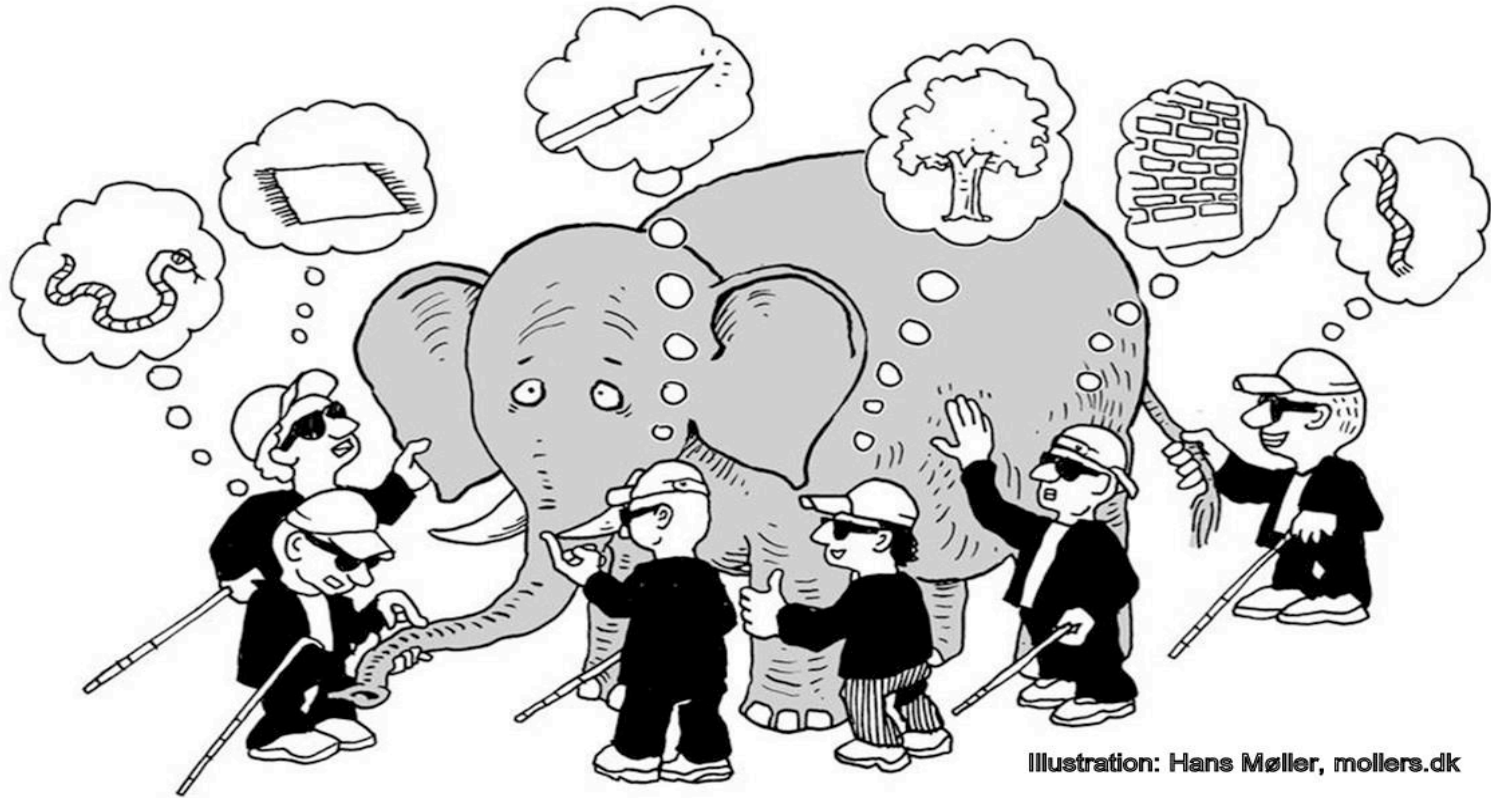




# Blockchain: hype or hope?

Observations and practical experiences

## Six blind men ...





**HANDLE WITH CARE**

# My personal journey in Blockchain & Bitcoin

End 2010: bitcoin on the 'radar', mining on laptop



Q3 2012: embarked on a mining crowd sourcing initiative



Q2 2013: Mobile bitcoin payment for beer in Singapore



Q4 2013: Happy dissolution of mining pool



Q1 2011: Bitcoin on an NL bankers conference



Q1 2014: First bitcoin entry in company ledger



2014 & 2015: support of the engagement of financial professionals

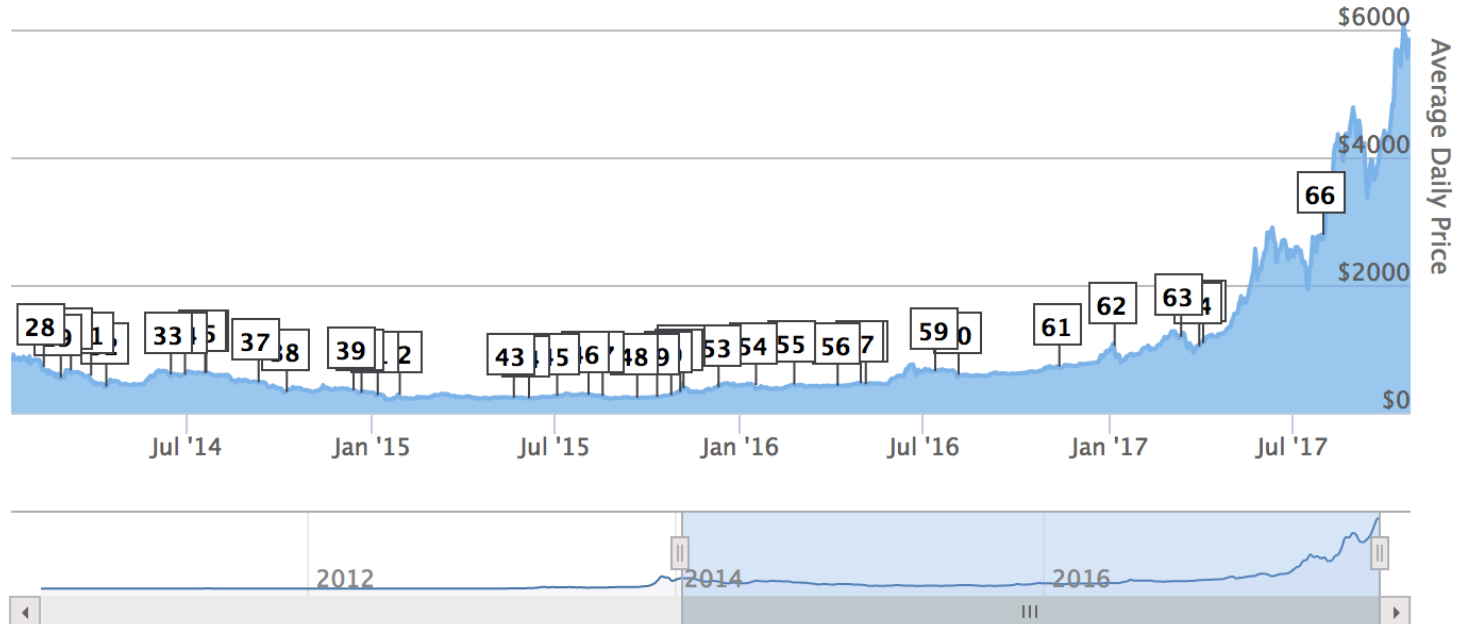


2016 & 2017: Helping logistics, finance with Blockchain



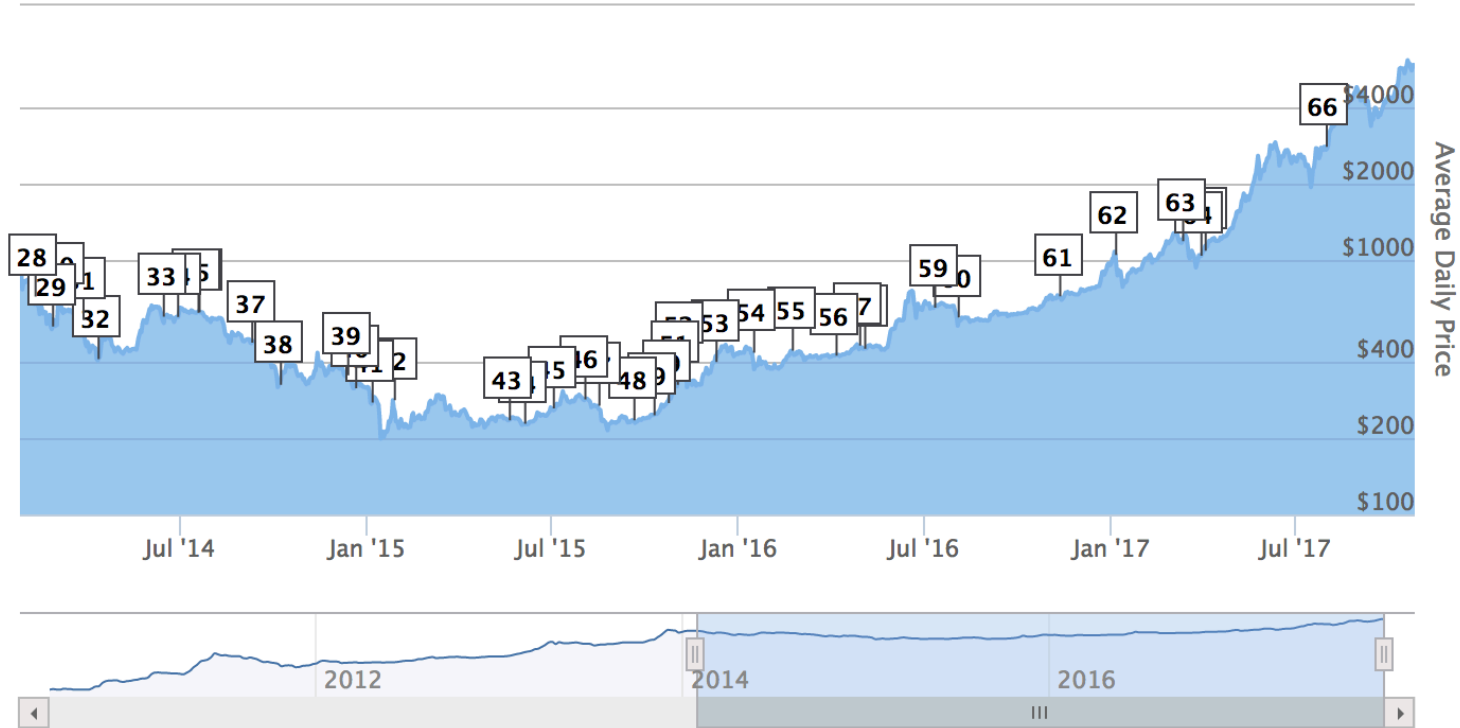
# Bitcoin price

Zoom 1m 3m 6m YTD 1y All



# Bitcoin price (difference ?)

Zoom 1m 3m 6m YTD 1y All



# THE WALL STREET JOURNAL.

MARKETS

