

The background of the slide is a grayscale photograph of a diverse group of people, likely at a conference or event. They are looking in various directions, some towards the camera and others away. The image is semi-transparent, allowing the text to be overlaid clearly.

iSPI tech talks:
emerging technologies in
payments, transactions, and
modernized government

May 18, 2017

Memorial Center for Learning and Innovation

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A catalyst for creating a collaborative
space and community where
ideas **ignite**, businesses **incubate**, and
people **innovate**.

talk 1



Mike Redington

Director of Disney Financial Services, LLC
The Walt Disney Company



Jelly Beans

small 25¢

Medium 50¢

Large 75¢

Lemonade

50¢

The Buzz...



Alternative Payments – non credit card payments like: AliPay, BitCoin, PayPal, Sofort, etc.

Artificial Intelligence – make decisions faster than any human, detect new trends, reduce false positives

Blockchain – a distributed ledger system for transactions where records are stored as blocks and cannot be altered

Internet of Things (IoT) – basically embedded computer devices enabling the transmission of data also called smart or connected devices like: connected homes, buy buttons, dash buttons

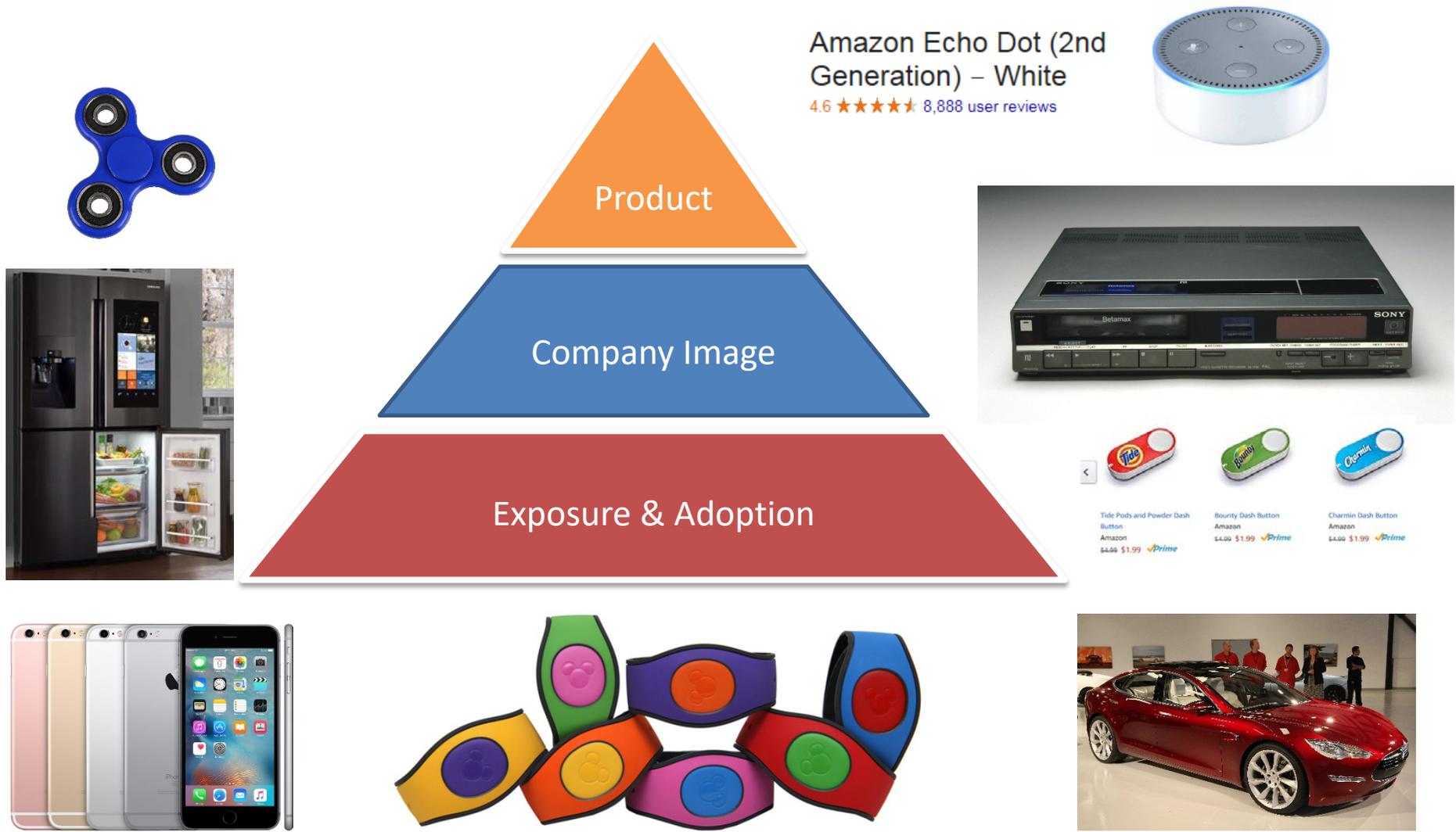
Mobile Wallet – a way to carry “card” information without the need for physical media

Peer to Peer (P2P):

- **BitCoin:** a digital cryptocurrency, open source peer-to-peer transaction without the need for an intermediary, released in 2009. 1 Bitcoin ~ \$1,735 leverages blockchain technology
- **venmo:** make and share payments, linked to a bank account or debit card, Founded in 2009
- **WeChat:** social media app by Tencent , 889M active users mostly in China, Founded in 2011, average user spends 66 minutes per day on App



