



Beyond the Future of Financial Services
Presentation to the Congreso de Acceso a Servicios
Financieros y Medios de Pago
Christine Robson, Deloitte | April 20th, 2017

Deloitte & the World Economic Forum: Disruptive Innovation in Financial Services



The Future of Financial Services

TECH UPENDED BANKS AND STOCK TRADING. INSURANCE IS NEXT

The London Fintech Boom — TransferWise And Others Hit Record Numbers

The fintech revolution

UBS CIO: Blockchain Technology Can Massively Simplify Banking

Digital lenders have a \$1 trillion opportunity

Disruption on Deck for Retail Financial Services

Lending Club rapid expansion plans undimmed

Industry Convergence In Financial Services Is Accelerating

Human wealth advisers are going out of fashion

Beyond Bitcoin: How The Blockchain Could Disrupt Our Financial System

Equity crowdfunding thrives despite high risks

Peer-to-Peer Lending Takes Off in China

Goldman joins online lenders' club

As More Pay by Smartphone, Banks Scramble to Keep Up

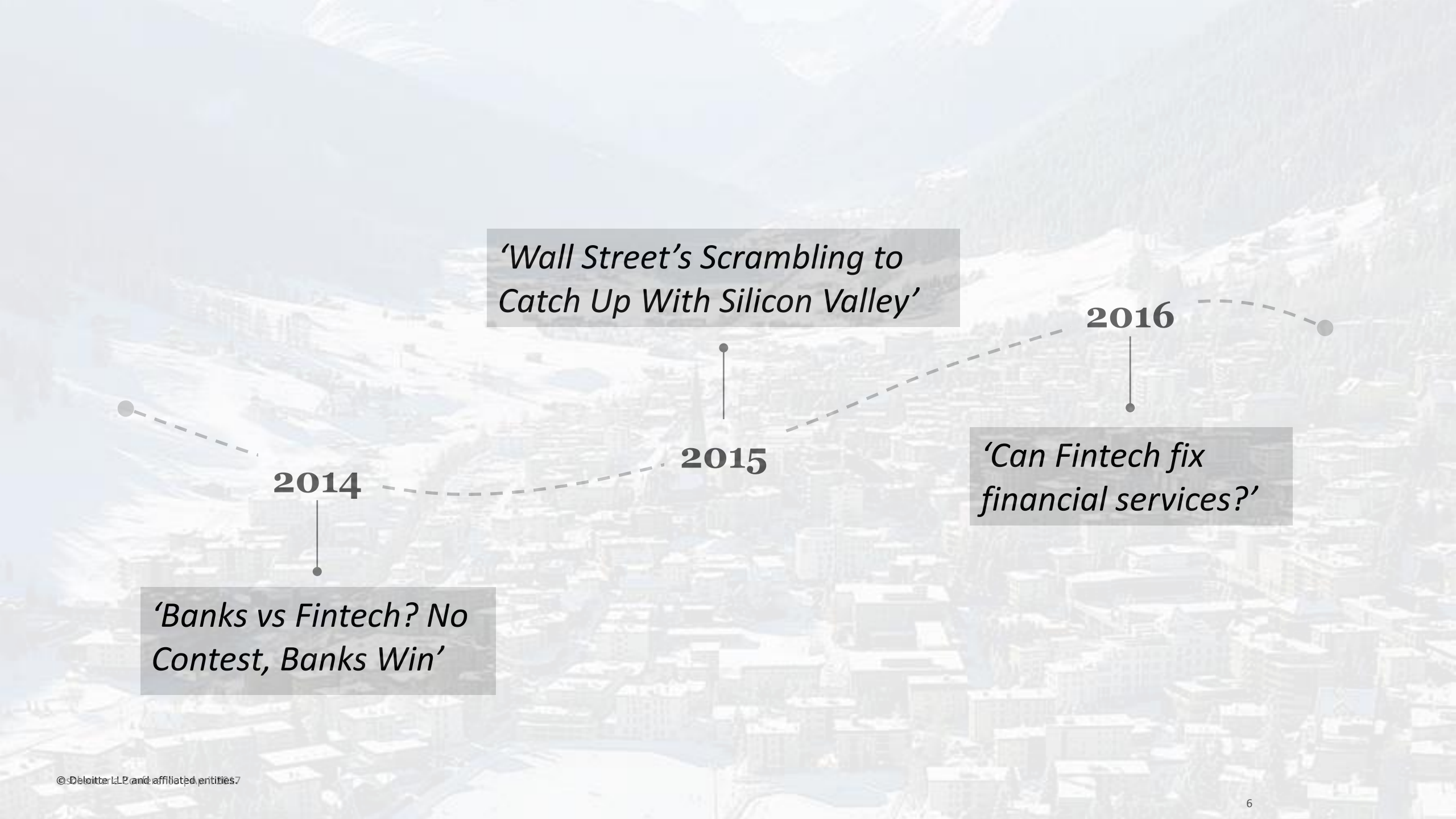
APPLE PAY RECRUITS DOZENS OF NEW BANKS AND STORES

'Robo' Advice Strikes a Chord With Consumers: Study

Crowdfunders seek revisions to FCA rules

Innovation is emerging rapidly, and it can feel like a chaotic process



An aerial photograph of a city, likely San Francisco, serves as the background. A dashed line with circular markers at each year (2014, 2015, 2016) and an additional point before 2014 and after 2016, winds across the image. Callout boxes with text are connected to the markers for 2014, 2015, and 2016.

'Wall Street's Scrambling to Catch Up With Silicon Valley'

2016

'Can Fintech fix financial services?'

2015

2014

'Banks vs Fintech? No Contest, Banks Win'

What makes this wave of disruption different?

