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March 2019

100 BLOCKCHAIN STARTUPS IN EUROPE

In 2018, the crypto-market is cooling down, but technology is heating up

The genesis block of the cryptocurrency Bitcoin was mined already 10 years ago. Back in the days, the traditional financial world was severely shaken, Bitcoin transactions grew up calmly and steadily. In 2012, the cryptocurrency startup Coinbase received a first seed funding round. Since then, blockchain has been highlighted as a potential disruptor for pretty much every industry and even business models and organizations. That is how blockchain became the new black.

Meantime, a new way of funding, by issuing crypto assets, appeared under the name of “Initial Coin Offering”. [Amounts raised](#)¹ via ICO went rapidly out of control, raising huge amounts (6 over 100 millions\$) directly from crypto enthusiasts, and heating also crypto valuation. Inevitably, in early 2018, speculative behaviors led to a crypto-crash. Cryptocurrencies lost roughly 86%² of their market capitalization, startups within the industry which were holding their reserve in cryptocurrencies are accordingly facing a liquidity issue today. Recently, some notable actors have processed further with layoffs ([Consensys, Steem...](#))³.

On the other hand, today Coinbase’s valuation is around [8 billion \\$](#)⁴. According to [Crunchbase](#) database, there are today 3040 startups with the tag “Blockchain” and some of them raised equity funding from traditional investors. Still, according to Crunchbase, 25% of them are Europe based. In spite of the bear market, in Europe, investments made into blockchain companies by professional investors are [on the rise](#)⁵. In November the London based startup [Argent](#) raised a first seed round of 4Mio\$⁶. VC money is still going into the Blockchain sphere, funding later stages and seeding new types of projects. Also, the number of blockchain [patents](#) is increasing⁷ on a global scale. It seems that the whole market is now focused on technological progress and usability and it is less crypto-currency driven.

This study is based on a self-compiled database of 100 equity-funded blockchain startups, which raised “VC money” and are located in Europe (it includes more broadly some coming from Israel). Half of them raised over 2Mio\$, sometimes by using different financing funnels (VC+ICOs). Specific clusters of startups are driving more attention and money over time. If originally most of the funds used to invest in ecosystem and currency related categories, they are now aiming at industry-solutions and usability. Geographically speaking, there are blockchain “hubs” in Europe, weighing more than 10% in the sample.

With this mind, Deutsche Ventures and ESCP Europe carried out for the Deep.Circle this research around European blockchain startups and their finance and field focus. The results of which are presented in this report.

Berlin/Paris in March 2019

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Deutsche Ventures

Prof. Gunnar Graef
ESCP Europe

1: <https://www.visualcapitalist.com/video-ico-explosion-one-animated-timeline/>

2: <https://coinmarketcap.com/charts/>

3: <https://thenextweb.com/hardfork/2018/12/04/cryptocurrency-bear-market-blockchain/>

4: <https://www.cnbc.com/2018/10/03/coinbase-valuation-shows-cryptocurrency-legitimacy-michael-novogratz.html>

5: <https://www.coindesk.com/vc-investment-in-blockchain-startups-is-up-280-so-far-this-year>

6: <https://techcrunch.com/2018/11/20/argent-a-smart-crypto-wallet-app-with-a-banking-look-raises-4m-from-euro-vcs/>

7: <https://www.longhash.com/news/blockchain-patents-on-the-rise-despite-bear-market>

- The study focuses exclusively on equity-funded European blockchain startups. The 100 startups in the database have all received equity-backed funds from professional investors such as Venture Capital funds. Some of them combined different forms of financing (equity and non-equity). We are not looking into ICO-funded startups even if some of them may have also raised money through ICO.

	Non equity	Equity
Crowd	Initial Coin Offering	Crowdequity
Professional investors	Grant	Equity financing

Funding taxonomy

- **ICO** stands for Initial Coin Offering: during an ICO, a company is issuing crypto assets to raise money
- **Crowdequity** stands for individual pooling funding to acquire an equity stake in a company. Crowd-equity is usually done through an intermediary platform
- Companies can do **equity** rounds to raise funds from professional investors (Venture Capitalist, institutional investors...), selling ownership interest to raise funds
- Some specific professional investors are giving funding without requiring an equity, through **Grants** or Non-equity assistance

- Geographically speaking, blockchain startups are intrinsically decentralized: they aim at operating globally and teams are often working remotely. Even if geographic boundaries get blurry, the study focuses on Europe-registered blockchain startups, taking a “broad” definition of Europe that includes Israel.
- Each startup is assigned to a category and a sub-category as defined on the upcoming Blockchain Market Map.

THE 100 ARE IN 6 APPLICATION CLUSTERS

The blockchain market map

In order to get a deeper insight into the market, the 100 startups have been clusterized in the database as inspired by [hackernoon ecosystem chart](https://hackernoon.com/blockchain-ecosystem-explained-in-one-chart-68bdc5e18335)¹. Even though there is a dedicated category for industry solutions, some other categories (exchange & trading, identity, authentication & security can have an industrial use). Categories' colours will be used for the whole document.

ECOSYSTEM

- Mining
- Infrastructure & application development
- Hardware & data storage

ENTERTAINMENT

- Social Networks
- Games

TRANSACTION & PAYMENT SERVICES

- Merchant transactions
- Wallets
- International payments & remittances
- Cryptocurrencies

IDENTITY, AUTHENTICATION & SECURITY

- Data & document authentication
- Digital identity
- Compliance & security

EXCHANGE & TRADING

- P2P Lending
- Crypto Exchange
- Crowdfunding platforms & tokenization
- Marketplaces
- Clearing & settlement

