Research study (initial coverage)

Cogia AG

Dynamic growth with patented semantic solutions in the area of "Big Data Analytics

Target price: EUR 3.72

Rating: BUY

IMPORTANT NOTICE:
Please note the disclaimer/risk notice
as well as the disclosure of potential conflicts of interest pursuant to Section 85 WpHG and Article 20 MAR from page 28

Notice according to MiFID II regulation for research "Minor Non-Monetary Contribution": This research meets the requirements for the classification as "Minor Non-Monetary Contribution". For further information, please refer to the disclosure under "I. Research under MiFID II".

Date and time of completion of the study: 15.12.2021 (15:40) German version: 13.12.2021 (17:44)
Date and time of the first disclosure of the study: 21.12.2021 (10:00) German version: 14.12.2021 (10:00 a.m.)
Validity of the target price: until max. 31.12.2022

GBC AG Investment Research

Cogia AG *5a,11

Rating: BUY
Target price: EUR 3.72

Current price: 1.99€
13.12.2021 / Xetra 5.36 pm
Currency: €

Data overview:

ISIN: DE000A3H2226
WKN: A3H222
Stock exchange symbol: 8HC
Number of shares³: 3.5
Market cap³: 7.00
EnterpriseValue³: 6.28
³ in million / in € million
Free float: 30.0

Market segment:
Open Market

Accounting:
HGB

Financial year: 31.12.

Analysts:

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Felix Haugg
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* Catalogue of possible conflicts of interest on page 29

Company profile

Industry: Software

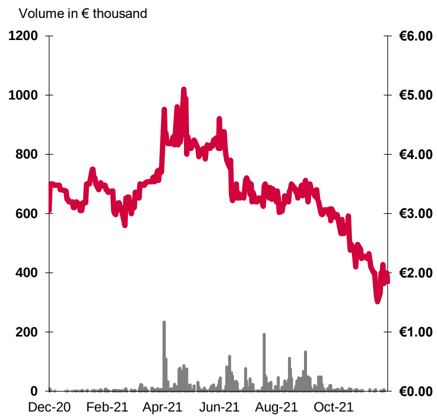
Focus: Online media monitoring and analysis

Employees: 31 as of 31.12.2021

Foundation: 2020

Registered office: Frankfurt am Main

Board of Directors: Pascal Lauria



Cogia AG, founded in Frankfurt am Main, is a provider of patented semantic solutions and services based on Artificial Intelligence (AI) in the field of Big Data Analytics, with a focus on customer experience, monitoring and engagement. Cogia AG has been selling its products for intelligent information search, organization and analysis for web content, social media posts and internal data for more than 10 years. This includes a multilingual system that uses natural language processing technologies to deliver superior search and categorization results. Cogia's goal is to support its customers, whether companies, associations, or public authorities, in the optimal utilization of the available information by making it accessible in terms of content and preparing it in a structured manner using automated processes.

P&L in € million \ FY-end	31.12.2020	31.12.2021e	31.12.2022e	31.12.2023e
Sales	0.42	1.05	1.93	3.55
EBITDA	0.13	0.07	0.17	0.89
EBIT	-0.28	-0.83	-1.05	-0.33
Net income for the year	-0.32	-0.72	-1.38	-0.84

Key figures in EUR				
earnings per share	-0.09	-0.21	-0.39	-0.24
dividend per share	0.00	0.00	0.00	0.00

Key figures				
EV/Sales	15.07	5.98	3.25	1.77
EV/EBITDA	47.46	85.40	36.63	7.06
EV/EBIT	-22.70	-7.59	-5.99	-18.95
PE	-21.99	-9.70	-5.09	-8.30
PB	0.60			

Financial calendar

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

EXECUTIVE SUMMARY

- Cogia AG is a full-service provider of AI-based, patented, semantic solutions and services in the field of "Big Data Analytics", with a focus on customer experience, monitoring and engagement. Cogia's goal is to support its customers, whether companies, associations, or public authorities, in the optimal use of available information by making it accessible in terms of content and preparing it in a structured manner using automated processes - in two respects. On the one hand, it is a matter of discovering hidden company- or organization-specific knowledge within the internal data and the customer's intranet. On the other hand, Cogia AG enables companies to monitor their target groups via the Internet, build lasting customer relationships and create added value for their brands.

- The products of Cogia AG are based on a self-developed and innovative AI-based software solution. The AI software solutions clearly set the company's products apart from the competition. This reflects the company's more than 10 years of research and development work in this area, as well as their continuous further development of software solutions. Through its extensive product portfolio, Cogia AG provides its customers a close integration of technical and editorial services, so that customers can be optimally and holistically supported in every phase of a project.

- The innovative product solutions of Cogia AG have already demonstrated their market maturity in practical tests in numerous projects with renowned customers. Thus, the automotive groups Volkswagen and BMW are already among their customers, as well as the Fraunhofer Institute or the Free State of Bavaria. In addition to their further development of software solutions, their focus is on a further roll-out at Cogia AG.

- As of the financial year 2020, sales amounted to € 0.42m (previous year: € 0.33m) with an EBITDA of € 0.13m (previous year: € 0.16m) and a net result of € -0.32m (previous year: € 0.11m). Sales revenues are still at a low level, but there are already good customer relationships with major customers such as BMW, Lufthansa, and VW with whom the company can grow.

- As of the first half of 2021, revenue was € 0.34m, EBITDA was € 0.09m, and the net result was € -0.39m. Annualized, the primary goal of revenue growth was thus achieved. In addition, a partnership was concluded with VIMATO, a micro-influencer platform.

- We expect dynamic growth for Cogia AG. The business model of recurring revenues and the already good contacts to major customers should enable significant revenue increases. We forecast revenue growth in the current fiscal year 2021 to € 1.05m, followed by € 1.93m in 2022 and € 3.55m in 2023. The scalable business model should allow significant earnings improvements. We expect EBITDA to increase from € 0.07m (2021) to € 0.17m (2022) and € 0.89m (2023).

- Our forecasts do not yet include inorganic revenues. Cogia also plans to grow via debt capital. The funds are to be raised on a deal-by-deal basis. Management already has an extensive pipeline of potential targets of around € 50m.

- **Based on our DCF model, we have determined a fair value per share of € 3.72 and assign a Buy rating.**

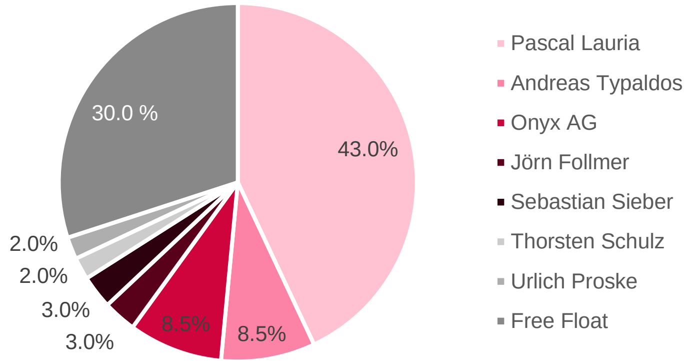
TABLE OF CONTENTS

COMPANY

Shareholder structure

Shareholders	Share
Pascal Lauria	43.0%
Andrew Typaldos	8.5%
Onyx AG	8.5%
Jörn Follmer	3.0%
Sebastian Sieber	3.0%
Thorsten Schulz	2.0%
Ulrich Proske	2.0%
free float	30.0%

Sources: Cogia. GBC AG



Company history at a glance

Year	Event
2010-2011	• Foundation of Cogia Intelligence • Release of CI Web 2.0 Observer V. 2.5 and Engagement Console • Introduction of Real Time Social Media Monitoring • Opening of a sales office in New York (USA)
2012-2013	• Launch of the new product Web Observer 3.0 • Introduction of new products: CI Web Audit and CI Report • Opening of a sales office in Ferrara (Italy)
2014	• Release of the Web Observer 3.5 • Start of support for Wake e.V. organization for the promotion of children and young women in Pakistan
2015-2017	• Takeover of Memo News AG • Opening of a sales office in Kreuzlingen (Switzerland) • Awarded with the STEP Award 2017 by the F.A.Z. publishing house
August 2020	• Formation of Cogia AG by contribution in kind of Cogia Intelligence
December 2020	• Listing in the general over-the-counter market of the Düsseldorf Stock Exchange
June 2021	• Implementation of a capital increase
September 2021	• Acquisition of elastic.io GmbH
October 2021	• Listing on the primary market of the Düsseldorf Stock Exchange and list-ing in Frankfurt and Xetra

Sources: Cogia; GBC AG

Excerpt from customers

Sources: Cogia AG; GBC AG

management team

Board of Directors

Pascal Lauria

Mr. Lauria founded Cogia GmbH in 2010 and acted as its successful Managing Director until its incorporation into Cogia AG. Mr. Lauria is a seasoned Chief Executive Officer with proven experience in the Information Technology, SaaS sector. A visionary with a strong focus on business development. Professional with experience in business alliances, sales, enterprise software, SaaS, business development and marketing strategy.