1. Customer preferences
2. Regulatory acceptance
3. New 'additive' business models



Innovation

Five Observations on the Future of Finance

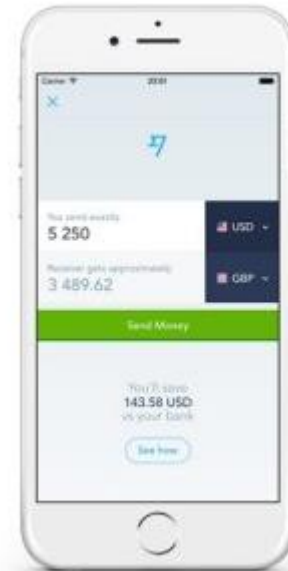
Innovation in financial services is deliberate and predictable

Incumbent players are most likely to be attacked where the greatest sources of customer friction meet the largest profit pools

TransferWise combines a network of accounts and a user-friendly interface to make international transfers faster, easier, and cheaper for consumers.

The company currently oversees over **£500 million in transfers per month** and has recently expended into North America

 **TransferWise**



Innovations are having the greatest impact where they....

Employ business models that are platform based, data intensive and capital light

Companies like Uber and Airbnb have shown that marketplace companies can scale rapidly with limited capital.

A similar model is allowing platform based marketplace lenders, crowd-funders and “robo-advisors” to rapidly expand their reach.

OnDeck

wealthfront

SEEDRS

Funding Circle

FutureAdvisor

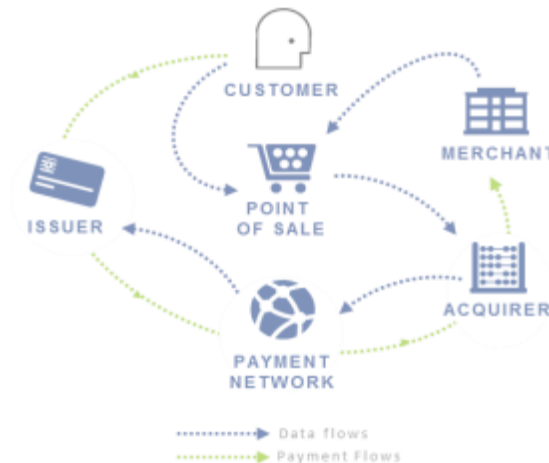
crowdcube



New entrants are employing parallel strategies....

Aggressively competing with incumbents in some areas while also leveraging their legacy assets to access key infrastructure and services

ApplePay, perhaps the most lauded recently launched financial innovation, doesn't attempt to disrupt payment networks like Visa and MasterCard, but instead leverages their networks.



Apple Pay



Collaboration between regulators, incumbents and new entrants...

Is needed to understand how new innovations alter the risk profile of the industry – positively and negatively

In 2013, the **Associated Press Twitter account** was hacked with a fake tweet about a bombing in the White House. Less than 2 minutes later, **\$136 billion** in value was wiped from the S&P 500.

Accelerating innovation and technological change creates **new challenges** for the regulation of the financial services industry **ranging from suitability to systemic stability**.



Not all innovations are customer facing...

A quiet band of innovators are modernizing incumbents' operational practices – delivering new capabilities and unexpected efficiencies

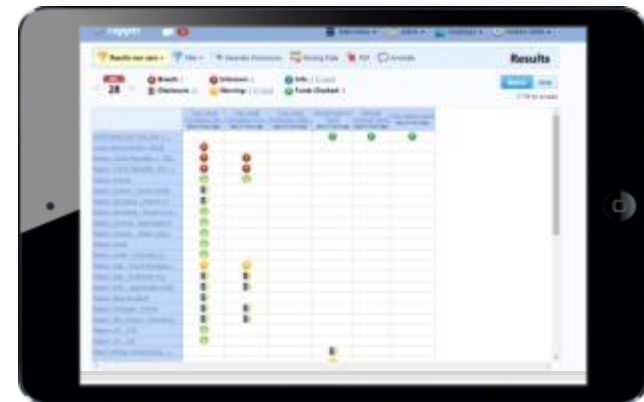
Kensho is an advanced analytics platform that gives large financial institutions instant answers to questions that would have previously required several hours of work from an analyst.

FundApps monitors and organizes regulatory data from 100+ regulatory regimes. Their cloud-based service automatically keeps track of investment restrictions and automates the creation of holdings disclosures as needed.

KENSHO



FUNDAPPS



We developed a consolidated framework for disruptive innovation in financial services



We found there were two foundational topics that required further exploration



Digital Identity

How can technology deliver on the promise of a more convenient and secure system for proving and protecting identity?

Distributed Ledger Technology

How can technology reinvent the infrastructure of financial services to provide faster, seamless, and more trusted interactions?

A Blueprint for Digital Identity

What is identity?

1. A collection of attributes
2. The ability to transact
3. Attested to by 3rd parties in an identity system



The current state of identity creates inefficiency and risk for individuals, institutions, and society broadly

Cybersecurity top on government agenda
-Times of India, February 2016

9-Figure Deals Lift Cybersecurity Investment To An All-Time High
-Forbes, February 2016

In Today's Era of Data Breaches, Are You Sure Your Data Is Protected?
-Security Intelligence, January 2016

1 in 3 Americans Victim of Healthcare Data Breach in 2015
-Information Management, February 2016

U.S. presses retail banks to help millions of 'unbanked' Americans
-Reuters, February 2016

Compliance department errors cost UBS \$1.7M in OFAC fines
-The FCPA Blog, August 2015

Raymond James to pay \$17M fine for Anti-Money Laundering Lapses
-The Wall Street Journal, May 2016

FCA fines Barclays £72 Million for poor handling of financial crime risks
-Automated Trader, November 2015