INDUSTRY SOLUTIONS

- Financial services
- Supply Chain
- Healthcare & insurance
- Cross-industries

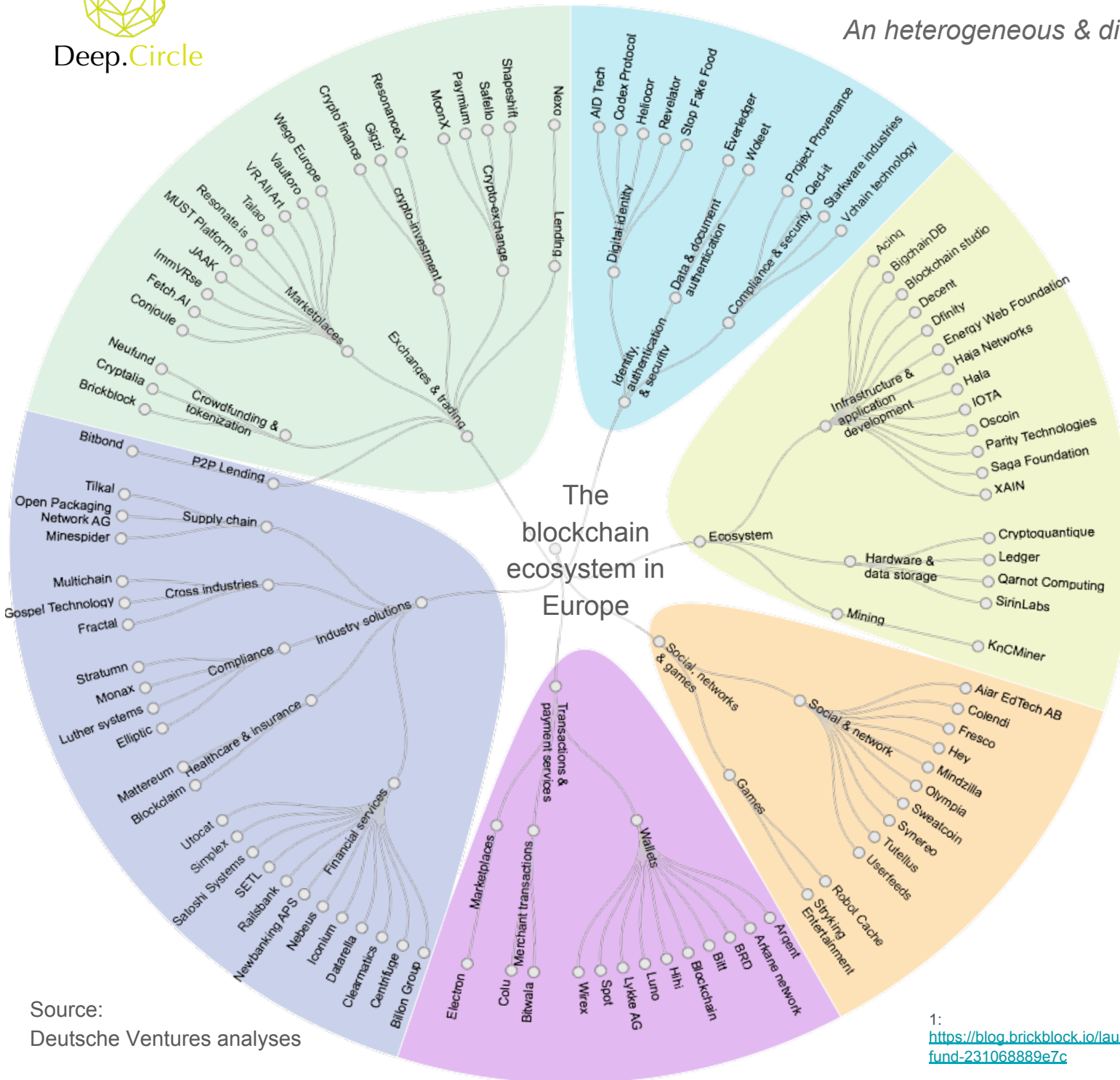
1: <https://hackernoon.com/blockchain-ecosystem-explained-in-one-chart-68bdc5e18335>



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CLUSTERIZATION

An heterogeneous & diverse European blockchain ecosystem



First categories to be developed were mainly Exchanges & trading, offering the possibility to trade on cryptocurrencies (Paymium) as well as ecosystem solutions, e.g. to secure cryptocurrencies (Ledger). Alongside, new protocols with different goals and features emerged, such as Bigchain DB.

Progressively, blockchain technology is explored beyond cryptocurrencies for identity & authentication purposes by using the traceability and immutability of a decentralized ledger (Project provenance).

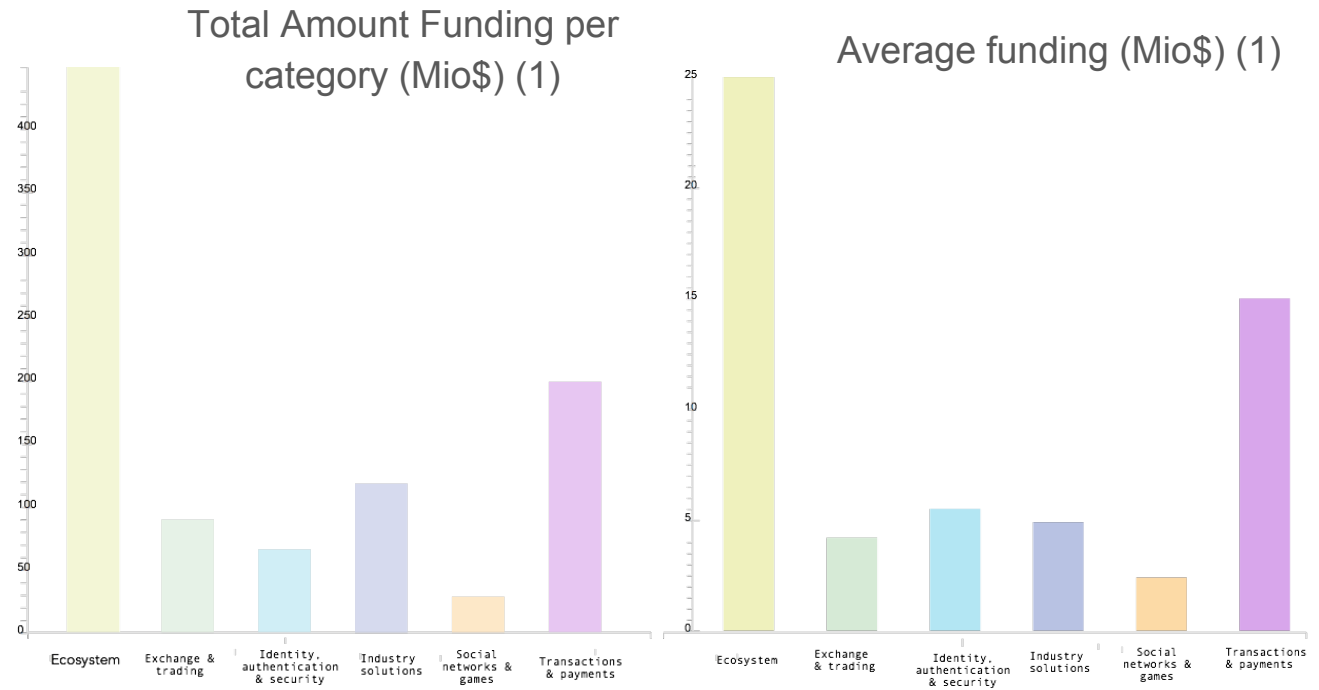
Over the years, the blockchain scene adapted to industry's pain-points, building up industry-oriented solutions. Consequently, there are more and more corporates investigating into blockchain, as well as industry-driven startups. Besides, some of the startups in Digital Identity, especially the ones aimed at Compliance & Security, are also somehow industry-driven solutions. Same goes for the "tokenization" solutions in the Exchanges categories, that start reaching the industry. Within real estate, some real estate investment funds are under the process of settling [real estate tokenized funds](https://blog.brickblock.io/launching-the-worlds-first-tokenized-real-estate-fund-231068889e7c)¹ with startup ecosystem actors.

