



Research Report (Initial Valuation)

Advanced Blockchain AG



Easy access to DeFi, Crypto & Web 3.0

**Significant upside potential due to
the high-growth portfolio**

**Successful partial divestments and financing rounds
confirm the Group's investment approach**

Target price: 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 22

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".

Advanced Blockchain AG^{*5a,11}

Target price: € 23.32
Rating: Buy

Current price: 13.22
21.04.22 / XETRA / 2:02 p.m.
Currency: EUR

Master data:

ISIN: DE000A0M93V6
WKN: A0M93V
Symbol (DUS): BWQ
Number of shares³: 3.77
Marketcap³: 45.20
³in million / in EUR million

Accounting:
German GAAP (HGB)

Financial year: 31.12.

Analysts:

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Company profile

Industry: Technology, Crypto

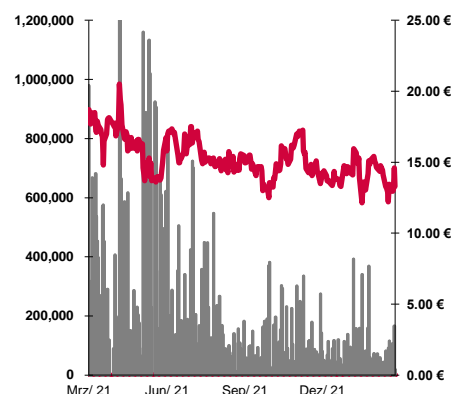
Focus: Blockchain Technology, DeFi, Web 3.0

Employees: 205, thereof 126 developers

Foundation: 2017

Headquarters: Berlin

Management Board: Michael Geike (CEO), Simon Telian (CIO)



Advanced Blockchain AG is a blockchain venture studio focused on promoting, building, and investing 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 sector and infrastructure projects enabling Web 3.0.

Advanced Blockchain 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 acts as a leading incubator of projects such as for Composable Finance.

Advanced Blockchain 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 network 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 \$160 million through a crowd-loan. This resulted in an implied valuation of \$400 million for the LAYR token, adding nearly \$20 million to Advanced Blockchain's \$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

3.5.2022: MKK Munich Capital Conference
05.2022: Annual Report 2021
06.2022: Annual General Meeting
09.2022: Half-year report 2022
11.2022: German Equity Forum

**Latest research from GBC:

Date: Publication / Target price in EUR / Rating

** research studies listed above can be downloaded from www.gbc-ag.de or can be requested from GBC AG, Halderstr. 27, D86150 Augsburg, Germany.

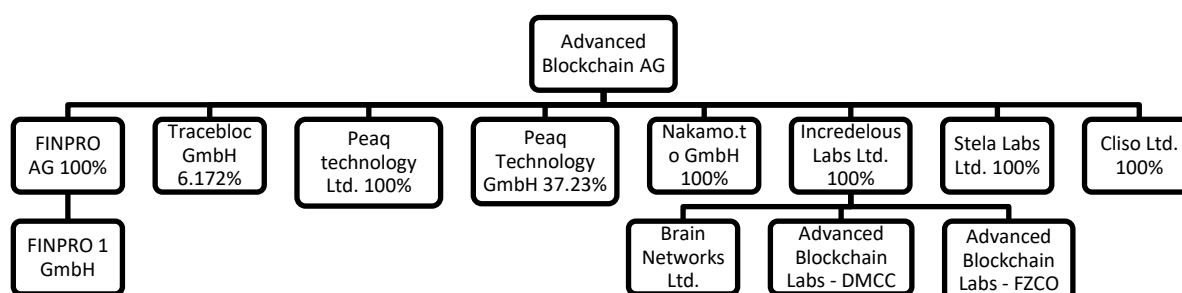
* Catalog of possible conflicts of interest on page 23

COMPANY

Shareholder structure

The shareholder structure consists of almost 100% free float.

