GBC AG
Investment Research

Research Report (Initial Coverage)

Advanced Blockchain AG

Advanced Blockchain AG

The Gateway to DeFi, Crypto & Web 3.0

Significant upside potential due to the well diversified portfolio
-
Successful partial divestments and financing rounds confirm the Group's investment approach

Fair Value: EUR 10.00
(Previously: EUR 23.32)

Rating: BUY

IMPORTANT NOTE:
Please note the disclaimer/risk warning
as well as the disclosure of possible conflicts of interest in accordance with § 85 WpHG and Art. 20 MAR from page 33

Note in accordance with MiFID II regulation for research "Minor non-monetary benefits": The research in question meets the requirements for classification as "Minor non-monetary benefits". For further information, please refer to the disclosure under "I. Research under MiFID II".

Date and time of completion of the study: 13.07.2022 (10:00)
Date and time of the first disclosure of the study: 13.07.2022 (10:30)
Validity of the target price: until max. 31.12.2023

Date and time of completion of the Appendix 1: 03.08.2022 (12:23)
Date and time of the first disclosure of the Appendix 1: 03.08.2022 (12:30)

Advanced Blockchain AG*5a,11

Fair Value: € 10.00
(Previously: € 23.32)
Rating: Buy

Current price: 2.65
12.07.22 / Tradegate / 20:58
Currency: EUR

Master data:

ISIN: DE000A0M93V6
WKN: A0M93V
Symbol (DUS): BWQ
Number of shares[3]: 3.80
Marketcap[3]: 10.07
[3]in million / in EUR million

Accounting:
German GAAP (HGB)

Financial year: 31.12.

Analysts:

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* Catalog of possible conflicts of interest on page 34

Company profile
Industry: Technology, Crypto

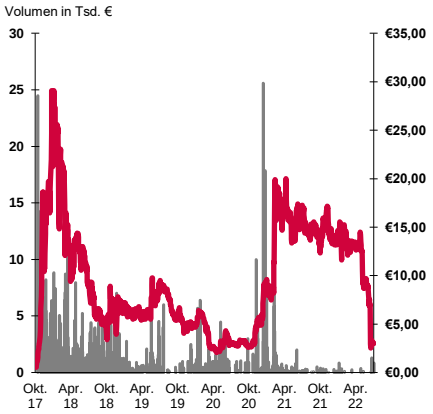
Focus: Blockchain Technology, DeFi, Web 3.0

Employees: 43

Foundation: 2017

Headquarters: Berlin

Management Board: Simon Telian (CEO)



Advanced blockchain AG is a blockchain venture builder focused on investing, developing, and scaling in disruptive technologies including token investments. Their main market is therefore the venture capital market for companies active in blockchain technology, with a particular focus on the decentralized finance (DeFi) sector and infrastructure projects enabling Web 3.0.

Advanced Blockchain AG is an innovation center with a diversified portfolio consisting of internal projects, incubations as well as early-stage investments. The venture builder arm of Advanced Blockchain AG acts as a leading incubator of projects such as for Composable Finance.

Advanced Blockchain AG is not only incubating highly promising projects, but the company also has a diversified portfolio of investments which will be further expanded. Extensive expertise, resources and networks provide the company with early-stage access to exclusive investment opportunities in projects with significant potential.

The company's investment strategy has two objectives: maximizing return on investment and identifying synergies in the ecosystem. Supporting the most promising projects with smart capital enables them to fulfill their mission, which in turn provides the company with a good return on investment. Moreover, the company's synergies enable it to exponentially increase the potential and capabilities of its portfolio companies through shared growth and integration, as illustrated by the example of Composable Finance (an incubation project), which secured the eighth parachain in the Polkadot network by raising more than USD 160 million through a crowd-loan. This resulted in an implied combined valuation of USD 400 million for the LAYR and PICA token, adding nearly USD 20 million to Advanced Blockchain's USD 2 million initial investment alone.

Advanced blockchain AG is listed in the Scale segment of Deutsche Börse, as well as in the primary market of Börse Düsseldorf.

Financial Calendar
09.2022: Half-year report 2022
11.2022: German Equity Forum
16.11.2022: MKK

**Latest research from GBC:
Date: Publication / Target price in EUR / Rating
28.04.2022: RS / 23.32 / BUY
** research studies listed above can be downloaded from www.gbc-ag.de or can be requested from GBC AG, Halderstr. 27, D86150 Augsburg, Germany.

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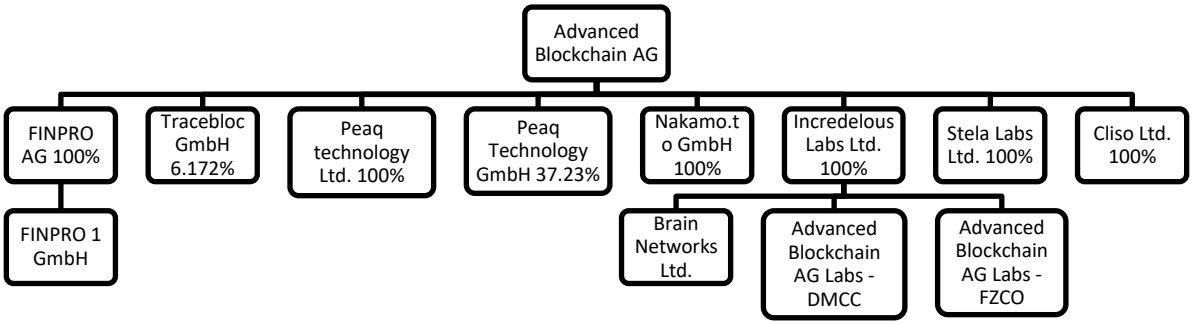
COMPANY

Shareholder structure

The shareholder structure consists of almost 100% free float.

Company structure



Source: Advanced Blockchain AG

Advanced Blockchain AG

Advanced Blockchain AG is the first and oldest exchange-traded company on the German market specializing in blockchain technology. The company went public on the Düsseldorf Stock Exchange in January 2017, when Bitcoin was still trading at around EUR 3,200. The company is led by Simon Telian (as of August 31st, 2022) and formerly by Michael Geike, two successful serial tech entrepreneurs, and has grown to a team of over 40 people working worldwide on numerous next-generation DeFi and Web 3.0 projects.

The decentralized financial management

After Bitcoin, whose strongest function is to securely record payments. Other blockchains like Ethereum (ETH), Polkadot (DOT), Cardano (ADA), and Solana (SOL) take utility of the blockchain technology a step further. These tokens can execute automated programs called smart contracts, such as making a payment after a certain event. This is DeFi, where smart contracts automate the manual processes of traditional finance, such as loans without a middleman (trusted intermediary).

Traditional vs. decentralized financial systems

Source: Stably

Management Team

Simon Telian, CEO, Managing Director
Simon Telian is CEO of Advanced Blockchain AG. Simon started his career at Dresdner Bank and subsequently worked for Commerzbank as executive assistant. After holding various positions at Rocket Internet, Würth Group (IBB AG) and Asia Venture Group, he founded his own company in South Africa which he later successfully exited. Prior to joining Advanced Blockchain AG, Telian was responsible for the operational business for the Swedish edge cloud company CloudBackend AB.

Prior to taking the helm as CEO at Advanced Blockchain AG, Telian held several management positions at Advanced Blockchain including Chief Investment Officer and CEO of nakamo.to, responsible for the 8-digit investment portfolio of the group. He holds a Master of Science (M.Sc.) in Corporate Management & Economics.

Michael Geike, Advisor and former CEO
Following the company news published on June 21st, the CEO will be stepping down at the end of August and the CSO immediately. Michael Geike will remain strongly associated with the company and will lead projects that are closely linked to Advanced Blockchain AG. He will also remain a constant advisor to the company. In addition, an aggregate purchase of EUR 25k of the shares was reported as of June 23, 2022, in the context of directors' dealings notifications.

Henry Zhang, Head of Finance
Henry Zhang leads the finance department and coordinates the finances for all the projects. He previously worked at venture capital firms TA Associates and Thrive Capital, here he developed a deep understanding of collaborating with founders and smart capital. Prior to that, Henry spent 3 years at McKinsey in the technology sector, helping companies scale and optimize their operations. Henry holds a BA- degree from Yale University.

Christopher Karft, Head of Incubations
As Head of Incubations, Christopher Kraft spearheads operational leadership of current and future incubation projects of Advanced Blockchain AG Labs. Christopher holds 10 years of experience in the global tech industry and has held multiple operational management positions. Since joining Advanced Blockchain AG in January, he has proven key to establishing and optimizing processes within AB Labs. Before joining ABAG, he co-founded a software development boutique for governmental and public institutions that specialized in the development of open-data portals. As the operative leader of the organization, Christopher, in collaboration with his co-founder, scaled the organization from 2 to 25 employees.

Jesper Kristensen, Head of Research
Jesper Kristensen is responsible for the exceptionally innovative ideas, tests, and proofs of concept that are created in the research department. The research team plays an important role in all aspects of the business model. Jesper leads his team, which plays an active role in the broad blockchain landscape to identify new topics, trends, and problems which we as a company develop appropriate solutions for. His team of researchers and economists, provides deep insights for both incubations and invested projects. With his reach in academia as an established thinker and author, Jesper has been able to partner with leading specialists in a variety of fields and present award-winning research at a variety of global summits. Jesper holds a PhD in applied physics from Cornell University and previously worked at GE Research and later at the startup Flatiron Health.

