



Research report (Anno study)



“Growth market for laser-based communication networks offers enormous growth potential”

“Research cooperation with Leti boosts technological leadership”

Target price: €95.00

Rating: Buy

IMPORTANT INFORMATION:

Please note the disclaimer/risk notice

as well as the disclosure of potential conflicts of interest according to Section 85 of the German Securities Trading Act (WpHG) and Art. 20 MAR from page 21

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”

Mynaric AG ^{*5a;5b;11}

Buy

Target price: EUR 95.00

Current price: 51.30

16/05/2018 / ETR

Currency: EUR

Key data:

ISIN: DE000A0JCY11

German securities identification number (WKN): A0JCY1

Ticket symbol: M0Y

Number of shares³: 2.70

Market cap³: 138.72

Enterprise value³: 139.55

³ in m/in EUR m

Free float (<5%): approx.

33.0%

Transparency level:

Scale

Market segment:

Open market

Accounting:

HGB [German Commercial

Code]

Financial year: 31/12/

Designated sponsor:

HAUCK & AUFHÄUSER

PRIVATBANKIERS AG

Analysts:

Marcel Goldmann

goldmann@gbc-ag.de

Cosmin Filker

filker@gbc-ag.de

* Catalogue of potential conflicts of interest on page 22

Corporate profile

Segment: Technology

Focus: Laser-based communications technology

Employees: 56 (Status: Dec. 2017)

Founded: 2009

Registered office: Gilching (near Munich)

Management Board: Dr Wolfram Peschko, Joachim Horwath, Dr Markus Knappek

Mynaric was founded in 2009 by former employees of the German Aerospace Centre (DLR) research institute. The technology company is a manufacturer of laser communications technology, which is used to set up dynamic communications networks from flying objects (e.g. aircraft) and satellites in the air and in space. Its wireless data transmission products include ground stations and laser terminals, which enable large amounts of data to be transmitted at high speed over long distances and are highly efficient and secure at the same time. Mynaric's laser technology enables flying objects and satellites to communicate wirelessly with one another and with the ground. Mynaric has developed a wireless laser communications technology, which provides the structural basis for making access to the Internet "above the clouds" and in space. Globally, the demand for faster Internet availability anywhere and everywhere is growing dynamically. The laser specialist, Mynaric, is a pioneer in this growth market. Potential customers include international corporations, such as Google, Facebook, SpaceX and Telesat.



P&L in €m \

| FY-End* | 31/12/2017 | 31/12/2018e | 31/12/2019e | 31/12/2020e | 31/12/2021e | 31/12/2022e |
|--------------|------------|-------------|-------------|-------------|-------------|-------------|
| Total output | 3.20 | 12.20 | 37.34 | 92.31 | 258.16 | 406.21 |
| EBITDA | -2.95 | -3.56 | 2.76 | 16.37 | 59.57 | 109.47 |
| EBIT | -3.09 | -3.68 | 0.59 | 9.32 | 50.27 | 98.74 |
| Net profit | -3.06 | -3.68 | 0.59 | 7.92 | 35.19 | 69.19 |

Key financials

| | | | | | | |
|-----------|-------|-------|--------|-------|------|------|
| EV/Sales | 43.61 | 11.44 | 3.74 | 1.51 | 0.54 | 0.34 |
| EV/EBITDA | neg. | neg. | 49.87 | 8.41 | 2.31 | 1.26 |
| EV/EBIT | neg. | neg. | 233.31 | 14.77 | 2.74 | 1.39 |

* Data and estimates are based on the operating subsidiary, Mynaric Lasercom GmbH

Financial Dates

17/07/2018: General meeting

Oct. 2018: Half year report, H1 2017

Nov. 2018: Equity forum (EKF)

**last research published by GBC:

Date: publication / price target in € / rating

11/12/2017 / RS / 95.00 / Buy

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EXECUTIVE SUMMARY

- Mynaric specialises in the development and production of laser-based products for use in laser-supported communications networks. This business segment is still a young, relatively under-developed market, however, in our opinion, it is beginning to “clearly pick up speed slowly”. For this segment, we are expecting very dynamic market growth and believe that, over the long term, market volume in the double-digit millions range will be possible.
- In the past, Mynaric has mainly concentrated on the development of pre-series products, so as to use them with potential customers for testing and demonstration purposes. As a result, total output has still not been achieved and with rising R&D expenses, the technology company has not yet achieved an operating profit. The performance of the products developed so far has been demonstrated successfully in customer tests, where two world records have been achieved. In addition, as a result of the research cooperation with the renowned Leti CEA Tech Research Institute, the performance of the products will be further improved, so that technological advances in the field of laser communications can be expanded. In addition to this, the cost structure of the products will be optimised further, thereby increasing benefits for the customer.
- Mynaric has continued to expand its previous product portfolio in the current financial year. As developments in the air sector have been the main focus up till now, the development of terminals for the space sector has now been stepped up. A ground station for this segment has already been developed and will be tested by the first customer in the 2018 financial year. The development of the space laser terminal is expected to be completed at the beginning of 2019, so that it can be delivered in the same year for use on satellites. Initial tests with electronic components of this terminal are already planned for this year.
- Last August, Mynaric announced the conclusion of a design and manufacturing contract with the US company, Airborne Wireless Network. Under the terms of this contract, comprehensive tests should be conducted on the company’s laser technologies this year. Up to 20 aircraft will be fitted with Mynaric laser technology in order to support a laser-based communications network. As a result of this cooperation a further important step has been taken on the way to the series production that the company is striving for. The financial resources required for this were raised by a successful initial public offering (gross issue proceeds: €27.3 million).
- In the past, Mynaric achieved a good basis to profit significantly from the expected dynamic growth in the future laser-based communications networks market. In the current financial year, 2018, we are expecting total output for Mynaric of €12.20 million and EBITDA of €-3.56 million. With the start of series production, the profit threshold should be reached at operational level in the following year, 2019, and, as a result of this, the total output is set to increase to €37.34 million. For the subsequent financial years, we expect a strong rise in operating results (EBITDAs) based on a dynamic total output trend and economies of scale. As a consequence of this, double-digit EBITDA margins should be achievable in the long term.
- **It is on this basis that we have evaluated the technology company using our DCF model and calculated a fair value of €95.00. Based on the current share price, our recommendation is to BUY. We hereby confirm our previous assessment of the company (target price/rating: €95.00/Buy).**

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COMPANY

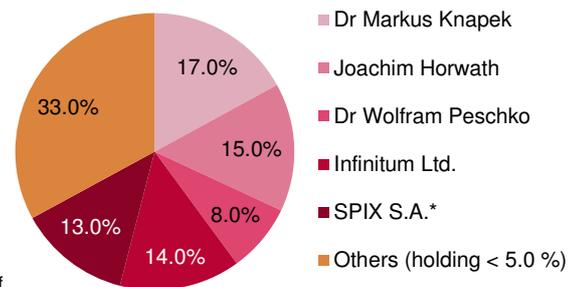
In 2009, Mynaric was founded by former employees of the Institute for Navigation and Communication of the DLR (German Aerospace Centre) in the form of Mynaric Lasercom GmbH (formerly trading under the name of ViaLight Communications GmbH), which was integrated into Mynaric AG later on. The founders, including two of the present Management Board members, had accumulated many years of experience in the field of wireless laser communications with the DLR before founding the company.

