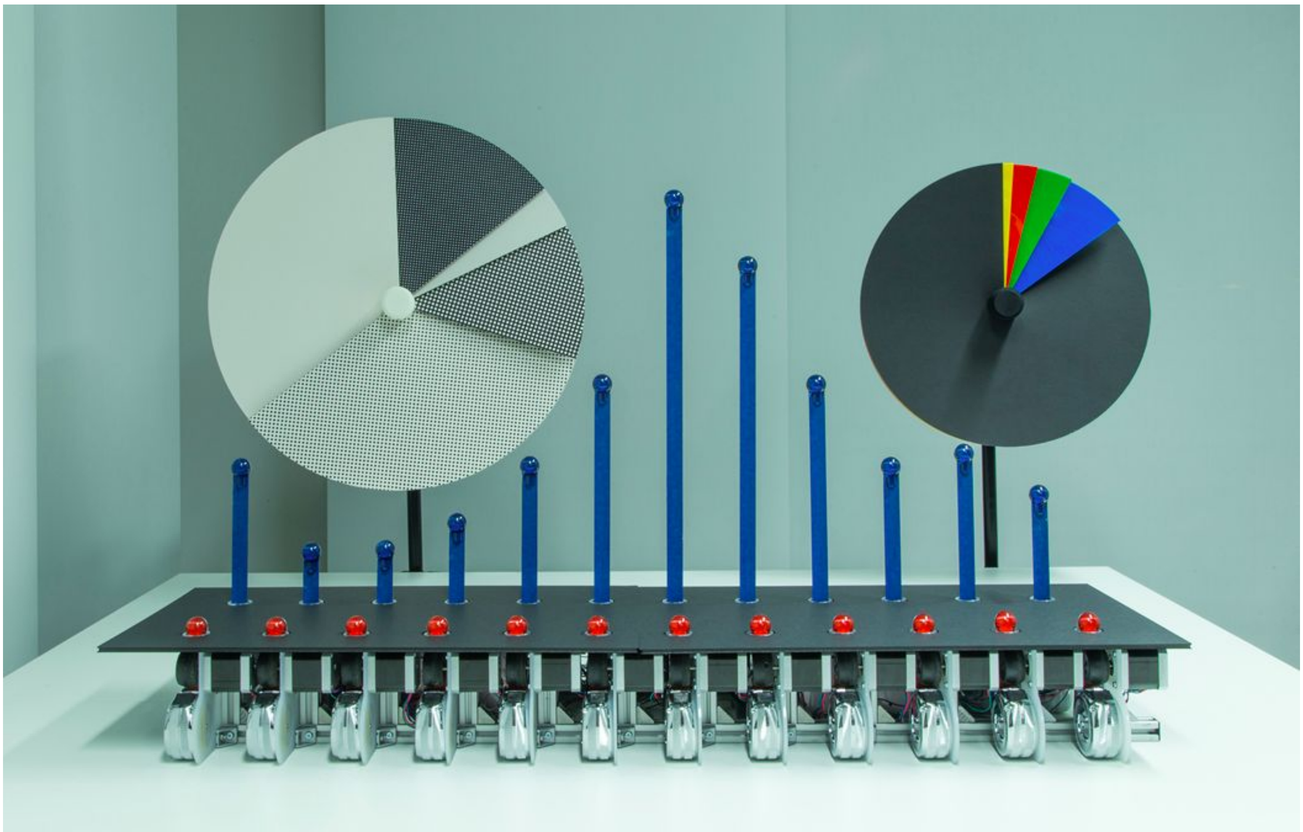
# All You Need to Know About Initial Coin Offerings

## The Tension Between Business Model Innovation and Securities Regulation


**By Outlier Ventures Research, a division of Outlier Ventures**

**Lawrence Lundy, Jamie Burke, Aron van Ammers**

# Foreword by Jamie Burke, CEO of Outlier Ventures

## A revolution in developers self-financing from token issuance & their profits

While there has been by some estimates a total of $1.1 billion invested into the blockchain industry from a mixture of VC and corporate money, unlike any other emerging technology ecosystem, it has also been in the unique position to self-fund with the profits from the appreciation of the digital tokens that underpin the networks. The most well known, although by no means limited to, being Bitcoin and Ether.

If you were savvy enough to back the right networks and get tokens at an early stage, you would not only be able to bankroll yourself but possibly a portfolio of other startups that align with your future world view. This has seen a significant number of projects get funded that would likely never otherwise have happened. This lack of professional investor oversight is, of course, a double-edged sword. On the one hand seeing greater risks being taken to push boundaries in the space has led to tremendous advancements and the other a large number of failures and in some cases scams.

However, this trend is not linear. When tokens significantly go up in price, many holders are inclined to hold onto them leading to what's termed 'sleeping bitcoin or ether' where holders have greater surety they can make increasing returns from straight up appreciation than they could in backing risky startups.

Either way, this ability for communities of developers to self-finance without relying on a donation model typical to open source initiatives is revolutionary and how it is being done will have an enormous impact on the already burgeoning crowdfunding industry. It is this that is the subject of this in-depth white paper.

As active investors and participants in the broader blockchain community, we respect this is a highly contentious issue which we hope we have navigated with sensitivity and balance to reflect both the enormous opportunity and very real risks.