Supervisory Board

Andreas Typaldos (Chairman)

Mr. Typaldos is a pioneer in the software and technology industry. He has been a founder and early investor in many software, technology, digital health, and other companies, primarily in the US and Europe. He has experience growing the companies in which he invests to successful IPOs, M&A, and other exits. He is currently the CEO of Petra Acquisition Inc., a life sciences SPAC ("Special Purpose Acquisition Company") that successfully went public on NASDAQ in October 2020 at $ 73 million.

Jörn Follmer (Deputy)

Mr. Follmer has many years of experience in capital markets, with a focus on mergers and acquisitions. Currently, Mr. Follmer is a partner at CDC Capital Wirtschaftsprüfung, where he is responsible for capital market transactions. In this capacity, he has been involved in several acquisitions and more than 35 IPOs with subsequent capital raising. In addition, he acts as an official listing partner at the German Stock Exchange and the Vienna Stock Exchange, among others.
He also holds investments in emerging markets companies and is a member of the Business Angels Club Berlin-Brandenburg and the BAND network.

Thilo Kirchner

Mr. Kirchner has been a successful investor and founder of various start-ups in the technology sector for many years. Furthermore, due to his many years of experience as CEO of various companies, he has a distinctive expertise in building companies.

Key people

Yakov Bezrukov

Yakov Bezrukov heads the R&D department. He holds a master's degree in mathematics, a master's degree in computer science and a master's degree in engineering. Before joining Cogia, he was an engineer at the Institute of Semiconductor Physics of the Siberian Branch of the Russian Academy of Sciences. He is a parallel senior lecturer at Novosibirsk State University. His specialties are high-performance and bulk computations, text and data mining, Big Data architectures, neural networks, and signal processing.

Thomas Reuter

Thomas Reuter is the head of the editorial team and chief analyst of Cogia. He studied German language and literature, linguistics, political science, and philosophy and worked as a freelance author for 15 years (e.g., for SPIEGEL and Deutschlandfunk). He has been a member of the management team at Cogia since its foundation and is a specialist in research methods and computational linguistics, among other things, with numerous lectures and publications to his name.

Martin Kreitschmann

Martin Kreitschmann is Cogia's product manager. He has many years of experience in product management, user-experience design, web and application design, business development and digital marketing. Before joining Cogia, he founded and then sold his own company while still a student.

Tobias room

Tobias Zimmer joined the Cogia team in 2017 as Business Development Manager. He holds a B.A. degree in International Business (HTW-Berlin 2015) and an M.Sc. in International Business & Finance (London South Bank University, 2017). Previously, he worked for IBM in the "Business Transformation & Information Technology Unit" and for Zollner Elektronik AG in the "Procurement BMW i8 & Tesla X". He has extensive international experience thanks to professional stations in Shanghai, Budapest, Cartago (CR) and London.

Sonja Paas

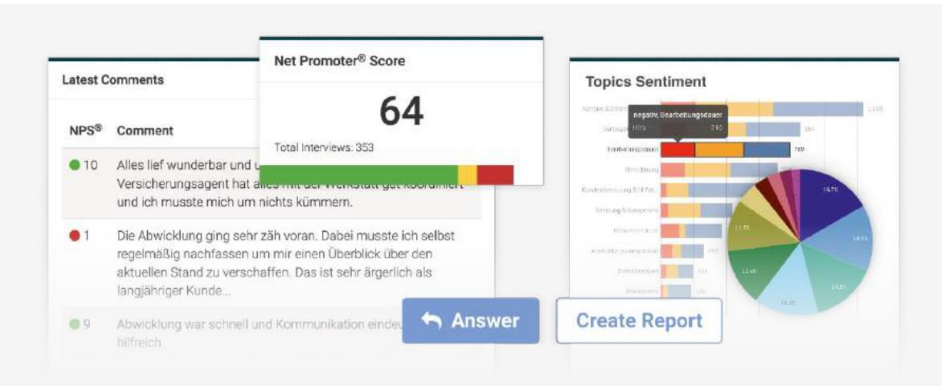
Sonja Paas supports Cogia in Investor Relations. She has several years of experience in the field of investor relations / stakeholder management in a listed company, which is listed in the Scale Segment of the Frankfurt Stock Exchange. In addition to a degree in banking and many years of experience in corporate banking, she has completed a further qualification as a CIRO (Certified Investor Relations Officer). This means that all legal matters relating to investor relations can also be covered.

Business model of Cogia AG

Cogia AG is a full-service provider of AI-based, patented, semantic solutions and services in the field of "Big Data Analytics", with a focus on customer experience, monitoring and engagement. Cogia's goal is to support its customers, whether companies, associations, or public authorities, in the optimal use of available information by making it accessible in terms of content and preparing it in a structured manner using automated processes - in two respects. On the one hand, it is a matter of discovering hidden company- or organization-specific knowledge within the internal data and the customer's intranet. On the other hand, Cogia AG enables companies to monitor their target groups via the Internet, build lasting customer relationships and create added value for their brands. Cogia AG also provides support here with the identification of relevant communication sources and opinion leaders or influential users (influencers) to include them in marketing measures.

Customer Experience Manager (CXM)

Due to the increasing presence of social media platforms in the everyday life of consumers, these networks have become an important source of customer experience and customer satisfaction for companies. Via platforms such as Facebook, Twitter, Instagram, YouTube or blogs and forums, customers can exchange information about companies, products, brands, or services worldwide and at any time. This development gives customers a relatively high degree of power and extremely strong influence – far greater than ever before. Consequently, companies are forced to react to this trend. Thus, almost all global companies already have their own social media teams, which mainly take care of the promotion of products and services, as well as managing the customer's experience and communicating with customers on social networks.



Source: Cogia AG

Cogia AG has developed the Customer Experience Manager (CXM) for this wide-ranging field of tasks. Cogia AG's award-winning, AI-based sentiment and trend analysis and its patented semantic search engine enable companies to perform an in-depth analysis of customer experiences on social media platforms. The semantic analysis enables customers to get an overview of how, for example, customer experiences on Twitter, YouTube or Instagram about a certain product are developing. Topics and sentiments can be categorized, trends identified and compared with predefined KPIs.

Up to now, customer opinions and experiences have usually been collected by external market and opinion research teams. For this purpose, statistically valid statements about brands, products or consumer behavior are obtained by means of controlled, predefined question schemes. Increasingly, however, customers are also asked quantitative questions (open questions). However, the evaluation of such open questions is much more difficult than standardized questionnaires. In most cases, such full-text evaluations are highly extensive and, therefore, it is difficult to derive a valid statement from the underlying data. In addition, such an evaluation is very cost-intensive and hardly realizable manually, if one does not want to fall back only on samples. The CXM solution from Cogia AG is the ideal solution to this problem.

By using the CXM solution, companies can track, measure, and analyze feedback from customers at any touchpoint across the entire customer journey and social networks. In the process, practical reports can be generated to target their own customers more effectively. Ultimately, this analysis helps companies to increase customer satisfaction, customer loyalty and retention, and ultimately also monetary business success.

Cogia AG clearly stands out from the competition with its patented search technologies, its categorization processes, and its sentiment analysis, both of which are AI-based. More than 10 years of research work have gone into the Customer Experience Manager and are constantly being further developed. In this way, Cogia AG guarantees, according to its own statement, a constant technological lead over competitors who have so far only been partially able to operate at a comparable level of analysis. Cogia AG's CXM solution integrates a wide range of semantic technologies for both content and sentiment analysis in one solution. This enables companies to get real-time analytics on all their customer feedback data in one easy-to-use dashboard. In addition, CX Manager can process and analyze data in more than 40 languages.

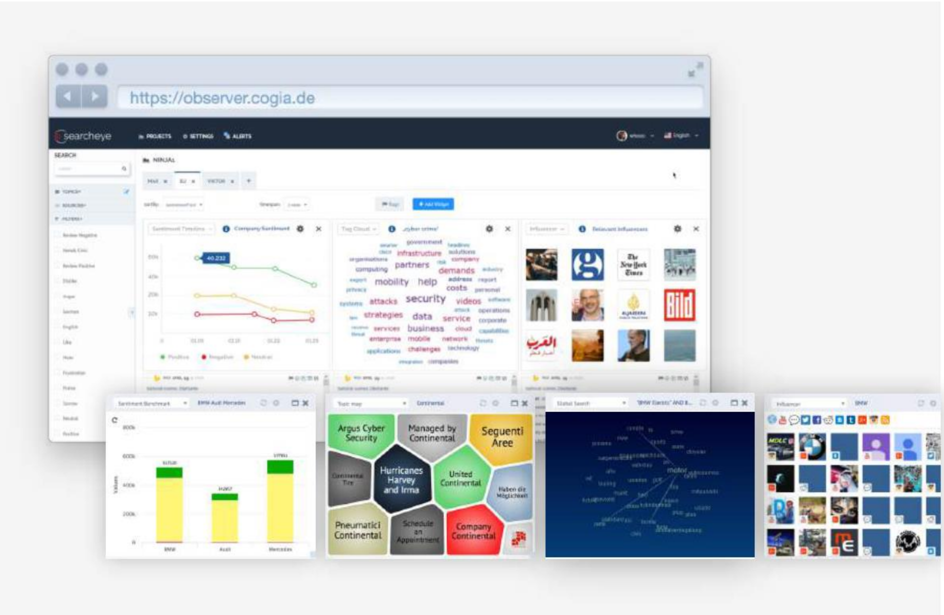
In addition, companies can also use the CXM solution to evaluate the Employee Experience (EX). In-house employee surveys usually take place in larger companies to analyze employee comments. These include criticism of supervisors, the work and work climate, workplace equipment, organizational structure, or compliance policies. Since these surveys are conducted regularly, this type of analysis clearly shows over time whether progress has been made or new problem areas have developed.