Currently, the Mynaric Group is mainly active in the field of research and (further) development of laser communications technologies and the development and production of ground stations and laser terminals. These laser communications technologies can be used in the air (aircraft, unmanned drones, high-altitude platforms, such as stratospheric balloons or gliders) and in space (satellites) for setting up global data networks. The ground stations provide the link from the air or space to the ground. Mynaric's laser technology (known as the backbone technology) provides high-speed Internet "above the clouds", in space and anywhere in the world (via laser-supported satellite technology).

Shareholder structure

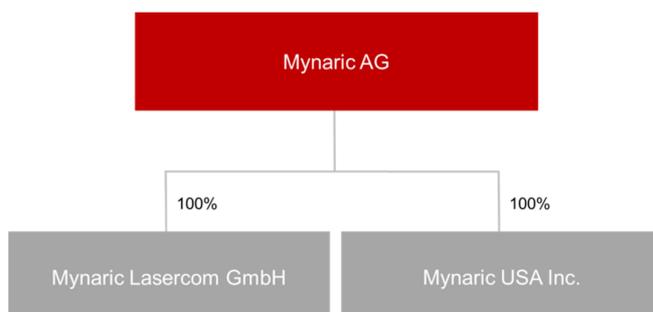
| Shareholders in % | 31/12/2017 |
|------------------------|------------|
| Dr Markus Knapek | 17.0% |
| Joachim Horwath | 15.0% |
| Dr Wolfram Peschko | 8.0% |
| Infinitem Ltd. | 14.0% |
| SPIX S.A.* | 13.0% |
| Others (holding <5.0%) | 33.0% |

Source: Mynaric AG; GBC AG * to be assigned to the supervisory board to Dr Gerloff



Corporate structure

Mynaric AG constitutes the strategic management and financial holding company of the Mynaric Group and performs key management functions, providing jointly used services in the fields of Finance, Administration, Human Resources, Investor Relations, IT, Strategy and Public Relations, Quality Management and Corporate Affairs for the Group. The parent company mainly focuses on Strategy, Public Relations, Management and Controlling of its shareholdings, as well as the development of the entire group of companies. Operating activities are performed by the subsidiary, Mynaric Lasercom GmbH (registered office: Gilching).



Source: Mynaric AG; GBC AG

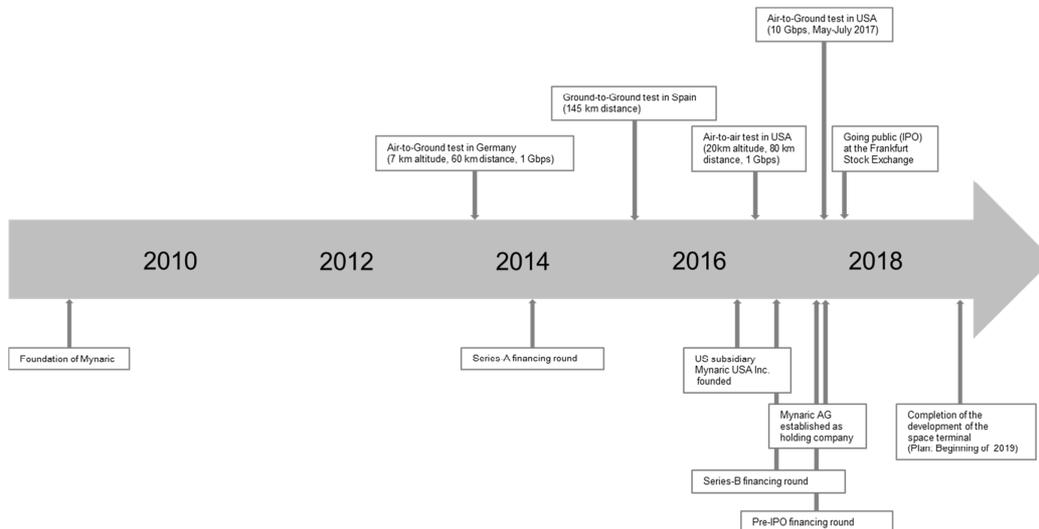
Historical events

| Date | Event |
|----------------|--|
| May 2009 | Founding of Mynaric Lasercom GmbH (formerly ViaLight Communications GmbH) with its registered office in Gilching (near Munich). The business purpose of this company is the development and sales of laser-based communications technologies and related systems and components. |
| May/June 2013 | Conclusion of a cooperation and licence agreement between Lasercom GmbH and the DLR (German Aerospace Centre). |
| 2012 | The first customer order for the manufacture of a pre-series laser terminal device for aircraft to provide laser-based communications technology between the ground and air and to conduct the first successful test series in cooperation with the DLR in 2013. |
| 2014 | First large customer order (volume > €1 million) for the delivery of two laser terminal pre-series products to provide laser communications from air to air in the stratosphere, including a successful test series in 2016. |
| January 2016 | Mynaric USA, Inc. (previously ViaLight Space, Inc.) founded with its registered office in Huntsville, Alabama (USA), as well as the start of development of a laser terminal for laser communication from satellites to satellites in the Low Earth Orbit (LEO). |
| 2016 | First large customer order (volume > USD 1 million) for the US subsidiary, Mynaric USA, Inc. The customer order was to supply an optical ground station for laser communication from satellite to ground. |
| April 2017 | Mynaric AG founded |
| August 2017 | All Mynaric Lasercom GmbH company shares transferred to Mynaric AG as part of a capital in kind increase in conjunction with a €1.95 million share capital increase to €2.0 million. |
| August 2017 | Conclusion of a design and manufacturing contract with the company, Airborne Wireless Network, which links passenger and cargo aircraft using laser-based communications technology and thus aims to set up a dense communications network in airspace. |
| September 2017 | Implementation of three cash capital increases from authorised capital. The new shares were placed with selected investors by increasing the share capital by a total of €198,304 to €2,198,304. |
| October 2017 | Initial public offering (IPO) of Mynaric AG, gross issue proceeds: €27.3 million. |
| December 2017 | Delivery of two laser terminals for flight use and the related components to Airborne Wireless Network for further tests on the "ABWN-patented Infinitus Super Highway Technology" |
| January 2018 | Announcement that the first electronic components are to be sent to a customer satellite in space in the first half of 2018. This is simultaneously a development milestone for satellite laser terminals and confirms the expected completion at the beginning of 2019. |
| April 2018 | Conclusion of an exclusive partnership with the French research institute, CEA Tech, Leti, for the further development of its laser communications products |

Source: Mynaric AG; GBC AG

Milestones

Significant milestones in the company history so far have been test projects which have demonstrated the efficiency and durability of Mynaric’s technologies. Air-to-ground tests were performed over 60 kilometres, ground-to-ground tests over a range of 145 kilometres and air-to-air tests over 80 kilometres.