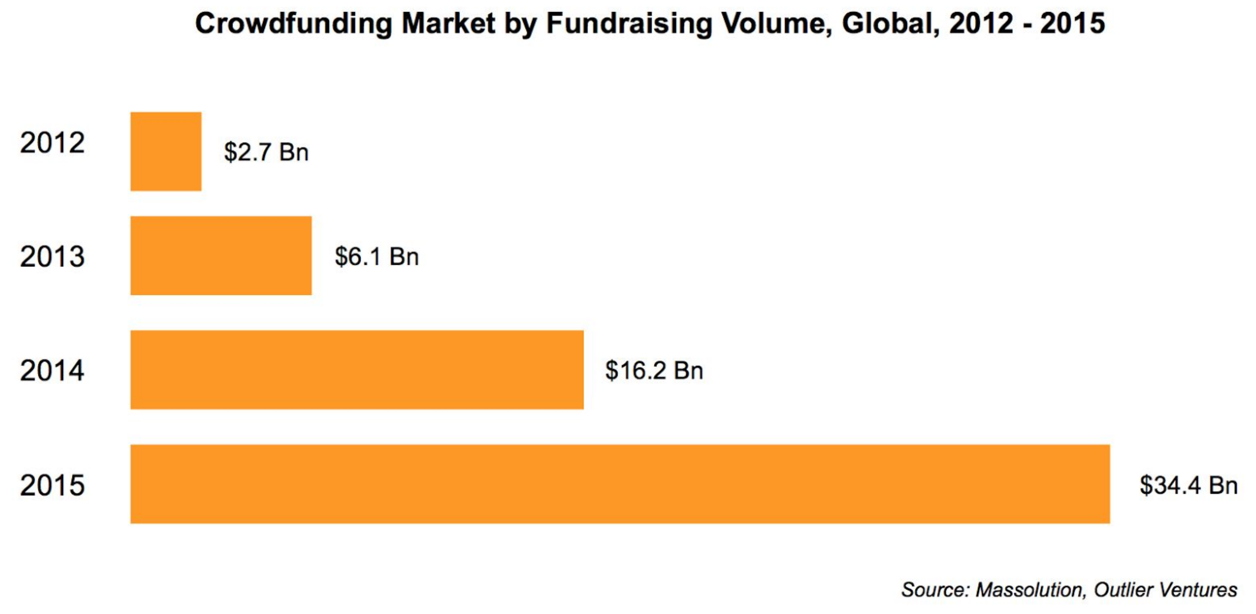
# Part 1 - Network Token Presales in Context

## Network token presales or ICOs involve exchanging ‘tokens’ for money

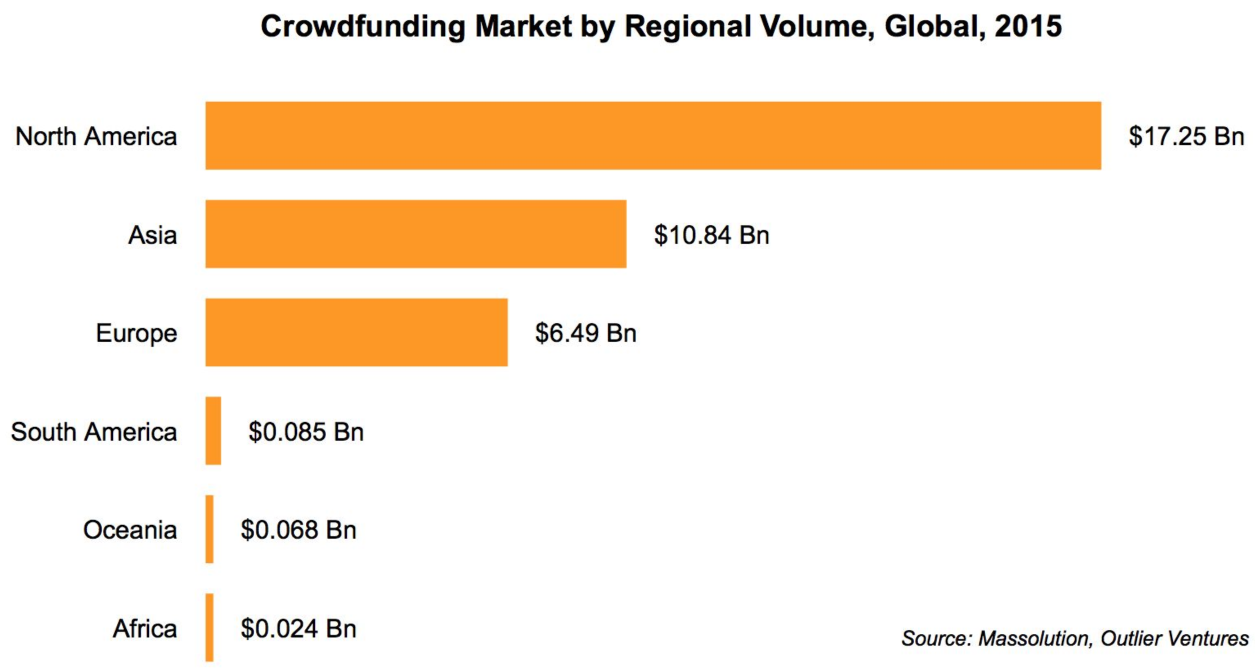
A network token presale or initial coin offering (ICO) is an event in a project that uses cryptographic tokens where part of its token pool is exchanged for money, typically Bitcoin, to a community of developers and early adopters. Examples include Ethereum. TheDAO, and Mastercoin (now Omni). The terminology is still fluid, as these tokens are also referred to as appcoins or just ‘coins’. ICO is now a popular term, in part because it’s more marketable than ‘token crowdsale’ or ‘network token presale’. Sometimes the term ‘crypto-equity’ is also used to describe the tokens provided.

