermediate risk prostate cancer in the United States. According to available data, the NanoTherm therapy displays a promising degree of effectiveness as well as being tolerated well.

P&L in EUR million \ FY-end	2021	2022e	2023e	2024e	2025e	2026e
Sales	0.35	2.98	15.73	36.79	61.87	92.03
EBITDA	-6.06	-5.32	-3.16	8.29	26.50	43.41
EBIT	-6.74	-6.22	-4.66	6.19	23.19	38.03
JÜ before minorities	-10.57	-10.64	-9.52	1.32	17.76	34.09

Key figures						
EV/Sales	212.82	25.13	4.76	2.04	1.21	0.81
EV/EBITDA	neg.	neg.	neg.	9.03	2.83	1.73
EV/EBIT	neg.	neg.	neg.	12.11	3.23	1.97
P/E ratio (before minorities)	neg.	neg.	neg.	37.49	2.78	1.45

Financial dates
31.08.2022: Annual General Meeting
27.10.2022: Semi-annual report

**last research from GBC:
Date: Publication / Target price in EUR / Rating
15.11.2021: RS / 11.00 / BUY
18.10.2021: RS / 11.00 / BUY
20.07.2021: RS / 11.00 / BUY
29.04.2021: RS / 11.00 / BUY
11.02.2021: RS / 11.00 / BUY
** The research studies listed above can be viewed at www.gbc-ag.de or requested from GBC AG, Halderstr. 27, D86150 Augsburg.

EXECUTIVE SUMMARY

- In the past financial year 2021, MagForce AG continued or resumed the planned European roll-out for the treatment of malignant brain tumours (glioblastoma). The four NanoActivator devices currently installed in Germany and Poland are to be supplemented by a further site in Spain. In September 2021, an agreement was signed in this regard with the Spanish clinic Complejo Hospitalario Integral Privado (CHIP). Once all approvals have been obtained, the first commercial treatments are to take place in Spain from the second half of the current financial year 2022.

- In the past financial year 2021, the treatment of glioblastoma in the four active treatment centres was also affected by the pandemic-related closure measures. The resulting decline in patient enquiries led to a decrease in sales revenue to € 0.35 million (previous year: € 0.62 million). Due to the unchanged low level of revenues, the earnings picture remains negative. EBIT amounted to € -6.74 million (previous year's adjusted EBIT: € -6.93 million).

- Another relevant step towards market approval was achieved in the indication area of prostate cancer. After the successful completion of the penultimate stage 2a of the pivotal study had been announced at the beginning of 2021, the final study protocol was submitted by the FDA in December 2021. This enabled the company to start the final stage of the pivotal US trial—stage 2b. In stage 2b, which is now underway, the results of the previous stage are to be confirmed in up to 100 patients. The trial is currently being conducted at MagForce's own centres in San Antonio, Seattle and Sarasota. Another important step for approval in the USA is the approval of the American Medical Association (AMA) billing code obtained in April 2022. This will provide the basis for Medicare to cover the costs of the clinical trial and for price negotiations with payers after successful approval.

- Reimbursement approval for study patients has been granted and CPT codes for commercial patients are also in place. This means that MagForce will be reimbursed already whilst treating patients in the study. This guarantees the smooth reimbursement transition from the study to commercial treatments.

- MagForce expects FDA filing for approval in the USA at the turn of 2022/2023. As the current study is being conducted at MagForce's own centres, a seamless transition to commercialisation can be assumed. For the current financial year 2022, however, we are assuming very low treatment revenues for prostate cancer treatment, which are related to the cost coverage of the clinical trial by Medicare. Only in the coming financial years should the very high revenue potential of this indication area become visible. In the indication area of glioblastoma, we assume a further expansion of the treatment centres and a corresponding increase in the number of treatments in the coming financial years. This should also take place against the background of the expected abolition of the corona restrictions.

- Within the framework of our forecast model, MagForce AG should be able to break even at all earnings levels from the 2024 financial year onwards. On this basis, we have a target price of €9.15 within the framework of our DCF valuation model and we continue to assign a BUY rating.

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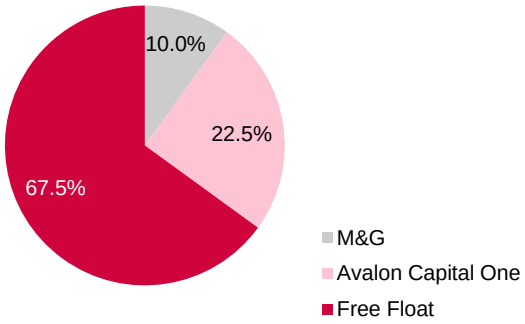
COMPANY

Shareholder structure

Shareholder	in %
M&G	10.0%
Avalon Capital One	22.5%
Free Float	67.5%

Source: MagForce AG; GBC AG



The MagForce technology

MagForce AG's proprietary and patented NanoTherm technology for combating solid tumours consists of the medical products NanoTherm, NanoPlan thermometry catheters and the NanoActivator with thermometry unit.