## Bitcoin Moves Toward Mainstream, Poised to Join Oil, Gold in Futures Trading

CME Group aims to launch futures contract by the end of the year, in big endorsement of digital currency

Futures are a way for traders to bet on whether the price of a commodity, such as oil or gold, will rise or fall. Introducing a U.S. futures contract based on bitcoin would enable Wall Street banks and trading firms to protect themselves against [price swings in the digital currency](#). It could also provide retail investors with an easier way to trade bitcoin.



CNBC's Fast Money

@CNBCFastMoney

Follow

Why buy [#bitcoin](#)? @BKBrianKelly has three reasons to get in



## Bedrijf voegt 'blockchain' aan zijn naam toe - en wordt ineens veel meer waard

© VRIJDAG, 17:08 ECONOMIE



Shares of London-traded **On-Line** leaped a whopping 173.5 percent Friday after the company said it plans to change its name to "On-Line Blockchain" at its next general meeting. On-Line has a market capitalization of just £3.6 million (\$4.7 million) and an archaic website.





## Oprichting NVL Next

Op 26 november 2015 wordt NVL Next officieel in het leven geroepen, in aanwezigheid van het Bestuur van de NVL, de NVL Next Commissieleden en ruim 60 vertegenwoordigers van de Leden en Geassocieerde Leden van de NVL.

Deze handeling wordt vastgelegd in de Blockchain.

Gedaan op donderdag 26 november 2015 te Utrecht,

POEX.IO

PROVE

ABOUT

NEWS

CHARTS

DEVELOPERS

### PROOF OF EXISTENCE

#### Document information

4dc72902eaf43f067074c67b6dca8393080ef04a6ca0c6478e92fbc732689359

Registered in our servers since: 2015-11-26 16:14:11

Transaction broadcast timestamp: 2015-11-26 16:14:53

Registered in the bitcoin blockchain since: 2015-11-26 16:36:35

#### Congratulations!

This document's digest was successfully embedded in the Bitcoin blockchain. It is now permanently certified and proven to exist since the transaction was confirmed.

