



Research report (initial coverage)



“Cyber security growth market offers enormous potential for growth”

Target price: 35.80 €

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 32

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”

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

Buy

Target Price: EUR 35.80

Current stock price: 24.50

16/04/2018 / ETR

Currency: EUR

Key Figures:

ISIN: DE000A2E4SV8

WKN: A2E4SV

Ticket symbol: CYR

Number of shares³: 8.39

Marketcap³: 205.68

EnterpriseValue³: 205.56

³ in m / in mEUR

Free Float: 24.8%

Transparency level:

Open Market (Freiverkehr)

Market Segment:

Scale

Accounting Standard:

HGB

Financial Year: 31.12.

Designated Sponsor:

Hauck & Aufhäuser

Analysten:

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* Catalogue of potential conflicts of interest on page 33

Corporate profil

Sector: Software

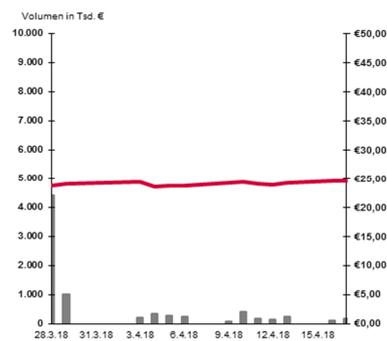
Focus: IT security solutions

Employees: 27 (April 2018)

Founded: 2006

Registered Office: München

Executive Board: Peter Arnoth, Markus Cserna, Michael Sieghart



CYAN AG is a leading European provider of intelligent white-label IT security solutions with more than 15 years' experience in the field of IT security with headquarters in Munich. The company's core businesses are mobile security solutions for mobile and fixed line (MNO, ISP) end users, virtual mobile operators (MVNOs), insurance and finance companies, and government institutions. CYAN's solutions can be easily integrated into existing business partner infrastructure and introduced to the market through a revenue share model. Full integration with the customer's environment will also allow for data protection. CYAN AG operates its own Research & Development Centre and maintains close links with universities, international research institutes, security organisations, financial institutions and social organisations. The intensive cooperation ensures early recognition of trends and technical developments for integration into CYAN products.

P&L in m€	31/12/17*	31/12/18e	31/12/19e	31/12/20e	31/12/21e
Sales	4.90	10.66	24.72	38.43	52.11
EBITDA	2.56	5.96	15.77	26.03	37.31
EBIT	2.36	5.76	15.57	25.83	37.11
Net profit	2.01	4.61	11.68	19.37	27.83

Per Share Figures in €

Earnings per Share	0.29	0.55	1.39	2.31	3.32
Dividend per Share	0,00	0.00	0.00	0.00	0.00

*GBC's estimated pro forma financial statement of CYAN AG (incl. CYAN Security Group)

Key Figures

EV/Sales	41.95	19.28	8.32	5.35	3.94
EV/EBITDA	80.30	34.49	13.04	7.90	5.51
EV/EBIT	87.10	35.69	13.20	7.96	5.54
P/E	102.33	44.62	17.61	10.62	7.39
P/B		4.47			

Financial calendar

**last research published by GBC:

Date: publication/price target in €/Rating

** the research reports can be found on our website www.gbc-ag.de or can be requested at GBC AG, Halderstr. 27, D86150 Augsburg

EXECUTIVE SUMMARY

- CYAN AG is a leading European provider of white-label IT security solutions with more than 15 years' experience in IT security with headquarters in Munich. The main focus of the company is mobile security solutions for end users of mobile operators (MNOs), virtual mobile operators (MVNOs) and banks (B-2-B-2-C Business Model). CYAN's IT solutions can be easily integrated into existing customer IT infrastructure and marketed through a revenue share model, enabling them to generate significant additional revenue.
- The main focus of the CYAN Group is the protection of mobile data traffic. This is the segment of the global IT security market that is growing at an extremely fast rate. This is due to the fact that the number of digital devices (smart phones, etc.) is steadily increasing and users of such devices are increasingly using them for important and personal matters such as email, mobile online banking, online shopping and social media - for example, the use of mobile banking in Europe increased by 250.0% last year. However, this user behaviour also increases the risk of cyber-attacks - 12.0% of EU citizens have already been victims of cyber-crime. Against this background, we also assume that this market will continue to record considerable growth rates in the future.
- The key competitive advantage of the Cyan security solution is that it is implemented directly in the customer's data centre - be it MNO, MVNO or a financial institution. This eliminates the need for end users to have downloads, as is typically the case with other security providers such as Norton or F-Secure.
- The CYAN solution is particularly attractive for MNOs, because white label products are very scalable and more profitable than competitor solutions. CYAN is currently the only supplier worldwide in this niche (USP). As a result, an MNO or MVNO can achieve significant additional revenue with CYAN solutions.
- For the Mobile Virtual Network Operators (MVNO) customer group, CYAN has been offering a solution since mid-2017 that will enable significant cost savings without major investment requirements on behalf of the MVNO (not OPEX/CAPEX). At its peak, 20.0% of the purchased data volume can be saved, whereby the revenue with the MVNO is shared.
- Likewise, CYAN has developed special security solutions for the third group of customers, financial and insurance companies, which can be directly integrated into the existing bank customer app (in-app solution). In this way, the respective device and internet browsing can be made safer and the actual banking transaction can be protected against threats deriving from the internet.
- In the past, CYAN AG has focused very heavily on the development of its comprehensive IT security offer and has already been able to gain the first well-known major customers, such as T-Mobile Austria and Poland, in the context of an exclusive group contract with the company Deutsche Telekom

(T-Mobile). Since Q3/2017, the described MVNO and banking products have also been offered and marketed. Since then, contracts have been concluded in these segments with the company Sberbank (EU), the South African company MyBucks and, in particular, with I-New - an MVNO platform. The contract with I-NEW will now roll out the Cyan solution on 24 MVNOs worldwide. In addition, the company has a heavily populated project pipeline of potential customers that will enable further significant revenue growth. After the fixed costs have already been covered by the previous business, the new business has margins of more than 80.0%.

- In March of this year, the CYAN Group announced a successful initial public offering. As part of this, EUR 31.70 million in investor funds (gross issuing proceeds) was raised. Most of the funds raised will be used to fully acquire the CYAN Security Group (current participation: 51.0%).
- We expect significant growth in sales and earnings for further business development. Overall, CYAN AG has laid a solid foundation for benefiting from the expected dynamic growth in the IT security market. For the past financial year 2017, we expect sales of EUR 4.90 million and an operating result (EBIT) of EUR 2.36 million. For the coming year of 2018, we anticipate that the course of profitable growth will continue and calculate a turnover of EUR 10.66 million and an EBIT of EUR 5.76 million. In the following financial years, the expected economies of scale should become even more pronounced, enabling long-term double-digit EBIT margins of more than 70.0%.
- **On this basis, we evaluated the IT company using our DCF model and in doing so, we determined a fair value of EUR 35.80. Based on the current share price level, this results in a BUY rating.**

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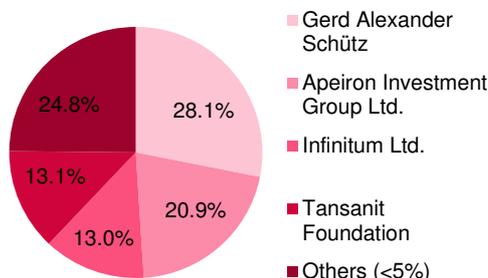
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COMPANY

Shareholder structure

Shareholders in %	28/03/2018
Gerd Alexander Schütz	28.1%
Apeiron Investment Group Ltd.	20.9%
Infinitum Ltd.	13.0%
Tansanit Stiftung	13.1%
Others (Holding < 5 %)	24.8%

Source: CYAN AG; GBC AG



Capital increase in the course of the IPO

CYAN AG was able to place 180,000 new shares at EUR 23.00 with investors as part of the IPO (first listing of the share: 28/03/2018) on 23/03/2018. As a result, the company received gross issuing proceeds of EUR 31.7 million.

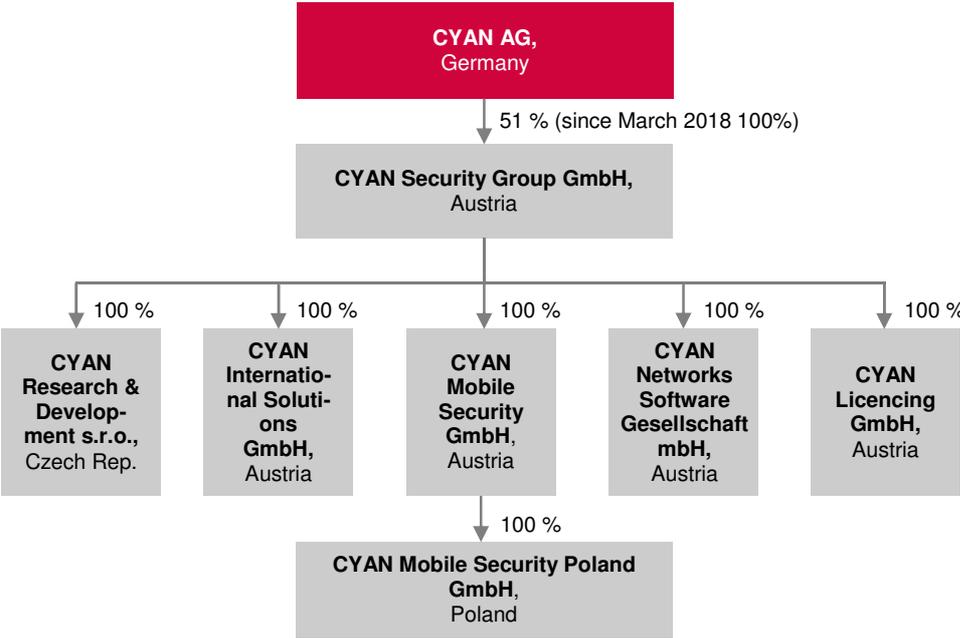
The IT company primarily used the funds to exercise Call Option 2 from the option agreement dated 11 December 2017 for the purpose of acquiring another 49.0% of the shares in the CYAN Security Group GmbH. According to the securities prospectus, the investment amounts to approximately EUR 26.0 million.