NanoTherm therapy		
NanoTherm	**NanoActivator**	**NanoPlan**
		

Sources: MagForce AG; GBC AG

NanoTherm therapy, which has been approved in Europe since 2010 for the treatment of brain tumours, is a procedure for the treatment of solid tumours. Magnetic nanoparticles are introduced either directly into the tumour or into the resection cavity wall. These particles are then "heated" by an alternating magnetic field, thus destroying the cancer cells. MagForce AG is pursuing the goal of establishing this novel therapy as a further standard of treatment alongside conventional therapies such as surgery, radiotherapy and chemotherapy.

NanoTherm

NanoTherm, a ferrofluid developed and patented by MagForce, is a fluid containing iron oxide nanoparticles that react to magnetic fields generated by the NanoActivator. The particles have special, so-called superparamagnetic properties and allow the polarity to change hundreds of thousands of times per second, which generates the desired heat.

Due to the patented aminosilane coating, the NanoTherm particles can be very finely distributed in water and can be introduced into the tumour tissue with precision. In addition, this coating ensures that the nanoparticles remain inert, i.e. chemically and pharmacologically uninvolved, in the human body and that the NanoTherm ferrofluid agglomerates in the tissue. Thus, as desired, it remains at the site of insertion for a long time and does not penetrate the surrounding healthy tissue. All these properties make the NanoTherm magnetic fluid unique and are the prerequisite for the feasibility of NanoTherm therapy.

NanoActivator

NanoTherm therapy is carried out in an alternating magnetic field applicator, the patented NanoActivator, which was specially developed for this form of therapy. The patient takes a seat on a couch and is exposed to a rapidly changing magnetic field on the desired part of the body. This rapid change of polarity causes the iron oxide particles of the NanoTherm magnetic fluid to generate heat. This is how the therapeutic treatment temperatures are generated.

NanoPlan

The NanoPlan software developed by MagForce AG is used by the treating physician to plan the treatment temperature and thus the magnetic field strength. After the injection of NanoTherm, the exact position and distribution of the nanoparticle depots is displayed by a post-instillation CT scan. In combination with the imaging before the nanoparticle instillation, this serves as a data basis for the calculation and simulation of the temperature distribution in the tumour and the surrounding healthy tissue in relation to the applied alternating magnetic field. On this basis, NanoPlan determines the optimal magnetic field strength of the NanoActivator to achieve the therapeutic temperature, taking into account all safety measures for the healthy tissue.

During the first treatment, the temperature reached in the tumour tissue is precisely measured via a temperature probe inserted into a catheter inserted during the installation of NanoTherm. The measured temperatures are compared with the simulated and calculated temperatures and the magnetic field strength is adjusted if necessary.

Current Marketing status

According to current plans, MagForce technology will be used for the treatment of malignant brain tumours in Europe and for the treatment of intermediate prostate cancer in the USA. In Europe, all necessary approvals have already been obtained for the treatment of glioblastoma and MagForce technology is being used commercially here. The pivotal study for the treatment of prostate cancer in the US is ongoing, FDA filing for approval is expected at the turn of 2022/2023.

Glioblastoma treatment in Europe

Currently, MagForce AG has installed four NanoActivator devices for glioblastoma treatment in Germany and Poland. No new clinics were added in the past calendar year 2021 due to the pandemic situation. However, MagForce AG has taken a first important step towards the planned expansion of treatment centres within Europe.

In September 2021, a cooperation agreement was concluded with the Spanish clinic Complejo Hospitalario Integral Privado (CHIP). Once all approvals have been obtained, the first commercial treatments are to take place in Spain from the second half of the current financial year 2022. A "plug-and-treat" device developed by the company will also be installed at this centre (in addition to Zwickau and Lublin), which can be cost-effectively installed and integrated into the clinic infrastructure within a short period of time. For the treatment centres, the installation of the container is easy to implement, as it neither requires high investments nor complex adjustments in the clinic infrastructure. Further cooperation outside Germany is to take place soon, thus considerably expanding the regional treatment focus.

The expansion of the customer approach is also to be extended via agreements with clinics. Under these agreements, clinics are to cover the first steps towards treatment, the instillation of the NanoTherm liquid, before patients are then referred to treatment centres with a NanoActivator device where the NanoTherm particles are activated. This could significantly expand the number of patients treated without having to install more NanoActivator devices.