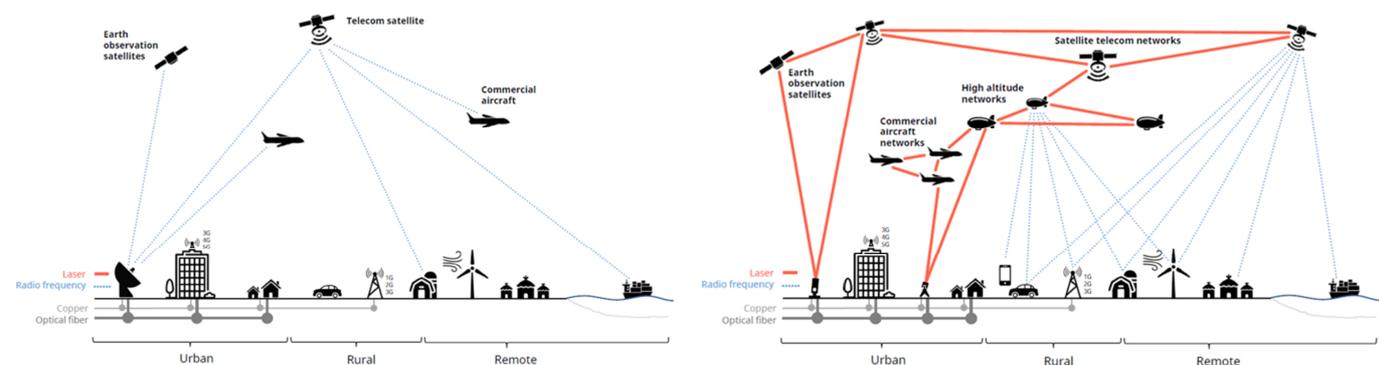


Source: Mynaric AG

Mynaric’s laser technology and fields of application

Mynaric’s laser technology sets up global communications networks in the air and in space and therefore an Internet “above the clouds”. With this, data can be transferred wirelessly over great distances and at high speed between ground stations, aircraft, high-altitude balloons in the stratosphere or satellites in space. The hardware manufactured by the company uses laser technology in order to transfer large data volumes from one point to the next over a great distance at high speed. Therefore, this technology is suitable as a “data highway” for various communications networks (known as a backbone connection). In all, the company’s technology can be regarded as a fibre-optics network without fibre-optics.

Current communications network structure & future communications network structure using laser technology



Source: Mynaric AG

Due to the global demand for faster Internet connections across the globe, especially in areas without an Internet connection (approx. 3 billion people worldwide), leading technology companies, such as Google, Facebook, SpaceX, OneWeb and Telesat, are working on their own large communications networks in the air and in space. For this, they are using drones, satellites and high-altitude platforms, etc. and wireless laser communications procedures, in order to link these flying objects to one another (or to enable them to communicate). Due to the long distances between these platforms and the high data rates required, in principle, only laser technology is suitable for this.

All in all, this shows the high status which this technology currently already has. The companies referred to are also potential business partners for the company.

Selected communications network projects by leading technology companies

| Company | Project |
|----------|--|
| Google | <p>“Google-Loon” constellation: Thousands of stratosphere balloons at an altitude of 20 to 30 km will be used to set up regional dynamic communications networks.</p> <p>Aim: Making Internet access available to people in rural and remote regions. Worldwide, it is estimated that 3 billion people have no Internet access.</p> |
| Facebook | <p>“Facebook Aquila” constellation: Thousands of stratosphere gliders (drones, UAVs) are to be used at an altitude of 20 to 30 km, in order to set up regional dynamic communications networks.</p> <p>Aim: Offering a broadband Internet connection for the 3 billion people worldwide who have not had an Internet connection so far.</p> |
| SpaceX | <p>Two planned constellations:</p> <ul style="list-style-type: none"> - 4,425 satellites as part of the “LEO constellation” at an altitude of 1,100 to 1,325 km - 7,518 satellites as part of the “VLEO constellation” at an altitude of 336 to 346 km <p>Aim: Broadband Internet service for domestic, commercial, institutional and government and professional users worldwide.</p> |
| Telesat | <p>Two planned constellations:</p> <ul style="list-style-type: none"> - 117 satellites as part of the “Ka-band LEO constellation” at an altitude of 1,000 to 1,250 km - 117 satellites as part of the “V-band LEO constellation” at an altitude of 1,000 to 1250 km <p>Aim: A broadband Internet service for the regions of the world with insufficient Internet connections, which have few alternatives for communication.</p> |
| OneWeb | <p>Two planned constellations:</p> <ul style="list-style-type: none"> - 720 satellites as part of the “LEO constellation” at an altitude of 1,200 km - 1,280 satellites as part of the “MEO constellation” at an altitude of 8,500 km <p>Aim: Worldwide broadband Internet service for corporate customers and telecommunications customers, as well as for private customers. The start of operation is planned for 2020.</p> |

Source: Google; Facebook; SpaceX; Telesat; OneWeb

MARKET AND MARKET ENVIRONMENT

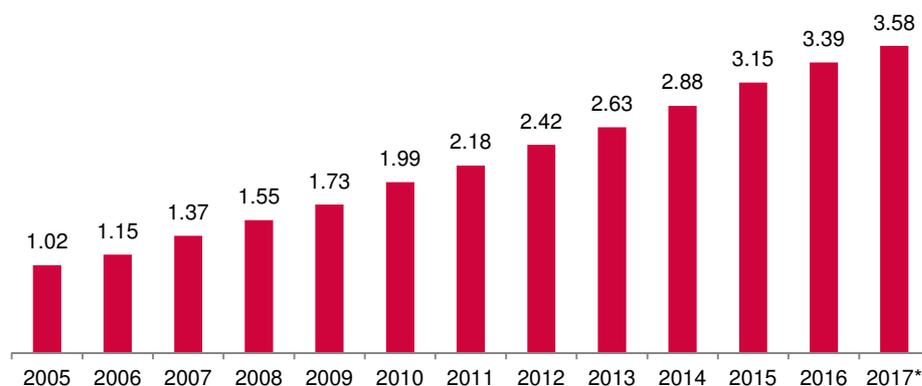
The laser-based products (laser terminals, ground stations) developed and manufactured by Mynaric are to be used in future by customers for transmitting very high data volumes between aviation and aerospace objects (aircraft, stratosphere balloons, satellites, etc.) and/or between such objects and the ground, as part of large communications networks.

