



INSIGHTS

CV VC Top 50 Report H2/2020

Zug, February 28th, 2021

The blockchain industry in Crypto Valley
- Switzerland and Liechtenstein analyzed and visualized.





Record Growth in Crypto Valley

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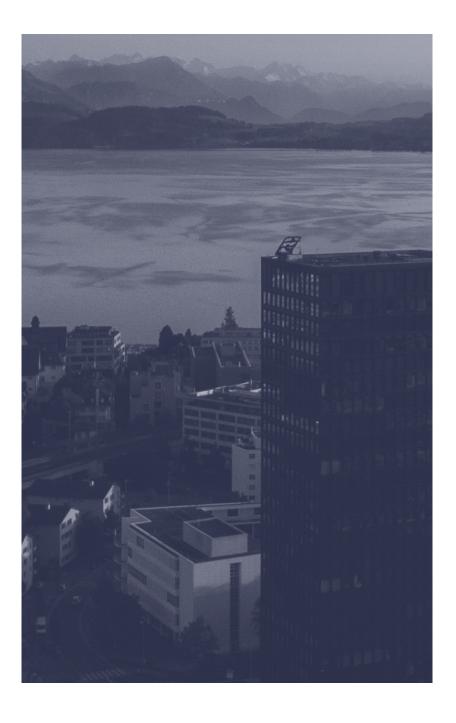
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CV VC Top 50 Report H2/2020

Record Growth in Crypto Valley









Summary

Key Data for February 28, 2021:

- Crypto Valley Top 50 companies are valued at \$254.9B in total.
- Total Funding of the Top 50 companies reached \$3.7B.
- Total number of firms in Crypto Valley is 960.
- Total employment by blockchain companies in Crypto Valley, which includes Switzerland and Liechtenstein, increased to 5,184. The Top 50 companies employ 819 employees in Crypto Valley.
- Cryptomarkets continued a dramatic rise in the beginning of 2021, and valuation of the Crypto Valley Top 50 increased 680% to \$254.9B from \$37.5B (previous report).
- Crypto Valley now counts 11 Unicorns (i.e. projects valued at more than \$1B,) up from 6 in the previous report: **Ethereum** (\$157.2B), **Cardano** (\$40.6B), Polkadot (\$29.3B), Aave (\$3.9B), Cosmos (\$3.8B), Solana (\$3.3B), Tezos (\$2.6B), Dfinity (\$2B), Near (\$1.1B), Nexo (\$1.1B), and Diem (\$1B),
- Solana, 21Shares, SwissBorg, Curve Financial, Oxygen, Enzyme, and maps.me have been added to the list of the Crypto Valley Top 50.

NOTE:

Markets have seen an increase in valuations towards the end of 2020, which dramatically accelerated in January. To portray more accurate valuations and market capitalization, the data in this report refers to February 28th, 2021, and not 2020 Year-End.

Key Takeaways

Crypto Valley has weathered the storm of Covid very well. In fact, the crisis was a key trigger for digital transformation and, in turn, crypto markets. Bitcoin gained broad acceptance by institutional investors and new financial applications, so called DeFi projects, rose to prominence.

The total number of companies in Crypto Valley increased to 960 (previously 919) and employment grew substantially to 5,184 (previously 4,780). Growth accelerated significantly in the second half of 2020. with over 110 new companies either being founded or joining the blockchain and crypto currency space (69) companies moved or became defunct).

These trends confirm the attractiveness of Switzerland and Liechtenstein for blockchain and cryptocurrency-based projects and companies. The further development of the regulatory framework will continue to drive growth in financial services as well as bring even more decentralized projects and technology firms to Crypto Valley.

All 11 Unicorns in Crypto Valley are protocols, which have dramatically increased in value. The focus of protocols and technology projects has been on scalability and security, the most prominent example being Ethereum's launch of its transition to staking with Eth2.

Just like with the initial birth of Ethereum. Bitcoin Suisse played a key role by providing access to its infrastructure, ultimately supplying 17% of all ETH required to start the process.

Mainstream adoption of blockchain technology is illustrated by the variety of applications and focused efforts amongst protocols, such as **Tezos** in finance, Cardano in supply chain, and Concordium for enterprise applications with a large manufacturer. In this report, Solana was added to the Crypto Valley Top 50 as a rapidly growing protocol.

In financial services, many players are moving into custody and brokerage. The strong institutional demand is driving solutions of banks for banks, and sophisticated trading and settlement infrastructure. With the new regulatory framework taking effect in the first half of 2021, many players have prepared for expanded services, specifically around secondary markets. In this report, 21Shares and SwissBorg have been added to the Crypto Valley Top 50 in the area of financial services.

New applications in finance, referred to as "DeFi", are emerging on blockchains. Aave, a lending platform, was added to the Crypto Valley Top 50 in the last report. In this report. Curve.fi. Enzyme. and Oxygen have been added to the Crypto Valley Top 50. Curve.fi enables the direct exchange of stablecoins and experienced a meteoric rise in the volume of assets locked and exchanged. Enzyme is the follow-on protocol of Melon, providing on chain asset management infrastructure. Oxygen is developing infrastructure for prime brokerage services in DeFi.

Use cases outside of financial services continue to emerge, namely in supply chain, track and trace, use of medical data, intellectual property, royalty administration, art, and non-fungible tokens (NFTs). Maps.me has been added to the Top 50 in this category.





Technology Partner

Crypto Valley, which includes both Switzerland and Liechtenstein, is home to 960 blockchain/cryptocurrency companies. CV VC research now shows ten crypto hotspots in Crypto Valley: Zug, Zurich, Liechtenstein, Geneva, Ticino, Neuchatel, Vaud, Lucerne, Bern, and Schwyz. Zug continues to be the heart of Crypto Valley, as about half of all companies make Zug their home (433). The Canton of Zurich counts 178 companies, Geneva counts 57, Ticino counts 49, Neuchâtel counts 26, Vaud counts 32, Lucerne counts 20, Bern counts 15, and Schwyz counts 13. The Principality of Liechtenstein counts 83 companies.

The number of companies with significant market valuations and a large presence in Crypto Valley continues to grow. As new and established players with large market capitalizations enter the list, important infrastructure providers located in Switzerland continue to be part of the report in the Additional Swiss Players List, but are not added to the total market capitalization of the Top 50.

Markets have seen an increase in valuations towards the end of 2020, which dramatically accelerated further in the first two months of 2021. Valuations stabilized at impressive levels after the peak in the middle of February 2021. To portray a more accurate depiction of the current reality, the valuations and market capitalization for this report refer to February 28th. 2021, and not 2020 Year End.

In this report, the following companies have been added to the Crypto Valley Top 50: Solana, 21Shares, SwissBorg, Curve.fi, Oxygen, Enzyme (formerly Melonport), and Maps.me.

Subsequently, the following companies moved from the Top 50 to the Additional Swiss Players List:

CustoDigit, Shift Cryptosecurity, Algotrader, Modum, Lvkke, and Smart Valor. The company Smart Container is no longer active in the space.

About

The CV VC Top 50 Report

The CV VC Top 50 Report is created by CV VC AG in collaboration with its technology partners inacta and PwC Switzerland. The CV VC Top 50 is a periodical Report on market valuation developments from Crypto Valley, which includes Switzerland and Liechtenstein. The report highlights the diverse blockchain and cryptocurrency ecosystem which consists of startups, corporations, and government entities. The CV VC Top 50 Report and CVMaps.ch are the authoritative curators of information on of blockchain companies active in Crypto Valley.

Editorial from Mathias Ruch

Founder and CEO at CV VC - the leading early-stage venture capital investor with a focus on start-ups that build on blockchain technology.

"This is the 6th edition of our CV VC Top 50 Report, which highlights the impact of Crypto Valley on the Swiss economy and job market.

During the last six months, we witnessed a massive increase in the valuation of our Top 50 companies, which indicates increased adoption of blockchain technology. Society is becoming more and more familiar with blockchain and cryptocurrencies. Institutional investors are confirming the potential of Bitcoin and its underlying technology. Alternative investments such as crypto are becoming a part of many investor portfolios.

Forward-looking investors see and act on the new and promising technology infrastructure, as well as new business model opportunities.

The current report shows that, despite the impact of COVID-19 on the economy. the number of companies and employees in the Crypto Valley is growing significantly. Blockchain and crypto are now an important sector in the Swiss economy."



Mathias Ruch. Founder & CEO of CV VC



Valuation and Funding in Crypto Valley

The valuation of the Top 50 companies in Crypto Valley reached \$254.9B at the end of February 2021. In June 2020, this figure stood at \$37.5B. While Ethe**reum** continues to dominate in terms of the valuation of projects in Crypto Valley, the nearly 800% increase in valuation of companies and projects excluding Ethereum indicates broad investor interest in the sector.

Crypto markets have now turned into a bull cycle, where even very early stage projects have significantly elevated valuations. In addition to crypto market-driven increase in valuations, companies in Crypto Valley continue to be able to raise substantial funds from international investors.

Unicorns in Crypto Valley

Crypto Valley has consistently housed a number of Unicorns (i.e. firms valued at \$1B or more) since its early days. Due to market volatility, the list typically changes in every report. At the end of February 2021, Crypto Valley was home to 11 Unicorns, up from 6 in the previous report.

Markets have seen an increase in valuations towards. the end of 2020, which dramatically accelerated further in the first two months of 2021. Valuations stabilized at impressive levels after the peak in the middle of February 2021. To portray a more accurate depiction of the current reality, the valuations and market capitalization for this report refer to February 28th, 2021, and not 2020 Year-End.

Key Valuations

June 30th, 2020

US\$37.5B

Crypto Valley Top 50

US\$25.2B

Ethereum

\$12.2B

Top 50, excl. Ethereum

6

Unicorns in Crypto Valley

February 28th, 2021

US\$254.9B

Crypto Valley Top 50

US\$157.2B

Ethereum

\$97.8B

Top 50, excl. Ethereum

11

Unicorns in Crypto Valley

01 Blockchain Technology

Blockchain technology projects and blockchain protocols, also referred to as layer one solutions, continue to grow both in terms of their presence and diversity in Crypto Valley.

The focus of many of these projects has revolved around scalability for some time now. Referred to as the trilemma between decentralization, scalability, and security, the efforts to solve for scalability and figuring out any conceivable attack vectors to address security concerns are at center stage for many blockchain projects.

While Ethereum continues to follow its long term trajectory for its upgrade to Proof-of-Stake (PoS). various protocols, such as Near, Polkadot/Kusama, Casper, Solana, Dfinity, and Alephium, are testing the boundaries of what is possible. Occasionally, things do break, testnets are down and other unanticipated challenges arise.

Ethereum has announced Proof-of-Stake and Eth2 upgrades. By staking ETH, holders can become validator nodes on the future network and earn rewards, although no withdrawals will be possible until several development cycles have been completed. Market participants in Switzerland played a key role in making the Eth2 launch possible, as Bitcoin Suisse AG enabled staking for its clients which provided 17% of the required ETH for the launch of Eth2.

Price developments of ETH towards the end of the vear and into January 2021 were impressive. How much the removal of ETH from circulation through staking is contributing to the price increase is unclear. The price development of ETH may also indicate that broad investor sentiment recognizes the capabilities that come with Ethereum as a smart contract platform, which allows for different capabilities than the original use case of Blockchain: Bitcoin.

Polkadot has gained significant attention through various initiatives as well as its dual approach to development with the de-facto live testnet Kusama. Kusama is providing a view into the future of Polkadot. where applications are tested prior to being considered for a release on Polkadot.

The Cardano foundation named a new CEO and. following its successful virtual summit earlier in the vear, the network released updates around staking. delegation, and native tokens. In the general run up







of markets, Cardano's valuation increased significantly. The **Tezos network** has rewarded its community with quarterly upgrades of the network (Delphi 3Q and Edo 4Q), proving that a key feature of the Tezos protocol - upgrading through proposals by its community - is successful. Areas with interesting developments on Tezos include gaming, NFTs and decentralized identity applications.

Near Protocol has successfully launched its mainnet. and after a period of sole validation by the Near foundation, community based validators have joined the network as part of the "Phase I" milestone. Near is providing comprehensive resources and tools enabling Ethereum developers to take advantage of its protocol with respect to speed and transaction costs. It has grown its developer community and ecosystem significantly.

CasperLabs secured another round of investment and launched its final incentivized testnet in preparation of genesis, expected in early 2021. Major integrations included Chainlink in Casper's developer friendly. RUST-based environment.

Dfinity launched its mainnet in December and published significant amounts of documentation. The network is still controlled by a limited number of nodes, and publicly, the project refers to its current release as an alpha version while testing and scaling continue.

Concordium has advanced its development with the latest version of its testnet, which focuses on digital identity and privacy enhancement with emphasis on enterprise applications. Concordium also announced a Joint Venture with Geely in China, providing applications to Chinese businesses and clients.

In this report, **Solana**, a blockchain specifically focused

on high transaction speed, is a new addition to the Top 50. A significant number of projects and companies are currently building on its infrastructure. As the industry is now stretching the technology, Solana specifically set out a challenge to "try to break Solana" for developers.

One illustration of the ongoing challenges for emerging technology is the fact that the Solana Beta Mainnet stalled on December 4th. However, the timely reaction by its validator community resulted in a relatively fast restart.

Top 50 Challengers Blockchain Technology

In the period under review (H2/2020), a number of protocol laver projects have found more traction. With the significant increase in valuation of the overall market, several projects may qualify for the Top 50.

Alephium has been quietly building technology around its novel sharding protocol and is expected to release a testnet version that allows for improvements and auditing.

02 Blockchain Financial Industry

The second half of 2020 and the beginning of 2021 finally saw the arrival of large institutional players and their sustained engagement in the digital asset class. BTC is now clearly considered a fully fledged financial asset, as some of the leading traditional investors in the world have entered the market. It is increasingly clear that the asset itself has been accepted in mainstream capital markets, and that blockchain technology is pushing the creation of new rails in traditional capital markets.

Decentralized Finance, referred to simply as DeFi, has



LEADER IN DIGITAL ASSETS







grown dramatically. Crypto assets pledged in smart contracts and the variety of offerings has shown how much innovation is possible thanks to these public blockchain based infrastructures. Switzerland is home to several such projects. The CV VC Top 50 Report is introducing a new section on this topic as part of Financial Services.

