

Welcome To - FinTank's Global Blockchain Summit 2018



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# Who We Are – What We Do

**STARTUP  
ACCELERATOR**



**ENTERPRISE  
CONNECTOR**



**FUNDING  
MATCHER**



**E D U C A T I O N**



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## Areas of Focus

- Artificial Intelligence
- Big Data / Analytics
- Blockchain
- Cryptocurrency
- Cybersecurity
- InsurTech
- Payments
- Trading
- Virtual Reality
- WealthTech



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# Meetup Groups

## Community of Practice Model



**CHRIS WILLIAMS**  
CYBERSECURITY



**KIM WOLFSON**  
WOMEN IN FINTECH



**DAN WATERLOO**  
BLOCKCHAIN | CRYPTO



**ERIC RODRIGUEZ**  
DATA ANALYTICS | BI



**COLLIN CANRIGHT**  
PAYMENTS



**DAVID POSLEY**  
STUDENTS IN FINTECH



**MATT WREN**  
VIRTUAL REALITY



**INGA SIMITZ**  
COMMUNICATIONS



**ALAN SAVAGE**  
BLOCKCHAIN | CRYPTO



**MARK SHORE**  
TRADING



**CHUCK BOHM**  
TRADING



**BRETT LADENDORFF**  
TRADING





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**CRYPTO****MARKETS**

**BUILDING**

**An Online Community for Everything Crypto**



# FinTank Up Next – A FinTech Hub

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FinTank  
Chicago's  
FinTech  
Hub

**CORPORATE  
PARTNERS**

**YOU ?**





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# IF YOU'RE ON THE LIVE-STREAM

**Text Questions to Josh Hughes 708-941-6255**



# Today's Session is Being Live-Streamed Globally



Nicolas DeGrazia

Daniel Kullman

Tahany Yassin  
ChiTown Photography



Ryan Maloney



# Things My Team Told Me Not To Forget

1. Where are coffee breaks happening -- At 10:15 and 2:45.
2. Where is lunch happening -- On the 2<sup>nd</sup> Floor, starts at 12:15.
3. What is wifi network name and passcode -- The WiFi is ULCC\_WL. No password needed.
4. If you have questions -- Look for a person with a tag that says "VOLUNTEER."
5. Where are restrooms located -- Men's out the back to the West. Women's on the fifth floor.
6. Mention bowl at the registration desk -- Put in business card to win a free ticket to the Spring Summit.
7. Remind them to return their NAME TAG HOLDERS before leaving -- we are recycling them.
8. Please send feedback on this session or things you'd like to see going forward -- to [george@fintank.org](mailto:george@fintank.org)

Anything else?.....



# FinTank's - Global Blockchain Summit 2018

Friday, Oct 19<sup>th</sup> Chicago and Global Live-Stream

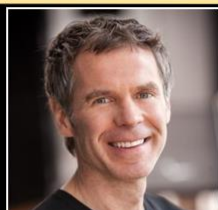
**SIGNUP AT:** <https://bit.ly/2QbTOEe>



Alice Hlidkova  
New Economies



Brian Jenkins  
Business Block



Dan Spillane  
IBM



Jason Griffiths  
Accenture



Safwan Zaherr  
KPMG



Chris Tyler  
IBM



Sharad Malhotra  
E&Y



Edward Honour  
Tritanium



Phil Fornaro  
Fornaro Law



Lamont Black  
DePaul Univ.



Alec Ziupnsys  
BlockEdge Capital



Jack Bouroudjian  
UCXchange



Deji Jimoh  
WealthBlock



Peter Johnson  
Jump Capital



Brennan Nacol  
BlockEdge Capital



Collin Canright  
FinTech Rising



Richard Sandor  
"The Man"



Chris Reinertsen  
BlockEdge Capital



Rumi Morales  
Outlier Ventures



Peter Waltz  
Polsinelli



Shehan Chandrasekera  
JAG CPA



Ned Myers  
Alphapoint



Tom Plunkett  
Oracle



Arijit Das  
Northern Trust



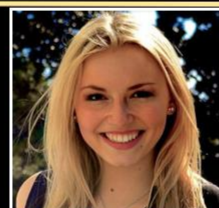
Andrew Czupek  
Northern Trust



Andrew Gastwirth  
DLA Piper



Tom Jessop  
Fidelity Investments



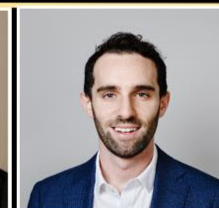
Katherine Hochrien  
Adjoint



Colleen Sullivan  
CMT Digital



George Vukotich  
FinTank



Eric Richmond  
Coinsquare



Frank Makrides  
Tunnel



David Carman  
FinTank



Robert Krzyzanowski  
Spring Labs



Micah Kerr  
Discover



Chuck Mackie  
John Lothian News



Andrew Koslow  
FOLIOfn

**FinTank**  
**BRINGING YOU WITH THE BEST**  
**SO YOU CAN BE THE BEST**  
**Be there live or watch live-stream**



Dennis Chookaszian  
Board Member



Will Turner  
Barnes & Thornburg



Phil Flores  
BMO



Terry Savage  
Economist



# David Carman – FinTank

## Blockchain: What's Really Happening





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# Blockchain: What's Really Happening



Forbes, March 9, 2018—

“Global companies are making massive investments in blockchain...”

“The total number of blockchain-related job openings more than doubled in 2017, reaching 4,918 postings by year’s end.”





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# Blockchain: What's Really Happening

**Accenture— Forbes, March 9, 2018—**

**“Consulting giant Accenture is hiring more blockchain jobs than any other company...it’s hiring primarily for roles like software developer, technical architect and business strategist.”**

**“Accenture is focused on building private blockchains... It’s seeing the most demand in three areas: financial services, supply chain and identity.”**

**September 15, 2016—Ripple Raises \$55 Million in Series B Funding.**

**June 19, 2017—“Accenture is leading a ‘call to action’ and responding with blockchain and biometric technologies to support ID2020, a global public-private partnership dedicated to solving the challenges of identity faced by more than 1.1 billion people around the world.”**

**July 19, 2018—“Accenture has a well-developed set of offerings in supply chain and is pushing hard into this space... Accenture’s vision is to deliver supply chain management in an as-a-service model.”**



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# Blockchain: What's Really Happening

**BMO— August 15, 2018**

**—“BMO Capital Markets today announced that it has successfully launched a pilot fixed income issuance transaction, mirrored on a blockchain platform alongside leading pension fund investor Ontario Teachers' Pension Plan.”**

**“The transaction included Bank of Montreal as the issuer and Ontario Teachers' as the buyer of a \$250MM 1-year floating rate Deposit Note, making it the first Canadian dollar fixed income issuance demonstrating the viability of blockchain platforms.”**

**Kelsey Gunderson, Head of Global Trading, BMO Capital Markets:**

***“This is an important first step in developing a fully functional blockchain capability that we think will eventually allow primary and secondary trading of securities...”***



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# **Blockchain: What's Really Happening**

**Discover— April 17, 2018**

**—Joe Bonefas, VP of Strategy & Innovation at Discover: “The Chamber of Digital Commerce has developed an impressive platform of industry-leading innovators... We are pleased to join the Chamber and looking forward to further exploring how we can achieve a brighter financial future through the power of blockchain.”**

**“Last month, Discover and the Chamber of Digital Commerce hosted Discover Blockchain Technology - a blockchain code-a-thon - which included more than 200 participants focused on developing solutions that showcased innovative developments in payment processing, regulatory technology and digital identity.”**



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# Blockchain: What's Really Happening

**Ernst & Young—**

**“Blockchain technology has the potential to universally reshape the way business transacts across nearly every industry in the global economy.”**

**April 24, 2018—EY Announces Blockchain Audit Technology**

**“The EY Blockchain Analyzer...will lay the foundation for testing of blockchain assets, liabilities, equity and smart contracts as companies adopt blockchain technologies.”**

**Cointelegraph, July 26, 2018—“EY Switzerland clients have had the option to settle their invoices for auditing and advisory services using Bitcoin since the beginning of 2017.”**

**July 26, 2018—Marcel Stalder, CEO of EY Switzerland: “It is important to us that everybody gets on board and prepares themselves for the revolution set to take place in the business world through blockchains.” “To date, our global network offers more than 50 business processes enabled by blockchain technology across financial services, healthcare, logistics, and other industry sectors.”**





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# **Blockchain: What's Really Happening**

**Fidelity— Abigail Johnson—Chairman & CEO of Fidelity:**

**“I love this stuff—bitcoin, ethereum, blockchain technology—and what the future holds.”**

**CNBC—“The Boston-based private company is experimenting with blockchain, artificial intelligence and virtual reality—and is benchmarking itself against digital natives like Nvidia instead of brokerage firms.”**

**February 2, 2018—Hadley Stern (SVP & Managing Director at Fidelity Labs:**

**“We established the Fidelity Blockchain Incubator in 2015...We expanded several of our existing collaboration relationships with forwardthinkers such as Ideo Co-Lab, the Institute for the Future...Harvard University, University College London, The MIT Media Lab, and IC3.”**

**Bitcoinist—October 15, 2018—‘Fidelity Will Open Cryptocurrency Trading To Its 27 Million Customers’**

**Tom Jessop, Founding Head of Fidelity Digital Assets:**

**“Family offices, hedge funds, and other sophisticated investors are starting to think seriously about this space... The creation of Fidelity Digital Assets is the first step in a long-term vision to create a full-service enterprise-grade platform for digital assets.”**



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# **Blockchain: What's Really Happening**

**IBM— CNN Business—September 12, 2018—**

**“IBM is betting heavily on blockchain technology revolutionizing everything from shipping to banking...Industry watchers say it's a risky move, given the relative novelty of the technology and the hype surrounding it, but say IBM is well positioned to make it pay off.”**

**“IBM has 1,500 employees working on more than 500 blockchain projects in industries like shipping, banking, healthcare and food safety.”**

**“Through its research, IBM identified three areas where blockchain could be valuable: Financial services, shipping and healthcare. So far, it is placing the greatest emphasis on the financial sector.”**

**“While IBM was open to using blockchain more broadly, it realized the technology wasn't a panacea. Blockchain is best used to turn paper-based tracking systems into digital ones, increase efficiency, and share data across industries.”**



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# Blockchain: What's Really Happening

**KPMG— September 11, 2018**

**“This world is coming, and its name is blockchain.”**

**“The experimentation phase for blockchain is coming to a close with companies now embarking on the execution phase.”**

**“It is much more than a technology, serving as a global transaction platform that requires an intimate knowledge of tax, global trade tariffs, financial risk implications, and core operations.”**

**“KPMG has dedicated blockchain specialists in 30 countries around the world that work with companies in industries including financial services, healthcare and life sciences, industrial manufacturing, telecommunications, retail, technology, and many more.”**





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# **Blockchain: What's Really Happening**

**Northern Trust— February 21, 2017**

**“Northern Trust in collaboration with IBM and other key stakeholders, has launched the first commercial deployment of blockchain technology for the private equity market.”**

**Justin Chapman, Global Head of Market Advocacy & Innovation Research at Northern Trust:**

**“We have developed a number of blockchain innovations that may be applied to multiple business activities and product offerings, with private equity fund administration being only one example of many potential use cases.”**

**June 5, 2018—“Northern Trust announced today that it has been awarded two U.S. patents for distributed ledger technology inventions for a range of fund administration activities.”**

**July 31, 2018—“At the core of Northern Trust’s blockchain work are two patents that could eventually help transform the legacy financial institution into a software provider.”**





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# Blockchain: What's Really Happening

**Venture Capital— Safwan Zaheer, Head of FinTech & Digital Banking in the U.S. for KPMG:**

**“There's more VC flow available than opportunities to invest — a sign of tremendous growth in the space...In particular, investments in blockchain doubled the first half of 2018 compared to 2017. Blockchain has the potential to transform banking and if banking systems were to be rewritten today, they would be based on blockchain.”**

**Crypto Fund Research:**

**2016—109 blockchain investments**

**2017—236 blockchain investments**

**Thru June 15, 2018—216 blockchain investments**

**The increase in investment in blockchain by leading venture firms is even more pronounced when looking at total deal value. Collectively, they invested almost half a billion in 2017 and that amount could triple to nearly \$1.5 billion in 2018.**

**35 of the 50 leading venture capital firms investing in blockchain and crypto are based in the United States. Eight are based in Hong Kong/China and three in Germany.**