Company structure



Source: Advanced Blockchain AG

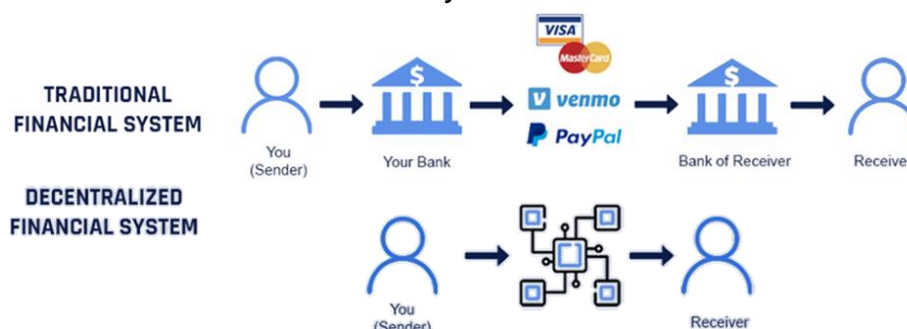
Advanced Blockchain AG

Advanced Blockchain is the first and oldest exchange-traded company on the German market specializing in blockchain technology. The company went public on the Frankfurt Stock Exchange in January 2019, when bitcoin was still trading at around EUR 3,200. The company is led by Michael Geike and Simon Telian, two successful serial tech entrepreneurs, and has grown to over 200 employees with 126 developers and other team members worldwide working on numerous next-generation DeFi (Decentralized Finance) and Web 3.0 projects.

The decentralized financial management

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

Traditional vs. decentralized financial systems



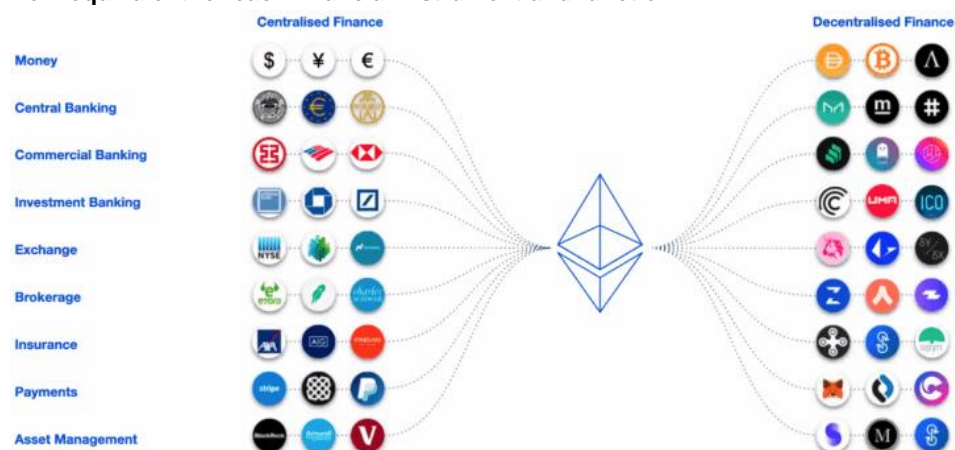
Source: Stably

DeFi Market

The DeFi market is very broad. From supporting the back office of banks to managing money movements, DeFi will turn the traditional banking sector on its head. It will forever

change the way users lend, borrow, trade, save and more. With Goldman Sachs, Morgan Stanley, Blackrock, and several government institutions adopting DeFi, it is not a question of when, but rather how fast. "Early adopters" have already jumped on the bandwagon, as evidenced by the growth in total assets deposited in DeFi projects. In January 2020, the value was circa USD 500 million, while today it is circa USD 200 billion. In the "Maker" application alone, a leading project in the credit sector, USD 16 billion in assets are deposited.

DeFi equivalent for each financial instrument and function



Source: ConsenSys

The race with digital banking solutions replacing the traditional branch bank business model has only just begun. This transformation will not only impact 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 model, everyone with capital becomes a market maker, borrower, lender, and validator.

Management Team

Michael Geike, CEO, Managing Director

CEO and co-founder of Advanced Blockchain AG. Michael is a mathematician with over six years of experience as Vice President of Exotics & Hybrids Trading at JP Morgan. He also worked at Zalando, where he built teams of data scientists and AI specialists focused on payment algorithm optimization. He has been deeply involved in distributed ledger technology for over nine years. He has founded several companies in this field, including one of the first companies in Europe to focus exclusively on cryptocurrencies and mining in 2013.