How to Fight Tax Identity Theft
-Huffington Post, February 2016

Digital Identity has potential to fix these problems and provide broad benefit

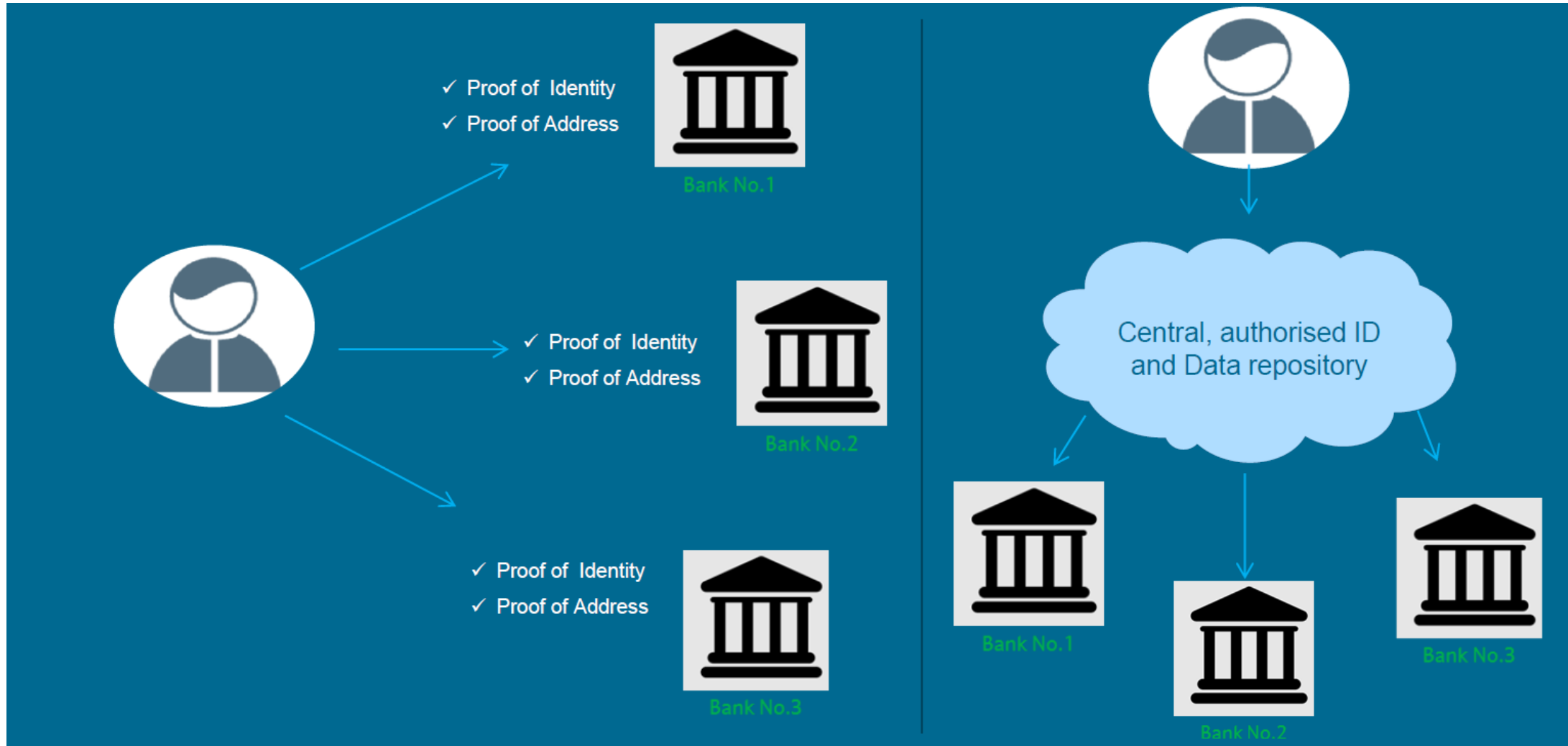


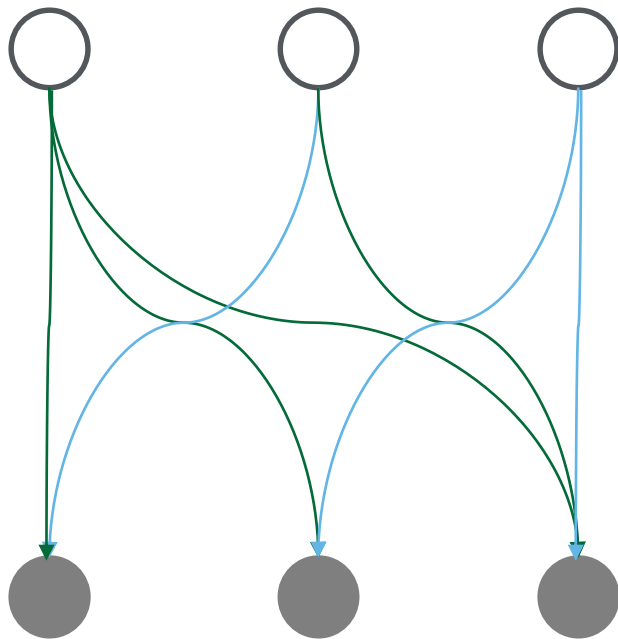
Image courtesy Barclays

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Many models of digital identity exist in the world today