Dave Kaplan, General Counsel
Dave Kaplan is a seasoned attorney with expertise in the intersection between business, technology, and the law. He brings over 16 years of legal experience divided between a prominent law firm and serving as General Counsel at technology companies. Prior to Advanced Blockchain, Mr. Kaplan served for four years as VP and General Counsel at AXEL, a blockchain and crypto tech pioneer, where he led and executed the legal strategy for the launch of an IPFS powered application and the supporting layer 1 blockchain and token. Prior to AXEL, Mr. Kaplan served as General Counsel of an international e-commerce retailer for over two years. Mr. Kaplan spent the first decade of his legal career at a prestigious law firm in New York City, where he represented clients Sony, Volkswagen, Lenovo, Olympus, Toyota, and GE Healthcare in matters involving a wide range of technologies. Mr. Kaplan earned a bachelor's degree in aerospace engineering from the University of Michigan, and then a law degree from Rutgers University. Mr. Kaplan is also a registered patent attorney with the U.S. Patent and Trademark Office.

Sebastian Hildermann, Head of Investments
Sebastian Hildermann is Head of Investments at Advanced Blockchain AG, where he chairs the due diligence committee and drives the expansion of Advanced Blockchain's investment portfolio globally.

Sam Winkel, Member of the Supervisory Board and upcoming Chairman of the Supervisory Board
Sam Winkel holds a degree in economics, has more than 25 years of experience in the capital market, was CEO of publicly traded companies during his active career and has accompanied many capital market-oriented companies from various industries to the stock exchange and advised them on the capital market as an independent advisor. Mr. Winkel advises international entrepreneurs and companies, investors, startups, and founders. One of Mr. Winkel's special areas of expertise is advising companies seeking to go public via listings and space transactions.

Marcus Deetz, Member of the Supervisory Board
Marcus Deetz is a university lecturer in finance, mathematics, statistics, and data science. He has more than 20 years of capital market experience, has been part of the management of various publicly traded companies and has in-depth experience in international accounting, due diligence, and interim management.

Marek Kotewicz, Vice Chairman of the Supervisory Board
Marek Kotewicz has been actively involved in the blockchain space since 2014. He worked as a software engineer for Ethereum Foundation on the first Ethereum implementation. At the end of 2015, he joined Parity Technologies to further shape the Ethereum and Blockchain ecosystem. Since then, he has helped build several projects, including parity-Ethereum, parity-bitcoin, and Polkadot.

Mark Weerts, Member of the Supervisory Board
Mark Weerts has been Managing Director of a successful German fashion company since 2018. In his role as Managing Director with a focus on marketing, product management and sales, he understands the current market dynamics and formulates future strategies to transform the company in a forward-looking way.

Olav Sorenson, Member of the Supervisory Board
Olav Sorenson (Ph.D.) is a renowned researcher in the field of business and entrepreneurship, including crowdfunding, startups, and venture capital strategies. He is primarily based at the UCLA Anderson School of Management, where he holds the Joseph Jacobs Chair in Entrepreneurial Studies. He was awarded the 2018 Global Award for Entrepreneurship Research for his work.

BUSINESS MODEL

Latest developments

Date	Investment	Message
30.06.2022	Advanced Blockchain	Advanced Blockchain: Investor Letter Q2, 2022
21.06.2022	Advanced Blockchain	Profit warning and changes in the Executive Board
13.06.2022	Backd	Backd raises USD 3.5M in latest funding round led by Advanced Blockchain
26.05.2022	Quasar	Advanced Blockchain successfully spins out Quasar to begin cross-chain yield aggregation for IBC-Cosmos
11.05.2022	MYSO Finance	Advanced Blockchain invests into the seed round of MYSO Finance
06.05.2022	Alluo	Advanced Blockchain's portfolio company, Alluo, has completed its Initial Dex Offering
29.04.2022	Advanced Blockchain	Advanced Blockchain: Investor Update Q1, 2022
29.04.2022	Advanced Blockchain	Advanced Blockchain announces the appointment of Robin Davids as Chief Strategy Officer
15.04.2022	Panoptic protocol	Advanced Blockchain officially announces the launch of its latest blockchain project, Panoptic, which is a perpetual, oracle-free options protocol.
05.04.2022	FINPRO AG	Advanced Blockchain: Portfolio company FINPRO signs NFT cooperation agreement with leading photo agency group action press AG
31.03.2022	Composable Finance	Advanced Blockchain's incubation and investment Composable Finance raises USD 32 million on a total token valuation of USD 400 million
11.03.2022	NEAR protocol	Advanced Blockchain completes seven-figure investment in NEAR protocol
04.03.2022	Polymer Labs	Advanced Blockchain strengthens its position in DeFi sector by investing in Polymer Labs USD 3.6 million seed investment round
03.03.2022	Scale Listing	Advanced Blockchain moves up to the Scale Segment of Deutsche Börse - Leading Web3 and Blockchain pioneer opens up to the broad stock market audience
28.02.2022	FinPro AG	Advanced Blockchain announces completion of acquisition and change of management board of FinPro AG
31.01.2022	Bribe protocol	Advanced Blockchain receives 5% of all tokens for incubation of Bribe protocol
17.01.2022	Composable Finance	Advanced Blockchain Incubation Composable Finance has received its well-deserved place in the last Polkadot Parachain Auction
14.01.2022	Composable Finance	Composable Finance, a token investment of Advanced Blockchain reaches a valuation of US USD 350 million after receiving a Polkadot parachain
10.01.2022	Warp	Advanced Blockchain 's portfolio company releases its planned WarpV2 update
10.12.2021	Instrumental Finance & Composable Finance	Advanced Blockchain receives 7,000,000 instrumental (STRM) tokens through its subsidiary...
24.11.2021	Peaq Technology Ltd.	Advanced Blockchain 's portfolio company peaq Technology has won the Breakthrough Award 2021
11.11.2021	Neon Labs Ltd.	Advanced Blockchain has acquired a stake in Neon Labs through its subsidiary
09.11.2021	Peaq Technology Ltd.	Advanced Blockchain 's portfolio company peaq launches token launch
20.10.2021	Elements Finance	Advanced Blockchain has acquired a stake in Element Finance through its subsidiary

Sources: Advanced Blockchain, GBC AG

Business model

Advanced Blockchain AG is a venture studio focused on DLT (Distributed-Ledger-Technology) applications, with an emphasis on DeFi and Web 3.0 projects.

Advanced Blockchain's strategy is to invest in, promote, and collaborate with transformative blockchain ecosystem projects. The company typically invests between EUR 100,000 to EUR 2 million per project and uses its own money from previous projects exists to invest in the most promising blockchain projects, protocols, and tokens. Yield farming is then done with the earned tokens to maximize returns and fund new projects.

The company's goal is to identify and take advantage of early funding opportunities for projects that have a greater chance of acceptance in the DeFi area.

The company focuses on three core activities: Smart Capital Investments, Proactive Venture Building and Incubation, and Holistic Research and Education.

Smart capital investments is about strategic capital allocation and portfolio support. The AB.Capital investment division is uniquely positioned to provide smart capital to entrepreneurs at every stage of the business lifecycle. Advanced Blockchain AG portfolio companies can take full advantage of the resources provided by Advanced Blockchain AG Labs and Advanced Blockchain AG Research to accelerate their growth, refine their innovations, and scale their operations.

Proactive venture building and incubation takes an integrated approach to venture building and scaling. AB.Labs is a platform for like-minded founders to realize their ideas through AB's venture building division. The AG gives entrepreneurs the resources they need to develop and scale their projects. At the same time, it provides further opportunities to integrate their developments with other products and services in the ecosystem.

The research and education initiatives aim to fundamentally explore the future of Web3 and can be found within Advanced Blockchain Research. Designing solutions to the industry's most pressing issues and translating them into dApps and protocols is the focus here. The research department acts as an internal think tank to identify problems in the industry and create concepts to address them. In addition, AB.Research supports portfolio companies and internal projects by providing expertise and concepts.

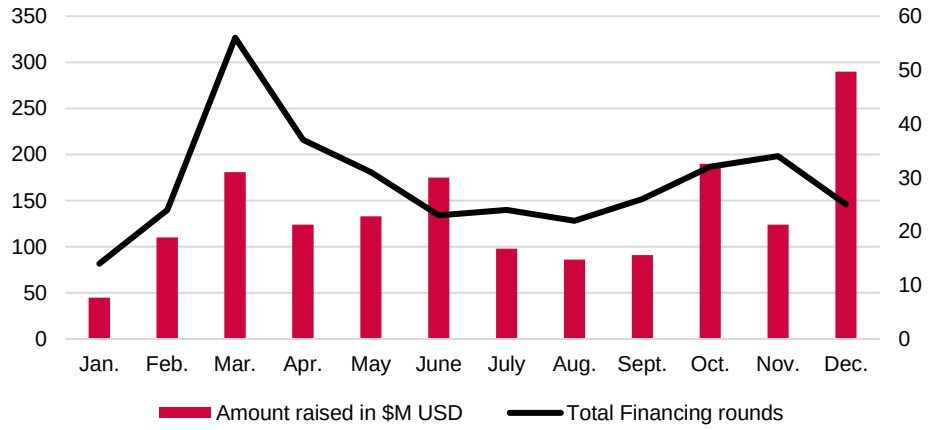
To understand how opportunity-rich this sector is and how Advanced blockchain AG can be successful in realizing gains from these three pillars, further explanation of the DeFi and crypto funding rounds, and environments is needed.

DeFi Financing

The development of DeFi and Web 3.0 is currently one of the most innovative areas in the DLT universe, as the protocols and applications currently being developed will define the future of the global financial sector.

The most common DeFi funding path starts with an angel round, followed by pre-seed, seed and so-called private placement rounds with different contractual terms and valuations. Early-stage financing is typically filled with DeFi funds focused on seed rounds.