Furthermore, the remaining financial resources will be used to achieve organic and inorganic growth potential to improve the competitive position of the CYAN Group on the European market. On the one hand, the expansion of business activities in existing countries and the development of further European markets should be driven forward. On the other hand, the inflow of funds is intended to develop and improve the company's range of IT services further. The desired product expansion should take place primarily by means of an acquisition strategy in the field of anti-virus protection. This is to ensure that the IT company controls the entire supply chain.

Corporate structure as at 31/12/2017

CYAN AG (Munich, Germany) is the parent company of the business group. As a strategic management and financial holding company, its services include the central management function and the financing and management of its investments. It mainly focuses on accounting and controlling, human resources, strategy, public relations and brand development, IT and security of the entire CYAN Group.

The operating business is formed by its investment company, CYAN Security Group GmbH (Vienna, Austria) and its subsidiaries, CYAN Research & Development s.r.o. (Brno, Czech Republic), CYAN International Solutions GmbH (Vienna, Austria), CYAN Mobile Security GmbH (Vienna, Austria), CYAN Networks Software Gesellschaft mbH (Vienna, Austria), CYAN Licencing GmbH (Austria) and CYAN Mobile Security Poland GmbH (Warsaw, Poland). The share in the CYAN Security Group has since been increased to 100%, as part of the successful capital increase.



Source: CYAN AG; GBC AG

The CYAN Security Group GmbH is the operating holding company that has taken over classical central functions, such as bookkeeping and accounting, marketing, the legal department and controlling, prior to the purchase by CYAN AG (see corporate action and use of funds). These services are now increasingly being carried out by CYAN AG, so that the CYAN Security Group GmbH can concentrate more on the operational activities.

Historical events

Date	Event
July 2006	<ul style="list-style-type: none"> • Founding of CYAN Networks Software GmbH • Start of B2B security business for corporate networks • First B2B contracts, for example with the Federal Ministry for European and International Affairs (Ministry of Foreign Affairs) and the KBS - Knappschaft Bahn See (German Pension Insurance)
November 2011	<ul style="list-style-type: none"> • Founding of CYAN Mobile Security GmbH • Start of B2B2C contracts: Development of network-integrated security solutions for mobile and telecommunications network operators for re-sale to their end customers
July 2013	<ul style="list-style-type: none"> • First B2B2C contract with T-Mobile Austria • Introduction of CYAN's "parental control" solution and therefore an expansion of the product range to child protection solutions
November 2013	<ul style="list-style-type: none"> • Subsequent B2B2C contract with T-Mobile Austria • Introduction of the internet security solution for private customers
June 2014	<ul style="list-style-type: none"> • Founding of CYAN Security Group GmbH
August 2014	<ul style="list-style-type: none"> • Founding of CYAN Research & Development s.r.o.
January 2015	<ul style="list-style-type: none"> • Signing of a group contract with Deutsche Telekom AG, which defines commercial and contractual details for potential country contracts in the T-Mobile environment
August 2015	<ul style="list-style-type: none"> • Subsequent B2B2C contract with T-Mobile Poland
December 2015	<ul style="list-style-type: none"> • Founding of CYAN International Solutions GmbH
November 2016	<ul style="list-style-type: none"> • Start of the development of a network-integrated solution for mobile virtual network operators (MVNO)
March 2017	<ul style="list-style-type: none"> • "Proof of Concept" for MVNO solution with I-New in Mexico • Start of the development of a security solution for financial services providers, such as banks
April 2017	<ul style="list-style-type: none"> • CYAN AG founded • Extension of the T-Mobile Austria contractual relationship until the end of 2021 • Acquisition of the business share of the company SysConn Softwareentwicklung und Vertriebs GmbH (now: CYAN Licencing GmbH) by the company CYAN Security Group GmbH
May 2017	<ul style="list-style-type: none"> • Completion of the development of the security solution for financial services providers and start of worldwide marketing
September 2017	<ul style="list-style-type: none"> • First contract concluded with MyBucks in the field of financial services (security solutions)
November 2017	<ul style="list-style-type: none"> • CYAN AG economically re-established with change of the corporate purpose
December 2017	<ul style="list-style-type: none"> • Subsequent conclusion of the contract with Sberbank in the field of financial services providers; the contract includes a group contract
December 2017	<ul style="list-style-type: none"> • Contribution of the 25% share in CYAN Security Group GmbH to CYAN AG for a capital increase in kind by increasing the share capital of Cyan AG by EUR 16,650 to EUR 66,650.00
December 2017	<ul style="list-style-type: none"> • Signing of a CYAN AG option agreement for acquiring further shares of CYAN Security Group GmbH • Exercise of Call Option 1 of the aforementioned option agreement for the purchase of a further 26% of CYAN Security Group GmbH with effect from 15 February 2018 by Cyan AG
December 2017	<ul style="list-style-type: none"> • Implementation of a cash capital increase by increasing the share capital by EUR 2,999,250.00 to EUR 3,065,900.00
January 2018	<ul style="list-style-type: none"> • Implementation of a cash capital increase from company funds by increasing the share capital by EUR 3,679,080.00 to EUR 6,744,980.00 • Implementation of a cash capital increase by increasing the share capital by EUR 269,943.00 to EUR 7,014,923.00
February 2018	<ul style="list-style-type: none"> • Conclusion of a licence agreement between CYAN Licencing GmbH and I-New Unified Mobile Solutions AG
March 2018	<ul style="list-style-type: none"> • Implementation of a cash capital increase in the course of the IPO, increasing the share capital by EUR 1,200,000.00 to EUR 8,394,923.00 and including the Greenshoe for a further 180,000 shares. Immediately on the day of the initial listing, the option to acquire 49% of CYAN Security Group GmbH was exercised.

Source: CYAN AG; GBC AG

Business model of CYAN AG

CYAN AG is a leading European provider of IT security solutions with many years of experience in the field of cyber security with its corporate headquarters in Munich. The company's products and services are marketed to companies (B2B2C business model) in the form of a white label and revenue sharing model. The core business of the IT company is mobile security solutions for end customers of mobile and fixed network providers (MNO, ISP), virtual mobile service providers (MVNO), companies in the insurance and financial industry and state institutions. CYAN's security solutions can be easily integrated into the existing IT infrastructure of business partners, thereby also providing customer data protection. CYAN AG maintains two research and development centres in the Czech Republic (Brno) and Poland (Warsaw) and maintains close cooperation with universities, research institutes and international institutes. This intensive collaboration enables continuous development of our own cyber security solutions with early recognition of trends and technical developments.

Business segments

	 MNO*	 MVNO**	 Financial services providers	 Government
USPs	<ul style="list-style-type: none"> No additional downloads Easy implementation Solution for on-top sales Integration into existing infrastructure White Label Mobile & fixed network compatible 	<ul style="list-style-type: none"> Data protection and protection of privacy Increasing profits with cost-saving potential Integration into existing infrastructure White Label 	<ul style="list-style-type: none"> No additional downloads Guaranteed comprehensive protection and safety Easy implementation Simple allocation to end customers White label 	<ul style="list-style-type: none"> Easy implementation Digital protection of vulnerable persons Support tools for parents for child protection Personal protection with security features for emergencies White label
Products	<ul style="list-style-type: none"> Network-integrated security solution App-integrated security solution (on-top) Personal security (on-top) 	<ul style="list-style-type: none"> Traffic optimisation App-integrated security solution (on-top) Personal security (on-top) 	<ul style="list-style-type: none"> App-integrated security solution Personal security (child protection, „panic button“) 	<ul style="list-style-type: none"> Personal Security (child protection, „panic button“)

Source: CYAN AG; GBC AG

* Mobile Network Operator ** Mobile Virtual Network Operators

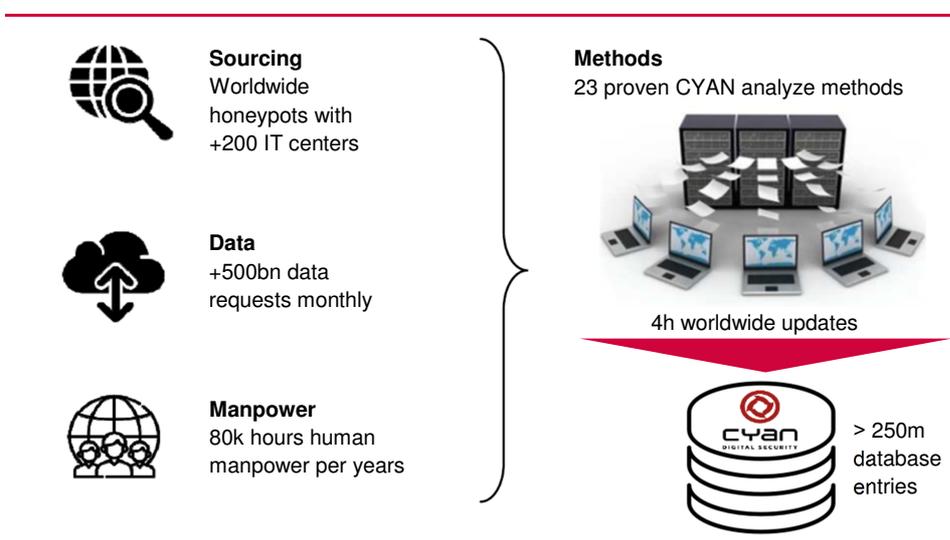
Technology

CYAN's technology is based on a global security network of over 200 virtual IT centres, which uses artificial intelligence and 23 proprietary analysis methods to monitor internet traffic for potential threats of damaging interference or content. An update of the database every four hours ensures that internet protection is up to date.