An ideal system will connect multiple identity providers and relying parties



GUIDING PRINCIPLES FOR DIGITAL IDENTITY

Social good

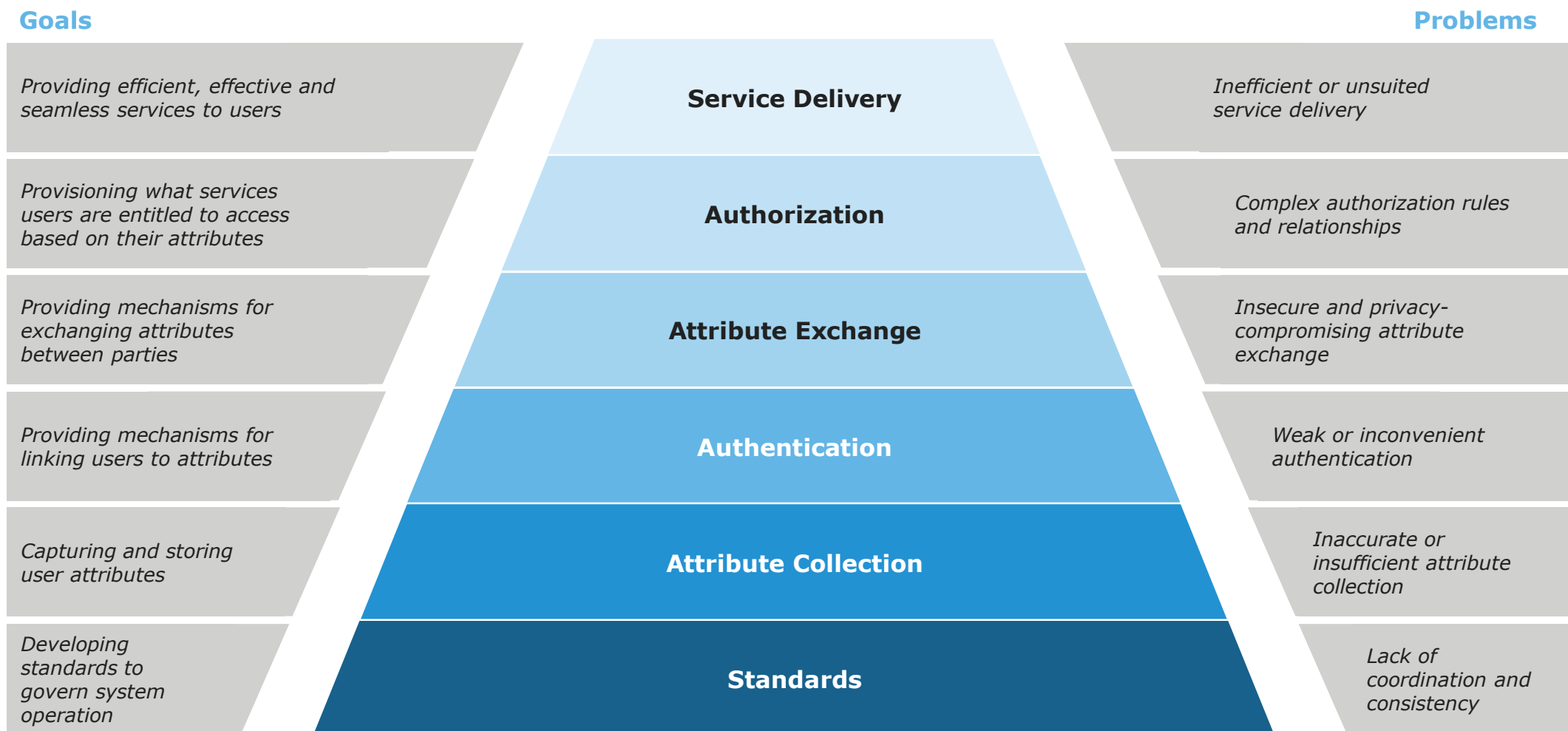
Privacy-enhancing

User-centric

Viable and sustainable

Open and flexible

Identity is a multi-layered problem, making the creation of digital identity systems complex



Financial Institutions are well positioned to act as the backbone of digital identity systems

Structural

- 1 **Stores of customer attributes**
- 2 **Verified user information**
- 3 **Discerning collectors of information**
- 4 **Proven executorial ability**
- 5 **User coverage**
- 6 **Multi-jurisdictional operations**

Positioning

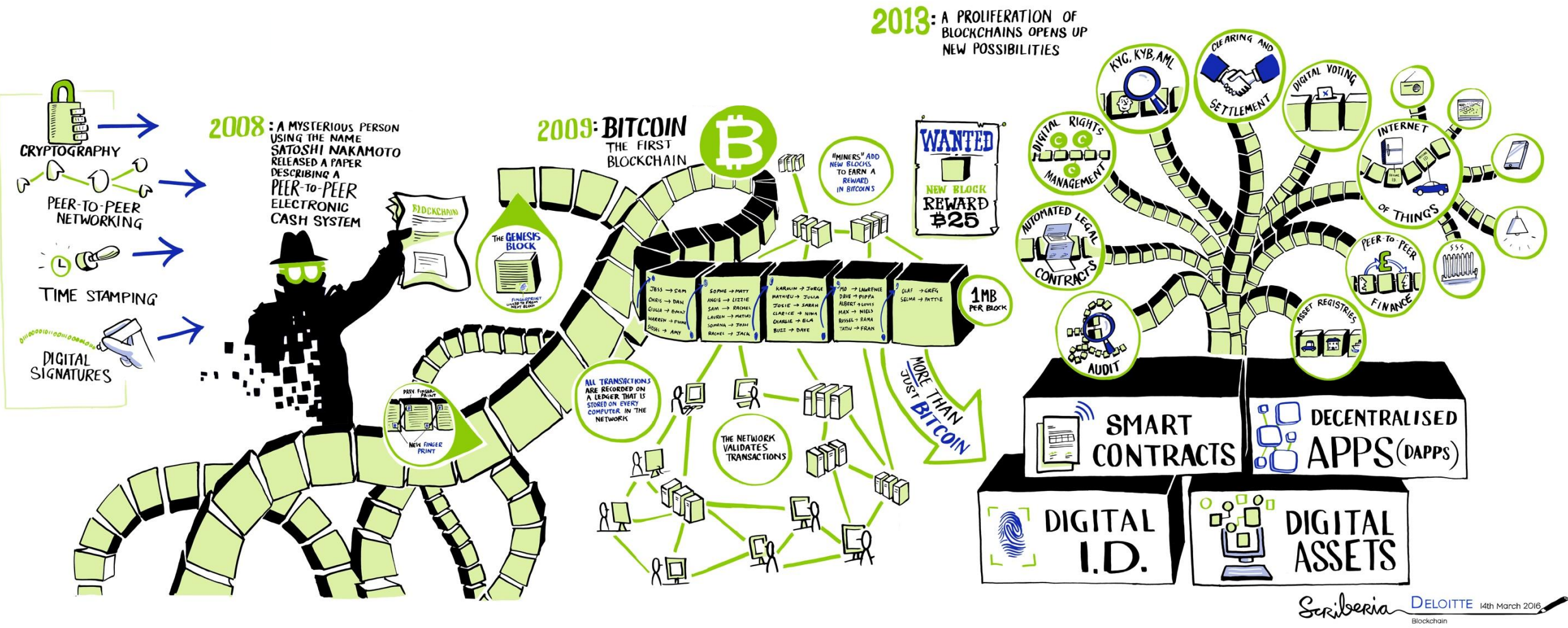
- 1 **Rigorously regulated**
- 2 **Established intermediaries**
- 3 **Safe repositories of information and assets**