DeFi's successful financing rounds and amount raised in USD million in 2021



Source: Dove Mountain Data

In 2021, more than 26% of successful financing rounds were specifically for DeFi projects, totaling more than USD 1.7 billion. 90% of projects were early-stage, 9% were Series A financing rounds. 10% of funding rounds were less than USD 1 million and

nearly 45% were between USD 1 and 3 million. About 55% of all financing raised more than USD 3 million.

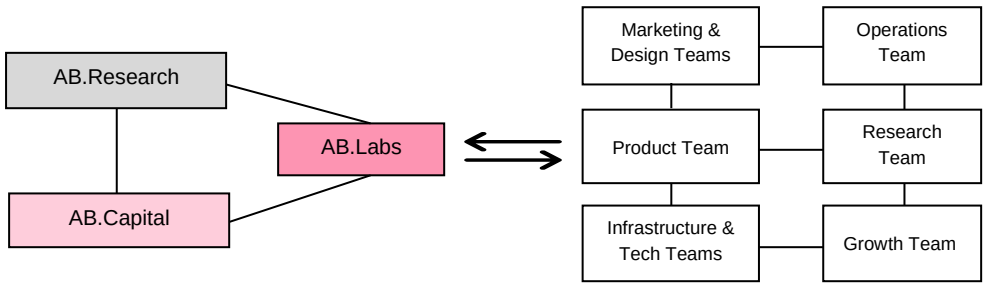
As can be seen in the chart above, early-stage investments in the DeFi sector saw an increase in demand from funds, business angels, and decentralized autonomous organization (DAOs) over 2021. In addition to these more traditional routes, many of the successful ventures such as Uniswap, Binance, and most of the other Unicorns in the DeFi and Centralized Finance (CeFi) sectors have established a venture investment arm.

As a result, the competition to allocate the best and most promising projects is extremely intense and depends on more than just big names and money. For example, in a recent seed round, one startup rejected Google as an investor because it felt that Google did not have the relevant experience and expertise in the DLT sector to advance its project. Instead, the aforementioned startup chose Advanced Blockchain AG Group.

Distinguishing feature

As mentioned above, Advanced Blockchain AG not only identifies the most promising projects, but also successfully ensures the allocation of funds in financing rounds for its portfolio companies. The company's competitive advantages are its successful incubation philosophy and experienced management team, which has already successfully scaled several projects.

The cooperation of the different business lines



Source: Advanced Blockchain AG; GBC-AG

As proven successful entrepreneurs, the management team has experienced first-hand what it is like to scale businesses from the early stages, and they understand the needs of ambitious founders through the various stages of growth.

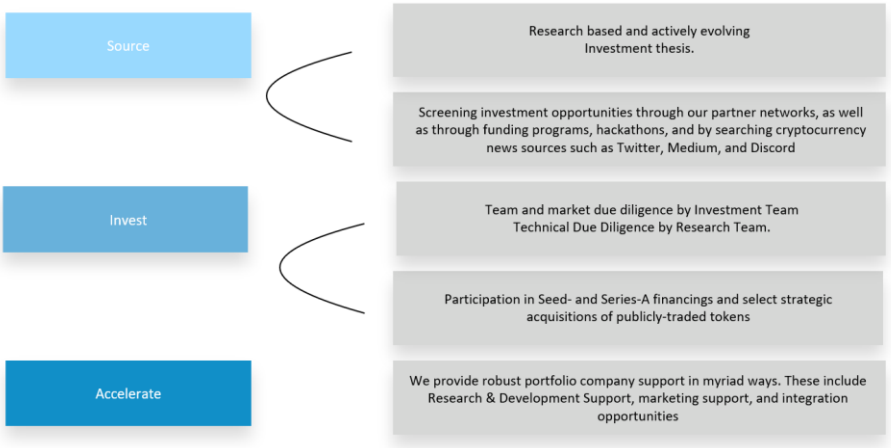
To support ambitious founders and accelerate industry growth, Advanced Blockchain AG has developed an Ecosystem-as-a-Service approach that offers comprehensive services: from providing skilled developers to successful commercialization, etc., to maximize project output. In the fast-growing DeFi/Web 3.0 sectors, these relationships and competencies are key factors in awarding investments to the most promising projects.

In this respect, the company has successfully positioned itself within its peer group as more than just a VC or angel investor. They act as a venture capitalist and incubator for projects to drive growth and development.

Investment process

In addition to incubations, Advanced Blockchain AG also invests in projects and companies as well as in startups and established companies through its portfolio company. The investment process consists of three main parts: source, invest, and accelerate.

Investment process



Source: Advanced Blockchain AG

Source
After a thorough evaluation, companies are selected by the team that have the most innovative ideas and that develop scalable solutions to problems in the financial technology sector. By participating in funding rounds of interesting projects, the company positions itself at the forefront of the sector and continues to build strong and lasting relationships with the many different players in the DeFi space.

The team works with founders who have high stamina as well as above-average cognitive skills and who are fully committed to their ideas. To succeed, experienced teams must overcome pervasive and constant challenges with simple, user-friendly solutions, and develop clear and actionable strategies for allocating capital and growing their businesses.

Invest
After due diligence by the investment team and technical team, the company decides to fully fund, lead, or participate in seed and early rounds of funding up to Series B funding. This cycle repeats itself every time a company that has already funded Advanced Blockchain AG raises a new round of funding. For outsiders, the amount of work required to perform technical due diligence on projects is difficult to understand, as most lack years of expertise in a fast-paced industry. Each project undergoes a highly complex review and Advanced Blockchain AG seeks to understand the pros and cons and, most importantly, the opportunities of new projects. Of course, with hundreds of projects funded in 2021, no company can perform technical due diligence on every single project. The success of Advanced Blockchain AG investments therefore depends equally on the investment phase and the source phase to identify the most promising projects.

Accelerate
Once a project is funded, Advanced Blockchain AG supports it with a range of resources to ensure growth. The company helps develop a vision guided by market research and identification of suitable niches. In addition, Advanced blockchain AG and its affiliated portfolio companies provide support for all other activities required for business development, such as team and product development as well as marketing and sales.

Regardless of the scale of the project in question, they provide hands-on support to maximize the benefits for end users while ensuring the long-term viability of the business model. In this way, they can help companies develop products that are both profitable and impactful, bringing the entire blockchain industry into the mainstream.

Investment examples

Polkadot - Pre-Seed Investment

Decentralized Web 3.0 blockchain interoperability platform Polkadot is a blockchain network designed to enable Web 3.0, a decentralized and fair internet where users control their own data and markets benefit from the efficiency and security of the network. Polkadot was founded in 2016 by Gavin Wood, former co-founder and CTO of Ethereum.

Back in 2017, Advanced Blockchain AG was able to receive an allocation of USD 50,000. At the time, Polkadot was one of the most promising, if not the most promising, projects to raise money. By March 31, 2022, this investment resulted in USD 100,000 in monthly staking revenue in DOT and a realized profit to date of approximately USD 4.5 million. All tokens were sold near the all-time high price of DOT.

Composable Finance - Incubated

Composable Finance is an incubation project of Advanced Blockchain. It is one of the most ambitious projects in the ecosystem and strives to connect multiple blockchains and their L2 networks into one giant liquidity center.

Currently, the problem is that many general purpose blockchains, such as Ethereum or Polkadot, exist in isolation from each other and cannot exchange value with each other. This leads to capital inefficiencies and fragmented liquidity. Composable connects blockchains, allowing value to move across blockchains, leading to new application areas, high capital efficiencies, and strong liquidity.

Composable Finance will connect all these networks and enable the free flow of liquidity between them. Through simplifying and unifying DeFi with new interoperability standards, Composable is accelerating DeFi into the mainstream. Creativity, communication, and community are being reimagined and reconciled for a more inclusive and composable future. To this end, Composable Finance has developed a complete ecosystem consisting of the Picasso parachain and the XCVM network to enable seamless cross chain interoperability.

The Composable Cross Chain Virtual Machine (XCVM) is a single, developer friendly interface to interact orchestrate smart contract functions across the multitude of L1 and L2 networks available. In short, the XCVM serves to abstract complexity from the process of having to send instructions to the routing layer directly, initiate call-backs into smart contracts, and more, utilizing Composable's Kusama Parachain, Picasso, and its cross-chain transferal system, Mosaic

Therefore, the Composable parachain will enable the development of smart dApps that can take advantage of any L2 network and benefit from the free movement of assets between them. This will allow users and developers engaging with Composable to effortlessly interact with any ecosystem, abstracting away all complexities previously presented.

This blockchain agnostic compatibility is so sought after that Composable Finance raised over USD 32 million in a Series A financing.

Composable Finance is the perfect example of Advanced Blockchain's mission: to accelerate the evolution of the blockchain ecosystem through breakthrough solutions that sustainably drive innovative blockchain and Web3 technologies to create disruptive value.

Instrumental Finance

Advanced Blockchain AG has been delegated 7,000,000 of the native tokens of Instrumental Finance, Instrumental tokens (STRM). Instrumental Finance is designed to enable users to maximize their returns from LPing without the existing limitations of Ethereum scalability and fees. To participate, users deposit funds into an instrumental vault. The funds are allocated on the LPing platform and pool with the highest return, regardless of tier and provenance.

NEAR - Seed capital investment

Advanced Blockchain AG made a seven-figure investment in NEAR Protocol.
The investment round was exclusively reserved for institutional investors and thus Advanced Blockchain AG was able to secure special conditions on the purchase price. Advanced blockchain AG thus shows how it indirectly enables its shareholders to invest in promising projects at attractive conditions. The current market cap of NEAR Protocol is just over USD 11 billion and has a 24-hour volume of just over USD 1 billion. This is the 17th largest token in terms of market capitalization.

