



# Blockchain explained

The following file is an educational presentation on blockchain and its potential. The partners we have visited November/December 2017 and January 2018 are encouraged to amend the presentation and its content to fit their purpose of explaining blockchain and its essence to their stakeholders. This material is White label, meaning our partners and people we have visited can freely use it to educate others and brand it with their institutional trademarks. Created January 2018 by The Omega Project team.



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# Basic explanation of blockchain

The blockchain is a technology that allows many parties to use specific services, like transferring money or executing an automated contract, without the need for third parties to serve as intermediaries – e.g. banks or notaries.

The basic premise of the technology is that people can self-organize and eliminate costs and hurdles arising from giving power to central authorities like governments, courts and financial institutions that are sometimes tempted to misuse their power.

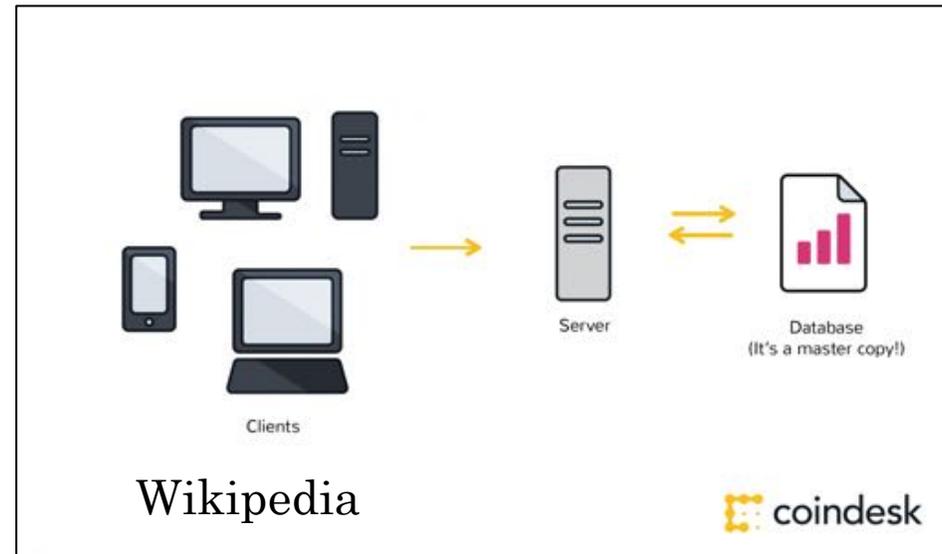
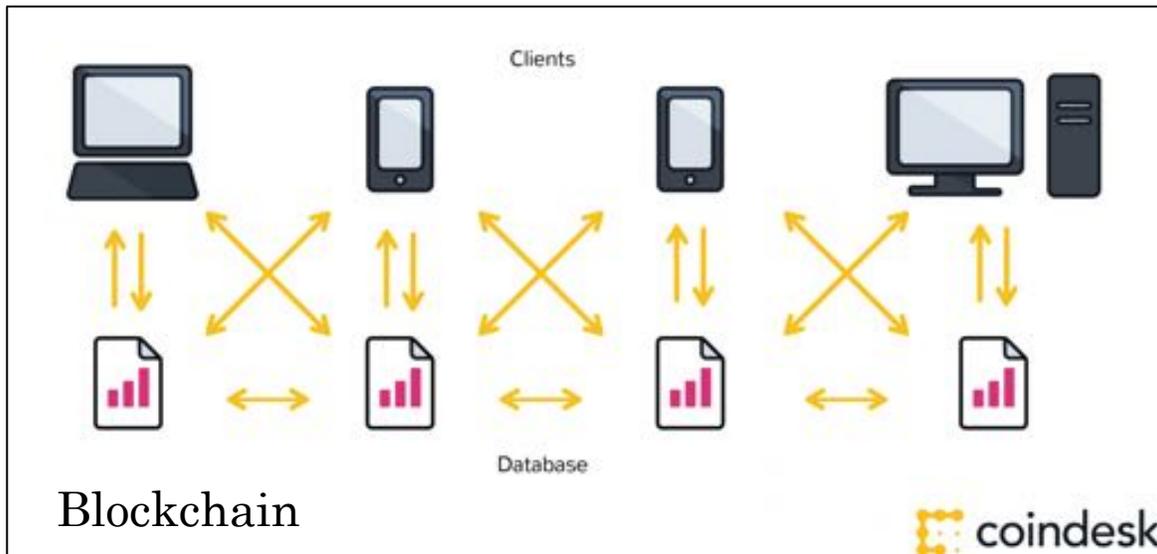


# Basic explanation of blockchain

In blockchain, every participant creates the next, new version of the database. So it is like more **users need to produce the same results** in order for them to be taken as true and part of the public database.



Contrary to the blockchain, Wikipedia is edited by many users but there is **still a central server and authority** that manages the database and makes sure there are only one history and public knowledge.



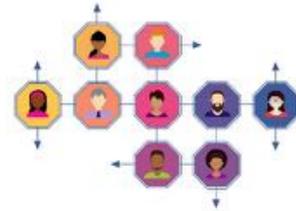
Source: <https://www.coindesk.com/information/what-is-blockchain-technology/>

# Basic explanation of blockchain

One centralized server  
confirming operations =  
not blockchain



V.S.



Many decentralized servers  
confirming operations =  
blockchain

Blockchain works as a really slow database. The only main reason to use it is if you do not trust central authorities. And many do not trust banks and other too-big-to-fail institutions that are always bailed out with citizens' money. **The first message inscribed in the initial Bitcoin block was a link to a journal article mentioning the bank bailouts in a negative context. The initial crypto community seem anarcho-socialist.**

The blockchain is about decentralization and removing intermediaries. It has countless ways of implementation limited by the imagination of the people who write the code.



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# Many blockchain projects claim to be democratic. To agree what is true on the network of servers – they need voting

Nodes on the blockchain system (separate computers/servers are called “nodes”) need to agree that a transaction is made in order to put it on the public ledger. The “public ledger” is a file (think of Word file that everyone edits). Everything is recorded on the ledger only after the network confirms that the transaction is valid.

Bitcoin for instance, requires a majority of nodes (51%) to agree a transaction has been made. They can be set up in different ways (40%, 76%. off-chain, etc).

**Cons:** Centralized system process for information is faster because only one centralized server or few servers need to verify a transaction.

**Solution:** Private blockchains with limited number of nodes exist now, to get the best of both worlds. They are fast as centralized databases with enhanced p2p security coming from more nodes. It is considered that some blockchains, like Bitcoin, are more secure as a way of storing information about transactions, than centralized banks.

# Blockchain technology was used to make Bitcoin (BTC)

Bitcoin was the first popular digital coin, i.e., cryptocurrency

A maximum of 21 million Bitcoins can be generated. Limited supply increases its value due to strong community support. Six million Bitcoins have been assumed lost because early adopters did not value them when they were almost worthless.

Just as with real-world mining, energy must be invested but instead of mining holes in the ground, to solve complex mathematical problems by which computer systems earn Bitcoins. This is called “mining”.



# Computing support of the system has changed and grown

Mining is the process whereby value is created through transaction processing that occurs on nodes of the network.

In 2009, one could mine 200 Bitcoins with a personal, home computer because not many people were using the network for transactions. In 2015, it would take about 98 years to mine just 1 Bitcoin with a personal computer.

Today there is almost no money to be made through traditional home mining so people join in pools that share profits from joint mining operations or create big mining companies that benefit from economies of scale. Many mining operations were started in China so people say that Chinese miners now control a great portion of Bitcoin's future. Miners (servers) execute the code. They can change it (fork it).

# Bitcoin explained further

Think of Bitcoin as an electronic asset (as well as a digital currency) a network of computers keeps track of Bitcoin payments, and adds them to an ever-growing list of all the Bitcoin payments that have been made, called “The Bitcoin Blockchain”.

The file that contains data about all the Bitcoin transactions is often called a “ledger” and it gets more complicated to write new information and transactions on the ledger.

The price of Bitcoin, due to limited supply (illiquidity) is very volatile but has constantly increased in the medium term from 0.01 cents to almost 20,000 USD in December 2017 before dropping 50%.



# Bitcoin WAS NOT designed to end fiat currency made by governments

The Popular misconception is that Bitcoin was envisioned to replace currency we use in daily lives. It wasn't the case. Its code makes the fees of paying and transferring Bitcoins ever-growing but still, far less than the fees connected to storage and trading of gold. Bitcoin's possibility with its current code base, that can change in the future, is **to be the new gold**.

But Bitcoin did not eliminate the need for a third party. The “miners” or people who have great facilities to support the transactions on the network and earn Bitcoins for doing it, control the code on their computers but far less than banks exert influence on governments.