# David Carman – FinTank

## Blockchain: What's Really Happening

Thank you



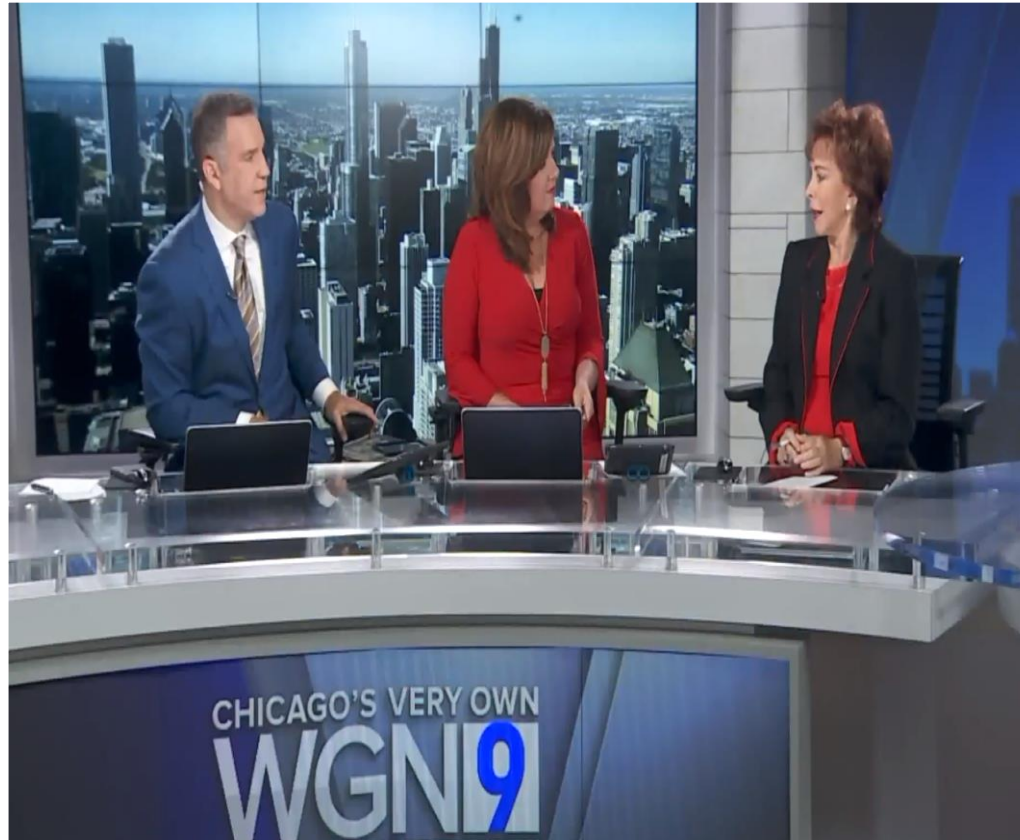
# **Terry Savage**

## **Nationally-Syndicated Financial Columnist**

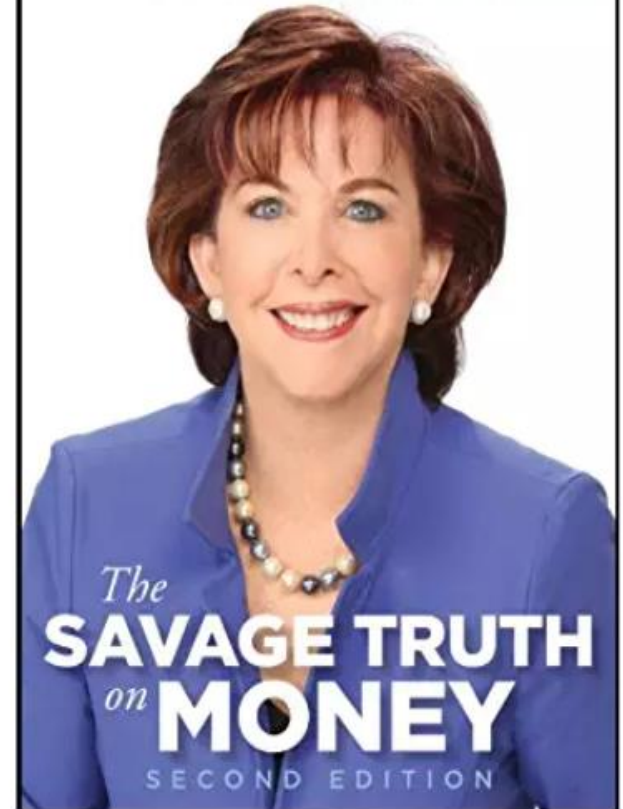


# OUR SPECIAL GUEST KEYNOTE INTERVIEWER

Tribune  
ContentAgency

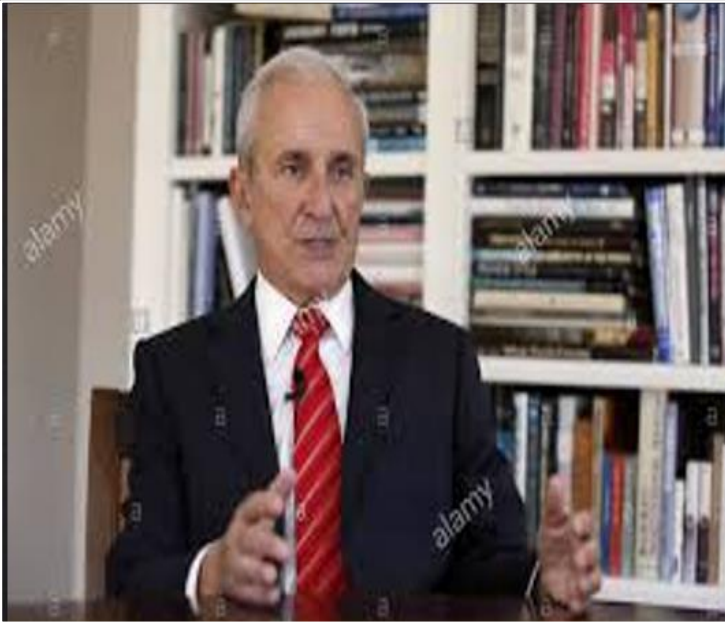


**TERRY SAVAGE**  
bestselling author of *The Savage Number*





# KEYNOTE



**Dennis Chookaszian**



**Terry Savage**



**Richard Sandor**



# How Major Consulting Firms Are Working With Clients To Implement Blockchain Solutions



**Brian Jenkins**  
Business Block  
CNN Correspondent



**Jason Griffiths**  
Accenture



**Sharad Malhotra**  
EY



**Safwan Zaheer**  
KPMG

**It's Break Time**

**Take The Opportunity  
To Meet Others**

**And**

**To Stop By The Information  
Tables**

# How IBM is Partnering With Clients: Case Studies and Lessons Learned



Dan Spillane



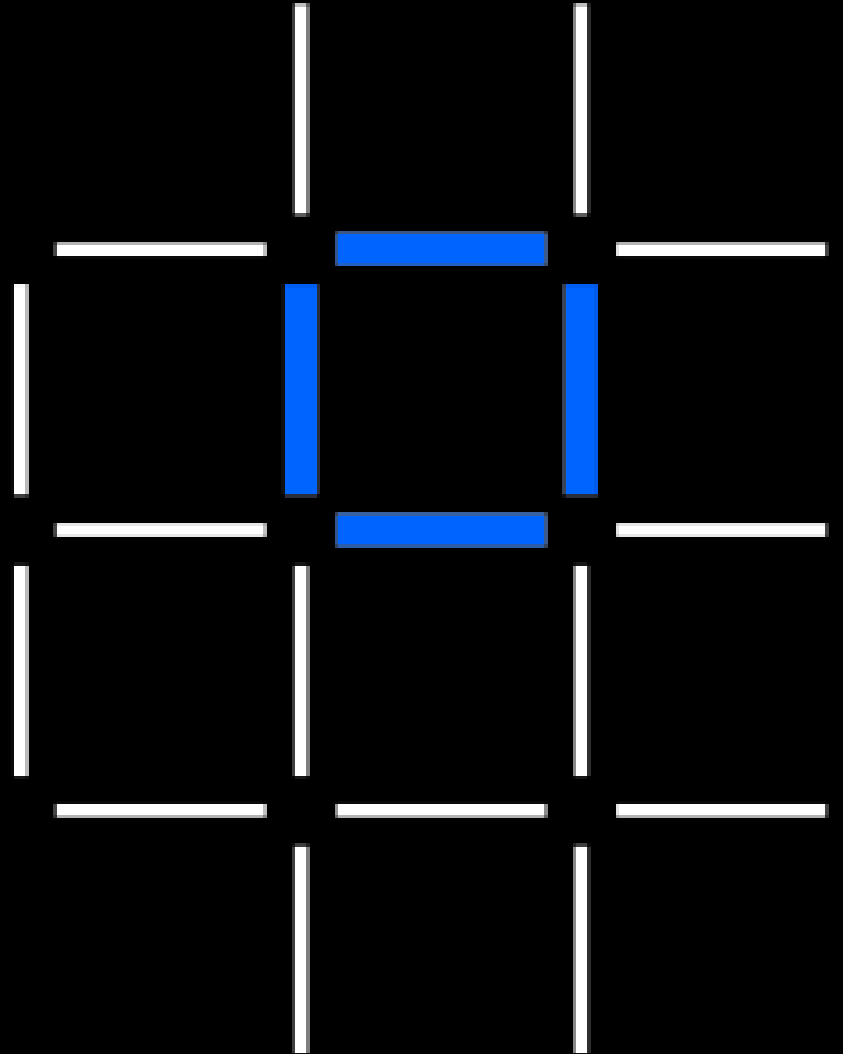
Chris Tyler

# Partnering with IBM Blockchain

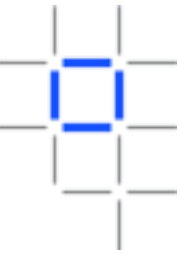
Success stories and programs for partnering success

*Dan Spillane – Managing Partner – IBM Services - Industrial*

*Chris Tyler – Sr. Technical Evangelist – Blockchain, IoT and Analytics*



# Introductions




**Dan Spillane**


- Industry Leader & Innovator - Blockchain, Business Processes & Operating Technologies
- 20+ years of ecosystems development
- 20+ years of asset-based business consulting
- 15+ years - Adjunct Professor University of Illinois - Finance
- International Leadership & Student of the Worlds Cultures
- danspillane11 on LinkedIn



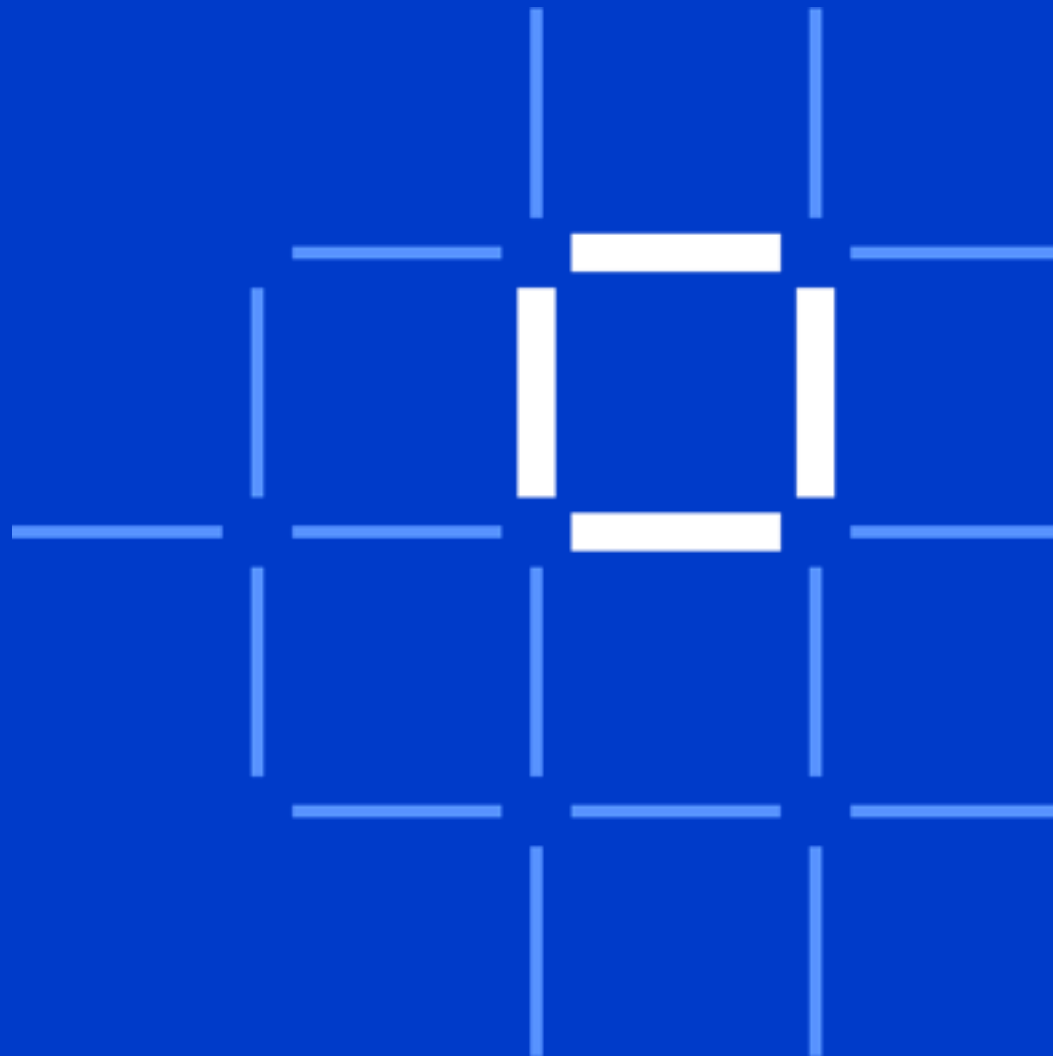
**Chris Tyler**

- Technical Evangelist for Blockchain, Internet of Things and Analytics
- 25+ years of analytics experience
- 10+ years of software development
- 15+ years with IBM Analytics and working with partner ecosystems
- @chrisat Tyler on Twitter
- ChrisATyler on LinkedIn
- ibm.biz/ChrisATylerBlockchain

[  What is IBM Blockchain? ]

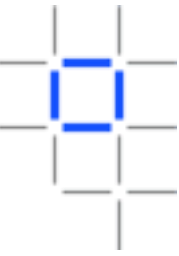
 Who is succeeding with IBM Blockchain?

 How can IBM help you succeed with blockchain?

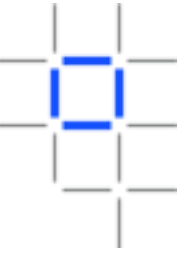




# Cryptocurrency vs crypto-assets

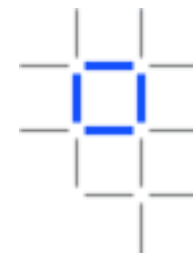


# Public vs private blockchain

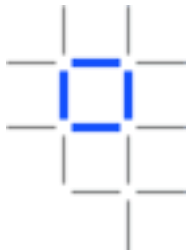




# Permissioned vs permission-less



# IBM Blockchain technology



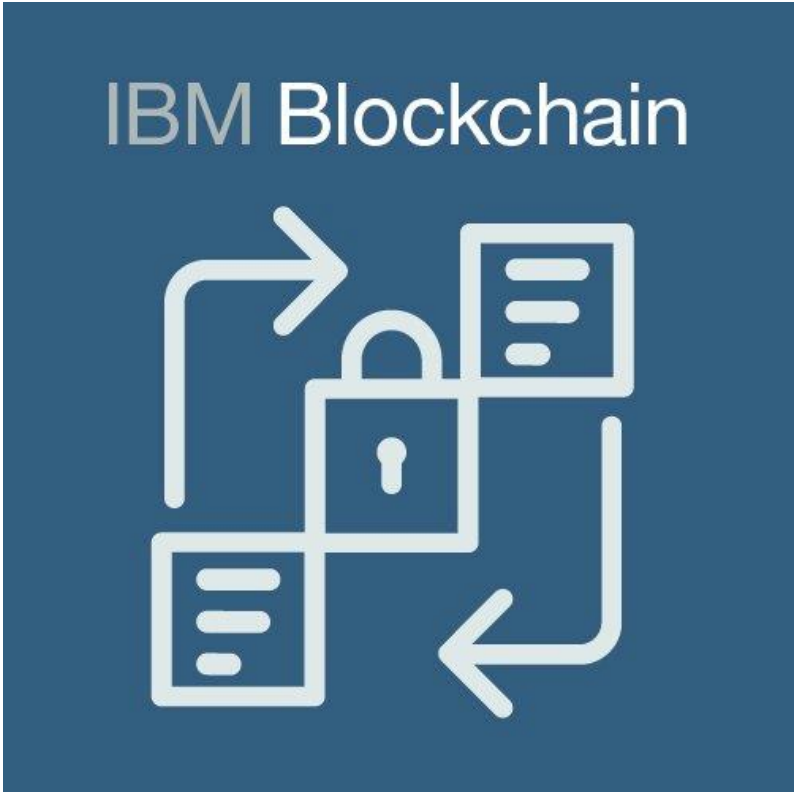
**HYPERLEDGER  
FABRIC**



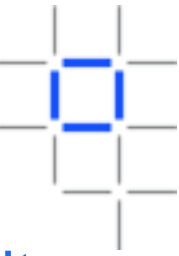
**HYPERLEDGER  
COMPOSER**



**IBM Cloud**



# IBM Blockchain solutions



Food Trust



TradeLens



World Wire



Digital Identity





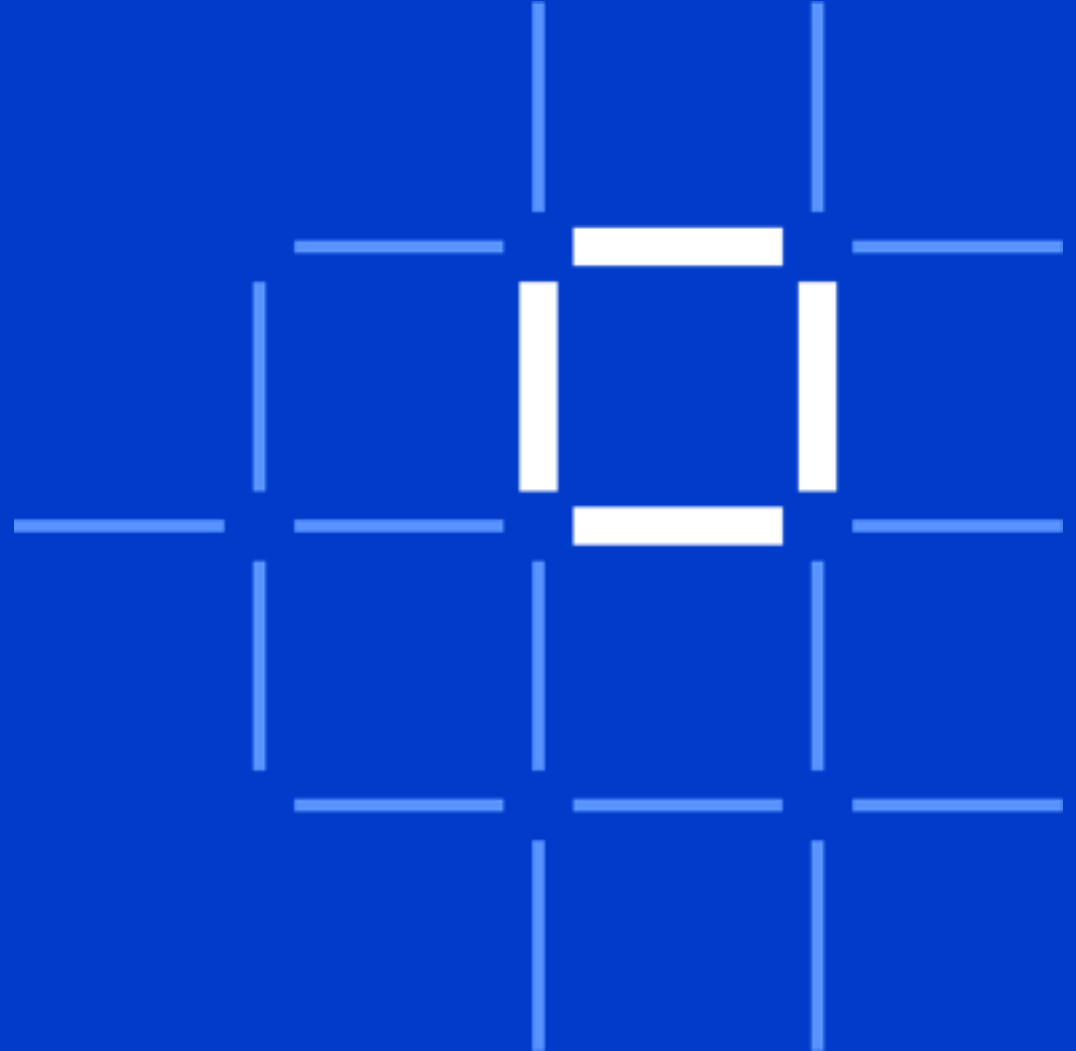
What is IBM Blockchain?



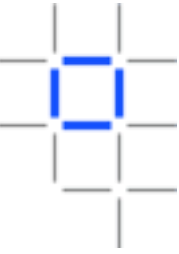
Who is succeeding with  
IBM Blockchain?



How can IBM help you  
succeed with blockchain?







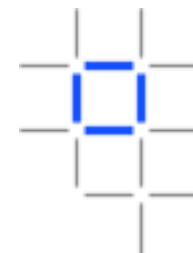
## What?

- We.trade is a blockchain-based international trading system for a consortium of major world banks including: **Deutsche Bank, HSBC, KBC, Natixis, Rabobank, Société Générale, Santander, UniCredit and Nordea**
- Enables accurate trading posture information, order to settlement control, risk coverage, track and trace options

## Benefits

- Near-real time exchange of information on a secure platform that digitizes transactional financing and other complex processes
- Continual business and compliance readiness in any regulatory environment
- Scalability that allows for rapid international expansion as business, regulatory, and security opportunities converge





## What?

- Track diamonds across supply chain from mine to retail

## How?

- Shared ledger for storing digital certification with supporting material

## Benefits

- Protect against the occurrence of fraud, theft, trafficking and black markets
- Assist in the identification and reduction of synthetic stones being labelled as authentic
- Increase speed of transparency for cross border transactions for insurance companies, banks and claimants



# World Wire

## What?

- IBM Blockchain World Wire is an integrated network for real-time clearing and settlement.
- Allows banks and financial institutions to send and settle payments around the globe with finality in a matter of seconds
- Eliminates enduring challenges that have long hampered the cross-border payments industry.