Prostate cancer treatment in the USA

In the past quarters, significant progress has taken place in the approval of MagForce technology for prostate cancer treatment in the USA. After the successful completion of the penultimate stage, stage 2a, of the pivotal study was announced at the beginning of 2021, the final study protocol was available from the FDA in December 2021. This enabled the company to start the final stage, stage 2b, of the pivotal US trial.

In stage 2a, a streamlined study protocol was used, which allowed patient treatment within one day. With the patients included in this stage, the good results of stage 1 were confirmed and at the same time the accuracy of the instillation of the nanoparticles was increased. In stage 2b, which is now underway, the results of the previous stage are to be confirmed in up to 100 patients. The study is currently being conducted at MagForce AG's own centres in San Antonio, Seattle and Sarasota.

Another important step for approval in the USA is the approval of the billing code of the American Medical Association (AMA), which was obtained in April 2022. This will provide the basis for Medicare to cover the costs of the clinical trial and for price negotiations with payers after successful approval.

MARKET AND MARKET ENVIRONMENT

Although MagForce AG's technology initially addresses the indication areas of "glioblastoma" and "prostate cancer", it is generally possible to treat solid tumours across all indications. In the presentation of the market potential, however, MagForce AG will focus on the areas of glioblastoma and prostate cancer in the two relevant regions, in line with the indication areas addressed by the company.

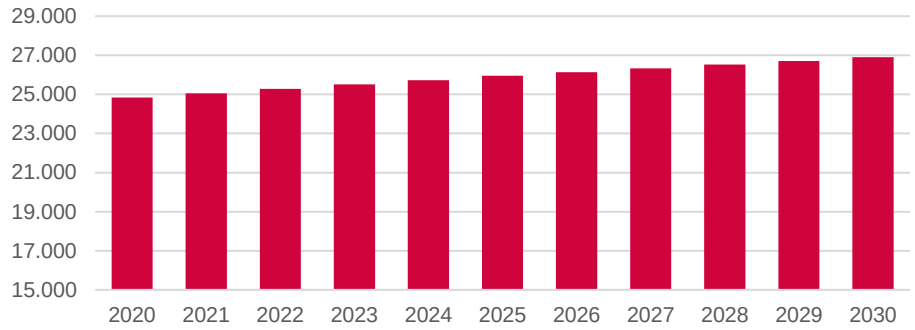
Market potential glioblastoma

MagForce technology is approved for the treatment of glioblastoma in Europe. Glioblastoma is the most common and malignant brain tumour disease, which is associated with a poor prognosis and thus has a high lethality. Glioblastoma has the worst prognosis of all tumours of the brain and nervous system, with a median five-year survival rate of only 6% (age at onset: 55-64 years old). Significant improvements in this poor prognosis have hardly taken place in the past decades.

The primary treatment is still resection, i.e. surgical removal of the tumour, which is only possible in 50-70% of patients (source: Gliocure.com). First-line treatment includes radiotherapy and chemotherapy after surgical removal. Second-line treatment focuses on chemotherapy, which, however, does not usually lead to a significant improvement in survival. Against this background, it can be assumed that the willingness of glioblastoma patients with regard to new treatment procedures, such as treatment with MagForce technology, is high.

With an incidence of about 3 per 100,000, glioblastoma is much less common than other tumours. However, in terms of brain tumours in adults, glioblastoma is the most common form of tumour. Statements on the exact incidence of glioblastoma vary and do not provide an accurate picture. According to data from the Robert Koch Institute, however, 95 % of all cancers of the brain and nervous system affect the brain, with the malignant form glioblastoma being particularly common with a share of 60 % (source: krebsgesellschaft.de).

GBC forecast on new glioblastoma cases in Europe



Sources: GLOBOCAN; own calculations

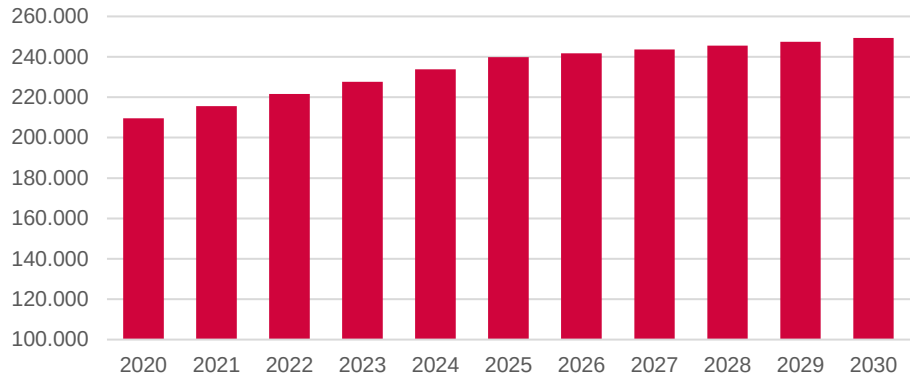
Based on the number of new tumour cases of the brain per year, which was over 43,000 in Europe in 2020 according to data from the European Commission, it can be assumed that there will be approximately 25,000 new glioblastoma diagnoses per year. Due to the demographic development and the expected age structure of Europe, there should be a steady growth in new glioblastoma diagnoses in the coming financial years. At the same time, this represents the potential basis for treatments with MagForce technology.