The way Bitcoin was set up spiked civic wars within the Bitcoin community. Whenever a new coin is made out of an existing one, it is called a “fork”. Right now, the greatest Bitcoin miners are in China and they are profit oriented. They might hypothetically change the code on their network to suit their interests. That has led to the creation of other cryptocurrencies that claim to be different, better or even more democratic.

However, the ecosystem seems too complex for the above mentioned scenario to happen.



Few examples of other cyptocurrencies



# Example 1: Hiding the transactions

Every transaction of Bitcoins is recorded in the public ledger everyone can see. This means that although people do not know who does the transactions unless they are registered with a regulated service provider, we all know who pays what amount of money to which crypto addresses and when. MIT professors have developed the alternative that also hides the transactions.



zCash uses complex mathematical formulas to hide the transactions made but still keep everyone accountable. It is like getting a restaurant bill without seeing the individual prices of items, but you can trust the final amount to be fair and according to the menu showed before ordering.

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## Example 2: More utility from Ethereum

While Bitcoin was using the common notion that whatever people believe is valuable it becomes valuable, some developers decided that crypto assets can also have utility beyond the regular transactional and store of value functions. That is how a blockchain network with smart contracts was developed. The first and most popular one is Ethereum.



Ethereum allows computer programmers to write contracts into code. Think of notary contracts being digitalized where both parties can automate the execution of a contract. When party A does the agreed activity, the contractual counterparty B, does the agreed upon activity without a need for a notary because the entire system is checking the validity of both parties' actions in a pre-determined, code-based fashion.

# Example 3: Third parties replacement

Instead of regulated central banks to decide on the future of a currency, in the Bitcoin's case, big miners, most of which are from China, almost changed the Bitcoin code with a patch known as "segWit2x". They were stopped after the intervention of the founding members and by the creation of "Bitcoin Cash" (alternative to Bitcoin). To prevent disputes like this one happening, or preventing the owners of computers to change the code of the currency, other alternatives, like Tezos were introduced. Tezos raised 232 million USD and still, has not released a product due to infighting. The currency that was supposed to end digital infighting....caused a real one.



Tezos was envisioned to be a cryptocurrency that provides the holders with the greatest amount of Tezzies (the Tezos currency is named Tezzies) the right to vote on changes of the code proportionally to the number of Tezzies owned by different people/institutions. Automation of the evolution of Tezos by voting was supposed to end civic wars in their community.

# Example 4: ParagonCoin



ParagonCoin raised more than 170 million USD for opening high-tech, fully equipped ParagonCoin Centers in all 20 US States where cannabis is legal that would accept ParagonCoin (PRG) as a payment method that would include the following services:

- ❖ Professional coworking space for cannabis and a creative hub for scientists, journalists, investors, marketers, doctors, developers, fintech specialists, entrepreneurs, startups and lawyers in the cannabis space. Business mentors and advisors
- ❖ The Conference, event, research and educational space for the legalized cannabis industry- Photo/Audio/video studio for product shoots, interviews, podcasts, etc.
- ❖ Social Club / Cafe for **Paragon Coin** Club members. Web and in-app co-working, event, conference reservation system with instant PRG payment
- ❖ Member dashboard for membership registration, transaction history, networking, scheduling, event lists, etc. Cafe/snacks menu and simple checkout process with PRG.
- ❖ Specialized Retail services and SPAs with CBD products at a flagship location with PRG payment and tipping (retail of cannabis products at SPAs limited to jurisdictions where such cannabis products are legal)

# Example 5: Internet of Things Coin (IoT)

**IOTA** is an open-source cryptocurrency focused on providing secure communications and payments between machines on the Internet of Things. IOTA's transactions unlike Ethereum's and Bitcoin's are "free" (holders of coins cover them themselves) regardless of the size of the transaction, confirmation times are fast, the number of transactions the system can handle simultaneously is unlimited, and the system can easily scale.

IOTA is overseen by the IOTA Foundation, the only non-profit dedicated to developing the technology and maintaining it license-free for all developers to work with that is based in Germany (Berlin). The Foundation has established a collaboration with Volkswagen and Innogy to develop CarPass, an IOTA based technology that enables secure audit trails, digital identities, and charging networks for cars.

With the participation of Deutsche Telekom, Microsoft, and Fujitsu, the Foundation opened up a data marketplace using IOTA technology. The IOTA Foundation is also a founding member of the Trusted IOT Alliance, which includes the companies Bosch, Consensus, and USbank.



The IOTA Foundation forged a partnership with REFUNITE, the world's largest missing person database, in order to use IOTA technology to help reunite families during and after conflicts. The city of Haarlem, Netherlands, built a proof of concept system to enable residents to assure the authenticity of official documents without residents having to access government offices. The open source, IOTA based system is available for free to any municipality and is set to go into production in 2018.

# Around 5200+ and growing fast number of cryptocurrencies on the market.

Current market capitalization is around \$500 billion from \$20 billion one year ago. Here is how some cryptocurrencies are seen in the market.

Bitcoin = New Gold that is better than the old gold. Lower costs and limited supply.

IOTA = Popular cryptocurrency that should allow IoT function and connect.

Bitcoin = New Cash that is lower in fees than fiat currencies or the original Bitcoin.

Ether = The currency that allows usage of the smart contracts on the Ethereum platform.



ETHEREUM

# Evolution of the blockchain revolution

## **First phase** in the revolution – Introducing the first Crypto **COIN**



As the first popular p2p cryptocurrency, Bitcoin has loyal followers who are often blinded and do not see its technical limits. The subculture developing around Bitcoin asks users to “HODL” meaning to withstand pressure to sell and keep their Bitcoins forever. The HODL subculture is spreading across different cryptocurrencies. Bitcoin introduced the idea of decentralized money and blockchain to the mainstream. The Bitcoin was made by Satoshi Nakamoto and two of his friends.

## **Second phase** in the blockchain revolution – Ethereum - **ALTCOINS**



The second wave of the blockchain revolution was led by Ethereum where instead of currency they made a platform where people can automate the execution of smart contracts. This platform can also be used to create “tokens” on top of the platform that can have different names like ParagonCoin, Populous, etc, which can be coded to mimic stocks, national currencies and everything the developers can put into an Ethereum smart contract. Ethereum was made by co-founders of the Ethereum foundation led by the young visionary Vitalik Buterin.

# What are coins? New platforms.

Bitcoin is a coin. Coins that are made by copying, slight moderation of the original Bitcoin code or are created by writing completely new code that runs on a different network are named altcoins (from “alternative coins” showing the popularity of the “main” coin, or Bitcoin, in this subculture made initially of keyboard warriors and Reddit users).



Examples of coins that are derived directly from Bitcoin’s code or are similar to the main Bitcoin code.



“altcoins”

Examples of coins that are made by making a new code from scratch and a new platform.



# What are tokens? New code on top of existing platforms.

Examples below of platforms that allow the creation of tokens on top of their existing code that are not Ethereum.



NXT GENERATION  
OF CRYPTOCURRENCY

Some use the Ethereum platform, which is the most popular, to raise funds for creating their own coins down the road. Others based their entire system and enterprise on the one of the networks as Ethereum.

EOS's technology that uses Ethereum just as a fundraising tool while it develops its own coin later for its own platform. So this is also the case that Ethereum is used just for fundraising purposes.

Quantum, unlike EOS, is entirely based on the Ethereum network and aims to bridge the differences between the crypto and other apps in the real world.



Some platforms cater to specific coding languages like C++ or Javascript making it easier for a specific type of developers to use them.

# Coins v.s. Tokens

So COINS have their own platforms and computers (servers) that support them. They are usually also some platforms that cater to specific coding languages like C++ or Javascript making it easier for a specific type of developers to use them, supported by a network of developers and sometimes allow other types of applications to be built upon their basic code. The coin for the Ethereum platform is called Ether (ETH).



Tokens, on the other hand, are built based on existing platforms. For instance, Ethereum smart contracts were enough support to make the Populous and other projects below on top of the Ethereum network. Tokens and Coins are marked with abbreviations like XPL, ETH, BTC, etc.



# Different strategies by different founders.

Unlike Bitcoin that started as a countercultural revolt against the perceived corruption of banks and centralization, some founders started projects that are compliant with the interests and needs of the financial institutions and are mostly enterprise based. The first and biggest example of that is Ripple.

Ripple works with Banks, Governments, and others that find useful to lower transaction fees in interbank settlements.



One of the biggest cryptocurrencies' market capitalization December 2017 of \$45,177,978,112 although its issuing of tokens mimics plentiful series of funding that increase supply of Ripples.

Its price appreciation was however similar to Bitcoin's. Ripple skillfully manages its corporate brand.