Simon Telian, CIO, Managing Director

Simon is Group Chief Investment Officer and Managing Director of nakamo.to GmbH and is responsible for the eight-figure investment portfolio 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 and Asia Venture Group, he founded his own company in South Africa, which he later successfully sold. Most recently, he was responsible for operations at the Swedish edge cloud company CloudBackend AB. He holds a Master of Science (M.Sc.) in Business Management and Economics.

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.

Richard Malone, Head of Ventures

Prior to joining the ABAG leadership team, Richard worked at the first registered broker-dealer dedicated to crypto mergers and acquisitions, Wield and Co in New York. Richard has proven to be an exceptional visionary for the expansion of the AB.Capital division by investing capital, with his team, in promising innovation-driven Web 3 projects. His background as a co-founder and specialist in digital asset management has positioned Richard to make skillful and wise decisions to further diversify and strengthen ABAG's portfolio.

Robin Davids, Head of Strategy

Robin is the Head of Strategy responsible for the strategic and sustainable positioning of all business units. Robin's area of expertise is the analysis and optimization of game theoretic factors for emerging decentralized protocols. Robin acquired his first \$ETH in 2015, which got him completely hooked on the blockchain ecosystem and entered the industry full time while still in college. He later founded a Web3 consulting firm focused on strategy, network design, and content creation. Robin was instrumental in designing the token incentive structures for several projects including Ferrum Network, Tellor, Warp and Ultra. Robin is actively involved in the open source movement and dedicates his time to supporting crypto advocates and entrepreneurs as a KERNEL Fellow at Gitcoin. Robin represents ABAG in a number of portfolio companies and most recently served on the steering committee of Element Finance (which recently closed its \$320 million Series A round).

Nanni Sackmann, Head of People and Operations

Nanni has more than 12 years of experience building teams and attracting talent for a number of leading companies, including L'Oreal and Web3 RSK Platform. Since joining the company, Nanni has facilitated rapid expansion of talent across all divisions and led hiring for scaling incubations. Nanni looks after the development of the team, company culture and ensures that the HR strategy is in line with the ambitious growth plans as a business.

Derek Hansen, Head of Platform

Derek Hansen manages blockchain assets on the balance sheet and advises on product strategy. Derek was an early advocate of computer science and programmed his first program at the age of nine. He began his career as a software engineer at Thomson Reuters and MITRE before moving to NimbleUser, an IT scale-up company, in 2012. At NimbleUser, Derek started as a junior engineer but quickly rose to Director of Engineering, delivering financial products to some of the largest associations in the world. He then served as Director of Product at education company SSS by NAIS. During this time (2016-17), Derek found his ambitions and interests in the blockchain space. SSS by NAIS was later acquired by a private equity firm, where Derek was instrumental in technical due diligence. Then in 2018, he moved full-time into the crypto space as Chief Research Officer at Hu-manity.co, a startup focused on self-sovereignty and health data sharing. Derek then developed a trading practice for investing and trading cryptocurrencies and digital assets - scaling the business to a five-person team with 35 million assets under management.

Jesper Kristensen, Head of Research

Jesper is responsible for the exceptional innovative ideas, tests and proof-of-concepts 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 for which we as a company develop appropriate solutions. 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.

Henry Zhaing, Head of Incubations

As Head of Incubations, Henry leads projects by coordinating all internal resources and guiding project leaders in developing scalable and profitable solutions. He previously worked at venture capital firms TA Associates and Thrive Capital, here he developed a deep understanding of working with founders and how to help them scale their businesses. Prior to that, Henry spent three years at McKinsey in the technology sector, where he helped companies scale and optimize their operations. Henry holds a BA degree from Yale University.

Zain Awan, Head of Marketing

Zain is the voice of the company, ensuring that all the work the team is doing comes to fruition on various offline and online platforms. Through Zain's leadership of the marketing department, Advanced Blockchain is able to not only communicate innovative advancements, but also to provide communities, partners, investors, and newcomers with foundational knowledge about blockchain and Web3. Similar to the research department, the marketing department is involved in all aspects of Advanced Blockchain's business model. Zain has the resources to cover a variety of needs of not only AB's core business, but also its portfolio companies. Zain has consulted on a variety of projects and developed successful growth and marketing campaigns in the startup space and for Web3 solutions. Zain holds a BA in Development Economics (SOAS, University of London) and an MPhil from the University of Cambridge.