Financial Institutions have a strong business case for being digital identity providers

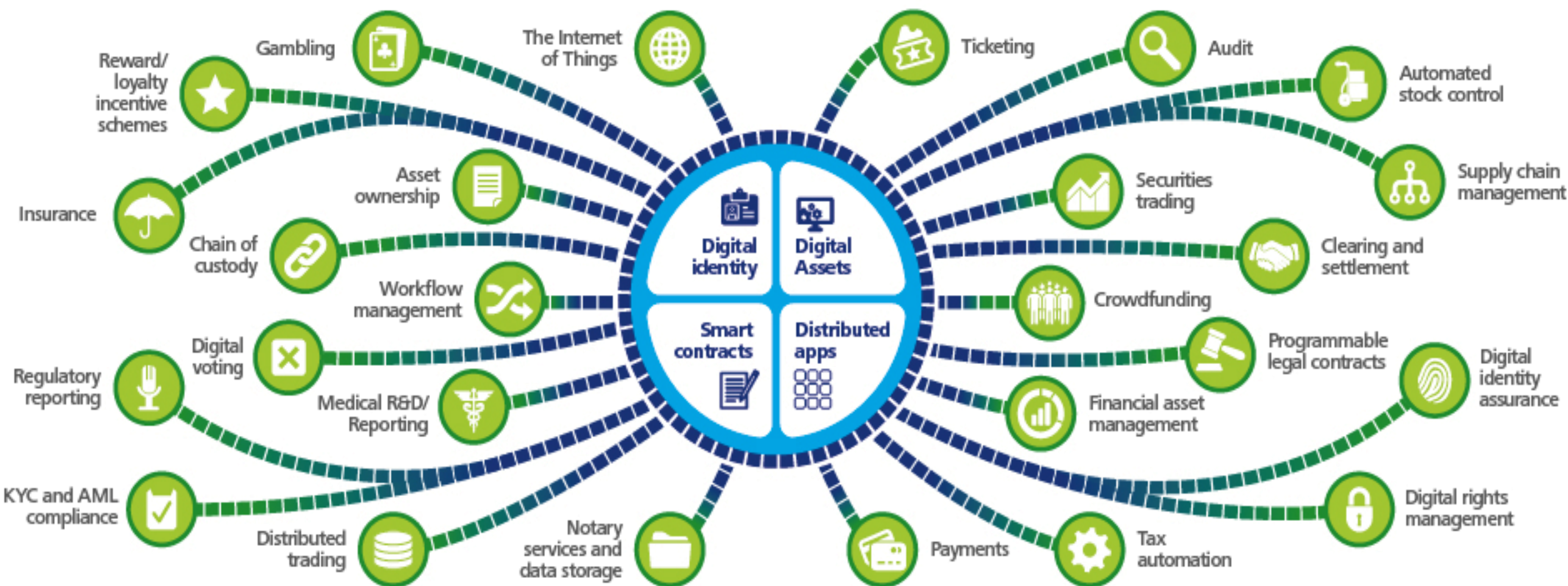
1. Maintaining a relationship with the customer in a disrupted market
2. New regulations and the push to 'platform' banking models
3. New business model based on existing capabilities

The Future of Financial Infrastructure

A brief history of blockchain...



Blockchain is exploding...



We view blockchain as having three core capabilities



**Record
Keeping**



**Transfer of
Value**



**Smart
Contracts**

Core capabilities of blockchain technology

While blockchain can be used in many ways, we believe high value applications have a few common characteristics