Web Observer

Media monitoring

Cogia AG's Web Observer is an expert application for web and social media monitoring. By using the Web Observer as a web and social media monitoring tool, print articles as well as audio/video streams can be included in the analysis in addition to websites. In the analysis process, the relevant information is automatically filtered out and categorized. Possible categorizations of the data to be processed are, for example, by topic, sentiment (positive/negative), emotions (frustration, anger, joy) or names (of people, cities, countries, companies). This enables structured research, evaluation, and processing of information, as well as a visualization and graphical representation of the analysis results.

Cogia AG's Web Observer combines various technologies in the analysis process for optimal data development. Artificial intelligence uses both mathematical-statistical and linguistic methods for automated content analysis. The results are provided in graphical form. According to the company, this enables a quick assessment of certain topics, brands, or products at first glance. In addition, developments and changes can be more easily achieved using the software solutions. Trends and patterns that can only be tracked down with Big Data analyses due to their complexity are thus revealed. Furthermore, AI-based "predictive analysis" is also used, which attempts to predict at an early stage which topics could become more important in the coming days. Furthermore, so-called "weak signals" are to be detected in good time, which show the first indications of changes in trends and sentiment.



Source: Cogia AG

Another function of the Web Observer is a special analysis for security issues. The goal here is the early identification of dangers and risks, both regarding the possible physical endangerment of persons (through attacks or kidnappings), as well as with regard to potential threats to IT security (through security holes/exploits or Trojans).

Text mining

Cogia AG's AI-based semantic search engine solutions can also produce sound analysis results based on text mining. Text mining, also known as text data mining, is the analysis of unstructured or weakly structured text data using statistical and linguistic means that are intended to enable users to quickly identify core information from the processed texts. Cogia's solution can process a variety of data sources, including all types of internal data, SQL databases, mail servers or intranet data. Cogia AG's text mining tool enables companies to consolidate their own unstructured data and sort it by topic, among other things.

Cogia AG offers a special text mining module for market researchers and agencies in connection with customer satisfaction management. The special feature of this module is the focus on the evaluation of surveys and the open questions contained therein. The semantic analysis of texts or comments applied here makes it possible to automatically categorize texts, determine sentiment or identify conceptual relationships. Another special feature of this text mining module is the data exchange between Cogia AG and the customers. Due to the high sensitivity of such data, the data exchange only takes place via special, secure interfaces. No separate user interface is provided for the analysis of such data, only the data and analysis results are exchanged in the form of files. In addition, the data is only processed on DSGVO-compliant servers, which further increases the security of sensitive data and meets the compliance guidelines of many companies.

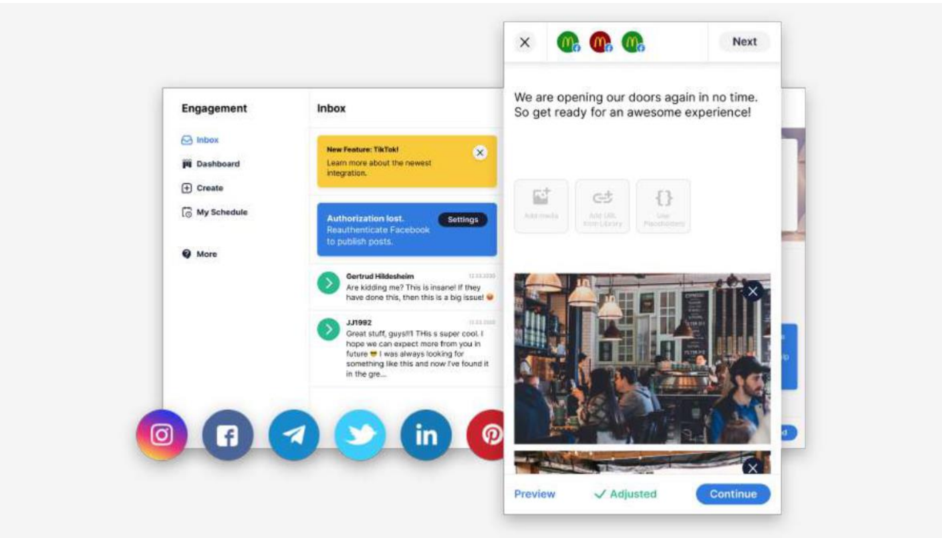
Social media management

Nowadays, communication with customers is one of the central assets for customer satisfaction. This is also reflected in the strong commitment of many companies, which increasingly rely on their own communication teams, especially on the social networks. Customer communication today means much more than running a traditional service hotline. Social media teams are nowadays one of the most important departments in companies, creating image campaigns or tutorials in addition to marketing strategies. The goal of all measures is to increase product, brand, and customer loyalty, as well as to increase attention and awareness, to increase reach, to maintain customer relationships and to attract new customers. To achieve all these goals, companies rely on influencers and testimonials in addition to their own social media teams.

Sometoo

Companies usually operate their own accounts on all common platforms (including Facebook, Instagram, Twitter, TikTok, YouTube) to present the content of their social media campaigns to the largest possible audience. Due to the large number of social media platforms, some companies are not able to use all channels at the same time or this would tie up too many resources. By using Sometoo, companies can manage their social media presence effectively and, in a time-saving manner, via a central platform. The innovative solution from Cogia AG enables customers to manage content across all platforms via a single user interface and to distribute their own content in a targeted manner via the respective social media channels.

Sometoo enables both small and large global companies to manage social media communications consistently across all platforms. Sometoo has a task manager that can be used to schedule posts in advance and publish them automatically at specific times. In addition, Cogia AG offers an integration of RSS feeds for content distribution as well as an alert system that directly informs customers about critical comments and enables companies to react at an early stage. In addition, all relevant statistical analyses are also available to Cogia AG customers in bundled form.



Source: Cogia AG

Another unique selling point of the Sometoo solution is Cogia AG's unique multi-client system. According to the company, this multi-level structure can also be used to organize the social media presences of franchise systems, insurance distributors and network marketing. This function offers organizations a strong competitive advantage, since, for example, direct customer contact of franchise or sales partners is possible via the social media channels and immense multiplier effects can be achieved.

Sometoo Service

In addition to the Sometoo module, Cogia AG also offers its customers all the advantages of the module solution as a service. If desired, Cogia AG can take over the entire social media communication for customers. For this purpose, Cogia AG provides its own editorial team, which takes over the tasks of internal social media teams in close consultation with the customer. From the customer's point of view, there are various arguments in favor of using Sometoo’s service. The effective use of social media platforms requires not only the right tool, but also experience, creativity and the right insights to ensure a successful social media presence that supports the success of the company. For this service, Cogia AG has built up its own team of social media professionals for Sometoo to be able to offer customers an all-round service. Cogia AG's social media team designs and creates effective campaigns and the corresponding content for customers, tailored to the customers and their products or services, and distributes it on the selected platforms.

Influverse

In addition to the classic advertising platforms such as TV, audio and print advertising, (micro)-influencer marketing is now part of the general marketing mix. (Micro)-Influencers are a force, whether on Instagram, YouTube, TikTok, Twitch or Snapchat. They enjoy high credibility, have hardly any wastage due to mostly clearly defined target groups and thus achieve outstanding engagement rates. Thanks to intrinsic motivation and barter deals, these content creators are also extremely cost-effective to integrate into online marketing strategies.

With Influverse, Cogia AG offers customers a one-stop platform that brings companies and/or products together with the right advertising partner. Through smart search filters and AI-powered algorithms, thousands of suitable (micro)-influencers and content creators can be found and contacted within seconds. Suitable partners are identified by analyzing psychographic characteristics, demographic data, and user behavior. In addition, the platform can be used to coordinate and handle the administration of the influencers approached as well as the campaign management.