Martin Rubensdörffer, Chairman of the Supervisory Board

Martin Rubensdörffer has provided legal advice to a large number of companies. He is currently Chairman of the Board of Directors of Bitcoin Group SE and a member of the Supervisory Board of Babylon Capital AG.

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.

Michael Ganser, Member of the Supervisory Board

Michael Ganser spent over twenty years with Cisco in various prominent positions, including Senior Vice President of Cisco Central Europe, Senior Vice President of Cisco DACH, CEO & Senior Vice President of Cisco Germany, and CEO & General Manager of Cisco Switzerland.

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. Innovation and the implementation of new technologies play a central role in this.

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

Last developments

Date	Investment	Message
15.04.2022	Panoptic protocol	Advanced Blockchain officially announces the launch of its latest blockchain project, Panoptic, a perpetual, oracle-free options protocol.
05.04.2022	FINPRO AG	Advanced Blockchain AG: Portfolio company FINPRO AG 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 \$32 million on a total token valuation of \$400 million
11.03.2022	NEAR protocol	Advanced Blockchain AG completes seven-figure investment in NEAR protocol
04.03.2022	Polymer Labs	Advanced Blockchain AG strengthens its position in DeFi sector by investing in Polymer Labs \$3.6 million seed investment round
03.03.2022	Scale Listing	Advanced Blockchain AG 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 AG announces completion of acquisition and change of management board of FinPro AG
31.01.2022	Bribe protocol	Advanced Blockchain AG receives 5% of all tokens for incubation of Bribe protocol
17.01.2022	Composable Finance	ABAG 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 AG reaches a valuation of US \$350 million after receiving a Polkadot parachain
10.01.2022	Warp	Advanced Blockchain AG's portfolio company releases its planned WarpV2 update
10.12.2021	Instrumental Finance & Composable Finance	Advanced Blockchain AG receives 7,000,000 instrumental (STRM) tokens through its subsidiary...
24.11.2021	Peaq Technology Ltd.	Advanced Blockchain AG's portfolio company peaq Technology has won the Breakthrough Award 2021
11.11.2021	Neon Labs Ltd.	Advanced Blockchain AG has acquired a stake in Neon Labs through its subsidiary
09.11.2021	Peaq Technology Ltd.	Advanced Blockchain AG's portfolio company peaq launches token launch
20.10.2021	Elements Finance	Advanced Blockchain AG has acquired a stake in Element Finance through its subsidiary

Sources: Advanced Blockchain, GBC AG

Business model

Advanced Blockchain is a venture studio focused on Distributed Ledger Technology (DLT) applications, with an emphasis on decentralized finance (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. The company uses its own money from previous projects to invest in the most promising blockchain projects, protocols and tokens. Yield farming is then done with the 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. AB portfolio companies can take full advantage of the resources provided by AB Labs and AB 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 AB 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.

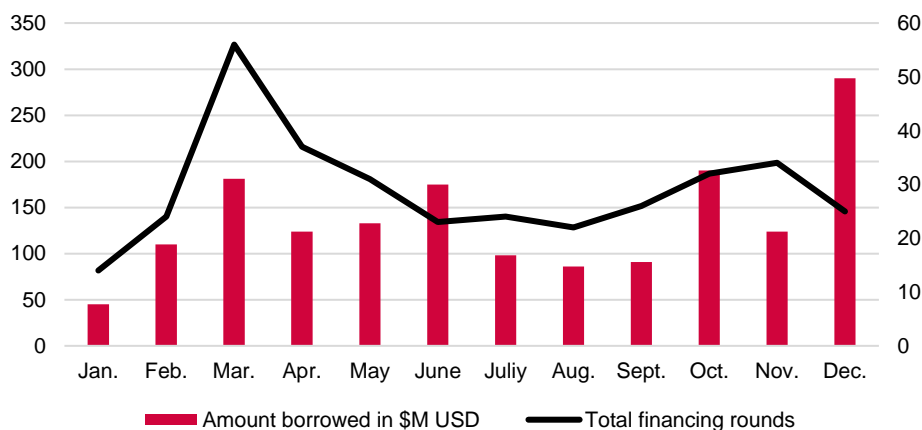
To understand how opportunity-rich this sector is and how Advanced Blockchain can be successful in realizing gains from these three pillars, further explanation of the DeFi Crypto funding rounds and environments is needed.