Based on this database, CYAN AG develops various security solutions that are sold to Mobile Network Operators (MNOs), Mobile Virtual Network Operators (MVNOs) and financial services providers, and then on behalf of the CYAN Group customer, end customers are provided with said solutions ("white-label"). This gives business customers the opportunity to strengthen their own brand and increase customer loyalty.

To round off the product range, CYAN AG is also developing security solutions for governments that help support new digital challenges.

CYAN Security Technology



Source: CYAN AG; GBC AG

The Deutsche Telekom Group, in particular T-Mobile Austria, which had a 75% share of total revenue in 2017, is currently CYAN AG's most important major customer. The contract of both parties was extended in April 2017 until the end of 2021. With the successful conclusion of the contract with T-Mobile Poland, the CYAN Group was able to gain another market for its security solutions. Furthermore, the company is in further contract negotiations with Telekom subsidiaries in Croatia, Bulgaria and Macedonia.

In the field of financial services providers, initial contracts have already been signed with Sberbank and MyBucks. Another cooperation partner was also gained with I-New Unified Mobile Solutions AG, an MVNO platform. The CYAN Group is currently in negotiation with 36 other customers to expand and upgrade its network, particularly in South America and Asia. In the near future, the CYAN Group also intends to expand its security solutions to the betting and gaming market, where end customers are exposed to similar potential threats with mobile device transactions.

Customer segments/target groups

MNO (Mobile Network Operators) customer segment

The performance feature (USP) of the IT security solution in the MNO customer segment from the company's point of view is that the security software developed and marketed by the CYAN Group can be installed in the data centre of the respective network operator without much effort and can therefore continuously assess the internet traffic processed here. In this case, every transaction that takes place in the network of a network operator is checked and analysed and assessed for dangers such as malware.

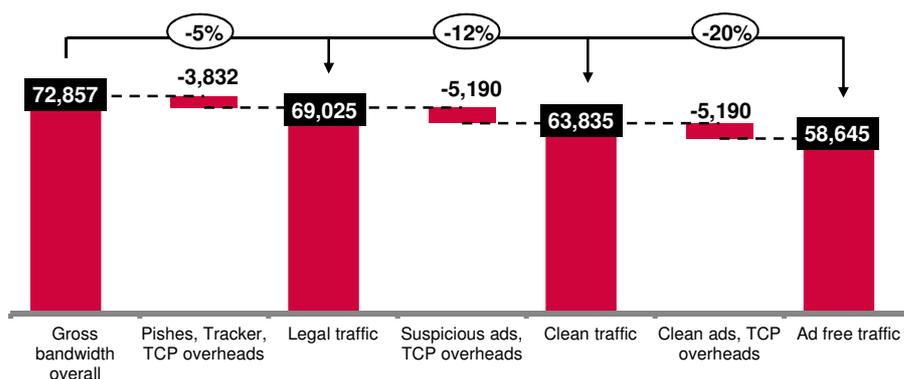
If the CYAN AG Data Centre identifies a hazard on a website accessed by a terminal (such as a mobile device or tablet), the user is informed of the website's dangerous content. In addition, this website will be stored in the company's database in order to alert other network operators' customers to this risk in the future.

Other USPs for business customers include the white label business model of the CYAN Group and the mass market-proven IT security solution to generate additional revenue for customers.

MVNO (Mobile Virtual Network Operator) customer segment

From the company's point of view, the performance feature (USP) of their IT solution in this segment, apart from the security features (secure internet browsing), is the substantial cost savings in favour of the respective network operator. MVNOs obtain the network capacity via a rental model from the respective network operators and therefore do not have their own network. Internet-based advertising, which is sent to customers via so-called "cookies" on mobile phones such as smartphones, consumes a considerable amount of data, which the respective network operator has to pay for themselves. They can only partially pass this on to the end customer. The data optimisation solution (traffic optimisation) developed by CYAN AG enables business customers to save data volumes and make cost savings of up to 20%.

Cost-saving potential for MVNO security solutions



Source: CYAN AG; GBC AG

Customer segment financial services providers and other business segments

Other customer groups that CYAN addresses with its IT security solutions are financial services providers, which are increasingly aligning their business models with the internet. They are therefore already active with the apps they offer on the mobile internet (online banking). CYAN AG has developed special security solutions for this customer group that are directly integrated into the existing bank customer app (in-app solution) to make the respective device and internet browsing safer. It also aims to protect the actual banking transaction from cyber-attacks, phishing attacks and so-called “fake apps”. In doing so, several benefits can be produced for the financial services industry. On the one hand, this can reduce complaints and therefore any damage to their reputation. On the other hand, the overall risk in banking transaction traffic can be reduced and additional revenue generated. CYAN AG intends to expand this business segment further in the current financial year 2018 and to use its expertise in this segment to provide customer solutions for similar industries. In the course of this, security solutions for the IT platforms of gaming and betting providers are to be offered in the current financial year.

Product segments

Product segment internet protection for everyone

Due to the increased risk of identity theft, the CYAN Group developed internet protection that works like a firewall. It is integrated in the mobile network and detects potential threats before they appear on the customer’s device. Phishing, viruses and Trojans are categorised using a filtering system that updates every four hours. Critically classified websites are not blocked in doing so, rather the customers are only informed about the risk.

Product segment business internet protection

To protect against data misuse or industrial espionage for businesses, the CYAN Group has developed business internet protection. Integrated in the network, it also acts as a firewall, detects potential threats in advance and categorises them using a filter system. The protection mechanism is supplemented with the option of blocking certain website categories, such as Facebook or Instagram, during working hours. The settings can be individually customised for each employee and the security packages can be designed according to the size of the company.

Product segment child protection

To protect against violent, pornographic or other inappropriate content for children, the CYAN Group has included child protection in its product portfolio. This offers parents the option of blocking unwanted apps and selected internet or YouTube categories. At the same time, internet access can also be set to specific times such as school time or at night.

Management and Supervisory Board members of the company

Executive Board

Peter Arnoth (CEO)

Mr Peter Arnoth has been with the company since October 2011 and, as CEO of CYAN Security Group GmbH in Vienna, is responsible for International Sales & Marketing and the development and expansion of the corporate group. Until March 2018, he was Managing Director of CYAN Mobile Security GmbH and CYAN International Solutions GmbH. Through various sales and executive activities, at T-Mobile Austria in Vienna among others, at E-Plus Mobilfunk in Düsseldorf and at Eudeco Development Consulting GmbH in Vienna, he has more than 20 years of commerce, telecoms and consulting experience.

Markus Cserna (CTO)

Mr Cserna has been CTO of CYAN Security Group GmbH in Vienna since April 2014. He is responsible for product and project management, IT operations and the development and expansion of the corporate group. In addition, Mr Cserna has been CEO of CYAN Research & Development s.r.o. since September 2014 working in Brno. Until March 2018, he also served as Managing Director of CYAN Mobile Security GmbH and CYAN International Solutions GmbH. He has 15 years of experience in software development and IT security with his earlier work at software and telecommunications companies. In 2006, Mr Cserna founded CYAN Networks Software GmbH in Vienna and was responsible until the end of March 2014 for the development and maintenance of the IT security systems there, the implementation of customer projects and personnel management.

Michael Sieghart (CFO)

After successfully completing his Master's degree in June 1997 at the University of Economics and Business Administration in Vienna, Mr Michael Sieghart worked as a fund and risk manager for various banks and consulting and investment companies, among others for Deutsche Bank AG, Petrus Advisers and the Wiener Privatbank SE, as well as a managing director and partner and business manager. Mr Sieghart has been Chief Financial Officer of CYAN AG since October 2017.

Supervisory Board

Stefan Schütze (Chairman of the Supervisory Board)

Mr Stefan Schütze is a licensed lawyer with a Master of Laws title in M&A and has many years of experience as a lawyer, legal advisor, Supervisory and Executive Board member and member of the board of listed investment companies. After studying law, Mr Stefan Schütze worked for the investment company bmp AG and the Altira Group. In addition to four other memberships on supervisory boards, since March 2013 he has been responsible for the areas of investments, legal affairs and human resources as a member of the Executive Board of FinLab AG.

Volker Rofalski (Deputy Chairman)

After successfully completing his degree in Business Administration at the University of Augsburg in 1996, Mr Volker Rofalski was Commercial Director at ELA medical GmbH and Porges GmbH, before successfully selling WebStock AG in 1999, co-founded in 1997, to a German bank. In 2005, he sold TradeCross AG, founded in 1999, to a Ger-

man investment bank, in which he headed the Bank's business in Equity Capital Markets (ECM) from 2005 to 2009. In addition to memberships of various other supervisory boards, Mr Rofalski has been managing director of the company only natural munich GmbH since 2005.

Christobal Mendez de Vigo y Löwenstein (Supervisory Board member)

In addition to three other supervisory board memberships, Mr Christobal Mendez de Vigo y Löwenstein has been responsible for the controlling and corporate investment division of C-QUADRAT Investment AG since January 2015. He has over 20 years of asset management experience through diverse management positions at capital management companies, such as Allianz Global Investors in Hong Kong and Sydney or BLULICAP LLP in London.