Applications offered for legacy financial institutions have moved fast and well beyond custody and brokerage. The push of established financial services players into service offerings in digital assets and crypto currencies has further accelerated. Players such as Arab Bank are pursuing comprehensive digital asset strategies. Among the banks for banks, InCore is aggressively pursuing platform approaches enabling white labeled services for other financial institutions and allowing for the onboarding of banks and VASPs (Virtual Asset Service Provider) such as exchanges.

Structured products and derivative volumes also grew (with futures enabled by the CME), benefitting well positioned players such as Vontobel. Early mover in retail trading **Swissquote** has been providing onramps to crypto for a while, and it can be expected that its capabilities are now also sought after by institutional players. Activities by the Berner Kantonalbank and Hypothekarbank Lenzburg underline just how broad the movement to crypto and digital assets is.

The new regulatory framework in Switzerland, which will be entering into effect in August 2021, is set to enable secondary markets for digital assets, and a significant number of players are preparing for this opportunity. The impending launch of regulated secondary markets and increased trading is fueling the business of key infrastructure providers such as Taurus, Metaco, and Algotrader.

In the run-up of the crypto markets at the end of the

year and their continued rally in early 2021, all of the financial services players involved saw their client numbers and business activity increase significantly.

Bitcoin Suisse anticipated the trend to staking and built the required infrastructure for various protocols as an early mover for its clients. True to its heritage, Bitcoin Suisse played a critical role in launching Ethereum on its path to Proof-of-Stake by providing 17% of all ETH required for the launch of Eth2.

SEBA, one of the two crypto banks, successfully closed its Series B, aimed at international expansion, and changed the composition of its board. The bank saw significant volumes in its indexed product and added key partnerships in Singapore.

Sygnum, the other of the two crypto banks, launched a tokenization platform focused on several verticals and announced a partnership with **SBI Group** for an early stage investment fund for digital asset opportunities. Sygnum also enabled Tezos staking for its clients.

Crypto Finance AG experienced strong growth in AUM within its Asset Management, provided Eth2 storage capability at inception, and opened offices in Singapore. Together with **Mt Pelerin** and software provider 21 Analytics, Crypto Finance completed the first FATF Travel Rule compliant and automated Bitcoin transaction. A further sign of institutional adoption is the integration of Crypto Finance's services for Avalog core banking clients.

21Shares has been added to the Top 50 in this report. The success of ETPs (Exchange Traded Products) by 21Shares has underlined the desire of a broad set of investors to gain access to this new asset class. The company expanded its instruments beyond BTC and ETH early on, providing innovative products for investors.

With the increased interest of retail customers, applications such as **SwissBorg** have gained more traction and customers. SwissBorg was also added to the Top 50.

In a volatile market, information and intelligence is key for decision making. Santiment is providing a behavior analytics platform for cryptocurrencies, sourcing on-chain, social and development information. Its comprehensive API enabled solution allows for flexible integration in any environment.

Diem Association, formerly known as Libra, continues to build its presence in Switzerland and now has a clearly laid out structure and path for its payment system, which will be fully regulated as well as backed by cash, cash equivalents and short term government securities.

Switzerland is one of the main global hubs for commodity trading and commodity related businesses. Several significant projects around trading, settlement, track and trace, and secure transactions are underway. Largely kept under wraps by the players themselves, major announcements can be expected in 2021.

The digital asset space in Switzerland is also advancing thanks to the efforts of the CMTA (Capital Markets Technology Association), which has seen its membership grow significantly. In addition to the CMTA-20 Equity Standard Token, the association is now working on the CMTA-21, a debt token standard. It also launched the world's first (and, currently only) certification program for custodian services according to its earlier published standard.

Top 50 Challengers in the Financial Industry

The number of applications and service providers targeting B2B and retail keeps growing. Several





companies have been added to the Challenger list, as they have the potential to move into the Top 50.

The Wecan Group has launched Wecan Comply, an assurance and identity layer for custodian banks and external asset managers which allows the trusted exchange of documents, information and counterparty identities. The SIX Digital Exchange (SDX) is rumored to be close to its license for operation, which would be a key infrastructure for secondary markets boosted by the new regulation taking effect in Switzerland. Relai provides an onramp for bitcoin investing by individuals with small amounts. Thanks to the Bitcoin bull market, it has significant traction with small investors and successfully closed a seed round.

DeFi - Decentralized Finance

This area of financial applications on blockchains is just emerging, but growing rapidly. As Switzerland is home to some of the largest public blockchain projects, it is no surprise that the number of DeFi projects located in Switzerland is also growing. Applications in DeFi include lending, stable coins, wrappers, liquidity provisioning, NFTs (non-fungible tokens), and related exchanges.

In the last report, **Aave** was added to the Top 50 as the first DeFi project. Aave, which enables lending. remains one of the more prominent projects, however, several foundational new applications are located in Switzerland. Curve.fi enables direct exchanges between stablecoins, providing a superior process and low slippage. Both Aave and Curve.fi saw increased transaction volumes and valuation. Aave had locked amounts of \$2.0B at year end, and \$4.4B on February 28th. 2021. Curve Finance had locked amounts of \$1.5B. at year end and \$3.9B on February 28th, 2021. Due to its importance and innovation, curve fi has been added to the Top 50.

Oxygen is the second DeFi project that has been added to the Top 50. Oxygen aims to provide a protocol for prime brokerage related functions in DeFi. Infrastructure projects for this fast developing area are gaining significant attention. Oxygen recently raised \$40M in a round with prominent investors in the space.

Certain needs of DeFi are similar to the legacy financial system, the main difference being that the required rails, institutions and firms providing critical functions are just being built. Information on counterparties, on digital assets themselves, the credit worthiness of counterparties and the risk associated with digital assets, are just some of the areas where technology and infrastructure for DeFi is emerging. As such, technical robustness and reliable DLT financial infrastructure serve as key requirements for successful DeFi projects.

Enzyme Finance, the follow-on of Melon protocol, provides asset management infrastructure for DeFi projects, while allowing users to maintain full control of their assets. Enzyme has re-entered the Top 50, as its market capitalization significantly increased.

The Bancor protocol can be considered an early innovation in this area, as it set out to provide exchange capabilities between tokens generated by communities for specific purposes on its platform.

Two additional projects based in Switzerland have been added to the Top 50 Challenger list.

Dia provides open-source access to crowd-verified financial and digital asset data. Its intent is to build the Bloomberg equivalent for Crypto.

Hermez Network is focusing on delivering a secure, fast, and easy to use infrastructure for payments and token transfers in the context of Ethereum. Hermez aims to solve the challenge of transaction costs and efficiency for Ethereum-based payment applications.

Technology Partner

03 Blockchain Other Industries

Use cases outside of financial services and DLT infrastructure are growing, and applications for enterprise use cases are slowly emerging.

Utopia Music has decided to place its blockchain activities and ecosystem into the Utopia Genesis **Foundation.** with the goal to provide a blockchain framework for all participants in the music industry. The foundation raised \$2.59M in December 2020.

Modum continues to be poised to benefit from the increasing need for supply chain traceability and tracking applications. It can be expected that applications in this area will increase significantly. as Switzerland de-facto adopted a supply chain transparency framework in a recent public vote.

Digital art and NFTs have seen a dramatic rise in valuations. 4Art Technologies and inacta are building the application infrastructure and ecosystem that allows the traditional art space to be fully digitized and blockchain ready.

Maps.me has been added to the Top 50 due to the size of its user base. Maps is a 9-year-old, widely used application for location based services and travel. It has a 140 million base for which it will embed a multicurrency wallet and enable a DeFi ecosystem.

Challengers in Blockchain in Other Industries

Applications in the medical field have been talked about, but so far, limited activity has been observed. MedCo, a startup based at the EPFL, aims to enable the use and sharing of sensitive medical-data for research. It enables consortium participants to collectively protect their data and share them with authorized parties, without a single point of failure.





Employment in Crypto Valley

Companies in Crypto Valley

While travel restrictions impacted business in the first half of 2020, the second half of the year saw a dramatic increase of activity. Even prior to the run up of the markets, incorporation and hiring activity increased and institutional interest was particularly palpable in Crypto Valley.

The number of firms active in this sector in Switzerland and Liechtenstein has increased to 960 at the end of 2020, compared to 919 in the previous reporting period (ending June 30). In the second half of 2020, 69 companies disappeared or moved, whereas 110 companies joined the sector. The increase of 110 companies represents the highest number of companies joining the blockchain sector in any 6 month period since 2018. It confirms the rising institutional interest and adoption of blockchain and crypto currencies in the technology and finance sectors.

The impending enactment of the new DLT Law in Switzerland will drive more activity in the financial sector, commodities, supply chain and art. It can be expected that the dynamic growth of companies establishing themselves in Switzerland will continue and, most likely, accelerate.

The report identifies ten hotspots in Crypto Valley: Zug, Zurich, Liechtenstein, Geneva, Ticino, Neuchatel. Vaud, Lucerne, Bern and Schwyz. Zug continues to be the heart of Crypto Valley, as about half of all companies make Zug their home (433). The Canton of Zurich counts 178, 83 in Liechtenstein, 57 in Geneva, 49 in Ticino, 26 in Neuchâtel 32 in Vaud, 20 in Lucerne, 15 in Berne and 13 in Schwyz.

Employees in Crypto Valley

Employment in Crypto Valley has grown significantly, despite the challenges of doing business during Covid. The 960 companies located in Crypto Valley now employ over 5.180 employees (previously 4.780 in the first half of 2020). The overall employment growth amounts to 8%.

The Top 50 companies and projects also grew their staff from 776 to 819

Regulatory **Environment in Crypto Valley**

Switzerland has been at the forefront of regulatory clarity since 2014, when it provided guidance on Bitcoin and other crypto currency transactions. The clear understanding of issuance and classification of tokens has enabled brokerage, custody and structured products. The classification of tokens has fueled the growth of a globally leading ecosystem of blockchain technology projects, companies, financial service providers and related products.

After Liechtenstein's Blockchain-Act entered into force on January 1st, 2020, Switzerland set out to amend several statutes as part of the "DLT Legislation Act." Switzerland opted to modify a number of existing laws, introducing changes only where necessary. The

amendments enable the complete digitization of Swiss Capital Markets. The result is the world's leading regulatory framework and legal basis for the issuance, trading, and ownership of digital assets, including securities.

The main elements pertain to:

- Securities Law: Digital securities will have all of the functionalities of traditional "paper securities" (which had been dematerialized some time ago).
- Insolvency Law: Clarification on the segregation of crypto assets
- Financial Market Regulation: The establishment of a new DLT trading license

The establishment of a new DLT trading license in particular, which will allow for issuance, trading, and post-trading under one license, has garnered the attention of many market participants. In Switzerland. the infrastructure for regulated secondary markets for digital assets and securities is now in place, with numerous mature players and tested rails. It appears likely that, in the near future, the world's leading regulated secondary markets for digital assets, including securities, will become a reality in Switzerland.





INACTA.

A Brief History of Crypto Valley

The history of Crypto Valley has many known and unknown heroes. No single event or person can create such a thriving ecosystem, amend regulatory frameworks, or promote a location to hundreds, if not thousands of entrepreneurs around the world. Instead, many actions by individuals, government agencies, and companies helped create a unique set of historical circumstances over time.

In 2013, **Bitcoin Suisse** began as a trading company focusing on Bitcoin trading and moved its operations to Zug. Zug has long been reputed for its business friendly atmosphere and remains home to many companies in commodities trading, pharmaceuticals, and finance.

A network of individuals from the Bitcoin and cryptography space soon joined this list. **XAPO**, the leading Bitcoin storage provider of the day, was the first company to take advantage of Switzerland's strong property protection and its rich heritage of financial security. Attracted by early Bitcoiners and the openness of regulatory authorities to enable technological innovation, a group of nerds rented a house outside Zug to complete the next generation blockchain. **Ethereum** launched in 2015, creating yet another global technological innovation.

On May 3rd, 2016, the city of Zug announced that it would accept Bitcoin as a means of payment. The world took notice, and Zug subsequently became a prime location for doing business in crypto and locate blockchain based businesses. One of the key innovations on Ethereum is the ability to issue tokens with a specific function. The first use case for this technology

was high-performance crowdfunding using programmable money.

The resulting "ICO boom" of 2017 and 2018 attracted many legitimate and, unfortunately, some not so legitimate projects. In early 2018, the Swiss supervisory body of financial markets (FINMA) stepped in to provide guidance and classifications for tokens, clarifying what was and what was not allowed under current law. This regulatory clarity spawned an entire industry of legal advisors, KYC/AML providers, brokers, financial intermediaries, custodians, and advisors.

In the financial services area, this development culminated in the approval of two crypto banks in Switzerland in 2019.

Far from being content, a dedicated network of individuals, early mover private firms, politicians and key public institutions set out to put in place the most advanced regulatory framework in the world. With strong support across the political spectrum and from the federal ministries of finance and economy, a new set of DLT legislation was drafted which selectively amended key laws, and allows the licensing of revolutionary new market infrastructure based on DLT.

The impact of this regulatory framework will come to full fruition in 2021. Switzerland has yet again proven to be at the forefront of innovation in blockchain, finance and technology.

Overall, there are more than 5,180 employees working at over 960 blockchain and crypto related companies in Crypto Valley (which includes Switzerland and Liechtenstein).





Will Bitcoin Prices Ever Drop?

The Predictive Power of On-Chain Metrics

With the price of Bitcoin now routinely making new all-time highs, and a never-ending stream of both news and rumours about large, institutional investors entering the cryptocurrency space, one might think there's no way for BTC to go but up. But what does hard data say?

In this article, we'll take a 'behavioral' approach to Bitcoin analysis, on the basis that the crypto market is best understood (and price predictions made) with the following assumptions in place:

- Innovation is cyclical. It takes at least 3 full market cycles for any cryptocurrency to actualize its full potential (more on this below).
- Each cycle has a new power broker entering the cryptocurrency market and becoming an integral part of a coin's ecosystem.
- Each cycle is clearly reflected in the coin's price action. It goes up, overshoots, corrects, retreats, overshoots again.

Since this is meant as a short read, we will focus on three metrics derived from Bitcoin's blockchain data, how they help illustrate market-moving behavior and what they say about where we are today.