Socializer Messenger

Today, online communication is exposed to high risks, especially in the professional environment. In most cases, highly confidential matters are discussed, and sensitive data is exchanged, which must be protected from external attackers in the best possible way. With Socializer Messenger, Cogia AG offers its customers a reliable and secure alternative to providers and their solutions, most of which come from abroad. Cogia AG provides Socializer Messenger solutions as an app for both iOS and Android and offers maximum security and protection for any type of communication. Their strong encryption of all data is based on a self-developed and sophisticated system. Thus, the communication itself is encrypted end-to-end, as well as the local data storage. Another security feature is "Transport Layer Security" (TLS) for all connections. In addition, certificate pinning is used to prevent unwanted server certificates from being slipped in.

In addition to its high security standard, Socializer Messenger has other useful functions that, according to the company, clearly differentiate it from the competition. For example, documents can be edited, signed, shared, and securely stored via the messenger. In addition, Socializer Messenger supports all common file types so that data never has to leave the app's sandbox environment.

Overall, the solutions of Cogia AG show that the self-developed and innovative AI-based solutions clearly stand out from the competitive products. This reflects the company's more than 10 years of research and development work in this area, as well as their continuous further development of software solutions. With its wide-ranging product portfolio, Cogia AG enables its customers to closely interlink technical and editorial services, so that customers can be optimally and holistically supported in every phase of a project. Their customized set-up of their respective systems and close support during the runtime, as well as their selective requirements, together form another unique selling point for Cogia AG.

Market and market environment

In accordance with the corporate orientation described above, Cogia AG focuses on the development of software solutions and products in the area of customer experience/employee experience, web and social media monitoring and data analysis as well as social media management. Through its patented AI-based search technologies, categorization methods and sentiment analysis, the company has a self-developed and innovative solution in this area on the market. The AI-based analysis of data enables automatic categorization of documents, automatic topic discovery and analysis of content relations as well as emotional orientations.

The use of artificial intelligence-supported software solutions is playing an increasingly important role in both global companies and medium-sized enterprises, especially in the area of corporate communication. Communication for companies with customers and other market participants has become increasingly important in recent years, and more and more communication channels have emerged in recent years. As a result, the customer journey has lengthened significantly. In order to manage this process effectively and efficiently in the various channels, companies are increasingly relying on the use of software solutions. Through this use, various processes can be streamlined, allowing companies to react more quickly to events.

In the following market descriptions, we focus not only on the general developments in the German market for artificial intelligence, but also on the market for social media management and the market for customer experience management.

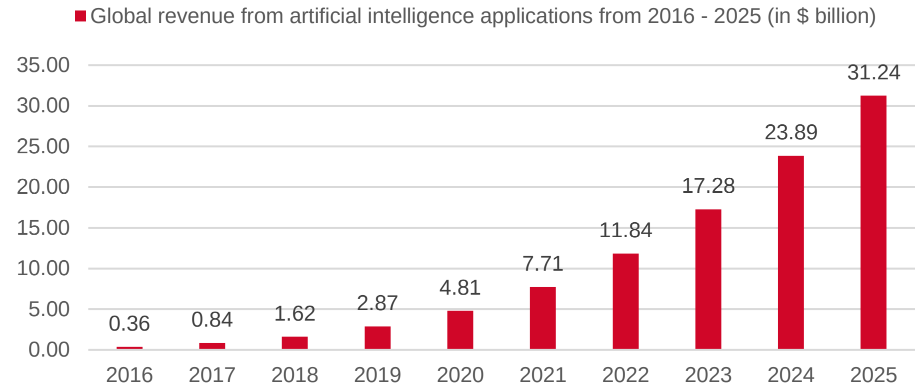
Development of the German market for artificial intelligence

The potential for process optimization or the development of new products or services using machine learning (ML) and artificial intelligence (AI) has long been known to many. Already today, machine learning is being used across the board, but companies that shy away from investments are in danger of falling behind. This development clearly shows that Cogia AG is positioned in a market and market environment characterized by particularly positive trends and should continue to benefit from these trends in the future.

The study "Machine Learning 2021" from May 2021 shows that already today more than 70.0% of the companies surveyed (more than 10,000 employees) already rely on machine learning. In addition, more than half of smaller companies benefit from the advantages of process optimization. Application examples range from IT problems and production improvements to logistics and sales. With customer expectations continuing to rise, an ongoing shortage of skilled workers, economic pressures and the increasing complexity of IT infrastructures, companies need the support of self-learning systems to survive in the market and to continue to grow.

Especially since the outbreak of the global corona pandemic, it has become clear that digitalization has provided stability and resilience. However, full-scale digitization can only succeed in the future with machine learning (ML) and artificial intelligence (AI). The fact that this realization has reached many entrepreneurs and managers is shown by a statistic that forecasts a global turnover of more than € 31.24 billion with enterprise applications in the field of artificial intelligence in 2025. This indicates a positive development and that, in the long term, there will be no options without ML and AI.

Global sales of artificial intelligence applications



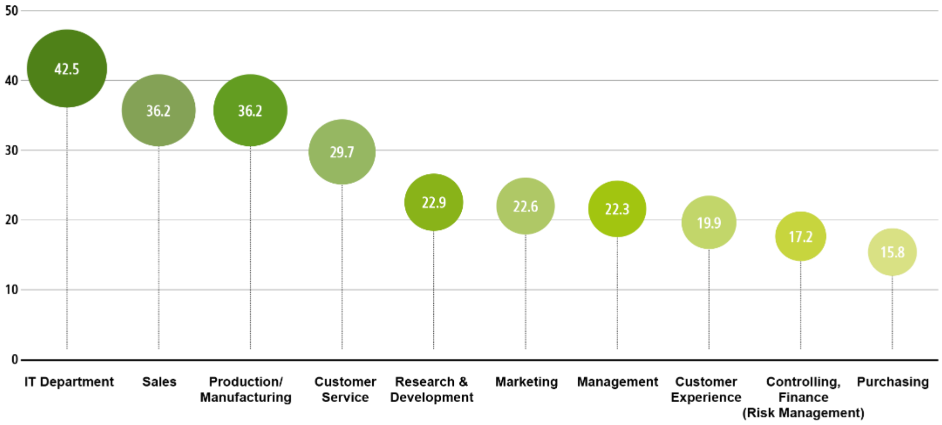
Sources: Statista.com; GBC AG

This positive development is also reflected in the individual companies. More than four-fifths of all companies - from SMEs to large corporations - have now set aside a separate budget for ML and AI. The most important area of application continues to be IT, with more than 75.0% of the investment sums flowing into this area.

A decisive factor for investments in these areas is, on the one hand, the increasing shortage of available skilled workers (around 37.0%) as well as a lack of programming skills (25.0%) and internal expertise (24.0%). This makes companies particularly dependent on external consultants and service providers. Nevertheless, such investments pay off in a very short time. Among the key indicators were higher productivity (49.0%) and lower costs (47.0%), which were seen in around two-thirds of all companies after no more than twelve weeks.

In 2021, as in the previous year, German companies expect the greatest benefits from the use of artificial intelligence and machine learning in the areas of IT and sales. Compared to 2020, the companies surveyed see increased potential of around 36.2% (+12.0%) in production and manufacturing. In this area, artificial intelligence is currently most frequently used for quality assurance and for reducing errors. However, the areas of customer service (29.7%), marketing (22.6%) and customer experience (19.9%), where companies are in direct contact with their customers, are also gaining in importance among companies. Especially since communication has accelerated considerably in recent years due to social networks.

Enterprise survey: Which areas will benefit most from machine learning or AI solutions in 2021?



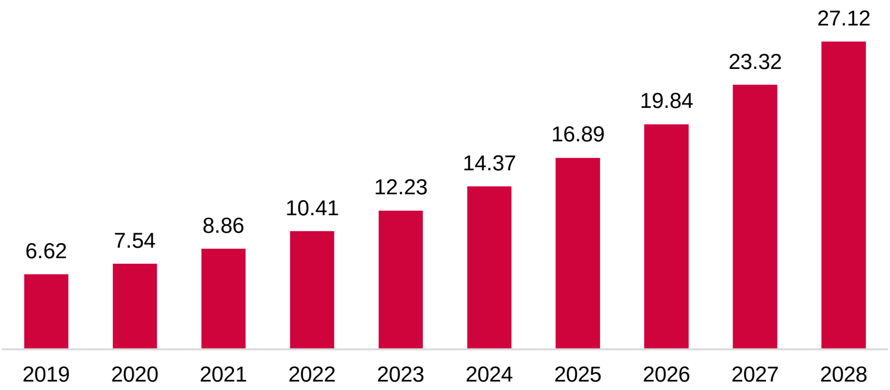
Figures in percent; multiple answers possible. Top 10 mentions; Basis: n=367
Source: Machine Learning

Overall, German companies have understood that AI and ML are more than just technical gimmicks. The study "Machine Learning 2021" shows that the first AI or ML projects have already started in two thirds of German companies. The analysis of the market for AI and ML solutions clearly shows that the demand for software solutions will develop dynamically in the coming years and that Cogia AG is positioned in an extremely attractive and future-oriented market.