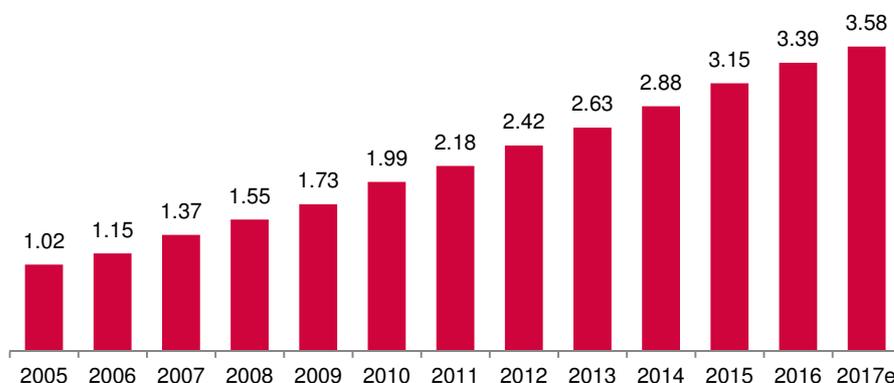
MARKET AND MARKET ENVIRONMENT

Global internet demand and data transfer on the internet

With its various IT security solutions, CYAN AG addresses companies that have business models in which the internet plays a particularly important role. Accordingly, the main target group of the IT software company is mobile communications and telecommunications companies and finance and insurance companies.

As digitisation progresses, the need for fast internet connectivity at any location increases, which benefits, for example, mobile communications or telecommunications companies. At the same time, as a result of the ongoing digitisation trend, which extends to more and more areas, the number of internet users worldwide is also increasing.

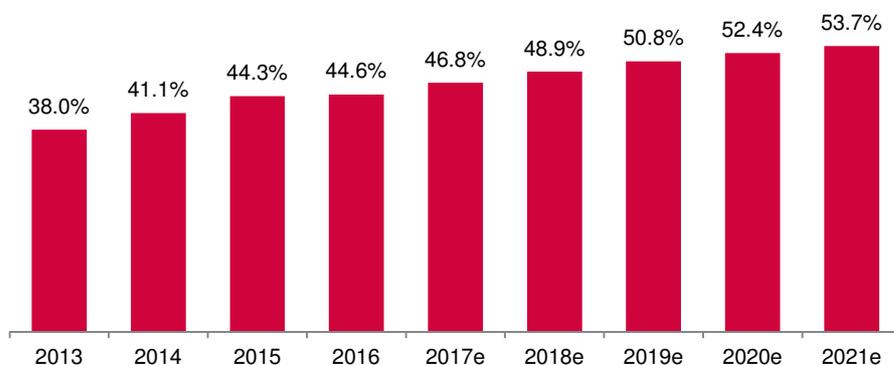
Growth in the number of worldwide internet users (in billions)



Source: ITU; GBC AG

More and more people worldwide are using the internet for a variety of applications, such as e-commerce, gaming, video-on-demand and online banking. Therefore, over the past few years, the internet has become firmly established in everyday society and has become indispensable for many people. Last year, the number of internet users worldwide increased again from 3.39 billion in 2016 to 3.58 billion in 2017, an increase of 5.6%. With around 3.6 billion users worldwide, a new record was achieved.

Growth of worldwide internet users-penetration



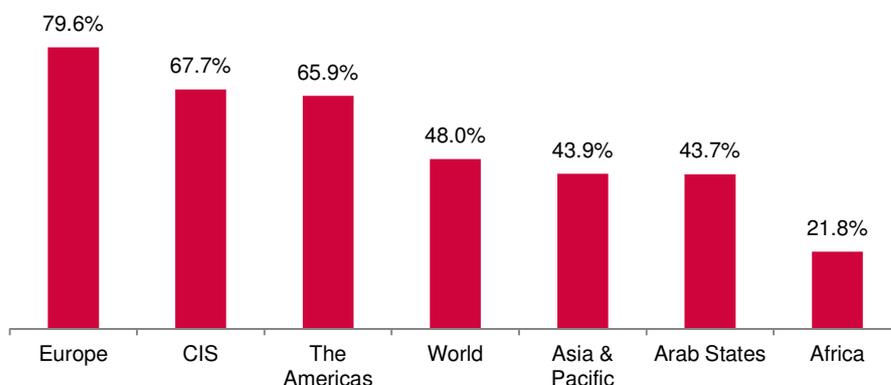
Source: ITU; GBC AG

Last year, 46.8% (previous year: 44.6%) of the world's population was using the internet via stationary, wired internet or mobile devices (personal computer, smartphone, tablet, etc.). This represents an increase of 2.2% in comparison to the previous year.

ITU estimates that by 2021, internet usage will continue to grow to 53.7%. This means that more than half of the world's population would use the internet or have internet access. According to studies by eMarketer, the number of worldwide internet users is expected to rise to 4.14 billion. This would mean a further increase of 15.6%, compared to the current number of users of 3.58 billion.

At regional level, internet growth in North America and Western Europe has reached saturation point. However, in the emerging markets and developing countries, internet usage rates are much lower than those of the large industrialised nations, and there is still a significant catch-up potential in internet access for the whole population.

Regional internet user-penetration in 2017

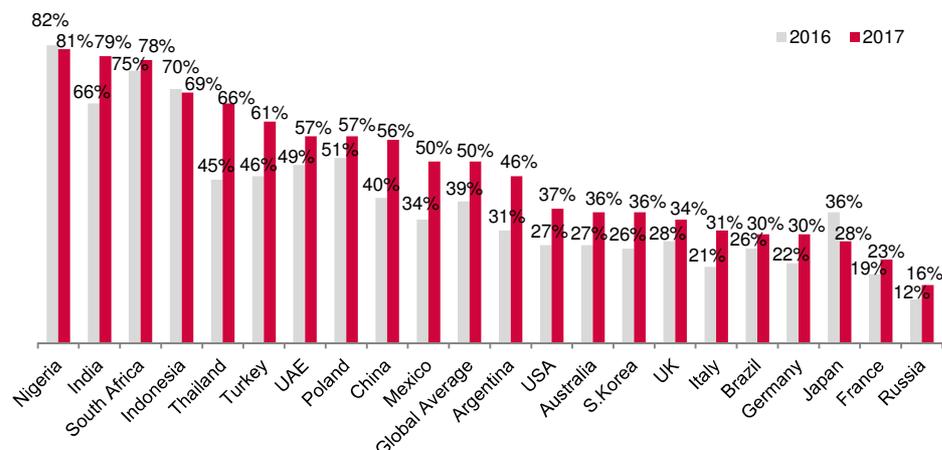


Source: ITU; GBC AG

In recent years, users from developing countries in Africa, Central and Eastern Europe, Latin America, Asia-Pacific and the Middle East have been given online access for the first time via a mobile broadband network and smart devices (modern mobile phones with internet function). Accordingly, the share of internet use via mobile devices (mobile share of the web traffic) in these countries is well above average. By way of example, Nigeria has a mobile share of internet traffic of 81%, whereas a typical Western European country like Germany has a value of 30% with a nearly full-coverage wired internet. Nonetheless, the absolute internet user numbers in the industrialised nations, such as the USA or Germany, are much higher than in the developing countries.

According to a study by eMarketer, in 2017 an estimated 81.3% of the world's population will use a mobile phone for internet access (previous year: 72%), which represents an increase of 9.3% compared to the previous year.

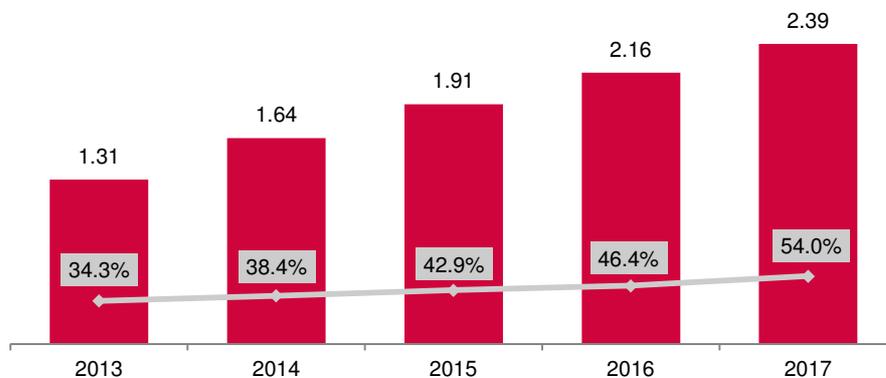
Internet use via mobile devices (smartphones, etc.)



Source: HootsuiteStatcounter; QBC AG

The dissemination of smartphones continued to increase significantly in 2017. Last year, the number of users increased by 10.6% from 2.15 billion to 2.39 billion mobile devices. At the same time, the dissemination of smartphones within the mobile phone market has increased. The share of smartphone users in the total number of mobile phones rose sharply from 46.4% (2016) to 54% (2017).

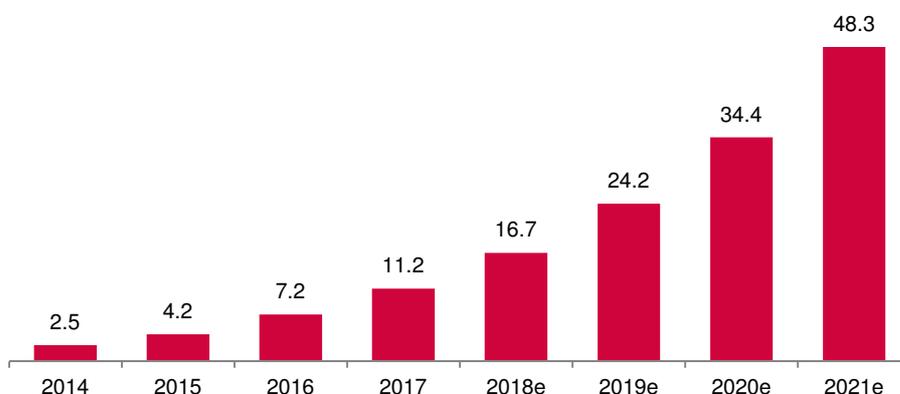
Worldwide smartphone usage and percentage share of smartphone users



Source: emarketer.com; GBC AG

Therefore, for the first time, the majority of mobile phone users have a smartphone. According to eMarketer, the availability of low-cost, low-end smartphones should further drive the proliferation of smartphones, especially in developing countries.