In this context, future customers are planning to set up an Internet “above the clouds” in the form of large networks of flying objects (known as constellations), which are linked to one another via laser technology. The laser-based networks carried by the satellites and aircraft can deliver high-speed Internet, even in the most remote and inaccessible regions of the planet. And, thus, the 3.0 billion people without Internet access, estimated by the experts from “Internet World Stats”, can be supplied.

Global Internet demand and data transfer online

According to company information, at the present time, wireless laser communications technology in the aviation and aerospace segment is only used for data transmission purposes for pilot projects and demonstrations. The market for wireless laser communication using laser terminals and ground stations is therefore still quite a young and not particularly developed market, which is just starting to develop.

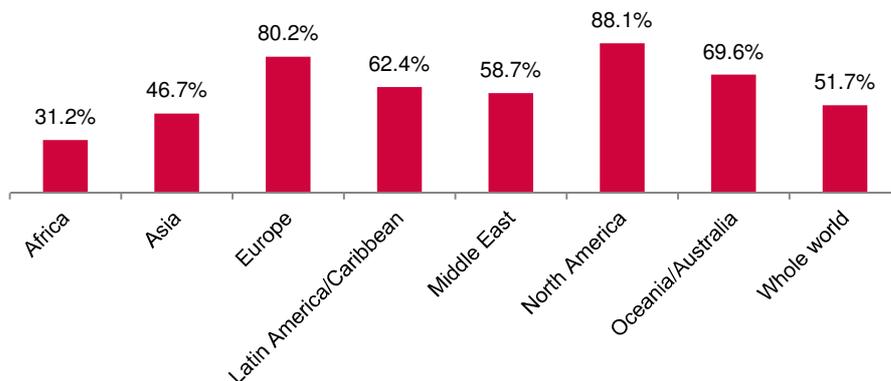
Number of global Internet users (in billion)



Source: Statista; GBC AG

The global rise in data volumes to be transferred and the increasing demand for faster Internet connections everywhere, particularly due to advancing digitisation, requires an upgrade of the international communications infrastructure. Due to the increasing digitisation trend which is extending to more and more areas, the number of global Internet users nearly trebled by 2016, compared with 2006, to 3.39 billion people. Here, it is worth mentioning that, as already shown above, 3.0 billion people worldwide do not have an Internet connection. This affects not only some regions in industrialised countries (known as “white spots”) but particularly developing countries.

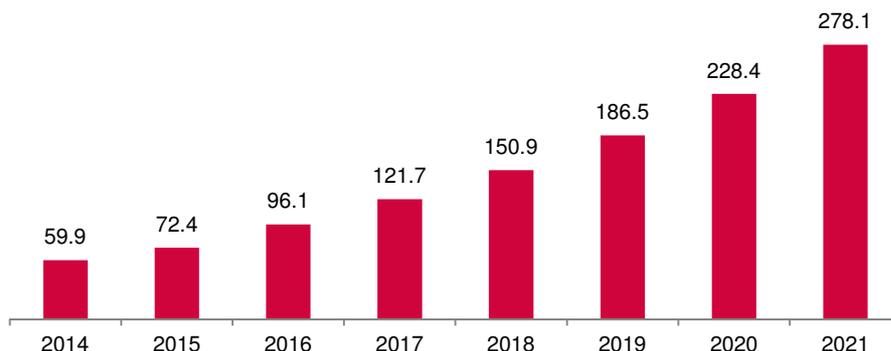
Global Internet penetration rate



Source: Internet World Stats; GBC AG

Compared with the number of users, data transfer on the Internet has increased even more significantly at the same time which was due in particular to the increasing use of video. According to study estimates by the network specialist, Cisco, data volume grew by 60.7% from 59.8 exabytes/month in 2014 to 96.1 exabytes/month in 2016. In future, experts also expect a significant rise in data transfer volume. The amount of data transferred is expected to increase by an average of 24.0% between 2016 and 2021 (CAGR).

Global Internet data transfer (exabytes/month; 1 exabyte = 1 billion gigabytes)



Source: Cisco; GBC AG

Challenges exist for the expansion of the existing communications infrastructure to serve the globally growing demand for fast Internet anywhere. Ordinary data transmission technologies, such as near-ground fibre optic cables or radio technologies, are too expensive and inefficient for a global (comprehensive) high-speed Internet connection. For example, the installation of a submarine fibre optic cable over 3,000 km costs around €100 million. On the other hand, the setting up of a radio network requires a dense network (e.g. every 3 kilometres) of radio masts and costly radio licences, where it must be mentioned that the current radio technology is quickly reaching its capacity limits. Due to the significant increase in Internet-capable devices, the present network infrastructure is already reaching its logistical and economic limits.

In view of the specific characteristics of laser communications, experts are confident that it will take on a key role in the next generation of communications networks. Because only with this technology can the growing demand for fast Internet anywhere be met, as well as supplying the estimated 3 billion without an Internet connection with broadband Internet access. The laser technology which Mynaric offers can therefore take on a key role for future communications networks.

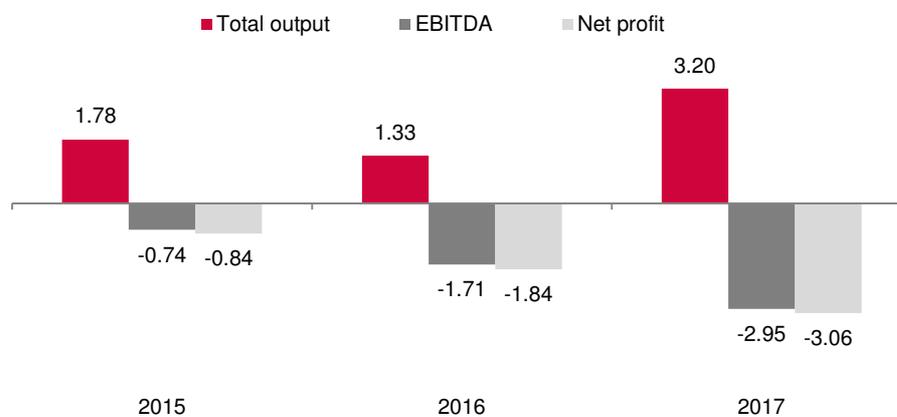
All in all, we assume that the future market for the development of laser-based aerospace communications networks may reach a similar volume as the present market for optical communications networks on the ground using fibre optics technology. According to the experts at “Markets and Markets”, the market for optical communications networks reached an estimated volume of USD 17 billion in 2017 and further market growth of 10.5% per year is expected in future. Due to good market positioning, particularly technology leadership, we assume that Mynaric AG will profit significantly from the up-and-coming dynamic market for laser communications technology.