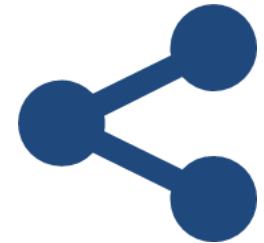
Shared
repository



Multiple
writers

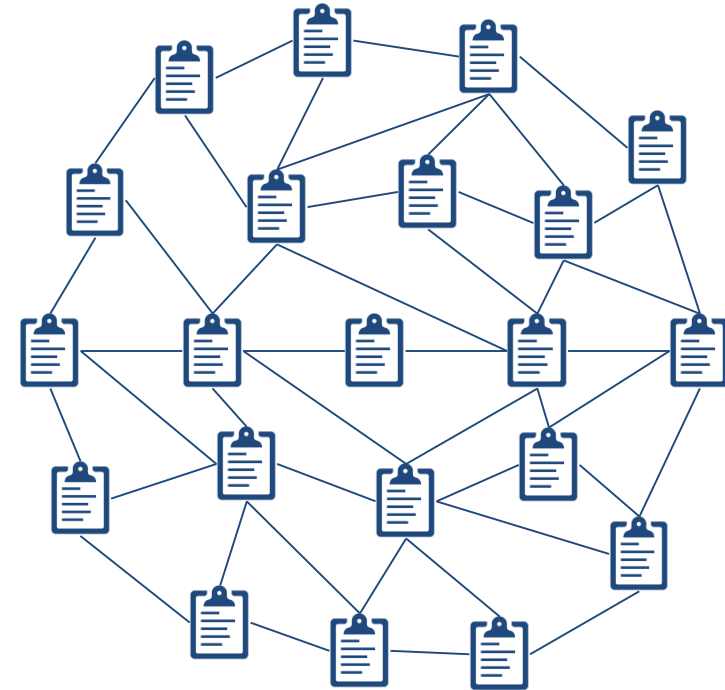
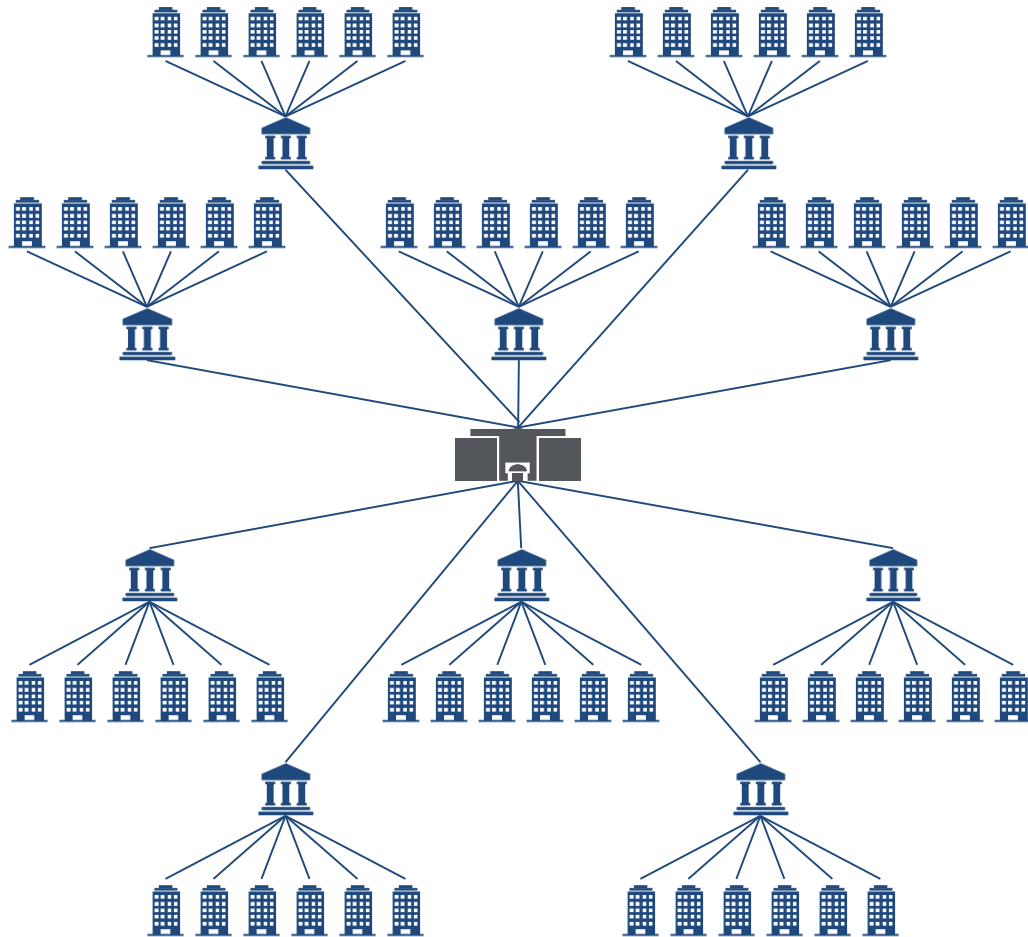


Limited
trust



Multiple
Intermediaries

The highly intermediated hub-and-spoke structure of many financial networks create opportunities for blockchain to improve efficiency



We identified six core ways in which blockchain technology could drive efficiency for financial institutions