Investments and projects in the start-up phase

Currently, the company has over thirty-one different investments and eight projects under the umbrella of its incubator.

Element Finance

Element is an open-source protocol that offers BTC, ETH, and USDC at a discount for fixed and variable income markets.

Warp Finance

Using LP tokens to collateralize stablecoin loans, Warp Finance offers a new use case for liquidity provider (LP) tokens: that is, as collateral in stablecoin lending. This allows users to leverage existing digital assets to increase their return on investment while promoting liquidity mining, which has proven highly beneficial to the DeFi space.

Nakamo.to

Web 3.0 investor Nakamo.to invests and strategically advises on projects designed to take Web 3.0 to the next level.

Fei Protocol

Fei Protocol is a central bank-like infrastructure that could serve as a backbone to current and future dApps. FEI is the pegged stablecoin produced by Fei Protocol, following the ERC-20 standard. Its supply is uncapped. Minter and Burner contracts control its issuance, via bonding curves and trading incentives. The Fei Protocol solves the existing problems in this area by offering a fully decentralized model with a demand-based token price and direct incentives. This investment was made through nakamo.to.

FRACTAL

As an open-source protocol for fair and open data exchange, the FRACTAL protocol uses blockchain and cryptocurrency to enable advertising that protects user privacy while encouraging interaction with ads and products. This combats widespread problems

in the industry, including lack of security/privacy, and guarantees that a user will see an ad. This means that both advertisers and users benefit from this protocol.

Manta Network

The first privacy protocol designed for interoperability, scalability, and privacy. Limited scalability, speed, and security are common issues currently faced by many of the most popular blockchain networks and projects like DEXes that use them. Therefore, the Manta network offers a DEX that alleviates these issues through zk-SNARKS and other advanced data security solutions, reducing vulnerability to theft, fraud, and other malicious acts. This investment was made through nakamo.to.

Arwaeve

Permanent storage of data. Arweave enables the permanent storage of images, web pages and all other functions of the Internet, creating the "permaweb". This is done in a highly secure and fully decentralized manner, financially rewarding those who provide storage, so that data is permanently stored on hundreds of devices and is impervious to damage or loss.

Tracebloc

Blockchain- and machine learning-based platform to reduce waste on production lines. Tracebloc helps its customers activate various data that ultimately saves production costs and generates additional revenue. Tracebloc provides a platform that allows the data obtained to be analyzed using artificial intelligence (AI). The goal is to provide practical guidance on production-line optimization and to assess the potential of this data-driven production-line optimization.

Stela Labs

Testing company for smart contracts of the subsidiary Stela Labs offers two services: testing and development of smart contracts, especially in the context of the vision of Web 3.0 and the economy of DeFi. The team of Stela Labs applies a comprehensive strategy for testing smart contracts and deals with the creation of protocols aimed not only at making the implemented projects more secure, but also more useful and effective at the same time.

FinPro

FinPro tries to make assets accessible for everyone. FinPro AG is a competence center for digital assets. FinPro's goal is, among other things, to build an investment platform for digital assets. FinPro offers a variety of assets, including loans, real estate investments, intangible assets for fractionation, tokenization, and sale, creating a robust investment market. This includes its rapidly growing offering of NFTs.

Peaq

The peaq network is a Web3 network powering the Economy of Things (EoT). Under the umbrella of Advanced Blockchain AG, peaq has become the preferred blockchain technology partner for some of the world's largest companies. Peaq is on a mission to democratize a USD 2.5 trillion market, unlocking the potential of tens of billions of increasingly intelligent machines, to everyone’s benefit.

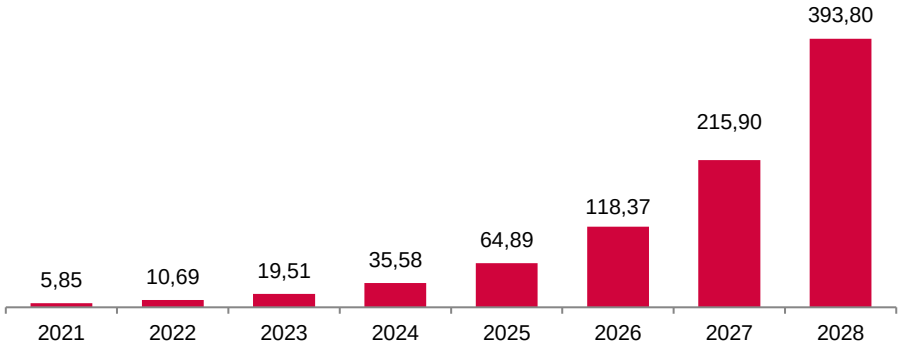
Backd

Backd is a trustless, reactive liquidity protocol where users can generate returns and register actions with their liquidity. The Backd protocol delegates liquidity to where it is most efficient using novel multi-utility liquidity pools, yield farming strategies, off-chain bots (keepers) and customizable actions.

MARKET AND MARKET ENVIRONMENT

The publicly listed Advanced Blockchain AG acts as an investor, incubator, and partner of the blockchain industry and pursues the mission of further driving the growth, discovery, and creation of blockchain-based projects. For this purpose, Advanced Blockchain AG has now invested in more than 20 exciting blockchain companies and projects the creation of further growth of these promising projects in their respective ecosystems. The common denominator of each company is that they are all based on or working on blockchain technology. The global blockchain technology market (excluding crypto assets) is estimated to reach a total volume of over USD 394.6 billion by 2028.

Blockchain Technology Market Size Worldwide 2020-2028 (in USD billions) as of June 2022



Sources: Polaris Research; GBC AG

A blockchain is a globally distributed database (ledger) that connects the individual servers of the database via nodes and chronologically records all transactions. Blockchain technology permanently and unchangeably stores all data in unique number and letter codes as a so-called "hash". Individual hashes are in turn linked together to form blocks within the blockchain. This ensures that individual blocks cannot be subsequently changed or manipulated. This is one of the key advantages of the blockchain over other technologies.

The world's best-known blockchain database at present is Bitcoin. It is considered to be extremely secure and therefore also particularly forgery-proof, as all data can be accessed worldwide. This means that every participant can conduct a verification process and check the authenticity of the data. The decentralized approach means that the entire system is not influenced, controlled, or dominated by a central authority. For example, to perform a Bitcoin transaction, additional hashes must be appended to the previously generated blocks. Solving a hash and adding it to a new block is called "mining". Solving these difficult mathematical tasks is usually rewarded. In this case, by a small amount of Bitcoin.

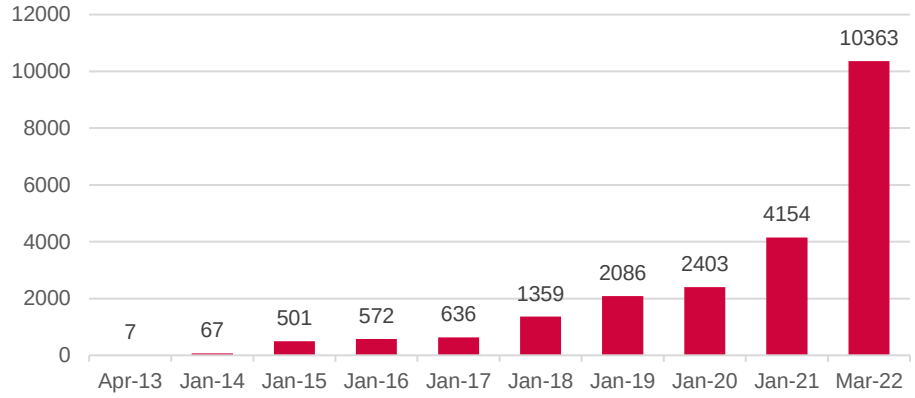
The fundamental technology of the blockchain has a much broader utility than transferring a token from one wallet to another. Blockchains was originally invented to make transactions more secure and efficient. The main advantages of blockchain technology over other solutions are the decentralized storage of all individual process steps and the subsequent immutability. This means that each step can be clearly and chronologically traced back at any time. It should also be emphasized that the decentralized nature of a blockchain means that any person can access the information at any time.

Coin and token

In the context of the digital world and cryptocurrencies, “token” has two meanings that merge into one term in the crypto world. Historically, a token was a token coin that was minted by private merchants and companies rather than by the government in the United Kingdom or the United States.

In computer networks, a token is a tool for synchronizing parallel processes. This means that whoever owns the token has access to the resource (for example, a memory area or an interface). If he has released the token, another participant may use the resource. This property is crucial for the use of the blockchain in all potential application areas, as it prevents collisions when accessing data in a computer network. It is ensured that the token holder is the authorized party.

Worldwide development of the number of coins and tokens



Sources: GBC AG; Coin Market Cap; GB Bullhound

Technically, “token” is just another word for “cryptocurrency” or “cryptoasset.” But increasingly it has taken on a couple of more specific meanings depending on context. The first is to describe all cryptocurrencies besides Bitcoin and Ethereum (even though they are technically also tokens). The second is to describe certain digital assets that run on top of other cryptocurrencies’ blockchain, as many decentralized finance (or DeFi) tokens do. Tokens have a vast range of potential functions, from helping make decentralized exchanges possible to selling rare items in video games. But they can all be traded or held like any other cryptocurrency[1]. Below is a brief overview of the most important tokens.

- **Cryptocurrencies.** These assets are typically, at their core, decentralized digital money designed to be used over the internet[2]. The best-known currencies of this type are Bitcoin and Tether (USDT). However, there is a significant difference here. Tether is a so-called stablecoin, which means that its value is linked to the US dollar or another fiat currency. Bitcoin, on the other hand, is not pegged to any currency: the value of Bitcoin is calculated solely based on supply and demand.