Mean Dollar Invested Age

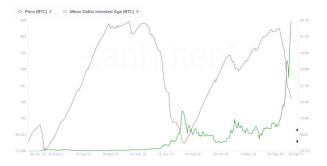
Mean Dollar Invested Age (MDIA for short) is an on-chain indicator that looks at how long each unit of BTC stayed in its current address, computes the average of all those 'ages', and adjusts it by the price at which it last moved on the blockchain.

Put simply, a rising MDIA slope suggests a networkwide accumulation trend, a stretch of time when most Bitcoin holders were content sitting on their coins and/or increasing their positions. The declining MDIA slope, on the other hand, signals a period of 'redistribution', where substantial amounts of Bitcoin are moving to other addresses and relocating to new holders.

Shown below is Bitcoin's MDIA slope (in brown) for the past 8 years, plotted against its price (in green). The chart displays all of Bitcoin's major 'redistribution cycles', and their seemingly inverse correlation with the coin's price performance.

Each MDIA valley signals the 'passing of the torch' from one predominant group of Bitcoin holders to another. In Bitcoin's first cycle, it was the redistribution from early adopters and blockchain 'nerds' (including Satoshi Nakamoto himself) to the first wave of cryptocurrency enthusiasts, ending in 2013 when Bitcoin grew to around \$1150.

In Bitcoin's second redistribution cycle, we saw a flurry of professional cryptocurrency miners and the start of the 'smart contract' phase (spearheaded by Ethereum). As visible on the MDIA chart, the second cycle ended in late 2017/early 2018, with BTC soaring to just below \$20k a pop.



Graph 1: Bitcoin, Mean Dollar Invested Age, past 8 years (Source: Sanbase)

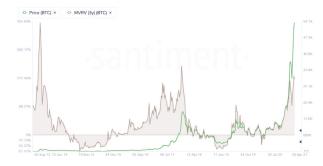
Finally, we now find ourselves in the midst of Bitcoin's last redistribution cycle. No real innovations are being made in the BTC ecosystem, the asset has (finally) found mainstream appeal and we're seeing aggressive adoption of Bitcoin among institutional (or, more precisely, 'big money') investors.

To date, every bull market (including this one) coincided with a major decline in Bitcoin's Mean Dollar Invested Age, with the bottom of the MDIA valley marking Bitcoin's price top and the outset of the next bear market. If history is to judge, once it gets close to a value of 100 again, it may signal the end of its (final) redistribution cycle, and the start of price depreciation.

Market Value to Realized Value

The MVRV (Market Value to Realized Value) ratio is an on-chain indicator that tracks the average profit or loss of all addresses that have acquired Bitcoin within a certain time frame.

As a rule of thumb, the higher the MVRV ratio, the greater the unclaimed profits of the observed group



Graph 2: Bitcoin, 3-year MVRV ratio past 8 years (Source: Sanbase)

of holders, and as such, the more likely it is that they begin to sell and reduce their exposure. This is why some analysts believe that extremely high MVRV ratio suggests 'overvalued' conditions, and why low MVRV ratio may present an opportunity to accumulate BTC.

For instance, pictured in graph 2 is <u>Bitcoin's 3-year MVRV ratio</u>, showing the average P or L of all addresses that have acquired BTC in the previous 3 years. As you can see, Bitcoin's 3-year MVRV ratio shows a tendency to 'flatten' out with each bull market, especially in terms of its cycle peaks. This is to be expected, as the market matures and investors become slightly more risk averse through past experiences.

In 2013, Bitcoin's 3-year MVRV ratio peaked at 351%, meaning that long-term holders were - on average - up +351% on their initial investment. In 2021, Bitcoin's 365-day MVRV ratio peaked at less than half of that (+170%), coinciding with a significant price correction as holders began taking profits and applying significant sell-side pressure.

Second, it would appear that an MVRV ratio above 100% has typically indicated a proverbial 'danger zone' for the top coin, signaling unsustainable price growth and an increased risk of interim profit-taking.



Graph 3: Amount of BTC held by <10 BTC addresses (purple) vs 1,000-10,000 BTC addresses (brown), plotted against BTC price (green), 2017-2018

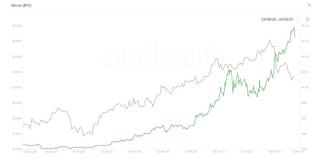
Conversely, significant MVRV dips - like the ones in January 2015, December 2018 and March 2020 have signalled extremely 'undervalued' conditions, and proved - in retrospect - an opportune time to accumulate BTC for the next cycle.

Holder Distribution

Because every Bitcoin transaction is saved on the blockchain and a matter of public record, it allows market analysts to monitor the behavioral patterns of various groups of BTC investors.

For instance, there has been a fairly clear divergence between the behavior of small-scale, retail investors and large Bitcoin addresses (also known as 'whales') during several of Bitcoin's previous bull cycles.

Both in 2013 and 2017, respectively, we've seen a strong decline in the total amount of BTC held by millionaire addresses shortly before the bull market highs, suggesting a pivot to profit-taking and reduced exposure by 'smart money'. On the other hand, retail addresses were accumulating up until and after the price peak, suggesting heavy losses after following the market-wide correction (see graph 3). Many believe that Bitcoin's current rally is propelled by institutional interest, and on-chain data seems to



Graph 4: Amount of BTC held by 1k-10k BTC addresses, past 6 months (Source: Sanbase)

support this idea.

Case in point: one of the only holder groups that have continuously accumulated BTC from October 2020 to late January 2021 have been <u>addresses holding between 1,000 and 10,000 BTC</u>, in line with companies like MicroStrategy, Grayscale and - most recently - Tesla - announcing massive investments in the top coin.

In the past month however, the combined holdings of these 'whale' addresses has declined by around 150,000 BTC (-\$7.2bn at the time of writing), coinciding with the recent market correction and perhaps signaling early jitters among large BTC holders.

As such, it will be prudent to keep an eye on these and other large BTC addresses in weeks and months to come. If history is to judge, a sustained decline in their combined holding may signal the tail-end of the current bull market, with retail investors - once again - left holding the hot potato.

Either way, with more and more Fortune 500 companies dipping their toes in crypto, it is now abundantly clear that Bitcoin will be a staple of every well-rounded portfolio in years to come.

If you want to fine-tune your exposure to Bitcoin and navigate its cycles, get our complete report on the most important Bitcoin metrics here, or book a personal demo at demo@santiment.net.



Maksim Balashevich

Founder and CEO of Santiment www.santiment.net

·santiment

Universities Engaged in Blockchain and DLT

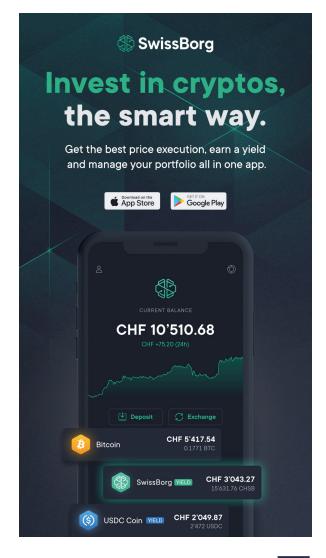
For decades, Switzerland has led rankings in competitiveness and intellectual property registrations, and a number of research and teaching institutions regularly lead global rankings in their respective fields of expertise. On a statistical note, Switzerland is ranked 4th in the number of Nobel Prize winners per capita.

Information technology, computer science, mathematics, physics, and chemistry have a long and storied tradition in Switzerland's academic institutions. It is, therefore, no surprise that leading universities and research institutions in Crypto Valley are working on blockchain-related topics. In addition, several universities in the field of applied sciences are providing continued professional study courses on the topic.

Research activities are largely centered around the cluster of ETH. EPFL. University of Zurich. University of Basel, HSR for Technology Rapperswil, and the University of Lucerne. ETH has famous institutes for distributed computing, IT security and is the birthplace of well-known computer languages. EPFL, with a dedicated institute on digital trust (C4DT), is engaging in a wide industry-supported initiative where blockchain is a critical component. The Blockchain Center at the University of Zurich has created a wide range of activities, including a dedicated MAS, research projects, and a unique interdisciplinary approach that draws on expertise from the largest faculty in Switzerland.

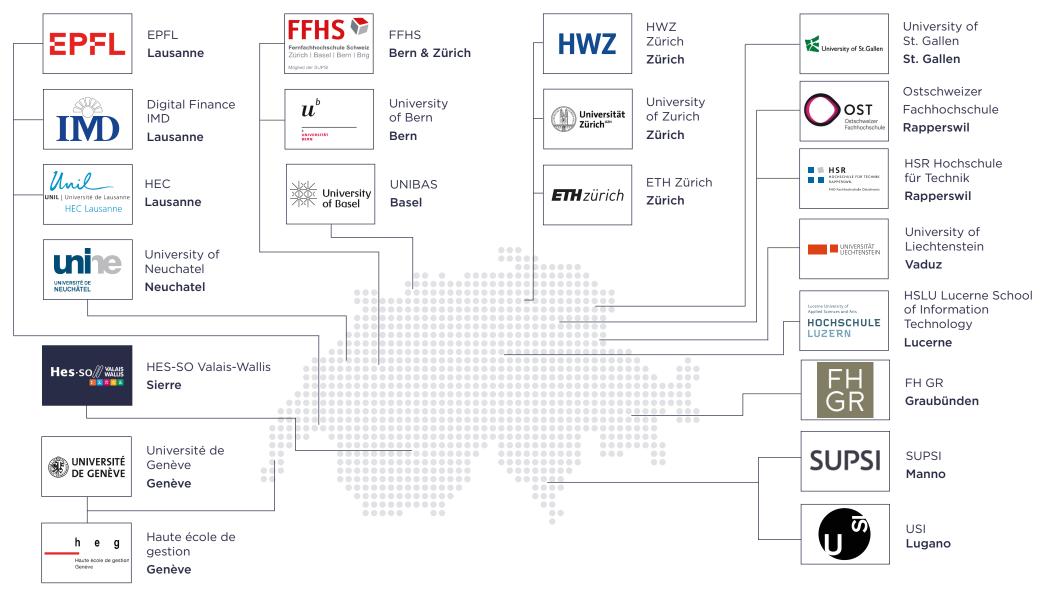
The University of Basel heavily focuses on capital markets and the future of finance, whereas the University of Lucerne is the steward of the world's leading technical conference on blockchain, and HSR Rapperswil remains at the forefront of DLT with regards to

technical applications. Protocols are also increasingly engaging with the technical community, as many of the technical challenges they face are substantial and require significant work on a research-level. The combination of world-leading academic institutions and the presence of the most important technical projects in blockchain should lead to substantial innovation in Crypto Valley.



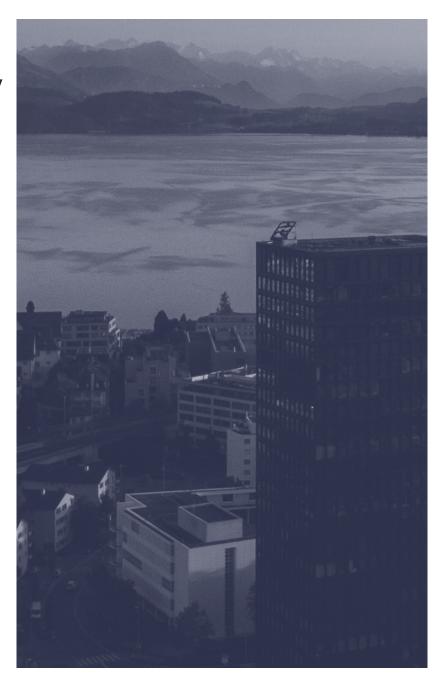


Universities Engaged in Blockchain and DLT



CV VC Top 50 Report H2/2020

Blockchain Industry in Crypto Valley Visualized









Crypto Valley Top 50 Companies per Sector

The CV VC Top 50 Report H2/2020 lists the core Blockchain Ventures in Switzerland and Liechtenstein. Key selection criteria: Funding, valuation, and employees in Switzerland and Liechtenstein.

Top 50 companies

US\$ 254.9B

valuation

US\$ 3.7B

funding total

employees

11

unicorns

819

Crypto Valley Total

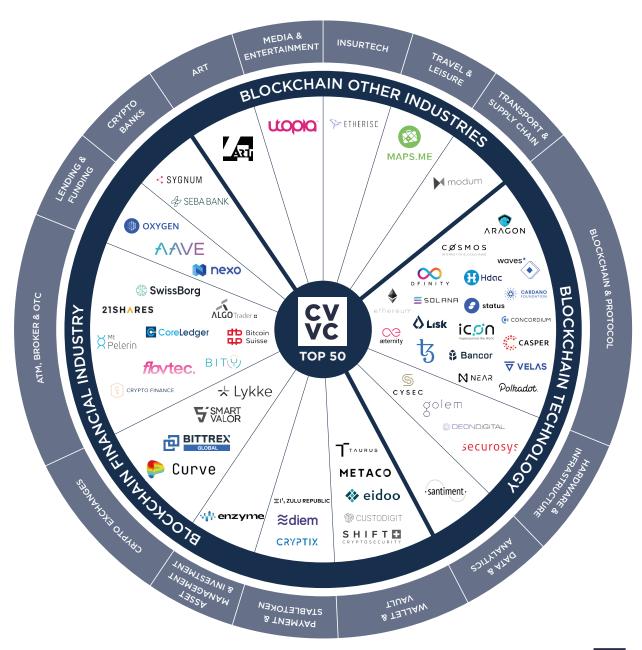
960

blockchain companies

5,184 employees

NOTE:

Markets have seen an increase in valuations towards the end of 2020, which dramatically accelerated in January. To portray more accurate valuations and market capitalization. the data in this report refers to February 28th, 2021, and not 2020 Year End.