Global mobile traffic over IP networks (mobile internet traffic/petabytes per month)



Source: Cisco; GBC AG

Accordingly, network specialist Cisco Systems predicts a further increase in mobile internet traffic in the years ahead as part of the study it has conducted (Visual Networking Index). Specifically, the IT company expects mobile traffic to rise dramatically from 11.2 petabytes per month (2017) to 48.3 (2021), an increase of 331.3%. Furthermore, smartphones are expected to account for up to 30% of all internet traffic by 2020, down from 8% in 2015.

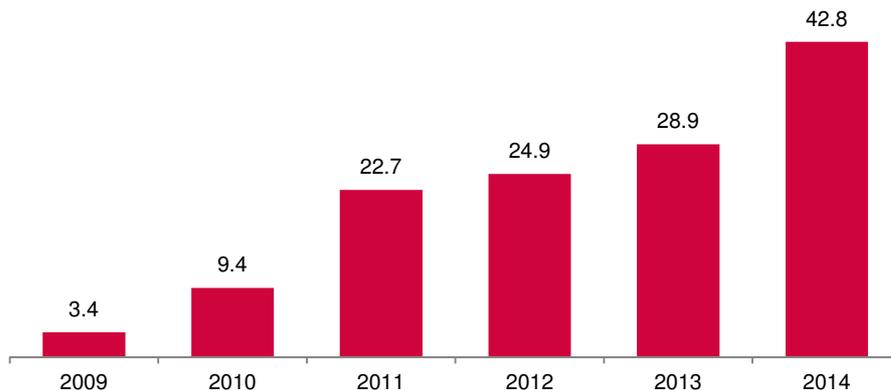
Cyber security market (IT security market)

Increasing digitisation, the ongoing technological development of mobile devices (smartphones, etc.), the increased use of the Internet of Things (IoT) and the increase in so-called cloud computing are increasing the importance of digital cyber security. Similarly, global attack campaigns such as WannaCry and Petya/NotPetya, as well as successful attacks on companies, public institutions or parties, and business and citizen decision-makers have increasingly brought cyber security into the public eye.

Even in corporate management, IT security is more present than ever due to attack methods such as “CEO Fraud” or the sensitivity of capital markets and the stock market to cyber incidents. Specifically, the German economy with its innovative products (especially in the field of Industry 4.0) and multiple industry leaders (for example in the automotive, mechanical engineering or chemical industries) is a very attractive target for hackers (industrial espionage/cyber espionage).

As part of this, the World Economic Forum (WEF) has identified cyber-attacks as one of the top 5 dangers most likely to materialise, posing a risk to the prosperity and peace of society. The global economy has been hit hard by cyber-attacks in the past. Over the last few years, the number of security incidents has massively increased, reaching a new high of 42.8 million in 2014, an increase of 48.1% compared to the previous year.

Worldwide IT security incidents (in millions)

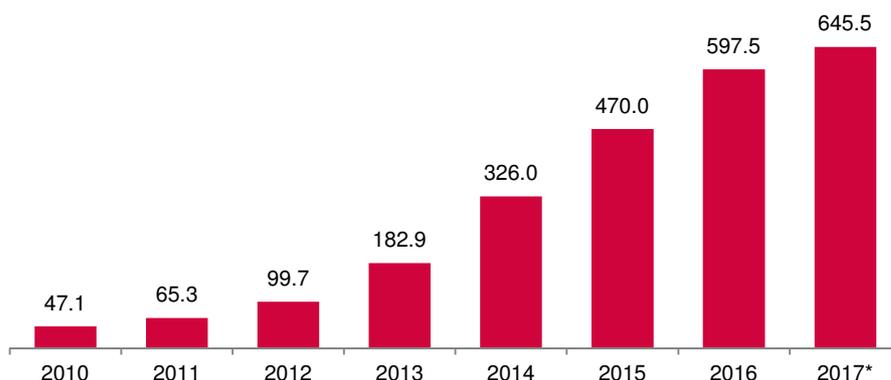


Source: PWC; GBC AG

However, at the same rate that society and economy digitise, so does the danger of being damaged or compromised by cyberattacks, cyber espionage or cyber sabotage. Targets of this e-crime can be public institutions (states, administrations), the economy (critical infrastructures (CRITIS) or private citizens. The motive of such cyber-attacks is often in the area of data misuse or espionage.

The attack methods and tools used for this are very different and change just as fast. Recent findings about vulnerabilities and attack methods are used after a short time for cyber-attacks. Despite the high dynamics in the field of cyber-attacks, the attack methods and tools can be classified into the areas of damaging programmes/malware (Trojans, viruses, worms, etc.), software vulnerabilities, ransomware, botnets, advanced persistent threats (APT), social engineering and CEO fraud. The most significant subfield of this is malware. The total number of malware programs has increased significantly in recent years. In 2017 alone, the total number of malware programs increased by 8% compared to the previous year to 640.0 (previous year: 470.0 million). Compared to 2012, the total number of malware programs has increased more than six-fold.

Development of malware programs (in millions)



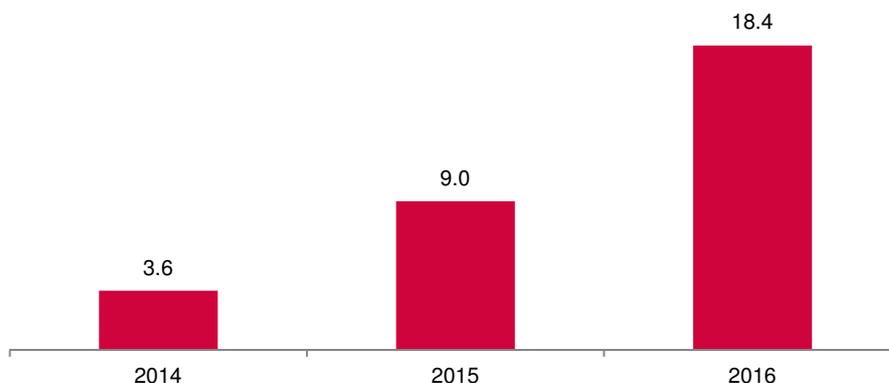
Source: AV-Test; GBC AG

Increased use of smartphones for digital consumption (such as online content) or digital services (e.g. online banking or e-commerce) has also increased the risk of being affected by cyber-attacks. Since only a handful of mobile phone users were affected by cyber-attacks in the past, this number has increased rapidly in the recent past.

This is also shown by the latest study results from the security software company Symantec, one of the world's leading companies in the field of IT security. According to

their research, mobile phones have seen rapid growth in cyber-attacks in recent years. The number of detected malware programs jumped from 3.6 million in 2014 to 18.4 million in 2016, an increase of 411.1%.

Total number of malware programs detected on mobile devices (in millions)



Source: Symantec; GBC AG

Another similar finding also came from the IT company Kaspersky, one of the world's leading security software companies. They were able to observe a significant increase in cyber-attacks on mobile devices in their study on mobile security. According to their study, in 2013 only 42,000 Kaspersky software users were victims of cyber-attacks (population: 5 million worldwide software users). One year later, this figure rapidly increased by 476.2% to 242,000 affected users.

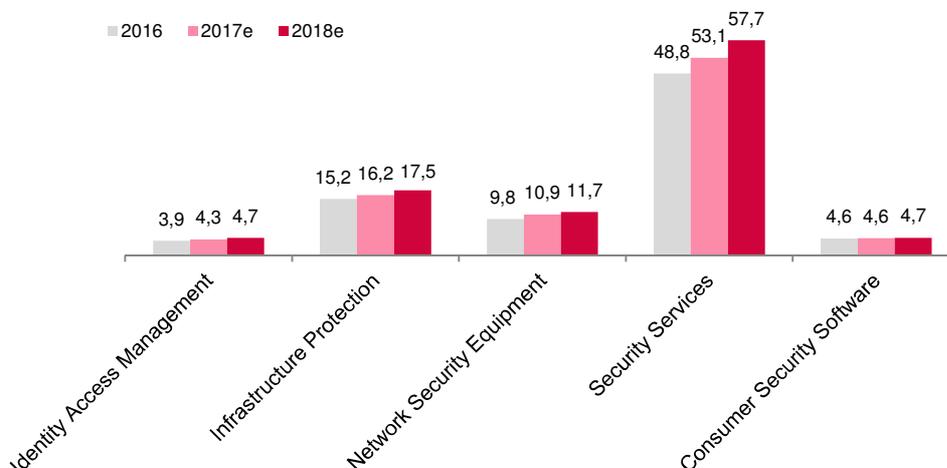
According to a recent study (2017) of the industry association Bitkom e.V., every third German mobile phone user (smartphone owner) is said to have been affected by an IT cyber-attack in the last 12 months. Against this background, the market for cyber security products has also developed very dynamically in recent years and has currently reached a volume of several billion USD.

In parallel with the growing threat from the internet, cyber security research firm cyber-ventures.com expects spending on IT security products and services to exceed one trillion US dollars over the next five years (2017 to 2021) worldwide.

The market volume in this field has already developed very dynamically in recent years. Market volume increased from \$3.5 trillion (2004) to an estimated \$120 trillion in 2017. The market for cyber security is therefore being driven by cybercrime. According to the analysts at cyberventures.com, the IT security market is expected to grow by 12% to 15% per year by 2021. Several industry analysts also forecast dynamic growth for this sector from 8% to 10% over the next 5 years.