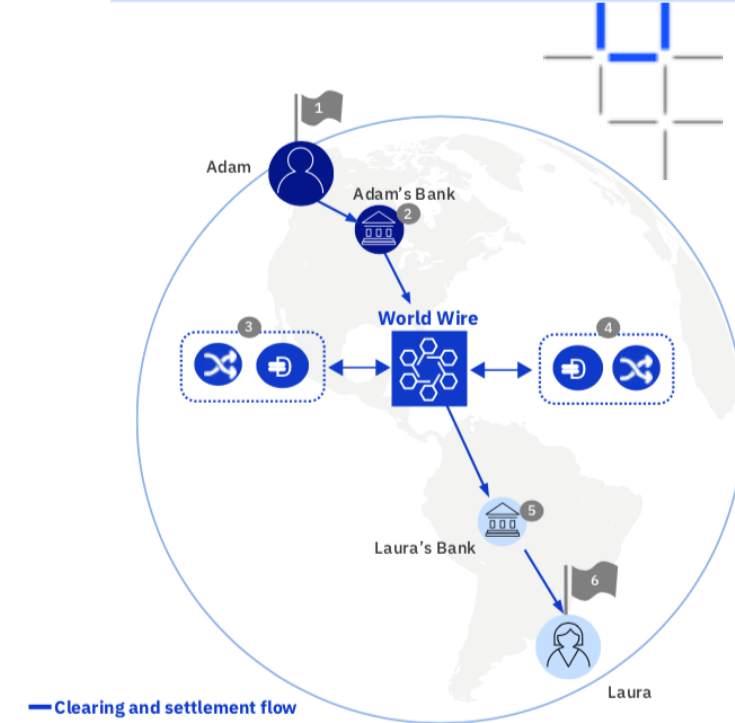
## Benefits

- Payment support regardless of size, origination, destination or asset type
- Higher visibility for streamlined transactions with reduced disputes and reconciliation needs
- Enhanced regulatory compliance through improved transparency
- Secure network with interaction and eligibility criteria as well as robust access controls

Current international payment system today



With IBM Blockchain World Wire tomorrow





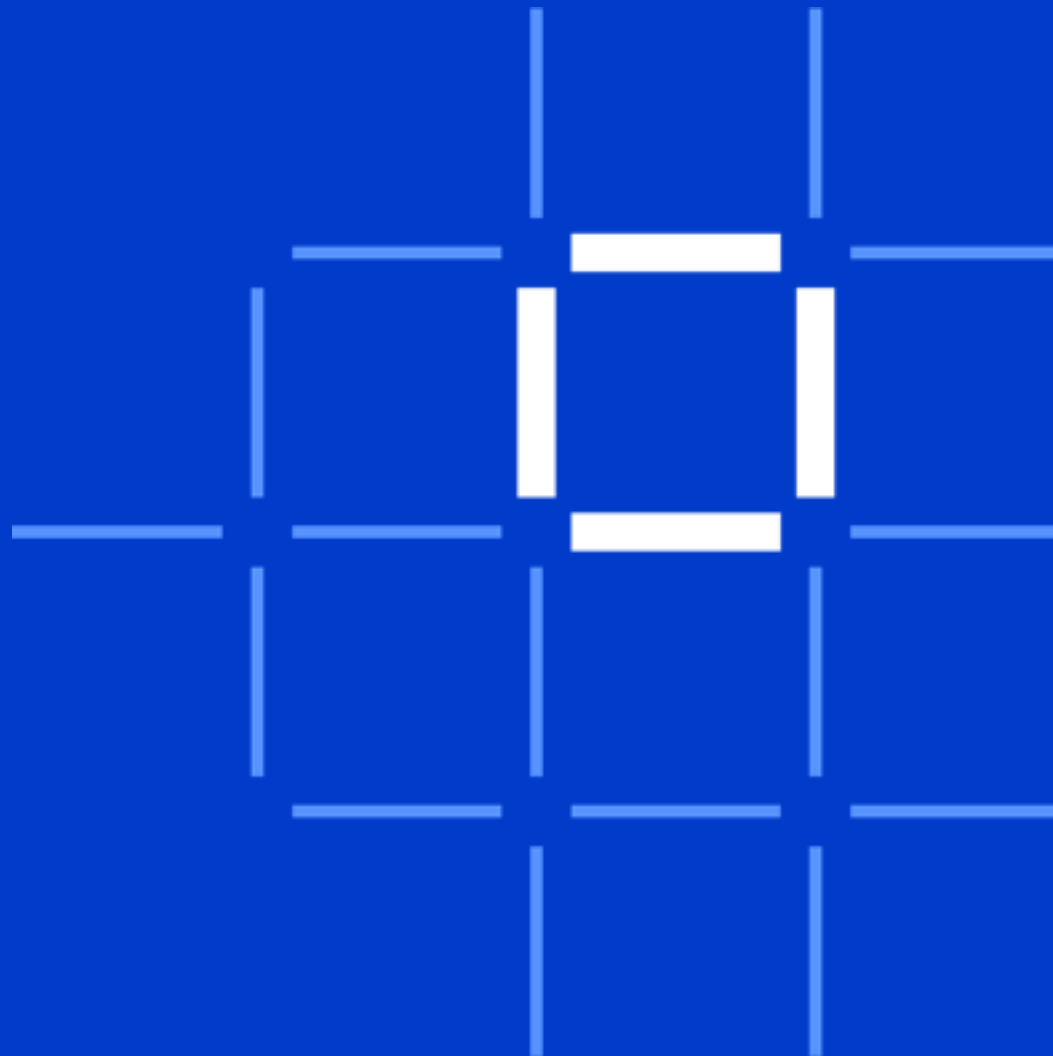
What is IBM Blockchain?



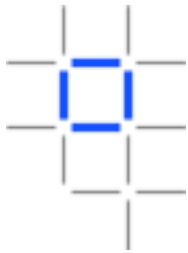
Who is succeeding with IBM Blockchain?



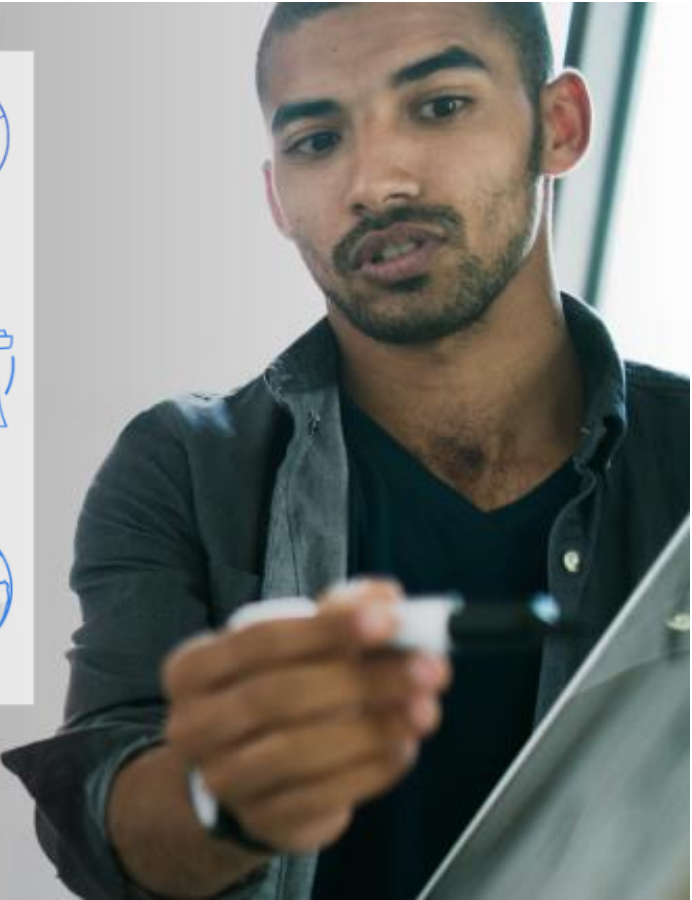
How can IBM help you succeed with blockchain?



# Get to market faster

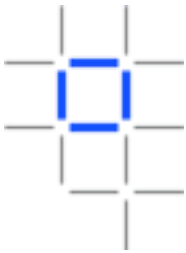


<b>Discovery Workshop</b>  Understand market opportunities and select a use case that represents the value your organization and business network is looking to gain while also gaining a deeper insight into blockchain technology.  Length: ½ Day	<b>Design Thinking Workshop</b>  Apply IBM Design Thinking principles to evaluate current business processes, identify business network and define the minimal viable product for your blockchain solution.  Length: 2 days
<b>Architectural Consultancy</b>  Enlist the support of a blockchain architect in an IBM Cloud Garage to help define the framework of your blockchain solution.  Length: 1 week	<b>MVP Build-up</b>  Develop a functioning blockchain solution using agile methodologies, leveraging experts in IBM Blockchain, UX/UI design and development, and cloud architecture.  Length: 4–10 weeks



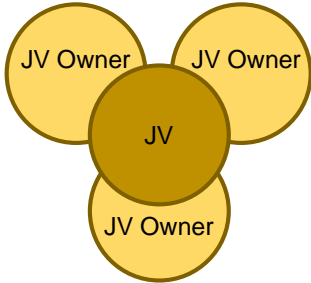


# Flexible business models for ecosystems



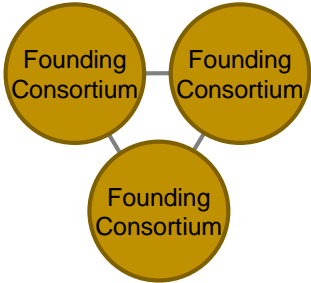
## Founder-Led Network

*Single company driving the initial project then others join to form the network*



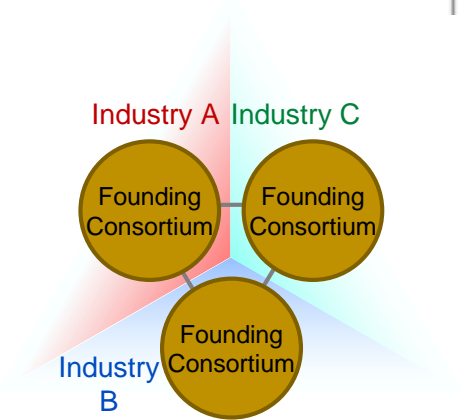
## Joint Venture Network

*2 or more initiators create a JV to govern the initial network*



## Consortium Network

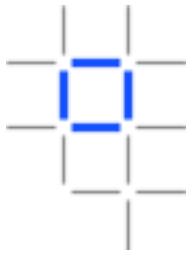
*A consortium forms the initial network in a specific industry or sector*



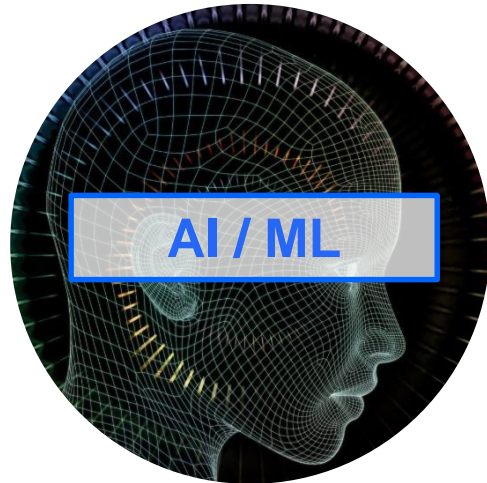
## Business Ecosystem

*A network working across multiple industries or sectors*

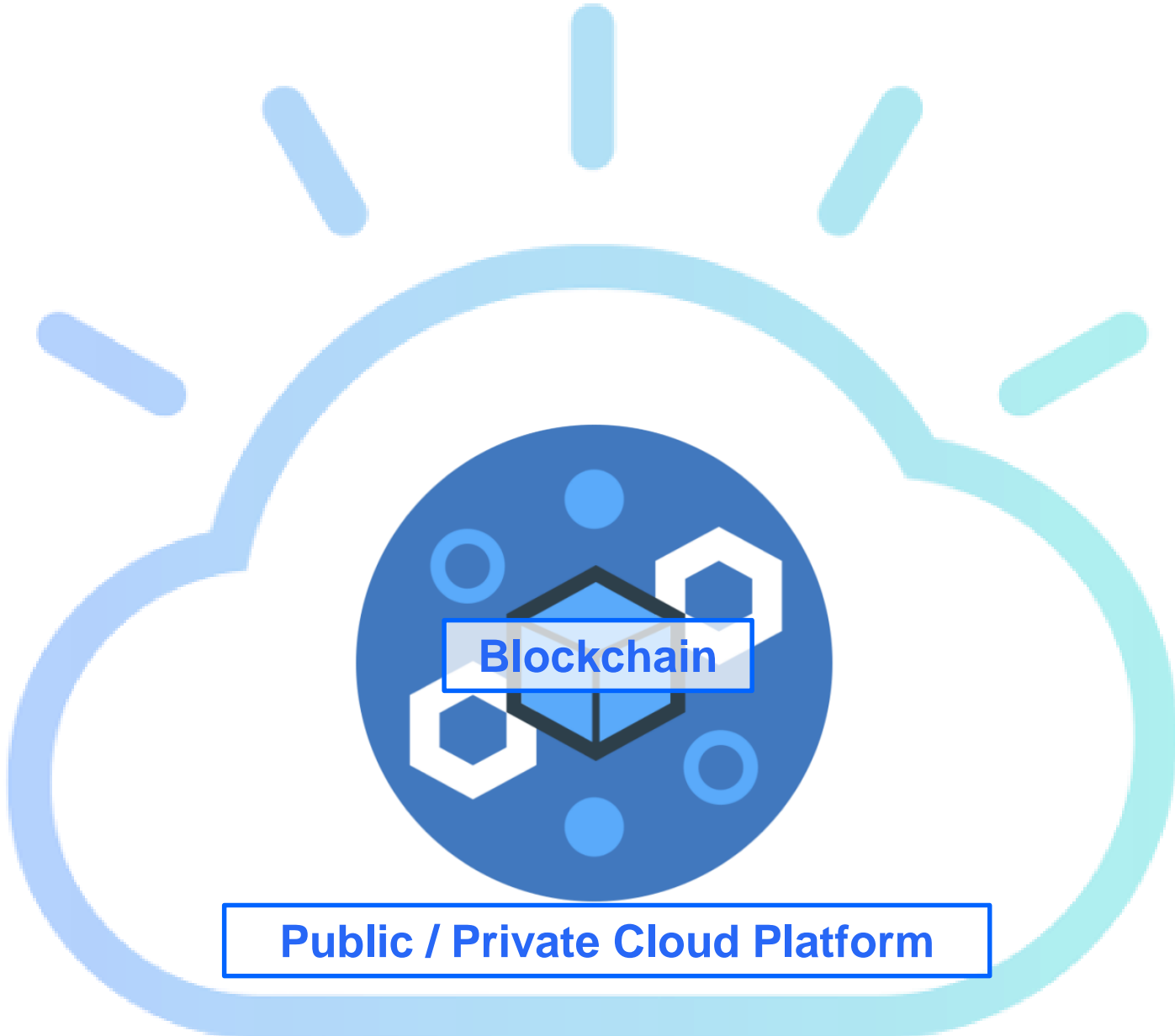
# Build a complete solution



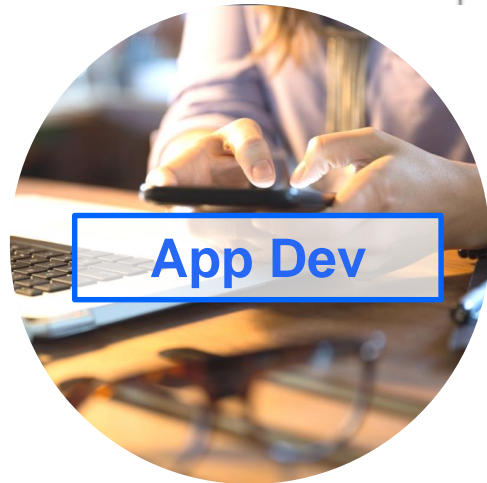
Analytics



AI / ML



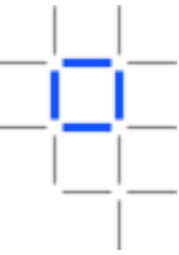
Public / Private Cloud Platform



App Dev



# Flexible business models for margins



## Learn & Build

**IBM Cloud Credits**

**PartnerWorld Education Training**

**Education Discount Vouchers**

**Technical Brainstorming Sessions**



## Market & Sell

**Promote your Success Story**

**Co-Marketing Budget**

**IBM Marketplace**

# The Reality

## Free Option



The investment is small, yet the pay-off is massive...

Blockchain is a high growth business; currently small & hyped, yet projected to continue to grow to \$3T by 2030 (Gartner).

## Create, Capture, Sustain



Understand what each ecosystem player needs to capture value...

Increase your ecosystem participants by understanding the unique needs and what create and enables the capture of this value...

## Hype down- Ramp up!





Get real and find the right mix of Blockchain investments in your industry...


Blockchain is on the down side of the hype curve (Garner), now it's time for the long term players to get their investments ramped up for the value-driven economy...

