

IAB Europe Webinar

BLOCKCHAIN DEMYSTIFIED

Thank you for joining! We will begin momentarily.



Welcome and Introduction



ANTON KOPYTOV
Partner Technology Consulting, Mindshare
Worldwide and Chair of the IAB Europe
Research Committee



Speakers



ANTON
KOPYTOV



TOCCARA
BAKER



TOM
KERSHAW



JASON
MANNIGHAM



SHAILLEY
SINGH



SAMUEL
ZWAAN

What is blockchain?



TOCCARA BAKER

Senior Product Marketing Manager, Ad
Cloud, EMEA,
Adobe



ANTON KOPYTOV

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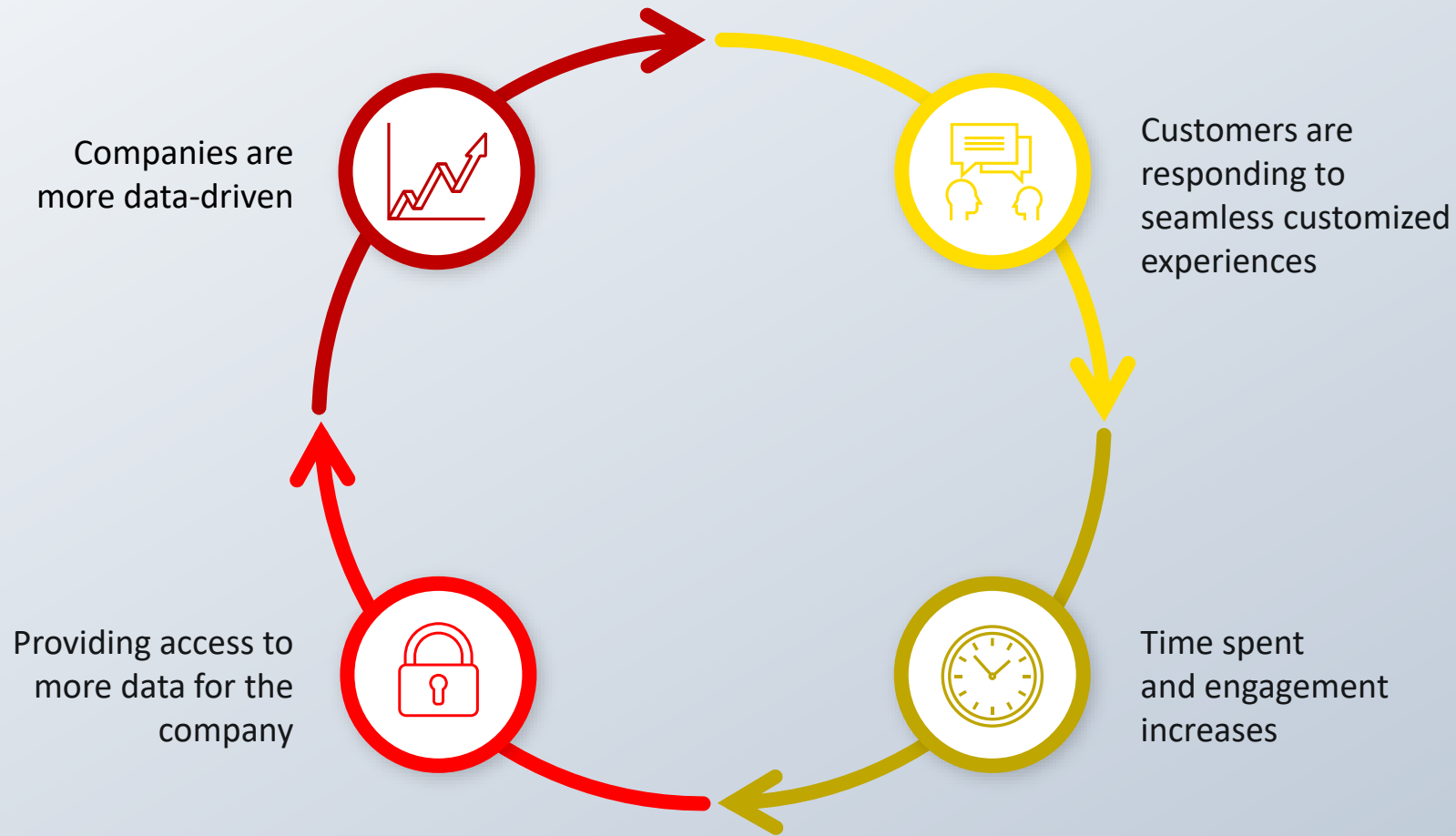
Blockchain Overview