COMPANY PERFORMANCE & FORECAST

Overview of key figures

| in € millions | FY 2015* | FY 2016* | FY 2017* |
|------------------------------|--------------|--------------|--------------|
| Revenues | 1.86 | 0.47 | 1.64 |
| Change in inventory | -0.38 | 0.17 | -0.04 |
| Capitalized service | 0.00 | 0.04 | 1.25 |
| Other operating income | 0.31 | 0.65 | 0.35 |
| Total output | 1.78 | 1.33 | 3.20 |
| Material expense | -0.42 | -0.37 | -1.48 |
| Personnel expense | -1.24 | -1.91 | -3.06 |
| Depreciation | -0.10 | -0.13 | -0.14 |
| Other operating expense | -0.87 | -0.76 | -1.61 |
| EBIT | -0.84 | -1.84 | -3.09 |
| Interest expenses | 0.00 | -0.01 | -0.01 |
| Net profit | -0.84 | -1.84 | -3.06 |
| EBITDA | -0.74 | -1.71 | -2.95 |
| Earnings per share | n/a. | n/a. | -1.13 |
| Number of shares in millions | 2.20 | 2.20 | 2.70 |
| Cash and cash equivalents | 0.71 | 0.23 | 1.58 |
| Equity (equity ratio) | 1.48 (85.0%) | 0.26 (13.5%) | 1.66 (37.9%) |

Source: Mynaric AG; GBC AG * The business figures relate to the operative subsidiary of Mynaric (Mynaric Lasercom)



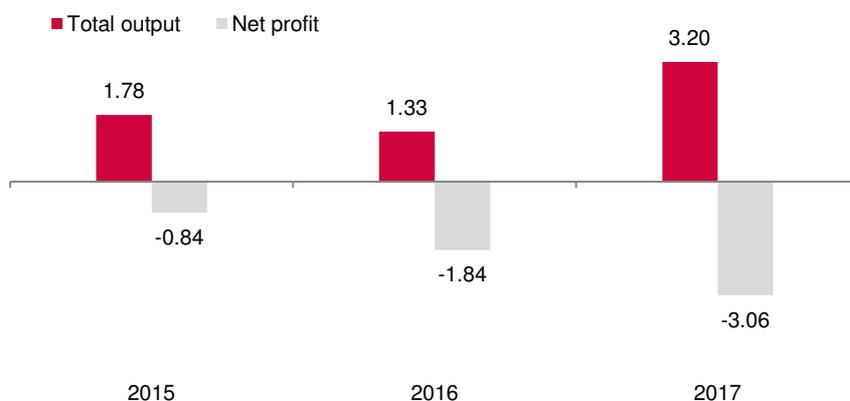
Source: Mynaric AG; GBC AG

2017 business performance

Background

Mynaric AG/Mynaric Lasercom GmbH (the operating subsidiary) has mainly concentrated on the development of pre-series products in the past. These were then used with customers for testing and demonstration purposes. The major customers supplied, such as Airborne Wireless Network, mainly came from North America. Due to the still relatively low level of sales associated with this and the rising R&D expenses, negative net results naturally occurred.

Development of total output and net result (in € million)



Source: Mynaric AG; GBC AG

All company sales so far have been generated with major customers for product demonstrations. Customer orders were obtained in particular in the air terminals segment. In addition to this, laser-based ground stations were supplied to customers for air and space scenarios, for demonstration and test purposes.

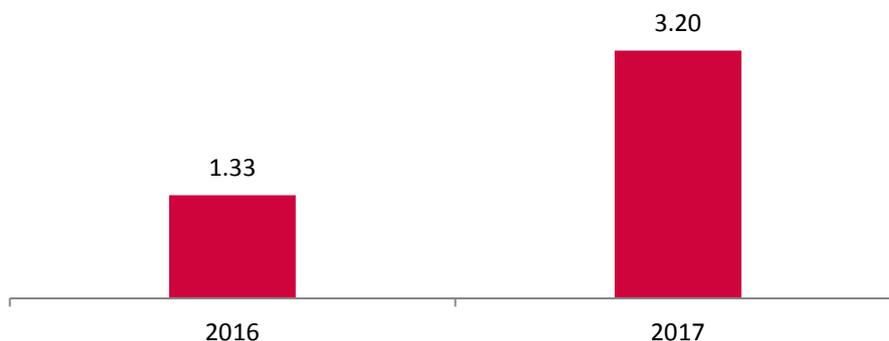
The product demonstrations so far have comprised single connection tests, such as the test of a communications connection from air-laser terminal to air-laser terminal or from ground station to air-laser terminal. More extensive product demonstrations and tests with several flying objects or several satellites are being planned by customers in the near future (e.g. manufacturing contract with Airborne Wireless Network, incl. extensive tests).

Development of total output

Due to the characteristics of the market served by Mynaric, with long production development periods, payment milestones spread over time and long-term partnerships, we will use the total output below to assess business trends as, in addition to sales, they also consider changes in inventories from production, other operating income and own work capitalised.

In the past financial year, 2017, the total output of the operating subsidiary, Mynaric Lasercom GmbH, increased significantly by 140.6% to €3.20 million, so that a new maximum value in the history of the Mynaric Group was reached. Total output has been supported in particular by generated sales revenues of €1.64 million and own work capitalised of €1.25 million.

Development of total output (in € million)



Source: Mynaric AG; GBC AG

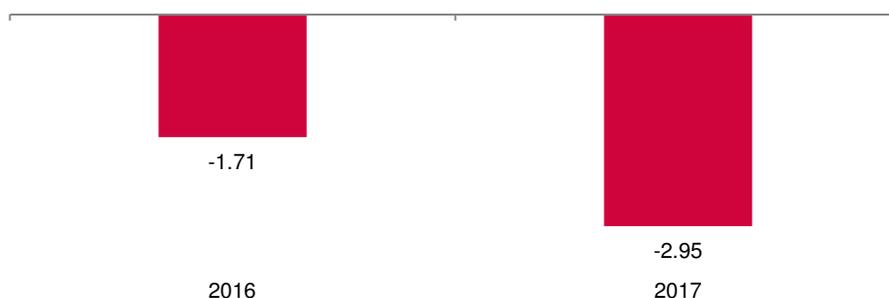
In turn, sales revenues mainly resulted from supplying a ground station and an air terminal, as well as successful demonstrations of these products in an air-to-ground scenario for a large US customer. During a single connection test between air and ground, a transmission speed of 10 Gbps was reached and, thus, according to company information, the fastest wireless communications connection ever was achieved from an aircraft to the ground. Additional significant sales by the subsidiary resulted from technical milestones reached for an optical ground station for communication with satellites, which is under construction.

Furthermore, the company's internally produced and capitalised assets accrued in FY 2017 to €1.25 million. These related in particular to the new development of the terminal for satellite constellations, which is to be completed by the beginning of 2019.