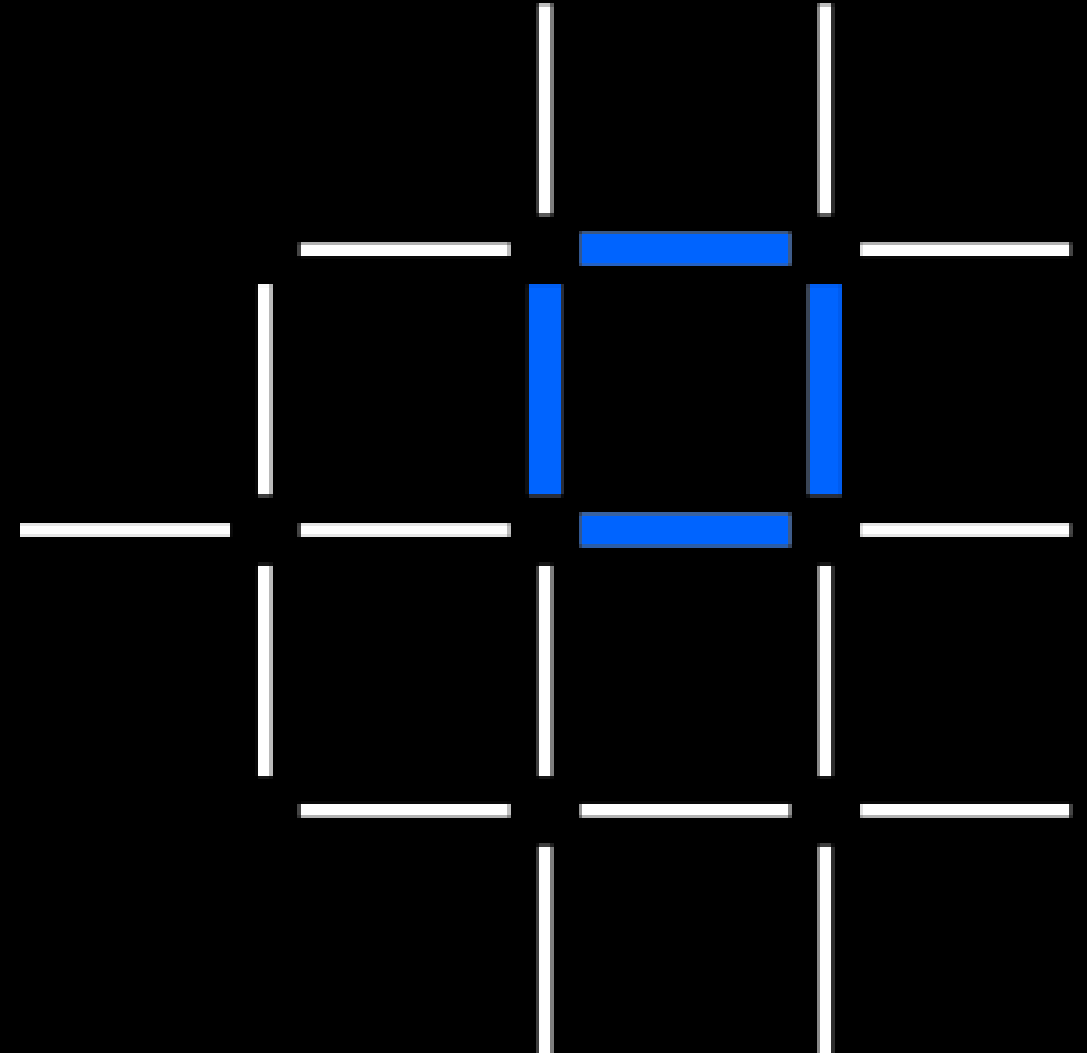
*Dan Spillane – Director of Growth Initiatives – Industrial Markets*  
*Chris Tyler – Sr. Technical Evangelist – Blockchain, IoT and Analytics*

*Questions? Tweet us or go to  
[ibm.com/blockchain](https://ibm.com/blockchain)*

 @IBMBlockchain

 IBM Blockchain

 IBM Blockchain





# How Financial Services Firms Are Leveraging Blockchain Technology



**Micah Kerr**  
Discover



**Collin Canright**  
FinTech Rising



**Phil Flores**  
BMO



**Lamont Black**  
DePaul University

# How Northern Trust Is Transforming Financial Services With Blockchain Technology



**Arijit Das**  
Northern Trust



**Andy Czupek**  
Northern Trust

# Using Blockchain Technology To Track Guacamole On The Supply Chain

Traceability on the Blockchain



Edward Honour  
Tritanium Tracability



# Traceability on the Blockchain



Edward Honour



# Guacamole on the Blockchain







## A 16 Ounce Container of Guacamole...



- Started as part of a 455lb Batch of Guacamole

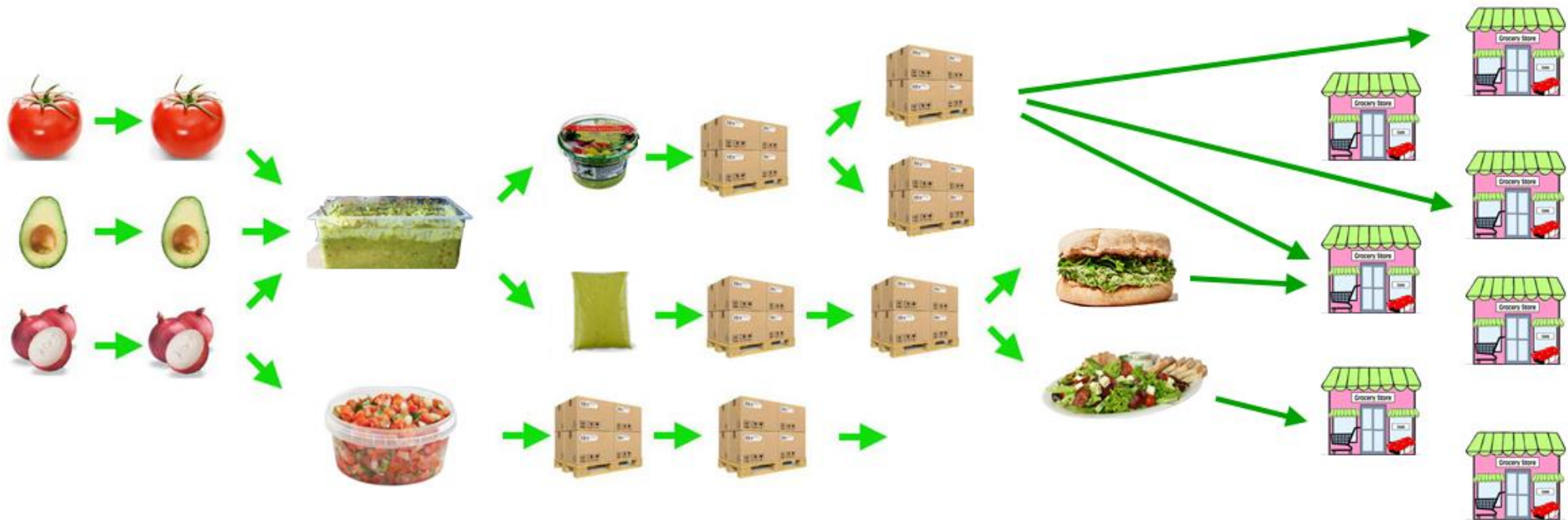


# The 455 pound Batch of Guacamole

- Becomes Retail Packaging
  - 8 oz, 16oz, 3lb packaging
  - Shipped to wholesalers and direct to store.
- Also sold wholesale to other manufacturers.
  - Private Label Retail Packaging.
  - Becomes Part of other Products.

# The 455 pound Batch created from Ingredients

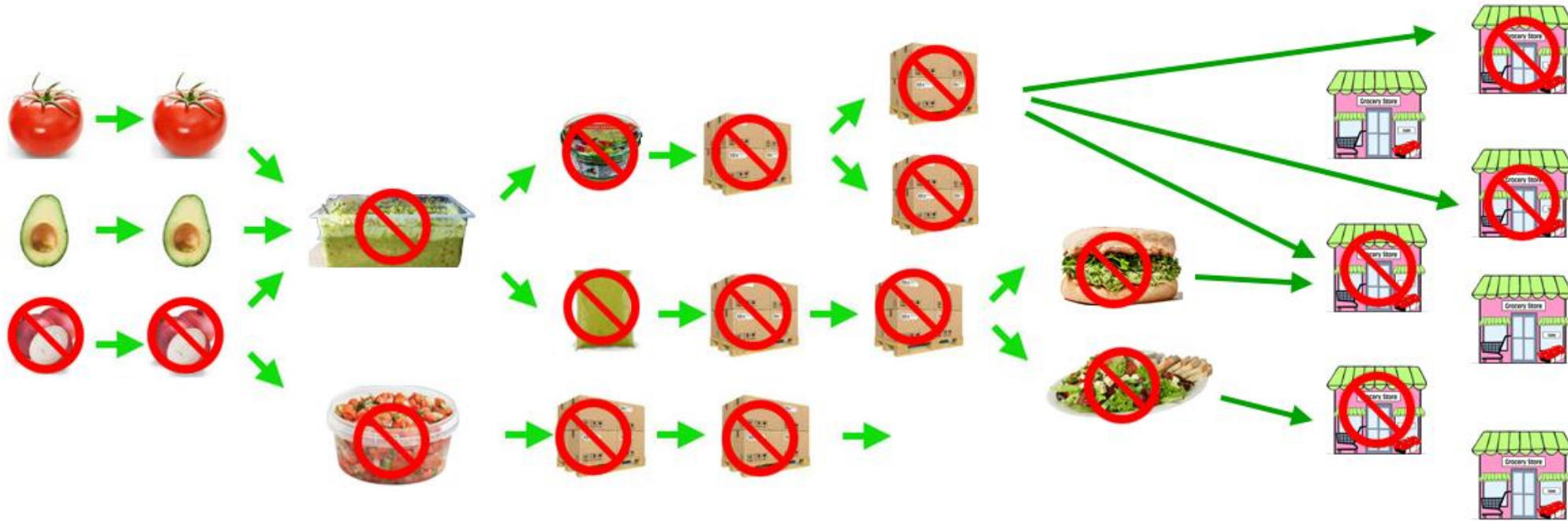
- Ingredients are received from suppliers
  - Avocados, Onions, Tomatoes...



- Looks kind of like this...

Until something is recalled

- Product or Ingredient





According to the CDC.

- Each year, 48 Million Americans are sickened by a Food Bourne Illness.
  - Globally, over 600 Million People are affected.
  - The problem causes \$55 Billion to \$90 Billion in economic loss Each year.
- 
- Food Safety is a World-Wide Issue...





## Problem applies to...

- Food
  - Drugs (Prescription and Non-prescription)
  - Cosmetics
  - Manufactured devices
- 
- Market for Traceability...

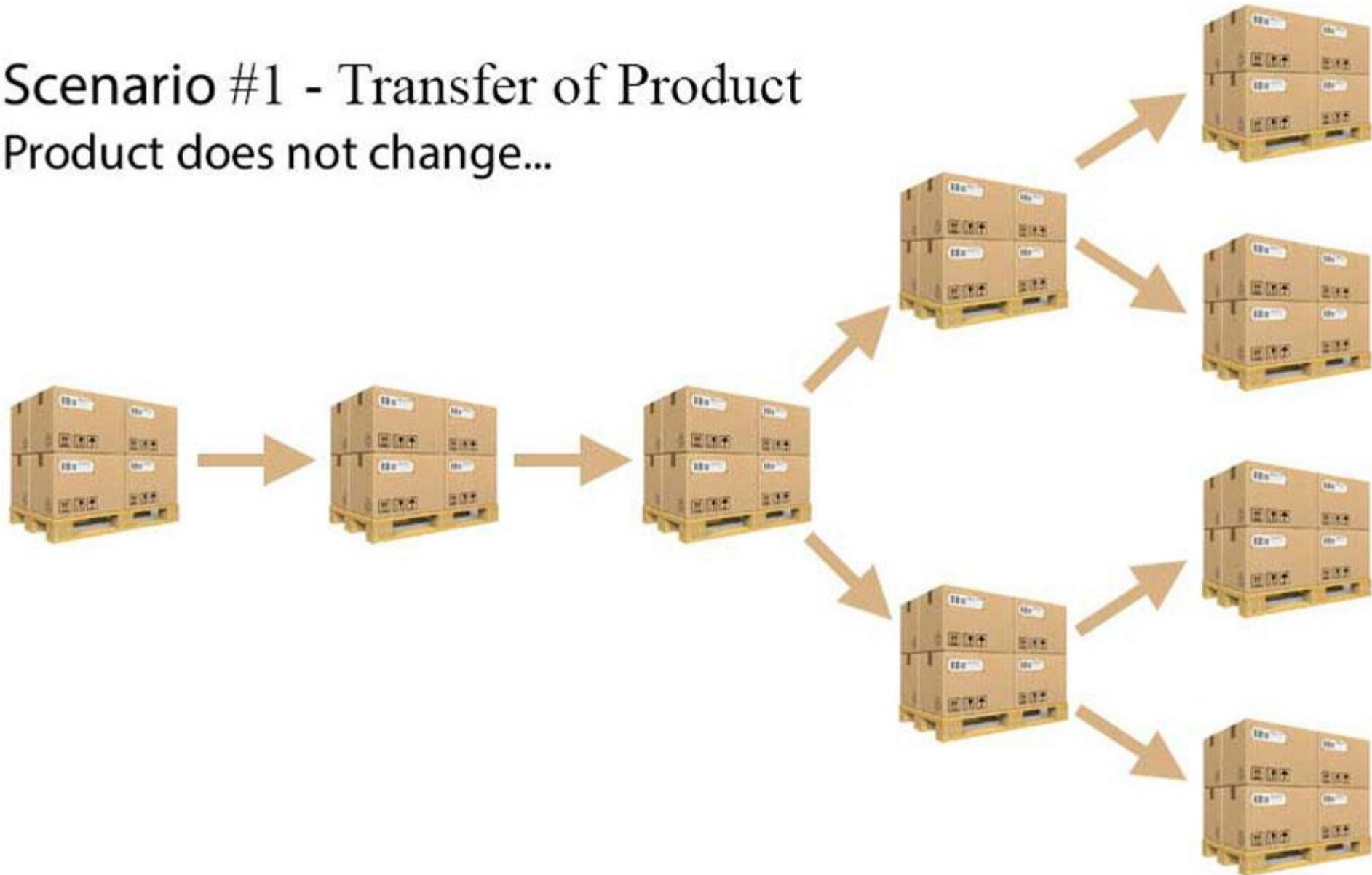


## The 4 Requirement of Traceability

- If you have to change the definition of Blockchain to fit your use case, don't go any further.
- What must be traceable...

## Scenario #1 - Transfer of Product

Product does not change...



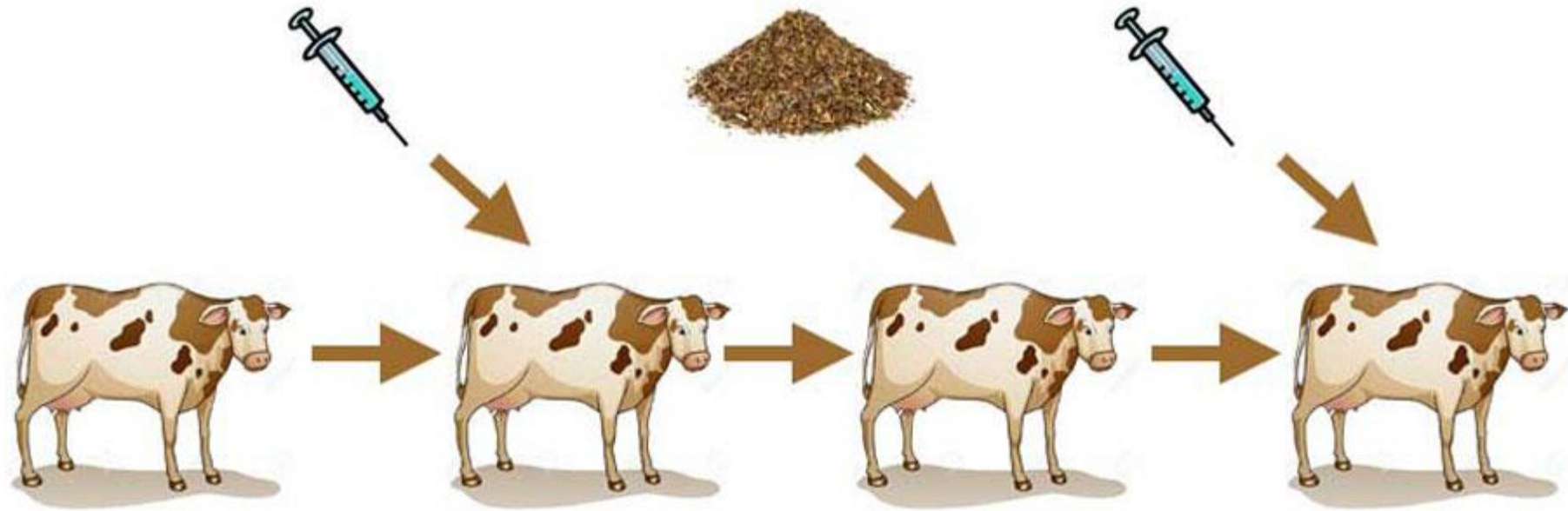
## Scenario #2 - Transfer and Manufacture

Products combined to make new product



## Scenario #3 - Track over Time

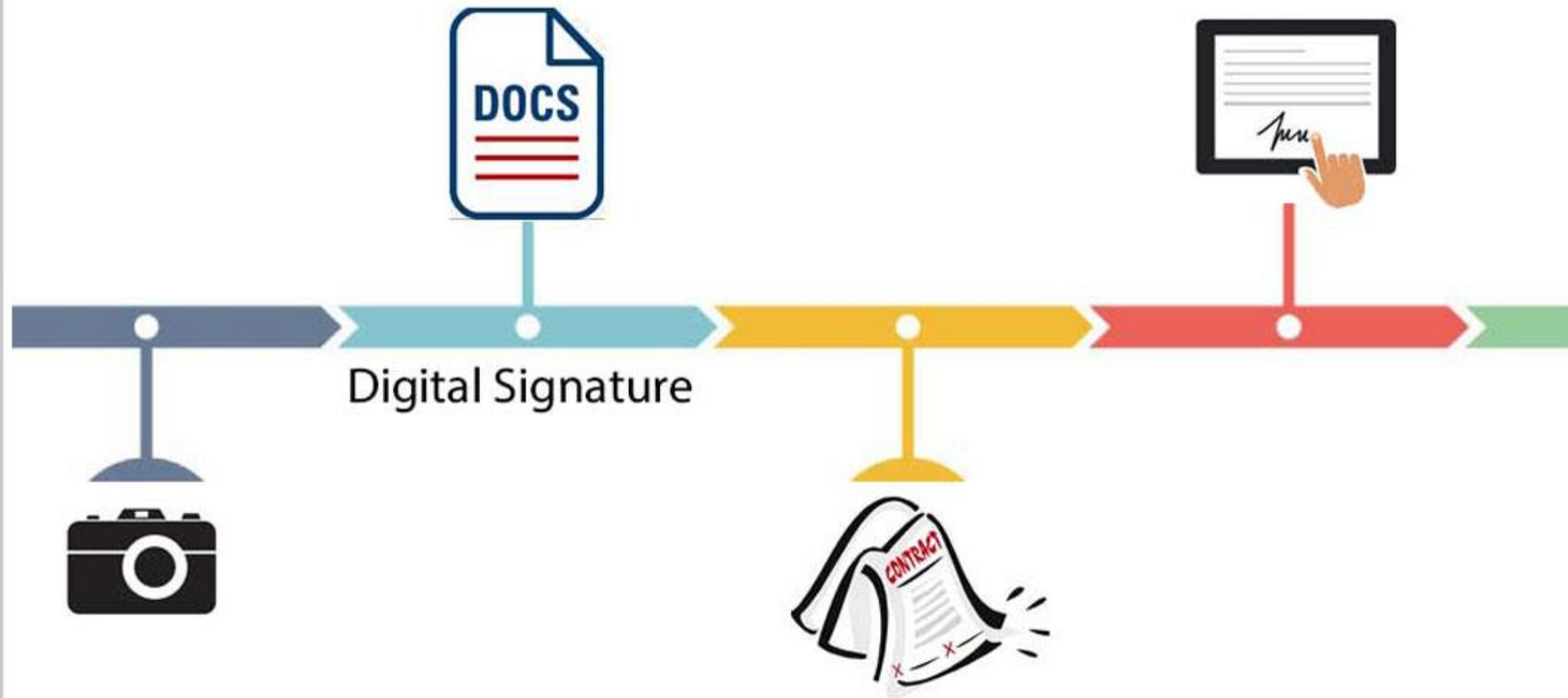
Farming, Ranching, building...