“The best way to predict the future is to create it”
– Abraham Lincoln



“Tell me and I forget. Teach me and I remember.
Involve me and I learn” – Benjamin Franklin

Innovation and Cooperation



Payments Pie will continue expanding:

- Credit/Debit are growing in adoption and cash is shrinking
- Developing economies bring rapid growth
- Consumer base spending continues to grow

Elo Innovation:

- Founded in 2011
- 4 largest banks in Brazil,
- Create their own product to meet unique local needs
- Needed a network partner and chose Discover

PayPal:

- Credit Card Partnerships
- Braintree
- venmo

AMEX & Costco

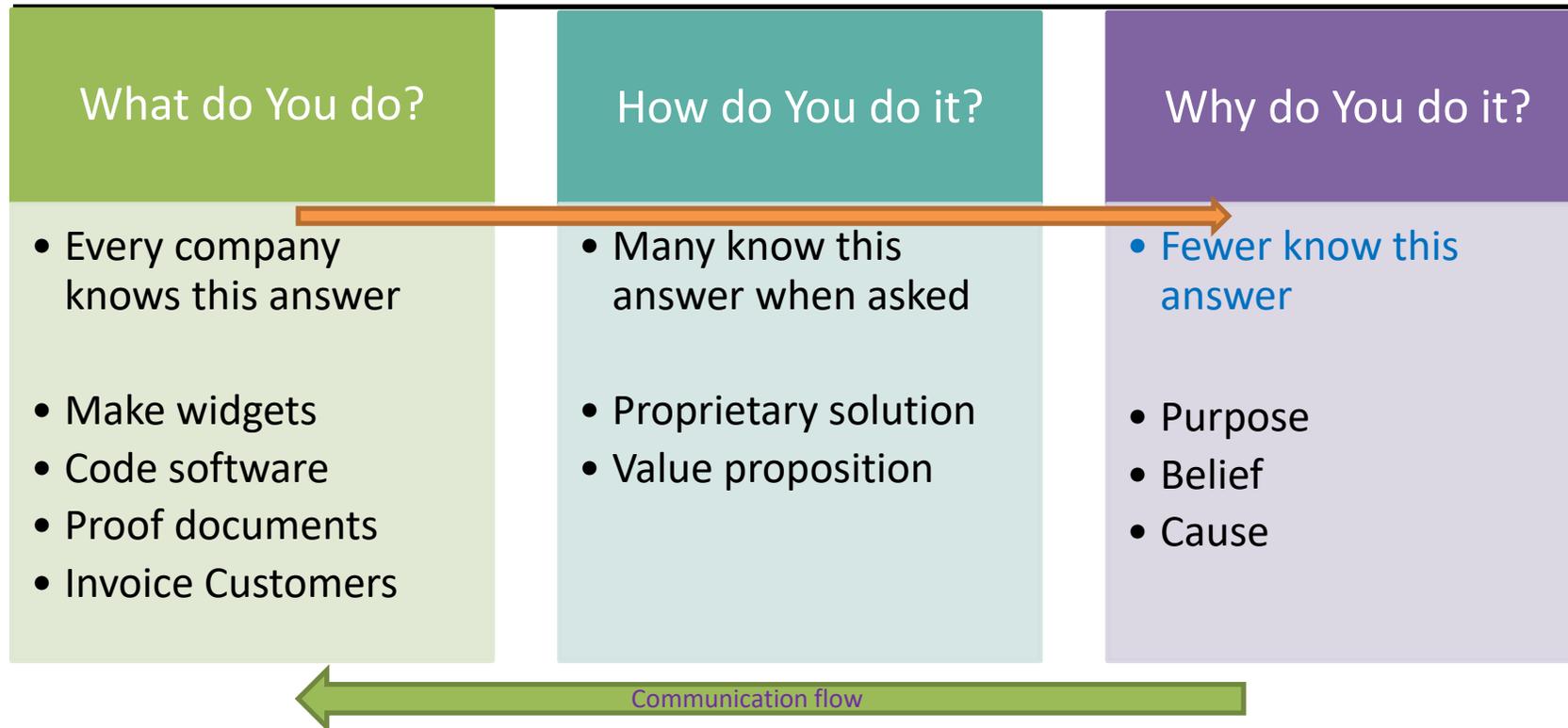


MOST WELL-FUNDED BLOCKCHAIN STARTUPS

Company	Total Disclosed Funding	Most Recent Funding	Country	Select Investors
CIRCLE	\$136M	Series D \$60M June 2016	USA	Accel Partners, Baidu, Goldman Sachs, General Catalyst, IDG Capital Partners, Pantera Capital
coinbase	\$117M	Series C - III \$10.5M July 2016	USA	Andreessen Horowitz, DFJ Growth Fund, Union Square Ventures, NYSE Euronext, Y Combinator
21 Inc	\$116M	Series C \$111M March 2015	USA	Cisco Investments, Khosla Ventures, Qualcomm Ventures, RRE Ventures, Andreessen Horowitz
ripple	\$94M	Series B \$55M September 2016	USA	Accenture, Google Ventures, Lightspeed Venture Partners, Santander InnoVentures, SBI Group
BitFury	\$90M	Series C \$30M January 2017	Netherlands	Binary Capital, QueensBridge Venture Partners, China Credit Limited Holdings, Blockchain Capital
Blockstream	\$76M	Series A \$55M February 2016	USA	AXA Strategic Ventures, Blockchain Capital, Digital Currency Group, Khosla Ventures
Digital Asset	\$67M	Series A - II \$7.1M June 2016	USA	BNP Paribas Private Equity, Citigroup, JP Morgan Chase, PNC Financial Services, DTCC
Chain	\$44M	Series B \$30M September 2016	USA	500 Startups, Capital One Growth Ventures, Citi Ventures, NASDAQ, RRE Ventures, Thrive Capital
xapo	\$40M	Series A - III \$250K July 2014	USA	Benchmark, Emergence Capital Partners, Greylock Partners, Index Ventures, Digital Currency Group
veem	\$37M	Series B \$24M March 2017	USA	Google Ventures, Kleiner Perkins Caufield & Byers, SVB Capital Partners, NAP Ventures

CBINSIGHTS

Innovation and Why?