Toccara Baker | Senior Product Marketing Manager, Adobe





Control Is The New Normal





We've Hit the Perfect Storm

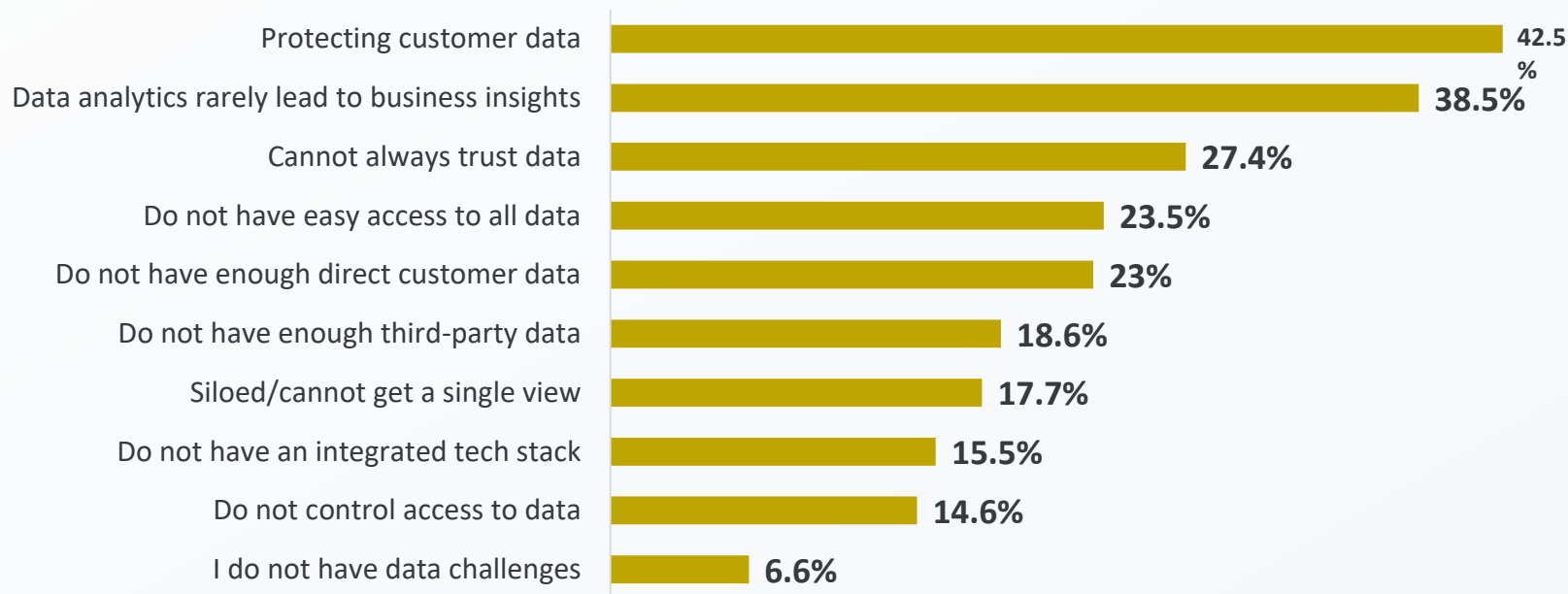
Technology disruption is increasing

Consumer adoption is rising

Companies are quickly transforming

What Are the Top Challenges CMOs Worldwide Have with Data?

