Switzerland has become a centre for new business ideas in the field of blockchain and distributed ledger technology (DLT); as a strong financial center and hub for world trade, it generates an especially large range of applications for these technologies. In particular, originally based in the canton of Zug, Crypto Valley has established a worldwide reputation as a hub for global growth, resulting in a high density of flourishing crypto, blockchain and DLT companies throughout Switzerland.

Switzerland is known worldwide for its privacy-conscious legislation, world-class talent and its openness. Like blockchain, Switzerland is also organized in a decentralised way, which has a positive effect on understanding this new technology. The state government’s open and proactive attitude has led to extremely favorable conditions for blockchain companies, which has created a flourishing ecosystem that produces world premières: in 2016, Zug became the first city in the world to accept Bitcoin payments for tax purposes; in 2017, Crypto Valley announced the introduction of a decentralized Ethereum-based digital ID system; and in 2018, the fintech company Amun launched the world’s first crypto index product on the SIX Swiss Exchange.

**Swiss unicorns (value > 1 billion US dollars)**

Ethereum, Cardano, Bitmain, Dfinity Foundation (as at 31.12.2018)
RESEARCH AND DEVELOPMENT (R&D)

- Computer science skills form the basis for blockchain innovations. According to the Times Higher Education ranking list 2019, the Department of Computer Science at ETH Zurich ranks second worldwide in the computer science field. A number of labs at the ETH Zurich and Lausanne and at the University of Applied Sciences and Arts Western Switzerland (HES-SO) deal with blockchain issues. The Crypto Valley Academy has been offering a Blockchain Executive Program for Business Leaders since 2019.

- The city of Zug was the first state authority in the world to accept blockchain as an official means of payment in 2016. In the meantime, Zug has also developed a "digital identity" (E-ID) based on blockchain. In cooperation with the Lucerne University of Applied Sciences and Arts, this was used to test a vote in the summer of 2018. The Lucerne University of Applied Sciences and Arts also allows invoices to be paid in the cryptocurrency Bitcoin.

- Other regions in Switzerland to launch blockchain pilot projects with university support include the city and canton of Schaffhausen, which offer an E-ID with a blockchain interface. The Ticino city of Chiasso also accepts tax payments in Bitcoin.

- The first university blockchain professorship was created in 2018 at the Center for Innovative Finance at the University of Basel in cooperation with Credit Suisse Asset Management. It also stores course certificates on the Ethereum blockchain.

- The Blockchain Center of the University of Zurich (UZH) investigates blockchain topics from a multidisciplinary perspective, with 22 professors from the fields of computer science, law, economics and finance. It has numerous partnerships with companies from the private sector, such as the AXA insurance group.

- At the University of St.Gallen, the Institute for Supply Chain Management (ISCM) conducts research on blockchain applications in the food and pharmaceutical industries. A consortium has teamed up with project partners such as Vifor Pharma, SAP and the startup Modum.io. The project is supported by the Swiss Innovation Promotion Agency Innosuisse.

- Since 2018, the Blockchain Hub Trust Square in the center of Zurich has been offering the world’s largest infrastructure for blockchain innovators of its kind. More than 300 jobs are available to 40 local companies and partners. The latter include universities in Zurich, Basel, Rapperswil and Lucerne as well as PwC, the business consulting firm.

- Since September 2017, the national telecommunications company Swisscom has been positioning itself as an innovation partner for corporate customers with regard to blockchain issues. Swisscom Blockchain AG offers consulting, development and blockchain infrastructure. Its target group includes companies from the areas of finance and trade, life sciences or the public sector.

- One driver of the scene is the Zug blockchain investor Crypto Valley Venture Capital (CV VC), formerly Lakeside Partners. CV VC focuses on blockchain companies in all development phases, operates an incubator, a coworking space, organises the CV Summit and a startup competition.

- The Fusion startup incubator in Geneva has been operating a blockchain lab since early 2018; it focuses on financial solutions and public administration applications. At the initiative of the incubator, the Swiss Blockchain Association was also founded as an association whose goal is to be a promoter of the blockchain economy throughout Switzerland.

- Established Swiss companies such as Kühne+Nagel and SwissRe are developing innovative blockchain-based business models in areas such as insurance, energy supply, logistics and the supply chain.

- Swiss blockchain events are developing into key industry meetings for scientists and practitioners from all over the world:
  - Crypto Finance Conference (CFC), St Moritz, Tokyo, New York
  - Blockchain Economic Forum, Davos
  - Cryptomountain, Davos
  - CV Summit, Zug
  - Blockchain Leadership Summit, Basel
  - Blockchain & Bitcoin Conference Switzerland, Geneva
  - Infrachain (for use in public administration and infrastructure operators)
  - Energy Blockchain Hack (for blockchain solutions in the energy sector)

ETHEREUM: A SUCCESS STORY

The Ethereum Foundation was founded by Blockchain guru Vitalik Buterin in Zug in 2013 and has been based there ever since. It operates a blockchain with the cryptocurrency Ether, which is used as a means of payment for transactions in its network and is now the second most significant cryptocurrency after Bitcoin. This system has proven to be particularly suitable for Initial Coin Offerings (ICOs) and is used by around three quarters of ICOs worldwide.
COSTS AND FINANCING

• In 2018, venture capital investments in Swiss startups rose by 32 percent to a record 1.2 billion Swiss francs. The strongest growth was in investments in ICT companies.