The IT security market as a whole consists of several fields. According to a Gartner study, USD 81 trillion was invested in IT security products and services in 2016, a growth of 7.9% compared to the previous year. Based on this, these companies spent a large proportion of their IT budgets in the IT consultancy and IT outsourcing sectors.

Worldwide IT security expenditure by segment (USD billions)



Source: Gartner; GBC AG

According to the analysts from TechSci Research, North America and Europe are the main pillars of sales on the IT security market at present. New regions enjoying booms are gaining in significance, however, which means they are increasingly on the radar of security technology providers. The Asia-Pacific region, for example, is evolving increasingly as a potential market for IT security companies, driven by emerging markets such as China, India and the South-East Asian countries.

CYAN AG has chosen to focus on business customers (B2B) and, in particular the telecommunications and finance sector, with its innovative IT security solutions. The company is therefore operating on a booming market, for which leading research companies are promising growth rates in the two-figure percentage range in the coming years. At regional level, the company's main operations are in Europe (Poland, Austria and Croatia) at present. As part of the expansion strategy that has been introduced, there are plans afoot to expand business activities into the regions of Asia, Africa and South America too. This should help the company benefit from the booming IT security markets outside Europe.

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Key Financial Figures

P&L in m€	FY 2017*	FY 2018e	FY 2019e	FY 2020e	FY 2021e
Sales	4.90	10.66	24.72	38.43	52.11
Other operating income	0.70	1.90	1.70	3.80	5.00
Cost of materials	-0.95	-1.30	-3.00	-3.80	-4.80
Gross Profit	4.65	11.26	23.42	38.43	52.31
Personnel expenses	-0.99	-2.30	-5.15	-7.70	-10.00
Depreciation	-0.20	-0.20	-0.20	-0.20	-0.20
Other operating expenses	-1.10	-3.00	-2.50	-4.70	-5.00
EBIT	2.36	5.76	15.57	25.83	37.11
Interest income	0.00	0.00	0.00	0.00	0.00
Interest expense	0.00	0.00	0.00	0.00	0.00
EBT	2.36	5.76	15.57	25.83	37.11
Income tax	-0.35	-1.15	-3.89	-6.46	-9.28
Net profit	2.01	4.61	11.68	19.37	27.83
EBITDA	2.56	5.96	15.77	26.03	37.31
in % of sales	52.2%	55.9%	63.8%	67.7%	71.6%
EBIT	2.36	5.76	15.57	25.83	37.11
in % of sales	48.2%	54.0%	63.0%	67.2%	71.2%

Source: CYAN AG; GBC AG; *GBC's estimated pro forma consolidated financial statement of CYAN AG (incl. CYAN Security Group)

Historical development of the company

in Mio. €	FY 2015	FY 2016	FY 2017 (10M)*	FY 2017**
Sales	3.73	3.34	3.59	4.90
EBIT	1.78	1.12	1.46	2.36
EBIT margin	47.7%	33.5%	40.7%	48.2%
Net profit	1.38	0.86	1.24	2.01

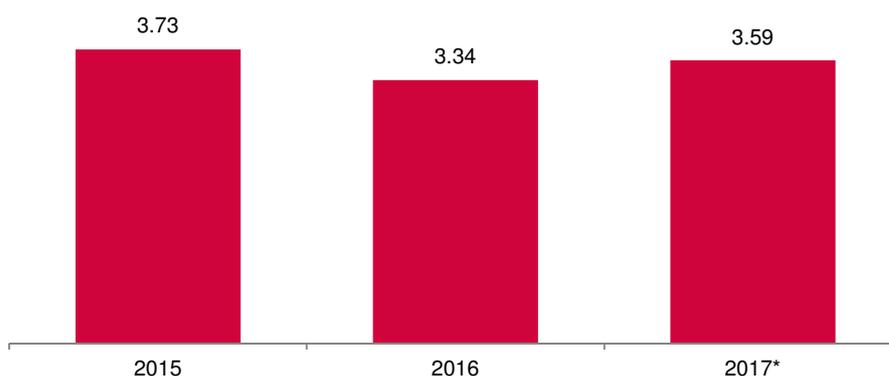
Source: CYAN AG; GBC AG; * CYAN Security Group GmbH (01.01.2017 - 31.10.2017); **GBC's estimated pro forma consolidated financial statement of CYAN AG (incl. CYAN Security Group)

Past sales development

Founded in 2014, CYAN Security Group GmbH (CSG) is a Vienna-based operating subsidiary of the CYAN Group. The current holding company and majority shareholder, CYAN AG, was founded in April 2017, with the first contribution of shares in operating subsidiary CYAN Security Group GmbH (25%) being made in December 2017. Past performance of the CYAN Group must therefore be analysed exclusively at subsidiary level, the last audited consolidated interim financial statements for which were submitted on 31/10/2017. Consequently, the 2017 financial year comprised only ten months.

The contract signed with T-Mobile Austria in October 2012, the first in the new B2B2C area of operations, has been the biggest and most important sales driver for CSG over the past few financial years. According to information provided by the company, revenue from the T-Mobile Austria contract accounts for around 75% of the total revenue of EUR 3.59 million (01/01/17 – 31/10/17). As part of this key contract, the CYAN Group implemented the cyber security solution it developed itself into the T-Mobile network, with this security solution then offered to T-Mobile's own customers. Under the agreement, CSG receives a 50% share of the revenue from each user (which is, however, a minimum of EUR 0.83 per customer and month).

Sales (in m€)



Source: CYAN AG; GBC AG; *01/01/17-31/10/17

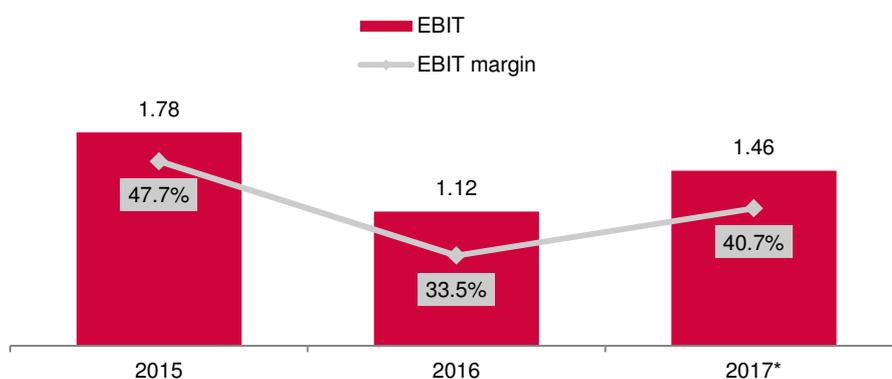
The company's sales have been solid in general, with a figure in excess of the EUR 4 million mark anticipated for 2017 as a whole. In 2017, the company also took on its first contract in the Financial Services segment, having been awarded a job from MyBucks S.A., a micropayment and micro-lending service provider in the southern African countries, in September 2017. The company gained another customer in this sector in December 2017, when it started working with Sberbank. It also gained its first customers in 2017 for the data optimisation solution developed ready for the market in Q3 2017 (MVNO customer segment), e.g. I-New, Surf Telecom and Mobile Flash Telecom.

We are working on the assumption that the customers in the Financial Services and MVNO segments did not generate revenue in 2017 and regard successfully securing these new customers as good upside potential for the financial years ahead. Furthermore, our estimates indicate that Cyan AG is going to enjoy a 'deal pipeline' of at least ten major companies as a result of these new customers, i.e. significant potential for more business in the future.

Historical earnings performance

Although the sales base remains narrow, CSG has a positive operational earnings level, which in our opinion is a good indication of the scalability of the business model. The EBIT margins have remained above 30% at all times in previous financial years and represent, even at this currently low level, extremely good value for a software manufacturer.

EBIT (in m€) and EBIT margin (in %)



Source: CYAN AG; GBC AG; *01/01/17-31/10/17

CSG's cost situation is mainly due to its expenditure on staff, which is common at software companies. Over the past few financial years, the company, having acquired and integrated CYAN Licencing GmbH and CYAN Mobile Security Poland, has significantly increased the size of its workforce, from 15 (as at 31/12/2015) to 24 (as at 31/10/2017), which in turn has had an effect on personnel expenditure. The personnel expenditure quota increased from 16.6% (2015 financial year) to 23% (as at 31/10/2017) as a result of these changes.

The potential for scaling is also becoming evident with regard to material expenditure, which with a quota of over 20% has accounted for a disproportionately high percentage of the turnover up to now. As a certain proportion of the company's material expenditure is connected to infrastructure, etc., this relatively high quota at present can be attributed to the company's sales basis that remains narrow. We are expecting significant opportunities for scaling here too (see forecast and model assumptions).

As CSG has not taken out any bank loans and, as such, does not have any significant financial expense, the EBIT by and large reflects pre-tax earnings. With tax expenditure deducted (the tax quota has been 15–22.5% up to now), the company's result after tax is also a positive value. This was EUR 1.24 million in the first ten months of 2017, which meant an after-tax margin of 34.6%.

Balance sheet/financial situation at parent company CYAN AG

in m€	31/12/2017	31.03.2018*
Equity	7.65	46.0
Equity-ratio (in %)	94.8%	90.0%
Liquid assets	3.00	n.a.
Holdings	5.07	n.a.

*Source: CYAN AG; GBC AG; *GBC's estimated pro forma financial statement of CYAN AG (incl. CYAN Security Group)*

Parent company CYAN AG (the issuer) entered into a contribution, assignment and post-formation agreement with the operational companies on 11/12/2017. The contribution took the form of a capital increase by way of contribution in kind, with the 25% holding contributed in CSG valued at around EUR 5 million on the accounting date. As a result, equity on 31/12/2017 reflected this valuation, amounting to EUR 5.07 million. Similarly, financial investments entered on the asset side (25% holding) amounted to EUR 5.07 million.