Originally a token presale was designed to raise capital to pay for expenses related to product development, in more recent examples, funds raised may also be used for a mix of functions including but not limited to legal, sales or marketing. The key benefits to the creators of a network using a token presale are to jumpstart the initiative by providing early liquidity to participants and to incentivise developers. Typically details of the crowdsale will be provided including how the collection of funds will occur, the coin distribution, the escrow used, the rate of the native token compared to Bitcoin or other cryptocurrencies, and how the tokens will be produced and used.

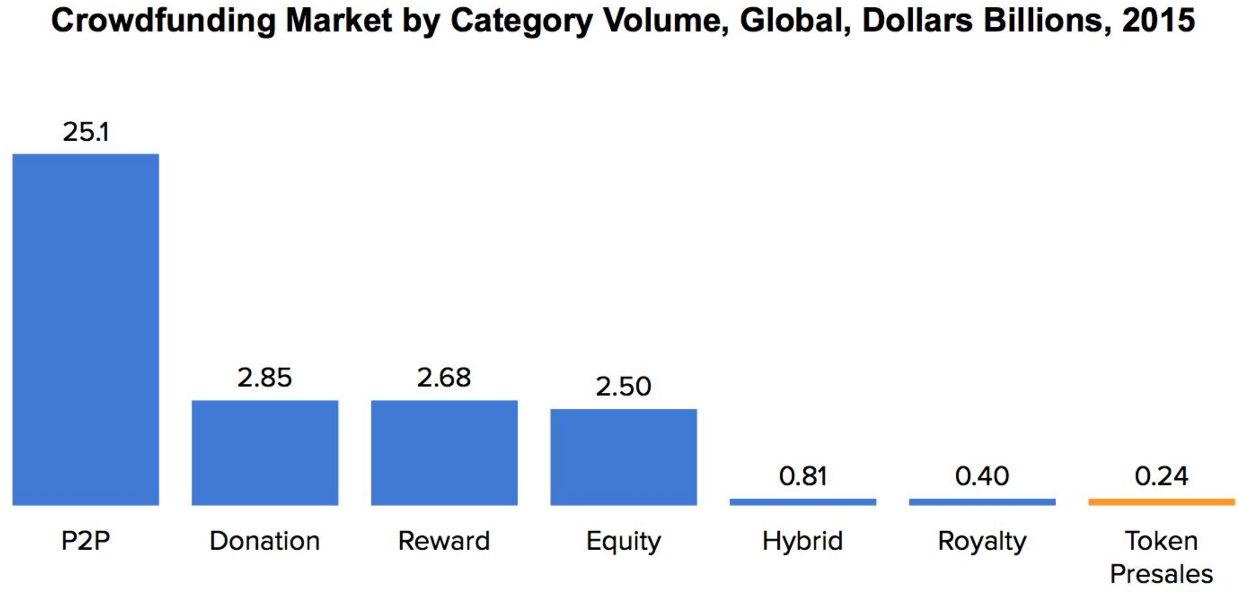
## Network token presales are a small part of the wider crowdfunding market which has grown by 128% since 2012




## North America dominates crowdfunding, just as it dominates other funding markets



## Currently network token presale volumes are extremely small compared to the rest of the market




*Token presales numbers uses best case scenario (price of bitcoin at campaign close and TheDAO funds at end of campaign before hack.*
***Source**: Massolution, Outlier Ventures*

## Key Takeaways

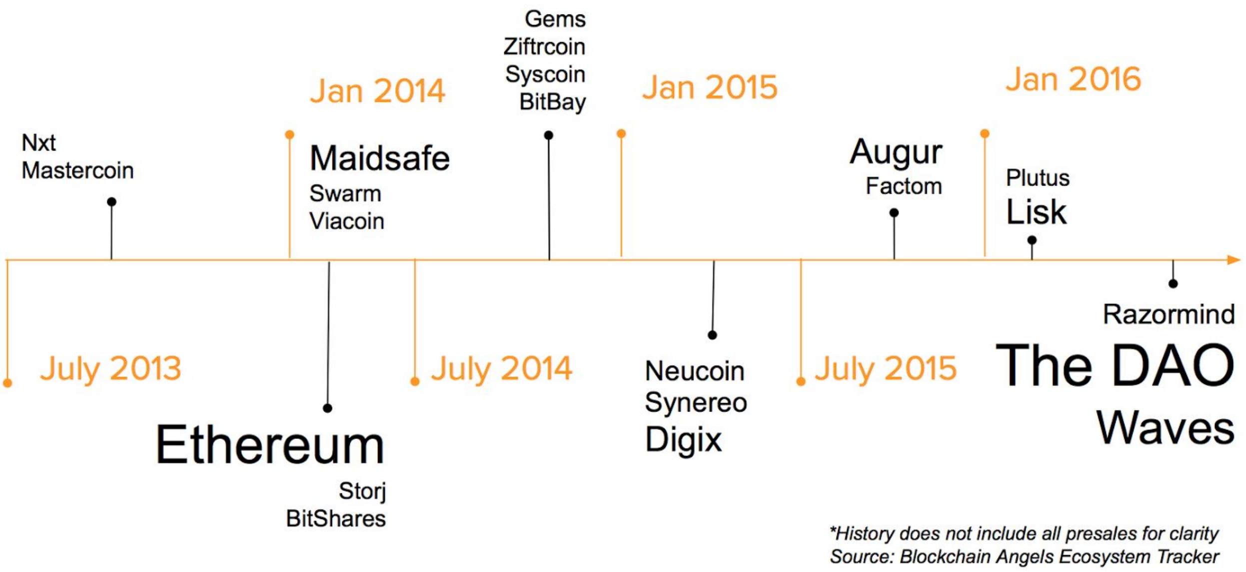
1. The terminology around tokens and the sale of tokens is still fluid. Terms such as 'smart contracts', 'coins', and 'tokens' are attempts at using existing language rooted in the physical world to describe innovations in the virtual world. The challenge is that tokens can represent almost any value, therefore any attempt to explain the sale of tokens is likely to be inadequate at best and misleading at worst. 'Initial Coin Offerings (ICO)', 'token sales', and 'network token presales' are the best we have at the moment.