• Of all the companies founded, the share of companies founded in the blockchain & crypto sector is 0.47 percent. Together with Great Britain, this puts Switzerland at the top, ahead of Germany, France and Spain.

• In 2017, Switzerland hosted four of the world’s five largest ICOs. Switzerland also remained Europe’s most important ICO hub in 2018: between January and October 2018, 86 ICOs with a total volume of 1.65 billion US dollars took place here. This puts Switzerland in the top 10 internationally and, alongside Singapore, makes it particularly strongly represented among ICOs in financial services.

• The Swiss innovation promotion program Kickstart Accelerator promotes deep-tech innovations in areas such as AI, blockchain and robotics. Selected startups receive scholarships and support from established companies and universities.

• Swiss politics has made blockchain a research focus. In 2018, for example, the Federal Council launched the national research program “Digital Transformation”. With a budget of 30 million Swiss francs, it also supports research projects concerning blockchain issues.

CONDITIONS AND MARKET ACCESS

• At the beginning of 2018, then-Swiss Federal Councillor Johann Schneider-Amann formulated Switzerland’s goal of becoming a crypto-nation. Under his patronage, measures were developed to support this goal from the regulatory side.

• A report adopted by the Federal Council at the end of 2018 on the legal conditions for blockchain and DLT in the financial sector shows that the Swiss legal framework is well suited to dealing with new technologies, including blockchain. The report emphasizes the government’s pragmatic attitude: In contrast to other countries, Switzerland does not want a blockchain law, but wants to integrate the new technology selectively into the existing legislation.

• Since the beginning of 2019, it has been possible to obtain a fintech license, which allows public deposits of up to one hundred million Swiss francs to be accepted. This also simplifies blockchain and crypto companies’ access to the Swiss market.

• In February 2018, the Swiss Financial Market Supervisory Authority FINMA published guidance on how to deal with ICOs on the basis of existing financial market legislation. It defines the minimum information for inquiries and the criteria for answering them.

• The legal form of a Swiss foundation offers advantages for blockchain startups. Swiss authorities process registrations and foundations quickly and easily. The purpose of the foundation may be the development and maintenance of the protocol. Since it is very difficult to change this purpose of a foundation, experts believe that this form of foundation creates trust among those involved.

The world’s largest ICOs by country (2017-2018)

<table>
<thead>
<tr>
<th>Country</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>4</td>
</tr>
<tr>
<td>BVI</td>
<td>2</td>
</tr>
<tr>
<td>USA</td>
<td>1</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1</td>
</tr>
<tr>
<td>Singapore</td>
<td>1</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: CV VC, 2019

The top 10 most blockchain-friendly countries in Europe

<table>
<thead>
<tr>
<th>Country</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>1</td>
</tr>
<tr>
<td>Gibraltar</td>
<td>2</td>
</tr>
<tr>
<td>Malta</td>
<td>3</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4</td>
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<tr>
<td>Denmark</td>
<td>5</td>
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<tr>
<td>Germany</td>
<td>6</td>
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<tr>
<td>Portugal</td>
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<td>Netherlands</td>
<td>8</td>
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<tr>
<td>Finland</td>
<td>9</td>
</tr>
<tr>
<td>Belarus</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: BlockShow Europe 2019
TESTIMONIAL

We had a good feeling about Switzerland right from the start. In addition to its long history of national sovereignty, neutrality and professional excellence, it has been a pleasure to work with forward-thinking regulators and other partners who are passionately committed to making the crypto-nation vision a reality. We hope that Amun can help take a small step on this journey.

HANY RASHWAN
CEO Amun
www.amun.com

CURRENT DEVELOPMENTS

• The Zug-based fintech company Amun launched the first crypto index product, “Amun Crypto ETP”, on the SIX Swiss Exchange, which was a world premiere.

• In July 2018, the SIX Swiss Exchange announced that it would set up Six Digital Exchange (SDX), the world’s first fully integrated infrastructure for the trading, settlement and custody of digital assets.

• As the first regulated bank in the world, the Swiss online bank Swissquote has been processing Initial Coin Offerings (ICO) since October 2018. It all started with the ICO of the Lausanne startup LakeDiamond, which produces diamonds for industrial applications.

• A premiere in real estate trading: Blockimmo, a Zug-based company, received FINMA approval at the end of 2018, meaning that real estate shares can now also be purchased via Blockchain.

• The first Swiss crypto bank is called Seba Crypto, and is located in Zug. It is supported by renowned investors and is seeking a banking license from the Swiss Financial Market Supervisory Authority (Finma).

CONTACTS AND FURTHER INFORMATION

Authorities and regulators
State Secretariat for International Financial Matters SIF
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Associations and networks
bitcoinassociation.ch
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More fact sheets on Switzerland as a business location
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This factsheet was produced with the kind support of CV VC.

03/2019