Source:
Deutsche Ventures analyses

1:
<https://blog.brickblock.io/launching-the-worlds-first-tokenized-real-estate-fund-231068889e7c>

According to the right side charts, ecosystem startups are raising the most funds and also have the biggest average funding. Most of the startups in this category received seed funding in 2013-14 and are now at a later stage with more financing rounds. Same goes for transactions and payments services: the second category in terms of funded amount. These ones also tend to be at a later stage with already several rounds of funding as long as they match with the early crypto-craze.

If we look down to the different clusters (fig 2), the UK is gathering the biggest amount of startups in almost every category. However, Germany takes over in the Ecosystem, with a lot of protocols and decentralized applications in development. Industry applications are growing and steadily taking over on ecosystem development and exchanges. However, this category is still mostly made of early-stage projects, in seed or Series A phase.



Source: Deutsche Ventures analysis

In the identity & security category, the first generation of startups was traceability oriented, mostly using distributed ledger technology. The ones funded recently are more specific e.g. building zero knowledge proofs mechanisms to keep and maintain data privacy and security. This specialization will enable further industrial applications, e.g. health sector for medical data. Even if it seems that entertainment startups using the label blockchain or ICO are out there, they don't receive much of VC money. These startups tend to use ICOs as a way of financing and on boarding an early-user mass.



51 STARTUPS RECEIVED MORE THAN 2MIO\$ FUNDING

Borders between ICO and VCs are getting thinner

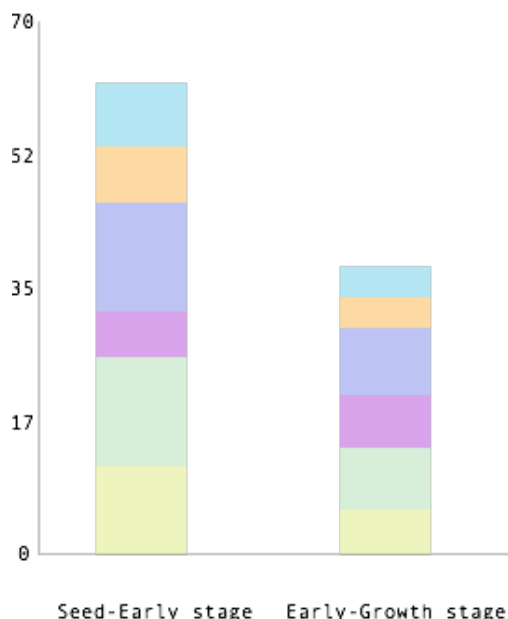


Fig 1: Seed vs Early-growth startups

Unsurprisingly, the sample is mostly made of seed and early-stage startups. Diving into categories, the most mature one is the Transactions & payments services, with more Early Growth than Seed-stage startups.

We're further focusing now on the startups with more than 2Mio\$ total amount funding and looking into financing modes.

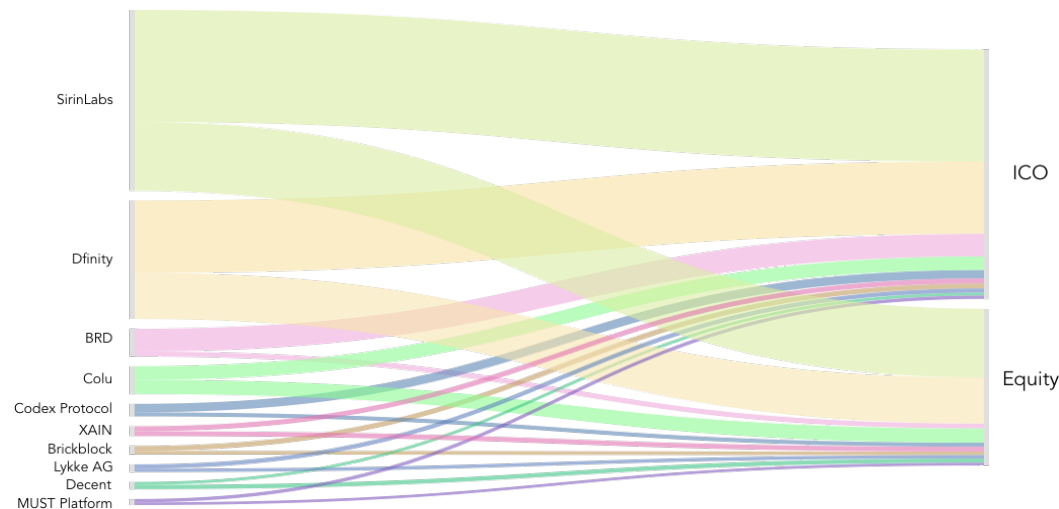
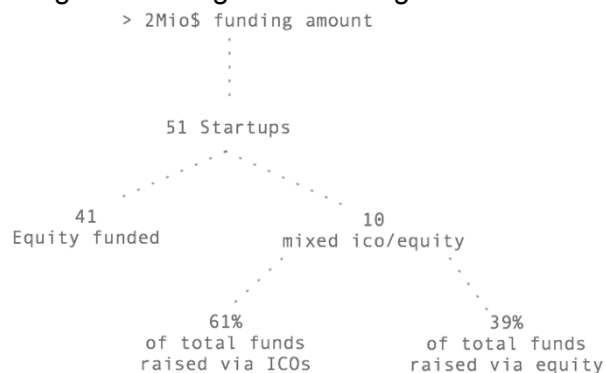


Fig 2: Proportion of funds raised through Equity vs ICO

Fig 1 focuses on the 10 mixed funding startups that have both funds origins. It shows that Startups that raised funds via both ways of financing tend to raise more via ICO than through VC. On the 10 mix-funded startups (ICO+VC), the average raised via ICO is 35Mio\$, whereas for equity funding is 22 Mio\$.