2. Global crowdfunding volume at $34.4 Billion in 2015, is estimated to grow to $96 Billion by 2020. These numbers include P2P lending, reward crowdfunding, donation crowdfunding, equity crowdfunding, hybrid crowdfunding and royalty crowdfunding. Network token presales are as yet not officially measured.

3. If broken out as a separate market segment, network token presales would be by far the smallest category with around $240m raised. This number is highly variable because funds are raised in bitcoin or other cryptocurrencies which have fluctuated in price wildly against the dollar since the first crowdsale in 2013. In the best case, token presales account for 0.05% of overall crowdfunding volume.

# Part 2 - Network Token Presale Ecosystem & Development

## Token presales are only just over 3 years old, it's no surprise regulation is struggling to keep up




Token presales are a relatively recent innovation and usage is contained to the cryptocurrency world. The underlying assumption has been that participants that are engaging with these projects understand the risks and are immersed in the technology. As the 'investor' pool grows and diversifies into more general investors and general consumers, it is likely regulators will step in to protect participants.

## Proof-of-Burn is an alternative way to develop a network ecosystem, but not to raise funds

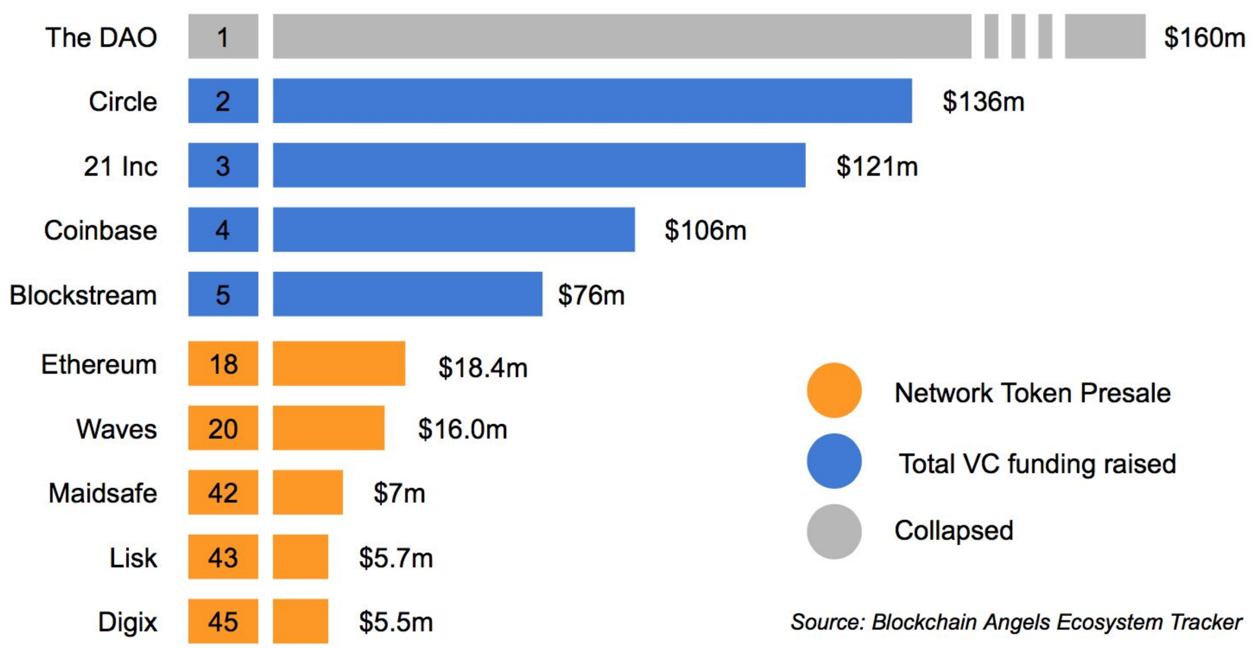
In 2013, Counterparty unlike its peers in the Bitcoin 2.0 space, NXT and Mastercoin, decided not to undertake a token sale. Instead, they decided to create all tokens that will ever be created in their native currency, XCP, by a process known as proof-of-burn. In proof-of-burn, an amount of one cryptocurrency (in this case Bitcoin) is destroyed forever to create an amount of a new cryptocurrency (in this case XCP) by sending them to a special wallet address. Enthusiasts and early adopters of Counterparty irrevocably exchanged an amount of bitcoin for a corresponding amount of the newly created XCP tokens.