Customer Experience Management Market

In addition to the general development of the German market for artificial intelligence, the future development of the customer experience management market also has a strong influence on Cogia AG's products. Experts from Grand View Research expect the market for CEM to increase by 17.5% annually and to reach a total volume of around $ 27.12 billion in 2028. The experts see reasons for this in the growing importance and understanding of companies for customer behavior and the increasing use of digital channels by consumers.

Development of the customer experience management market (in $ billion)



Sources: Grand View Research; GBC AG

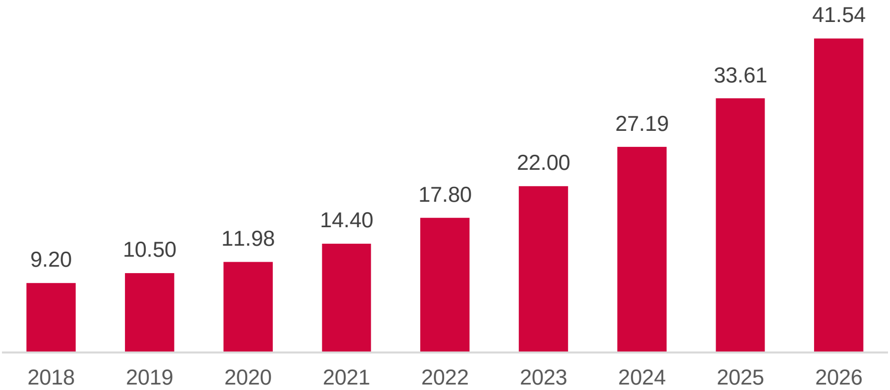
Modern companies and organizations are already increasingly relying on CEM solutions to make their processes customer-centric and, thus, better differentiate themselves in the current competitive environment. Technological advancements are changing the way customers respond to and communicate with brands or businesses across multiple channels. Currently, consumers use multiple sources to compare, review, understand and decide on products before making a purchase. Technological advancements have led consumers to expect a frictionless experience when interacting with companies across numerous channels or touchpoints. As a result of changing customer expectations, companies are increasingly looking at restructuring their customer management strategies to efficiently reposition their products and brands where necessary, with the consumer at the heart of their strategy.

Another reason for the use of CEM solutions, according to the Harvard Business Review, is the investment in customer-retention strategies. According to calculations performed by Harvard Business Review experts, the cost of retaining existing customers, for example, is 25.0% lower than the cost of acquiring new customers. In addition, other studies show that repeat customers tend to buy more from a company whose products are offered at different prices and that they promote business growth. The growing trend of investing in customer-retention strategies instead of customer-acquisition strategies should continue to drive the market in the coming years.

Social Media Management Market

According to experts, the social media management market promises to grow even faster than the customer experience management market. In 2018, the market volume was $ 9.2 billion and is expected to reach around $ 14.4 billion by the end of 2021. In the coming years, MarketsandMarkets experts expect the market to grow at a compound annual growth rate of 23.6% and, consequently, forecast a market volume of around $ 41.54 billion by 2026. MarketsandMarkets believes that the key factors driving the projected growth are the increasing focus on market and competitive intelligence, the growing need for ROI searches for social media strategies, the improvement of customer experience through social media management, and the increasing engagement of social media users via smartphones.

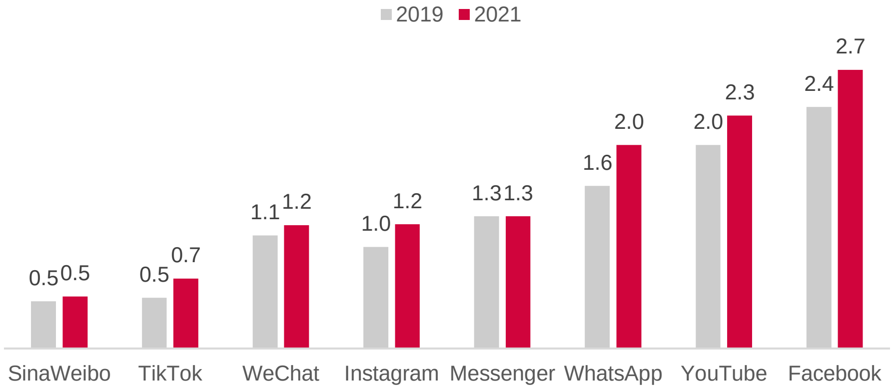
Development of the social media management market (in $ billion)



Sources: MarketsandMarkets; GBC AG

Social media management platforms had already been steadily gaining public attention before the corona pandemic and, in its wake, such public attention has increased significantly once again. Businesses are trying to make the most of this trend by expanding their connections with their customers using social media management solutions to gain real-time insights and boost business results in terms of ROI. Moreover, businesses can use social media management platforms to anticipate changing marketing trends, perform brand management, listen to audiences, track competitors' advertising performance, and measure the success of their marketing campaigns with ease. Consequently, after analysis, companies can easily promote their products and services, adjust them if necessary, or identify upselling and cross-selling potentials. Furthermore, companies can implement further measures from the insights gained, e.g., introduce reward or bonus programs for their target customer base.

Global active user figures (in millions) for a selection of the world's top social media platforms between 2019 and 2021



Sources: DataReportal; Hootsuite; GBC AG

The social media marketing solutions are expected to account for the largest market size during the forecast period till 2026. Social media marketing generally involves the use of tools and approaches (engagement, advertising, and sales) to reach target audiences through various social media channels and engage them effectively. Social media marketing uses social media platforms to engage with potential customers, build brand image, increase sales, and drive website traffic. This includes posting good content on the channels used, interacting, and engaging with your followers, analyzing the results, and placing social media ads. Social media engagement and social media advertising represent the two most important components of social media marketing. Social media engagement involves the ongoing management of interactions from existing and potential customers through social media networks. Social media advertising and selling deal with brand development through third-party engagement (including employees or existing customers).

Overall, Cogia AG is positioned in an extremely attractive and rapidly growing market and market environment and should benefit from these positive trends. Especially since Cogia AG offers innovative products and solutions with its product solutions, Customer Experience/Employee Experience, Web and Social Media Monitoring and Data Analysis as well as Social Media Management for both small and medium-sized companies as well as corporations in all markets.

Corporate Development

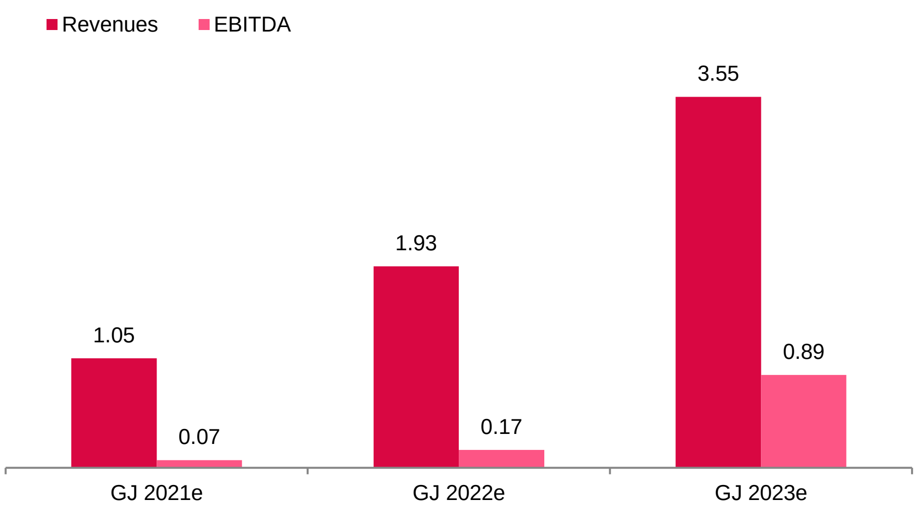
Key figures at a glance

(in € million)	FY 2020	FY 2021e	FY 2022e	FY 2023e
Revenues	**0.42**	**1.05**	**1.93**	**3.55**
other capitalized expenses	0.18	0.10	0.10	0.10
other operating income	0.03	0.00	0.00	0.00
Cost of materials	-0.23	-0.40	-0.73	-1.35
Personnel expenses	-0.05	-0.49	-0.88	-1.15
other operating expenses	-0.22	-0.19	-0.25	-0.27
EBITDA	**0.13**	**0.07**	**0.17**	**0.89**
Depreciation	-0.41	-0.90	-1.22	-1.22
EBIT	**-0.28**	**-0.83**	**-1.05**	**-0.33**
Income from other securities and loans held as financial assets	0.00	0.14	0.00	0.00
other interest and similar income	0.00	0.00	0.00	0.00
Interest and similar expenses	-0.02	0.00	-0.29	-0.46
EBT	**-0.30**	**-0.69**	**-1.34**	**-0.80**
profits transferred on the basis of a profit pooling, profit transfer or partial profit transfer agreement.	-0.02	-0.03	-0.04	-0.05
Net result	**-0.32**	**-0.72**	**-1.38**	**-0.84**