It is worth to precise that ICO is evolving and venture capitalism as well. Regulators started to debate and issue guidelines for ICO in order to regulate them as financial instruments, mainly to protect the consumer, but also to stimulate a broader use and audience. As of today, some VCs are even backing Publicly ICO ([Dfinity](#))¹ and tend to proceed aside a term sheet.

However, cryptocurrency's volatility can drag into bankrupt an ICO-funded company when the company holds its reserves in crypto-currency. The amount raised is dependant on the underlying cryptocurrency valuation. Crowd investors are not professional and don't bring the same support as an investor. Due to these structural disadvantages, lately, blockchain startups seemed to favour equity funding rather than ICOs.

1: <https://techcrunch.com/2018/08/29/dfinity/>



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3 STARTUPS RECEIVED MORE THAN 50MIO\$ EQUITY FUNDING

Ledger is the highest funding and Blockchain London's most vintage

London, UK,
founded in August 2011
Team: UK & US

Web-based bitcoin platform that makes
using bitcoin safe, easy, and secure
transactions → Wallets

Paris, France,
founded in January 2014
Team: France & US

Security solutions for cryptocurrency and
blockchain applications → Hardware &
mining

London, UK,
founded in January 2014
Team: UK, Israel, Bulgaria

High-end smartphone manufacturer
manufacturing blockchain smartphones
→ Hardware & mining

FUNDING

Total: 70Mio\$
Last round: Series B: Jun 2017 x 40Mio\$

Total: 85Mio\$
Last round: Series B: Jan 2018 x 75Mio\$

Total: 255Mio\$
Last round: Series A: April 2016 x
72Mio\$
158Mio\$ via ICOs (62% of TFA)

INVESTORS

US: Lightspeed ventures, Digital Currency
Group, GV
London: Mosaic Ventures, NJF Capital

US: Digital Currency Group, Draper Associate,
Libertas Capital
London: Draper Esprit
Paris: Caphorn Invest, Korelya capital (Private
Equity firm)

Tel Aviv: Singulariteam
China: Renren.com

BLOCKCHAIN

LEDGER

SIRIN LABS

TOP 3 HUBS: LONDON, BERLIN, ZUG

London is undeniably the biggest blockchain hub in Europe, especially in terms of capital invested and number of startups. London blockchain startups are deeply rooted in finance and industrial applications.

Coming right after, **Berlin** is acting as an ecosystem builder for blockchain technology in Europe. On top of an exalted community, startups are focusing mostly on infrastructure and decentralized protocol.

Zug stands for the chef-lieu of the Crypto Valley, benefiting from open regulations and a financially attractive ecosystem. Even if Zug is only 30.000 inhabitants, it has definitely the allure of a blockchain-hub.

EMERGING HUBS

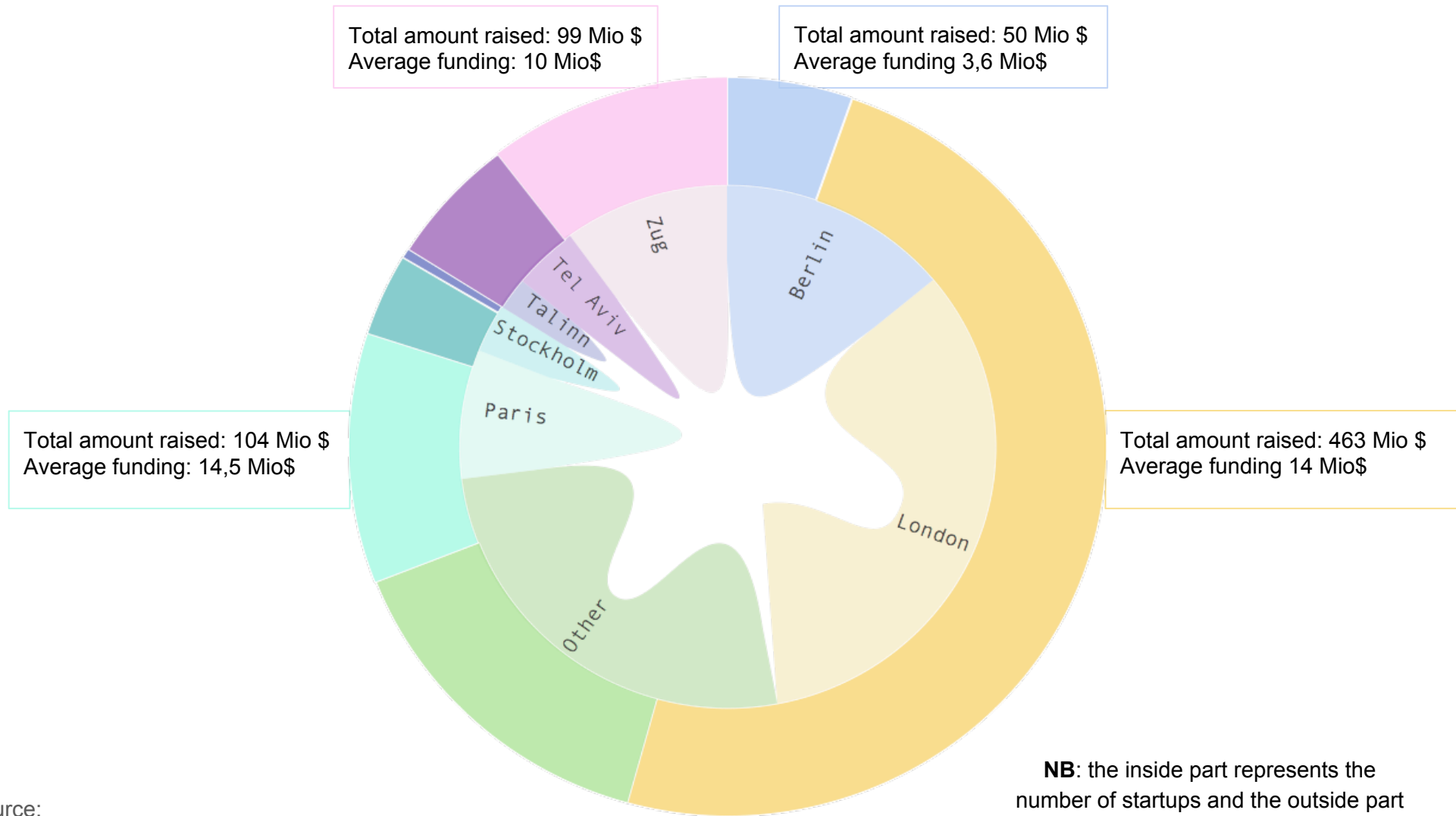
In **Paris**, the government is also open to discussion concerning blockchain. The AMF (Autorité des Marchés Financier) is working on a regulatory framework for ICO, CNIL issued a paper on *Blockchain vs. GDPR*. Government and regulators are open to discussion. From the business perspective, corporates have a good understanding of the technology and are eager to invest. Last, but not least, there are many tech talents with precious skills.