- **Security tokens** are also referred to as "investment tokens" or "equity tokens". These tokens are cryptographic tokens that are linked to a security offering and are subject to governmental regulatory requirements. Thus, security tokens

[1] https://www.coinbase.com/learn/crypto-basics/what-is-a-token?
[2] https://www.coinbase.com/learn/crypto-basics/what-is-cryptocurrency

have almost the same rights as listed shares, especially since the first companies are already paying out their dividends by issuing such tokens.

- **Utility tokens**, on the other hand, do not reflect an actual share in a monetary property. Such tokens can be used on certain platforms, for example, to redeem special credits or rewards, comparable to gift certificates or air miles.

- **Asset (backed) tokens**, unlike utility tokens, have an intrinsic value that is directly linked to the physical asset backing the token. By digitizing a real asset, such as a property or a car, purchasing processes are much faster and easier to execute. This type of token makes it possible to divide different assets into small fragments, allowing investors to invest with small amounts of money.

The blockchain technology is currently considered to have a wide range of potential applications whose influence on everyday life could be even more disruptive than the introduction of the Internet and its corresponding development.

The first projects of these applications have already become a reality. Among other things, blockchains are already helping to collect and process medical data without it falling into the wrong hands. In addition, blockchain technology can help prevent money laundering or record and manage copyrights or make supply chains more efficient. Money transfers can be more traceable and disputes over copyrights can be resolved more quickly. This advance of technology is being accelerated globally by many other applications.

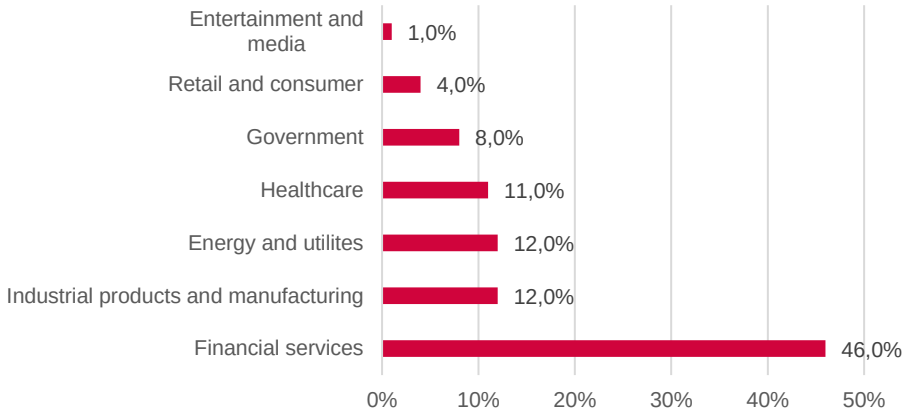
One of the first and probably best-known examples was the "Ripple" project. For this, a consortium of 47 Japanese banks have teamed up with the company Ripple to enable money transfers between bank accounts using blockchain. The main reason cited for the launch was to enable real-time transfers at a very low cost. After all, one of the biggest factors why traditional real-time transfers have been relatively expensive so far has been the potential risk factors that arise against the backdrop of small-time windows. Duplicate expenses or additional costs resulting from transaction errors within the system have been instrumental in hesitance to adopt real-time transactions. Blockchain technology largely mitigates this risk. Big Data analytics make it possible to identify patterns with consumer spending and identify risky transactions much faster than with current technology. This offers the potential to significantly reduce costs in real-time transactions.

More growth potential

Although blockchain technology was launched with Bitcoin, blockchain today has far-reaching potential outside of cryptocurrency. In addition to cryptocurrencies, blockchain has various applications in financial services, supply chains, and the public sector. To support blockchain applications, governments are enacting new laws to encourage the use of blockchain. For example, in Arizona, signatures secured by blockchain technology are authorized by law.

Governments and organizations are using the system for a variety of purposes, including fast, efficient, and transparent transfer of value, transparent and immutable record of transactions, etc. Below are numerous blockchain applications that bring efficiency and speed to industries and business functions.

Industries that global executives believe are most at an advantage in blockchain development



Sources: GBC AG; PwC

Outside of banking, the main driver for blockchain adoption has been security. In healthcare, retail, and government, companies have begun using blockchains to analyse data or prevent hacking and data leaks. For example, technology such as blockchain can ensure that audits are performed at every level of data access. Blockchain technology has the potential to become a kind of universal authentication technology.

Possibility of using real-time analysis

Since blockchain contains a database entry for each transaction, all participants, i.e., institutions as well as private users, can search for verification samples in real time if required. Until now, upstream fraud detection in the transaction process, i.e., in real time, was not possible or only possible with difficulty. For example, credit card providers check whether the transaction is being conducted in the cardholder's home country or not. In case of doubt, the transaction could be cancelled.

However, technologies are usually used to identify questionable or fraudulent transactions only after the fact. Young companies are already providing the real-time intelligence to detect anomalies and or fraudulent intent early on, i.e., before the transaction takes place.

Potential of blockchain technology

What is important in identifying potential is that cryptocurrencies are merely a kind of use case, i.e., a test project by the blockchain inventors. The founders wanted to show what the technology can enable. The resulting market can be understood as the technology's track record. Against this background, many tokens or coins have been issued, most of which have distinctive characteristics and use different programming languages. They address a wide range of divergent applications.

The largest cryptocurrencies according to Marketcap 2022

Rank	Cryptocurrencies	Symbol	Marketcap (EUR billion)
1.	Bitcoin	BTC	388.6
2.	Ethereum	ETH	137.7
3.	Tether	USDT	65.6
4.	USD Coin	USDC	55.3
5.	BND	BND	37.5
6.	Binance Coin	BNB	17.5
7.	Cardano	ADA	15.0

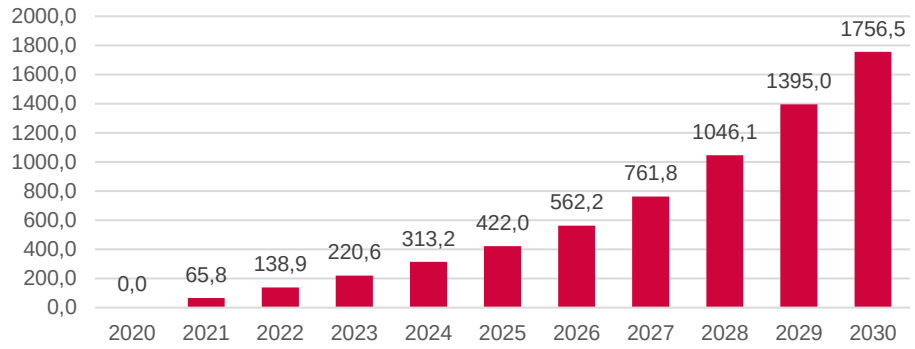
7.	Solana	SOL	12.0
9.	Dogecoin	DOGE	8.4
10.	Dai	DAI	6.9

Sources: GBC AG; Coin Market Cap; (As of 11.07.2022)

Although blockchain technology holds great promise for data science, many blockchain-based technology systems have not yet been tested or are not available on a scale needed by industry. This is due to an open-source trend, so that many developers have already published beta versions without having corrected the programming errors of the early development phase.

This means that the basic technology is still young, and its practical application is still at an early stage. However, it is widely believed that as the technology matures, its applications and economic significance will increase rapidly across all industries. Currently, the financial industry is mostly affected by crypto.

The economic effects of blockchain on global GDP (in USD billion).



Sources: GBC AG; PwC „Time for trust" report, 2020

Selected application examples of the blockchain

Energy: the energy turnaround discussed in Germany against the backdrop of decentralized energy generation, transmission and distribution are possible via blockchain-based microtransactions of data. The data collected at the account points is sent using the blockchain, is then validated and, in turn, distributed to the grid so that payment to the producer or transmitter of energy is secured.

Insurance: motor vehicles can communicate status updates with insurance providers via smart devices and the blockchain. This helps determine individualized and utility-based traffic participation and allows insurance premiums to be determined on an individual basis. This lowers the overall cost of insurance by eliminating the need for auditing and authentication of data. This also applies to the development of autonomous vehicles.

Healthcare and public administration: the already much-discussed electronic patient record may be enabled. Data stored in a blockchain is retrievable and secure and can be accessed and updated. This enables the democratization of patient data and facilitates the transfer of data between providers. This also applies to public administration so that, for example, identification documents are tagged with personal and individual data.

Supply chain: this application can enable the distribution of goods in industry and commerce. By using a distributed ledger, all participants in a supply chain gain visibility into

inventory, tracking, deliveries, and progress with other suppliers. The supply process can be optimized, tracked, and discounted.

Retail: secure marketplaces with appropriate terminals can track retail transactions. Product information, deliveries, and bills of lading can be tracked via the blockchain, followed by payments via cryptocurrencies.

Decentralized Finance: In addition to the above-mentioned applications, the area of DeFi is expected to have the greatest market potential. DeFi is a collective term for financial services offered via public blockchains.