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 a business 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 \$1.7 billion. 90% of projects were early-stage, 9% were Series A financing rounds. 10% of funding rounds were less than \$1 million and nearly 45% were between \$1 million and \$3 million. About 55% of all financings 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 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 CeFi sectors have established a venture investment arm.

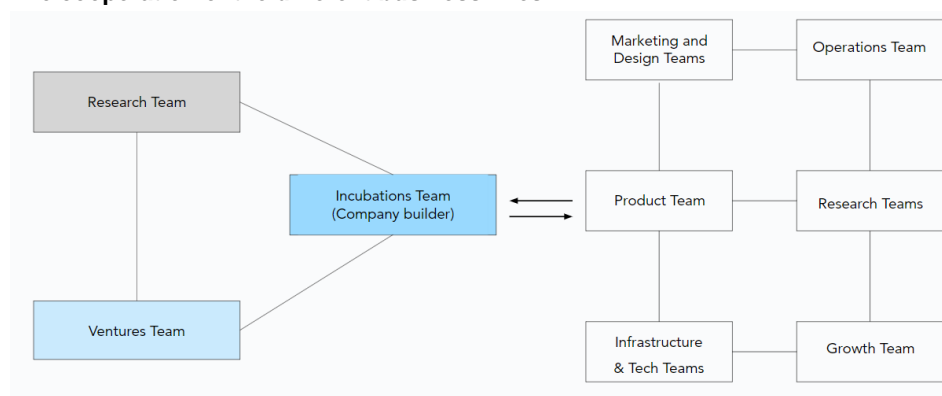
As a result, the competition to allocate the best and most promising projects is extremely intense and depends on more than just big names and money. For example, in a recent

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 Group.

Distinguishing feature

As mentioned above, Advanced Blockchain 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 experienced management team and successful incubation philosophy, which has already successfully scaled several projects.

The cooperation of the different business lines



Source: Advanced Blockchain AG

As proven successful entrepreneurs, M. Geike and S. Telian have 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.

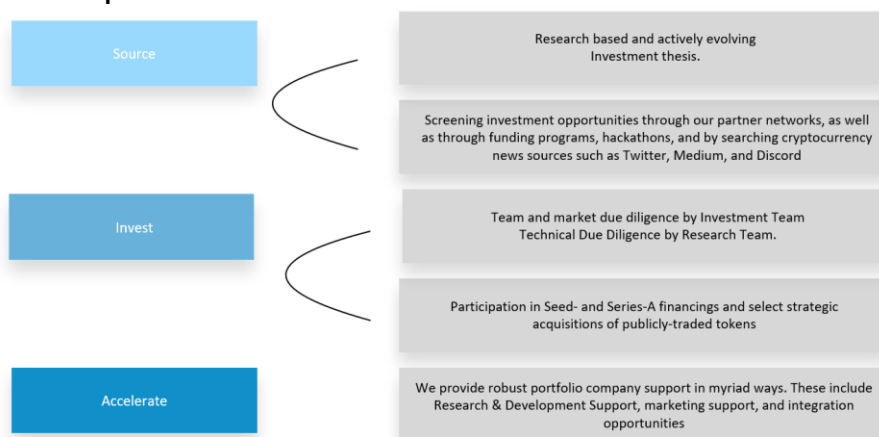
To support ambitious founders and accelerate industry growth, Advanced Blockchain has developed an Ecosystem-as-a-Service approach that offers comprehensive services: from providing skilled developers to successful commercialization, etc., to maximize project output. In the fast-growing DeFi/Web 3.0 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 with 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 also invests in projects and companies. Advanced Blockchain AG as well as its portfolio companies invest in startups and established companies. The investment process consists of three main parts: source, invest, 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 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 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 very complex review and Advanced Blockchain 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 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 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 are able to help companies develop products that are both profitable and impactful, bringing the entire blockchain industry into the mainstream.

Investment examples

Polkadot - Pre-Seed Investment



Back in 2017, Advanced Blockchain was able to receive an allocation of \$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 \$100,000 in monthly staking revenue in DOT and a realized profit to date of approximately \$4.5 million.