[Transaction f5a3cbe3f3f896fb024efabf2a976b1b2f0cc21a8f35344a8c252fc9231c276a](#)

/ OP-ED

by **Ruben Alexander**

Oct 5, 2014 5:24 PM EST

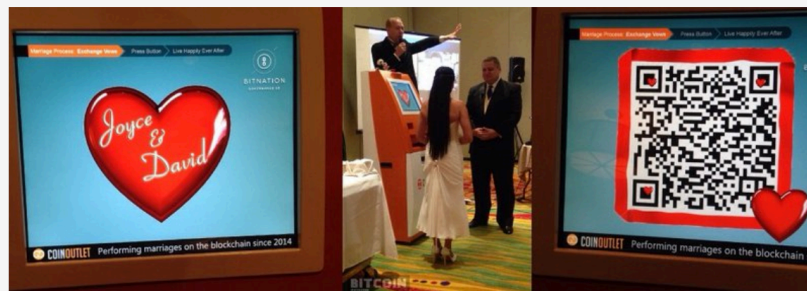


Pending on po.et

[What is Po.et?](#)

[Tweet](#)

# The First Blockchain Wedding

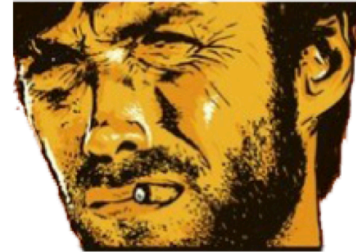


In a step to decentralize the state's authority to give a stamp of approval on love, Joyce and David Mondrus have gotten married on the blockchain.

# Three domains can be distinguished

1. Bitcoin
2. ICOs
3. Blockchain projects in business and government

“Blockchain good



Bitcoin bad!”