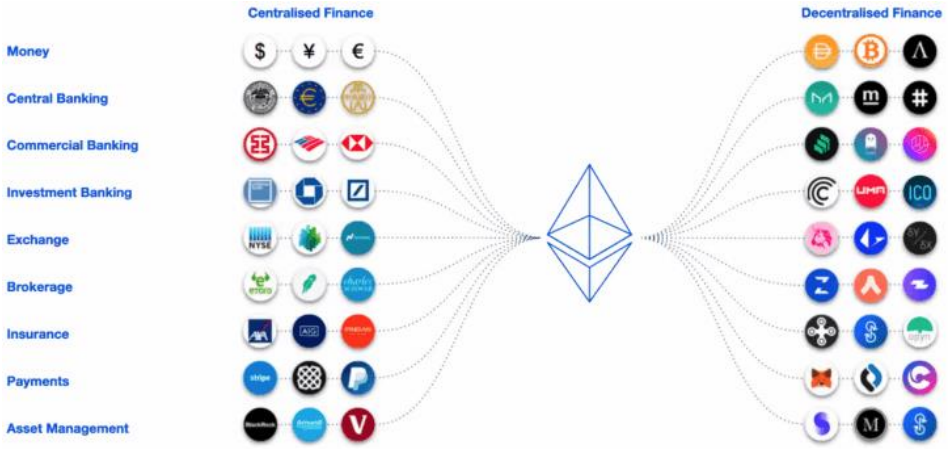
Decentralized Finance

As mentioned before, the term DeFi, composed of the words decentralized and finance, is one of the most interesting and fastest growing areas in the blockchain universe. The central function of such DeFi solutions is to automate traditional manual processes in finance, e.g., loans without a middleman (trusted intermediary). Bitcoin is still one of the most popular tokens. Other tokens such as Ether, Cardano, Solana offer considerably more functions with the advantages of blockchains. These include, among other things, the fact that entire processes can be triggered and completed fully automatically by means of this token. These processes are mapped in so-called smart contracts. For example, a smart contract can initiate the execution of a payment after a certain event, thus taking a significant step towards digitization in the financial world.

Due to the numerous applications for DeFi solutions, the market boundaries can hardly be defined. The DeFi market includes solutions ranging from back-office support for banks to the management of level 1, 2 and 3 cash movements, and will soon turn the traditional banking sector upside down. These technology solutions will have an even higher disruptive factor on the banking sector, as has the development of the Internet, which will change all areas and processes of the traditional financial world. This will forever change the way users lend, borrow, trade, save and much more.

Goldman Sachs, Morgan Stanley, Blackrock, and several government institutions are already preparing for this revolution and are developing applications that will permanently change the sector. Consequently, it is no longer a question of when DeFi solutions will replace traditional financial solutions, but a question of pace. Early adopters have already joined the cause, as total assets (a measure of token value used for decentralized financial applications) in DeFi projects have already risen to over USD 68 billion, up from USD 17 billion as recently as August 2020, with companies like Maker leading the credit space with a total value of over USD 16 billion.

DeFi equivalent for each financial instrument and function



Source: ConsenSys

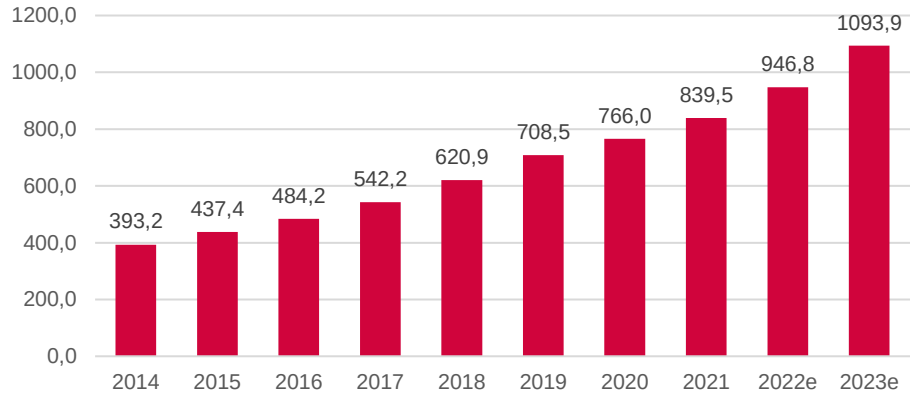
Digital banking solutions replacing the traditional branch bank business model has only just begun. This transformation will not only affect the way customers access services but will also change the role of all stakeholders with the creation of new DeFi infrastructures, protocols, and ecosystems. In the DeFi ecosystem, everyone with capital will become a market maker, borrower, lender, or validator.

Blockchain market and growth

After an extensive wave of Initial Coin Offerings (ICO) or Initial Token Offerings (ITO), the total number of cryptocurrencies or tokens has risen to 20,160 (as of July 8, 2022; coinmarketcap.com). At the same time, each of the tokens can stand for its own technology with distinctive characteristics.

It is important to understand that blockchain is a technology, while bitcoin is merely one of the first applications of this technology. The "money transfer" application was developed to operate in a decentralized system free from regulations and centralized influence. Anonymity was defined as one of the most important characteristics of the new monetary system. This, in turn, has led to growth, value enhancement and increased applications of digital money transfer in the past. Cryptocurrencies, therefore, address a gigantic market.

Number of transactions in cashless payments worldwide in the years from 2014 to 2023 (in USD billions)



Sources: Capgemini; GBC AG

Originally, Bitcoin stood for transparency, as all transactions can be traced. However, anonymity (transactions are not necessarily linked to names and addresses) has led to the alienation of the application. Thus, the original idea of unregulated money transfer has become less and less a part of the public discussion. Bitcoin has, instead, emerged as more of a speculation and investment object.

Based on its historical growth and its predicted growth in the coming years, it can be seen that blockchain technology will play a crucial role in all areas and sectors in the near future. On the one hand, this technology will counteract problems that already exist today, such as a shortage of skilled workers, and automate and accelerate processes. On the other hand, business areas and applications that are not yet foreseeable today will develop from the blockchain.

BUSINESS DEVELOPMENT

Key figures at a glance

(in EUR million)	FY 2021
Sales	**17.86**
Other operating income	0.10
Cost of materials	-7.67
Personnel expenses	-0.33
Other operating expenses	-3.35
EBITDA	**6.62**
Depreciation and amortization	-0.12
EBIT	**6.50**
Other interest and similar income	0.01
Interest and similar expenses	0.00
EBT	**6.51**
Other taxes	0.00
Income taxes	-1.20
Net income	**5.32**

Net sales	17.86
EBITDA	6.62
EBITDA margin	*37.1%*
EBIT	6.50
EBIT margin	*36.4%*
Net result	5.32
Net margin	*29.8%*

Sources: Advanced Blockchain AG, GBC AG

Business development 2021

Income statement (in € million)	FY 2021
Net sales	17.86
EBITDA	6.62
EBITDA margin	*37.1%*
EBIT	6.50
EBIT margin	*36.4%*
Net income	5.32
EPS in €	1.41

Sources: Advanced Blockchain AG, GBC AG

An unaudited pro forma consolidated statement of financial position and consolidated statement of income were published in the annual financial statements for 2021. The consolidated statement of financial position does not show any comparative figures for the previous year, which significantly limits its informative value.

Sales development

In the past fiscal year 2021, the Advanced Blockchain AG Group generated revenues of € 17.86 million. Revenues consist of services (approximately € 10 million) and token sales (approximately € 7.8 million).

Earnings development

EBITDA of € 6.62 million was achieved, which corresponds to a high EBITDA margin of 37.1%. The largest cost item was the cost of materials at € 7.67 million, primarily caused by developer services. Other operating expenses amounted to € 3.35 million. Personnel expenses were very low and amounted to € 0.33 million. Overall, net income of € 5.32 million was achieved, resulting in a very high net margin of 29.8%.

Balance sheet and financial situation as of 31.12.2021

in € million	31.12.2021
Equity	12.05
Equity ratio (in %)	57.2%
Operating fixed assets	0.94
Working capital	5.99
Net cash	6.52

Sources: Advanced Blockchain AG; GBC AG

The company has a very lean balance sheet. Equity amounted to € 12.05 million, which corresponds to an equity ratio of 57.2%. There were no interest-bearing liabilities, so cash on hand corresponded to net cash of € 6.52 million, which shows above-average liquidity.

Their crypto investments were recognized at cost and are included in other assets. The item receivables and other assets amounted to € 13.6 million. The crypto wallets are reflected in the cash position and amounted to € 6.52 million.

SWOT-Analyse

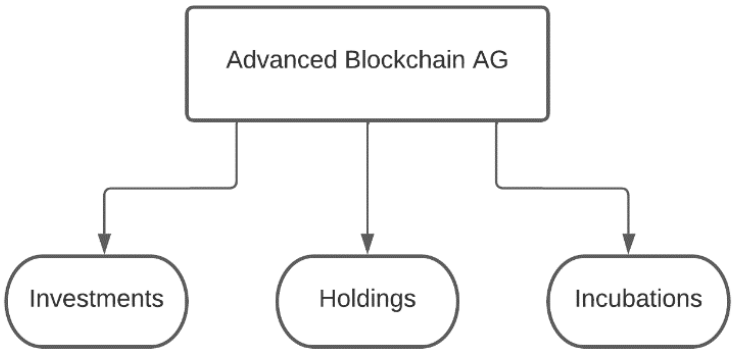
Strengths	Weaknesses
• Management team's track record and network • Early mover in the blockchain industry • Full-service company, attracting best projects • Extremely elevated level of expertise • Clear investment strategy and sector specific • Low-cost structure	• Profitability uncertain in the near term due to token price volatility • Investing in very early next-gen technology • Highly competitive landscape for layer 1, layer 2, and interoperability projects • Change in management caused uncertainty
Chances	**Risks**
• Possibility of investing in new markets • Greater collaboration between invested projects • Synergy creation with incubated and invested projects • Strong investment growth rate • Massive market • Seed and pre-seed funding (maximum ROI)	• Most companies in the portfolio are loss-making and will require more capital in the near future to continue growing • Extremely competitive funding sector • Lack of legislation in the sector can lead to regulatory changes • Limited availability of programmers and qualified workers • Market environment cooled down – "crypto winter"

VALUATION

Due to the currently falling crypto prices, we have updated our initial valuation assessment. As of July 8, 2022, the price of bitcoin traded at 21,245 EUR, more than 70% discount below its November peak of around 58,323 EUR. Another leading cryptocurrency, Ethereum, was trading near 4,158 EUR at its November peak; it is now trading around 1,200 EUR. Bitcoin and other cryptocurrency prices have been sliding all year, a decline that accelerated as the Federal Reserve signaled that interest rates would be moving higher to try and snuff out inflation. What is happening to crypto is, in part, a more volatile version of what is happening to stocks, as investors sell riskier assets at a time when the threat of recession is rising. We expect another so called “crypto winter” to impact Advanced Blockchain's investments as well.