Explaining The Why should be the easiest tool in your toolbox to help you excel in the space of payments and innovation.

“Start With Why” – Simon Sinek

[Video Clip on YouTube](#)



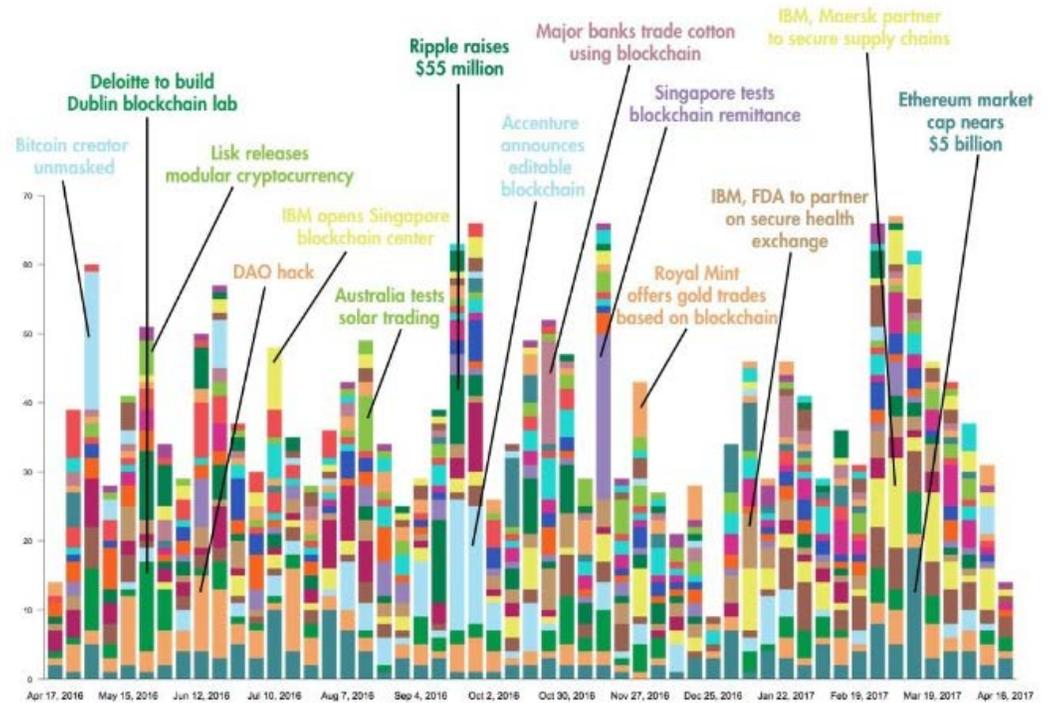
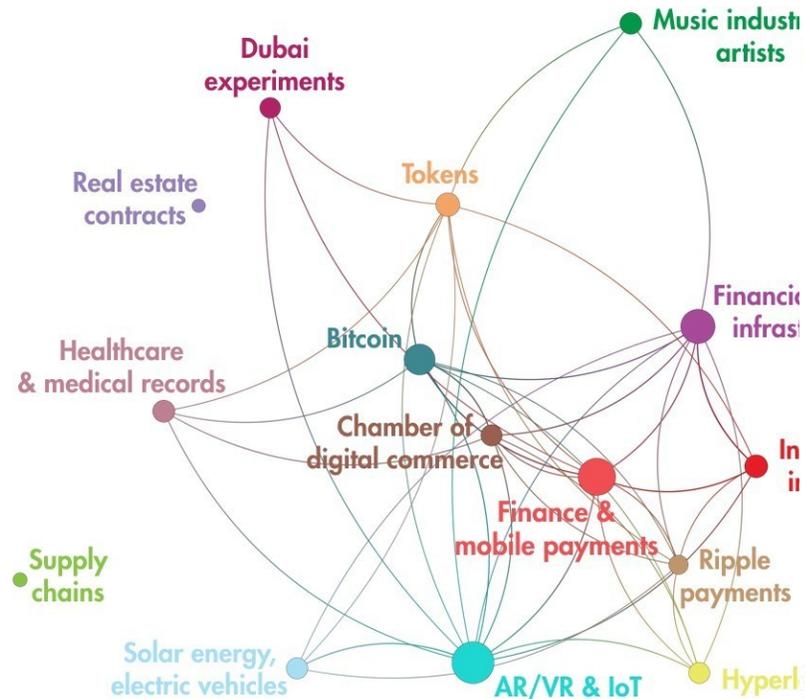
Seriously Invest in your Culture if you want to be on a successful trajectory

Innovation and Cooperation



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A Quid timeline maps 3,409 stories about blockchain, coloured by cluster, from global news sources between 20 April 2016-20 April 2017. In the graph above, Quid sampled the data to show which stories generated the most volume in relation to each other.