Overall, it must be noted that business development in the past financial year was satisfactory, even if our sales/total output forecast fell short slightly. In 2016, the subsidiary founded in the USA was expanded further in order to support the local regional business. Furthermore, customer relationships so far, such as with the technology company Airborne Wireless Network, were further enhanced (manufacturing contract concluded, as well as extensive tests are intended). Both should have a positive impact on future business development. All in all, we see the technology company as being on the right path to becoming a significant supplier for the future market of laser-supported mega-constellations in air and space.

Earnings performance

Development of operating result (EBITDA in € million)



Source: Mynaric AG; GBC AG

The operating result (EBITDA) is developing in the opposite direction to the sales trend. This was particularly due to high advance payments for the upcoming series production, as well as R&D expenses for the development of terminals that are suitable for space and terminals with higher data transmission rates. The general expansion of the workforce and the subsidiary in the USA also had a negative effect on the results. In combination with the still low sales level, resulting from testing and demonstration sales, the operating results declined from €-1.71 million to €-2.95 million.

Overall, it can be stated that the earnings performance was satisfactory, considering the current company status. The operating result (EBITDA) reported by Mynaric Lasercom GmbH was within our expectations. The EBITDA we forecast of €-3.12 million was achieved or was even slightly better than expected.

SWOT analysis

| Strengths | Weaknesses |
|---|---|
| <ul style="list-style-type: none"> • Experienced, competent management with expertise in company management and high technical expertise, particularly in laser technology • Close R&D cooperation with the German Aerospace Centre (DLR), one of the largest German research organisations • Excellent networking of the company within the aerospace sector and with related sectors, such as the Internet industry or the telecommunications industry • Strong market position due to technology leadership in the commercial use of wireless laser technology (“first-mover advantage”) • Management still holds significant number of shares of the company | <ul style="list-style-type: none"> • Dependency on individual key people, particularly in the management and technology division • Generally small company size and, as a result, naturally low financial strength as well as continuing high dependency on external financing sources • Business is very dependent on project acquisitions and major customers • High dependency on the suppliers of hardware components (sub-systems for the company’s own final assembly) • High dependency on US business |
| Opportunities | Risks |
| <ul style="list-style-type: none"> • Growth market for setting up laser-based communications networks in aviation and aerospace; high growth potential is expected in this new market; over the long term, a multi-billion market is forecast • Lucrative servicing and maintenance revenues • High technical complexity creates considerable barriers to market entry for new competitors. A market volume, which grows in parallel with this, results in significant growth potential • Expansion of the service range towards a system supplier may open up additional growth potential and simultaneously increase the degree of differentiation further • Possible acquisition target for leading international Internet and technology companies | <ul style="list-style-type: none"> • The market for setting up laser-based communications networks may develop differently than expected. • The technologies developed by Mynaric may not be accepted by customers and therefore reduce sales potential • High dependency on the willingness of potential customers to invest. This, in turn, is dependent on global economic activity and the development of the market for communications networks. • Strong dependency on the US business as the majority of test customers and cooperation partners (Airborne) come from this region. |

Forecasts and model assumptions

| P&L (in €m) | FY 2017 | FY 2018e | FY 2019e | FY 2020e | FY 2021e | FY 2022e |
|--------------------------|--------------------------|--------------------------|----------------|------------------|------------------|-------------------|
| Total output | 3.20 | 12.20 | 37.34 | 92.31 | 258.16 | 406.21 |
| EBITDA (<i>margin</i>) | -2.95 (<i>neg.</i>) | -3.56 (<i>neg.</i>) | 2.76 (7.4%) | 16.37 (17.7%) | 59.57 (23.1%) | 109.47 (27.0%) |
| EBIT (<i>margin</i>) | -3.09 (<i>neg.</i>) | -3.68 (<i>neg.</i>) | 0.59 (1.6%) | 9.32 (10.1%) | 50.27 (19.5%) | 98.74 (24.3%) |
| Net profit | -3.06 | -3.68 | 0.59 | 9.32 | 50.27 | 98.74 |

Source: GBC AG

Sales forecasts

In the past, Mynaric has concentrated very intensively on the development of laser-based communications solutions for so-called constellations in the air segment, and has hereby developed initial market-ready (air terminals) products. In addition, the technology company has started to expand its product portfolio further and, as a consequence of this, the development of a space terminal (for a space-to-space link) and is planning to complete this terminal by the beginning of 2019. Furthermore, the performance and cost structure of the laser products will be improved, thereby increasing customer benefits. While this was going on, Mynaric entered into an exclusive partnership in 2017 with Leti, a renowned French CEA Tech research institute.

As single-connection-based demonstrations and tests (e.g. air-to-air communication link or air-to-ground link) were mainly conducted in the past with US customers, more extensive tests now will be increasingly conducted with several flying objects. While this was going on, Mynaric has been able to put the performance of its products to the test with several customers and even achieve two world records.

In light of the above, Mynaric announced an initial technology cooperation with an existing customer in the summer of 2017. And so it managed to conclude a design and manufacturing contract with the major US company, Airborne Wireless Network (ABWN). The aim of this project or this partnership is to set up and test a laser-based communications network from several aircraft. Through this cooperation, an additional important step was made towards series production.

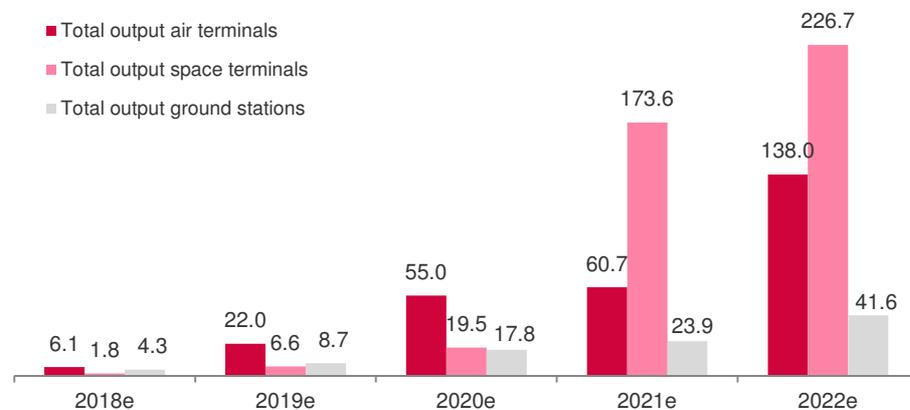
In the same step, production will be expanded in order to enable delivery of the planned higher numbers of units for upcoming more extensive tests, as well as preparing the intended series production. The financial resources required for this (gross issue proceeds: €27.3 million) were raised by the successful initial public offering in the autumn of 2017. In addition, globalisation will be continued further as a result of this, so as to better serve existing and potential customers, as well as develop local business potential.