## Scenario #4 - Store on Immutable Ledger

Permanent, digitally signed transactions...





# What the Blockchain Provides

- Traceability
- Transparency
- Trust
  - Distributed Ledger
    - For Secure Transfer of Assets
  - With Immutable Transactions
    - Protected by Cryptography
    - Agreed upon by Consensus
  - Thanks to Satoshi Nakamoto in 2009



The Real Reason

UTxO

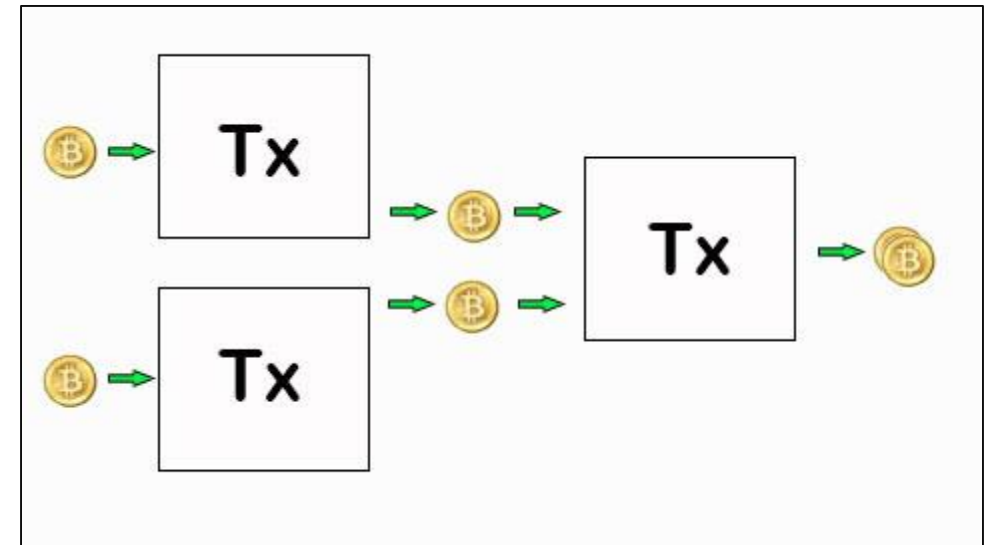
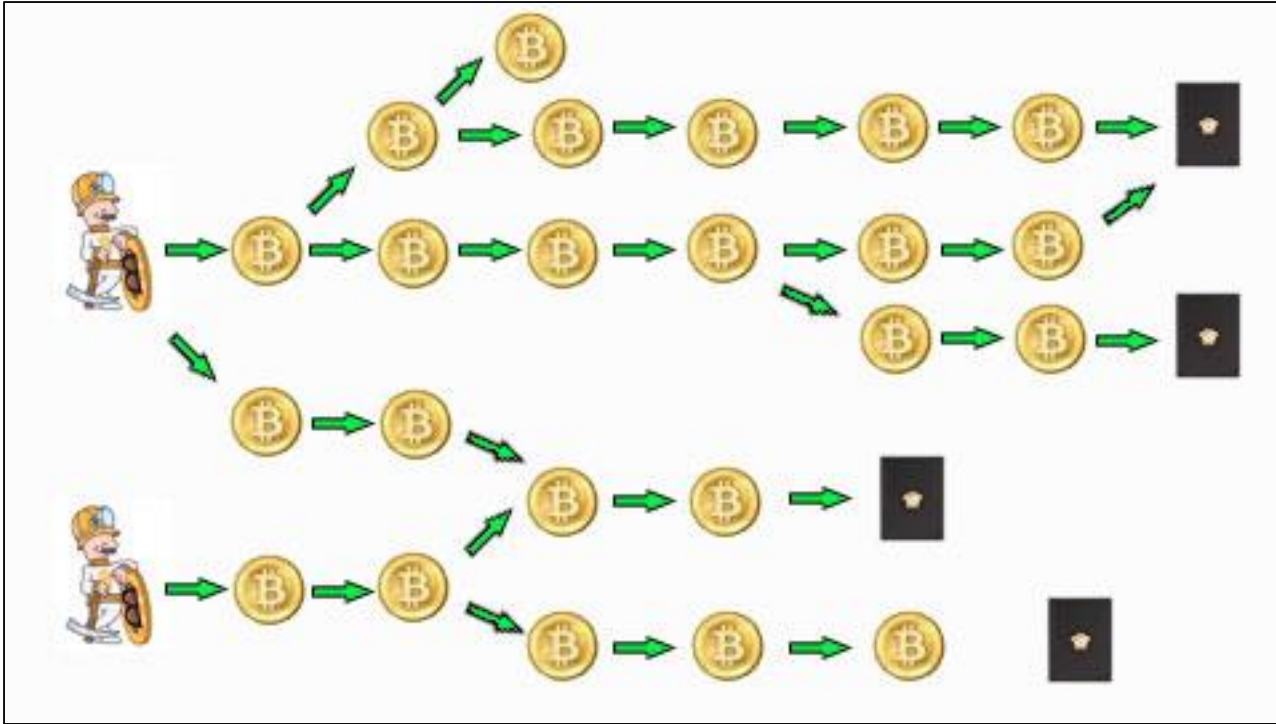
Unspent Transaction Output



# UTxO

- The Mechanism that solves the Double Spend Problem.
- Also provides traceability as an “unintended” feature.
- A coin is a chain of digital transactions.
- The input to each transaction is the output of one or more other transactions
- The coins in your wallet can be traced back to the miner that created.

# A Chain of Transactions







## The 2009 Blockchain Solution...

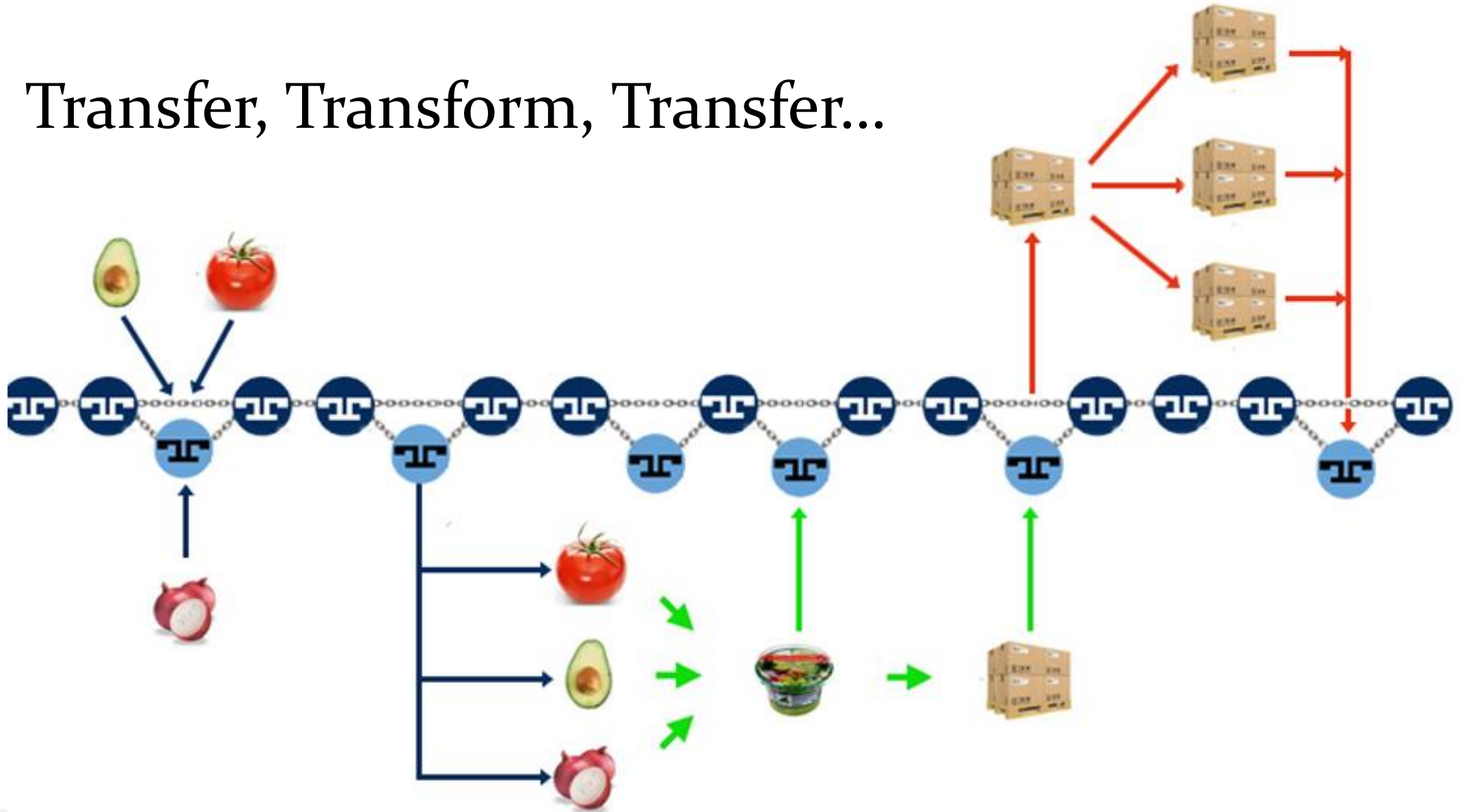
- Traceability is a series of inputs & outputs.
  - Blockchain Provides Traceability
- 
- The blockchain has potential...



## But what makes a Traceability Platform

- Must be available to everyone in the supply chain.
- Must support different requirements across the supply chain.
- Must have the built-in ability to transfer assets across applications.
- Applications must work together and not in silos.
- Must work for all traceability use-cases.

# Transfer, Transform, Transfer..





## The Other Part of the Solution...

- Wallets are a fundamental part of the Blockchain Solution.
- Smart Wallets are an alternative to Smart Contracts
- Wallets don't get the credit they deserve



## Blockchain Wallets...

- Scan or Monitor the Blockchain
  - Retrieves Data the data a block is a stakeholder in.
  - Creates Transactions
- 
- Built with a platform API...





# Platform Vision

- Public Blockchain Platform
  - Build traceability blockchain from the ground up.
  - Incorporate the Cryptonote cryptocurrency platform.
  - Support the business model of Ethereum.
- Support the traceability features defined so far.
- Provide an eco-system for applications to be developed and supported that work together.
- Provide a coin with the security features of Monero.



# *Launch*

**MISSION COMPLETE**

- Launched Traceability in July.
- Launched the Hybrid Platform September 17.
- Hard Fork September 27.
- BitcoinTalk Announcement Thread October 1.
- And watched the mayhem begin.



# *Launch*

**MISSION COMPLETE**

- Over 300 miners validating transactions.
- 4 Independent Mining pools.
- Around 2Mh/second (ASIC Resistant Mining)
- Currently at block 50,225.
  - 8,625 Traceability blocks.



# *Launch*

**MISSION COMPLETE**

- Launched the project completely out of order
    - Had customers for the use-cases before building a platform.
    - Launched a single-node private blockchain first to work out the bugs.
    - Merged the Traceability and Public Blockchain.
  - No ICO or Presale
- Don't try this at home



## Results

- Kids don't try this at home.
- It's surprising how many things there are to consider.
- Acceptance in the mining community is much higher than expected.
- There is a demand for the solution provided by the platform.





## Roadmap / Next Steps

- Architecture allows us to enhance the Traceability Platform without additional Hard Forks.
- Launch Additional Food Safety Applications
- Attract Additional Third Party Applications
- Support the Coin Value.



More information

<https://traceabilityblockchain.org>

**It's Lunch Time**  
**2<sup>nd</sup> Floor**

**For Those Of You On The**  
**Live-Stream We'll Be Back**  
**In 1-Hour**

# Blockchain: Then And Now



**Chris Reinertsen**  
BlockEdge Capital



**Shehan Chandraseker**  
JAG CPA

**MODERATOR**



**Alec Ziupsnys**  
BlockEdge Capital



**Phil Fornaro**  
Fornaro Law



**Brennan Nacol**  
BlockEdge Capital

# Legal Aspects of Blockchain Including Smart Contracts



**Chuck Mackie**  
John Lothian News



**Kevin Wixted**  
DLA Piper



**Will Turner**  
Barnes & Thornburg



**Zach Smolinski**  
Rosario Law



# What Investors Look For In Blockchain Starups



**Jack Bouroudjian**  
CNBC / UCX



**Peter Johnson**  
Jump Capital



**Rumi Morales**  
Outlier Ventures



**Clint Cox**  
Crypto Futura Fund

**It's Break Time**

**Take The Opportunity  
To Meet Others**

**And**

**To Stop By The Information  
Tables**

# How Innovative Startups Are Making A Difference With Blockchain Technology



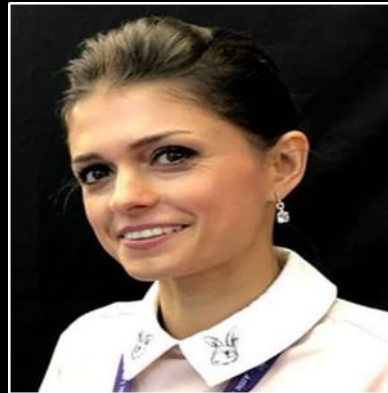
**Deji Jimoh**  
WealthBlock



**Katherine Hochrein**  
Adjoint



**Rob Krzyzanowski**  
Spring Labs



**Alice Hlidkova**  
New Economies

# Using Blockchain To Tokenize Assets

Global Blockchain Summit  
2018



Find out how AlphaPoint is making a difference in blockchain  
Not just ideas, but actual use cases



**Ned Myers**  
*SVP Product*

**Using Blockchain to Tokenize Assets**

**Live and Live-Stream - Friday, Oct. 19<sup>th</sup>**

**AlphaPoint**

[alphapoint.com](http://alphapoint.com)

**Ned Myers - Alphapoint**

# AlphaPoint

October 19, 2018



- 25+ years of securitization experience
- Board Member: Structured Finance Industry Group
- Published Author: Expert on ABS/MBS security regulations
- Member of AlphaPoint Executive team: Head of Product & Marketing

Contact info:

[Ned@alphapoint.com](mailto:Ned@alphapoint.com)

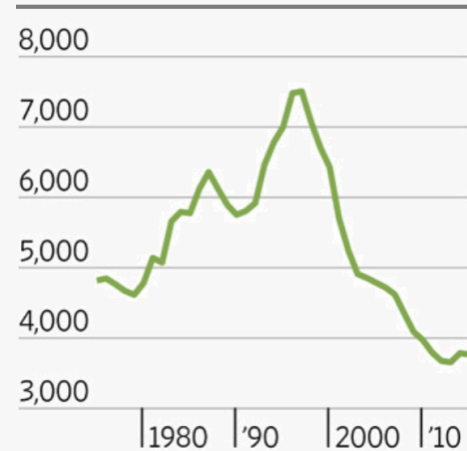
C: 339-234-1302



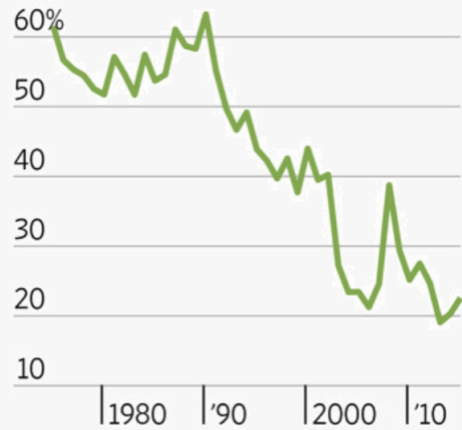
# Share Ownership: *Participation in Partial Ownership of Companies*