Innovation and Interaction



Know your Core Objective:

Excellent Customer Experience,
Safe Simple Secure transactions

Pre-Arrival Focus Areas:

Product quality,
Consumer options,
Pre-Engagement

Arrival / Engagement:

Minimal barriers,
safe, simple, pleasant)

Experience (Empower Cast to make it right, courteous,
conscientious, timely)

Know your Guests, anticipate their needs and have resources
available

Backstage processes to support your products and services

Surprise your Guest/Customer- a little Wow factor during their
experience



***"All our dreams can come true, if we have the courage to pursue them."
– Walt Disney***



talk 2



Bob Legters

Chief Product Officer in Global Retail Payments
FIS Global

talk 3



Mike Wons

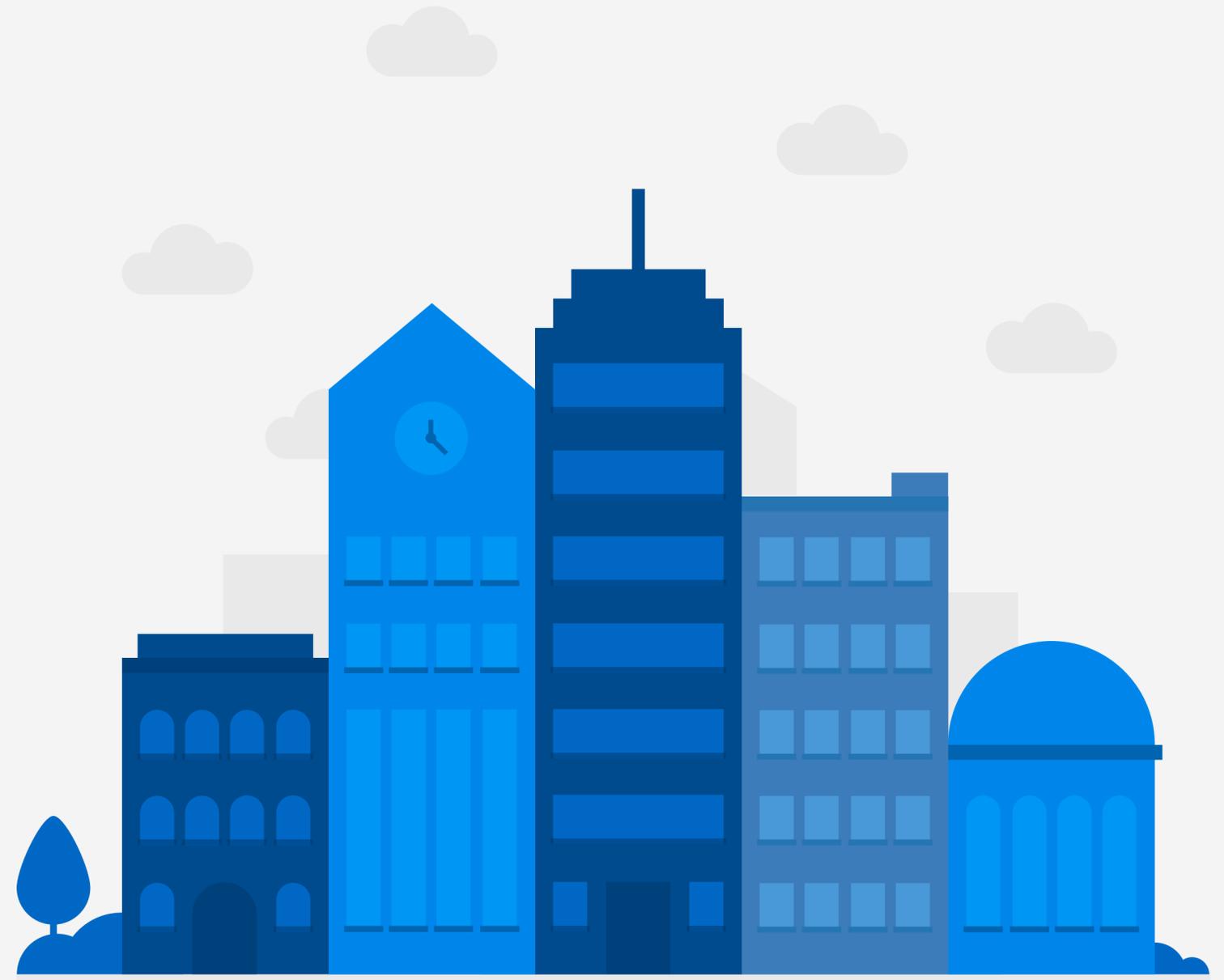
Chief Technology Officer
Illinois Department of Innovation and Technology



Insights, Progress & Horizon Scanning

Illinois Blockchain Initiative

iSPI Tech Talks Series
May 18, 2017



Digital Transformation Journey



Smart IT
Improving the business of IT

- Merging 50+ silos
- Running IT like a business
- Building enterprise cybersecurity



Digital Government
Improving business of the State

- Improving customer service
- Creating data-driven value
- Enabling innovation
- Digital disruption levers