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. To this end, Composable Finance has developed a complete ecosystem consisting of the Picasso Parachain and the XCVM network to create synergy between the Picasso Parachain and the Composable Finance Parachain. This ecosystem allows the Picasso parachain to contain all the original elements for transactions on the L2 network.

Therefore, the Composable Finance Parachain will enable the development of smart decentralized applications that can take advantage of any L2 network and benefit from the free movement of assets between them.

This cross-blockchain compatibility is so sought after that Composable Finance raised over \$32 million in a Series A financing.

Composable Finance is the perfect execution 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 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 made a 7-digit investment in NEAR protocol.

The investment round was exclusively reserved for institutional investors and thus Advanced Blockchain 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 \$11 billion and has a 24-hour volume of just over \$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 24 different investments and six projects under the umbrella of its incubator.

Composable Finance

Composable Finance is a cross-chain and cross-layer interoperability platform for decentralized finance (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.

Element Finance

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

Warp

Using LP tokens to collateralize stablecoin loans, Warp Finance offers a new use case for liquidity provisioning (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.

FEI protocol

An unsecured, fully decentralized stablecoin with a direct incentive structure. Stablecoins are a popular and versatile concept in DeFi, although existing models are far from perfect. The RDI protocol solves the existing problems in this area by offering a fully decentralized model with a token demand-based price and direct incentives. This investment was made through nakamo.to.

FRACTAL

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.

Arweave

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.

Polkadot

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.

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 decentralized finance (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.

Nakamo.to

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

Peaq

The blockchain platform for the Internet of Things. Under the umbrella of Advanced Blockchain AG, peaq has become the preferred blockchain technology partner for some of the world's largest companies. Peaq develops its own basic blockchain technology system based on the DAGchain® framework.

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.

Permanent Ventures

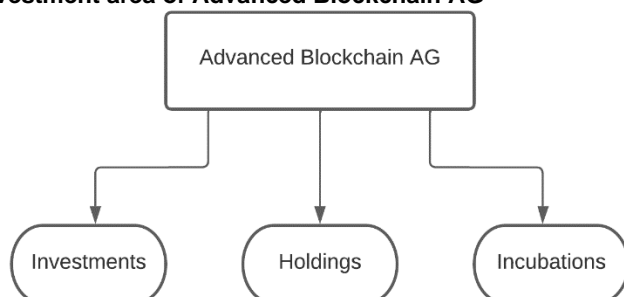
Permanent Ventures is a fund focused on investing in decentralized applications that will exist forever.

VALUATION

With this research update we provide a preliminary assessment. The full Annual Report 2021 is expected to be published soon. Subsequently, we will update the valuation again and, if possible, include further projects in the valuation.

Advanced Blockchain AG invests and participates through three areas: (1) Investments, (2) Holdings and (3) Incubations.

Investment area of Advanced Blockchain AG



Sources: GBC AG, Advanced Blockchain AG

In the area of **holdings and incubations**, Advanced Blockchain AG works closely with the companies. Here, the company tries not to spread the investments broadly, but to focus specifically on a smaller number of investments. 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 team and their numerous industry contacts. As spin-offs are also frequently supported, the Advanced Blockchain Group is also associated with established companies with a high profile. In addition to external spin-offs, Advanced Blockchain 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 Group relies on extensive internal analysis for its startups and investments. For example, the company has an investment and research team of more than ten people who are constantly looking for new projects. 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 Group can provide extensive support, from providing technical resources, launch support, audits, investor access, and access to its own research group.

In addition, Advanced Blockchain 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 invests in blockchain technology companies offering crypto tokens through its subsidiaries. Thus, consulting services are partly paid 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 and Warp.

Incubations	
Bribe	Instrumental
Quasar	Pendulum
Angular	Warp
Panoptic	

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 as one of the major success projects. 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 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 and engineering physics at Cornell University. He developed Panoptic and chose Advanced Blockchain as a partner to bring his vision to life. Advanced Blockchain 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 a functioning options trading in the DeFi sector. While in the Traditional "FIAT" world options trading is around \$500 billion per day, just \$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 in a position 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 with regard to 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 € 12 million.**

Investments

There are 31 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, Sigmalex, Composable, Permanent Ventures, Manta, Light, Moxy, Polkadot, 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	Sigmalex
Composable	Manta	Light	Moxy	Polkadot
Talisman	SDGX	Contango	Ithil	Peaq
Apricot	Permanent Ventures			