## The Shrinking Stock Market

### Fewer Companies Listed



### Amount of Small Cap Companies Decreasing



### Have Not Outperformed the Market Since the 1980s

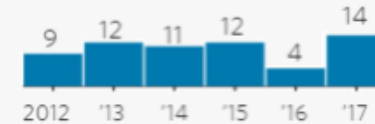


AlphaPoint

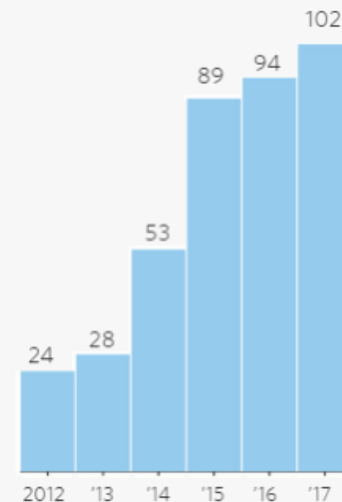
Source: The Wall Street Journal

## Getting Old, Staying Private

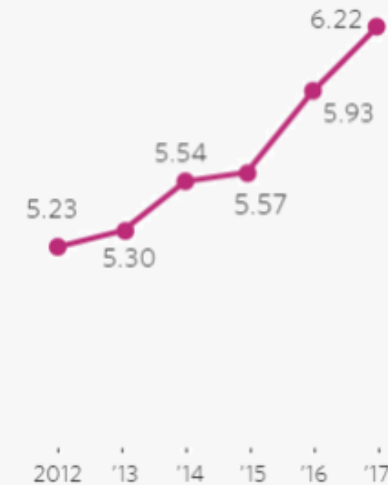
### # of Start-ups >\$1bn in Value Going Public



### VC-backed Companies >\$1bn in Value



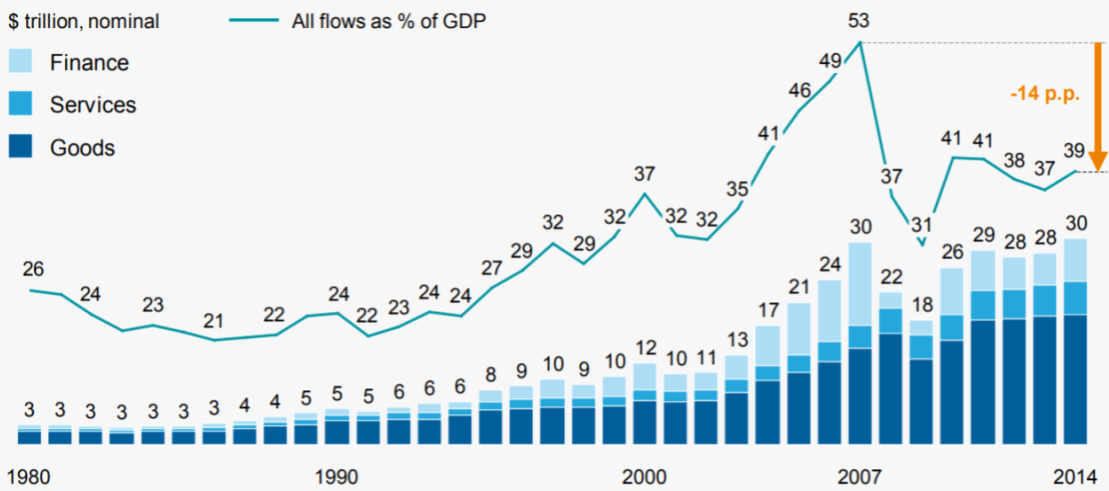
### Average Annual Time from First Financing to Major Liquidity Event



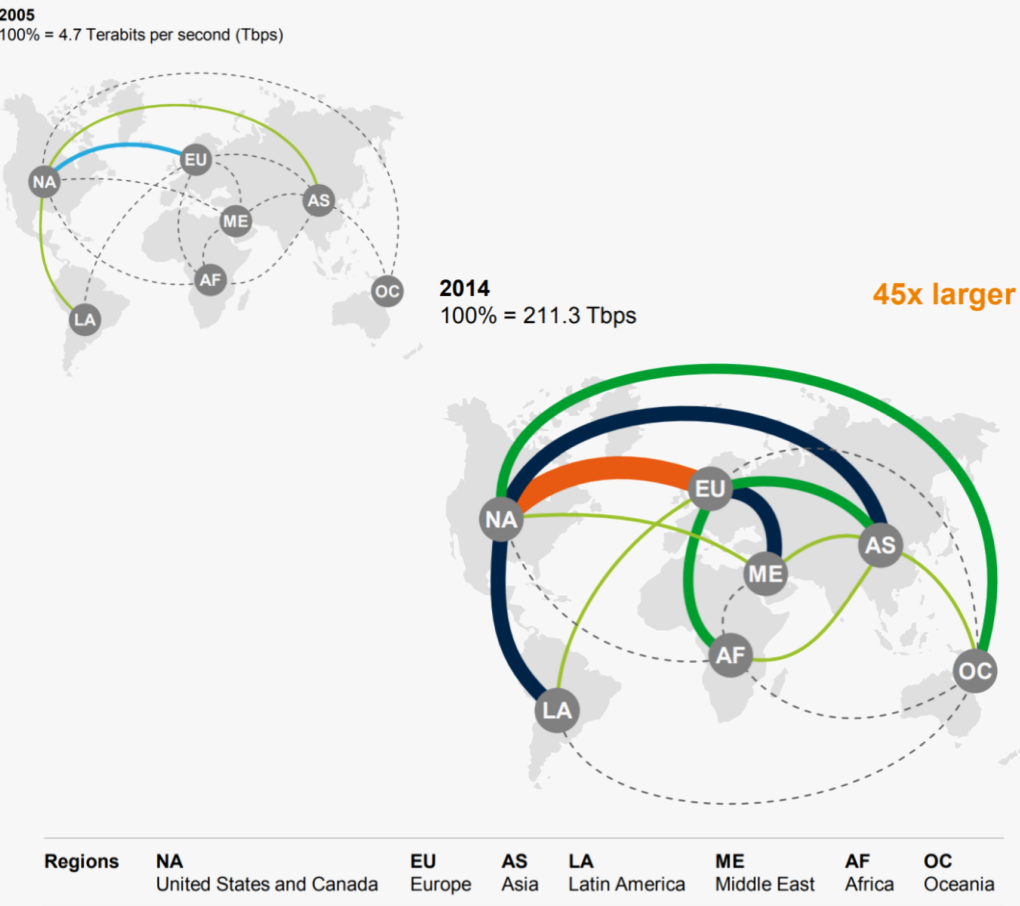
# Digital Flows Continue to Permeate the Global Economy

After 20 Years of Rapid Growth, Traditional Flows of Goods, Services, and Finance Have Declined Relative to Global GDP

Flow of Goods, Services, Finance: 1980 – 2014

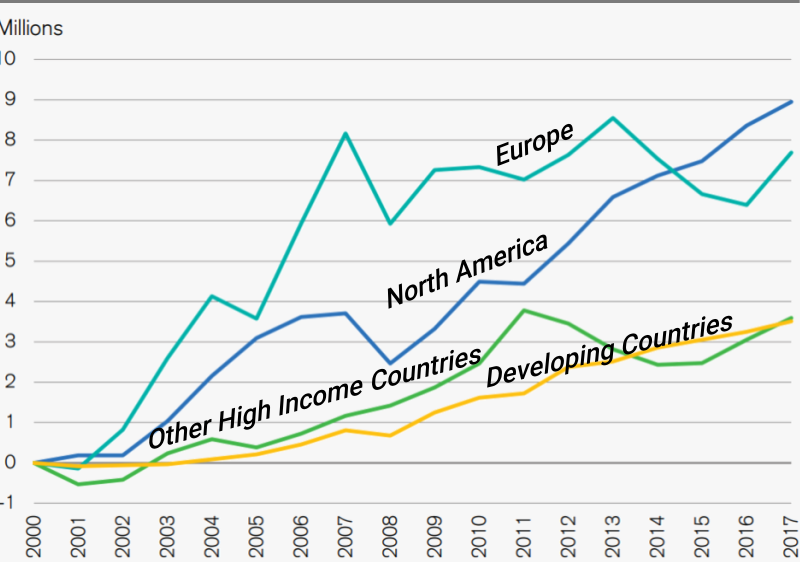


Cross-Border Data Flows Surging, Connecting More Countries: **45x Bandwidth Increase, 2005 – 2014**

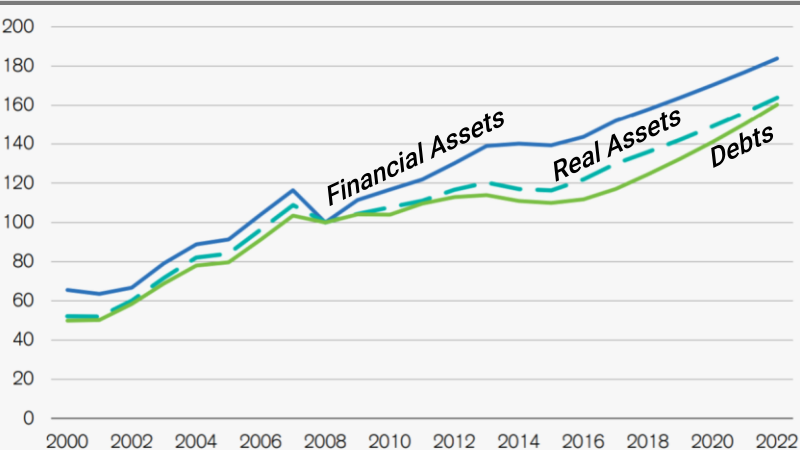


# Global Wealth Generation Continues to Rise...

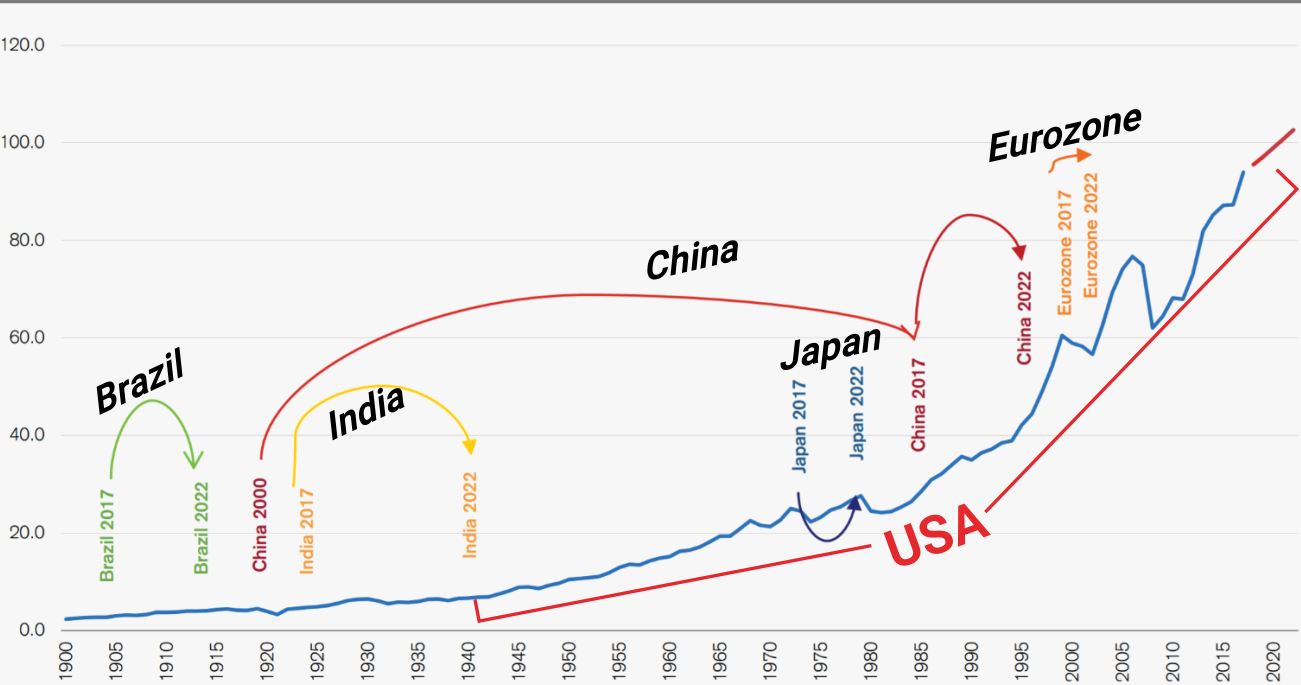
Cumulative Change in Millionaires, by Region / Income Group



Global Wealth Breakdown



Total Wealth in the USA Relative to Select Global Economies (\$trn)



# Future of Wealth Creation: *Major Asset Classes: ~\$52 Trillion<sup>1</sup>*



**Financial Assets**  
~\$47 Trillion



**Real Assets**  
~\$2.5 Trillion



**Debt**  
~\$2 Trillion

**Fiat Currencies<sup>2</sup>** ~\$40 Trillion

**Private Capital** ~\$5 Trillion

**Natively Digital<sup>3</sup>** ~\$2 Trillion

**Commodities<sup>4</sup>** ~\$2.3 Trillion

**Exclusive Goods** ~\$150 Billion

**Securitized Assets<sup>5</sup>** ~\$2 Trillion

*Note: Unless indicated otherwise, figures above are in USD, global market sizes, and for FY16*

*1) Sources include: Gold.org, BP World Energy Review, Knight Frank Luxury Index, 2016 US SIFT report, McKinsey & Co. Global Private Markets Review, Coin Market Cap Index, The Money Project*

*2) Defined as the total value of the world's easily accessible money supply (including coins, banknotes and checking deposits), as defined by The Money Project*

*3) September 2017 cryptocurrency trade volume annualized*

*4) Each commodity's USD figure above represents the total globally aggregated physical above ground supply generated during FY16*

*5) US (domestic) market size figure - does not incorporate international markets into sizing*

# Blockchain is the Enabler of Wealth Creation



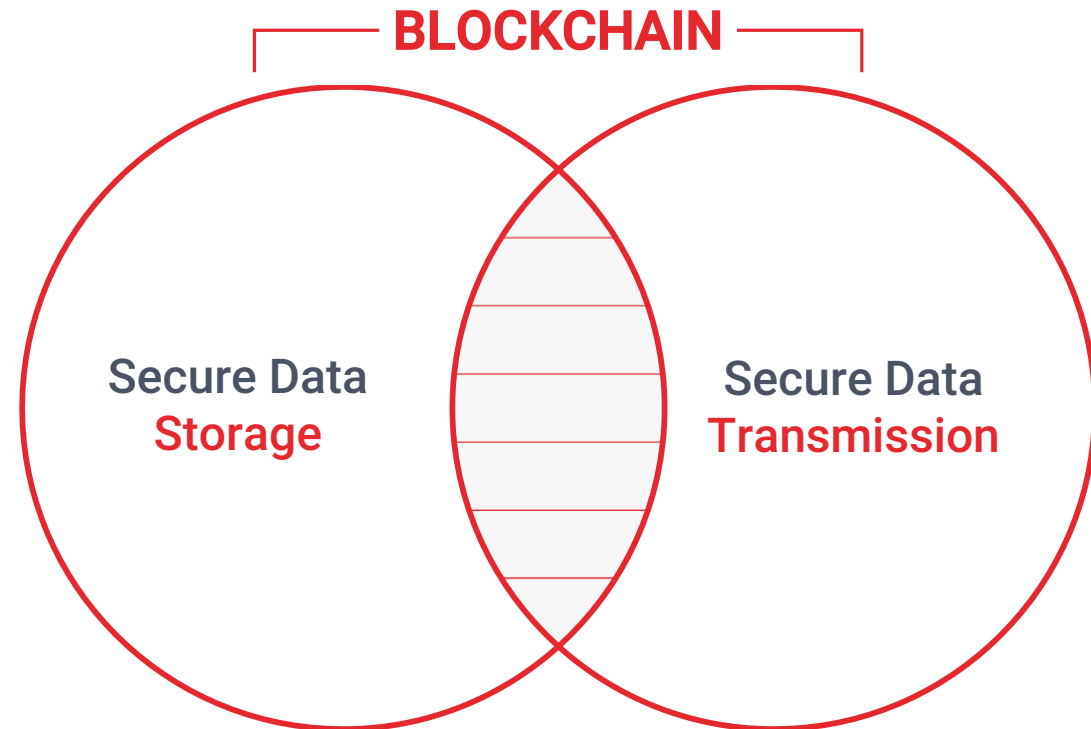
Financial  
Assets



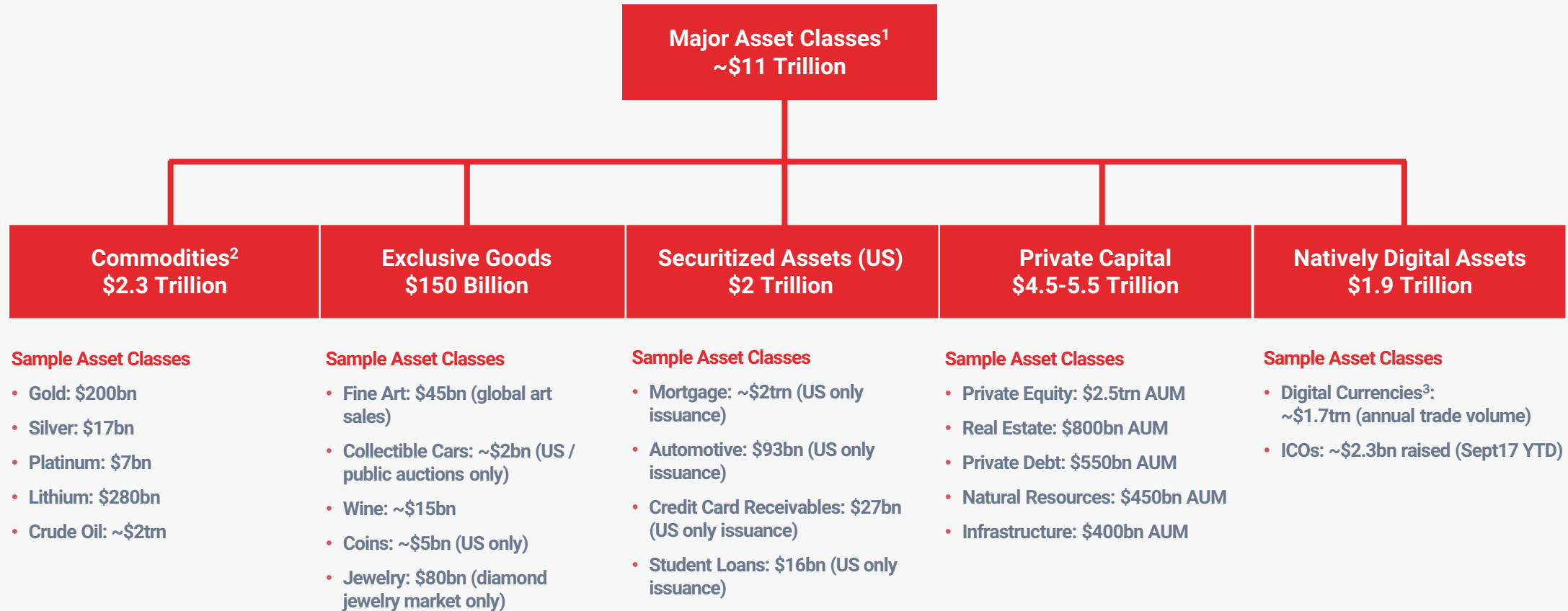
Real  
Assets



Debt



# Assets in Circulation



*AlphaPoint plays in large markets*

Note: Unless indicated otherwise, figures above are in USD, global market sizes, and for FY16