This approach was taken to ensure incentives within the network were aligned between early developers, later developers and users, and avoid the situation that a token presale results in centralisation of value and power. In projects that have used token presales, early developers are heavily rewarded and form a small group that ultimately has disproportionate power in the network. Additionally, token presales inevitably attract speculators hoping to get rich quick and can sometimes lead to 'pump and dump' behaviours.

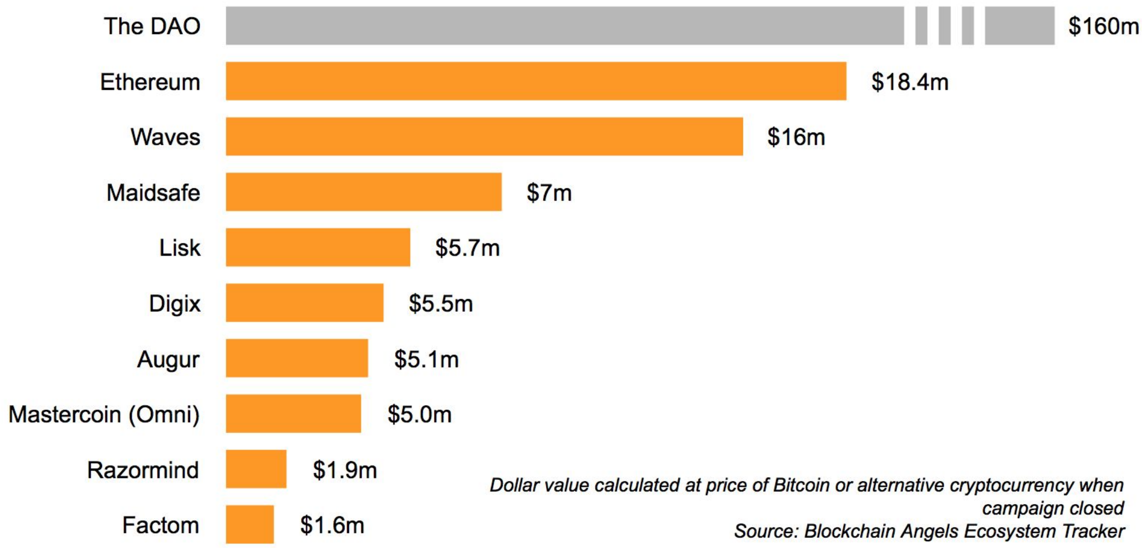
> *"By opting to distribute all XCP by proof-of-burn, the Counterparty developers eliminated any speculation that they planned to get rich quick or redistribute risk unequally. On the contrary, they put themselves in the same position as everyone else, backing their ideas with destroyed bitcoin to obtain XCP in the hope of eventually benefiting financially from their own project and hard work."*
>
> **Counterparty**

The proof-of-burn approach taken by Counterparty attempts to avoid the centralisation of money and power, and speculation by asking early adopters to spend bitcoin to acquire XCP. Counterparty and the proof-of-burn suggests an alternative approach to building an open decentralized network, but it is not an alternative funding route as participants pay, rather than are paid, to be involved.

## Token presales whilst growing still raise significantly less than venture capital



## TheDAO is to-date an outlier in the amount of capital raised




TheDAO was a bold experiment that despite the exploitation of a bug in the smart contract code provided plenty of lessons for the community. Aside from the technical lessons around smart contract deployment, it proved that code is not law. Smart contracts will be a valuable tool in development toolkits as the technology matures, but they will not, and cannot, replace legal structures.

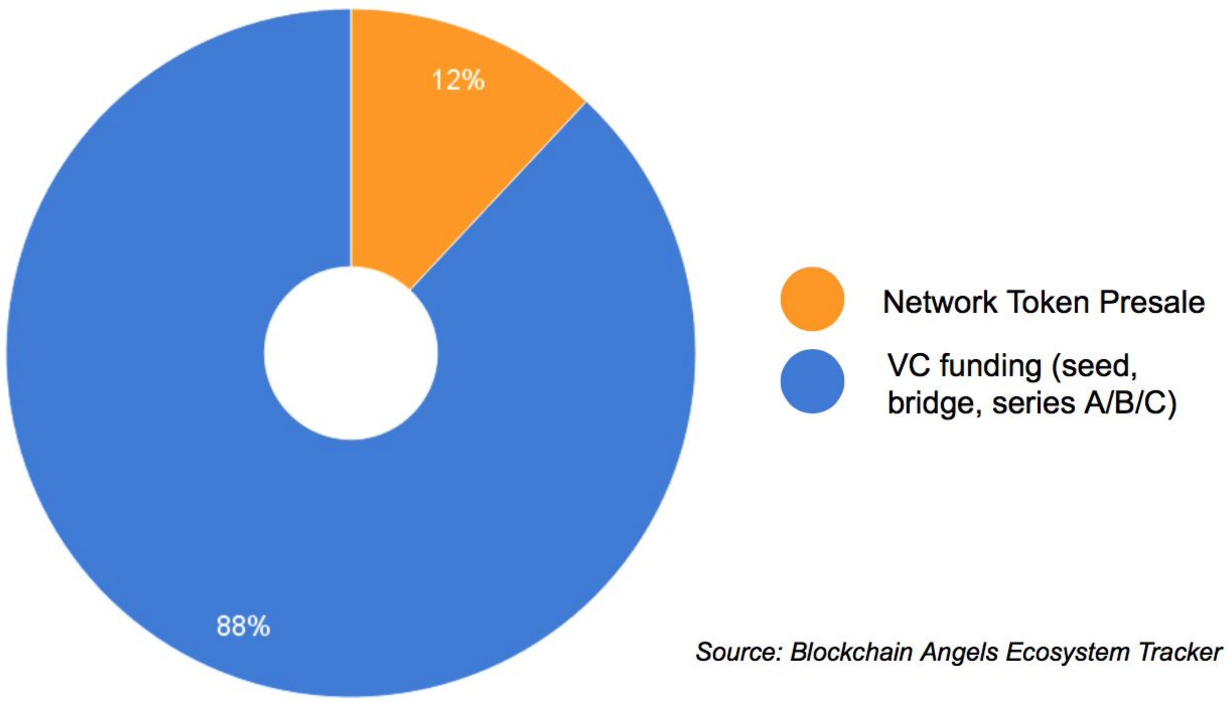
The structure of TheDAO as a 'fund without human managers' was an experiment in automated governance which, on this occasion, failed. The motivation behind TheDAO is that decisions can be fully decentralised, and the allocation of capital is optimised using crowd decision-making. The failure of TheDAO and the subsequent challenges the Ethereum community faced in deciding the best course of action show that decentralisation comes with trade-offs and often due to human nature is not always as decentralised and democratic as hoped. We didn't get a chance to see TheDAO allocate funds based on its proposal and voting mechanisms, but the learning from its downfall suggests that running it on an ongoing basis would also have been far more challenging than envisioned by its creators...