Advanced blockchain AG invests and participates through three areas: (1) investments, (2) holdings and (3) incubations.

Investment areas of Advanced Blockchain AG



Sources: GBC AG, Advanced Blockchain AG

In the areas of **holdings and incubations,** Advanced blockchain AG works closely with the companies. Here, the company tries not to spread the resources broadly, but to focus specifically on a smaller number of targets. The higher focus is intended to achieve a higher probability of success. Advanced blockchain AG not only provides support here in the form of financial resources, but also helps to successfully implement blockchain processes. Here, companies benefit from the extensive expertise of the Advanced Blockchain AG team and their numerous industry contacts. As spin-offs are also frequently supported, the Advanced Blockchain AG Group is also associated with established companies with a high profile. In addition to external spin-offs, Advanced Blockchain AG Group also supports its own spin-off projects and subsidiaries in the blockchain and decentralization industry. Through internal support and foundation, numerous processes can be implemented in a more straightforward manner, while the aforementioned advantages for the companies continue to exist.

Advanced Blockchain AG Group relies on extensive internal analysis for its startups and investments. There is also a symbiotic relationship with numerous external professional investors who can contribute feedback. Provided a potential project has been identified and the technology behind it has been analyzed, a meeting will be arranged with the founding team. The Advanced Blockchain AG Group can provide extensive support, from providing technical resources, launch support, audits, investor access, and access to its own expertise.

In addition, Advanced Blockchain AG Group acts as a **venture capitalist** through its subsidiaries. In this area, investments are made not only in startups, but in all types of

companies that seek to use blockchain and decentralization technology to develop solutions to widespread problems faced by large, established companies.

Furthermore, Advanced Blockchain AG invests in blockchain technology companies offering crypto tokens through its subsidiaries. Thus, consulting services are partly paid for in the form of tokens.

Investments

Incubations

In the **incubation** space, we have currently identified the following investments/shareholdings: Bribe, Quasar, Angular, Panoptic, Instrumental, Pendulum, Anonymous DeFi Project and Warp.

Incubations	
Bribe	Instrumental
Quasar	Pendulum
Angular	Warp
Panoptic	Anonymous DeFi Project

Sources: GBC AG, Advanced Blockchain AG

Investments in the incubations area have very high growth potential, as projects can be realized here from the company's own consulting services. Panoptic could develop into being one of the major success stories. Panoptic is trying to improve options trading in such a way that it can become significantly larger in the DeFi area than it has been to date. Advanced Blockchain AG has partnered with dedicated idea creators to work together at double speed to develop a market-ready solution. Panoptic was conceived by Guillaume Lambert, Assistant Professor of Applied Engineering and Physics at Cornell University. He developed Panoptic and chose Advanced Blockchain AG as a partner to bring his vision to life. Advanced Blockchain AG Labs, the venture-building arm of the company, is helping to develop the hypotheses, assemble the team, and test and scale Panoptic.

Panoptic is trying to establish functioning options trading in the DeFi sector. While in the traditional "Fiat" world options trading amounts to around USD 500 billion per day, just USD 400 billion of ETH options are traded per year. For DeFi options trading to increase significantly, it needs to be redesigned and improved. This is where Panoptic comes in. While options trading in DeFi is significantly more accessible than in traditional finance, there are fundamental differences in the way options trading is handled in DeFi compared to traditional finance. Due to the additional block time, the decentralized nature of blockchain ecosystems, and the "gas" fees (gas is the "fuel" in the Ethereum network. Commands that run the virtual machine are paid for with gas.) for transactions, options trading in DeFi suffers from slower transaction speeds, greater difficulty in pricing, and a higher cost burden. There is also a need for greater liquidity.

Panoptic allows DeFi users to trade options in any asset pool in the Uniswap v3 ecosystem, in a permission-free and non-binding protocol. In doing so, Panoptic brings traditional financial trading into DeFi, leveraging the already extensive assets and liquidity in Uniswap v3. In addition, Panoptic offers other advantages over traditional options trading: there is no counterparty risk, instant settlement is offered, and Panoptic is designed to be fully collateralized at all times. Panoptic options also have an open-ended maturity, which is less common in traditional options trading.

Panoptic works by managing liquidity within the Uniswap v3 pools. It works as a series of intelligent contracts ("smart contracts") that manage the creation of long and short options by moving liquidity closer to or further away from the spot price. This is Panoptic's key innovation. Option payoffs are replicated by moving liquidity closer to the spot price to represent a short position and moving liquidity away from the spot price to correspond to a long option position.

Panoptic is therefore able to offer DeFi users open-ended options trading on Uniswap v3. If Panoptic succeeds in building a large-scale options trading business and even approaches the market size of the traditional financial market, this could lead to a billion-dollar valuation in the long run. Currently, this project is still incubated and in its infancy. Nevertheless, it is understandable how a high potential valuation can occur despite a very high haircut.

We have examined the valuation approaches of the company regarding the individual items and consider them to be comprehensible. In the area of incubations, valuations were made according to current financing rounds or according to the last transaction. Furthermore, tokens for consulting and software services were issued, which correspond to a valuation approach according to the initial issue. **In our opinion, the current fair value of the incubations (after safety discounts) is around € 10 million (previously: € 12 million).**

Investments
There are over 30 different positions in **Investments**: namely, Maverick, Sentinel, Alluo, Myso, Etherscore, Polymer, Fractal, Neon Labs, Mekatek, Fragcolor, Element Finance, Zcloak, Fei Protocol, Backd, Arweave, Obol, Forest Park, Component, NEAR Protocol, Sigmadex, Composable, Permanent Ventures, Manta, Light, Moxy, Talisman, SDGX, Contango, Ithil, Peaq and Apricot.

Investments				
Maverick	Sentinel	Alluo	Myso	Etherscore
Polymer	Fractal	Neon Labs	Mekatek	Fragcolor
Element Finance	Zcloak	Fei Protocol	Backd	Arweave
Obol	Forest Park	Component	NEAR Protocol	Sigmadex
Composable	Manta	Light	Moxy	Permanent Ventures
Talisman	SDGX	Contango	Ithil	Peaq
Apricot				

Sources: GBC AG, Advanced Blockchain AG

The most popular may have been the **great success of the Polkadot investment.** Thus, in 2017, the company invested for an average of well below € 1 per token and most recently realized all of it. In the meantime, the price stood at around € 47 and according to the management, the sales were carried out near the highest price.

Particularly recent investments have been **Composable** and the **NEAR Protocol** (NEAR). For example, on 11/03/2022, the company announced that it had invested a seven-figure sum in the total USD 150 million funding round through an affiliate. Other well-known venture capital investors in the crypto space such as Mechanism Capital, Dragonfly Capital, Andreessen Horowitz (a16z) and Alameda Research had also co-invested. The investment round was reserved for institutional investors thus, Advanced blockchain AG enables its own shareholders to participate in promising large-scale projects. The cryptocurrency sector is still in an active growth phase and is far from full adoption. Today there are still barriers to mass adoption, such as a difficult user experience, the complexity of the blockchain, and other things that are not easily understood by the average user. The NEAR project aims at eliminating all these problems.

The NEAR Protocol is a smart-contract-enabled, public proof-of-stake (PoS) blockchain designed as a community-led cloud computing platform. NEAR was developed by the NEAR Collective to host decentralized applications (dApps) and aspires to compete with Ethereum and other leading smart-contract-enabled blockchains such as EOS and Polkadot. NEAR's native token is also called NEAR and is used to pay for transaction fees and storage. NEAR tokens can also be used by token holders who are involved in achieving network consensus as transaction validators.

It is focused on creating a developer- and user-friendly platform. To achieve this goal, NEAR has incorporated features such as human-readable account names instead of crypto wallet addresses and the ability for new users to interact with dApps and smart contracts without the need for a wallet. With the increasing popularity of dApps, the crypto community has faced a growing scalability problem. Scalability in this context refers to the ability of a blockchain to process a large number of transactions with reasonable speed and cost. Ethereum has particularly struggled with scalability issues due to the high demand for its use, and while some people advocate for scaling solutions built on top of Ethereum (Layer 2 solutions), other projects like NEAR have decided to build entirely new blockchains with a different architecture.

NEAR Protocol's proposed solution to this scalability problem is to implement sharding. Sharding reduces the computational load by dividing the network into shards (or fragments). With this tactic, each node does not have to execute the entire code of the network, but only the code relevant to its shard. This allows the shards to perform computations in parallel with each other and scales the capacity of the network as the number of nodes in the network increases. To achieve consensus among nodes in the network, NEAR uses a PoS system. With PoS, nodes that want to become transaction validators must deploy their NEAR tokens to be eligible. Token holders who do not wish to operate a node can delegate their deployment to validators of their choice. NEAR uses an auction system to select validators every epoch (approximately every 12 hours), and validators with larger stakes have more influence over the consensus process.

The NEAR Protocol can support tokens "packaged" by other chains in addition to NFTs. Likewise, NEAR has built a bridge to Ethereum that allows users to transfer ERC-20 tokens from Ethereum to NEAR.

The NEAR Protocol could emerge as a very promising investment if it wins the race to provide the infrastructure for Web 3.0. Especially with its unique focus on developer- and user-friendly features, the NEAR protocol could grow rapidly.