# Overview of currently the most popular coins on the market and their market cap

#	Name of coin	Market capitalis.	Price per unit	Volume 24h	Supply	Change 24h	
1	<a href="#">Bitcoin</a>	\$257,191,309,18	<a href="#">\$15,346.70</a>	<a href="#">\$15,879,500,000</a>	<a href="#">16,758,737 BT</a> <a href="#">C</a>	21.39%	
2	<a href="#">Ethereum</a>	\$72,290,151,409	<a href="#">\$748.96</a>	<a href="#">\$3,187,070,000</a>	<a href="#">96,521,097 ET</a> <a href="#">H</a>	22.64%	
3	<a href="#">Bitcoin Cash</a>	\$56,702,113,257	<a href="#">\$3,360.77</a>	<a href="#">\$3,368,900,000</a>	<a href="#">16,871,763 BC</a> <a href="#">H</a>	50.77%	
4	<a href="#">Ripple</a>	\$45,177,978,112	<a href="#">\$1.17</a>	<a href="#">\$2,341,740,000</a>	<a href="#">38,739,144,847</a> <a href="#">XRP *</a>	28.08%	
5	<a href="#">Litecoin</a>	\$16,505,059,688	<a href="#">\$303.20</a>	<a href="#">\$2,000,700,000</a>	<a href="#">54,436,033 LT</a> <a href="#">C</a>	35.55%	
6	<a href="#">IOTA</a>	\$11,300,819,658	<a href="#">\$4.07</a>	<a href="#">\$539,155,000</a>	<a href="#">2,779,530,283</a> <a href="#">MIOTA *</a>	11.91%	
7	<a href="#">Cardano</a>	\$11,270,290,146	<a href="#">\$0.434692</a>	<a href="#">\$106,427,000</a>	<a href="#">25,927,070,538</a> <a href="#">ADA *</a>	26.49%	
8		\$10,259,321,384	<a href="#">\$1,320.29</a>	<a href="#">\$389,598,000</a>	<a href="#">7,770,506 DAS</a> <a href="#">H</a>	31.22%	

Source: [www.coinmarketcap.com](http://www.coinmarketcap.com) December 2017

# Overview of currently the most popular tokens on the market and their market cap

#	Name	Platform	Market Cap	Price	Volume (24h)	Circulating Supply	Change (24h)	Price Graph (7d)
1	<a href="#">EOS</a>	<a href="#">Ethereum</a>	\$5,153,944,474	<a href="#">\$9.25</a>	<a href="#">\$388,946,000</a>	<a href="#">557,049,495</a>	27.73%	
2	<a href="#">TRON</a>	<a href="#">Ethereum</a>	\$3,123,308,710	<a href="#">\$0.047504</a>	<a href="#">\$420,529,000</a>	<a href="#">65,748,192,476</a>	59.48%	
3	<a href="#">OmiseGO</a>	<a href="#">Ethereum</a>	\$1,526,301,468	<a href="#">\$14.96</a>	<a href="#">\$124,126,000</a>	<a href="#">102,042,552</a>	35.81%	
4	<a href="#">Populous</a>	<a href="#">Ethereum</a>	\$1,502,163,670	<a href="#">\$40.59</a>	<a href="#">\$4,868,580</a>	<a href="#">37,004,027</a>	40.14%	
5	<a href="#">Ardor</a>	<a href="#">Nxt</a>	\$1,353,024,936	<a href="#">\$1.35</a>	<a href="#">\$26,775,100</a>	<a href="#">998,999,495</a>	48.07%	
6	<a href="#">Tether</a>	<a href="#">Omni</a>	\$1,271,637,066	<a href="#">\$1.04</a>	<a href="#">\$2,919,290,000</a>	<a href="#">1,218,089,837</a>	4.34%	
7	<a href="#">Augur</a>	<a href="#">Ethereum</a>	\$868,769,000	<a href="#">\$78.98</a>	<a href="#">\$34,793,000</a>	<a href="#">11,000,000</a>	50.36%	
8	<a href="#">Veritaseum</a>	<a href="#">Ethereum</a>	\$714,257,666	<a href="#">\$350.70</a>	<a href="#">\$2,338,730</a>	<a href="#">2,036,645</a>	19.22%	
9	<a href="#">SALT</a>	<a href="#">Ethereum</a>	\$542,292,757	<a href="#">\$10.47</a>	<a href="#">\$18,178,200</a>	<a href="#">51,810,255</a>	41.48%	
10		<a href="#">Ethereum</a>	\$525,570,065	<a href="#">\$0.151440</a>	<a href="#">\$18,335,200</a>	<a href="#">3,470,483,788</a>	28.54%	

# The most popular network to create fundraising tokens: Ethereum

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 according to their developers.

The Ethereum project is developed by the Ethereum Foundation, a Swiss non-profit, with contributions from individuals and organizations across the globe.

Ether (ETH) is the currency used to pay for the services of the network – using smart contracts. Ether is a necessary element – a fuel – for operating the distributed application platform Ethereum. It is a form of payment made by the clients of the platform to the machines executing the requested operations, functioning as the incentive that ensures that developers will write high-quality applications and that the network remains healthy. Developers who intend to build apps that will use the Ethereum blockchain need Ether. Users who want to access and interact with smart contracts on the Ethereum blockchain also need Ether.

Unlike Bitcoin, Ether's price is connected to the UTILITY of its underlying code to make new tokens. Bitcoin, on the contrary, is only useful as a possible new version of gold due to limited supply and loyal, often diehard, fan base.

# What do executives believe in?

Thirty-nine percent of the senior executives at large U.S. companies initially surveyed indicate they have little or no knowledge about blockchain technology. Many deemed it to be crucial for their companies and industries (although they possibly did not understand it but said so due to the media hype). Forty-two percent believe it will disrupt their industries.

Source: “Blockchain Adoption Varies by Industry”, CIO Journal, The Wall Street Journal



# Crypto ATMs and debit cards are here already (since 2013)



There are already more than 1,885 Bitcoin and other cryptocurrencies ATMs around the world.



Source of image: <http://gesellberg.com>

The debit cards that are connected directly to crypto wallets are also available. There are also virtual cards. The usual charges are higher compared to national, bank-issued cards but they can be used on normal banks' ATMs as well.

Sources:

[www.cryptopay.me/bitcoin-debit-card](http://www.cryptopay.me/bitcoin-debit-card)  
<https://spectrocoin.com/>

# Real-estate is bought and sold in Bitcoin online and offline

There is a growing number of places where people can use Bitcoin to buy valuable things. However, the growing transactional costs of Bitcoin leads other cryptocurrencies to increase their transactional utility compared to Bitcoin as time passes.



People can list their properties for newly minted millionaires and billionaires to buy in Bitcoin: <http://bitcoin-realestate.com> . There are also cheaper properties and opportunities to invest in many real-estate projects by using cryptocurrencies like Atlant at [www.atlant.io](http://www.atlant.io)

# Initial Coin Offerings (ICOs)

Initial Coin Offerings are a way for creators of new cryptocurrencies to raise funds. In 2017, 3 billion dollars were raised in this way from supporters around the world. Instead of paying fees to crowdfunding platforms such as Kickstarter or Indiegogo where founders can raise funds for projects, founders of projects can create smart contracts and receive investments that range from \$300 to \$1,000 on average, mostly from retail investors.

Compared to Kickstarter and Indiegogo that take part of the money raised, by using Ethereum or other smart contracts there are smaller fees assuming the creation of the smart contracts did not cost a fortune.

Compared to Initial Public Offerings, when companies offer stocks, founders of cryptocurrencies can offer many different types of instruments limited by their imagination and coding abilities.

Good resources for ICO tracking is <https://icostats.com/roi-since-ico>

# What do founders promise investors when they raise money with ICOs?

When serious teams raise money in ICOs they usually structure their smart contracts as donations that do not guarantee anything else to investors aside from getting digital tokens or coins in return. In every offered asset, however, the promise of increase price over time is implicitly there. The increase of prices of cryptocurrencies can come due to many reasons that are discussed in a “Whitepaper”. Whitepapers are like an amateur version of an investment prospectus.

Example of different ICOs and some of the different promises to investors.



HelloGold promised to eventually replace all tokens issued, with gold-backed tokens. Essentially they promised a gold backed security.



AffinityMining promised 25% of its profits to be distributed to affinity mining token holders on a monthly basis. They aimed to establish renewable mining operations.



Edgeless offered ability to play casino games without the advantage of the house. The rising price of its token would come by more people coming to play their innovative games.