> *"In terms of numbers, the DAO has had an amazing journey, by far the largest crowdfunding to date and represents a trailblazing project in its own. So despite its sudden failure, it's fair to say it was still quite an accomplishment."*
>
> **Christoph Jentzsch, Co-founder, Slock.it**

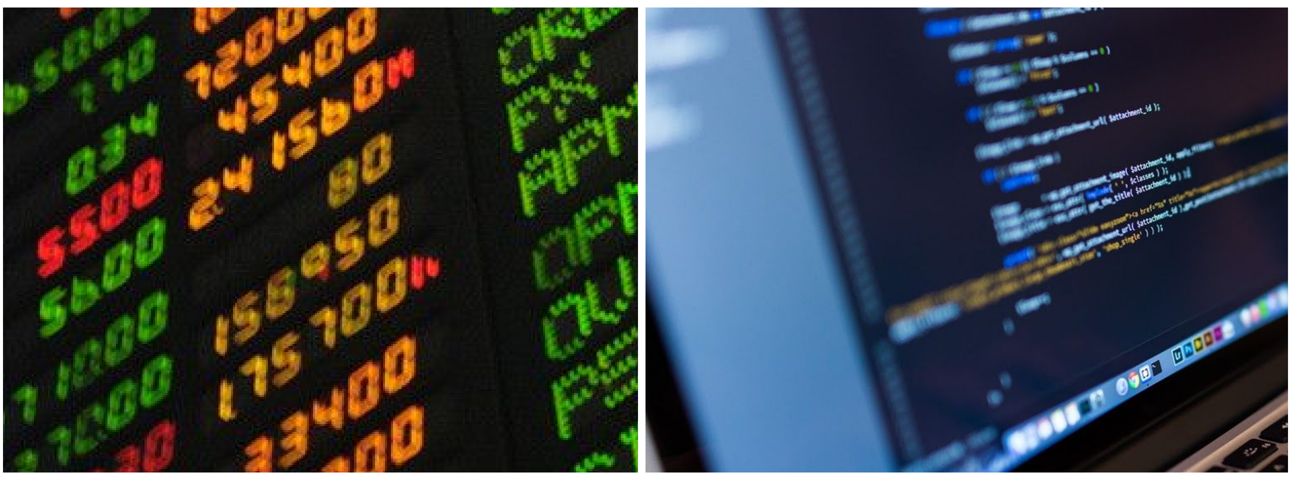
TheDAO aside, the amount raised across projects varies on a number of factors including:

- The proportion of tokens made available of project
- The credibility of team
- Enthusiasm for technical development e.g. Lisk and Javascript
- Ambition of the project e.g. to get to series A or to be completely self-sustaining

## 12% of all bitcoin and blockchain projects that have raised money have used a network token presale




## Tokens exist in a (very) grey legal area



*Security or Software?*

It is legally unclear if network tokens should be categorised as a 'security', like other financial instruments such as stock in a company or if they should be categorised as 'access tokens' more akin to Kickstarter donations for early access to products and services. The issue is without legal precedent and has yet to be litigated in court while the SEC or any other body is yet to give any real and substantial guidance. Therefore the community is left to debate the contentious matter of whether or not 'network token presales' constitute a securities sale or not.

> *"...those pursuing the high road of genuine open network ecosystems should find the risk of securities regulations being unexpectedly applied to them is vastly lower."*
>
> **Dominic Williams, Co-founder, String Labs**

> *"Offering appcoins to retail investors as an investment, and then operating the scheme without registration, is probably against the law"*
>
> **Preston Byrne, Chief Operating Officer, Eris Industries**

There are strong arguments for both sides, and this is not just a case of out-of-date regulation needed to be updated as Uber has argued in the face of taxi legislation. Of the 12% of crypto projects that have used a token presale, some looked and functioned very much like a security sale, but there have been others that functioned far more like early access to a network. The variety of presales designs makes it hard to generalise.