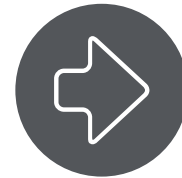
Operational simplification



Regulatory compliance improvement



Counterparty risk reduction



Clearing and settlement time reduction

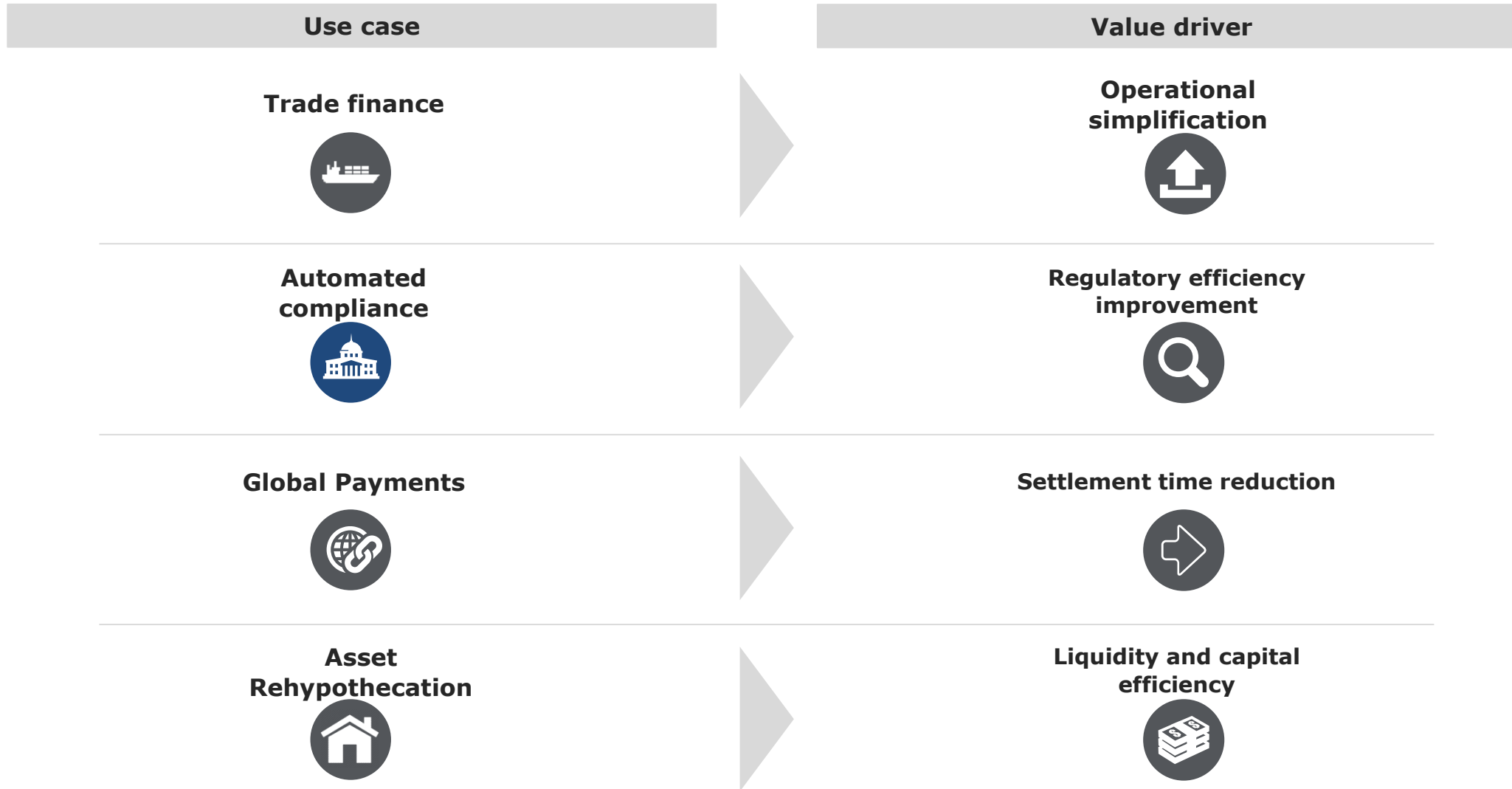


Liquidity and capital efficiency

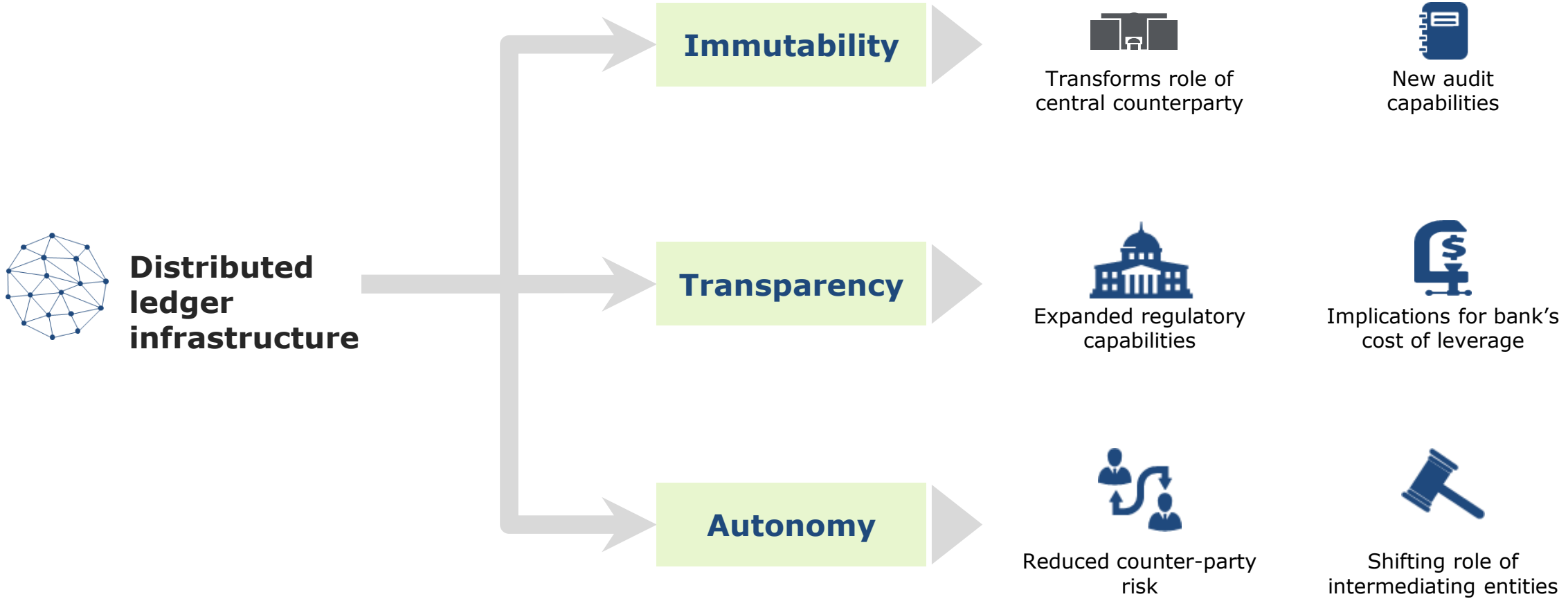


Fraud minimization

Different use cases will derive value from blockchain in different ways



New financial services infrastructure built on blockchain will call into question orthodoxies that are foundational to today's business models



Blockchain has engaged the imagination, and the wallets, of financial institutions...