# Benefits of issuing tokens v.s. VCs and IPOs

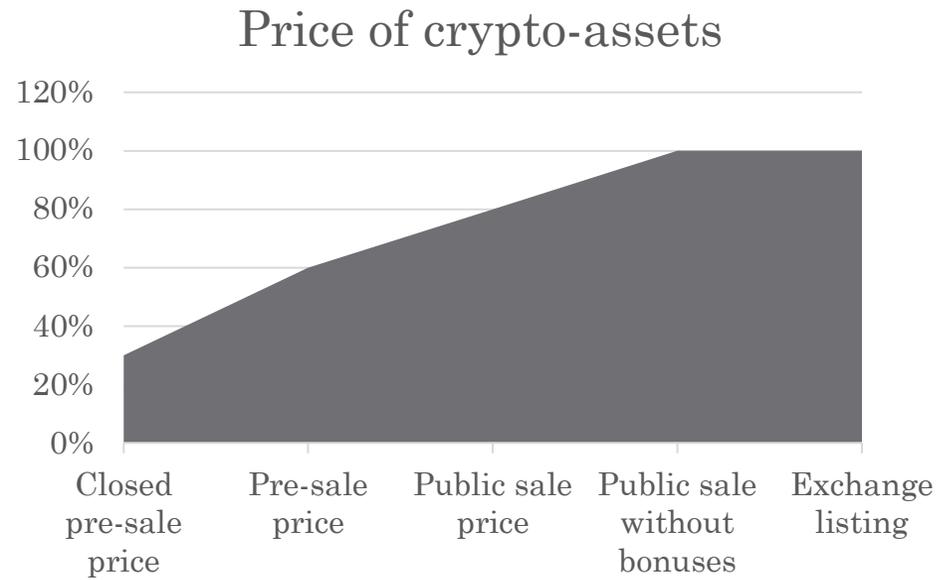
- Tokens are a new model for technology and can be an alternative to equity-based financing and as long as alternatives exist, founders have more leverage.
- Tokens do not dilute capital ownership in companies unless they are backed by equity. They introduce a huge increase in buyer base and time-to-liquidity.
- Token launches differ from equity sales; however, they can be issued as a way to share profits. Tokens can be coded to be exchanged for real share or bonds down the road.
- Tokens can be sold internationally over the internet and are always open for business to all citizens whose countries did not ban ICOs.
- Tokens decentralize the process of funding technology and open the market for retail investors that would otherwise not be allowed to invest. (dumb money)
- How are tokens coded depends on many things, which are limited by the imagination of the code developers.

# Crypto is obviously, very popular, considering the ROI from some assets

No.	Name of coin	Year developed	Return since launch (take into account the year developed)
1	Next (NXT)	2013	+3882680%
2	IOTA	2015	+1005599%
3	Ethereum	2016	+208045%
4	Stratis	2016	+132369%
5	Neo	2017	+124298%
6	Ark	2016	+44456%
7	Spectrecoin	2016	+42203%
8	Populus	2017	+13960%
9	Lisk	2016	+12151%
10	Waves	2016	+7706%

# Crypto is obviously, very popular, considering the ROI from some assets

The most common way of earning gains from crypto investments is from the rising price of the crypto asset. The crypto assets are more valuable as more people buy them. Thus, networking effects the prime source of increased value of the crypto assets. Whether the network will raise or not, depends on marketing, utility, politics and many other factors.

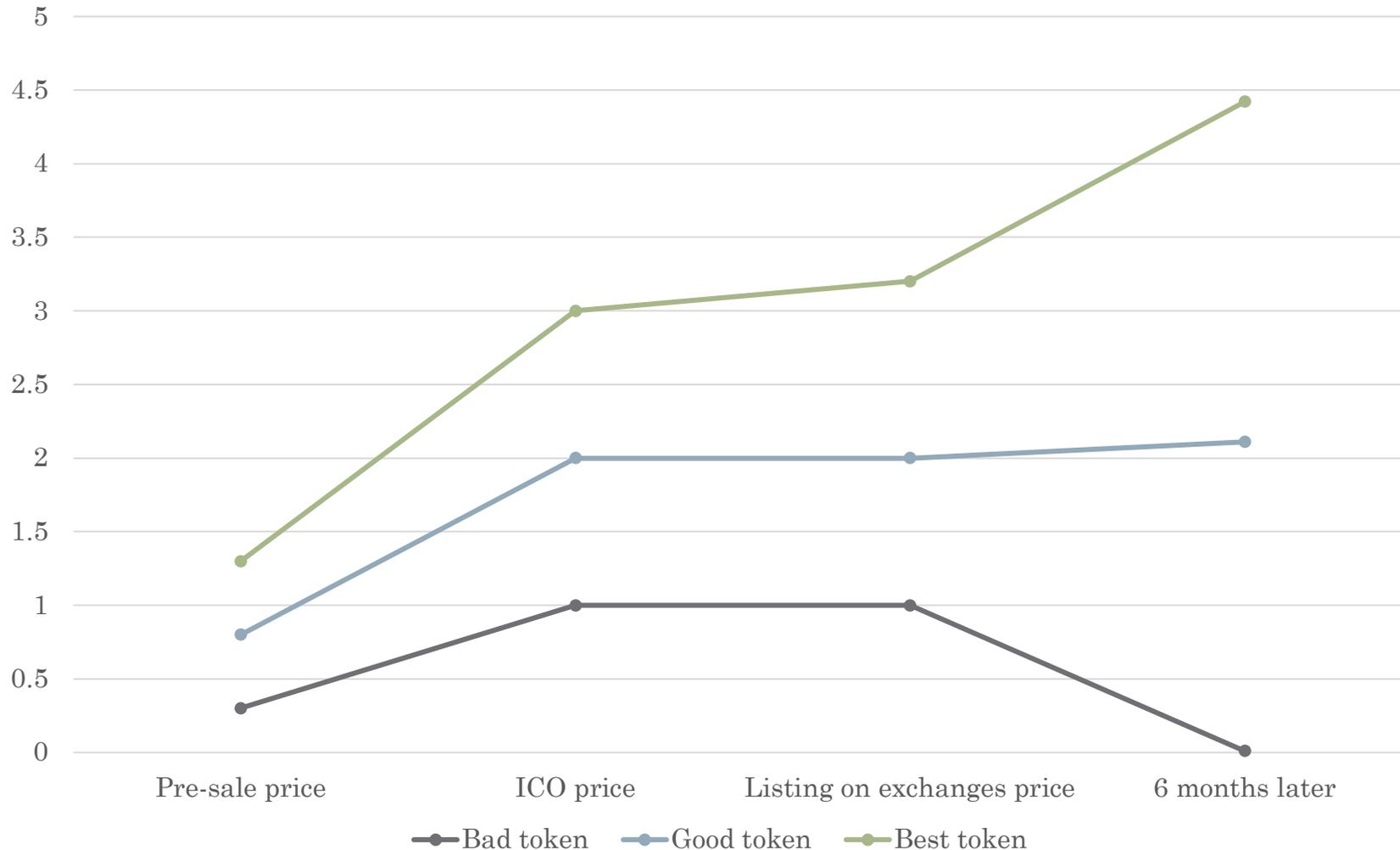


Because it is uncertain that the price of tokens will increase after the listing on exchanges (similarly to IPOs), it is clearly up to the investor to decide whether the demand for certain assets would rise or fall. Some, who bought with discount might be tempted to short during listing on exchanges.

Usually, in the pre-sale period of the Initial Coin Offerings, there is a large discount for early investors that gets smaller as time passes. Investors who get the best assets in the first round of investing get the greatest ROI before the listing on exchanges.

# Investors have capital gains from selling tokens at higher values, if only they manage to buy the right ones

Most tokens will fail to deliver ROI to investors



The market is self-regulating. In the early days, people were able to buy in pre-sale periods, get discounts and dump the asset during the listing on exchanges at a higher price. Right now exchanges and ICOs themselves developed mechanisms to prevent this from happening.

# Is it really a “crypto” market?

Within the blockchain, trust relies on the safekeeping of private keys. Ultimately, that safekeeping resides with the actions taken by individuals to secure their private key. For cryptocurrency traders, one frequently sees the recommendation to write one’s private key down on a piece of paper and put it up for safekeeping in, for example, a safe deposit box. So a lot of the “bank haters” would end up storing their private keys from platforms meant to end centralized banks, in a bank.

**No serious Initial Coin Offering can gather money without strict compliance with laws and registration of clients.** Although the Bitcoin revolution started as anonymous, moving capital around in the blockchain community frequently requests people share their private details. Approved by governments, fully Anti-Money Laundering (AML) and Know Your Customer (KYC) inclusive, some apps make blockchain fully compliant with stringent financial rules.