Market potentials prostate cancer

Compared to glioblastoma, the second indication area addressed by MagForce AG, "prostate cancer", has significantly higher market potential due to significantly higher case numbers. Prostate cancer is a disease that occurs particularly frequently in industrialised countries, with the focus on Australia, North America and Western Europe. In these regions, the probability of developing prostate cancer is between 85.0 and 111.6 / 100,000 inhabitants and thus significantly higher than in the rest of the world (30.6 / 100,000 inhabitants).

In the USA, the market initially addressed by MagForce AG, around 210,000 men are diagnosed with prostate cancer every year, and a significant increase in the annual number of cases is expected here in the coming years. By 2030, more than 240,000 new cases are expected to be diagnosed annually. The age distribution plays an important role in the case numbers of prostate cancer, with an expected disproportionate increase in the older population group. This is because the median age at the time of diagnosis is 66 years, with the majority of prostate cancer cases being diagnosed between 65 - 74 years.

Projection of prostate cancer case numbers in the USA



Sources: GLOBOCAN; GBC AG

The overall very high number of cases, combined with a comparatively slow progression of the disease, are decisive for the expenditure in the treatment of prostate cancer. At 93%, the five-year survival rate for prostate cancer is relatively high compared to other types of cancer, which means a long treatment period with correspondingly high expenditure. According to statistics from a recent study (Total Medicare Costs Associated with Diagnosis and Treatment of Prostate Cancer in Elderly Men), costs in the USA average USD 14,500 per patient in the three-year period after diagnosis. In total, the costs add up to USD 1.2 billion, which is of a significant order of magnitude for payers.

The two indication areas currently addressed by MagForce AG exemplify the high market potential in the important regions of Europe and the USA. In principle, MagForce technology can also be used for the treatment of other solid tumours, so that broader coverage of the market potential is conceivable.

CORPORATE DEVELOPMENT

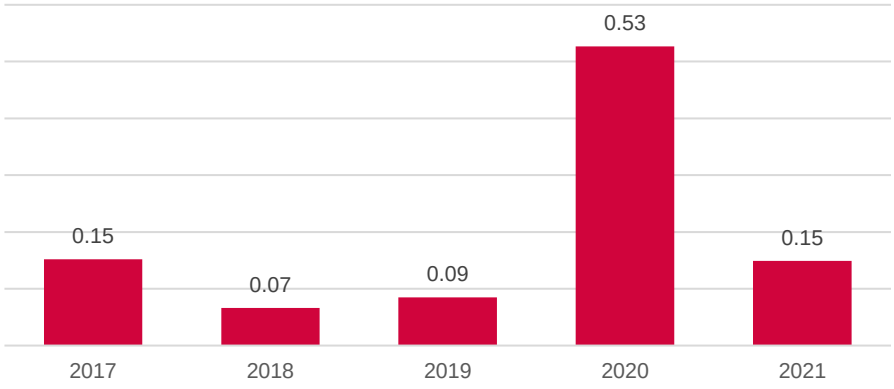
Business development 2021

in € m	FY 2018	FY 2019	FY 2020	FY 2021
Revenues	0.07	0.84	0.62	0.35
from commercial treatment	0.07	0.09	0.53	0.15
EBIT	6.83	-6.20	18.65	-6.74
Result for the period	4.36	-8.73	14.78	-10.57

Sources: MagForce AG; GBC AG

In the past financial year 2021, MagForce AG again generated commercial revenue exclusively from the treatment of glioblastoma patients in Europe. A total of four active treatment centres in Germany (Münster, Zwickau, Mühlhausen) and Poland (Lublin) generated treatment revenue of € 0.15 million (previous year: € 0.53 million) in 2021. The visible decline in the already low revenue level compared to the previous year is due in particular to the pandemic-related closure measures, which led to an overall decline in patient requests. In addition, the corona pandemic had led to a slowdown in the planned roll-out in other European countries. It was not until September 2021 that the market entry into another European country took place with the cooperation agreement with the Spanish clinic Complejo Hospitalario Integral Privado (CHIP). Originally, market entry into Italy was planned for 2020, but this was considerably delayed due to the critical pandemic situation there.