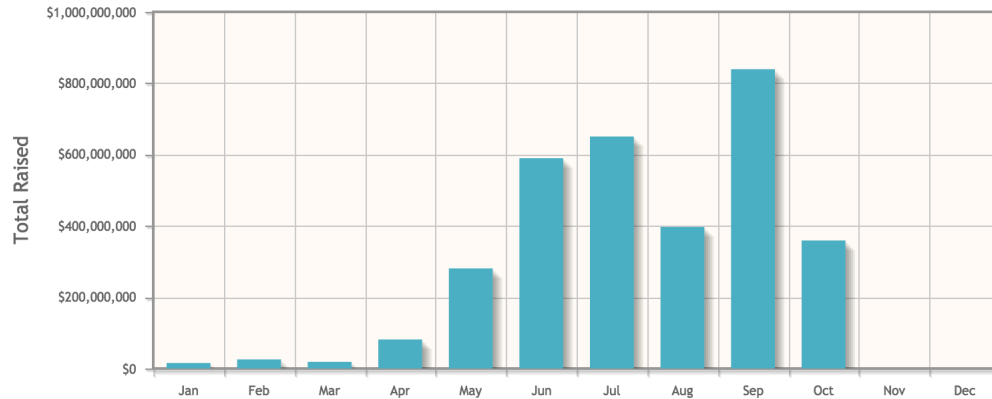
ethereum

BLOCKCHAIN APP PLATFORM

# Alternative to crowdfunding and VC funding

## Cryptocurrency ICO Stats 2017

Year: 2017



**Total Raised: \$3,256,704,359**

Total Number of ICOs: 203

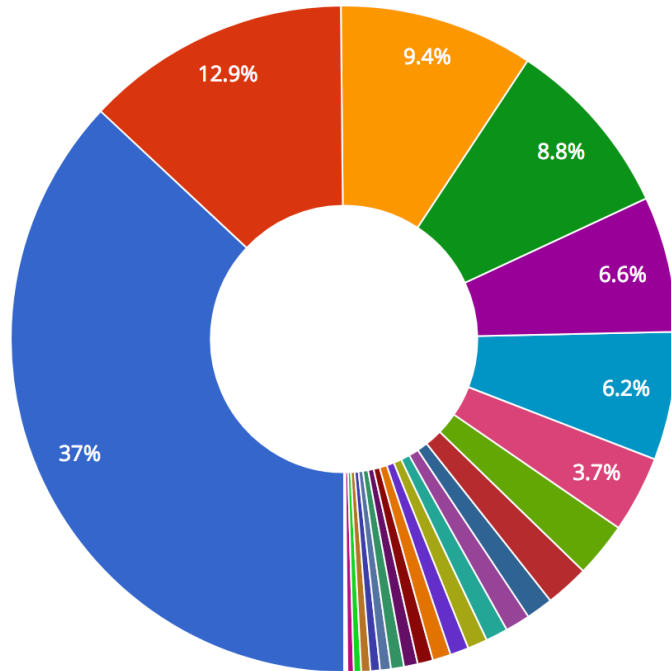
### Top Ten ICOs of 2017

| Position | Project      | Total Raised  |
|----------|--------------|---------------|
| 1        | Filecoin     | \$257,000,000 |
| 2        | Tezos        | \$232,319,985 |
| 3        | EOS Stage 1  | \$185,000,000 |
| 4        | Paragon      | \$183,157,275 |
| 5        | Bancor       | \$153,000,000 |
| 6        | Kin          | \$97,041,936  |
| 7        | Status       | \$90,000,000  |
| 8        | TenX         | \$64,000,000  |
| 9        | MobileGO     | \$53,069,235  |
| 10       | KyberNetwork | \$48,000,000  |

Totals raised are grouped by the ICO closing date and are valued using BTC exchange rate at that time. Data correct on 16th October 2017 14:00 UTC

# Wide range of applications

## ICOs by Category 2017



- Infrastructure 37.0% (\$1,203,761,392.8)
- Trading & Investing 12.9% (\$419,588,257.32)
- Finance 9.4% (\$307,380,780)
- Data Storage 8.8% (\$286,222,856)
- Payments 6.6% (\$214,367,821.36)
- Drugs & Healthcare 6.2% (\$202,526,054.4)
- Gaming & VR 3.7% (\$120,886,334.9)
- Gambling & Betting 2.7% (\$86,825,095.92)
- Commerce & Advertising 2.1% (\$68,750,549)
- Identity & Reputation 1.3% (\$42,359,520)
- Art & Music 1.2% (\$39,310,901)
- Real Estate 1.1% (\$35,132,362)
- Events & Entertainment 1.0% (\$31,302,122.5)
- Legal 0.9% (\$29,368,234)
- Energy & Utilities 0.9% (\$28,866,928)
- Social Network 0.7% (\$24,270,163.52)
- Communications 0.7% (\$21,712,418)
- Mining 0.6% (\$20,647,239)