With its “first-mover advantage”, which is particularly based on its laser technology, we assume that Mynaric will manage to achieve significant market shares in the future market of laser-based communications networks. In light of the above, we expect that this technology company will achieve very dynamic sales growth. Mynaric serves a total of three customer groups or customer bases (air terminals, space terminals and ground stations). As a result, the total Group output can be divided into the air, space and ground segments/divisions.

We expect that the air segment, which currently represents the majority of the total output, will also grow significantly in the coming years and will also contribute considerably to the Group output. This is particularly due to the fact that, compared with the space segment, Mynaric is already developing the necessary hardware for customers and has

already concluded a manufacturing contract with Airborne Wireless Network. The latter should make a significant contribution to the future positive development of the segment.

Expected development of total output by segments



Source: GBC AG

We also expect the same positive business trend for the ground stations segment. In this segment, Mynaric already has marketable products. Initial customer orders for test purposes have already been placed by space and air segment customers in this area and the first tests have already been successfully completed or are planned for the current financial year. Based on the successful tests and the positive progress expected by us, we anticipate follow-up orders. These should then lead to a dynamic business trend in the coming years in this segment.

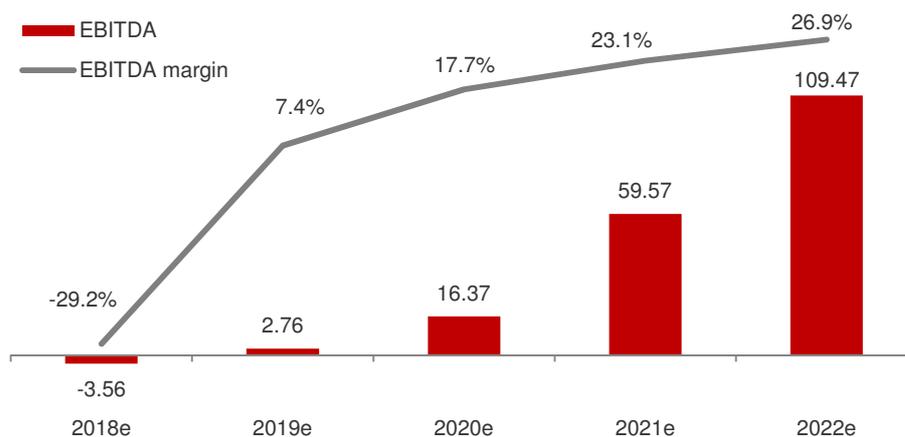
In the space segment, we expect Mynaric to complete the development of the space terminal at the beginning of 2019 with a qualification unit. We are anticipating initial tests with the electronic components with a customer from the satellite segment in the current financial year. Next year we assume that initial test series will be conducted with the ready-developed space terminal on one or more satellites. After the initial successful test runs, we anticipate a large number of follow-up orders, as satellite network operators can only provide their service with a large number of satellites which this is required for economic feasibility. Therefore, we also assume that there will be very dynamic business development, which will record the highest growth rates in subsequent years. Over the long term, we expect that this business segment will make a crucial contribution to total output.

In light of the strong market position (technology leadership with laser communications technologies, “first-mover advantage”), as well as the expansion and further development of the product range (space terminal, Leti cooperation), Mynaric should manage to increase its total output quickly in an up-and-coming multi-billion future market. The successful product tests so far, the cooperation with Airborne Wireless Network and the increased market interest show that Mynaric is well positioned for this and can also achieve it.

Profit forecasts

The dynamic sales development which we expect is also reflected in our results forecasts. For the current and upcoming financial year, we assume that due to the sales level, which is still low, and the high investments in R&D, personnel and capacity expansions, negative operating results will continue. From 2019, the operating profit threshold should then be achieved. In subsequent years, the operating result should increase very dynamically and in 2022 it should grow to €109.5 million. At the same time, the EBITDA margin forecast by us of 7.4% in 2019 will sky-rocket to 26.9% in 2022.

Expected development of the EBITDA and the EBITDA margin



Source: GBC AG

This should be achieved by the economies of scale, learning curve effects and increased buying power which we anticipate. Due to the expected high sales dynamics, the fixed costs incurred in the form of administration costs, for example, should be distributed across a higher business volume (total output) and thus lead to an improvement in the fixed cost ratio (fixed cost depression).

In general, Mynaric's business model is not very personnel or capital-intensive (low depth of added value). The focus of the technology company is mainly on design, engineering the hardware and software development in relation to its product range. Furthermore, the modular project structure enables quick final assembly of the modules supplied, which allows correspondingly high product turnover. Mynaric only performs the final assembly in its production premises and the modules are supplied by selected partner companies.

Mynaric has developed a good starting basis in the past, particularly with its marketable laser products and cooperations (as well as industry contacts), in order to profit significantly from the expected dynamic growth in the future market of laser-based communications networks. With a prompt start to series production, the technology company should manage to achieve an operating profit threshold by 2019. In the light of the high sales dynamics we expect, together with the economies of scale introduced, double-digit EBITDA margins should be achievable.

VALUATION

Model assumptions

We rated Mynaric AG using a three-stage DCF model. Starting with the specific consolidated estimates for the years 2018 to 2022 in phase 1 and the years 2023 to 2025 in phase 2. We have included the tax rate in phase 2 at 15.0% to 30.0% and in phase 3 at 30.0%. Additionally, after the end of the forecast horizon, a residual value is determined in the third phase by means of a perpetual annuity. As the final value, we assume a growth rate of 2.0%.

Determining the capital costs

The weighted average cost of capital (WACC) of Mynaric 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%.

We set the historical market premium of 5.50% as a reasonable expectation of the market premium. This is supported by historical analyses of equity market returns. The market premium reflects in a percentage the improved return expected from equity markets relative to low-risk government bonds.

According to GBC estimates, a beta of 2.36 is currently determined. This high value takes into account the high risk. Mynaric has so far only achieved revenues on the basis of customer tests and demonstrations. In addition, the high profit and revenue expectations are uncertain.

Using the premises provided, the equity cost is calculated at 14.21% (beta multiplied by risk premium plus risk-free interest rate). As we assume a sustainable weighting of the equity cost of 90%, the result is a weighted average cost of capital (WACC) of 13.28%.

Valuation result

The discounting of future cash flows is based on the entity approach. We have calculated the corresponding weighted average cost of capital (WACC) to be 13.28%. The resulting fair value per share at the end of the 2018 financial year corresponds to the stock target price of EUR 95.00.