A EUR 3 million capital increase for cash took place in December 2017. This meant a cash balance of EUR 3 million as at 31/12/2017. Three further capital increases for cash, worth a total of around EUR 38 million, took place after the 31/12/2017 accounting date. Current equity is estimated at around EUR 46 million, taking into account the combination of the holding already contributed and the current liquid assets. The 90% equity ratio is set to remain at a high level in our opinion.

SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Experienced management team with good contacts in the telecommunications sector • Technological trailblazer in the field of mobile security (technological edge of approx. 2 years) • Less sensitive to changes in the economy • Long-term customer relationships (e.g. with T-Mobile) • White-label business model (B2B2C) makes recurring revenue possible 	<ul style="list-style-type: none"> • Relatively small company size • Working in just two sectors (telecommunications and finance) means the range of customers is not diverse • Relatively high dependence on T-Mobile up to now (estimated share of revenue: approx. 75%)
Opportunities	Risks
<ul style="list-style-type: none"> • The growing IT Security market offers tremendous potential for growth (industry experts expect significant long-term growth of 8 to 12% per annum) • An increasing number of smartphones, which make permanent internet access possible • Due to increasing pressure on their margins, telecommunications companies are looking for alternative sources of revenue; security software, as an add-on service, represents a good opportunity here, enabling them to strengthen their brand and increase customer loyalty 	<ul style="list-style-type: none"> • The existing 'deal-pipeline' will lead to fewer new customers than hoped for and may have a negative impact on business. • Heightened competition on Cyan's niche mobile security solutions market for business customers (B2B2C) might dent the company's margin. • Cyan's security solutions mean expenditure on R&D is necessary on an ongoing basis. Without adequate investment in this technology, there is a risk that Cyan's security solutions will not be 'state-of-the-art' and will not meet customer requirements.

ESTIMATES AND MODEL ASSUMPTIONS

P&L (in m€)	FY 2017*	FY 2018e	FY 2019e	FY 2020e	FY 2021e
Sales	4.90	10.66	24.72	38.43	52.11
EBIT	2.36	5.76	15.57	25.83	37.11
EBIT margin	48.2%	54.0%	63.0%	67.2%	71.2%
Net profit	2.01	4.61	11.68	19.37	27.83

Source: GBC AG; *GBC's estimated pro forma consolidated financial statement of CYAN AG (incl. CYAN Security Group)

Corporate strategy

We essentially used the potential of the current customer base and possible revenue from new customers, derived from a project pipeline, as the basis for our sales and profit forecasts. As outlined in our business strategy, MNO (Mobile Net Operators), MVNO (Mobile Virtual Network Operator) and financial services providers are the customer groups on which we will focus in particular in the future. Although we intend to target gaming and betting platforms increasingly, we have not factored these into our forecasts because no projects involving this customer group are taking place at the moment.

Opening up new customer groups using the CYAN product as the basis for this should, generally speaking, be possible without any major adjustments, which should enable the company to expand its customer base relatively quickly. As product implementation takes the form of integration of the CYAN database into the customer's infrastructure, relatively little time is taken and, most notably, capital expenditure is low. The large amount of potential for scaling that this business model has is plain to see.

Sales of the security solution for banking apps should be a main focus here, to be sold to financial services providers and to new customer groups (banks, insurance companies, Fintech, etc.) in the future. The security solution developed by the CYAN Group will form an integral part of the banking app in this case, making the end device more secure during banking transactions.

Increasing revenue from existing customers promises considerable potential for scaling too, however. The company's revenue is essentially dependent on the number of customers (MNO; MVNO) and downloads (financial services providers). CYAN AG, for instance, receives a 50% share of the revenue from each user as part of its contract with T-Mobile Austria (T-Mobile Austria sells the CYAN product to its own end customers), but is guaranteed at least EUR 0.83 per customer each month. Any increase in the number of users will, if the cost structure remains the same, result in an increase in revenue and a direct increase in the profit level.

In this respect, it will also be possible to achieve a **regional expansion** of the sales base with current customers. An existing framework agreement with Deutsche Telekom, for instance, will provide a basis on which other national contracts can be signed. A national contract with T-Mobile Poland has already been successfully concluded, and the company is currently in the process of opening up other sales markets such as Croatia, Bulgaria and Macedonia. Generally speaking, the company is planning to increase its competitive positioning inside and outside Europe, with Asia, Africa and South America as the focal points.

The company's extensive project pipeline is the key basis for our estimates regarding sales and, in turn, profit. According to information provided by the company, the pipeline in question encompasses a total of ten possible new customers (B2B), negotiations with some of whom have already reached an advanced stage. The number of potential instal-

lations on the customer base (B2C) is around 400 million (customers), which will mean correspondingly significant potential for revenue even if the penetration rate is low.

Potential project	Customer group	Amount of clients (B2C)	Probability of occurrence
Project 1	MVNO	5.0m	85%
Project 2	Government	10.0m	85%
Project 3	MVNO	0.7m	85%
Project 4	Financial services	25.0m	85%
Project 5	MNO	55.0m	40%
Project 6	MVNO	14.0m	40%
Project 7	MNO	240.0m	40%
Project 8	Financial services	25.0m	40%
Project 9	Financial services	4.5m	40%
Project 10	MVNO	4.5m	40%

Source: CYAN AG; GBC AG

Based on an MNO or MVNO customer with five million end customers, the company could achieve a sales revenue of up to EUR 30 million each year with a 25% installation quota and a monthly price of EUR 2 per customer. As the installation of the infrastructure takes place just once and the updates to the CYAN database are fully automated, each additional customer would translate directly into profit for the company.

In the case of the financial services providers, the CYAN security feature needs to be integrated into existing banking apps as a white label solution. Customers opting for the security feature would then be protected against phishing and malware or other security risks if they install the CYAN add-in update. If the financial services provider has a customer base of 4.5 million, a 50% installation quota would be enough to achieve annual sales revenue of approx. EUR 9 million. Annual costs of approx. EUR 4 per customer are assumed.

Potential project	Customer group	Amount of clients (B2C)	Probability of occurrence
T-Mobile Austria	MNO	4,5m	100%
T-Mobile Polen	MNO	11m	100%
SBERBANK	Financial services	16m	100%
MyBucks	Financial services	1m	100%
I-New	MVNO	5,4m	100%

Source: CYAN AG; GBC AG

A good deal of sales potential can also be tapped among the company's existing customers, in parallel with the potential mandates, based on the calculation examples shown. The licensing agreement entered into in February 2018 with I-New Unified Solutions AG, an MVNO platform with an estimated 5.4 million customers, is one example of how this will work. With this particular contract, CYAN's product will be used to prevent the considerable volume of data (from cookies, advertising, etc.) from placing a strain on the network's capacity and having an impact on the mobile network operator's cost situation. CYAN AG will be compensated based on the savings made via this optimisation of the mobile network. CYAN will receive 25% of the costs saved by the MVNO.

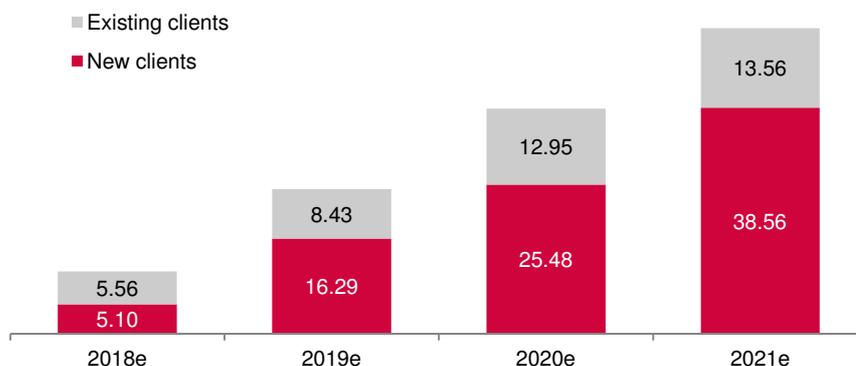
Sales estimates

We have based our revenue forecasts on the project pipeline and the probabilities shown in the table, plus the customer projects that are already underway. Generally speaking, our assumptions are conservative and based on very low installation quotas to begin with. As shown in the calculation examples above, even low installation quotas will be enough to achieve high levels of revenue. In light of this, our revenue estimates, which assume that a revenue level of EUR 52.11 million will be achieved by the 2021 financial year, should be considered conservative, particularly against the backdrop of the significant potential that lies untapped.

in m€	FY 18e	FY 19e	FY 20e	FY 21e
Sales – new clients	5.10	16.29	25.48	38.56
Sales – existing clients	5.56	8.43	12.95	13.56
Total	10.66	24.72	38.43	52.11

Source: GBC AG

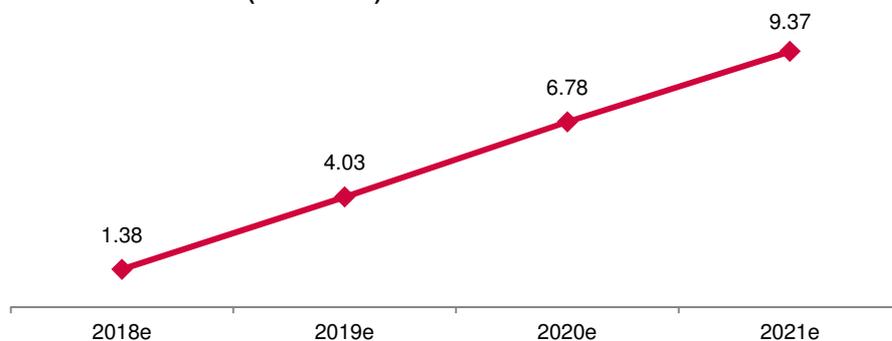
Estimates of sales (in m€)



Source: GBC AG

Generally speaking, we are assuming that installation rates will be relatively low; in view of the extensive B2C customer base, CYAN AG should still be capable of achieving a high number of customers in absolute terms, however. We predict that more than 9 million customers will be using CYAN products and solutions by 2021.