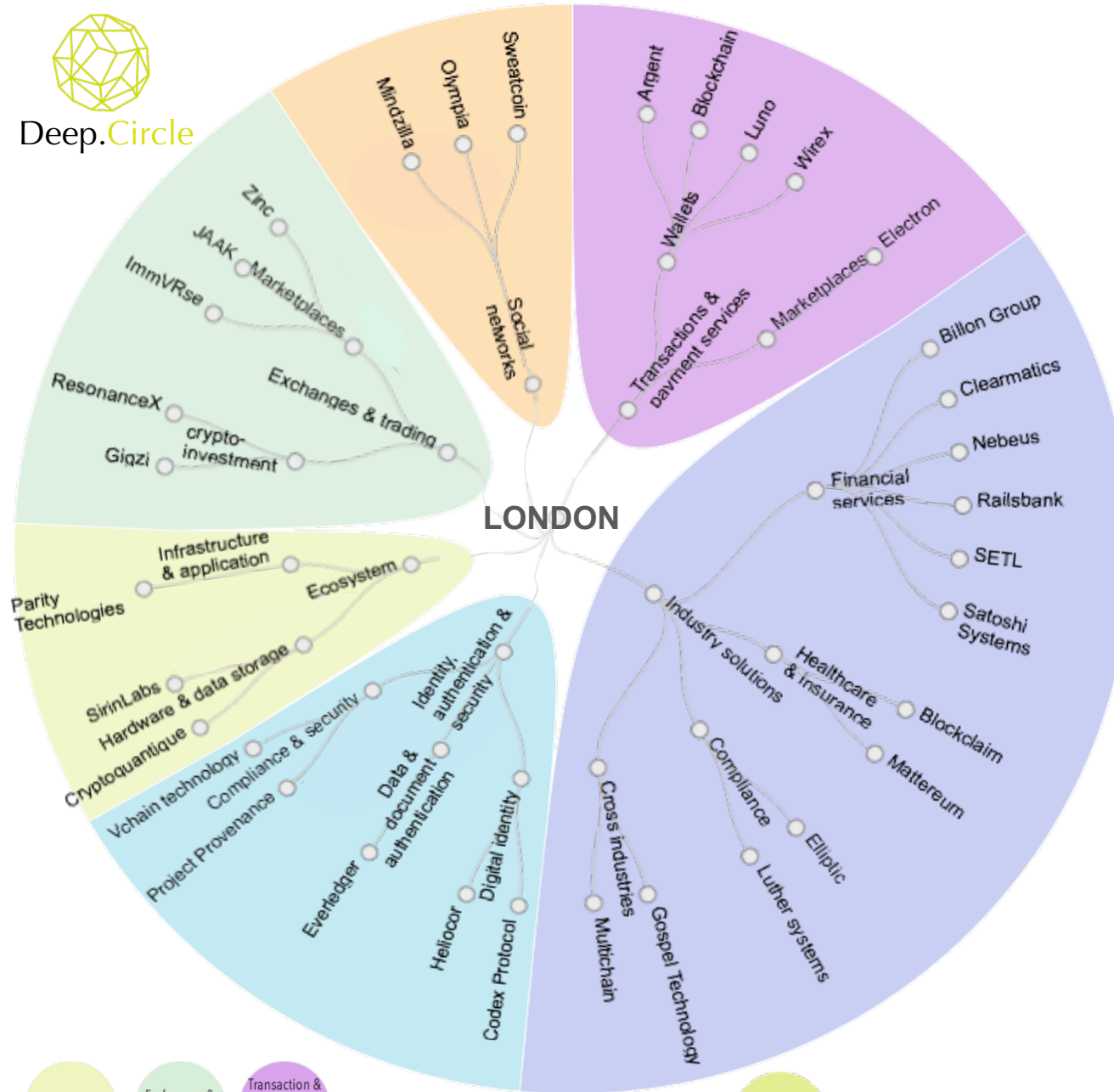
Tel Aviv has a significant number of startups in the sample and most of them were created in the early days (2014-2016). The city capitalizes technical talents trained in specific universities Tel Aviv has specific competences on identity, data authentication, and security. It is maybe the most mature “hub”, made only of Early-growth startups that raised more than 4 Mio\$ each.

There are other smaller hot places in eastern European countries, such as **Tallinn**. These cities count with a lot of blockchain startups and with a strong support from governments towards blockchain direction. However, the companies there are mostly funded via ICO, partly due to the lack of investment forces there.

LONDON STARTUPS GET ALMOST 50% OF THE OVERALL FUNDING

London concentrates most of the funding





According to the sample, London has the biggest amount of blockchain startups in Europe (33). London is a financial center and it is, therefore, seeking a common ground with blockchain. No matter why, it enjoys an active community (blockchain is the most 4th searched term on Eventbrite) with a strong accent on finance.

The “oldest” startup based in London is *Blockchain inc.*, a crypto-wallet service provider. In October 2014, *Blockchain* raised a 600k seed funding round. As of today, the company rose above 70.000.000\$. Startups are benefiting from established financial players and it could partly explain why the average amount raised by startups (>2Mio\$) is of 14,5Mio \$. They also benefit from a relatively smooth regulatory framework, which helps when it comes to innovation.

London concentrates numerous finance-related startups (left), notably within Transactions & Exchanges clusters. The industry-oriented solutions represent almost half of the distribution. In contrast, there are very ecosystem-driven startups. On the overall, as it can be seen on the figure below, the last funding rounds tend to be smaller (or undisclosed), and increasingly industry-oriented.