DCF model

Mynaric AG - Discounted Cashflow (DCF) model scenario

Value driver of the DCF - model after the estimate phase:

| consistency - phase | | final - phase | |
|------------------------------|-----------------|-----------------------------------|-------|
| Revenue growth | 5.0% | Eternal growth rate | 2.0% |
| EBITDA margin | 26.9% | Eternal EBITA margin | 18.5% |
| Depreciation to fixed assets | 15.0%- 18.8% | Effective tax rate in final phase | 30.0% |
| Working Capital to revenue | 25.0% | | |

Three phase DCF model:

| phase in mEUR | estimate | | | | | consistency | | | final final value |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-------------------------|
| | FY 18e | FY 19e | FY 20e | FY 21e | FY 22e | FY 23e | FY 24e | FY 25e | |
| Revenue | 12.20 | 37.34 | 92.31 | 258.16 | 406.21 | 426.53 | 447.85 | 470.24 | |
| Revenue change | 327.9% | 206.0% | 147.2% | 179.7% | 57.3% | 5.0% | 5.0% | 5.0% | 2.0% |
| Revenue to fixed assets | 3.17 | 2.57 | 1.96 | 4.16 | 5.68 | 5.42 | 5.47 | 5.88 | |
| EBITDA | -3.56 | 2.76 | 16.37 | 59.57 | 109.47 | 114.94 | 120.69 | 126.72 | |
| EBITDA margin | -29.2% | 7.4% | 17.7% | 23.1% | 26.9% | 26.9% | 26.9% | 26.9% | |
| EBITA | -3.68 | 0.58 | 9.32 | 50.27 | 98.74 | 103.14 | 108.40 | 111.72 | |
| EBITA margin | -30.2% | 1.6% | 10.1% | 19.5% | 24.3% | 24.2% | 24.2% | 23.8% | 18.5% |
| Taxes on EBITA | 0.00 | 0.00 | -1.40 | -15.08 | -29.62 | -30.94 | -32.52 | -33.52 | |
| Taxes to EBITA | 0.0% | 0.0% | 15.0% | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| EBI (NOPLAT) | -3.68 | 0.58 | 7.92 | 35.19 | 69.12 | 72.19 | 75.88 | 78.21 | |
| Return on capital | -133.2% | 7.6% | 32.3% | 50.2% | 54.6% | 41.7% | 40.9% | 40.3% | 31.5% |
| Working Capital (WC) | 3.84 | 10.07 | 23.08 | 64.54 | 101.55 | 106.63 | 111.96 | 117.56 | |
| WC to revenue | 31.5% | 27.0% | 25.0% | 25.0% | 25.0% | 25.0% | 25.0% | 25.0% | |
| Investment in WC | -2.90 | -6.23 | -13.01 | -41.46 | -37.01 | -5.08 | -5.33 | -5.60 | |
| Operating fixed assets (OAV) | 3.85 | 14.50 | 47.00 | 62.00 | 71.50 | 78.70 | 81.90 | 80.00 | |
| Depreciation on OAV | -0.13 | -2.18 | -7.05 | -9.30 | -10.73 | -11.81 | -12.29 | -15.00 | |
| Depreciation to OAV | 3.3% | 15.0% | 15.0% | 15.0% | 15.0% | 15.0% | 15.0% | 18.8% | |
| Investment in OAV | -2.15 | -12.83 | -39.55 | -24.30 | -20.23 | -19.01 | -15.49 | -13.10 | |
| Capital employment | 7.69 | 24.57 | 70.08 | 126.54 | 173.05 | 185.33 | 193.86 | 197.56 | |
| EBITDA | -3.56 | 2.76 | 16.37 | 59.57 | 109.47 | 114.94 | 120.69 | 126.72 | |
| Taxes on EBITA | 0.00 | 0.00 | -1.40 | -15.08 | -29.62 | -30.94 | -32.52 | -33.52 | |
| Total investment | -5.05 | -19.05 | -52.56 | -65.76 | -57.24 | -24.08 | -20.82 | -18.70 | |
| Investment in OAV | -2.15 | -12.83 | -39.55 | -24.30 | -20.23 | -19.01 | -15.49 | -13.10 | |
| Investment in WC | -2.90 | -6.23 | -13.01 | -41.46 | -37.01 | -5.08 | -5.33 | -5.60 | |
| Investment in Goodwill | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Free cashflows | -8.61 | -16.30 | -37.59 | -21.27 | 22.61 | 59.92 | 67.35 | 74.51 | 516.59 |

| | | |
|---|--------|--------|
| Value operating business (due date) | 266.34 | 318.01 |
| Net present value explicit free cashflows | 50.53 | 73.54 |
| Net present value of terminal value | 215.81 | 244.47 |
| Net debt | 9.44 | 25.74 |
| Value of equity | 256.90 | 292.27 |
| Minority interests | 0.00 | 0.00 |
| Value of share capital | 256.90 | 292.27 |
| Outstanding shares in m | 2.70 | 2.70 |
| Fair value per share in € | 95.00 | 108.08 |

Cost of capital:

| | |
|---------------------|-------|
| Risk free rate | 1.3% |
| Market risk premium | 5.5% |
| Beta | 2.36 |
| Cost of equity | 14.2% |
| Target weight | 90.0% |
| Cost of debt | 6.5% |
| Target weight | 10.0% |
| Taxshield | 25.0% |

WACC 13.3%

| Return on Capital | WACC | | | | |
|-------------------|--------|--------|-------|-------|-------|
| | 12.7% | 13.0% | 13.3% | 13.6% | 13.9% |
| 31.0% | 101.19 | 97.30 | 93.64 | 90.21 | 86.98 |
| 31.2% | 101.93 | 98.00 | 94.32 | 90.86 | 87.60 |
| 31.5% | 102.67 | 98.71 | 95.00 | 91.50 | 88.22 |
| 31.7% | 103.41 | 99.42 | 95.67 | 92.15 | 88.83 |
| 32.0% | 104.15 | 100.13 | 96.35 | 92.80 | 89.45 |

ANNEX

I.

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2. The research report is simultaneously made available to all interested investment services companies.

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The recommendations/ classifications/ ratings are linked to the following expectations:

| | |
|------|---|
| BUY | The expected return, based on the derived target price, incl. dividend payments within the rel 10 %. |
| HOLD | The expected return, based on the derived target price, incl. dividend payments within the rel 10 % and < + 10 %. |
| SELL | The expected return, based on the calculated target price, incl. dividend payments within the <= - 10 %. |

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The analysts responsible for this analysis are:

Marcel Goldmann, M.Sc., Financial Analyst

Cosmin Filker, Dipl. Betriebswirt (FH), Vice Chief Financial Analyst

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GBC AG
Halderstraße 27
D 86150 Augsburg
Tel.: 0821/24 11 33-0
Fax.: 0821/24 11 33-30
Internet: <http://www.gbc-ag.de>

E-Mail: compliance@gbc-ag.de



GBC AG[®]
- RESEARCH & INVESTMENT ANALYSEN -

GBC AG
Halderstraße 27
86150 Augsburg
Internet: <http://www.gbc-ag.de>
Fax: ++49 (0)821/241133-30
Tel.: ++49 (0)821/241133-0
Email: office@gbc-ag.de