Number of B2C clients (in millions)



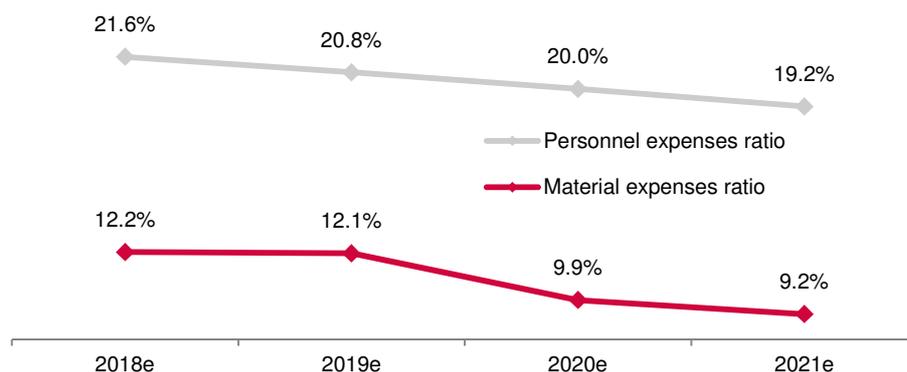
Source: GBC AG

This does not include certain new products that do not feature in our concrete plans, and which we instead consider to be upside potential for the company.

Earnings estimates

The high scalability of the CYAN business model, against the backdrop of revenue volumes undergoing significant growth, should be echoed in a significant improvement of the profit ratios. Given the fact that the variable costs that are incurred after generation of new customer business and one-off implementation of the CYAN solution for the B2B customer are set to be low, we expect cost ratios to fall accordingly, particularly with regard to material and personal expenditure.

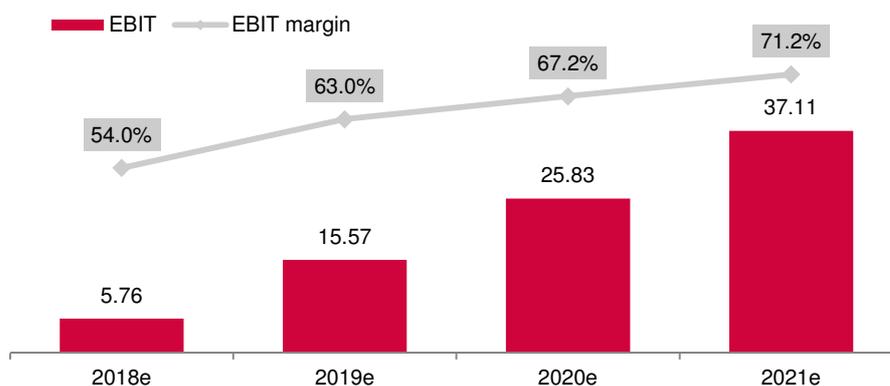
Personnel expenses ratio and material expenses ratio (in %)



Source: GBC AG

Based on this, the company's earnings performance may become disproportionate relatively quickly. We expect the EBIT margin to improve to more than 70% in the 2021 financial year and will also factor this into our DCF valuation model as a dimension that is achievable in the long term.

EBIT (in m€) and EBIT margin (in %)



Source: GBC AG

If the cash inflow from operational activities derived from this remains unchanged, the company should have a high ability to finance itself from within, particularly as the CYAN business model does not require high levels of investment. For this reason, we are assuming 100% equity financing with our model, which is echoed in the financial result as well as being reflected in the weighted average cost of capital (WACC).

Valuation

Model assumptions

The CYAN AG has been valued using a three-phase DCF model. Starting from the specific estimates for the financial years 2017 to 2021 in phase 1, in the second phase from 2022 to 2024 forecasts are performed under the assumptions of value drivers. In the process, we have assumed constant sales growth rates of 7.0%. As a target EBITDA-margin, we assumed a level of 73.4%. In phase 2 a tax rate of 30.0% is applied. Beyond the forecast horizon, a residual value was calculated using a perpetual annuity formula. For the final value we assume a growth rate of 2.5%.

Determining the capital costs

The weighted average cost of capital (WACC) of CYAN 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.

Using the GBC estimation method there currently a beta of 1.67 is applied.

Applying these assumptions we can calculate a cost of equity of 10.44% (beta multiplied by the risk premium, plus risk-free interest rate). As we assume a long-term weight of equity of 100%, the weighted average cost of capital (WACC) is 10.44%.

Valuation result

Discounting of future cash flows was carried out using the entity approach. The resulting fair value per share corresponds to a target price of €35.80. Proceeds from the issue of EUR 31.74 million aside, we factored a liquidity outflow of around EUR 26 million into the valuation model in order to acquire 49% of the shares in the operating subsidiary company, CYAN Security Group GmbH.

DCF-Model

Cyan AG - Discounted Cashflow (DCF) model scenario

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

consistency - Phase		final - Phase	
Sales growth	7.0%	Eternal growth rate	2.5%
EBITDA margin	75.0%	Eternal EBITA margin	73.4%
Depreciation to fixed assets	7.0%	Effective tax rate in final phase	30.0%
Working Capital to sales	50.0%		

Three-phase DCF - Model:

Phase	estimate						consistency		final TV
	FY 17e	FY 18e	FY 19e	FY 20e	FY 21e	FY 22e	FY 23e	FY 24e	
in mEUR									
Sales	4.90	10.66	24.72	38.43	52.11	55.76	59.66	63.84	
Sales change	46.9%	117.5%	131.9%	55.5%	7.0%	7.0%	7.0%	7.0%	2.5%
Sales to fixed assets	4.90	8.88	9.89	5.49	4.65	3.69	3.18	2.88	
EBITDA	2.56	5.96	15.77	26.03	37.31	41.82	44.75	47.88	
EBITDA margin	52.2%	55.9%	63.8%	67.7%	71.6%	75.0%	75.0%	75.0%	
EBITA	2.36	5.76	15.57	25.85	36.82	41.04	43.69	46.57	
EBITA margin	48.2%	54.0%	63.0%	67.3%	70.7%	73.6%	73.2%	72.9%	73.4%
Taxes on EBITA	-0.35	-1.15	-4.05	-6.72	-9.57	-12.31	-13.11	-13.97	
Tax rate	15.0%	20.0%	26.0%	26.0%	26.0%	30.0%	30.0%	30.0%	30.0%
EBI (NOPLAT)	2.01	4.61	11.52	19.13	27.25	28.73	30.58	32.60	
Return on capital	340.5%	255.9%	274.3%	131.9%	103.9%	77.1%	71.1%	67.1%	62.2%
Working Capital (WC)	0.80	3.00	12.00	19.21	26.06	27.88	29.83	31.92	
WC to sales	16.3%	28.1%	48.6%	50.0%	50.0%	50.0%	50.0%	50.0%	
Investment in WC	-0.74	-2.20	-9.00	-7.21	-6.84	-1.82	-1.95	-2.09	
Operating fixed assets (OFA)	1.00	1.20	2.50	7.00	11.21	15.13	18.77	22.15	
Depreciation on OFA	-0.20	-0.20	-0.20	-0.18	-0.49	-0.78	-1.06	-1.31	
Depreciation to OFA	20.0%	16.7%	8.0%	7.0%	7.0%	7.0%	7.0%	7.0%	
Investment in OFA (CAPEX)	-0.67	-0.40	-1.50	-4.68	-4.70	-4.70	-4.70	-4.70	
Capital employment	1.80	4.20	14.50	26.21	37.27	43.01	48.60	54.07	
EBITDA	2.56	5.96	15.77	26.03	37.31	41.82	44.75	47.88	
Taxes on EBITA	-0.35	-1.15	-4.05	-6.72	-9.57	-12.31	-13.11	-13.97	
Total investment	-1.41	-28.60	-10.50	-11.89	-11.54	-6.52	-6.65	-6.79	
Investment in OFA	-0.67	-0.40	-1.50	-4.68	-4.70	-4.70	-4.70	-4.70	
Investment in WC	-0.74	-2.20	-9.00	-7.21	-6.84	-1.82	-1.95	-2.09	
Investment in Goodwill	0.00	-26.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free cashflows (FCF)	0.80	-23.79	1.22	7.42	16.20	22.99	24.99	27.12	406.28

Value operating business (due date)	239.84	288.68
Net present value explicit FCF	37.14	64.81
Net present value of Terminal Value (TV)	202.70	223.87
Net debt	-3.91	-11.86
Value of equity	243.75	300.54
Minority interests	0.00	0.00
Value of share capital	243.75	300.54
Outstanding shares in m	7.01	8.39
Fair value per share in €	34.75	35.80

Capital cost calculation:

Risk free rate	1.3%
Market risk premium	5.5%
Beta	1.67
Cost of equity	10.4%
Target weight	100.0%
Cost of debt	4.5%
Target weight	0.0%
Taxshield	28.7%
WACC	10.4%

Return on capital	WACC				
	8.4%	9.4%	10.4%	11.4%	12.4%
61.2%	48.24	40.81	35.35	31.19	27.94
61.7%	48.57	41.08	35.58	31.38	28.10
62.2%	48.90	41.35	35.80	31.57	28.26
62.7%	49.24	41.62	36.02	31.76	28.42
63.2%	49.57	41.89	36.25	31.95	28.58

ANNEX

I.

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

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