There have been bad actors as well as poor communications and execution in the presale space, but broadly it can be argued that if the motivation is to build an open decentralised network and tokens are sold to participants not only speculators then the SEC are more likely to see the event as a Kickstarter campaign than a security sale.

## Tokens align developer and user incentives

In time tokens may come to represent a fundamental shift in the structure of companies, but already network tokens are having an impressive impact by providing a new business model for open-source and protocol development. Open-source development has typically been the work of foundations such as the Mozilla Foundation or Apache Foundation, heavily reliant on donations and a community of volunteers. In most cases, the proportionate value is not captured by the creator so creators are economically incentivised to make developments proprietary causing lock-in which is sub-optimal for users.

> "I can't emphasize enough how radical a change this is to the past. Historically the

only way to make money from a protocol was to create software that implemented it and then try to sell this software (or more recently to host it)... With tokens, however, the creators of a protocol can "monetize" it directly and will in fact benefit more as others build businesses on top of that protocol."

**Albert Wenger, Union Square Ventures**

Albert Wenger and Fred Wilson of Union Square Ventures describe crypto tokens as a true business model innovation in the sense that software and protocol developers now have a way of monetizing their work by keeping it open. One of the biggest challenges for platforms like iOS and Android is persuading developers to build on their platforms, the failure of Microsoft's Windows Mobile shows just how difficult it is. Broadly speaking developers will only use platforms if they can clearly see how they can monetise doing so. Until now this has meant a pre-existing large consumer base willing to buy the applications.

Tokens are an alternative way for developers to make money in advance of a network effect and likely in itself helping to contribute towards it. If they help build a valuable open network, they benefit from the increase in token value which aligns the incentives between the developer and user.

## Viewing tokens as securities misses a broader shift

Whether or not tokens are securities is part of a broader debate that society is beginning to have as bitcoin and the underlying blockchain technology impacts on the finance, insurance, accounting, legal industries, even fundamental corporate structures. Regulators and governments are having to move faster than ever to keep up with innovations, but regulation is a crude tool often with unforeseen consequences therefore regulators tend to watch developments and act only when a situation demands action. The UK government set up a sandbox environment to test innovations from which innovations can graduate with regulatory security.

This wait-and-see approach is appropriate as it is unclear what exactly the use cases of tokens will be and how far-reaching their impact will be. To view tokens as either a security or just as a pre-seed fundraising route may be to miss the more transformative impact of tokens on an open decentralised network.

Ownership of tokens could come to be considered ownership or voting right within a new blockchain-based company structure that undermines the definitions and separation between employee, management and shareholders in a corporation. A new structure may consist of 'participants' instead of employees who are also 'token-holders' instead of 'shareholders'; the operational management may be outsourced to human contractors or AI in a DAO-type vehicle.

## Limitations of token presales and crowdfunding

Token presales are a new funding tool for projects that are using cryptographic tokens. The benefits of publishing a whitepaper with a simple thesis and being able to directly and quickly raise capital are clear. Within the community the successes of Ethereum, Maidsafe and Lisk are flag bearers for successful execution. For a community built around the idea of transforming, or replacing, traditional finance, selling tokens to like-minded developers and enthusiasts, instead of venture capitalists who are seen as part of the establishment, seems ideal.

However raising money from professionals rather than retail investors forces discipline and acts as a sanity check on, by their very nature, optimistic entrepreneurs. The process of creating detailed financials and having your fundamental assumptions and models stress tested is imperative to success. Unlike with platform based crowdfunding platforms there is no regulated central party to carry out due diligence for investors to ensure standards and quality control. In fact this is the area that will be of most concern to regulators where retail investors, general consumers, are seen to be at risk. For network token presales any kind of due diligence is light and performed by the crowd itself to the best of their ability. Often it is not to a professional standard led more by emotion, gut feel and political persuasion over sound business fundamentals.

There is also in general a difference in the quality of investor too. Finding investors that bring more than just capital including experience and contacts who can also play an active role in the company can be invaluable to a startup and is often referred to as ‘smart money’. A narrow early-adopter investor profile can bring a myopic view not challenging the entrepreneurs with alternative points-of-view.

Finally and of equal importance token presales, like crowdfunding generally, whilst great at getting passionate end users engaged also can lead to the distracting need to manage 100s and in some cases 1000s of investors all demanding certain promises are delivered on time and on budget. When you are a small team this can be an overwhelming task and when done badly can become a fatal PR disaster that haunts founders well beyond the initial startup.

## Key Takeaways

1. The original motivation behind token sales such as with Mastercoin and NXT was to provide a way to raise funds to pay developers for open source development.

Mastercoin were experimenting on top of the Bitcoin protocol, and NXT was experimenting with proof-of-stake, an alternative consensus mechanism to Bitcoin's proof-of-work. The motivations of both projects were funding open-source innovation.

2. In these cases, the investors are also participants and developers of the network, they directly contribute to the failure or success of their investment. However, not all of the subsequent token crowdsales have followed this model and tokens are communicated and sold as 'crypto-equity' or investments to passive retail investors as well as developers. This is a dangerous trend and likely to result in action from the SEC.

3. The diversity in the structuring of token sales makes it difficult to generalise regarding their legality. Some crowdsales are certainly communicated and sold as crypto-equity which makes them akin to securities, whereas other tokens as offered as network access tokens more akin to Kickstarter campaigns. Network access tokens provide a new business model for decentralised open networks and align the economic incentives of developers with the benefits of openness to end-users.