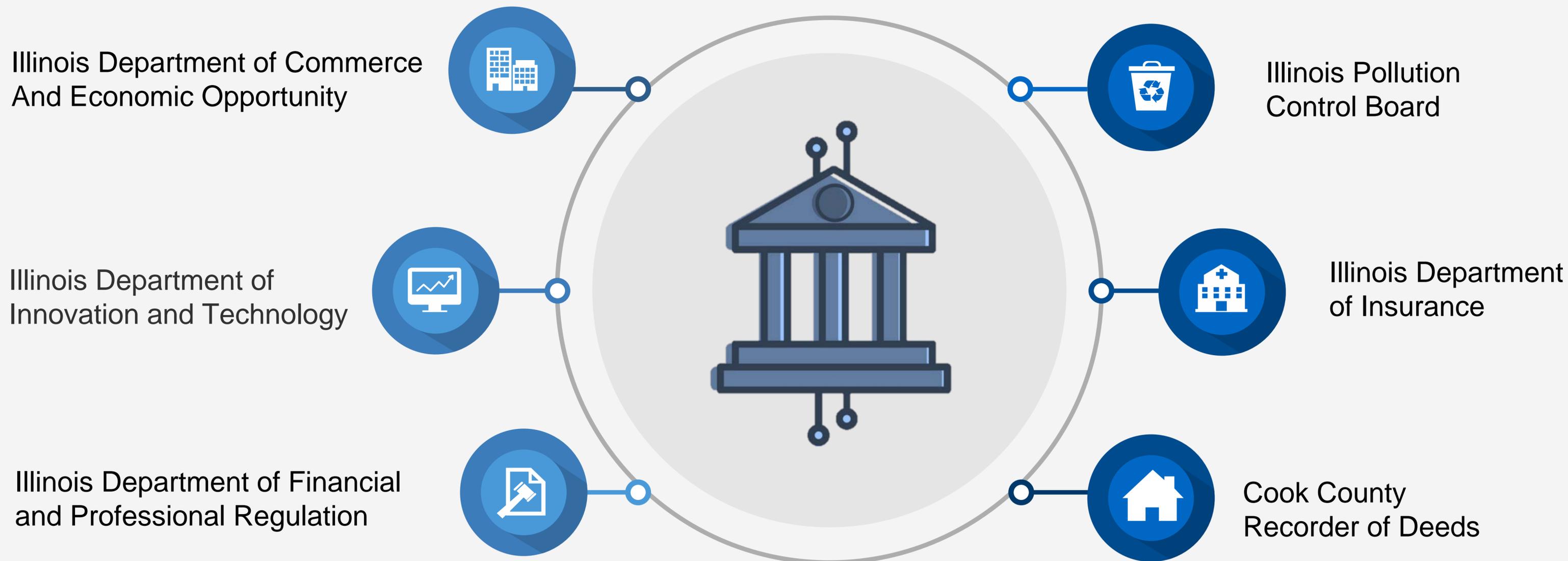


Smarter State
Staking leadership claim

- State as a customer
- State as an enabler
- State as a platform

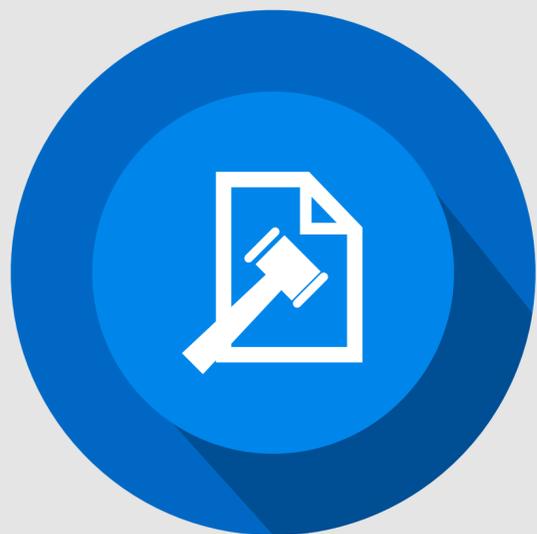


Illinois Blockchain Initiative





Insights - Government's Role



Modernizing Governance for a Distributed Economy

Effective governance in a distributed economy will require legislative agility beyond what rules and regulations can provide. Modern governance will need to carefully balance a combination of broad policy principles, technology standards and “code”.



Developing an Ecosystem For Growth and Collaboration

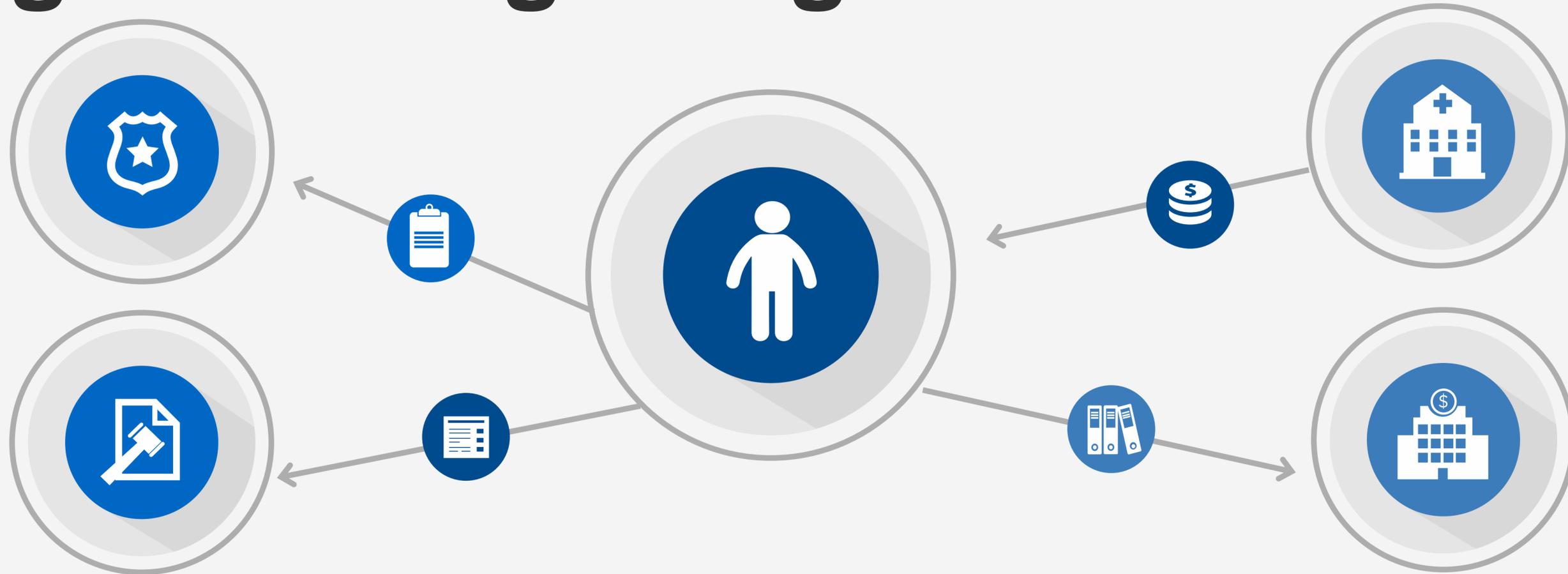
Although, the long-term benefits of Blockchain for industries, the economy and society are clear, Blockchain and DLT is still very much a nascent technology. Governments can play an important role in catalyzing its development by supporting grassroots innovation.