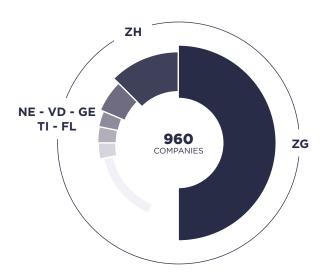


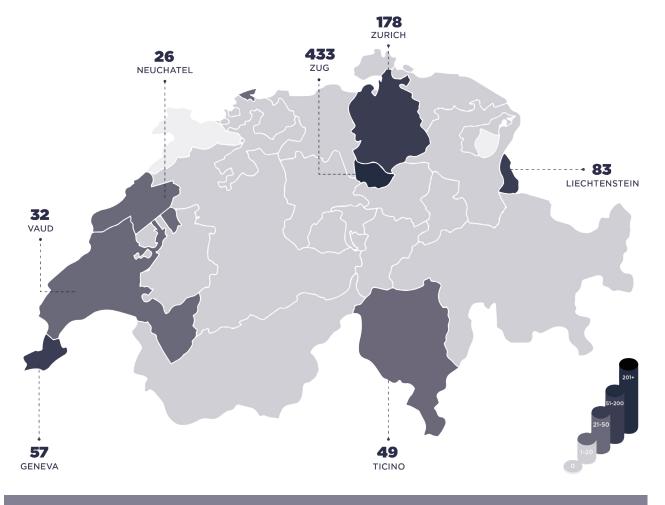




Crypto Valley Companies by Region

Crypto Valley, which includes both Switzerland and Liechtenstein, is home to 960 blockchain/cryptocurrency companies. CV VC research shows ten crypto hotspots in Crypto Valley: Zug, Zurich, Liechtenstein, Geneva, Ticino, Neuchatel, Vaud, Lucerne, Bern, and Schwyz. Zug continues to be the heart of the Crypto Valley, as about half of all companies make Zug their home (433). The Canton of Zurich counts 178 companies, Geneva counts 57, Ticino counts 49, Neuchâtel counts 26, Vaud counts 32, Lucerne counts 20, Bern counts 15, and Schwyz counts 13. The Principality of Liechtenstein counts 83 companies.





Number of startups per canton. The darker the color, the more companies are registered in that canton. Only cantons with more than 20 registered companies are named. Example: Zug has 400+ companies so it is colored in dark blue and indicated with ZUG.





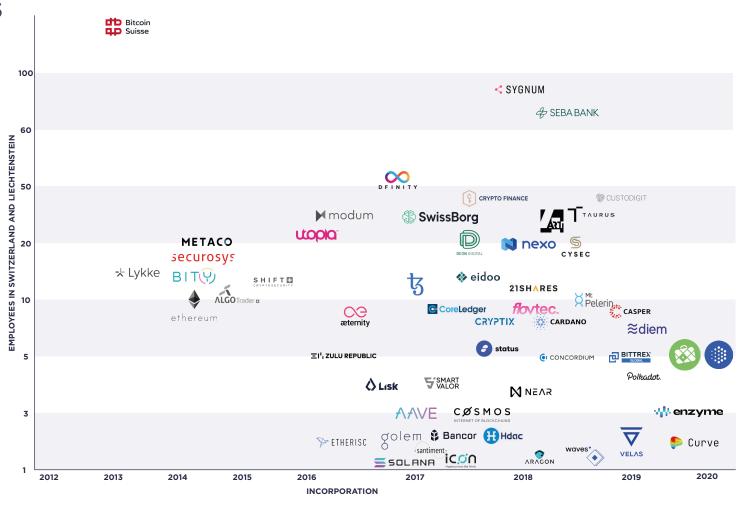
Top 50 Companies Employment Levels

The Crypto Valley blockchain and cryptocurrency ecosystem employs over 5180 professionals in Switzerland and Liechtenstein.

Employees in Crypto Valley

Top 50 companies 819 **EMPLOYEES**

Crypto Valley all companies 5,184 **EMPLOYEES**



Incorporation vs. employees. The X axis displays the incorporation date of Crypto Valley's Top 50 companies. The Y axis displays the number of employees of each company in Crypto Valley. Example: The newer the company and the more people it employs, the further it is positioned in the upper right quadrant







Valuation and Funding

To portray more accurate valuations and market capitalization, the data in this report refers to February 28th, 2021, and not 2020 Year-End. The composition of the TOP 50 changes slightly each reporting period (additions and subtractions noted in the report).

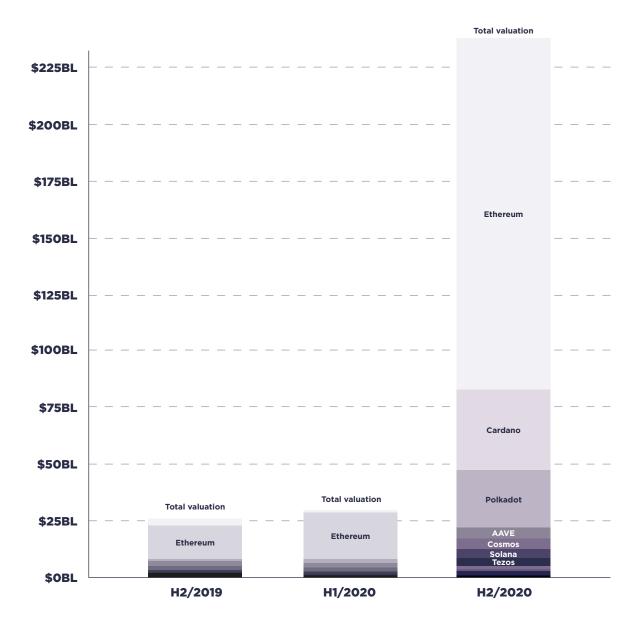
Crypto Valley's Top 50 Companies valuation and funding

H2/2019	H1/2020	H2/2020
US\$ 25.3 Billion	US\$ 37.5 Billion	US\$ 254.9 Billion
valuation	valuation	valuation
US\$ 10.8 Billion valuation w/o ethereum	US\$ 12.3 Billion valuation w/o ethereum	US\$ 97.8 Billion valuation w/o ethereum
US\$ 4 Billion funding	US\$ 3.7 Billion funding	US\$ 3.7 Billion funding

Unicorns

On February 28th, 2021, Crypto Valley counts a total of 11 Unicorns (Companies valued at >US\$ 1B)

Ethereum	\$157.2B	Cosmos	\$3.8B	Near	\$1.1B
Cardano	\$40.6B	Solana	\$3.3B	Nexo	\$1.1B
Polkadot	\$29.3B	Tezos	\$2.6B	Diem	\$1.0B
AAVE	\$3.9B	Dfinity	\$2.0B		





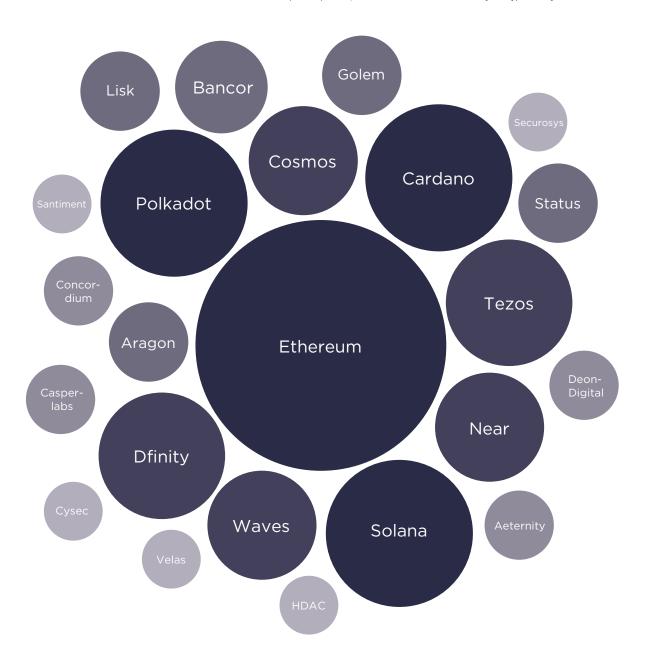




Blockchain Technology

Valuations of large platforms are volatile and dominated by Ethereum. Crypto Valley is home to many large projects that drive technology innovation. The value of platforms and projects in this category will be driven by how many successful applications are built by entrepreneurs and enterprises utilizing specific chains.







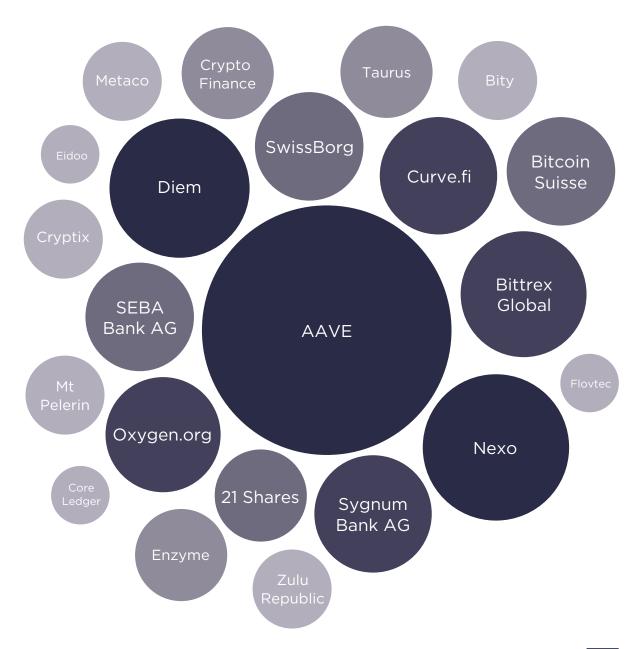




Financial Industry

Crypto Valley is a hotbed for Fintech, as startups can draw from a large pool of talent and proximity to many players in traditional finance. Valuations have been driven by the new Crypto Banks and a range of players providing critical services, such as brokers, asset managers, liquidity providers, payment tech, exchanges, storage, and custody.







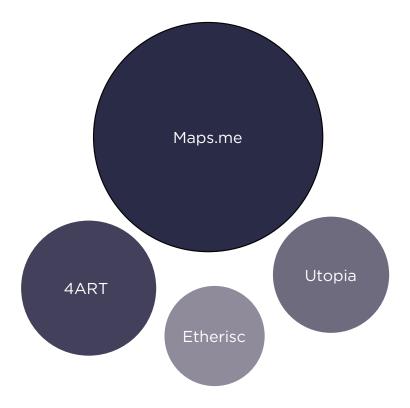




Other Industries

Maps.me is building a crypto-incentivized platform for its large user base. Companies such as 4Art and Utopia are building new business models on the strength of their blockchain-based technology stack. Given the advantageous regulatory framework, it can be expected that more startups and large corporates will choose to bring their business to Crypto Valley.





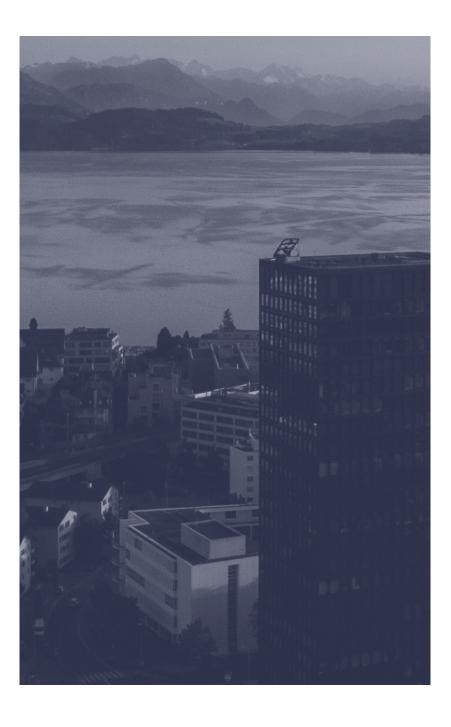






CV VC Top 50 Report H2/2020

Crypto Valley Top 50 Companies Listed by Sector



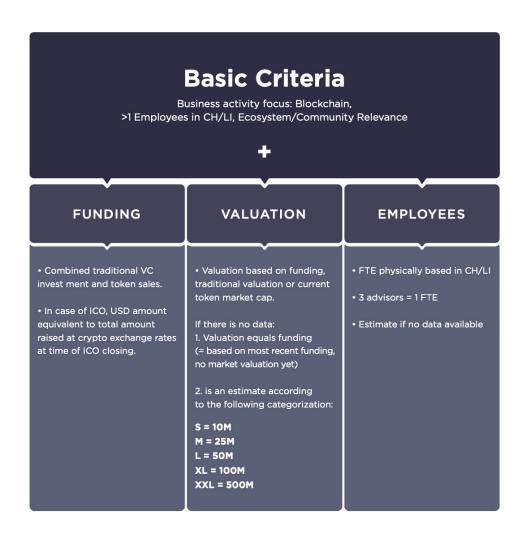






Methodology and Selection for the Crypto Valley Top 50

The CV VC Top 50 Report lists the major blockchain companies in Crypto Valley (Switzerland and Liechtenstein) excluding companies or organizations from the following categories: service providers, academia/education, events, association, and media.







Technology Partner



- **DATA & ANALYTICS**
- HARDWARE & INFRASTRUCTURE
- **PLATFORM & PROTOCOL**

Source: Corporate Contact (CC); CrunchBase (CB); IcoBench (IB); TrackIco (TI); Desk Research/Press (DR) Coinmarketcap (CMC); Corporate Website (CW); LinkedIN (Li), Estimate (2), Valuation equals Funding (1), No information (N/A)

COMPANY NAME

Aeternity



Token Ticker: ΑE

Sub-Category: Platform & Protocol

DESCRIPTION

æternity blockchain is an Erlang-based scalable smart contract platform engineered by programming pioneers to address some of the most fundamental challenges native to earlier blockchains. By redesigning blockchain technology at the protocol level, the æternity developer community has enabled the core protocol to understand and integrate a rich set of functionalities as built-in oracles, off chain smart contract executions, naming service, or type safe VM, out of the box.

\$24,426,689 cc

FUNDING

\$45,190,471 CMC

VALUATION

g cc

EMPLOYEES CH

COMPANY NAME

Bancor



Token Ticker: **BNT**

Sub-Category: Platform & Protocol

DESCRIPTION

Bancor is a blockchain protocol that allows users to convert different virtual currency tokens directly and instantly instead of exchanging them on cryptocurrency exchanges like Coinbase. It is a decentralized financial network that seeks to provide liquidity to small- and microcap coins and returns for liquidity providers. It utilizes two token layers that facilitate its liquidity pools and functionality: BNT and ETHBNT. Bancor and its competitor Uniswap are the leaders in a new wave of decentralized financial systems

\$152,300,000 CB **FUNDING**

\$661,481,731 CMC

VALUATION

2 Li

EMPLOYEES CH

COMPANY NAME

Cardano



Token Ticker: ADA

Sub-Category: Platform & Protocol

DESCRIPTION

Cardano is a decentralised public blockchain and cryptocurrency project and is fully open source. Cardano is developing a smart contract platform which seeks to deliver more advanced features than any protocol previously developed.