Last funding round, per category

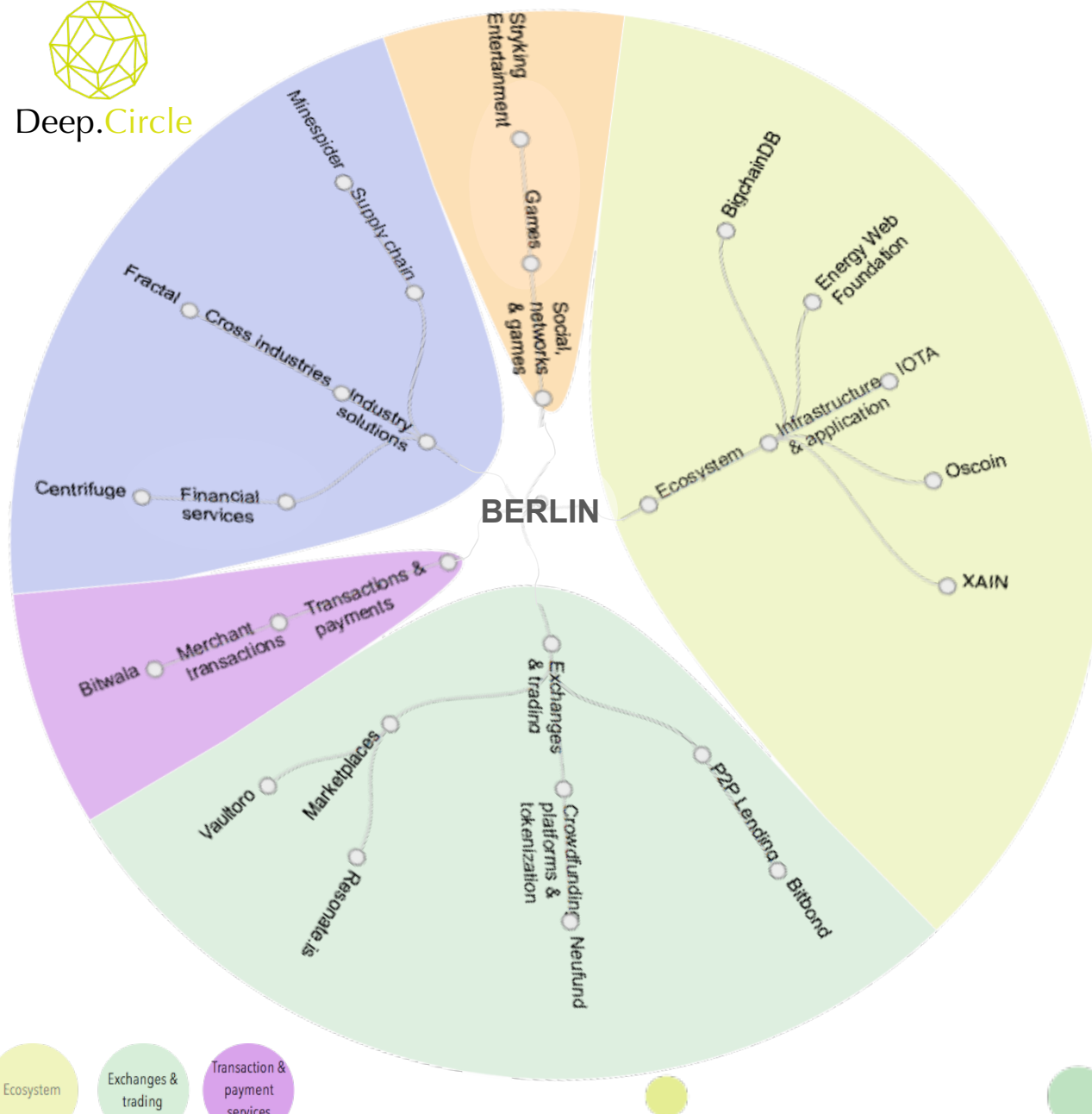


Source: Deutsche Ventures analyses

The size represents the amount, smaller dots are undisclosed amounts



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Source: Deutsche Ventures analyses

BERLIN

The ecosystem builder

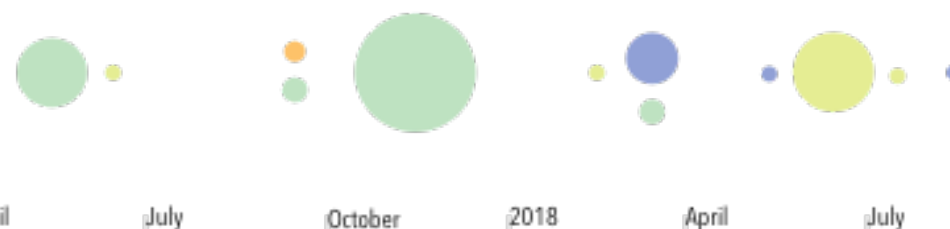
Out of the 100 startups, 13 are from Berlin. Even if the average funding is lower compared to other hubs (3,6Mio\$), the scene in Berlin is bigger than it seems. Actually, some other startups in the sample, which are not officially based in Berlin, are operating -partially or totally- from there. On top of that, Berlin counts with a lot of ICO funded startups. Berlin has a [exalted ecosystem](#) (hackathons, meetup, blockchain- dedicated coworking spaces..). As proof, blockchain is the most searched keyword on [Eventbrite/Berlin](#).

From the investor side, some of Berlin's investors were very early in blockchain (Blue Yard Capital, Point Nine). Also, a lot of blockchain investment funds, from Europe, US & Asia, have a foot in Berlin. They are seeking potentially interesting startups.

The startup landscape (left) shows of a strong willingness to build an ecosystem. Some of these companies put a special effort on evangelism ([Energy Web Foundation](#)). It also has a significant presence of exchange & trading related startups.

As it can be seen below, alike London, rounds tend to decrease in value but grow in number. Industry solutions are also starting to show up. Berlin counts with many corporate innovation outposts, often including a venture arm or early-stage acceleration programs. Some of them are increasingly present in the blockchain sphere ([Innogy Ventures](#)).