The problem nation states experience is that many ICOs respect different laws and centralized information on holdings is difficult to come by. Perhaps governments will start their own identity verification ICO to solve this problem (in the making).

# Interesting facts about the blockchain craze in 2017

An Ice Tea company unexpectedly renamed itself to Long Blockchain Corp, and said it was seeking opportunities in areas such as “digital cryptocurrency technology solutions for global financial markets”. Their shares surged more than 500 percent in pre-market trading on Nasdaq.

An experiment of a person who made the Useless Tokens – that he showed to be completely useless on his website <https://uetoken.com/> without any marketing got \$224,628 in funding.



Most ICOs will fail, and compared to startups the failure rate would be similar. Investing in ICOs is like investing in early stage pre-seed startups. Potential for gains is high but so is the probability of a loss. Many will lose money. Small amount of smart investors will make a lot of money.



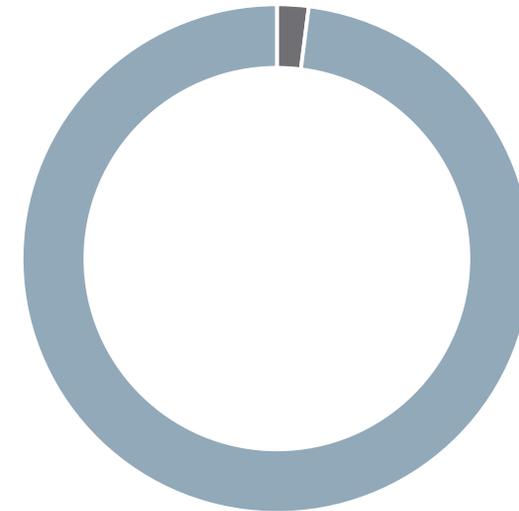
# Investing in crypto would be like FX

The Bitcoin and blockchain craze has imminent consequences that many expect. However, unlike stock markets, large portion of retail investors that are currently in crypto are gamblers who find losing money commonplace.

That is why even when the bubble bursts, those same people will keep on investing money they make in their daily jobs.

**Institutional, smart investors are rare in the market, but there are some hedge funds that do make investing more reasonable for their clients. We assess that only 2% of crypto non-fiat investing is currently institutional.**

Money source



■ Institutional players ■ Retail investors

**TOP**

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# The psychology of the market is evolving

The anti-establishment sentiment of the crypto community will make the establishment stronger. Retail investors will get crowded out.

2022.

2018.

2013.

2012.

2010.



Enthusiast and anti-establishment parties that wanted to punish the perceived corrupt banking and government system.

Early adopters were criminals that wanted a safe way to transfer assets and even more anti-establishment sentiment.

Developers and other smart people, some part of the establishment, start to gain interest in crypto finance and its possibilities. Testing phases.

Regulation starts developing and institutional players enter. The market gains structure and ability for smart investment choices.

Institutions, states, and banks, that were the target of the anti-establishment sentiment, lead the blockchain revolution forward in a compliant manner.

# Who are the hedge funds that invest in crypto assets right now

Here are some returns from some crypto hedge funds

METASTABLE



The hedge fund industry has gotten many startups running more than 1 billion of USD for investments in crypto assets.

The returns are usually much higher than any other hedge fund that is not oriented on the crypto industry. MetaStable reported 100x fold return on investment for its investors. Others reporter similar figures.

Although there are now almost 100 crypto funds, here is a list of around 50 according to Business Insider <http://www.businessinsider.com/bitcoin-price-surge-leads-to-growth-in-hedge-funds-2017-8>

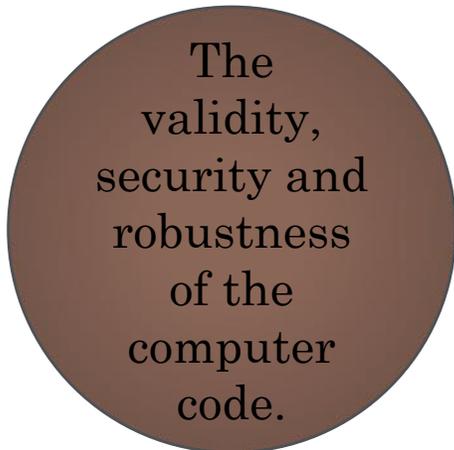
# Analytics and news on crypto-investments

Compared to other assets that are mainstream are more complex, as the code making the tokens or coins needs to be validated and the legal systems under which ICOs are conducted are different.

Crypto funds, need to pay special attention to two additional elements.



Legal structure in the country of incorporation. Meaning there is no one single jurisdiction.



The validity, security and robustness of the computer code.

Also, if investing at the ICO stage, the strength of the team, the product, and market demand are also important.

# Why is the code-check important - DAO



The DAO had an objective to provide a new decentralized business model for organizing both commercial and non-profit enterprises. It was instantiated on the Ethereum blockchain and had no conventional management structure or board of directors. The code of the DAO is open-source and it was meant to allow the creation of decentralized autonomous organizations.

When it raised 11 million Ether at today's market price of around 7 billion dollars, **it was the greatest fundraising projects of all time, and yet, it lost around 30% of the money raised in a hacking attack.** In June 2016, users exploited a vulnerability in the DAO code to enable them to siphon off one-third of The DAO's funds to a subsidiary account.

On 20 July 2016, the Ethereum community decided to hard-fork the Ethereum blockchain to restore virtually all funds to the original contract. This was controversial and led to a fork in Ethereum, where the original unforked blockchain was maintained as Ethereum Classic, thus breaking Ethereum into two separate active blockchains, each with its own cryptocurrency.

Serious investors knew about the code vulnerabilities and did not invest. Today, many put their code for public scrutiny at places like GitHUB in order to allow third parties to also check the validity and security of the code behind the ICO project.

# Another important factor - centralization

Cryptocurrency was invented to allow decentralization of assets. Still, there is massive centralization within the crypto system that moves the market whenever founding member decides to buy a yacht.

About 40 percent of bitcoin is held by perhaps 1,000 users. Satoshi Nakamoto owns almost 1 million Bitcoins out of the 21 million that would ever be minted. It is said that 6 million Bitcoins are already lost.



About 13 percent of Ether is held by 8 addresses, 25% by 50 addresses and 40% by approximately 250 addresses that can belong to similar people. All holdings are transparent on this site:



<https://etherscan.io/accounts>

Another important factor in investing in crypto is understanding the key players who own the majority of certain crypto assets and what do they plan to do with them.

# The richest active Bitcoin addresses

## Bitcoin distribution

Balance	Addresses	% Addresses (Total)	Coins	\$USD	% Coins (Total)
0 - 0.001	14437820	53.88% (100%)	2,635 BTC	40,834,98 4 USD	0.02% (100%)
0.001 - 0.01	5407870	20.18% (46.12%)	22,437 BTC	347,767,3 83 USD	0.13% (99.98%)
0.01 - 0.1	4384625	16.36% (25.95%)	138,015 BTC	2,139,180, 174 USD	0.82% (99.85%)
0.1 - 1	1849377	6.9% (9.58%)	596,260 BTC	9,241,805, 300 USD	3.56% (99.03%)
1 - 10	568444	2.12% (2.68%)	1,495,061 BTC	23,172,88 9,578 USD	8.93% (95.47%)
10 - 100	132968	0.5% (0.56%)	4,375,296 BTC	67,815,46 3,372 USD	26.13% (86.54%)
100 - 1,000	15904	0.06% (0.07%)	3,703,649 BTC	57,405,19 3,658 USD	22.12% (60.41%)
1,000 - 10,000	1541	0.01% (0.01%)	3,348,407 BTC	51,899,06 4,394 USD	19.99% (38.3%)

Source: <https://bitinfocharts.com/top-100-richest-bitcoin-addresses.html>

## Addresses richer than

1 USD	\$100	\$1,000	\$10,000	\$100,000	\$1,000,000	\$10,000,000
20,802,122	8,181,554	3,083,066	929,819	190,690	24,125	2,463

This is how Bitcoin addresses look like:

1A1zP1eP5QGefi2DMPTfTL5SLmv7DivfNa

They are Alpha-numeric sequences.

Currently, there are 1654 **active addresses** with more than 1,000 Bitcoins or more than 15 million dollars. Most wealth is not inactive and publicly listed addresses. They are stored in a cold wallet. Cold wallets are storing of cryptocurrencies away from the internet in a controlled hardware storage.