\$62,200,000 CB

FUNDING

\$40,527,248,334 CMC

VALUATION

g Li

EMPLOYEES CH

COMPANY NAME

Aragon



Token Ticker: ANT

Sub-Category: Platform & Protocol

DESCRIPTION

Create value without borders or intermediaries. Aragon is being built because so that decentralized organizations can solve the world's worst problems. Aragon is a project that aims to disintermediate the creation and maintenance of organizational structures by using blockchain technology. The company wants to empower people across the world to easily and securely manage their organizations. Aragon provides the tools for anyone to become an entrepreneur and run their own organization, to take control of their own lives.

\$25,000,000 CB

FUNDING

\$156,879,295 CMC

VALUATION

1 Li

COMPANY NAME

Casper Labs



Token Ticker: N/A

Sub-Category: Platform & Protocol

DESCRIPTION

The Casper Network is a fully decentralized (permissionless), scalable, and highly secure Proof-of-Stake layer 1 blockchain. Casper has solved the layer 1 trilemma; it is secure, fully decentralized, and scalable/fast, Powered by Highway, an innovative, correct-by-construction (CBC) Casper-based Proof-of-Stake consensus protocol, Casper is leveraging popular workflows, innovative developer tools and multiple programming languages. Casper makes blockchain services easier to use, more upgradable and more predictable, thus removing barriers to mainstream adoption.

\$40,000,000 cc

FUNDING

\$150,000,000 cc

VALUATION

8 cc









COMPANY NAME

Concordium



Token Ticker: **GTU**

Sub-Category: Platform & Protocol

DESCRIPTION

When launched in 2021, the Concordium blockchain will be a Level-1. Proof-of-stake, regulatory-compliant, enterprise-grade blockchain with verified identity of users built-in at the protocol level and with application of zero-knowledge proofs. Technological innovations will enhance its performance and allow the blockchain to be fast without compromising security, be scalable, offer interoperability and it's partial synchronicity adjust to the speed of the internet and ensure that Concordium won't break under any circumstances

\$30,000,000 cc

FUNDING

\$205,000,000 cc

VALUATION

5 cc

EMPLOYEES CH

COMPANY NAME

Deon Digital



Token Ticker: N/A

Sub-Category: Hardware & Infrastructure

DESCRIPTION

Deon Digital leverages more than 10 years of academic research, a world-class team, and the power of distributed ledger technology to turn paper contracts into digital contracts. Contracts are at the core of a company covering all its operational aspects; sales/purchase. production, loans, insurance, pensions, transportation, mobility, logistics, etc.

Deon Digital Technology captures them all; it stores, executes and monitors digital contracts securely and privately. It dramatically reduces the amount of time that is spent to reconcile data.

\$16,000,000 cc

FUNDING

\$70,000,000 cc

VALUATION

21 cc

EMPLOYEES CH

COMPANY NAME

Cosmos

CØSMOS

Token Ticker: ATOM

Sub-Category: Platform & Protocol

DESCRIPTION

Interchain Foundation, a Swiss non-profit, which is responsible for co-ordinating fundraising and allocating funds to get the network off the ground. The foundation will suggest a distribution of Atoms according to the results of the fundraiser. Users will ultimately decide the distribution for themselves when they run the software. The Interchain Foundation will suggest that 5% of the Atoms go to its initial donors, 10% go to the Interchain Foundation, 10% go to the company developing most of the software, and the remaining 75% to be distributed according to the results of the private and public fundraisers.

\$17,000,000 CB

FUNDING

\$3,761,724,614 CMC

VALUATION

3²

EMPLOYEES CH

COMPANY NAME

Dfinity Foundation



Token Ticker: DFN

Sub-Category: Platform & Protocol

COMPANY NAME

Ethereum

DESCRIPTION

The DFINITY Foundation is a not-for-profit organization based in Zurich, Switzerland, that oversees research centers in Palo Alto, San Francisco, Tokyo, and Zurich. Our mission is to build, promote, and maintain the Internet Computer - and by doing so, improve the world. The Internet Computer extends the functionality of the internet from connecting billions of people to also providing millions of developers and entrepreneurs with a public compute platform - creating a revolutionary new way to build software. DeFi and open internet services. In turn, this generational shift in computing aims to return the internet back to its free and open roots.

\$200,000,000 DR

FUNDING

\$2,000,000,000^{DR}

VALUATION

52 cc

EMPLOYEES CH

COMPANY NAME

Cysec SA



CYSEC

Token Ticker: N/A

Sub-Category: Hardware & Infrastructure

DESCRIPTION

CYSEC SA is a data security company based at the EPFL Innovation Park in Lausanne, Switzerland. CYSEC brings 360° security in one click for container-based workloads and platforms through its ARCA trusted OS software. CYSEC partners with leading cybersecurity research centers to develop technological innovations in the area of Confidential Computing and delivers its cybersecurity solutions for any vertical sectors.

\$3,376,000 cc

FUNDING

\$50,000,000²

VALUATION

20 cc **EMPLOYEES CH**

ethereum

Token Ticker: ETH

Sub-Category: Platform & Protocol

DESCRIPTION

Ethereum is a decentralized platform that runs smart contracts; applications that run exactly as programmed without any possibility of downtime, censorship, fraud or third-party interference. These apps run on a custom built blockchain, an enormously powerful shared global infrastructure that can move value around and represent the ownership of property. This enables developers to create markets, store registries of debts. or promises, move funds in accordance with instructions given long in the past (like a will or a futures contract) and many other things that have not been invented yet, all without a middleman or counterparty risk

\$18,400,000 CB

FUNDING

\$157,185,706,954 CMC

VALUATION

10 Li









Golem



Token Ticker: GLM

Sub-Category: Hardware & Infrastructure

DESCRIPTION

Golem is a global, open source, decentralized supercomputer that anyone can access. It is made up of the combined power of users machines, from PCs to entire data centers. Golem creates a decentralized sharing economy of computing power and supplies software developers with a flexible, reliable and cheap source of computing power.

\$17,200,000 CB

FUNDING

\$326,325,752 CMC

VALUATION

2 Li

COMPANY NAME

Lisk



Token Ticker: LSK

Sub-Category: Platform & Protocol

DESCRIPTION

Develop and publish blockchain applications with your own sidechains on the open-source Lisk Platform. Promotion of new technology developments and applications, in particular promotion and maintenance of new open decentralized software architectures. In the foreground - but not exclusively - is the promotion and development of the so-called Lisk protocol and the corresponding technology as well as the promotion and support of applications using the Lisk protocol.

\$5,800,000 cc

FUNDING

\$363,299,639 CMC

VALUATION

⊿ cc

EMPLOYEES CH

COMPANY NAME

Hdac Technology



Token Ticker: **HDAC**

Sub-Category: Platform & Protocol

DESCRIPTION

Headquartered in Zug, Switzerland, Hdac Technology AG is a blockchain technology company that aims to develop and provide a decentralized platform that meets a variety of needs required in the hyper-connected society. This is done by combining blockchain with other core technologies including IoT, Cloud, Big Data, and others.

\$258,000,000 IB

FUNDING

\$49,798,466 CMC

VALUATION

2 Li

EMPLOYEES CH

COMPANY NAME NEAR

M NEVS

Token Ticker: N/A

Sub-Category: Platform & Protocol

DESCRIPTION

NEAR is a decentralized storage and compute platform that is secure enough to manage high value assets like money or identity and performant enough to make them useful for everyday people, putting the power of the Open Web in their hands.

\$50,000,000 CB

FUNDING

\$1,109,014,377 cc

VALUATION

⊿ Li

EMPLOYEES CH

COMPANY NAME

ICON



Token Ticker: **ICX**

Sub-Category: Platform & Protocol

DESCRIPTION

The ICON project is building one of the largest decentralized networks in the world. Promotion and development of new technologies and applications, especially in the areas of new open and decentralized software architectures. In the foreground - but not exclusively - is the promotion and development of the so-called ICON protocol and the corresponding technologies, as well as the promotion and support of applications using the ICON protocol.

\$45,000,000 DR

FUNDING

\$852,187,522 CMC

VALUATION

1 Li

COMPANY NAME

Polkadot

Polkadot

Token Ticker: DOT

Sub-Category: Platform & Protocol

DESCRIPTION

Polkadot will enable a completely decentralized web where users are in control. The platform is built to connect private and consortium chains, public and permissionless networks, oracles, and future technologies that are vet to be created. Polkadot facilitates an internet where independent blockchains can exchange information and transactions in a trustless way via the Polkadot relay chain. Polkadot makes it easier than ever to create and connect decentralized applications, services, and institutions.

\$1,200,000,000 DR

FUNDING

\$29,299,264,152 cc

VALUATION

5 2









COMPANY NAME

Santiment



Token Ticker: SAN

Sub-Category: Data & Analytics

DESCRIPTION

Santiment creates tools to help analyze the crypto market and find data-driven investment opportunities. The project provides clean and reliable on-chain, social media and development information on over 1000 crypto assets, and develops unique metrics, signals, strategies and reports on top of their custom datasets.

\$12,215,250 cc

FUNDING

\$9,167,452 CMC

VALUATION

2 cc

COMPANY NAME

Status



Token Ticker: SNT

Sub-Category: Platform & Protocol

DESCRIPTION

Status is an interface to access Ethereum, built for Android and iOS. Enjoy encrypted messaging, a cryptocurrency wallet, and seamless access to DApps. Status strives to be a secure communication tool that upholds human rights. Designed to enable the free flow of information, protect the right to private, secure conversations, and promote the sovereignty of individuals.

\$107,664,907 CB **FUNDING**

\$276,795,379 CMC

VALUATION

6 Li

EMPLOYEES CH

COMPANY NAME

Securosys

securosys

Token Ticker: N/A

Sub-Category: Hardware & Infrastructure

DESCRIPTION

Securosys SA is a technology company headquartered in Zurich, Switzerland. We secure data and communications. Our products are developed and manufactured in Switzerland and with vested European partners using a trusted supply chain. There are no backdoors. Our flagship product is the Primus Hardware Security Module used to protect the Swiss banking system SIC, blockchain and crypto assets solutions, and Public Key Infrastructure Systems.

\$3,000,000 cc

FUNDING

\$40,000,000 cc

VALUATION

18 cc

EMPLOYEES CH

COMPANY NAME

Tezos Network



Token Ticker: XTZ

Sub-Category: Platform & Protocol

DESCRIPTION

The Tezos protocol is a blockchain technology that evolves by upgrading itself. Stakeholders of the Tezos blockchain vote on amendments to the protocol to reach social consensus on proposals, creating a secure and organic upgrading system. The protocol's on chain governance system, Proof-of-Stake (PoS) consensus algorithm, and ability to facilitate formal verification, make Tezos an ideal long-term solution for digital transactions.

\$700,000,000 CB

FUNDING

\$2,593,005,929 cc

TEZOS MARKET CAP

12 cc

EMPLOYEES CH

COMPANY NAME

Solana



Token Ticker: SOL

Sub-Category: Platform & Protocol

DESCRIPTION

Solana is a highly functional open source project that banks on blockchain technology's permissionless nature to provide decentralized finance (DeFi) solutions. While the idea and initial work on the project began in 2017, Solana was officially launched in March 2020 by the Solana Foundation with headquarters in Geneva. Switzerland. The Solana protocol is designed to facilitate decentralized app (DApp) creation.

\$21,800,000 CMC

FUNDING

\$3,258,090,278 CMC

VALUATION

1 Li

EMPLOYEES CH

COMPANY NAME

Velas



Token Ticker: VLX

Sub-Category: Platforms & Protocol

DESCRIPTION

Velas is a Swiss headquartered technology company led by a diverse team of engineers, cryptographers, researchers, mathematicians and results-driven business leaders. World's first Artificial Intuition optimised consensus and Blockchain, including an ecosystem of decentralized products, designed in an user-friendly way, allowing anyone to feel the benefits of blockchain technology seamlessly.

\$10,000,000 cc

FUNDING

\$85,088,041 cc

VALUATION

2 cc







COMPANY NAME

Waves Platform



Token Ticker: **WAVES**

Sub-Category: Platform & Protocol

DESCRIPTION

Waves creates the economics of free, perfect and instant. The Waves Platform is a global public blockchain platform, founded in 2016. Waves Platform's mission is to reinvent the DNA of entrepreneurship around the world by providing a shared infrastructure, offering easy-to-use, highly functional tools to make blockchain available to every person or organisation that can benefit from it.







NEAR on Scalability & Usability to Achieve Mass Adoption

More than a decade after Bitcoin's genesis block and five years since the Ethereum mainnet launched, blockchain networks support trillions of dollars in value and have millions of users worldwide, but they have not achieved anything close to mainstream global adoption. Many use cases have been unavailable to blockchain builders—especially in the last year, with the rise of DeFi on Ethereum and the resulting network congestion—because of slow confirmation, high gas fees, and high hurdles to onboarding users. The crypto ecosystem will likely evolve to become more multichain to address these bottlenecks and a range of layer-one protocols and layer-two solutions will apply their own strategies to address scalability and usability.

NEAR's approach is to focus on the developer and user experience. By focusing on accessibility and usability, it can become just as easy to develop a decentralized application on a blockchain as it is to build any other kind of application on today's internet—and just as easy to use. NEAR Protocol is a fully decentralized, community-controlled layer-one blockchain protocol and smart contract platform. The mission of the NEAR collective is to accelerate the world's transition to open technologies by growing and enabling a community of developers and creators.

Beyond ease of use to support global adoption, the network must be able to scale to meet that volume of demand--which NEAR can, using dynamic sharding and a novel consensus mechanism. Dynamic sharding divides the system into parallel shards that each handle a subset of the computation and which can be added or removed based on usage. This horizontal scaling approach (as opposed to vertical scaling, as with Ethereum layer-twos such as rollups) raises the network's potential throughput to more than 1000x

that of Ethereum 1.0, across 100 shards. Combined with gas fees between 1000x and 10,000x cheaper than those on ETH, this horizontal scaling approach also opens the door to greater usability.