Last funding round, per category



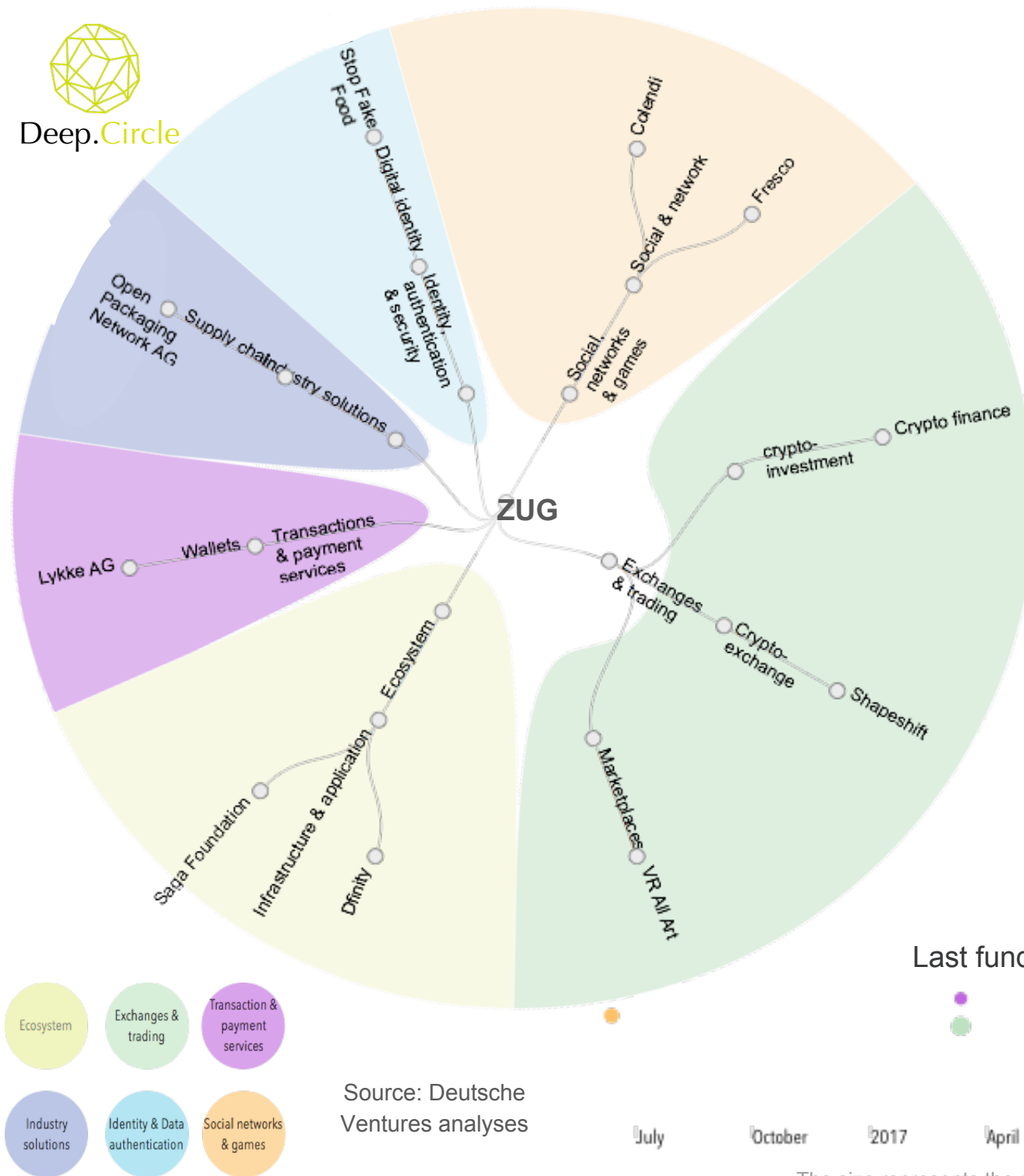
The size represents the amount, smaller dots are undisclosed amounts

The Cryptovalley backbone

Zug is a 30 million inhabitants city in Switzerland, about one hour from Zurich. Everything started back in 2014, when the [Ethereum Foundation](#) decided to establish there after their ICO. This strategic implementation catalyzed the blockchain ecosystem attracting law firms, tax, accounting, smart contract evolvement firms, startups, and universities, creating a brand new economy. In 2017, the “crypto valley” association is created. At this point of time, Zug became the heart of the “[crypto valley](#)” and an important hub of blockchain technology, attracting European companies.

Switzerland is known to be friendly towards innovation, and regulators to be particularly open-minded. Zug presents two main advantages: first there is capital available around. Second, regulators are keen to innovate and rethink frameworks: some municipal services are accepting Bitcoin and they are planning on the further use of crypto for governance.

Zug startups landscape is heterogeneous. There is an emphasis on exchange & trading, correlated to an intense financial sector. There are also big projects that gathered funds via ICO as long as Switzerland is one of the [favorite countries](#) for that.