Revenues from commercial patient treatment (in € million)

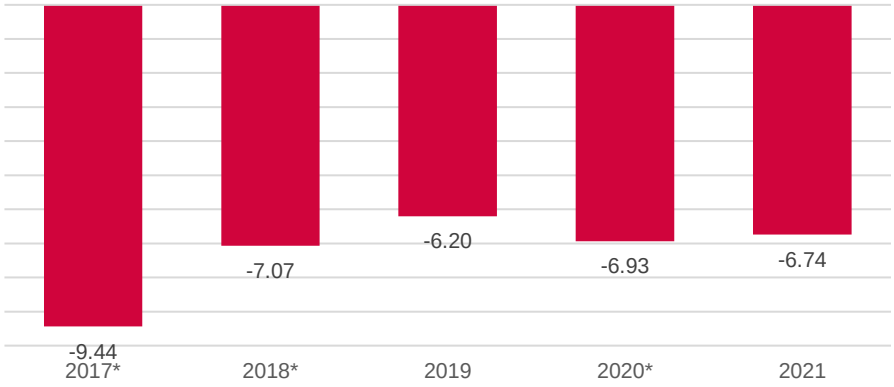


Sources: MagForce AG; GBC AG

In the indication area prostate cancer (USA), as expected, no commercial treatments have yet been carried out. As described in the context of this study, the focus here was on the start of the final stage 2b of the registration trial. After the completion of the first stage 2a in February 2021, MagForce AG started the final stage 2b in December 2021 after receiving approval for the final study protocol from the FDA. This lays the foundation for a timely approval and thus FDA filing for approval planned for the turn of the year 2022/2023.

In addition to their treatment revenue, MagForce AG also reports revenue from the product supply to the US subsidiary, so that the total revenue amounts to € 0.35 million (previous year: € 0.62 million). Even with the addition of other operating income of € 1.26 million (previous year: € 26.49 million), the level of income was not sufficient to cover operating costs. As expected, MagForce AG therefore once again posted a negative operating result with EBIT of € -6.74 million (previous year: € 18.65 million). The previous year's figure was affected by extraordinary income in connection with the realisation of hidden reserves in the amount of € 25.58 million. Adjusted for extraordinary income, MagForce AG would have reported EBIT of € -6.93 million in the 2020 financial year.

EBIT (in € million)



*Sources: MagForce AG; GBC AG; *adjusted for special income*

Based on the expected negative EBIT, a negative value of € -10.57 million (previous year adjusted: € -10.81 million) was also achieved at the level of the after-tax result. The difference between EBIT and the after-tax result is represented by the financial result of € -3.84 million (previous year: € -3.87 million). This includes, in particular, the interest expenses for bank loans taken out and for the convertible bond issued (see the chapter on the asset situation as at 31 December 2021).

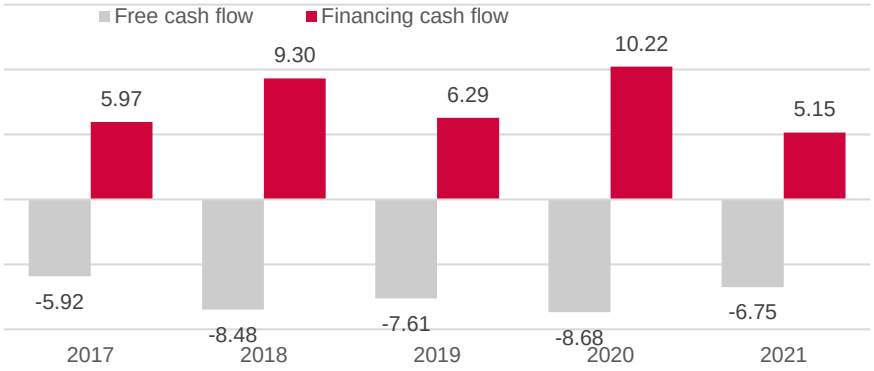
Asset situation as at 31.12.2021

in € m	31.12.2018	31.12.2019	31.12.2020	31.12.2021
Equity	18.16	14.71	35.52	26.84
thereof accumulated loss	*-52.06*	*-60.80*	*-46.05*	*-56.62*
Bank liabilities and convertible bond	15.88	16.67	22.83	25.64
Cash and cash equivalents	1.49	0.17	1.71	0.11
Valuation of subsidiaries	30.98	30.98	56.57	56.57
Cash flow (operating)	-7.11	-5.67	-5.70	-4.93
Cash flow (investment)	-1.37	-1.94	-2.98	-1.82
Cash flow (financing)	9.30	6.29	10.22	5.15

Source: MagForce AG; GBC AG

MagForce AG's asset situation must continue to be viewed from the perspective of the negative earnings situation that still exists. Currently, the focus is on financing business activities, which are still characterised by low commercial revenues. As at 31.12.2021, MagForce AG's financing also consisted mainly of bank loans amounting to € 16.77 million (31.12.20: € 15.73 million). These are loans from the European Investment Bank (EIB), which had an outstanding volume of € 16.77 million as at the balance sheet date (31.12.20: € 15.73 million). In addition, there is an agreement with Yorkville Advisors and Apeiron Investment Group Ltd. to issue convertible bonds. As at 31 December 2021, convertible bonds with a volume of € 8.88 million had been issued in this regard.