Developer experience and end-user accessibility are the top priorities for NEAR, all the way down to the protocol level. Developers can use familiar tools, such as Rust or AssemblyScript, to build on NEAR's WASM-based runtime, and the application build/test/deploy cycle is much faster and simpler than on most networks. Transaction fees are predictable and developers can earn a rebate of 30% of the gas moving through their smart contracts.

NEAR believes the future of blockchain relies on progressive onboarding for users new to crypto. NEAR's unique contract-based account model provides the flexibility to onboard users to an application who either don't hold NEAR tokens or have never interacted with a blockchain--a process that can take dozens of steps and complex fiat onramps on most other networks. Human-readable, named account addresses (i.e. cryptovalley.near) replace long, clunky hex strings and can support multiple names within a single public key. With progressive onboarding, the crypto elements of using decentralized apps on NEAR can be 100% abstracted away from the user and the complexities of gas fees, storage costs, seed phrases, and keys are obscured from their experience until they are ready to claim their wallet and hold their own tokens.

Because NEAR is a sharded scalable blockchain, the easiest point of comparison is Ethereum 2.0--but this does not mean they are competitors. Quite the opposite, in fact: NEAR is compatible and interoperable with Ethereum 1.0 today. The hope is that NEAR solves many developers' pain points and blockers around

cost and scalability today, without having to commit fully to one network or the other.

NEAR interoperates with Ethereum via a fully decentralized asset bridge and EVM support, which allows Solidity contracts to run on NEAR without any code rewrites. The ideal for many developers and application builders in today's blockchain landscape is to run a product on multiple blockchains and get the best of each: they can leverage community and liquidity on one, while leveraging performance on another. Using the ETH-NEAR bridge, a developer can have the same asset on both blockchains and let apps communicate across the bridge.

In order to realize the NEAR collective's vision of a world where all people have control of their money, data, and power of governance, we need a positive-sum approach to growing adoption of all open technologies and decentralized networks. Rebuilding a truly open, decentralized web is not about performance and features alone, but about empowering builders and entrepreneurs to make their ideas a reality and onboard users without barriers.



Mally Anderson

Head of Developer Content at NEAR Protocol

www.near.org



Blockchain Financial Industry

ASSET MANAGEMENT & INVESTMENT

- ATM, BROKER & OTC
- **CRYPTO BANKS**
- **CRYPTO EXCHANGES**
- **LENDING & FUNDING**
- PAYMENT & STABLETOKEN
- WALLET & VAULT

Source: Corporate Contact (CC); CrunchBase (CB); IcoBench (IB); TrackIco (TI); Desk Research/Press (DR) Coinmarketcap (CMC); Corporate Website (CW); LinkedIN (Li), Estimate (2), Valuation equals Funding (1), No information (N/A)

COMPANY NAME 21 Shares AG

21SHARES

Token Ticker: N/A

Sub-Category: ATM. Broker & OTC DESCRIPTION

Zürich-based 21Shares AG is the world's premier issuer of crypto exchange-traded products, with over \$300 million in AUM across eleven index. single-asset, and inverse crypto ETPs listed on the Swiss SIX, Deutsche Börse, & Weiner Börse,

\$7,500,000 cc

FUNDING

\$250,000,000 cc

VALUATION

12 cc

COMPANY NAME

Bitcoin Suisse



Token Ticker: N/A

Sub-Category: ATM, Broker & OTC

DESCRIPTION

Founded in 2013, Bitcoin Suisse is the Swiss crypto-finance and technology pioneer and market leader. Bitcoin Suisse has helped to shape the crypto and blockchain ecosystem in Switzerland and has been a driving force in the development of the 'Crypto Valley' and 'Crypto Nation Switzerland'. As a regulated Swiss financial intermediary and undergoing licensing as a Swiss and Liechtenstein bank, Bitcoin Suisse offers prime brokerage, trading, custody, lending, staking and other crypto-financial services for private and institutional clients, Bitcoin Suisse has built a team of 220 highly qualified experts at its locations in Zug, Copenhagen, and Liechtenstein.

\$50,500,000 cc

FUNDING

\$450,000,000 cc

VALUATION

220 cc

EMPLOYEES CH

COMPANY NAME

Bittrex



Token Ticker N/A

Sub-Category: Crypto Exchanges DESCRIPTION

Bittrex Global provides a proven and secure platform for its customers to access the opportunities of digital asset trading. Built on Bittrex's cutting-edge technology, Bittrex Global provides an institutional grade experience for professional and novice customers alike t

\$5,000,000²

FUNDING

\$500,000,0002

VALUATION

5 cc

EMPLOYEES CH

COMPANY NAME

Aave



Token Ticker AAVE

Sub-Category: Lending & Funding

DESCRIPTION

Aave (fun fact: the name is taken from the Finnish word for "ghost") is a decentralised, open-source, and non-custodial liquidity protocol on Ethereum. Depositors earn interest by providing liquidity to lending pools, while borrowers can obtain loans by tapping into these pools with variable and stable interest rate options. Aave Protocol is unique in that it tokenizes deposits as aTokens, which accrue interest in real time. It also features access to Flash Loans and Credit Delegation as uncollateralised loan options.

\$16,500,000 CB

FUNDING

\$3,911,672,775 CMC

VALUATION

3 2

EMPLOYEES CH

COMPANY NAME

Bity



Token Ticker: N/A

Sub-Category: ATM. Broker & OTC

DESCRIPTION

The Swiss gateway to convert money into cryptocurrencies and digital assets. Buy and sell bitcoins and ethers. Introducing Bity Kiosks, the easiest way to acquire or sell bitcoins with cash. Only a phone number is required. Bitcoin ATMs are currently located in Geneva, Lausanne, Montreux, Neuchâtel, Zürich Hauptbahnhof and Zürich Hardbrücke.

\$3,500,000 cc

FUNDING

\$50,000,000²

VALUATION

14 Li

EMPLOYEES CH







INACTA. Technology Partner

COMPANY NAME

CoreLedger



Token Ticker N/A

Sub-Category: ATM. Broker & OTC

DESCRIPTION

CoreLedger provides a decentralized, modular and extensible operating system for token economies, designed for all types of assets. The company's core product is TEOS (Token Economy Operating System), which comes with user-friendly whitelabel tools such as a marketplace, wallet and portal. It features a patent pending multi-party settlement mechanism and simple powerful add-ons to ensure regulatory compliance. With TEOS, businesses can tokenize any types of assets, or use it in Sandbox mode to quickly showcase and model blockchain business ideas.

\$8,500,000 cc

FUNDING

\$25.000.000 cc

VALUATION

g cc

EMPLOYEES CH

COMPANY NAME

Curve.fi



Token Ticker: N/A

Sub-Category: Crypto Exchanges

DESCRIPTION

Curve is an exchange liquidity pool on Ethereum (like Uniswap) designed for (1) extremely efficient stablecoin trading (2) low risk, supplemental fee income for liquidity providers, without an opportunity cost.

Curve allows users to trade between DAI and USDC with a bespoke low slippage, low fee algorithm designed specifically for stablecoins and earn fees.

\$2,500,000²

FUNDING

\$412,786,566 DR

VALUATION

2 Li

EMPLOYEES CH

COMPANY NAME

Cryptix

CRYPTIX

Token Ticker N/A

Sub-Category: Payment & Stabletoken

DESCRIPTION

Cryptix AG is the central venture-building platform and umbrella for a European cluster of businesses in Crypto Valley. The company founds, promotes and maintains subsidiaries and participations that work under one vision to create the "People's financial marketplace". The Group consists of companies in Switzerland. Liechtenstein, Austria and Slovenia. Cryptix Labs GmbH, the in-house R&D center accompanies these initiatives with studies and technology around Blockchain and DLT.

N/A

FUNDING

\$50,000,0002

VALUATION

g cc

EMPLOYEES CH

COMPANY NAME

Diem



Token Ticker N/A

Sub-Category: Payment & Stabletoken

DESCRIPTION

Diem, previously known as Libra, is a payment system built on blockchain technology to enable the open, instant, and low-cost movement of money. People will be able to send, receive, and spend their money, enabling universal access to financial services.

The Diem Blockchain is the technological backbone of the payment system, operated by a network of validator nodes. The software that implements the blockchain is open source and is able to scale so that billions of people can depend on it for their financial needs.

\$210,000,000 DR

FUNDING

\$1,000,000,000²

VALUATION

7 Li

EMPLOYEES CH

COMPANY NAME

Crypto Finance



Token Ticker: N/A

Sub-Category: ATM. Broker & OTC

DESCRIPTION

The Crypto Finance Group provides institutional and professional investors products and services with a level of quality, reliability, and security that is unique in the digital asset space today. The group provides asset management, with the first regulated asset manager for crypto asset funds authorised by FINMA; brokerage services for 24/7 crypto asset trading; and crypto asset storage infrastructure and tokenisation solutions. Since its founding in 2017, the group has been recognised several times, including as a Crypto Valley Top 50 blockchain company, Top 100 Swiss Start-up, and 2019 Swiss FinTech Award winner.

\$36,000,000 cc

FUNDING

\$100,000,000 cc

VALUATION

40 cc

EMPLOYEES CH

COMPANY NAME

Eidoo



Token Ticker: **PNT**

Sub-Category: Wallet & Vault

DESCRIPTION

Eidoo, a Ticino based blockchain startup, has officially launched the ICO Engine to allow crypto companies and startups host and manage their token sales safely and with ease via the Eidoo mobile app.

\$27,900,000 CB **FUNDING**

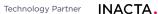
\$32,114,956 CMC

VALUATION

14 Li









Token Ticker MLN

Sub-Category: Asset Management & Investment

DESCRIPTION

Enzyme empowers you to build and scale investment strategies of your choice - from discretionary and robo to ETFs and market making. Security is our priority. Our second generation smart contract-enforced platform is thoroughly tested and audited before any mainnet deployments are made.

\$3,000,000 cc

FUNDING

\$52,775,276 cc

VALUATION

3 CC

EMPLOYEES CH

COMPANY NAME

Mt Pelerin



Token Ticker: MPS

Sub-Category: ATM, Broker & OTC

DESCRIPTION

Mt Pelerin is a Swiss FinTech company based in Geneva, specialized in providing tools and solutions to bridge traditional finance with the crypto world. It provides an open-source asset tokenization platform for the issuance and management of compliant digital securities, which processes the largest number of ERC-20 security tokens in circulation. It also provides a non-custodial mobile wallet with crypto-fiat banking features, as well as various tokenization, KYC/AML and crypto brokerage services. Mt Pelerin is currently working on the creation of a full-reserve institution that will leverage its tokenization and banking technologies.

\$2,150,000 cc

FUNDING

\$43,000,000 cc

VALUATION

10 cc

COMPANY NAME

Flovtec



Token Ticker N/A

Sub-Category: ATM. Broker & OTC

DESCRIPTION

Flovtec is an award-winning leader in the field of liquidity provision for digital assets. As a key player in the Blockchain ecosystem, flovtec fosters price stability and reduces transaction costs, for the benefit of all market participants. The firm is built on three pillars: a highly experienced and visionary team, tested investment strategies and a professional operational structure. The team is comprised of Blockchain pioneers with detailed insights into the ecosystem of digital assets and its future, experienced asset management professionals with proven track records and quants that can deploy investment strategies in a quick and efficient manner.

\$4,950,000 cc

FUNDING

\$25,000,000 cc

VALUATION

9 cc

COMPANY NAME

Nexo



Token Ticker NEXO

Sub-Category: Lending & Funding

DESCRIPTION

Nexo is the world's leading regulated financial institution for digital assets with \$4 billion in assets under management. The company's mission is to maximize the value and utility of cryptocurrencies by offering tax-efficient Instant Crypto Credit Lines™, a high-yield Earn on Crypto & Fiat suite, and sophisticated trading and OTC capabilities, while providing the top-tier custodial insurance and military-grade security of the Nexo Wallet. Nexo has processed \$5+ billion for 1,000,000+ users across more than 200 jurisdictions.

\$52,500,000 cc

FUNDING

\$1,052,447,127 CMC

VALUATION

20 cc

EMPLOYEES CH

COMPANY NAME

Metaco

METACO

Token Ticker: N/A

Sub-Category: Wallet & Vault

DESCRIPTION

METACO is the leading provider of security-critical infrastructure enabling financial institutions to enter the digital asset ecosystem. The company is trusted by top banks, exchanges and infrastructure providers globally.

\$20,000,000 cc

FUNDING

\$50,000,000 cc

VALUATION

20 cc **EMPLOYEES CH** COMPANY NAME

Oxygen.org AG



Token Ticker: OXY

Sub-Category: Lending & Funding

DESCRIPTION

Defi prime brokerage. Oxygen enables you to custody a portfolio of assets, lend them out, borrow against them and trade all in one place. Oxygen is built on the liquid and growing Serum ecosystem, running on Solana's scalable blockchain, and seeded by the 140M users of Maps, me 2.0, an on-chain mapping and fintech application.

\$40,000,000 cc

FUNDING

\$700,000,000 cc

VALUATION

5 cc







COMPANY NAME

SEBA Bank



Token Ticker: N/A

Sub-Category: Crypto Banks

DESCRIPTION

SEBA Bank is a pioneer in the financial industry, providing a bridge between digital and traditional assets, SEBA Bank is the only global smart bank providing a fully universal suite of regulated banking services in the emerging digital economy. SEBA Bank enables clients to invest, safely keep, trade and borrow against traditional and digital assets, as well as issue tokens all in one place. The broad, vertically integrated spectrum of services combined with the highest security standards, make SEBA Bank's value proposition unique.

\$136,442,500 cc

FUNDING

\$350,000,000 2

VALUATION

83 cc

EMPLOYEES CH

COMPANY NAME

Taurus Group

TAURUS

Token Ticker: N/A

Sub-Category: Wallet & Vault

DESCRIPTION

Taurus is a technology company providing end-toend digital asset infrastructure for financial institutions. Multi-assets, multi-blockchains. EU market leader with more than 1 bank out of 2 running Taurus infrastructure. We offer a suite of applications to manage the entire lifecycle of any digital assets (private assets, crypto assets and digital currencies) in one platform: issuance, tokenisation, custody and blockchain communication. Easy to deploy or integrate: API-based, available on premise or SaaS. Future-proof solutions: our engineers are among the few teams in the world that master the full technology stack across software development, secure DevOps, cryptography and blockchain technology.