# Part 3 - Scenarios, Conclusions & Considerations

## Potential Future Scenarios

1. **Worst Case**

   Tokens are regulated as securities after a bad actor achieves widespread media coverage and uses a token presale to scam participants out of a lot of money. The SEC decide to regulate tokens as securities, and the nascent industry of network token presales is killed. This doesn't stop other smaller jurisdictions from offering lighter regulations, but it does limit the market growth and widespread acceptance of network token sales as a mainstream option.

2. **Likely Case**

   Token presales continue to operate in a legal grey area with some projects edging towards securities sales. The professionalisation of the industry self-regulates resulting in better whitepapers, presale documentation and communication raising standards and expectations limiting the possibility of success for bad actors. Estonia, Jersey and other jurisdictions create regulatory sandboxes which allow for innovation around network token presales.

3. **Best Case**

The SEC and other global regulatory bodies such as the FCA in the UK present clear guidelines on what constitutes a security and tokens fall outside this definition. A consistent global regulatory environment gives confidence to consumers and institutions in network token presales and they become a common financing mechanism for open-source development; developers capture the value the create, and open-source software and protocol development thrives.

## Conclusions

"It is my belief the ICO is here to stay in particular to fund highly technical blockchain infrastructure only early adopter developers can understand the need for and where the capital requirement is immediately high. This more so now private money in the VC world is drying up. However I think they are less relevant where a startup is an application (or DApp) whose use-case should be clear to a traditional professional investor who can provide not just capital but an address book and vertical expertise to help make it happen. This means there is still very much a role for professional investors to play."

**Jamie Burke, CEO Outlier Ventures**

1. **Network token presales are a tiny part of the broader crowdfunding market**

   The best case (taking the price of Bitcoin/Ether at end of the crowdsale) is just 0.05% of overall crowdfunding volume.

2. **It is still unclear how network token presales will be regulated**

   The SEC and regulators around the world may decide to regulate tokens as securities severely handicapping innovation. Or they may decide a presale event is more like a Kickstarter campaign. This level of uncertainty provides a less than ideal environment for innovation.

3. **Only small pools of 'buyers' which lack diversity is a structural challenge to growth**

   Razormind raised $1.9m in July in Bitcoin from 290 individuals. The pool of capital is limited to owners of cryptocurrency. Additionally, owners of Bitcoin tend to come from a small subsegment of society, and likely have similar political persuasions often seen as libertarians. This lack of diversity could stop the growth of network token presales going mainstream.

4. **Network tokens represent true business model innovation, illegal or not**

   Network tokens provide an economic incentive for open-source software and protocol development which allows projects to remain open-source rather than having to go proprietary to capture the value that is created. This provides a unique business model that wasn't available to pioneers of other information and communication networks such as The Internet.

5. **Potential for blockchain-chartered companies**

   Tokens are a new route to financing product development, but they also represent other organisational functions like voting on management and board-level decisions. TheDAO, despite its implementation failure, hinted at this possible future. Blockchain chartered companies leveraging blockchains, smart contracts and network tokens have the potential to offer new organisational structures to compete with traditional corporations.

## Considerations

1. **Startups should be cautious when using the term ICO**

   Open decentralised network projects can reduce their risk by communicating clearly to potential token acquirers that the token represents access to a network not equity in the project. Startups must be aware that when they use the term Initial Coin Offering (ICO) or crypto-equity they are signalling that the event is like an IPO and equity is being sold.

2. **Startups should be transparent and provide a robust business plan**

   Projects need to details all aspects of the business, not just a technical whitepaper. Details around how and where the money will be raised as well as how it will be governed and spent by the business will help potential token buyers make a more informed decision.

3. **The community should begin seriously engaging with regulators around the world**

   The community needs to engage with regulators as soon as possible, especially the SEC in the US, due to the fact the US is by far and away the largest crowdfunding market, to build relationships and communicate the value and benefits of 'token crowdsales' before an inevitable bad actor forces regulators to act in a way detrimental to the nascent innovation of network tokens. The FCA fintech regulatory sandbox in the UK is instructive. There is a role for a not-for-profit organisation similar to the Bitcoin Foundation or Ethereum Foundation to provide advice and build relationships with startups and regulators.

## About

This report was compiled by Lawrence Lundy of Outlier Ventures Research, the research function of Outlier Ventures Europe's first blockchain venture builder and investment partnership. The research was carried out to explore if there was still a role for a dedicated equity based crowdfunding platform for blockchain startups. The conclusion supported the case for, this is based on 4 findings:

- The ICO is largely used to fund highly technical blockchain infrastructure only early adopter developers can understand the need for and where the capital requirement is immediately high.
- This is particularly important now private money in the VC world is drying up.
- The ICO is less relevant where a startup is an application (or DApp) whose use-case should be clear to a traditional professional investor who can provide not just capital but an address book and vertical expertise to help make it happen.
- The large majority of startups are put off by both the legal uncertainty and additional complexity of managing so many smaller investors early on in their development cycle

As such Outlier Ventures is happy to announce www.BlockchainAngels.eu will launch its own FCA regulated equity based crowdfunding platform dedicated to blockchain startups, largely focused on the DApp market, to further enable deal-flow between startups and its network of over 600 active blockchain investors in partnership with Angels Den, Europe's largest angel network with over 20,000 investors. This provides a tried and tested risk free route to market for blockchain startups seeking to raise funds within known regulatory environments.