Advanced blockchain AG reported as related to **Composable Finance** on 03/31/2022 that the company had raised USD 32 million on a total token valuation of USD 400 million. Composable Finance is an investment and incubation of Advanced Blockchain AG. The funds raised in the Series A funding round are intended to fund further growth. Prominent blockchain investors such as GSR, Tendermint, Coinbase, Jump Capital and Spartan Group participated in Composable's funding round.

The lack of interoperability between blockchain networks is one of the biggest barriers to true decentralization and progress in the blockchain space. To solve this problem, Composable Finance is building a tech stack for the DeFi ecosystem that enables blockchain networks to communicate and share data freely.

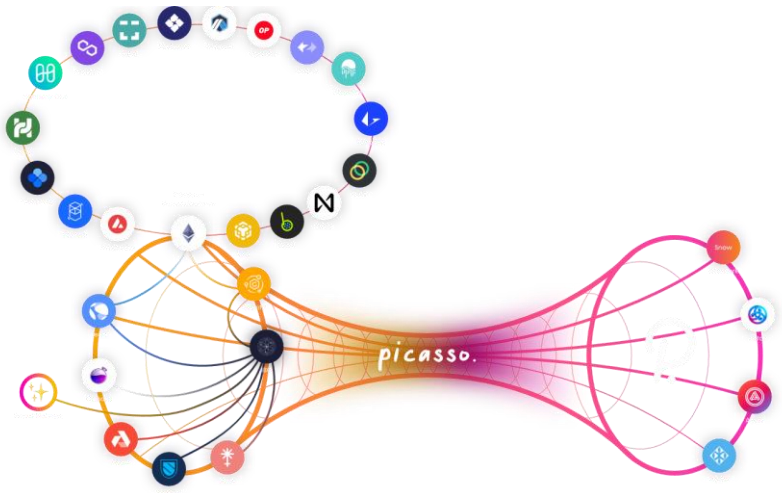
Composable Finance is a cross-chain and cross-layer interoperability platform for DeFi that aims to make more DeFi protocols interoperable. The project aims to address the

lack of cohesion and fragmented liquidity silos across different blockchains that currently besiege the DeFi ecosystem.

Composable recently won Polkadot's eighth Parachain slot, raising more than USD 150 million from over six million DOT contributions from backers in different parts of the world. In November 2021, the project also secured Kusama's twelfth Parachain auction with USD 45 million (115,071 KSM at that time) raised from supporters.

The Picasso parachain serves as the underlying infrastructure and finality layer. It offers improved interoperability, adaptability and security compared to traditional blockchain structures. Picasso will provide a holistic environment where protocols thrive through cross-chain communication, further realizing Composable Finance's vision of absolute blockchain agnosticism.

Composable Finance Solution



Source: Composable Finance

Since its inception, Composable Finance has forged several notable partnerships with some of the biggest names in the blockchain industry, including Multichain, Connext, Hop Protocol, RMRK and more. The successful funding round demonstrates once again that Advanced blockchain AG can successfully identify and incubate promising investments.

We have discussed the valuation methods of the investment portfolio with the management and consider them to be comprehensible. In our opinion, numerous investment projects are still in the early stages and still show enormous potential for the future. **We currently estimate the value of the investment portfolio (after risk discounts) at around € 32 million (previously: € 35 million).**

Holdings

In the area of **holdings,** we have identified 12 holdings, namely: FinPro AG, Nakamo.to GmbH, FinPro GmbH, Peaq Technology GmbH, Stela Labs Ltd, Tracebloc GmbH, Cliso Ltd., Brain Network Ltd., Incredulous Labs Ltd., ADVANCED BLOCKCHAIN AG LABS (DMCC) and ADVANCED BLOCKCHAIN AG LABS (FZCO).

Holdings	
FinPro AG	Nakamo.to GmbH
FinPro GmbH	Peaq Technology GmbH
Stela Labs Ltd	Tracebloc GmbH
Cliso Ltd.	Brain Network Ltd.
Peaq Ltd.	ADVANCED BLOCKCHAIN AG LABS - DMCC
Incredulous Labs Ltd.	ADVANCED BLOCKCHAIN AG LABS - FZCO

Sources: GBC AG, Advanced Blockchain AG

As **one of the most important investments**, we describe **Peaq** below. The Peaq token can also be found in the investment section.

Peaq enables individuals and enterprises to create Apps for users of vehicles, machines, robots, and devices while empowering both app creators and users to control and earn from machines. The peaq network creates an infinite loop of value creation and distribution for network participants by combining novel DeFi mechanisms with machines as yield farmers, Self-Sovereign Identity (SSI), and advanced NFT-based machine ownership, enabling vehicles, machines, and devices to securely achieve full autonomy and interact and trade in a decentralized, self-sufficient economy. By leveraging these machine-centric mechanisms, the network not only aligns all network participants toward the same goal - usage - but also encourages the creation of new machines and their SSI via its own Self-Sovereign Identity Framework designed specifically for machines.

In recent years, Peaq has worked with several leading vehicle and device manufacturers to develop dApps, among other innovative projects and solutions. Peaq is now working with numerous Fortune 100 companies. In its latest project, Peaq aims to create an open and vendor-independent ecosystem to streamline the charging and payment process for e-cars. To this end, a memorandum of understanding has been signed with a major German car manufacturer. This contract includes the large-scale production of a full-fledged e-mobility platform. This shows the numerous fields of application and the real demand from the industry. Provided many companies start using Peaq, this could also become an extremely valuable investment.

We currently see Peaq as the main value driver of the Holdings portfolio and estimate the portfolio to be worth € 43 million (previously: € 43 million).

Portfolio valuation

Many of the portfolio positions are still at the beginning and have a great potential to develop dynamically. In addition, according to our assessment, there are still unpublished portfolio positions, which can also have a value-enhancing effect. According to the management, the annual holding costs are just below € 2 million, which we deduct from our portfolio valuation according to the NAV approach.

Portfolio - GBC Valuation	(in € million)
Investments area	32
Holdings division	43
Incubations area	10
Holding costs	-2
Total	**83**

Source: GBC AG

In total, we have calculated an enterprise value of around € 83 million (previously: € 88 million) according to NAV. With 3.77 million shares outstanding, this corresponds to a value per share of € 21.99 (previously: € 23.32). Due to the sharp decline in crypto markets and the current "crypto winter", we have applied an additional discount to the calculated fair value. We currently calculate this at around 55%. This corresponds to the average decline of the two leading cryptocurrencies Bitcoin and Ethereum since the publication of our initial valuation (21.04.21). Therefore, we calculated the fair value at € 37.75 million or € 10.00 per share.

Thus, our price target of EUR 10.00 is currently significantly below the calculated fair intrinsic value. With a calming of the crypto markets and a "crypto spring", we will then also reduce our "market discount" accordingly.

Against the background of the high upside potential, we assign a BUY rating in our initial coverage.

Note: Since we value the company using our GBC NAV valuation approach, we do not believe a forecast model for the sales and earnings metrics is appropriate. Instead, we estimate the value of the investments.

Peer Group analysis
Due to limited disclosed financial information and due to the one-of-a-kind nature of its business model, there are currently no comparable publicly traded peers. At this moment, we can therefore not provide valuation by comparison with peers.

APPENDIX 1

Research Report Supplement to the Initial Coverage Research Report with completion/publication date of 13.7.2022.

Research Report Supplement Completion: 3.8.2022, publication 03.08.2022

Pursuant to § 21 (1c) AGB of Deutsche Börse AG for the Freiverkehr on the Frankfurt Stock Exchange, an (updated) forecast model is required for a Research Update.

According to internal detailed discussion and decision of our analysts at the time of the research report, such a forecast model is not useful for investment companies. Advanced Blockchain AG is an investment company in the crypto sector.

For this reason, we have noted this on page 31 of the research report as follows:

“Note: Since we value the company using our GBC NAV valuation approach, we do not believe a forecast model for the sales and earnings metrics is appropriate. Instead, we estimate the value of the investments.”

Even now, we do not consider a forecast model for investment companies such as Advanced Blockchain AG to be meaningful and purposeful for investors, as the potential revenues and results are extremely volatile and a valuation of the investment company in our opinion (further mentioned below) appears to be meaningful exclusively on the basis of the valuation of the investments and projects.

In order to fulfill the requirement according to §21 1c AGBs in purely legal terms (whereby we have, in our opinion, already fulfilled an appreciation of the requirement by the reference on page 31), we supplement the research report with this appendix by a required forecast model as follows:

Forecast model (consolidated)	2022e	2023e
Sales	€ 22.855.015,80	€ 12.991.866,50
EBITDA	€ 369.977,10	€ 3.998.385,30
EBIT	€ 333.977,10	€ 3.962.385,30
Net income	€ 333.977,10	€ 3.962.385,30

Source: GBC AG

However, we would like to point out once again and clearly that our forecasts above can, in our opinion, be regarded as extremely volatile and not reliable due to the naturally very volatile business model of the investment company Advanced Blockchain, which is also still very young as a company and operates in a very volatile market environment (crypto sector). In our opinion, a valuation based on the above key figures does not make sense and is therefore not appropriate. An orientation on the above forecasts for the valuation can, in our opinion, lead to a misvaluation.

For the valuation of Advanced Blockchain AG, rather a valuation of the investments and their value potential has to be used. We have carried out this valuation in our research report dated July 13, 2022. Here we refer in particular to the research report starting on pages 25.

APPENDIX 2

I.
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The respective recommendations/classifications/ ratings are associated with the following expectations:

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HOLD	The expected return, based on the determined price target, including dividend payment within the corresponding time horizon is > - 10% and < + 10%.
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