...however, significant barriers remain to largescale blockchain implementation



**Uncertain and
unharmonized
regulatory
environment**

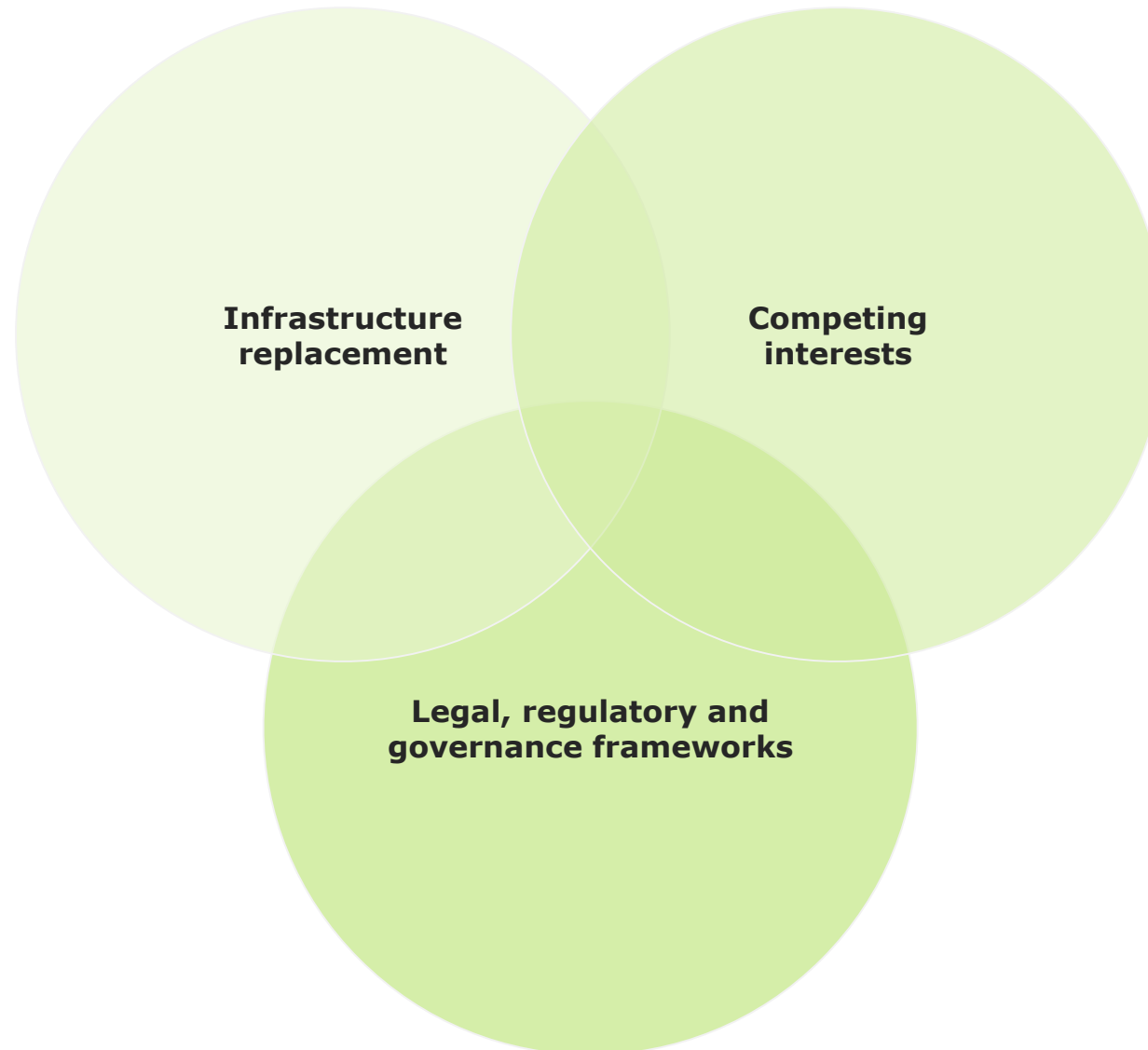


**Nascent collective
standardization
efforts**

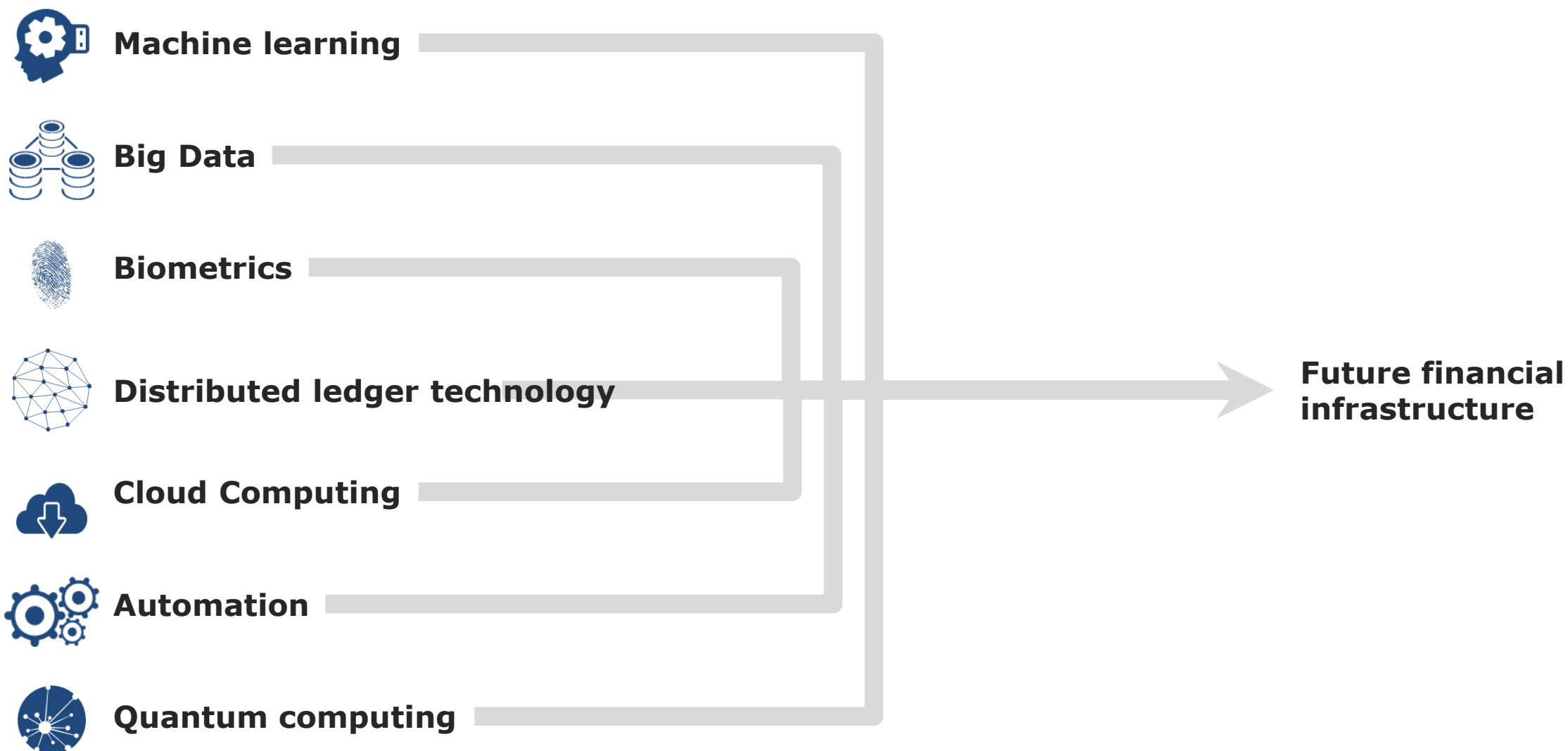


**An absence of
formal legal
frameworks**

High value applications of distributed ledger technology will require significant time, investment and collaborative effort



Blockchain is not a panacea; it is one of many technologies that will form the foundation of future financial infrastructure



So what's next for Financial Institutions?



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