# The richest active Ethereum addresses

The richest Ether address is of the exchange Poloniex with approximately 1,400,000,000 USD

Rank	Address	Balance	Percentage	Transaction Count
1	<a href="#">0xb794f5ea0ba39494ce839613fffba74279579268</a>   Poloniex ColdWallet	2,424,999.921222942580851408 Ether	2.51227702%	437
2	<a href="#">0x281055afc982d96fab65b3a49cac8b878184cb16</a>	1,538,421.036498856062345648 Ether	1.59378967%	476
3	<a href="#">0x6f46cf5569aefalacc1009290c8e043747172d89</a>	1,510,065.465636533766762795 Ether	1.56441356%	475
4	<a href="#">0x90e63c3d53e0ea496845b7a03ec7548b70014a91</a>	1,507,810.416648365151596003 Ether	1.56207735%	441
5	<a href="#">0xab7c74abc0c4d48d1bdad5dcb26153fc8780f83e</a>	1,500,000.00134197094280789 Ether	1.55398584%	236
6	<a href="#">0xe853c56864a2ebe4576a807d26fdc4a0ada51919</a>   Kraken_3	1,398,559.269628902094865 Ether	1.44889420%	118
7	<a href="#">0x53d284357ec70ce289d6d64134dfac8e511c8a3d</a>	1,378,754.093057888911481302 Ether	1.42837622%	14988
8	<a href="#">0xf4b51b14b9ee30dc37ec970b50a486f37686e2a8</a>	1,359,383.522215133014454696 Ether	1.40830849%	2766
9	<a href="#">0xde0b295669a9fd93d5f28d9ec85e40f4cb697bae</a>   EthDev	743,457.027315629583078378 Ether	0.77021446%	410
10	<a href="#">0xfbb1b73c4f0bda4f67dca266ce6ef42f520fbb98</a>   Bittrex	675,026.714928740391710446 Ether	0.69932130%	4168839
11	<a href="#">0xf27daff52c38b2c373ad2b9392652ddf433303c4</a>	672,784.621152328644707614 Ether	0.69699852%	92

Source: <https://etherscan.io/accounts>

# Analytics and news on crypto-investments

The default application for communication in the crypto investment sphere is Telegram. This anti-establishment encrypted app is created and managed by a foundation. The foundation was started by a Russian self-exiled brothers Nikolai and Pavel Durov who created the "Russian Facebook" (VK), before leaving Russia.



Investors who have accumulated considerable crypto wealth, are called "whales". Whales gather and communicate with each other, sometimes even in Telegram groups. This raises the questions of insider trading. However, as founders exit their investments and short their positions the centralization of the ownership of crypto assets is diminished, at least for some time.

There are many Telegram groups where for a fee, investors can get important information that move the market and also get an early analysis of ICOs. Most good groups are invite-only. Example of such a group that is in formation and where there is NO insider trading but only market and ICO analysis is ICO dreamers at [www.icodreamers.com](http://www.icodreamers.com)

# Other Telegram groups



There is plentiful of places where people can learn basics of ICO and crypto investing, depending on their strategy. We would advise long-term investing and knowing the fundamentals, but there are channels with different themes:

Some channels exist also for technical and day traders

@ArtCoins ([www.t.me/altcoins](http://www.t.me/altcoins))

@AltSignals ([www.t.me/altsignals](http://www.t.me/altsignals))

@Altcoinss (Spanish) ([www.t.me/altcoins](http://www.t.me/altcoins))

Some channels are focused on publishing new Initial Coin Offerings

@UpcomingICOs ([www.t.me/upcomingICOs](http://www.t.me/upcomingICOs))

@ICOCountdown ([www.t.me/ICOCOUNTDOWN](http://www.t.me/ICOCOUNTDOWN))

@TokenMarket ([www.t.me/tokenmarket](http://www.t.me/tokenmarket))

Because these channels are free, they are somewhat low quality, although many ICOs advertise in them. For better quality groups, usually, a fee from 1 ETH to 10 ETH per month applies.

# Crypto community has access to HNWI

Conferences are becoming increasingly popular as a way of networking and learning about the crypto community. Probably the most exclusive conference for crypto education and presenting of the financial players on the market is the one organized in St. Moritz, Switzerland where many HNWI including, 10 billionaires are expected to attend.



**Omega has access to this invite-only conference and can bring two HNWI to attend as guests of one of our partners we visited. If an HNWI individual is interested to attend the St. Moritz conference in front of your organization or you want to attend yourself, write to Aleksandar Ribak at [alek@omegaproject.biz](mailto:alek@omegaproject.biz)**

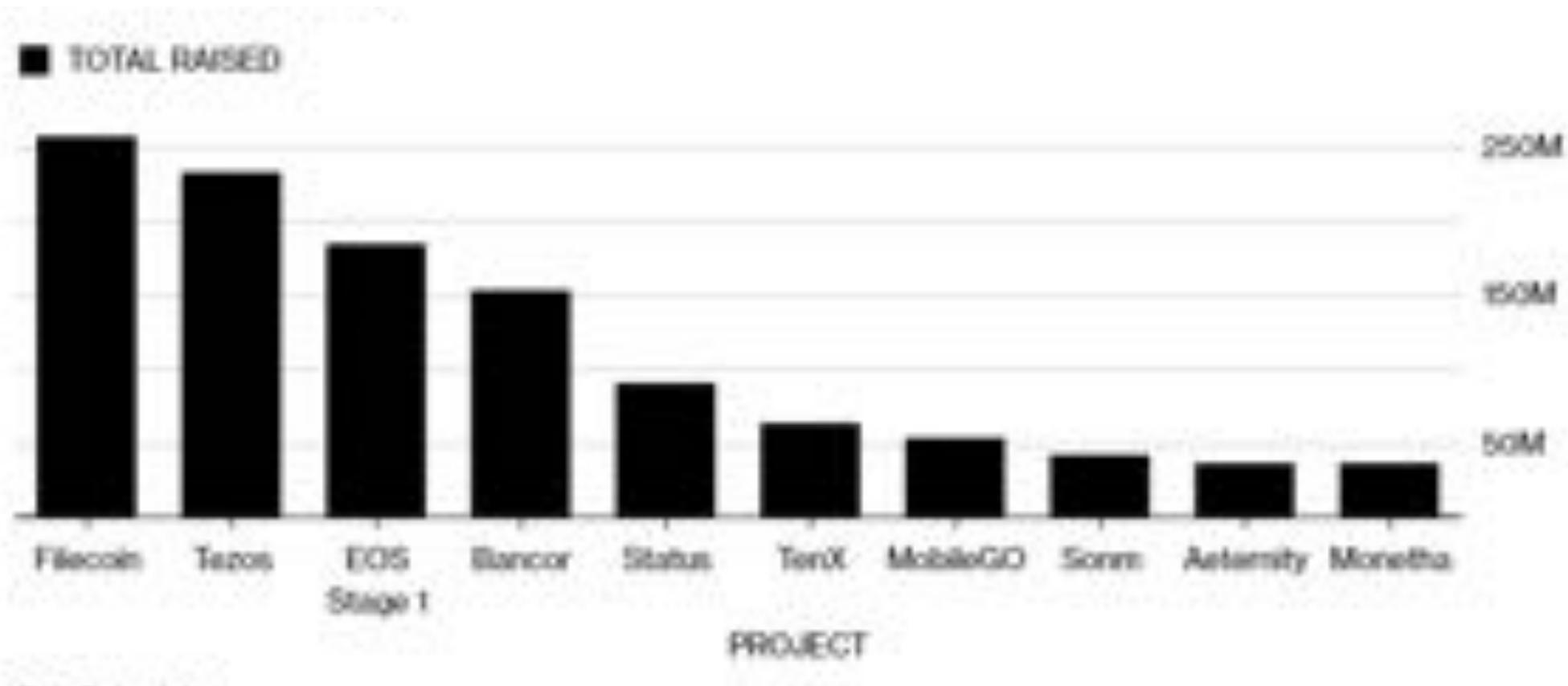
Lists of other, somewhat less exclusive (and less pricy) crypto conferences to learn from:

London blockchain week 19<sup>th</sup> to 26<sup>th</sup>: January 2018 <https://www.blockchainweek.com/>

Dubai World Blockchain Forum March 2018 <https://dubai.keynote.ae/#>

List of most conferences in 2018: <https://www.coindesk.com/bitcoin-events/>

# ICOs have raised a lot of money in 2017



## Top 10 Completed ICOs of 2017

Amount raised in millions  
CoinSchedule

ICOs that raise the most money, are frequently not the ones that provide investors with the greatest ROI.

# Some examples of ICOs in 2017



\$38  
million  
raised  
and  
counting

Bankera is combining IBAN numbers with crypto assets presenting an intersection of crypto and conventional finance.



# Filecoin

\$257  
million  
raised

A blockchain-based storage network and cryptocurrency Filecoin is introducing p2p storage of data to the mainstream.