Integrating Services for a Highly Efficient Government

A “hyper connected” government enables unprecedented transparency, and efficiency, where services are tailored to individual’s needs. Blockchain and DLT will be used to connect disparate entities within and across regional, municipal, and state entities around citizens, businesses and assets.

Insights - Integrating Government



Unified Identity

Public addresses on a Blockchain can be used to form the basis of a unified citizen ID (master identifier) across multiple departments and systems. The Blockchain could be used as a new type of master data management system, maintaining a single source of truth for government.

Associated Attributes

Identity attributes (e.g. credentials or licenses leveraged by a specific agency or department) can be granted using sub addresses, supplementing a unified ID. Master and sub identifiers can be leveraged by multiple departments within a state government. Each department can append attributes to a citizen's.

Assets & Registries

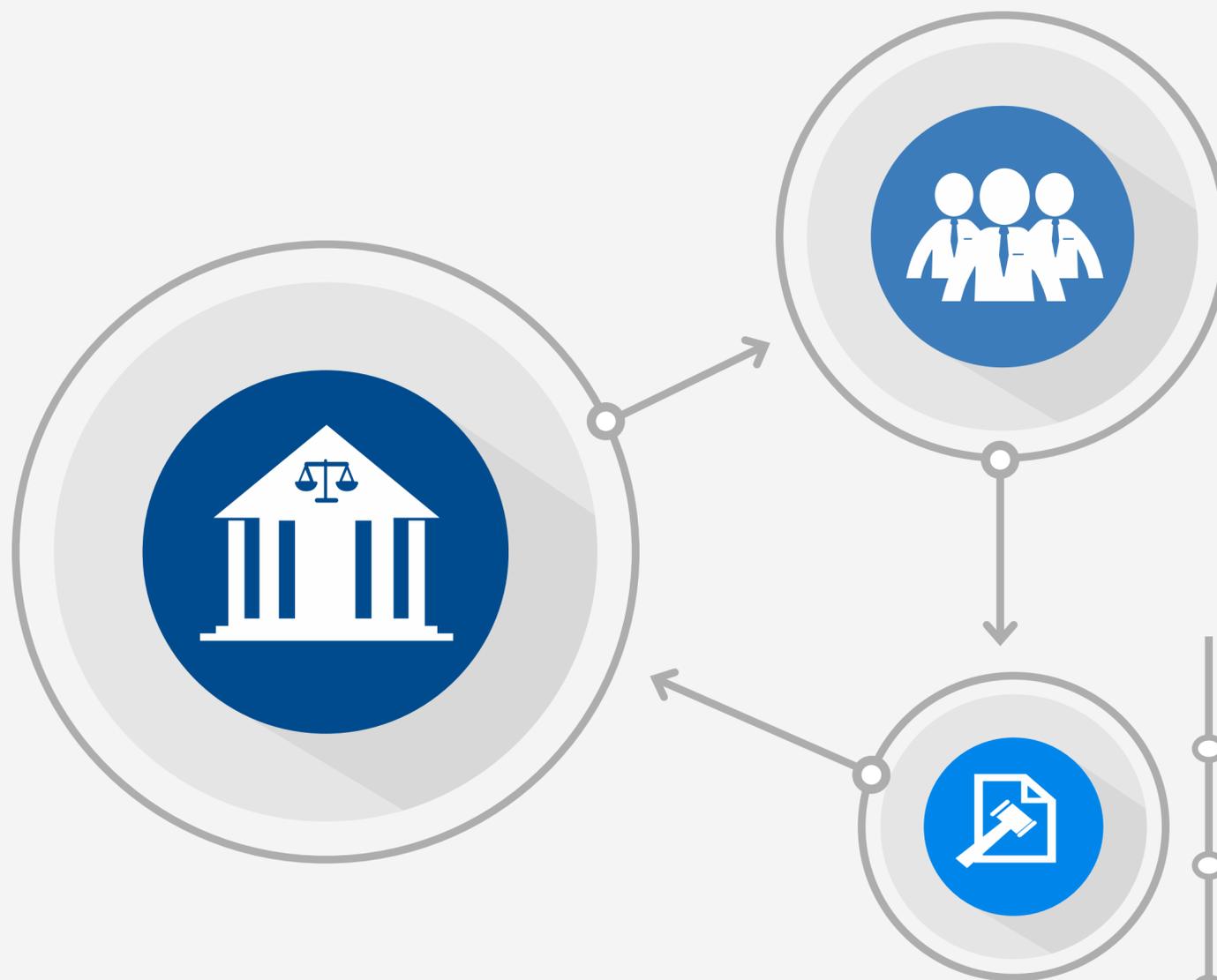
Maintaining various registries, many of which are public, related to things like asset and property ownership (e.g. real property, vehicles, fire arms) and professional credentialing (e.g. medical and legal services licensing) becomes an effort in managing identities, ownerships and attributes centered around the citizen.