Free cash flow and financing cash flow (in € million)



Sources: MagForce AG; GBC AG

The expected negative operating cash flow of € -4.93 million (previous year: € -5.70 million) and free cash flow of € -6.75 million (previous year: € -8.68 million) was offset by an increase in financial liabilities and thus a financing cash flow of € 5.15 million (previous year: € 10.22 million). As at 31.12.2021, MagForce AG thus reports a decrease in cash and cash equivalents to € 0.11 million (31.12.20: € 1.71 million). In June 2022, i.e. after the balance sheet date, the company issued bearer bonds to Lansdowne Investment Company Cyprus Limited in the amount of € 3.5 million, which is expected to have led to an increase in cash and cash equivalents.

In line with the after-tax result, equity decreased to € 26.84 million as of 31.12.2021 (31.12.20: € 35.52 million). The equity capital includes a balance sheet loss of € 56.62 million (31.12.20: € 46.05 million), which could be considered an asset for the future development of the company due to the expected reduction in taxes to be paid.

FORECAST AND EVALUATION

in € m	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e
Revenues	2.98	15.73	36.79	61.87	92.03	117.06	135.20	153.48
EBITDA	-5.32	-3.16	8.29	26.50	43.41	56.93	65.90	74.96
EBIT	-6.22	-4.66	6.19	23.19	38.03	50.65	58.71	66.87
EAT before minorities	-10.57	-10.64	-9.52	1.32	17.76	34.09	65.84	76.32

Source: GBC AG

Corporate strategy

As in our previous research studies, our revenue and earnings forecasts for MagForce AG are based on the two pillars of commercialisation, the treatment of glioblastoma in Europe on the one hand and the treatment of prostate cancer in the USA on the other.

Currently, MagForce AG covers important regions for **glioblastoma treatment** in Germany and Poland with treatment centres in Münster, Zwickau, Mühlhausen and Lublin. In order to achieve further regional coverage, agreements are to be made with public and private hospitals. In the partner hospitals, the NanoTherm liquid will be instilled in preparation for treatment in a NanoActivator device. These patients would then be referred to the next treatment centre that has a NanoActivator where the NanoTherm particles are activated.

Another aspect of the expansion of treatment capacities is the continuation of the European roll-out. In addition to the treatment centre in Poland, a second foreign location will be opened in Spain in the second half of 2022, once official approval has been obtained. In the past financial year, the company signed a cooperation agreement with the Spanish clinic Compolejo Hospitalario Integral Privado (CHIP). The "plug-and-treat" solution developed by the company itself, which is characterised by quick and cost-effective installation, is to be used in this clinic. As we understand it, the cooperation with the Spanish clinic is to be understood as a further step in the roll-out strategy. Accordingly, MagForce AG is in negotiations with other possible partners in Austria, Germany and Italy, which should then lead to a significant expansion of patient treatments.

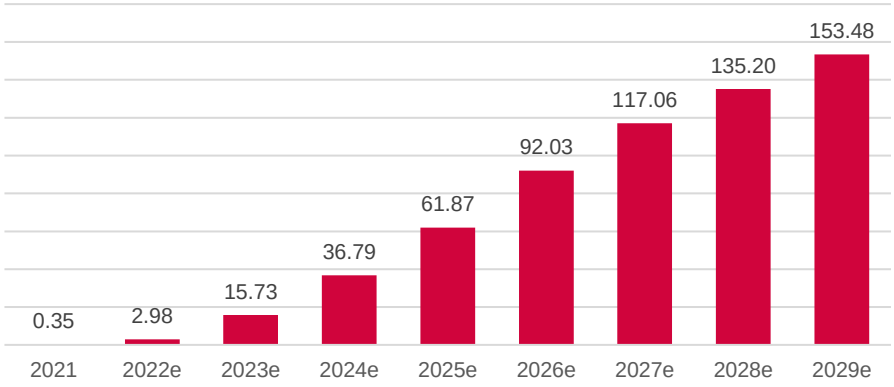
An important component of the commercialisation strategy is also the establishment of a procedure for the reimbursement of treatment costs. In Poland, for example, a so-called Investigator-Initiated Trial has been initiated, on the basis of which reimbursement is to be applied for. For Germany, reimbursement is to be addressed more firmly within the framework of a trial procedure. Currently, glioblastoma treatments are financed on individual application by private health insurers and in Poland by crowd-funding or by the patients themselves.