# Institutional players on the market

Retail investors have long been able to trade cryptocurrencies by using services like the ones below:

The logo for Coinbase, featuring the word "coinbase" in a blue, lowercase, sans-serif font.The logo for Kraken Bitcoin Exchange, featuring a blue octopus icon, the word "kraken" in a bold, black, sans-serif font, and "Bitcoin Exchange" in a smaller, black, sans-serif font below it.

However, now institutions are developing their own trading facilities like Goldman Sachs. Some companies that offer this services to institutional investors are below:

The logo for LedgerX, featuring a blue square icon with a white "L" inside, followed by the word "LedgerX" in a blue, sans-serif font.

LedgerX An Institutional Trading and Clearing Platform  
LedgerX is a CFTC-regulated Swap Execution Facility (SEF) and Derivatives Clearing Organization (DCO).

The logo for itBit, featuring the word "itBit" in a bold, black, sans-serif font, with two yellow dots above the "i" and "t".

ItBit is an NYC company that is offering custody services for investors, OTC trading desk for at least 25 BTC, market data and an exchange. Coinbase also offers custody <https://custody.coinbase.com/>

# Most pertinent criticism against crypto

An area of heavy criticism has to do with the vast amounts of energy necessary to process and store transactions, especially as the use of blockchain technology increases. The Bitcoin blockchain network's miners are attempting 450 thousand trillion solutions per second in efforts to validate transactions, using substantial amounts of computer power. Mining Bitcoin in 2017 wastes huge amounts of energy (\$15million/day). To solve this problem the community plans to switch the protocols from proof-of-work (PoW) to proof-of-stake (PoS) that will make the system less energy intensive.

Tax and legal issues are also a major concern for institutional investors. Some types of cryptocurrencies do not even allow users to track the transactions among them (such as zCash).



# Response from the crypto community

The revolutionaries against central authorities are self-regulating and aiming to create another central authority mostly to preserve and grow their newly created wealth.

The Ethereum foundation and Waves, gather a strong community support to self-regulate and teach governments how to regulate this area which is seeing a tremendous amount of innovation and risks.

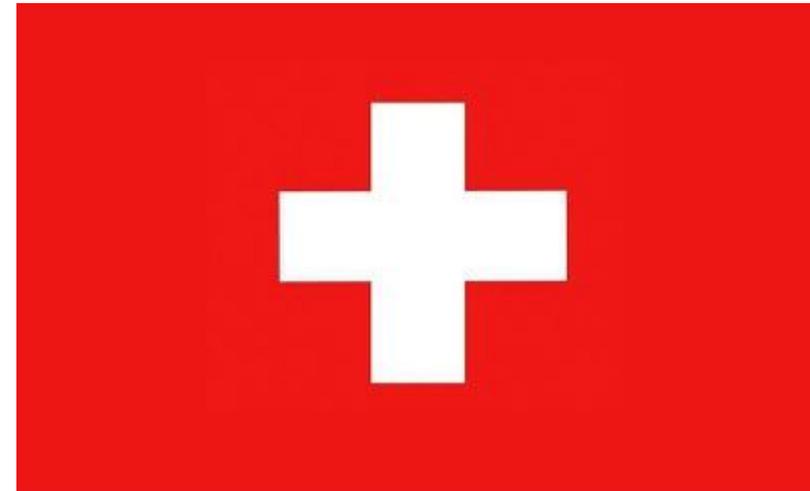
Deloitte CIS, the ICO Governance Foundation and the Ethereum Competencies Centre, and aims to set legal, tax and accounting, KYC and business due-diligence standards for the industry. Based in Switzerland, the body will be open to ICO platforms, exchanges, blockchain platforms and professional services companies, among others.

Source: <https://www.coindesk.com/new-self-regulatory-body-aims-to-develop-ico-standards/>

# Countries that are leading the blockchain revolution



The United States is home to most major crypto companies due to access to capital, labour and entrepreneurship spirit of many immigrants. The Silicon Valley and Alley have financed many ground-breaking crypto projects.



Switzerland is the home to most major crypto foundations due to hospitable governments and financial culture based on privacy. In Zug, Switzerland the Crypto Valley was formed where part of taxes can be paid in Bitcoin.

# Regulation - examples



The United States Security and Exchange Commission (SEC) issued a warning on ICOs and demanded that most ICOs register with the SEC. Because of this, most ICOs put disclaimers to avoid raising funds from US residents.



Singapore is forbidding its citizens from investing in ICOs, while being very welcoming to organizing ICOs by its own residents as a way to accumulate capital and get it in the country.



Belorussia in expectation of Russian legislation coming adopted its own preemptive laws legalizing cryptocurrency and ICOs. Its socialist heritage is welcoming to decentralized assets and it can attract capital. It lowered taxes on crypto companies.



China, like South Korea, banned ICOs temporarily altogether until it finishes its work on a regulation that should prevent massive scams that are happening in the industry.

# Offshore destinations catch up

Off-shore destination started offering AML and KYC compliant turn-key solutions for ICOs. Many companies can easily register their projects and legally obtain ICO finances from around the world.



Currently, Jersey, Gibraltar and the Isle of Man are most welcoming places to run a fully compliant and legal Initial Coin Offering. Most ICOs that apply for registration at the Isle of Man, however, do not pass the selection criteria. There is also a comprehensive guide on “How to do an ICO, and not get sued.”

<https://flagtheory.com/successful-initial-coin-offering/>

# Dubai and the Emirates want to lead

The United Arab Emirates have vowed to become the first blockchain government in order to eliminate corruption and take transparency to the next level.

“By 2020, the emirate wants all visa applications, bill payments and license renewals, which account for over 100 million documents each year, to be transacted digitally using blockchain. According to Smart Dubai, which is conducting government and private organization workshops to identify services that can be best enhanced by blockchain adoption, the strategy could save 25.1 million man hours or \$1.5 billion in savings per year for the emirate.”

Source: <https://www.forbes.com/sites/suparnadutt/2017/12/18/dubai-sets-sights-on-becoming-the-worlds-first-blockchain-powered-government/#1f4602b2454b>



# Governments plan to introduce their own digital currencies

The advantages of having a digital currency are plentiful, such as:

1. Smaller costs in compliance and regulation
2. Ability to have increased transparency
3. Interchangeability with other crypto assets (attract capital)
4. Increased currency stability and control

Countries that have introduced programs for cryptocurrency creation:



# How might trading look like in 2035?

Currencies are directly exchangeable for shares of companies, digitalized bonds, other digital currencies of other countries and cryptocurrencies on ONE unified exchanges.



Making assets 100% digital, allows a direct exchange, lower trading fees and faster transfer of capital.

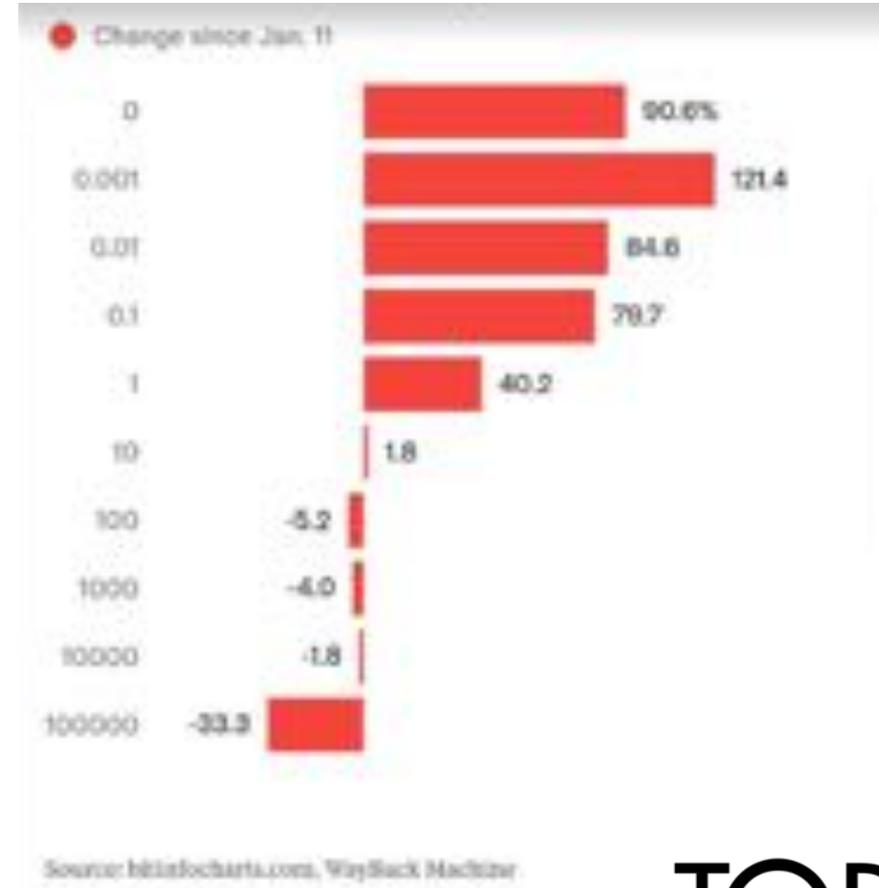


# Smart money

Daily swings of 30% or more of crypto assets come about mostly because of big investors “whales” and regulatory developments.