1) Sources include: Gold.org, BP World Energy Review, Knight Frank Luxury Index, 2016 US SIFT report, McKinsey & Co. Global Private Markets Review, Coin Market Cap Index for all other sources, see Appendix

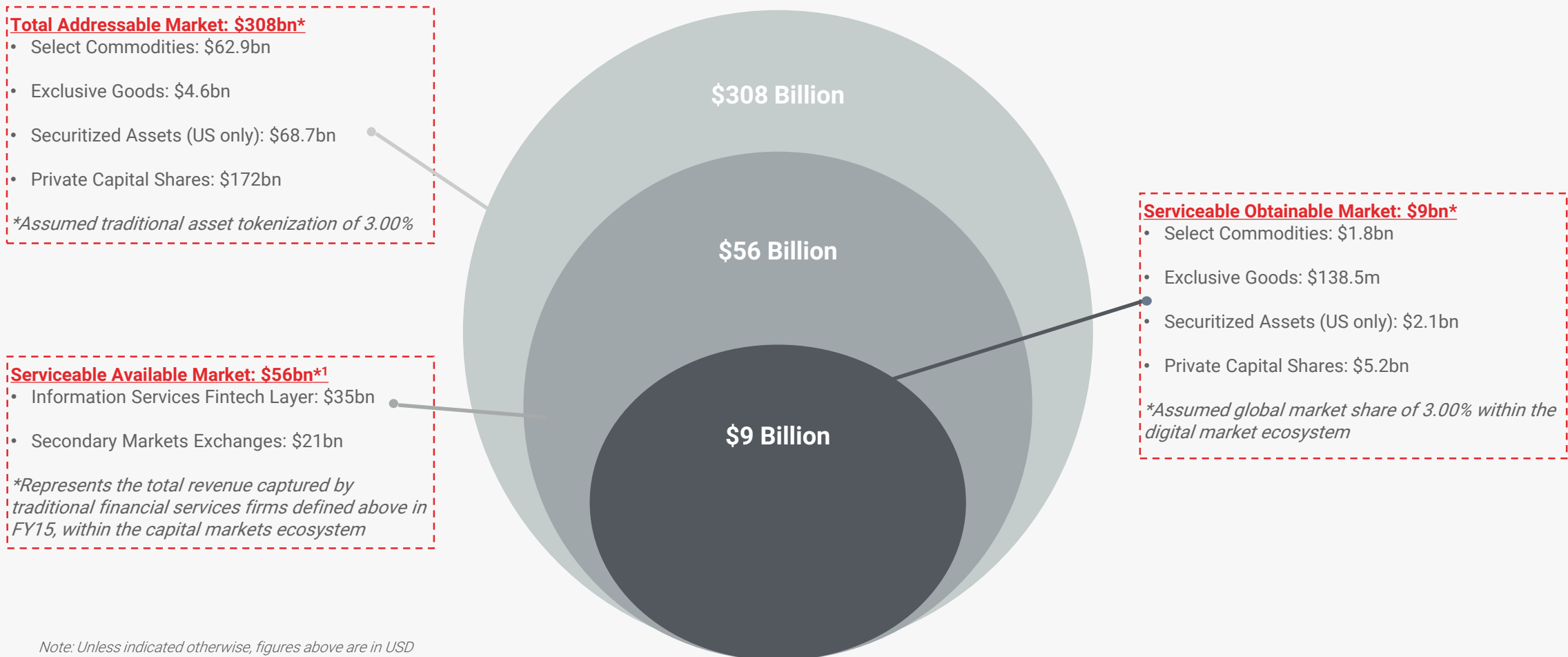
2) Each commodity's USD figure above represents the total globally aggregated physical above ground supply generated during FY16

3) September 2017 trade volume annualized



# Asset Digitization Market Opportunity – 2019

*AlphaPoint is strongly positioned to facilitate the tokenization of traditional assets*

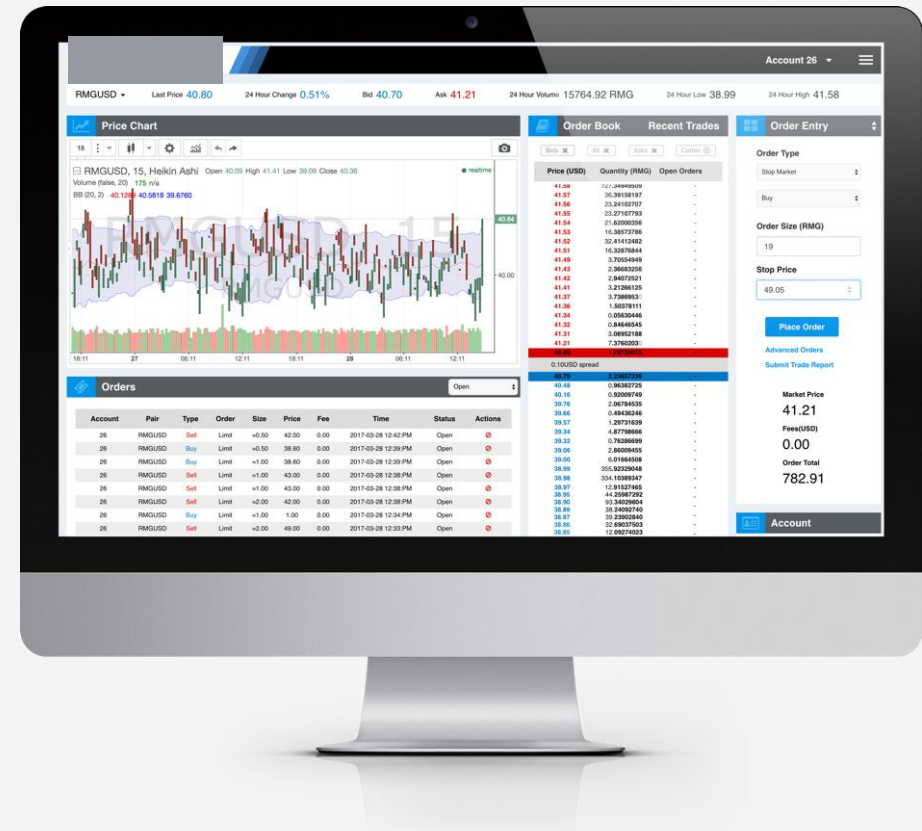


*Note: Unless indicated otherwise, figures above are in USD*

*(1) Source: Boston Consulting Group's 2016 report on the "Value of Migration", see Appendix for more source detail*

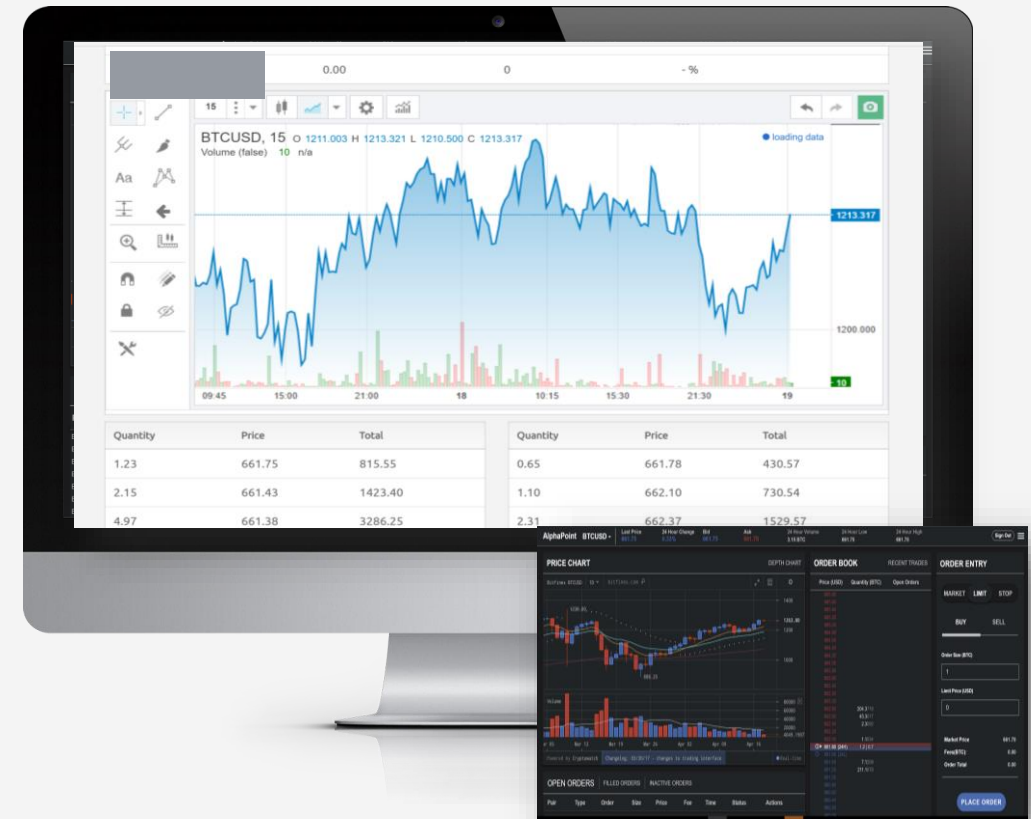
# Use Case: Commodities

- Gold, for example, is an illiquid asset (\$200bn+ market opportunity)
- Current financial instruments are mostly cash settled
- Creation of a token backed by physical gold (real world asset)
- Price discovery & liquidity for market participants
- Trading & Exchange Venue for Spot Gold
- Cryptographically – secured using AlphaPoint distributed ledger & exchange platform



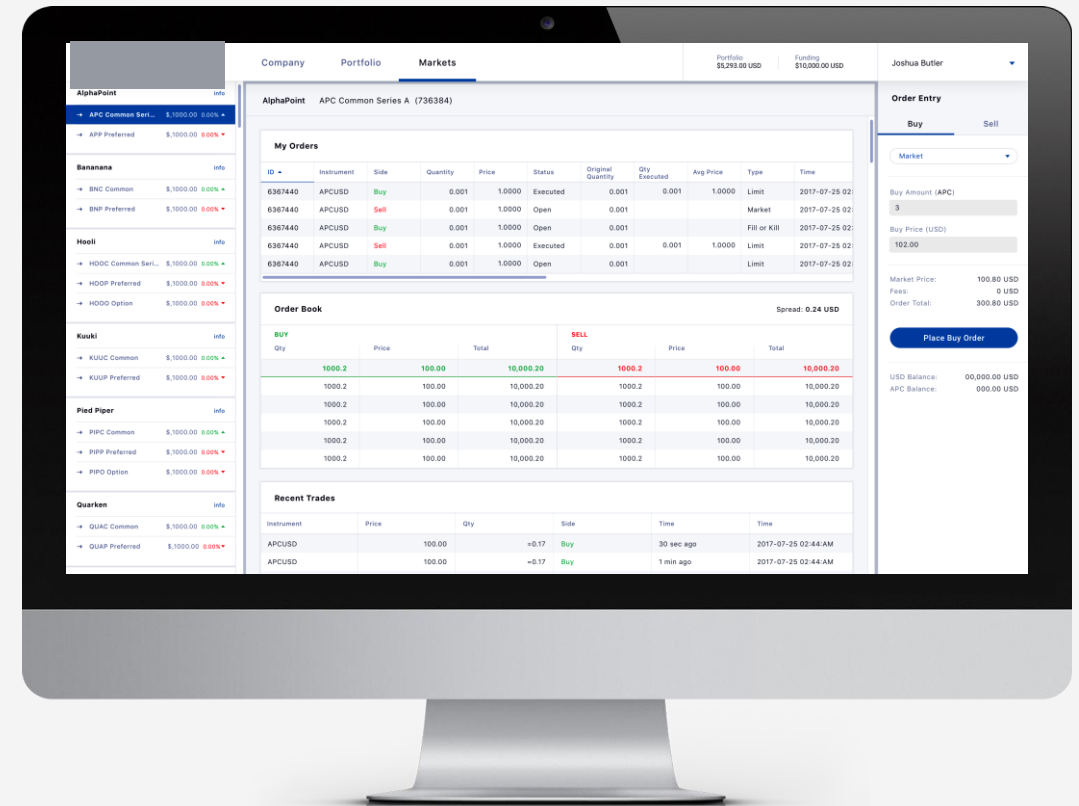
# Use Case: Currencies

- National currencies (\$40+ trillion market opportunity) digitized on a blockchain network allow for near-instant peer-to-peer transactions
- Transfer payment across currencies, almost instantaneously for a fraction of today's costs
- Rapid Payment Processing and Settlement
- Greatly reduced FX processing times, processing fees, and reliance on intermediaries
- Automated market liquidity through AlphaPoint's Remarketer product
- All crypto, fiat currencies, and advanced trade types supported



# Use Case: Private Shares

- Digitize Private Company Shares (\$2.5 trillion market opportunity) – each share is representative of a token
- No readily available secondary market (increased flexibility and capital opportunities for shareholders)
- Real-time transparency into ownership structure – certainty for investors, insight for private companies
- Streamlined costs, removing need for pen-and-paper or spreadsheet-based recordkeeping
- Accredited investors
- Sanctum or “loud” on the exchange



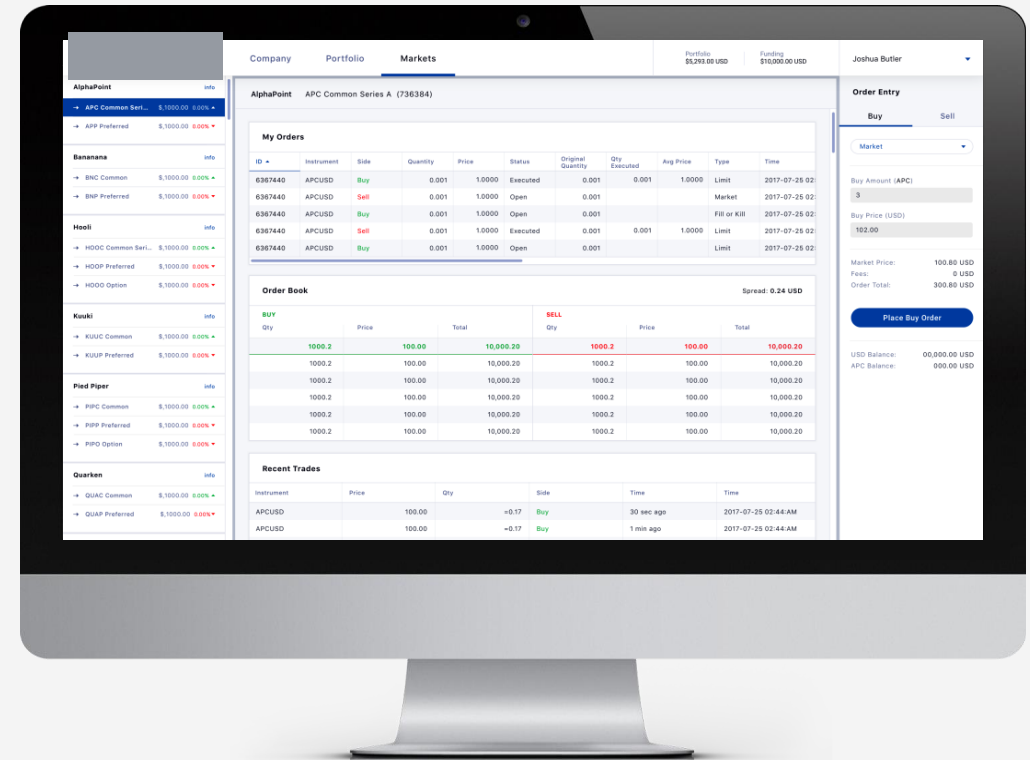
## Use Case: Private Real Estate

- Private Real Estate Investment Market is an \$800bn opportunity
- Muirfield Investment Partners is a private equity real estate investment firm leading the effort to leverage blockchain technology to reinvent private equity investing
- \$200m US focused RE investment fund where ownership interests (US accredited, globally open) will be represented by the MIF token (\$1/MIF token)
- Allows unparalleled access to institutionally managed, mid-market real estate while enabling fractional ownership and enhanced liquidity