Source: Deutsche Ventures analyses

Last funding round, per category

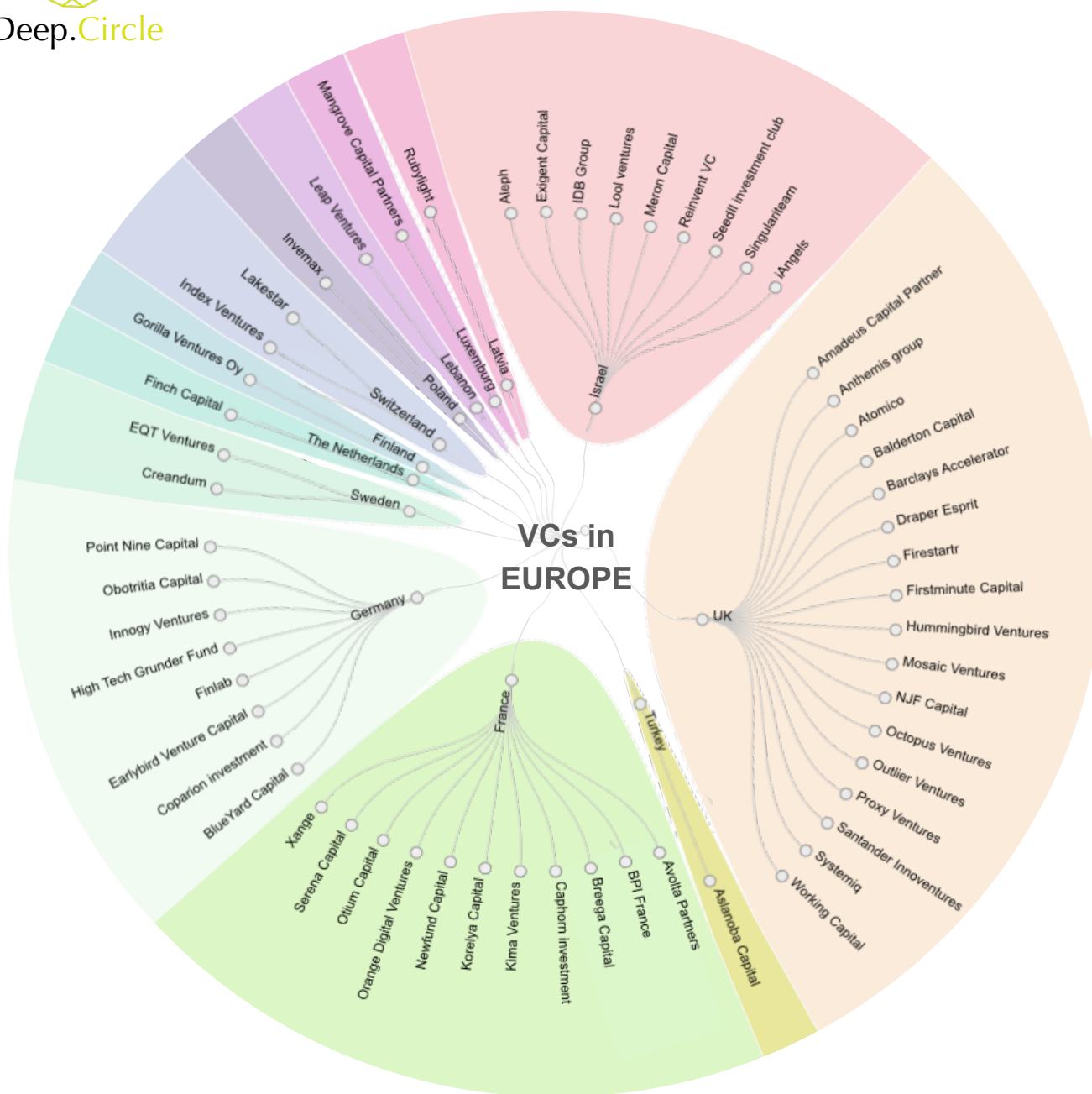


The size represents the amount, smaller dots are undisclosed amounts



VC'S ACTIVELY INVESTING IN BLOCKCHAIN IN EUROPE

London based VC are the most active



This chart shows some of the Venture Capital funds based in Europe & Israel. They all have done a blockchain related investment, not necessarily in a European company.

The preponderance of London self explains the city's pole position in terms of total funds raised. Considering Paris, it has the same funding average per startup as London. This can be partially explained by the numerous amount of investors compared to startups in the sample (8). German blockchain ecosystem is spread out in different cities. Even though most of the Venture Capital is happening in Berlin.

Israel has also a great number of investment funds. These investment funds tend to be pioneers: the first startup was invested in 2013 with Sirin Labs. In 2017, the first zero-knowledge proof startup raised a first seed round. Today, the ecosystem is more mature than in Europe.

Other regions are underrepresented. Eastern European countries, such as [Lithuania](#)¹, are an interesting example: there is little venture capital money available and most of the existing structures are focusing on acceleration / pre seed . Therefore, the startups are less mature and they might struggle to get investors on board for later-stage rounds. Accordingly, this region tends to use more the ICO mechanism to [raise funds](#)².

1: <https://medium.com/deep-circle/vilnius-the-european-blockchain-startup-af6e85af7b37>

2: <https://tech.eu/features/19197/ewdn-cee-innovation-report-emerging-europe/>

EUROPE HAS A NATURAL FIT WITH BLOCKCHAIN

The first blockchain startups to receive funding were cryptocurrencies related. Through the years, investments were redirected towards new protocols and decentralized applications. The crypto-currency market valuations crashed, losing more than 86% of their value compared to January 2018. This downward trend is pressuring the tech scene to deliver faster on technological improvements. Meanwhile, the ICO-funding robinet turned off and cryptocurrencies value reached their all-time-down, Venture Capital is coming [back in the game](#).¹ Private Equity and institutional investors are also showing [growing interest](#) to invest into later stage blockchain companies.²

For now, European investors seem mainly interested in resolving industry's pain-points and technological improvements. In finance, the use of tokens for index, derivatives, and Exchange Traded Funds is growing. Stable coin is another attention focus at the moment. Stablecoins are made to counterpart the inherent volatility risk of cryptocurrencies. Agreeing with [IMF](#), these cryptocurrencies attempt to stabilize their value by controlling issuance according to a function of price deviations from a fiat currency or commodity (as in an exchange rate peg).³ From a business perspective, there are more and more cross-industry solutions such as digital identity systems, supply chain traceability or marketplaces for companies.

Concerning technological improvements, privacy and scalability are accelerating. Among the latest funding rounds done, we see Zero Knowledge Proofs mechanisms, able to maintain data privacy ([Starkware Industries](#)) in trust-fault setting and Lightning Bitcoin network for scalability ([Acinq](#)). Last but not least, usability is a huge barrier to broad adoption. User-oriented wallet & payment services are also driving traction: the London based startup Argent raised a 4Mio\$ seed round in November '18. On the technological level, the intersection between blockchain and artificial intelligence is further explored from different perspectives (data privacy, security) ([XAIN](#), [Heliocor](#)).

Europe is intrinsically decentralized and "Schengen" is highly leverageable for blockchain. Startups can be established somewhere and raise funds on a decentralized based, operating from somewhere else including remote collaborators. This is possible especially because Europe has a fragmented regulatory framework and market. Blockchain startups can make the best out of that, coping with Maltese regulations while enjoying Meetups in Berlin and having a global product. For once, this disharmonized framework is fostering hubs specialization, i.e. London for finance, Berlin for Ecosystem, Zug for ICOs. Confirming Europe's potential, this week *Basis*, a stablecoin project based in the US, announced its [shutdown](#)⁴ due to misalignment with regulators. The founders declared that they will return the funds raised -up to 130 Mio\$- to their investors. It feels like Europe, in spite of a lower total amount funded than the US, has a natural fit for blockchain. This structural fit should be leveraged and optimized by regulators.

1: <https://outlierventures.io/research/state-of-blockchains-q3-the-professionals-have-moved-in-with-vc-investments-soaring-to-all-time-high/>

2: <https://www.gpbullhound.com/articles/gpbullhoundtechpredictions2019/#professional-capital-sources-scouting-for-entry-points-in-the-blockchain>

3: <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2018/11/13/Casting-Light-on-Central-Bank-Digital-Currencies-46233>

4: <https://www.coindesk.com/basis-stablecoin-confirms-shutdown-blaming-regulatory-constraint>



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We welcome your questions, comments and suggestions



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