▲ 1/2 ▼

Source: Coinschedule

# Token for everything ?

## TokenMarket

Tokens and cryptocurrencies

ICO calendar

We launch your ICO



☆ Follow



Trading

**0x**

ZRX

The protocol for decentralized exchange

☆ Follow

☆ Follow



ICO running

**1World Online**

1WO

Blockchain-powered Engagement & Monetization Platform for Publishers & Brands

☆ Follow

☆ Follow



ICO over

**21 Million**

21MCoin

Crypto-funded blockchain indy tv series

☆ Follow

☆ Follow



ICO coming

**300cubits**

TEU

A Crypto Currency that Propels Ships

☆ Follow

☆ Follow



ICO over

**8 Circuit Studios**

8BT

A game development ecosystem powered by an ERC20 token

☆ Follow

☆ Follow



ICO running

**Acebusters**

NTZ

A decentralized poker platform on the Ethereum blockchain

☆ Follow

☆ Follow



ICO over

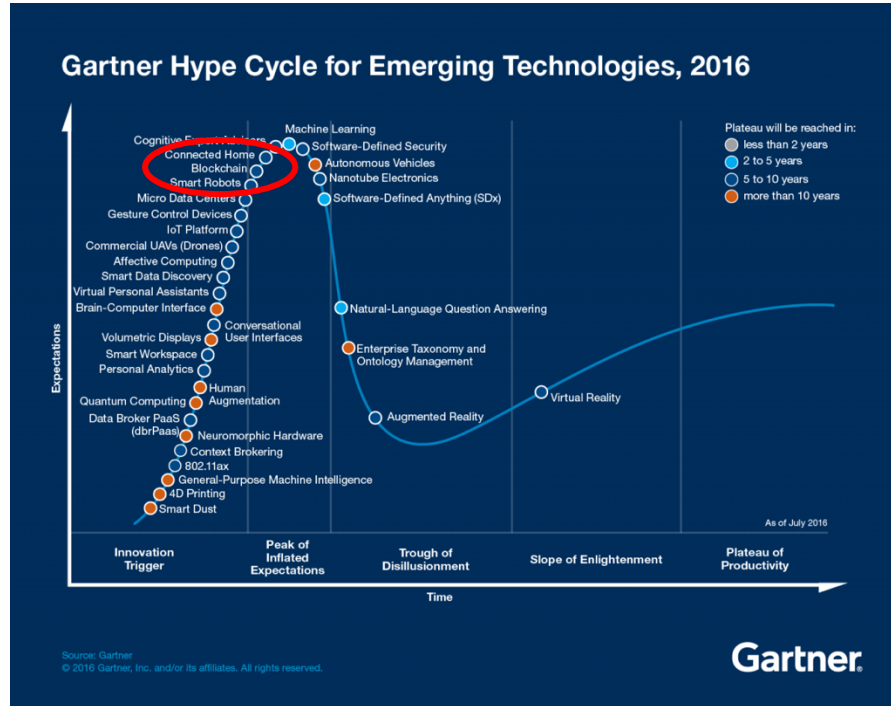
**ACT**

ACT

DAO addressing social accountability by aggregating micro payments from citizens to fund grass roots proposals that drive change

☆ Follow

# Many organisations explore potential benefits for their organisation



**THE WALL STREET JOURNAL.**  
**Could Blockchain Technology Disrupt Uber, Airbnb?**  
 1/25/2016 7:56AM

**Süddeutsche Zeitung**

8. Januar 2016, 12:02 Uhr Blockchains

**Diese Technologie wird die digitale Welt verändern**

**The New York Times**  
**Blockchain: A Better Way to Track Pork Chops, Bonds, Bad Peanut Butter?**  
 March 4, 2017

Source: Gartner, various newspapers, Innopay analysis

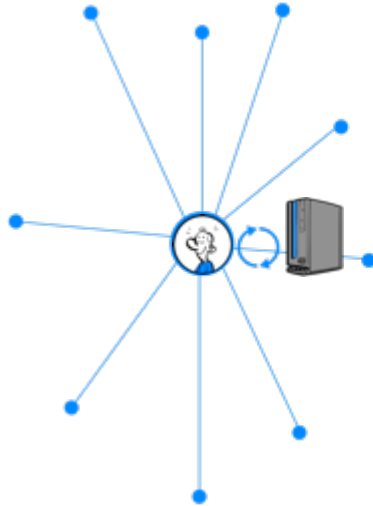


# Comparing key properties

*Public* ←—————→ *Private*

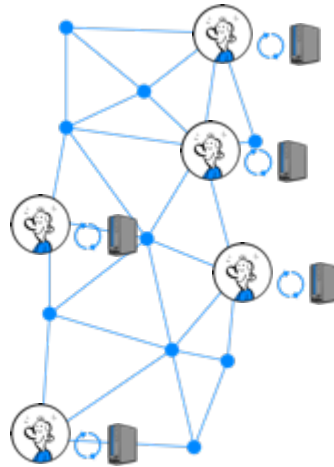
## Traditional ledger

- Fast
- Central
- Cheap



## Blockchain ledger

- Slow
- No central party
- Expensive



# Blockchain concepts have certain characteristics that we should investigate to find the most potential

## Blockchain concepts seem particularly relevant when:

1. Multiple jurisdictions are involved
2. Multiple organizations are involved
3. When auditability of processes is important
4. When processes have been digitized but have not been automated
5. When information is involved that needs to be trustworthy and bears a certain value
6. When central authorities are part of the process or need to be trusted
7. When “server up-time” and redundancy is costly