Filling for approval for **prostate treatment** in the USA is expected for the turn of the year 2022/2023. As the current ongoing stage 2b of the pivotal trial, in which up to 100 men are being treated, is being conducted at MagForce's own sites in San Antonio, Seattle and Sarasota, a seamless start to commercial treatments is guaranteed. There is no need to rent space, set up technology or recruit staff. Since the company treats prostate patients in the USA in its own so-called "Focal Treatment Centres", which are operated by its own specialist staff, there is a high added value. This goes hand in hand with significantly higher and more sustainable revenue potential than the sale of treatment devices. In addition, there is high scalability and a high level of profitability.

Turnover and earnings forecasts

As the approval for the treatment of prostate cancer in the USA is not expected until the turn of the year, we still expect low sales for the current financial year. These are related to the assumption of the study costs by the American Medical Association. A visible jump in sales should only be achieved from the coming 2023 financial year.

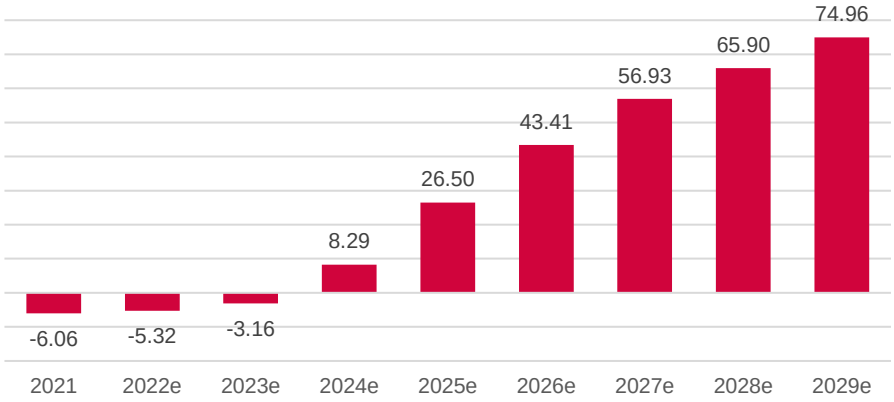
Turnover forecasts (in € million)



Source: GBC AG

Based on this, the break-even point should be reached at all earnings levels from the 2024 financial year onwards. Especially in the treatment of prostate cancer, the company should be able to achieve high profit margins.

EBIT forecast (in € million)



Source: GBC AG

Note: Revenues from prostate treatment in the USA are derived from the 65.3% subsidiary MagForce USA, Inc. We use a quasi-full consolidation in our forecasts and deduct the averaged share of minorities in the valuation.

Peer group analysis

MagForce AG's technology is a novel treatment for glioblastoma and prostate cancer. According to our research, no company offers a comparable technology. Furthermore, there is no comparable regional line-up in the indication areas specifically addressed by MagForce AG, so we are unable to produce a meaningful peer group analysis.

Evaluation

Model assumptions

We valued MagForce AG using a DCF model. In doing so, we prepared specific revenue and earnings estimates for the years 2022 - 2029 based on the company's commercialisation plan. Due to the accumulated losses carried forward, we have taken into account a tax rate of 30 % only from the 2027 financial year. In the second phase, a terminal value is determined after the end of the forecast horizon using the perpetual annuity. In the terminal value, we assume a sales growth rate of 2.0 %.

Determination of the cost of capital

The weighted average cost of capital (WACC) of MagForce AG is calculated from the cost of equity and the cost of debt. To determine the cost of equity, the fair market premium, the company-specific beta and the risk-free interest rate must be determined.

The risk-free interest rate is derived from current yield curves for risk-free bonds in accordance with the recommendations of the Fachausschuss für Unternehmensbewertungen und Betriebswirtschaft (FAUB) of the IDW. The basis for this is the zero bond interest rates published by the Deutsche Bundesbank according to the Svensson method. To smooth short-term market fluctuations, the average yields of the previous three months are used and the result rounded to 0.25 basis points. The currently used value of the risk-free interest rate is 0.80 % (previously: 0.25 %).

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

According to the GBC estimation method, a beta of 2.04 (previously 1.98) is currently determined. We have increased the company-specific risk until the expected market approval for prostate cancer treatment.