# Use Case: Bonds, Loan Portfolios, ABS

- ~\$2T in securitized assets alone
- Bilateral trade
- Highly opaque as to loan or bond composition
- Each loan or a pool or a security could be a token
- No readily available secondary market
- Real-time transparency into pool and collateral





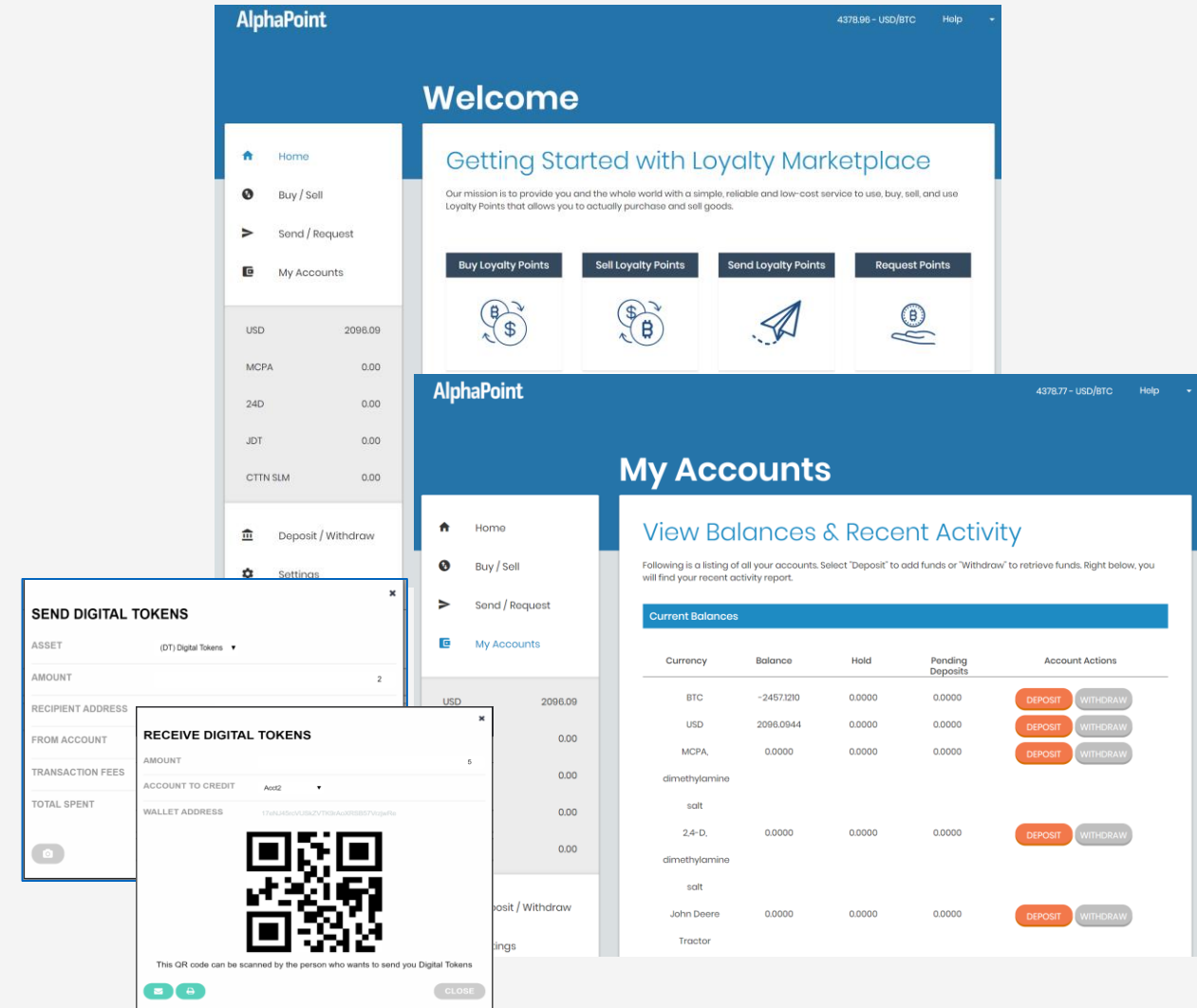
## Use Case: Fine Art

- Fine art collections (~\$50bn market opportunity) are highly illiquid as an asset class
- Sale of an art asset in current market is typically an “all or nothing” sale (i.e. not sold incrementally)
- Tokenizing art creates liquidity for collectors without necessitating the sale of the entire work
- The piece could be held in custody by a museum while the ownership rights would be traded via a smart contract
- Blockchain facilitates price discovery & liquidity for market participants



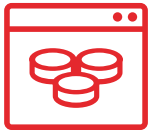
# Use Case: AlphaPoint Exchange (“APEX”)

- Leverage AlphaPoint Exchange Technology Platform to securely trade natively digital and tokenized assets
- Battle tested, SaaS exchange solution for the enterprise
- Instant liquidity via global network of 100+ partnership exchanges
- Speed to Market: launch in 60 days
- Consumer and professional user interfaces for buying, selling, transferring, and otherwise trading digital assets

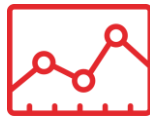


# Problem Solved: *Making Illiquid Assets Liquid*

## PROBLEM



Costly to Digitize Assets

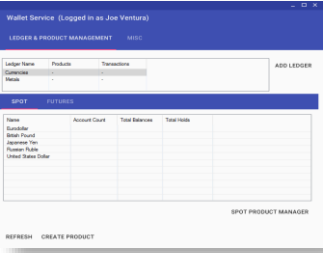


Costly to Launch Markets

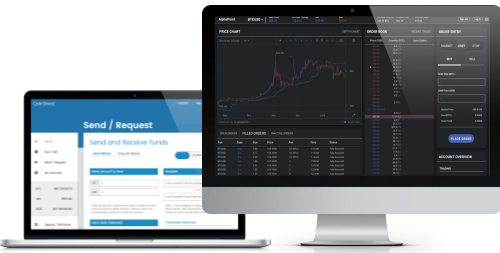


Costly to Establish Trust

## SOLUTION



Asset Digitization & Custody



Asset Exchange & Settlement

# About AlphaPoint



Founded June 2013



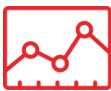
Extensive Capital Markets Fintech Experience



High-Growth Stage



65+ Global Customers



Over \$2B in Transaction Volume

 **CME Group**

 **Scotiabank**

 **GUARDIAN®**

 **RBC  
Royal Bank**

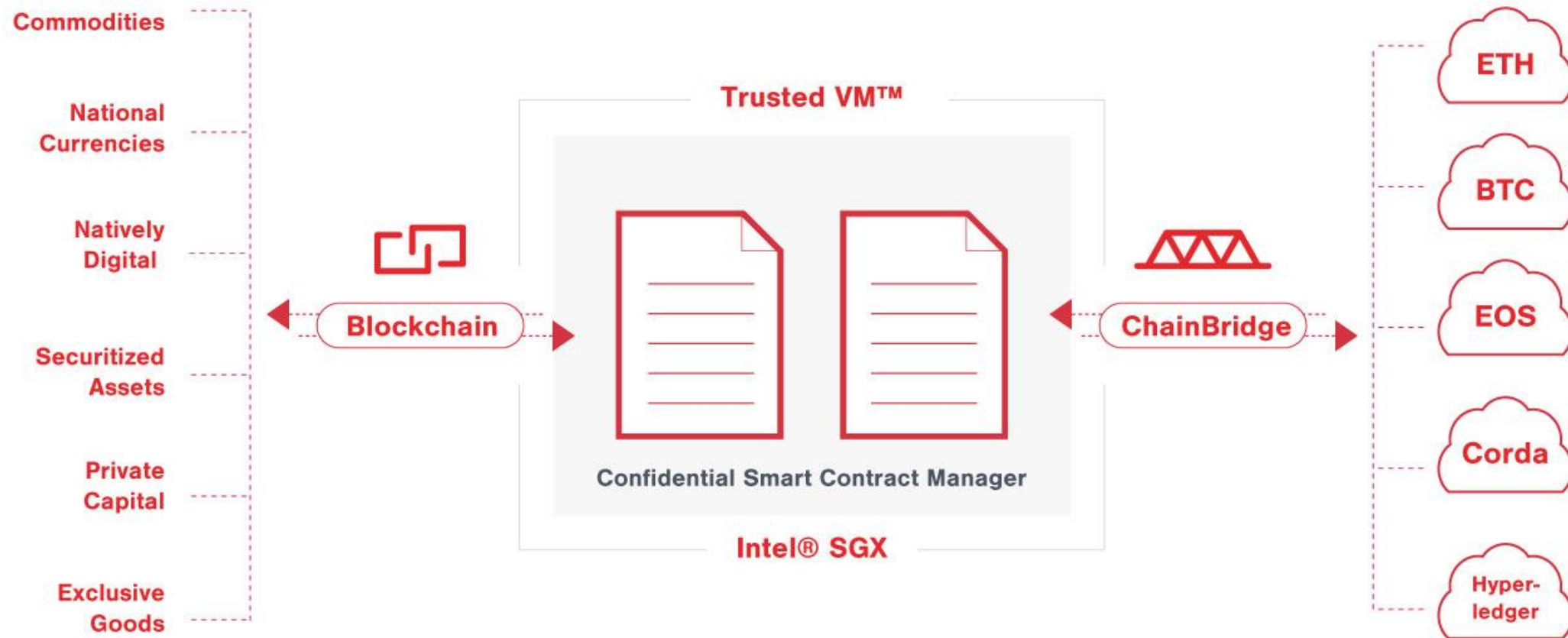
 **L B X**

**bitt**

AlphaPoint Network: *Global Client Base, 100+ Global Customers*



# Democratizing Asset Digitization and Value Creation





# AlphaPoint

## Thank You!

---

Ned Myers • Chief Marketing Officer

[www.alphapoint.com](http://www.alphapoint.com) • [ned@alphapoint.com](mailto:ned@alphapoint.com)

---



@alphapointlive

# Electronic Trading And Custody Using Blockchain Technology



Peter Waltz  
Polsinelli



Tom Jessop  
Fidelity



Colleen Sullivan  
CMT Digital



Andrew Koslow  
FolioFN



Eric Richmond  
CoinSquare

# What The Future Holds For Blockchain



Frank Makrides -- Tunnel



**FT FINTANK**  
FRANK MAKRIDES, CEO  
FRANK@TUNNEL.MONEY

WWW.TUNNEL.MONEY  
INFO@TUNNEL.MONEY  
@TUNNELMONEY



**WHAT THE FUTURE HOLDS FOR BLOCKCHAINS**





# WHY CAN'T YOU SPEND CRYPTOCURRENCY?



# WHAT IS PREVENTING MASS ADOPTION?



**TOO DIFFICULT TO USE**



**SCALABILITY IS THE BIGGEST HURDLE AHEAD  
OF CRYPTOCURRENCY MASS ADOPTION**

**BUSINESS  
INSIDER**

**PRICE VOLATILITY, SLOW TRANSACTION TIMES,  
HIGH TRANSACTION FEES**



# CUSTOMER EXPERIENCE

## OTHERS

## TUNNEL

- FOR SECURE TRANSACTIONS YOU CURRENTLY NEED TO DOWNLOAD GIGABYTES OR MORE OF DATA
- CRAZY LONG PUBLIC & PRIVATE KEYS
- IF YOU SEND MONEY TO THE WRONG ADDRESS YOU LOSE YOUR MONEY
- YOU CAN'T CALL  
**1-800-SATOSHI** FOR HELP

- **RUN A LIGHT NODE ON YOUR MOBILE PHONE**
- **MAP KEYS TO KEYWORDS**
- **IF YOU SEND MONEY TO THE WRONG ADDRESS IT COULD TIME OUT AND YOU GET IT BACK**
- **TUNNEL WILL PROVIDE PAID SUPPORT SERVICES**

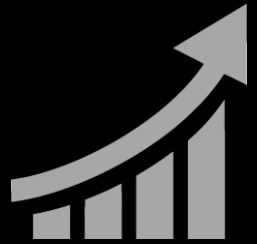
# FEATURES NEEDED



**GLOBAL &  
FREE**



**CONFIDENTIAL  
TRANSACTIONS**



**INSTANT &  
SCALABLE**



**DECENTRALIZED & ON  
CHAIN GOVERNANCE**

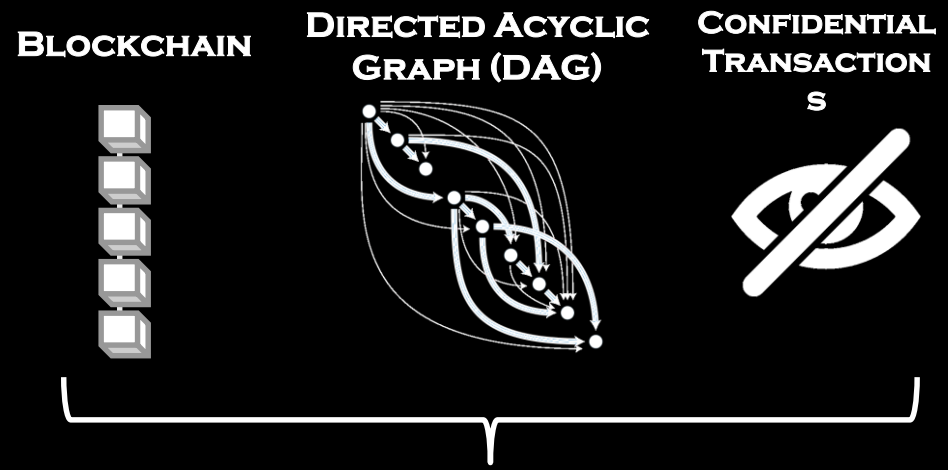


**PROOF-OF-  
STAKE  
CONSENSUS,  
ECO-FRIENDLY —  
NO MINING!**

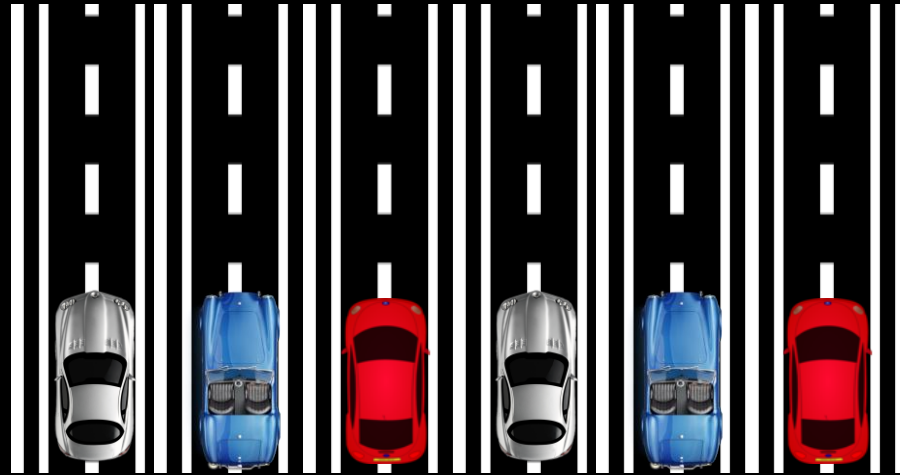


**SIMPLE, SECURE  
W/NON-VOLATILITY\***

\*NON-VOLATILITY FEATURE WILL BE TESTED OVER THE COMING MONTHS. BASED ON THE RESULTS, WE WILL DETERMINE IF WE CAN RELEASE THIS FEATURE.



**BLOCKCHAIN**



**TUNNEL**

- **REGULATION NEEDS TO BE CLEAR**
- **ADOPTION IS KEY**
- **TECHNOLOGY UPGRADE IS NEEDED**
- **THE TRANSITION FROM  
CENTRALIZED  
TO DECENTRALIZED IS COMING!**



# INDUSTRIES THAT WILL BE DISRUPTED

- **FINTECH**



- **REAL ESTATE**



- **FUND RAISING**



- **SOCIAL MEDIA**



# TECHNOLOGY CONVERGENCE



- **BIOENGINEERING**
- **ROBOTICS**
- **DEEP LEARNING**



# THANK YOU!



# Bringing It Home

- Thank You To Everyone Who Made This Event Possible
- Thank You To All Who Participated
- My Hope:
  - You've Learned Something.
  - You've Made Some New Contacts
  - You'll Take What You've Learned And Put It To Use.



George Vukotich, Ph.D  
FinTank

**It's Not Over – It's Time To Network**

**Talk About What You Heard**

**&**

**What You're Going To Do Going Forward**

**If You're Leaving – Safe Travels**

**Live-Stream Viewers – Thank You**



FinTank

[www.fintank.org](http://www.fintank.org)

## Chicago's Global FinTech Hub