Revenues	0.42	1.05	1.93	3.55
EBITDA	0.13	0.07	0.17	0.89
EBITDA margin	*31.8%*	*7.0%*	*8.9%*	*25.0%*
EBIT	-0.28	-0.83	-1.05	-0.33
EBIT margin	*-66.4%*	*-78.7%*	*-54.3%*	*-9.3%*
Net result	-0.32	-0.72	-1.38	-0.84
Net margin	*-76.4%*	*-68.7%*	*-71.2%*	*-23.7%*

Source: GBC AG

Development of revenue and EBITDA (in € million)



Source: GBC AG

Business development 2020

Income statement (in € million)	FY 2018	FY 2019	FY 2020
Revenues	0.33	0.33	0.42
EBITDA	0.09	0.16	0.13
EBITDA margin	*26.6%*	*49.7%*	*31.8%*
EBIT	0.08	0.15	-0.28
EBIT margin	*23.8%*	*45.0%*	*-66.4%*
Net income for the year	0.05	0.11	-0.32
EPS in €	n.d.	n.d.	-0.09

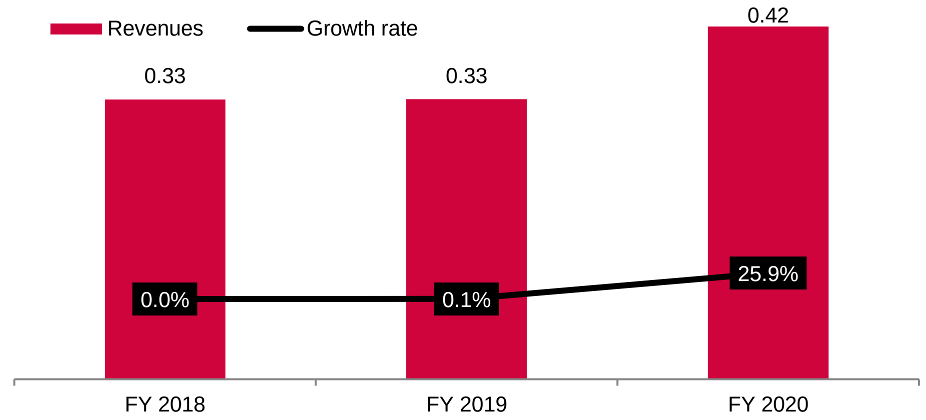
Sources: Cogia AG, GBC AG

The figures for the financial years 2018 and 2019 relate to Cogia GmbH. In 2020, Cogia AG was founded and Cogia GmbH was incorporated into Cogia AG. Therefore, the figures of the year 2020 refer to Cogia AG.

Sales development

In the past financial year 2020, sales revenues increased by 25.9% to € 0.42m (previous year: € 0.33m). The sales increases were achieved via the customers Lufthansa, BMW, and VW. Although sales revenues are still at a low level, significant sales increases should be achievable in the future through the existing customer relationships with large corporations. In addition, the corona pandemic has so far had a negative impact on sales development.

Sales development (in € million) and sales growth (in %)



Sources: Cogia AG, GBC AG

The Lufthansa Group has been using Cogia solutions since 2018 to evaluate comments from around 70,000 employees worldwide regarding workplace equipment, working atmosphere, organizational structures, and the implementation of compliance rules. For the BMW Group, Cogia has been analyzing customer comments regarding satisfaction from 30 countries since 2017. The comments are broken down by topic and sentiment. These tasks have also been performed for the Volkswagen Group since 2019 and the coverage includes 26 countries.

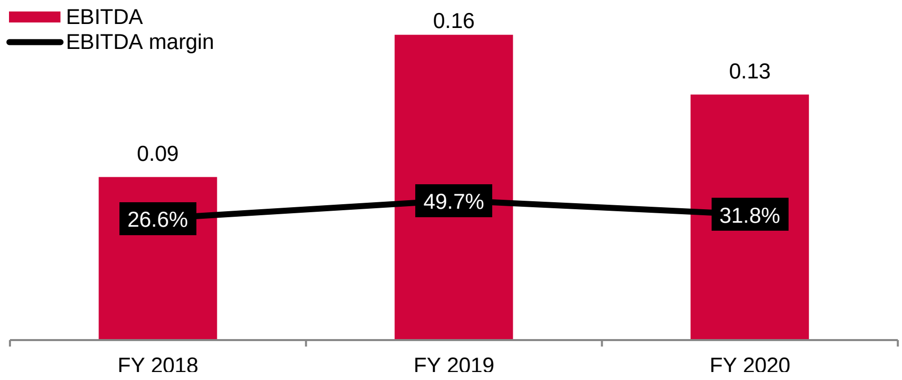
In addition, a partnership was concluded in 2020 with Retail Solutions, an SAP partner active in the DACH region and the United Kingdom.

Great progress has also been made in the Next Generation Customer Experience Management platform. The goal here is to finalize the platform in 2021 in order to be able to process more data faster and simultaneously. In addition, a survey generator (AI-based survey module) is to be integrated. BMW headquarters has already launched an initial pilot of the Next Generation Customer Experience Management platform, with the aim of enabling every dealer to integrate their own social media channels directly into their CXM solution. Each dealer will need Cogia's add-on model separately for this, with the list price of € 2,000 per dealer. Initially, 500 dealers are required to gradually introduce the new module, but potentially all of BMW's approximately 5,000 dealers can be addressed.

Earnings development

EBITDA decreased to € 0.13m (PY: € 0.16m), which corresponds to a margin reduction from 49.7% (2019) to 31.8% (2020). The margin reduction can be explained by costs in connection with the creation of the AG structures, as well as the increased cost of materials for freelancers. Consequently, other operating expenses rose by 251.4% to € 0.22m (previous year: € 0.06m) and the cost of materials by 36.4% to € 0.23m (previous year: € 0.17m). Personnel expenses were reduced by 53.2% to € 0.05m (previous year: € 0.11m) due to short-time work caused by the Corona pandemic. As of 31.12.2020, the employees were nine in number.

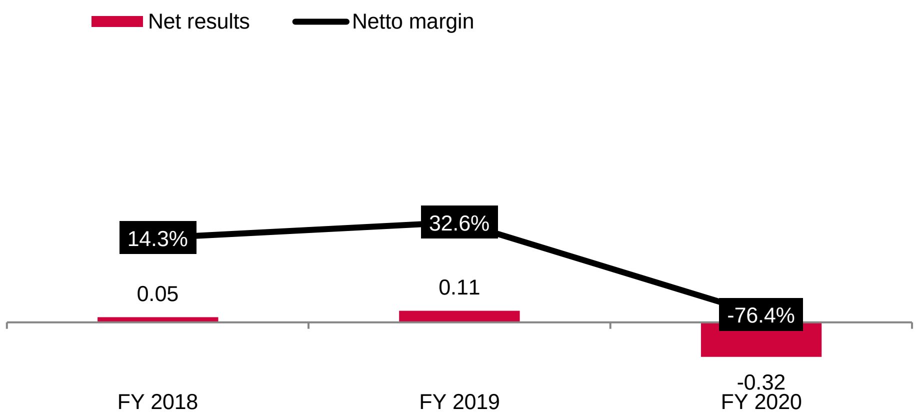
Development of EBITDA (in € million) and EBITDA margin (in %)



Sources: Cogia AG, GBC AG

At € 0.41m (previous year: € 0.02m), depreciation and amortization are comparatively high. The reason for this is the amortization of goodwill in accordance with the German Commercial Code (HGB), according to which the goodwill in the amount of € 12m of the contributed Cogia GmbH is amortized over 10 years. EBIT was accordingly € -0.28m (previous year: € 0.15m). The company pays low interest for bank loans in the amount of € 0.02m (previous year: € 0.01m), which leads to a net result of € -0.32m (previous year: € 0.11m).

Development of net income (in € million) and net margin (in %)



Sources: Cogia AG, GBC AG

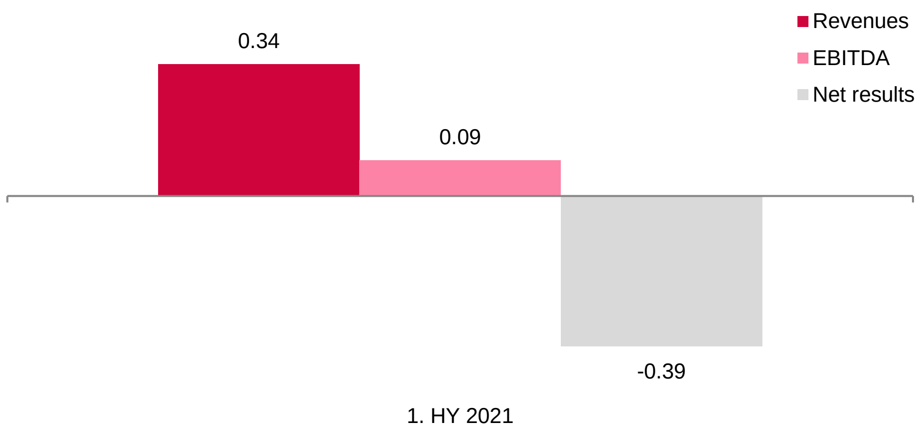
1st half-year 2021

in € m	HY1 2021
Revenues	0.34
EBITDA	0.09
EBITDA margin	*27.1%*
EBIT	-0.51
EBIT margin	*-150.2%*
Net result	-0.39
EPS in €	-0.11

Sources: Cogia AG, GBC AG; no report available for the comparative period

Sales of € 0.34m were generated as of the first half of 2021. The cost of materials ratio decreased to 28.6% compared to fiscal year 2020 (FY 2020: 54.5%). In contrast, the ratio of other operating expenses increased to 50.3% (FY 2020: 27.9%). However, due to the still low level of sales, costs, and earnings, this is only meaningful to a limited extent.