Using the assumptions made, we calculate a cost of equity of 12.00 % (previously: 11.15 %) (beta multiplied by risk premium plus risk-free interest rate). Since we assume a sustainable weighting of the cost of equity of 85% (previously: 85%), the weighted average cost of capital (WACC) is 10.76% (previously: 9.91%).

Valuation result

Within the framework of our DCF valuation model, we have determined a target price of € 9.15 (previously: € 11.00).

DCF model

MagForce AG - Discounted Cashflow (DCF) Valuation

Value driver of DCF-model after the estimate phase:

consistency - Phase	
EBITDA-margin	48.8%
Working Capital to sales	40.0%

final - Phase	
Perpetual growth rate	2.0%
Perpetual EBITA margin	41.6%
Taxe rate terminal value	30.0%

Three phases DCF - Model:

Phase	estimate								Termi-
in €m	FY 22e	FY 23e	FY 24e	FY 25e	FY 26e	FY 27e	FY 28e	FY 29e	nal value
Sales	2.98	15.73	36.79	61.87	92.03	117.06	135.20	153.48	
Sales change	395.1%	427.7%	133.9%	68.1%	48.8%	27.2%	15.5%	13.5%	2.0%
EBITDA	-5.32	-3.16	8.29	26.50	43.41	56.93	65.90	74.96	
EBITDA-margin	neg.	neg.	22.5%	42.8%	47.2%	48.6%	48.7%	48.8%	
EBITA	-6.22	-4.66	6.19	23.19	38.03	50.65	58.71	66.87	
EBITA-margin	neg.	neg.	16.8%	37.5%	41.3%	43.3%	43.4%	43.6%	41.6%
Taxes on EBITA	0.00	0.00	0.00	0.00	0.00	-15.19	-17.61	-20.06	
Taxes to EBITA	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%	30.0%	30.0%	30.0%
EBI (NOPLAT)	-6.22	-4.66	6.19	23.19	38.03	35.45	41.10	46.81	
Return on capital	604.1%	-219%	72.6%	155.4%	87.5%	52.7%	49.9%	49.4%	42.5%
Working Capital (WC)	-3.00	0.00	3.00	24.75	36.81	46.83	54.08	61.39	
WC to sales	neg.	4.8%	15.0%	40.0%	40.0%	40.0%	40.0%	40.0%	
Investment in WC	-2.98	-3.00	-3.00	-21.75	-12.07	-10.01	-7.25	-7.31	
Operating fixed assets (OFA)	5.12	8.52	11.92	18.72	30.48	35.59	40.72	45.88	
Depreciation on OFA	-0.90	-1.50	-2.10	-3.30	-5.38	-6.28	-7.19	-8.10	
Depreciation to OFA	17.6%	17.6%	17.6%	17.6%	17.6%	17.6%	17.6%	17.6%	
Investment in OFA	-1.08	-4.90	-5.50	-10.10	-17.14	-11.39	-12.32	-13.26	
Capital employed	2.12	8.52	14.92	43.47	67.29	82.41	94.80	107.27	
EBITDA	-5.32	-3.16	8.29	26.50	43.41	56.93	65.90	74.96	
Taxes on EBITA	0.00	0.00	0.00	0.00	0.00	-15.19	-17.61	-20.06	
Total investment	-4.06	-7.90	-8.50	-31.85	-29.20	-21.40	-19.57	-20.57	
Investment in OFA	-1.08	-4.90	-5.50	-10.10	-17.14	-11.39	-12.32	-13.26	
Investment in WC	-2.98	-3.00	-3.00	-21.75	-12.07	-10.01	-7.25	-7.31	
Investment in Goodwill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free Cashflow	-9.37	-11.06	-0.21	-5.35	14.21	20.33	28.71	34.33	495.65

Value operating business (due date)	282.17	323.61
Net present value explicit free CF	39.87	55.22
Net present value of terminal value	242.31	268.39
Net debt	-13.69	2.23
Value of equity	295.86	321.38
Minority interests	-43.68	-47.45
Value of share capital	252.18	273.93
Outstanding shares in m	29.93	29.93
Fair value per share in €	8.43	**9.15**

Cost of capital:

Risk free rate	0.8%
Market risk premium	5.5%
Beta	2.04
Cost of equity	12.0%
Target weight	85.0%
Cost of debt	4.0%
Target weight	15.0%
Taxshield	5.4%
WACC	**10.8%**

Return on capital	WACC				
	8.8%	**9.8%**	**10.8%**	**11.8%**	**12.8%**
40.5%	12.01	10.17	8.77	7.69	6.82
41.5%	12.28	10.39	8.96	7.85	6.96
42.5%	12.56	10.62	**9.15**	8.01	7.10
43.5%	12.83	10.84	9.34	8.17	7.24
44.5%	13.10	11.07	9.53	8.33	7.37

APPENDIX

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