The Illinois Approach

Integrating Government

- Stand up “sandbox” and proof-of-concepts that demonstrate value and solve pain points.
- Work with industries to develop utility services supporting smarter, efficient markets.
- Use success of pilots to lay groundwork for solid foundation and long-term roadmap.



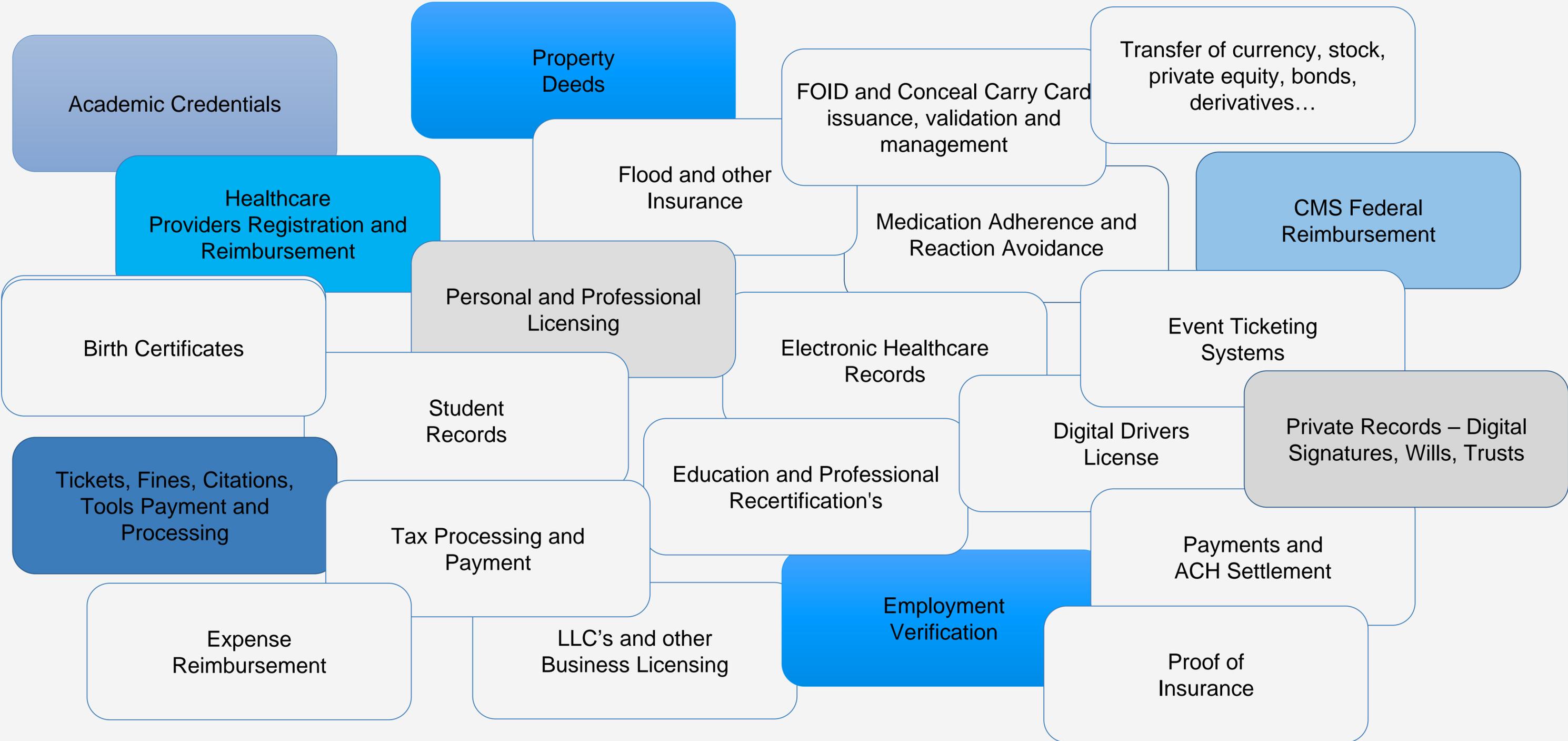
Developing an Ecosystem

- Seed long-term innovation through centers of excellence, incubators and hackathons.
- Host educational workshops and conferences to develop continuous knowledge-sharing.
- Develop environment where enterprises, startups and academia are encouraged to collaborate.

Governing Distributed Ledgers

- Dedicate early resources to formulating supportive regulatory environment.
- Facilitate industry standards and interoperability to harness network effects, minimizing duplication.
- Participate in industry solution development to leverage DLT’s benefits for efficient compliance.

Potential Use Cases in Government



Integrating Government: Pilots



Property Deed Recording

Cook County Recorder of Deeds will be the first land titling office in the US to record property transfer on the Blockchain. The goal is to expand the scope of the program, the extensibility of the solution while also providing the solution to other Illinois county recorders.