\$10,000,000 CB FUNDING

\$100,000,000 2

VALUATION

30 cc

EMPLOYEES CH

COMPANY NAME

SwissBorg



Token Ticker: **CHSB**

Sub-Category: ATM, Broker & OTC

DESCRIPTION

Born out of an ICO, today SwissBorg is advising over 200,000 people in crypto wealth management

\$52,000,000 cc

FUNDING

\$810,276,060 cc

VALUATION

36 cc

EMPLOYEES CH

COMPANY NAME

Zulu Republic

三I', ZULU REPUBLIC

Token Ticker N/A

Sub-Category: Payment & Stabletoken

DESCRIPTION

The Zulu Republic aims to mitigate the adoption problem, leveraging blockchain technology to create a sustainable cryptotoken ecosystem composed of individuals, merchants, and larger businesses, bolstered by enterprise-level activity and product "exports"-creating a place where people can not only make use of blockchain technology in their daily lives but thrive in the process of doing so.

\$2,500,000 cc

FUNDING

\$50,000,000²

VALUATION

5 Li

EMPLOYEES CH

COMPANY NAME

Sygnum



Token Ticker: N/A

Sub-Category: Crypto Banks

DESCRIPTION

Sygnum is the world's first digital asset bank, and a digital asset specialist with global reach. With Sygnum Bank AG's Swiss banking licence, as well as Sygnum Pte Ltd's capital markets services (CMS) licence in Singapore, Sygnum empowers institutional and private qualified investors, corporates, banks and other financial institutions to invest in the digital asset economy with complete trust.

Sygnum operates an independently controlled, scalable and future-proof regulated banking platform. Sygnum's interdisciplinary team of banking, investment and Distributed Ledger Technology (DLT) experts is shaping the development of a trusted digital asset ecosystem.

\$60,000,000²

FUNDING

\$500,000,0002

VALUATION

90 cc







COMPANY NAME

Algo Trader



Token Ticker: N/A

Sub-Category: ATM, Broker & OTC

DESCRIPTION

Available on-premise or in the cloud, AlgoTrader is an institutional-grade quantitative trading and trade execution solution for conducting quantitative research, trading strategy development, strategy back-testing and automated trading for both traditional finance and crypto finance. AlgoTrader provides everything a buy-side or sell-side firm requires to run its quantitative trading and trade execution operations. It was the very first and most advanced quantitative trading and trade execution software to allow automated trading of Bitcoin and other digital assets. Based in Zurich, New York, and Singapore, AlgoTrader operates globally.

\$6,400,000 cc

FUNDING

\$25,000,000²

VALUATION

10 cc

EMPLOYEES CH

COMPANY NAME

Shift Cryptosecurity

CRYPTOSECURITY

Token Ticker: N/A

Sub-Category: Wallet & Vault

DESCRIPTION

Shift Cryptosecurity is an ETH spin-off that produces hardware devices to secure digital assets, or, in other words, physical keys for our digital lives. The first product is the Digital Bitbox, which is a minimalist hardware wallet in a durable and portable case that is inserted into a USB port. Private keys are stored encrypted on a tamper-resistant high-security chip (50 year lifespan) that prevents physical data extraction.

\$2,000,000²

FUNDING

\$25,000,000 DR

VALUATION

13 Li

EMPLOYEES CH

COMPANY NAME

CustoDigit



Token Ticker: N/A

Sub-Category: Wallet & Vault

DESCRIPTION

Custodigit and SIX Digital Exchange provide a unique Institutional Digital Asset Gateway. The gateway supports the complete investment value-chain from trading, to smart order routing, to settlement, to custody as well as access to secondary markets. The joint services give banks - and their customers - trusted, safe, secure, complaint yet seamless access to crypto-currencies and digital assets. Depending on a bank's strategic objectives, it has the option to leverage Custodigit's offering either through a direct platform integration solution, or a managed sub-custody service.

\$10,000,000 cc

FUNDING

\$20,000,000²

VALUATION

15 cc

EMPLOYEES CH

COMPANY NAME

Smart Valor



Token Ticker: VALOR

Sub-Category: Crypto Exchanges

DESCRIPTION

Founded in the Crypto Valley in 2017, SMART VALOR was initially hosted by Thomson Reuters Labs and became one of the first companies to embrace digital assets in Switzerland. Nominated by Forbes as one of Europe's 10 Most Exciting Technology SMEs, SMART VALOR today is leading the way with its fully compliant cryptocurrency exchange authorized by FMA and NFT marketplace for digital assets. It is supported by leading venture capital funds such as Venture Incubator and is a holder of innovation grand from Swiss government (Innosuisse).

\$10,000,000 cc

FUNDING

\$ 8.198.895 cc

VALUATION

4 cc

EMPLOYEES CH

COMPANY NAME

Lykke



Token Ticker: LKK

Sub-Category: Crypto Exchanges

DESCRIPTION

Lykke is a fintech company bridging the gap between traditional finance and blockchain. Lykke runs a proprietary exchange where clients can buy, sell and store many types of tokenized assets, amongst them cryptocurrencies. Lykke Business offers cutting edge technology solutions for enterprises in the dynamic financial. consumer and service sectors. By leveraging the power of a broader ecosystem, Lykke's platforms eliminate barriers to market entry, solve inefficiencies within current economic systems and democratize access to digital asset marketplaces.

\$26,500,000 cc

FUNDING

\$9,077,474 cc

VALUATION

15 cc

EMPLOYEES CH

NOTE:

These additional Swiss Players are important projects and firms in the blockchain and crypto space. Therefore, they are listed in the report but not included in the totals of the Top 50.



Why Every Bank Will Need A Crypto Asset Strategy

Blockchain - a Game Changer For Financial Services

We live in an age of digital disruption that has accelerated over the last year. In the midst of this change, crypto assets are emerging as a 'safe-haven' asset for institutional investors looking for alternative stores of value for their investment portfolios.

This comes as the Crypto Finance brokerage has received the licence as a securities firm from the Swiss financial authority FINMA. The timing couldn't be better for this leading digital asset enabler from the Crypto Valley. Brokerage CEO Rupertus Rothenhäuser explains why.

A new asset class is emerging – crypto assets. It is an asset class designed for the new digital age we are now entering. As central banks unleash record levels of monetary stimulus, and technology continues to rapidly reshape our global economy, conventional thinking will not bring the answers for what lies ahead.

Bitcoin and other crypto assets have attracted retail investors and now the attention of institutional investors, who are drawn to the independence these assets enjoy from the policies of central banks and governments, and the blockchain technology shaping the future of finance.

Crypto Assets: New Infrastructure and Expertise

Banks will need to both create the infrastructure for crypto assets and respond as trusted advisors to clients who are interested in investing in this asset class. This creates a challenging duality: the current financial system remains, and this new digital asset finance sector emerges. Securing the expertise of a specialised partner for trading and investing in

crypto assets, and developing a digital asset strategy, is an efficient way to meet this need for innovation, in incremental steps.

Increasing Regulatory Clarity

With a new DLT law addressing crypto assets effective in February 2021, Switzerland is one of the few countries with this regulatory clarity. The securities house licence granted by FINMA to Crypto Broker AG – the brokerage firm of Crypto Finance Group – is one more step in making secure, reliable access to crypto assets possible for the finance sector.

Rupertus Rothenhäuser, CEO of the brokerage comments, "It's now possible for banks to shape a crypto asset strategy within the regulated finance sector," based on the full suite of crypto asset financial services the Crypto Finance Group provides professional investors.

Why Does Every Bank Need a Crypto Asset Strategy?

Without a strategy for crypto assets, banks will be unable to serve their clients' needs in the future. Distributed ledger technology is only just emerging within the banking industry, but it is a technology that will establish itself at the heart of banking. Without it, banks will miss out on opportunities for efficiency and access at a time when we are entering a new digital and technologically driven age.

Banks are taking this new technology very seriously despite the formidable challenges they face.

Their focus: how to maintain their competitive edge in an increasingly technologically driven market.

What Challenges Do Banks Face?

As the number of crypto asset transactions increases, banks will face many challenges. They will need to build the infrastructure to support crypto assets and expertise to do this efficiently, while running their existing banking systems in parallel for many years to come.

The other challenge banks face is creating access to the market to allow their clients to invest. Whether trading and transacting directly, or asset management with white label products, banks will need an offering for various clients.

A further step will be tokenising assets and accessing liquidity as the markets evolve, or as a means to raise finance. By working with licenced counterparties, like the Crypto Finance Group and our brokerage business Crypto Broker AG, banks have a viable, efficient path to offering crypto asset services to their clients.



Rupertus Rothenhaeuser

CEO of Crytpo Broker AG, part of the Crypto Finance Group

www.cryptofinance.ch



Blockchain Other Industries

- **INSURTECH**
- **MEDIA & ENTERTAINMENT**
- TRANSPORT & SUPPLY CHAIN
- **TRAVEL & LEISURE**

Source: Corporate Contact (CC); CrunchBase (CB); IcoBench (IB); TrackIco (TI); Desk Research/Press (DR) Coinmarketcap (CMC); Corporate Website (CW); LinkedIN (Li), Estimate (2), Valuation equals Funding (1), No information (N/A)

COMPANY NAME

4ARTechnologies



Token Ticker: 4ART

Sub-Category Art

DESCRIPTION

4ARTechnologies is setting a new digital standard for the art world. The company combines the blockchain with its patented Augmented-Authentication-Technology and offers all art world participants more transparency, security and process efficiency. Using a smartphone camera, the microscopic structure of an artwork is captured and converted into a digital "fingerprint". Together with the provenance of an artwork, this fingerprint is secured with the blockchain as a "biometric passport". Once stored, the artwork is safely and uniquely assigned to its digital certificate.

\$50,000,000 cc **FUNDING** \$500,000,000 cc VALUATION 22 cc

EMPLOYEES CH

COMPANY NAME

Maps.me



Token Ticker: MAPS

Sub-Category: Travel & Leisure

DESCRIPTION

Leading offline maps mobile app with 140 million registered user. Creating embedded FinTech story on this basis with a strong defi angle.

\$50,000,000 cc **FUNDING** \$700,000,000 cc VALUATION 5 cc

COMPANY NAME

Utopia Music



Token Ticker: N/A

Sub-Category: Media & Entertainment

DESCRIPTION

Utopia Music is a technology company that leverages big data in order to enhance the global music industry through increased revenues, reduced costs, accelerated payment cycles and improved insights, while creating an ecosystem where music and tech foster creativity & joy.

\$12,000,000 cc **FUNDING**

EMPLOYEES CH

\$154,000,000 cc

VALUATION

21 cc

EMPLOYEES CH

COMPANY NAME

FTHFRISC



Token Ticker: DIP

Sub-Category: Insurtech

DESCRIPTION

Etherisc's mission is to build decentralized insurance applications, making the purchase and sale of insurance more efficient, enabling lower operational costs, increase transparency of insurance compared to traditional operations, and democratize access to reinsurance investments.

\$3,644,240 IB

FUNDING

\$50,231,461 CMC

VALUATION

2 CC **EMPLOYEES CH** COMPANY NAME

Modum



Token Ticker: N/A

Sub-Category: Transport & Supply Chain

DESCRIPTION

modum.io sensor devices record environmental conditions while physical products are in transit. When a change in ownership occurs, the collected data is checked against a specific smart contract in the blockchain. This contract validates that the transaction meets all of the standards set out by the sender, their clients, or the regulator and triggers various actions. The first product of modum.io offers an efficient system to comply with recently tightened regulatory requirements for the transport of medicinal products for human use in the European Union

\$13,350,000 cc

FUNDING

\$15,000,000 CMC

VALUATION

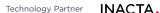
25 cc

EMPLOYEES CH









Taking DeFi Mainstream

Chances are you know DeFi is growing quickly. Total Value Locked has gone from under \$1 billion to about \$35 billion in under six months. Let's have some perspective, though. Total assets of global financial institutions is around \$155 trillion. Right now, only 1.1 million people use DeFi. It's very exciting, but it's still niche.

DeFi is an on-chain, user-driven financial system that uses smart contracts to allow people and institutions to pay, lend, trade and invest directly with each other. There are no middlemen to approve or not approve transactions nor to trust your assets to.

I believe strongly that DeFi has the to deliver huge benefits to financial services users, including lower costs, greater choice and a fairer system. These benefits will remain theoretical – and DeFi will remain an enthusiasts' corner – unless it can reach the mainstream.

Mainstream adoption has been blocked by three obstacles: the speed and cost of the underlying blockchain infrastructure, the market infrastructure or "money lego" protocols, and DeFi's inaccessibility to most people. Ethereum is too slow and expensive to enable mass adoption. Would-be DeFi users have to educate themselves a lot before they can benefit. Bitcoin is considered mainstream these days, but there are only about 68 million wallets.

For DeFi to be embraced by a mass audience, it must run on faster, cheaper infrastructure and deliver a compelling user experience. That is the mission for Maps.me. The infrastructure for DeFi is improving fast. Look at the Serum decentralized exchange with full on-chain orderbook, which runs on Solana's scalable and low-cost blockchain. Solana currently processes up to 50,000 transactions per second, each costing \$0.00001. It may reach 700,000 per second in two or three years.

But we still need a critical mass of users – and that means usability. A DeFi platform is only going to be used by hundreds of millions of people if it has an irresistible value proposition and a user experience that is as intuitive as the apps they use every day. This probably means not having to deal directly with private keys, seed phrases, etc.

"Build it and they will come" is a grand maxim, but it can take a long time to build a user base for something this unfamiliar. User bases can grow quickly once they reach a tipping point but reaching that point can be slow and uncertain. To accelerate the process, we simply started with an app that millions of people already use: Maps.me.

Maps.me is the world's leading offline mapping service. In nine years, it has grown to 140 million users, with 60 million people using it to navigate 195 countries in 2020. Pilots, magazine photographers, professional cyclists, aid workers and everyday travellers love using its turn-by-turn routing, travel guides, and detailed mapping – all available without using often-costly mobile data.

This is a community in which DeFi should really flourish. The app is open source and based on open data. Maps.me users are the biggest contributors to the OpenStreetMapping Project. You could say that composability and community – key features of DeFi ecosystems – are in their DNA.