Development of revenues, EBITDA, and net result (in € million)



Sources: Cogia AG, GBC AG

EBITDA amounted to € 0.09m. Due to the amortization of goodwill, depreciation and amortization amounted to € 0.60m, resulting in EBIT of -€ 0.51m. Due to income from other securities amounting to € 0.14m, the net result was -€ 0.39m.

VIMATO Partnership

On 25.5.2021, the partnership with VIMATO was released as part of an IP asset deal. VIMATO is a micro-influencer platform for social media such as Instagram, YouTube, TikTok, Twitch, Snapchat and more. For the purpose of the partnership, Cogia AG has founded the subsidiary Influverse.

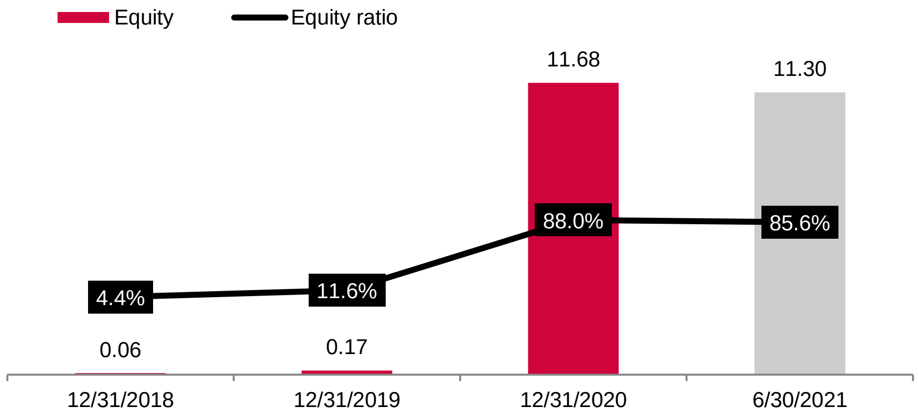
Balance sheet and financial situation as at 31.12.2020

in € m	31.12.2018	31.12.2019	31.12.2020	30.06.2021
Equity	0.06	0.17	11.68	11.30
Equity ratio (in %)	4.4%	11.6%	88.0%	85.6%
Operating fixed assets	0.02	0.11	0.10	0.10
working capital	0.16	0.05	0.23	0.38
net debt	-0.89	-0.95	-0.72	-1.44

Sources: Cogia AG, GBC AG

As of 31.12.2020, equity increased to € 11.68m (31.12.2019: € 0.17m), which led to an improvement in the equity ratio from 11.6% (31.12.2019) to 88.0% (31.12.2020). The reason for this significant increase in equity is due to the establishment of Cogia AG and the subsequent contribution of Cogia GmbH at a cost of around € 12 m. Accordingly, the equity as of 31.12.2020 is largely offset by goodwill in the amount of € 11.43m. Apart from this, the balance sheet is comparatively lean with low interest-bearing bank loans of € 0.11m.

Development of equity (in € million) and equity ratio (in %)



Sources: Cogia AG, GBC AG

Balance sheet and financial situation as of 30.06.2021

As of 30 June 2021, equity decreased to € 11.30m, and the equity ratio fell to 85.6%. The reason for the slight decline in equity is the negative net result of € -0.39m as of the first half of 2021.

Balance sheet and financial situation after 30.06.2021

On 16.06.2021, the company reported a successfully fully placed capital increase. The registration should therefore have taken place after 30.06.2021, as this development is not yet reflected in the balance sheet as at 30.06.2021. As part of the oversubscribed capital increase, 500,000 par value shares were placed at € 3.00, resulting in gross issue proceeds of € 1.50m.

SWOT analysis

Strengths	Weaknesses
• Access to well-known large corporations such as Lufthansa and BMW • Proof of concept within the framework of existing co-operations • Business model is designed for recurring revenues • Solid financial basis via the capital increase that has taken place • High planned scalability • Extensive language library of Natural Language Processing available with German, English, Arabic, Japanese, Chinese and Russian	• Main customers are active in the automotive and aerospace sectors and are strongly affected by the Covid-19 pandemic • HGB accounting leads to high amortization of contributed goodwill • Comparatively low switching costs for customers • Currently still very low level of sales and earnings • Equity is largely offset by intangible goodwill
Opportunities	**Risks**
• Expansion opportunities via the elastic.io acquisition • Growth possible through expansion of existing business • Geographical expansion planned • Growth planned via further acquisitions • Cogia is active in strongly growing markets • Peer group is very highly valued and could radiate to Cogia • The corona pandemic has accelerated digitization in almost all areas, and the company could benefit from this.	• Further corona pandemic measures, such as lockdowns, could again negatively impact the business • elastic.io acquisition might not pay off and cost a great deal of money • Other niche players could also try to occupy the market • Finding attractive acquisition targets could prove more difficult than planned

FORECAST AND EVALUATION

Income statement (in € million)	FY 2021e	FY 2022e	FY 2023e
Revenues	1.05	1.93	3.55
EBITDA	0.07	0.17	0.89
EBITDA margin	*7.0%*	*8.9%*	*25.0%*
EBIT	-0.83	-1.05	-0.33
EBIT margin	*-78.7%*	*-54.3%*	*-9.3%*
Net income for the year	-0.72	-1.38	-0.84
EPS in €	-0.21	-0.39	-0.24

Sources: GBC AG

Sales forecast

Cogia AG intends to focus on very dynamic growth over the next few years. As the business model is designed for recurring revenues, it should be possible to sustainably increase sales with every order won. In addition to dynamic organic growth, growth impulses are to be provided by acquisitions.

Our current forecast is based on organic growth only and does not yet include possible additional growth from acquisitions. In addition, our planning is conservative. Furthermore, as in the past, corona could have a negative impact on sales.

Sales impulses should be generated from the existing business with BMW. As a first step, 500 dealers are currently obliged to book the Cogia add-on module, which at a price of € 1,000 should lead to annual revenues of € 0.5m. We assume that a successive expansion to up to 5,000 BMW dealers can take place from 2023 onwards. Assuming a success rate of 15%, this would lead to a further 750 dealers or a further € 0.75m in recurring revenue.

Furthermore, major orders from VW PKW-International, VW Nutzfahrzeuge International and Audi International were won at the end of 2020. In the future, access to a further 5,000 car dealers is possible here. We expect a similar development of success here as at BMW.

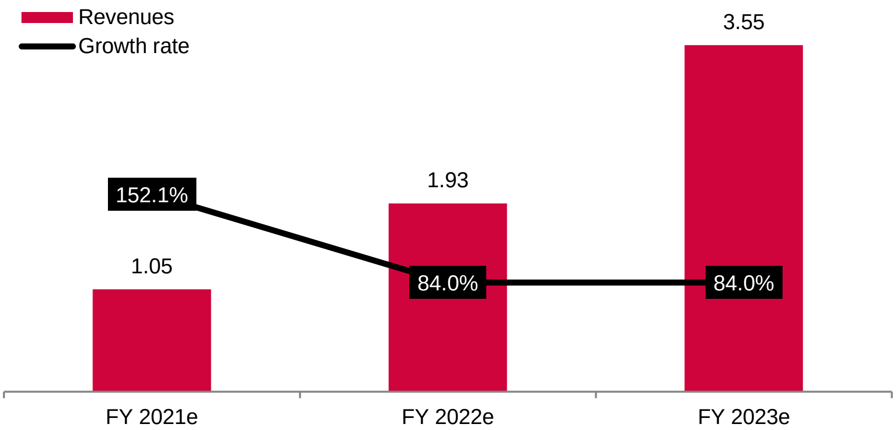
In addition, cross-selling potentials should result from the elastic.io acquisition. With elastic.io, data can be linked. For Cogia, the linking of customer experience data with other areas is relevant, e.g., CRM, ERP, or product development areas. In this way, developments, and decisions as well as their consequences for the customer experience can be tracked by the company. Consequently, the work for the company's sales department should become easier since it has more background information for the customer experience.

elastic.io GmbH will be fully consolidated, as the company was acquired with 51% of the shares as of September 2021. The former subsidiary of mVISE AG is expected to deliver numerous synergies and contribute to growth. The acquisition price has not been disclosed and was made against cash. We expect the purchase price to be in the mid-single-digit millions. Cogia plans to finance the payment from the previous capital increase as well as from borrowings. A contractual arrangement has also been reached regarding the remaining 49%.