Academic Credentialing

Partnering with the University of Illinois to issue academic credentials and transcripts on a distributed ledger. Initial MVP focuses on credential verification process, with the eventual goal of recording the full transcript of all in-state institutions on a distributed ledger.



Health Provider Registries

Healthcare payers spend over \$2.1b a year reconciling a few discrete health provider data issues by CMS, DEA and state boards. Provider data, starting with the state licensing board would be entered onto a distributed ledger acting as a single source of truth dataset for providers and payers.



Energy Credit Marketplace

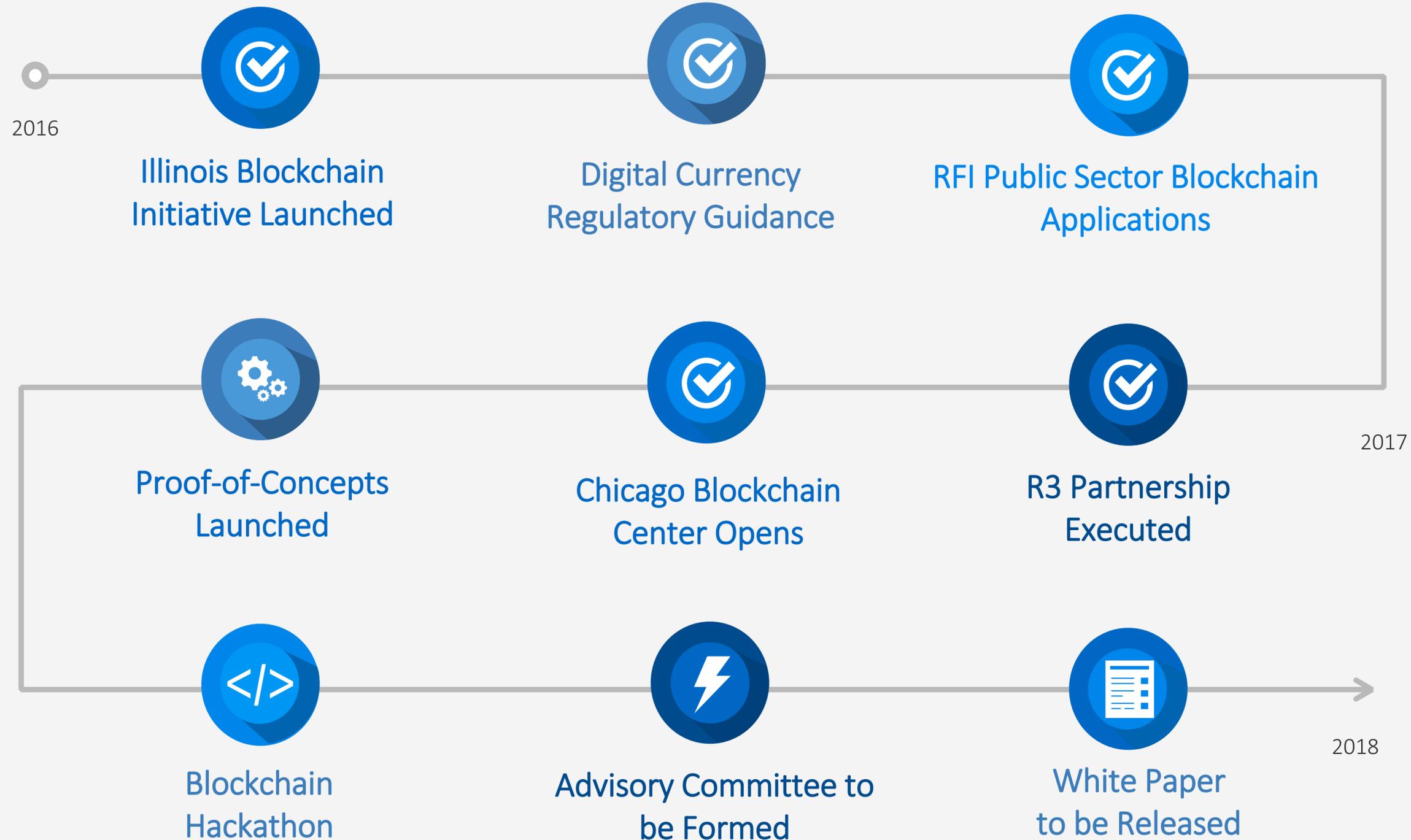
Energy producers are issued credits when producing “green” energy. Pilot program would include standing up a marketplace where REC could be traded, and granularly divisible. Potential to improve traceability and liquidity for renewable energy, providing better “green” energy policy outcomes.



Vital Records

Vital records such as birth events to be placed on a distributed ledger. Birth records allow the state to issue a digital identity tied to a person’s birth that could be managed on a distributed identity ledger, adding attributes to it as they interact with different agencies throughout their lifetime.

Progress to Date



Summary



- The Blockchain technology segment is emerging
- Illinois has published regulatory guidance as well as a request for information regarding the usage of Blockchain and distributed ledger technology in the public sector
- Illinois is planting some seeds and embarking on a series of proof of concepts in 2017 with several use cases in an attempt to prove out the technology
- Illinois is committed to being advocates supporting the development of Blockchain and distributed ledger technology as a basis to improve the delivery of government services



Illinois Blockchain Initiative

Cab Morris, Jennifer O'Rourke, Mike Wons

Q + A



innovate springfield



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Thank You!

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