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 most 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 protocol project aims to eliminate all of 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 meet 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 is capable of supporting 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 makes 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 related to **Composable Finance** on 03/31/2022 that the company had raised \$32 million on a total token valuation of \$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.

composable

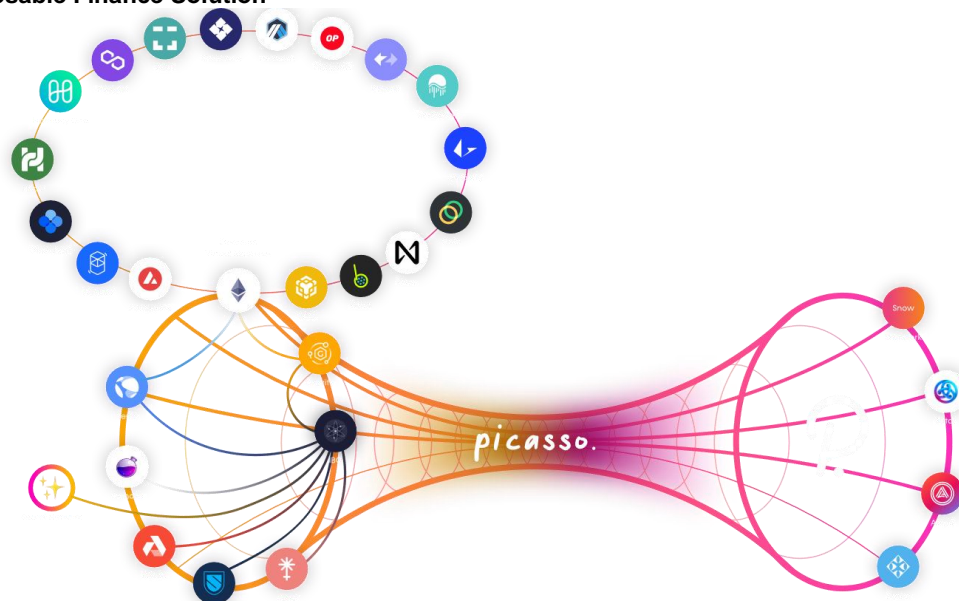
The lack of interoperability between blockchain networks is one of the biggest barriers to true decentralization and progress in the blockchain space. To solve this problem, Composable Finance is building a tech stack for the DeFi ecosystem that enables blockchain networks to communicate and share data 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 \$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 \$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, Connex, Hop Protocol, RMRK and more. The successful funding round here 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 € 35 million.**

Holdings

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

Holdings	
FinPro AG	Nakamo.to
FinPro GmbH	Peaq Ltd.
Stela Labs Ltd	Tracebloc
Cliso Ltd.	Brain Network Ltd.
Peaq Ltd.	ADVANCED BLOCKCHAIN LABS - DMCC
Incredibleous Ltd.	ADVANCED BLOCKCHAIN 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 decentralized applications (dApps) 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 a number of leading vehicle and device manufacturers to develop decentralized apps, 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.

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	35
Holdings division	43
Incubations area	12
Holding costs	-2
Total	88

Source: GBC AG

In total, we have calculated an enterprise value of around € 88 million according to NAV. With 3.77 million shares outstanding, this corresponds to a value per share of € 23.32. Against the background of the high upside potential, we assign a BUY rating in our initial valuation.

Note: As soon as the 2021 Annual Report is available, we will expand this Initial Valuation to the Initial Coverage Study with an updated valuation.

APPENDIX

I.

Research under MiFID II

1. there is an agreement between the research company GBC AG and the Issuer regarding the independent preparation and publication of this research report on the Issuer. GBC AG shall be remunerated for this by the Issuer.
2. the research report shall be made available simultaneously to all investment service providers interested therein.

II.

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BUY	The expected return, based on the determined price target, including dividend payment within the corresponding time horizon is $\geq + 10\%$.
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- (6) b) An amendment to the draft financial analysis has been made on the basis of justified indications of the third party and/or issuer
7. The analyst responsible, the principal analyst, the deputy principal analyst and/or any other person involved in the preparation of the study
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GBC AG is currently represented by its board members Manuel Hölzle (chairman) and Jörg Grunwald.

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