With Maps.me 2.0, we are starting to embed DeFi services into an app that already has a special relationship with millions of users. The wallet will be an intuitive part of an already familiar platform, meaning there is no learning curve. Through this wallet, users earn passive income on stored value as well as transfer money globally and instantaneously in 35 different

currencies. The value in their digital wallets is secured in a Swiss-regulated trustee holding AAA-rated assets. Users maintain full control of the asset and still can access it from anywhere in the world with low fees and no hidden costs. And they can earn a HIGH yield (up to 8% pa) by lending out balances in a DeFi way, collateralised by highly liquid assets.

Intermediaries in centralized finance impose higher costs on end-customers and restrict access to certain products. By using DeFi, anyone can experience finance without Wall Street and that will be a compelling value proposition. In the early stages, Maps.me can bring users borderless payments, meaningful passive income, and a host of cashback and loyalty rewards earned by participating in the platform.

Adoption will accelerate. A survey of Maps.me users found 47% have an interest in accessing financial services via the app, and more than 100,000 have joined the waiting list for the wallet.

Maps.me will not bring DeFi to the mainstream alone. But it addresses the infrastructure and usability challenges that have held that back. DeFi can be a game changer, creating greater wealth distribution opportunities while lowering costs. By bringing these benefits to such a large user base, it is the kind of spark that DeFi needs.



Viktor Mangazeev

Co-Founder of maps.me



Crypto Valley Top 50 Challenger Companies

The following startups have a good chance of being included in one of the next Top 50 Reports due to employee growth, increase in valuation, and contribution to the ecosystem.



Axedras



EMR

Finance



Alephium

Protocol



Brickmark

Finance



FICAS

Finance



Hopr

Protocol



Crowdlitoken

Finance





Ariadne

Finance



Daura



Relai

Finance















SCX

Finance



Finance



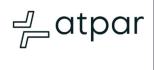
MedCo

Other



SDX

Finance





FYOOZ

Other











Hermez

DeFi



Ormera





















Finance Without Wall Street

What's wrong with finance? Ask ten people, and you'll get ten different answers. There is a common theme, though. Few believe that finance and investing is a level playing field. Many believe that financial services are profitable for financial institutions because costs for individual users are high. Others think investing is unfair because big institutions have access to products that they don't - or because their bank/broker can suddenly change the rules of the game.

These are valid perspectives. And there is a common factor: friction. The existing financial system, in which capital flows are centralized through a relatively small number of players, is beset by friction that slows, restricts or adds cost to the movement of that capital. And it skews risk-reward to benefit certain participants.

It all starts with financial regulation, which creates costs and processes, but is necessary because risk is concentrated in those big institutions. Then there are the big financial institutions themselves, which invest billions of dollars in IT infrastructure that only they use, creating more costs that have to be funded by end users.

As a result, financial institutions are only offer some of their most value-added services – such as prime brokerage – to large institutional clients with portfolios large enough to justify the costs. Also, retail investors are saddled with the most risk, which is only marginally supported by the higher cost to serve them.

So, friction lies behind many of the complaints about finance, but it's an inevitable consequence of centralized financial systems and the cost structures they create. I should know; I spent decades working in them. But there is another way, which can allow

anyone with a mobile phone and Internet access—at fair prices—to the types of products normally only available to an investment bank's institutional clients.

Not surprisingly, it's the opposite of centralized finance: decentralized finance. DeFi is a user-driven financial system that uses smart contracts to allow people and institutions to pay, trade, lend, and invest directly with each other. Unnecessary middlemen are eliminated altogether. Users can select the transactions they want to make and get the same treatment whether they are a retail or an institutional customer.

What investment banks do is complicated, but it is possible to reduce key parts of the capital markets side of the business to the logic of programmable units. This "money lego" concept is at the heart of DeFi, allowing platforms like Oxygen to offer anyone capabilities that Goldman Sachs provides to its clients in a fast, low cost, transparent, safe, equitable, distributed ecosystem that is available 24/7.

The Oxygen Ecosystem is building this offering piece by piece. We've started with prime brokerage, which enables users to borrow against their private assets, earn yield and trade with leverage. That may be followed by portfolios that are open to all investors and act like a fund, bond-like total return indexes or investing in a basket of hot DeFi tokens with leverage. The next unit could be private portfolio investment strategies. Others could include over-the-counter volatility trading and structured products. This ecosystem is highly scalable and easy to compose with (use in your own applications), or use "money lego" to add new functionalities. Welcome to finance without Wall Street.

As well as being open to all, DeFi makes finance fairer

and more transparent. Oxygen is governed by holders of its native OXY token. They can propose and vote on binding amendments to the protocol. All transactions are on the blockchain, and as a result, are recorded, are immutable and verifiable. The functionality can be built and used by anyone, which means that investment in infrastructure benefits all users – not just one bank's clients. And it's inherently fair: anyone can participate on either side of a transaction and the same rules apply to retail and institutional players. Trading could not be arbitrarily stopped for select users.

DeFi is still a small – although fast-growing – part of the financial world. Oxygen has major institutions on the platform and access to 100+ million users of the Maps.me app. It will still build liquidity by gaining more users. DeFi is so compelling that it must become an important part of our financial future. Central banks around the world are exploring the potential of digital currencies which use the same underlying technology. And private sector stablecoins like USDC and Facebook's Diem are emerging.

With DeFi, you have control of your assets. By not having to rely on a bank or trading app, you get better pricing, greater liquidity, transparency and certainty of execution. For a truly level playing field, DeFi is the best answer to fix finance.



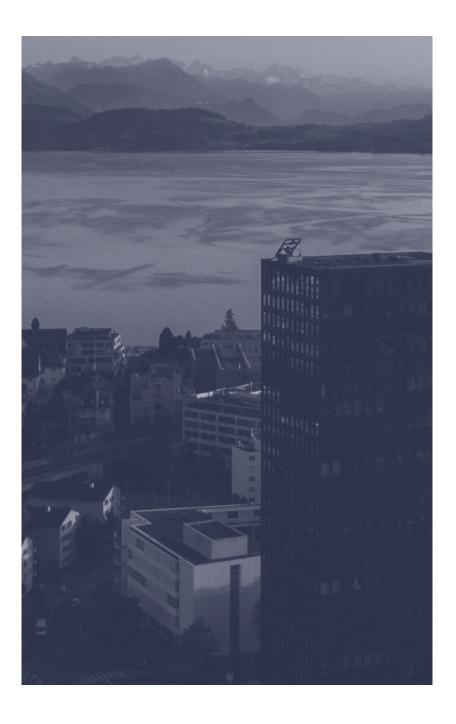
Alex Grebnev, CFA

Co-Founder of oxygen.org



CV VC Top 50 Report H2/2020

Players by Key Areas









Banks Active in Crypto





























Vontobel

Zarattini & Co Bank







Blockchain Focused Venture Capital Firms

























TOMA HAWK .VC









Blockchain Technology Solution Providers





INACTA.







Papers











Blockchain and Crypto Savvy Law Firms





































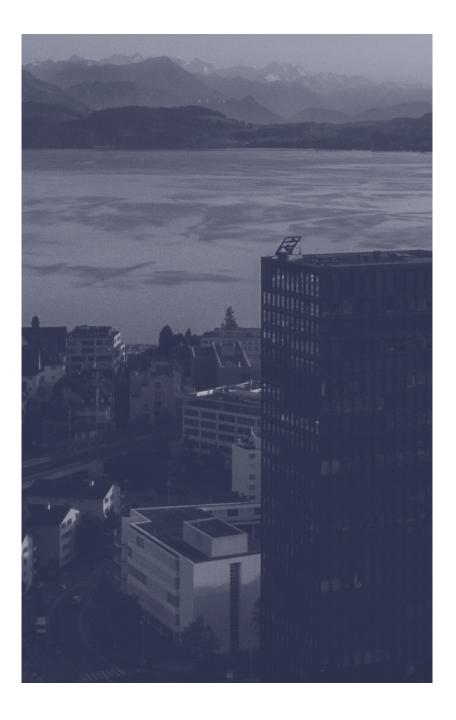
wenger & vieli Rechtsanwälte







CV VC Portfolio









In 1989, the World Wide Web was invented in Geneva. And yet, there is currently no Swiss-based Internet company of global scale. 30 years later, Switzerland once again finds itself at the core of a technology with the potential to boost growth over decades: blockchain technology.

CV VC believes that the next wave of big tech companies will be driven by catalyst technologies like blockchain. These companies will be led by a new generation of founders from around the world that are attracted to technologies like blockchain, driven by the need for decentralization, transparency and accountability.

CV VC is an early-stage venture capital investor with a focus on startups that build on blockchain technology. Blockchain technology has the potential to significantly impact many industries and we at CV VC believe that blockchain technology will become a catalyst for the next technological revolution, alongside AI, machine learning and automation, as well as IoT.

Despite its \$3T market potential, blockchain technology is still young. CV VC considers the current dynamics in the industry as an attractive opportunity to create long-term value for investors by executing a diversified and systematic strategy of early-stage investing in startups that use blockchain in their technology stack. Our investment focus is on (decentralized) applications built with/on top of blockchain technology. We believe the application layer will provide the most attractive long-term growth

potential for VC investments, whereas the infrastructure layer ("the rails") may become commoditized overtime in order to achieve mass adoption of blockchain technology.

Further, the current social and economic environment has led to a digitization push that will cause certain industries to grow disproportionately in the future. We call this Technology for Tomorrow, in short "T4T". We have identified the following six verticals where we believe digitalization will grow exponentially and hence create the biggest opportunities from an investment perspective:

(decentralized) applications at the intersection of the six T4T verticals and blockchain technology and invest in the most attractive use cases across different industries, on a global basis. The ultimate goal is to achieve a diversified portfolio with regards to industries / geographies and weighting of the underlying portfolio companies, thereby minimizing any cluster risks and maximizing returns for investors.

Our strategy is to find the best startups that build







LIEFSTYLE & **HEALTH**



EDUCATION & SCIENCE



SECURITY & IDENTITY



F-COMMERCE & LOGISTICS



FINANCE & **INVESTING**







CV VC PORTFOLIO

FUTURE OF WORK



AdHash² (BUL/SUI) - Advertising

Privacy-focused ad ecosystem



Sprinter² (USA) - Platform

Decentralized platform for tech



ditCraft3 (GER) - Software dev.

ditCraft Improve and secure software develpment

EDUCATION & SCIENCE



MathForMoney² (ZAR) - Education

Solve math problems to earn pocket



Orvium² (EST) - Scientific Publishing

Connecting publishers with



Ptolemy² (USA) - Patform

Contributor-rewarding encyclopedia

LIFESTYLE & HEALTH

Blocksport3 (SUI) - Sportstech

Connecting (e-)sport clubs with



Geon3 (POL) - Adtech

Location-based marketing



Utopia Music1 (SUI/SWE) - Big data

Big data for music industry

SECURITY & IDENTITY

Asvin3 (GER) - IoT



Platform to securely update IoT-devices



Vereign1 (SUI) - IT Security

Digital identity verifiable with

FINANCE & INVESTING



BitFreezer² (USA/UKR) - Fintech

Ultra-secure mobile digital wallet

Agryo3 (USA/BRA) - Agritech

nagryo Credit profiles of farmers through Al







Data Intelligence Platform for Impact Investments



Tezsure² (USA) - Insurance

Insurance protocols with smart contracts & ML



BHander² (EST/UKR) - Fintech

Stand-alone multicurrency wallet & payment

Flovtech1 (SUI) - Fintech

flovtec. Liquidity provider for digital assets



WildCards³ (SUI/ZAR) - Impact Investing

Digital endangered animal collectables

E-COMMERCE & LOGISTICS

Xion3 (USA/ZAR) - e-Commerce e-Commerce subscription platform



VaultWines³ (GEO) - Supply Chain

VAULT WINES D2C wine e-commerce & tracking

CV VC Strategic Investment



GenTwo Digital (SUI) - Fintech

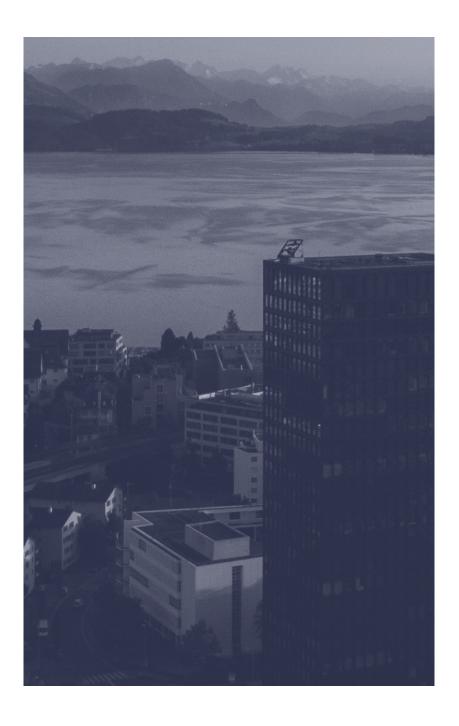
Making digital assets bankable



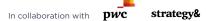




About









ABOUT



CV VC is an early-stage venture capi-

tal investor with a focus on startups

which build on blockchain technol-

ogy. Based in the heart of Switzer-

land's Crypto Valley, the company

invests in all stages of crypto and

blockchain development, from incu-

bation to growth capital. In addition to

venture capital investments, it oper-

ates its own incubator and ecosystem

business under the CV Labs brand,

consisting of co-working spaces, advi-

sorv and events. Blockchain technol-

ogy has the potential to significantly

impact many industries, and CV VC

believes that the next, third wave of

large tech companies will be driven by

catalyst technologies like blockchain, alongside AI, machine learning, auto-

INACTA.

inacta AG, founded in 2009 and based in Zug, is an independent Swiss IT company - partner for innovation and digital transformation. More than 70 experienced digitization experts support organizations from the insurance, banking, real estate and healthcare sectors.

inacta supports established companies and startups with consulting, project management and software development services. As an early adopter, inacta not only understands technologies such as blockchain or Al - but above all - how and where these are used sensibly.



strategy&

PwC is the leading blockchain trust provider and provides smart contract assurance services to underpin the commitment to blockchain technology. At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 157 countries with over 284,000 people who are committed to delivering quality in assurance, advisory and tax services. PwC Switzerland has over 3.250 employees and partners in 14 locations in Switzerland and one in the Principality of Liechtenstein. Find out more and tell us what matters to you by visiting us at www.pwc.ch. PwC refers to the PwC network and/ or one or more of its member firms. each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

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