Institutional money that should crowd out retail “dumb” money would enter the market when these two things 1. Whales are no more and 2. Regulation steps into play.

From January 2017 to December the number of accounts having 100,000 BTC or more has decreased by 33,3% while the smaller accounts have increased drastically. The Whales are moving their assets into other cryptocurrencies or are cashing out and start living properly.



# Futures' trading is here, somewhat



Chicago Mercantile Exchange (CME) and Chicago Board Options Exchange (CBOE) allowed Bitcoin futures' trading and other Exchanges will follow suit. The first striking bet of almost 1 million dollars was that bitcoin will hit 50,000 USD in one year.

The price fixing is differently made in this two places.

Unregulated bitcoin futures exchanges have already been in existence for some time. But they have failed to attract institutional investors. However, the entry of [CME](#) and [CBOE](#) is expected to change the situation. The CME contracts are based on the Bitcoin Reference Rate (BRR) index, which aggregates bitcoin trading activity across four bitcoin exchanges - itBit, Kraken, BitStamp, and GDAX - between 3 pm and 4 pm GMT. On the other hand, CBOE will price contracts with a single auction at 4 pm on the final settlement date. It will use bitcoin prices from the Gemini exchange, owned by the Winklevoss twins.

Source: <https://www.investopedia.com/news/bitcoin-futures-cboe-vs-cme-whats-difference/>

# Some of the smart money



Australian Stock Exchange is using blockchain to record transactions and make the recording of trades more efficient, transparent and secure for its traders.



Barclays has become the first big British bank to form a partnership with a digital currency firm, social payments app Circle, which runs partly on bitcoin's blockchain network and launched in the U.K. on Wednesday.



Walmart is reportedly using blockchain to track the movement of livestock from China to the US to keep its suppliers transparent and honest about the quality of their products.



Goldman Sachs tries to be the first major financial institution to allow crypto trading on its own platform. Report show they want to start this from June 2018.



Daimler, like the World Bank before it, used the Ethereum network to issue a \$100 million bond based on a private blockchain network. Source: <https://www.coindesk.com/daimlers-e100-million-ethereum-bond-bigger-mercedes-benz/>

# How will Goldman Sachs do it?

It is more difficult to keep cryptocurrencies under custody than gold due to more complex safety requirements and volatile market prices (including transaction fees). We believe that Goldman will deal with these issues by limiting cryptocurrency market making services to just a handful of clients to start – scaling it up as it gains more experience in the field. Institutional players currently need to pay 1% of AUM/MONTH plus a setup fees of above 100,000 to use the premium Coinbase custody services. That may lead some institutional players to create their own custody service for the time being.

We believe that Goldman's crypto trading desk will remain fairly conservative for a while after being set up next year, and will be scaled up gradually in the coming years. However, the expertise the bank will gain should give it an edge over other banks in the long run if the crypto-finance pace of development is unhindered.

The Goldman Sachs logo, consisting of the words "Goldman Sachs" in white serif font on a blue rectangular background.

Goldman Sachs was the first that allowed clearing of Bitcoin futures, although for some clients with 100% of deposit compared to the size of the trade.

The logo for "THE OMEGA PROJECT", featuring the letters "TOP" in a large, stylized, black font where the letters are interconnected. Below it, the words "THE OMEGA PROJECT" are written in a smaller, black, sans-serif font.

# Most FX firms do not follow even with CFDs

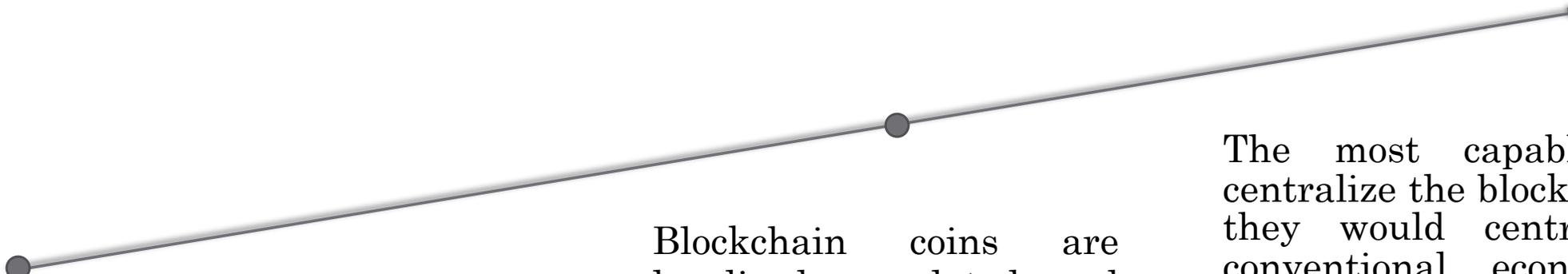
The only exception in the FX world is IQ Option that includes trading of the most successful cryptocurrencies to its portfolio. Some, allowed only Bitcoin trading and stopped because the prices were only going up.



IQ Option does not only allow trading and withdraws of crypto made fortunes, but it also allows paying with cryptocurrencies and has very intuitive integration of the price movements.

Regulated by CySEC (Cyprus's Security and Exchange Commission), this company found a successful and hopefully profitable way to allow its investors to trade cryptocurrencies that are regulated and legal but only for CFDs at this moment. Having an off-shore Belize shell probably helps in the process. [www.iqoption.com](http://www.iqoption.com)

# Decentralization...really?



Keyboard warriors and success haters put their monies into blockchain projects.

Blockchain coins are legalized, regulated and even playing field is established.

The most capable people centralize the blockchain, like they would centralize the conventional economy and take the money from the keyboard warriors.



Allocation of human potential is limited, and leaders/entrepreneurs will find a way to distinguish themselves and centralize the blockchain ventures either by owning the majority of coins and getting biggest decision-making powers or by being the greatest miners who control the code of the blockchain. Pyramids are the simple perennial rule of human society. Blockchains will follow.

# Example of potential token pricing during the main phases of the ICO

When ICO Project XY issues its tokens to investors, they would have different prices at different phases of the Initial Coin Offering.

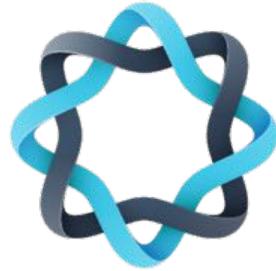
Private placement	Private pre-ICO	Pre-ICO	ICO and listing on exchanges	After listing on exchanges
\$0.50	\$0.60	\$0.8	\$1,00	???

The above is just an example. ICO Project XY is not raising funds and it is used as an educational example. Investors who come first usually rip the greatest benefits of ICOs that are indented to bring a real product with a real token economy around it.

Whether the tokens' price will raise or fall in the medium and long-run, depends on the team that created the tokens and executed the projects. Are their incentives aligned with investors? Do they have the talent? Is it legally everything in order?...you can join our pool school and get free education and the best deals from the best ICOs at a discount [www.omegaproject.biz/omegapool](http://www.omegaproject.biz/omegapool)

# Blockchain tokens can be socialist

The economies and the values of tokens increase as more people buy them and enter the market. Around every token a “token economy” of supply and demand is formed. Different token economies are interchangeable to one another and can communicate to one another. The real Utility tokens can exist without companies or profits which means in the long-run, blockchain can perhaps introduce a profitless society. (Marx would perhaps support blockchain projects).



MEDICALCHAIN



Users can change their MOS tokens allowing them to play a blockchain lottery game for accessing medical services by buying MedicalChain tokens or they can exchange their MedicalChain tokens for getting tokens backed by real gold (HelloGold). The number of services accessible via digital tokens constantly increases.

Users can change one type of tokens for another and access growing number of services (utilities). That is why it is often said that founders of ICOs usually create interconnected economies, not companies.

Thank you for taking the time to read this presentation and we sincerely hope it was useful for you personally, or it might be useful for your stakeholders.

# Questions?

Mary De Guzman  
**Executive Assistant**

The Omega Project (TOP Ltd.)  
160 Kemp House City Road, London

[+44 208 0892 568](tel:+442080892568)

[mary@omegaproject.biz](mailto:mary@omegaproject.biz)

[www.omegaproject.biz](http://www.omegaproject.biz)