## Specific applications for logistics:



Transfer of ownership



Record of ownership



Automatic business rule execution

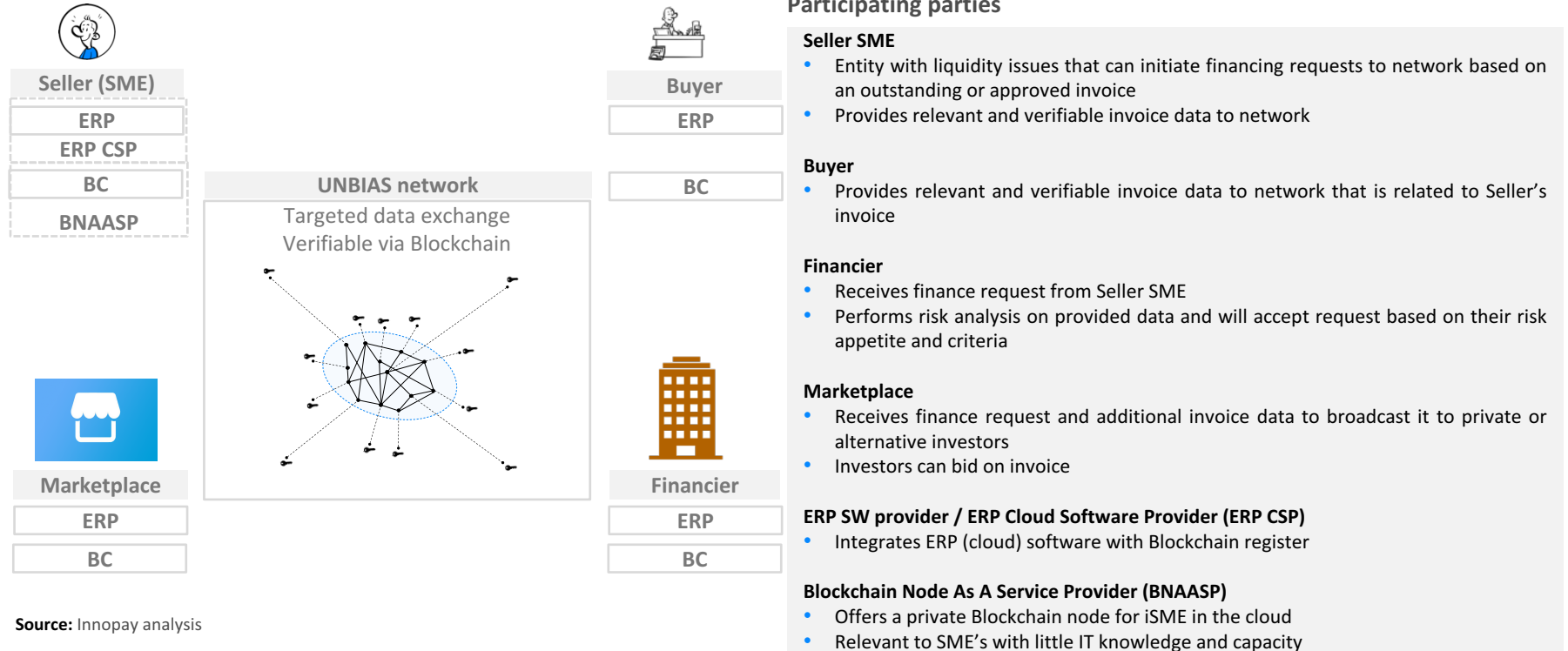


Operational resilience



Shared and transparent database

# Universal Network for Better Invoice Attributes Sharing will support targeted exchange of verifiable invoice data (UNBIAS)



Source: Innopay analysis

## Participating parties

### Seller SME

- Entity with liquidity issues that can initiate financing requests to network based on an outstanding or approved invoice
- Provides relevant and verifiable invoice data to network

### Buyer

- Provides relevant and verifiable invoice data to network that is related to Seller's invoice

### Financier

- Receives finance request from Seller SME
- Performs risk analysis on provided data and will accept request based on their risk appetite and criteria

### Marketplace

- Receives finance request and additional invoice data to broadcast it to private or alternative investors
- Investors can bid on invoice

### ERP SW provider / ERP Cloud Software Provider (ERP CSP)

- Integrates ERP (cloud) software with Blockchain register

### Blockchain Node As A Service Provider (BNAASP)

- Offers a private Blockchain node for iSME in the cloud
- Relevant to SME's with little IT knowledge and capacity

# Take aways after seven blockchain years ... still learning

1. Do not underestimate the role of Bitcoin
2. Blockchain at the top of the hype cycle
3. Many Blockchain projects are better off without Blockchain: be critical!
4. Blockchains work ... especially when everybody joins which is the biggest challenge

One more thing: data provenance is essential for trust (not only for blockchains)



**iSHARE**

powered by NLIP



Thank you for your attention !

Douwe Lycklama +31655711150, [douwe@innopay.com](mailto:douwe@innopay.com)