The company is also planning to expand its geographical presence. Contacts already exist in the Middle East. It should be possible to acquire further customers locally. In addition, the footprint in Europe is to be broadened with potential customers from Italy, France, and Portugal.

In total, we expect revenues of € 1.05m in the current fiscal year 2021, followed by € 1.93m in 2022 and € 3.55m in 2023, respectively.

Sales forecast (in € million) and sales growth (in %)



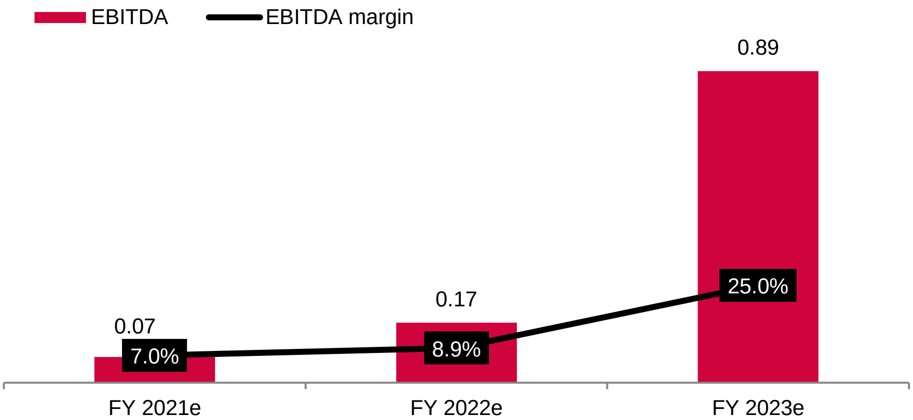
Source: GBC AG

Further inorganic sales revenues could be acquired and financed via debt capital. The additional inorganic sales growth is not yet included in our forecasts.

Earnings forecast

We assume that the digital business model is highly scalable. Cogia relies on its own server infrastructure and procures services from lower-cost IT staff in Russia. Therefore, the largest cost block should be for purchased services.

Development of EBITDA (in € million) and EBITDA margin (in %)



Source: GBC

Therefore, we expect a significant margin increase. We forecast EBITDA of € 0.07m in the current fiscal year 2021, followed by € 0.17m in 2022 and € 0.89m in 2023, representing margin improvement from 7.0% (2021) to 8.9% (2022) and 25.0% (2023), respectively.

However, high amortization will continue to be incurred in the coming years, as the HGB requires goodwill to be amortized over a period of 10 years. In line with the goodwill of € 12.00m brought in, we expect amortization of € 0.90m for 2021 and € 1.22m for each of the years 2022 and 2023. The amortization is cash-flow-neutral, but has a significant negative effect, among other things, on EBIT and net income.

Debt capital is also to be used to finance elastic.io.

Rating

Model assumptions

Cogia AG was valued by us using a three-stage DCF model. Starting with the concrete estimates for the years 2021 - 2023 in phase 1, the forecast is made from 2024 to 2028 in the second phase by applying value drivers. We expect revenue to increase by 25.0%. We have assumed a target EBITDA margin of 25.0%. We have taken the tax rate into account at 30.0% in phase 2. In the third phase, a residual value is also determined after the end of the forecast horizon using the perpetual annuity. In the terminal value, we assume a growth rate of 3.0%.

Determination of the cost of capital

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

The risk-free interest rate is derived from current yield curves for risk-free bonds in accordance with the recommendations of the Fachausschuss für Unternehmensbewertungen und Betriebswirtschaft (FAUB) of the IDW. This is based on the zero bond interest rates published by the Deutsche Bundesbank using the Svensson method. To smooth short-term market fluctuations, the average yields of the previous three months are used, and the result rounded to 0.25 basis points. **The currently used value of the risk-free interest rate is 0.25. At the same time, the current value currently represents the lower limit in our valuation model.**

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

According to the GBC estimation method, a beta of 2.00 is currently determined.

Using the assumptions made, we calculate a cost of equity of 11.3% (beta multiplied by risk premium plus risk-free interest rate). Since we assume a sustainable weighting of 70% for the cost of equity, the weighted average cost of capital (WACC) is 9.5%.

Valuation result

Within the framework of our DCF valuation model, we have determined a target price of € 3.72.

GBC AG Investment Research

DCF model

Cogia AG - Discounted cash flow (DCF) analysis

Value drivers of the DCF model after the estimate phase:

consistency - phase	
Sales growth	25.0%
EBITDA margin	25.0%
AFA to operating fixed assets	10.0%
Working capital to sales	10.0%

final - phase	
perpetual growth in sales	3.0%
perpetual EBITA margin	16.7%
effective tax rate in the terminal value	30.0%

three-stage DCF model:

Phase	estimate			consistency					final
in EUR million	FY 21e	FY 22e	FY 23e	FY 24e	FY 25e	FY 26e	FY 27e	FY 28e	terminal value
Sales (US)	1.05	1.93	3.55	4.44	5.55	6.94	8.68	10.85	
US Change	152.1%	84.0%	84.0%	25.0%	25.0%	25.0%	25.0%	25.0%	3.0%
US to operating assets	0.07	0.13	0.26	0.36	0.50	0.69	0.96	1.33	
EBITDA	0.07	0.17	0.89	1.11	1.39	1.74	2.17	2.71	
EBITDA margin	7.0%	8.9%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	
EBITA	0.07	0.17	0.89	-0.27	0.15	0.62	1.16	1.81	
EBITA margin	7.0%	8.9%	25.0%	-6.1%	2.6%	8.9%	13.4%	16.7%	16.7%
Taxes on EBITA	0.00	0.00	-0.27	0.08	-0.04	-0.19	-0.35	-0.54	
to EBITA	0.0%	0.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
EBI (NOPLAT)	0.07	0.17	0.62	-0.19	0.10	0.43	0.81	1.26	
Return on investment	0.6%	1.2%	4.0%	-1.3%	0.8%	3.7%	7.6%	12.7%	14.1%
Working capital (WC)	0.21	0.37	0.36	0.44	0.56	0.69	0.87	1.08	
WC to turnover	20.0%	19.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	
Investments in WC	0.02	-0.16	0.01	-0.09	-0.11	-0.14	-0.17	-0.22	
Operating assets (OAV)	14.33	15.33	13.80	12.42	11.18	10.06	9.06	8.15	
AFA on OAV	0.00	0.00	0.00	-1.38	-1.24	-1.12	-1.01	-0.91	
AFA to OAV	0.0%	0.0%	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%	
Investments in OAV	-2.80	-1.00	1.53	0.00	0.00	0.00	0.00	0.00	
Invested capital	14.54	15.70	14.16	12.87	11.74	10.76	9.92	9.24	
EBITDA	0.07	0.17	0.89	1.11	1.39	1.74	2.17	2.71	
Taxes on EBITA	0.00	0.00	-0.27	0.08	-0.04	-0.19	-0.35	-0.54	
Total investments	-2.78	-1.16	1.54	-0.09	-0.11	-0.14	-0.17	-0.22	
Investments in OAV	-2.80	-1.00	1.53	0.00	0.00	0.00	0.00	0.00	
Investments in WC	0.02	-0.16	0.01	-0.09	-0.11	-0.14	-0.17	-0.22	
Investments in goodwill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free cash flows	-2.71	-0.99	2.16	1.10	1.23	1.41	1.65	1.95	15.76

Value of operating business	13.83	16.13
Present value of explicit FCFs	5.49	7.00
Present value of the continuing value	8.35	9.14
Net debt	1.85	3.13
equity value	11.98	13.01
Minority interests in profits	0.00	0.00
Value of the share capital	11.98	13.01
Shares outstanding in million	3.50	3.50
Fair value of the share in EUR	3.42	**3.72**

Cost of capital determination:

risk-free return	0.3%
Market risk premium	5.5%
Beta	2.00
Cost of equity	11.3%
Target weighting	70.0%
Cost of debt	7.3%
Target weighting	30.0%
Tax shield	25.0%
WACC	**9.5%**

Return on investment	WACC				
	7.5%	**8.5%**	**9.5%**	**10.5%**	**11.5%**
-5.9%	-2.27	-1.51	-0.99	-0.61	-0.33
4.1%	1.52	1.43	1.37	1.32	1.28
14.1%	5.32	4.37	**3.72**	3.25	2.90
24.1%	9.11	7.30	6.07	5.18	4.51
34.1%	12.90	10.24	8.42	7.11	6.12

APPENDIX

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