% of respondents, Sep 2018



Source: ExchangeWire, "Agents of Change: The Rise of the Programmatic Media Agency" in association with Iponweb, July 12, 2018

Regulator Scrutiny is Rising



Data/Privacy

The European Data Protection Regulation will be applicable as of May 25th, 2018 in all member states to harmonize data privacy laws across Europe.

European Union, 5/18



Competition

Commission fines Google €2.42 billion for abusing dominance as search engine by giving illegal advantage to its own comparison shopping service.

European Commission, 6/17

2020 candidate Elizabeth Warren wants to break up Amazon, Google, Facebook, and Apple



Safety/Content

The Germany network Enforcement Act will require for-profit social networks with >2MM registered users in Germany to remove unlawful content within 24 hours of receiving a complaint.

German Federal Ministry of Justice & Consumer Protection, 10/17



Taxes

Commission finds Luxemborg gave illegal tax benefits to Amazon worth around €250 million

European Commission 10/17

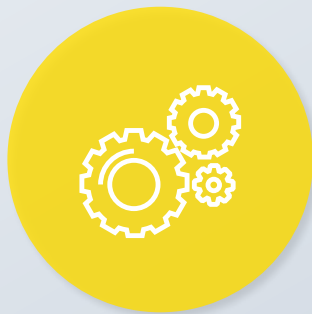
2020 candidate Klobuchar wants to tax big tech companies' on data use

- USA

Ways to Battle Fraud and Gain Control



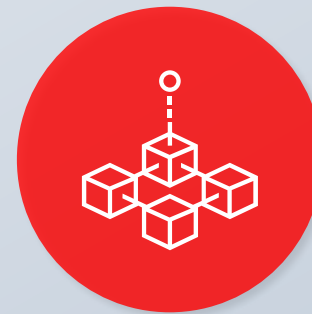
**3rd Party
Verification**



**Standardized
Solutions**



Clawbacks



Blockchain



Blockchain

What is Blockchain?

**Imagine the world's
largest Excel Doc**

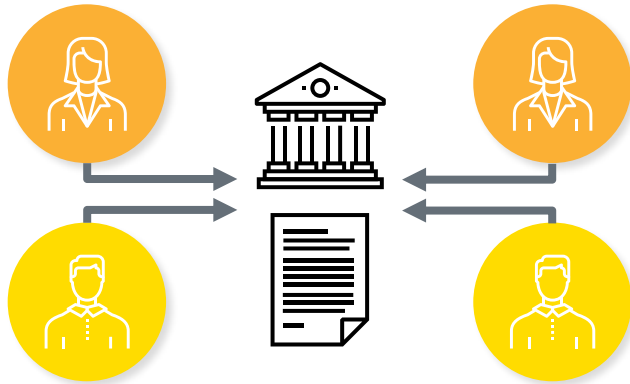
**that no one person
can destroy or change.**



Excel

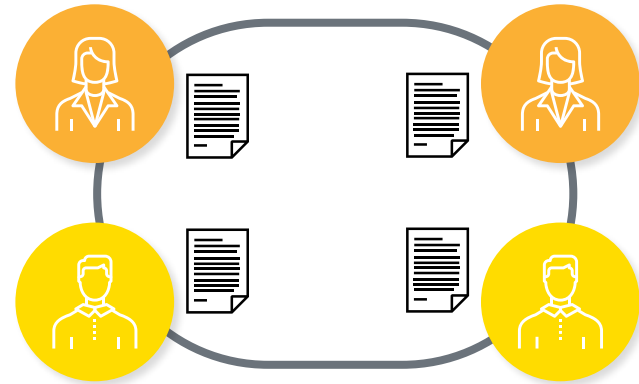
What is Blockchain?

Traditional System



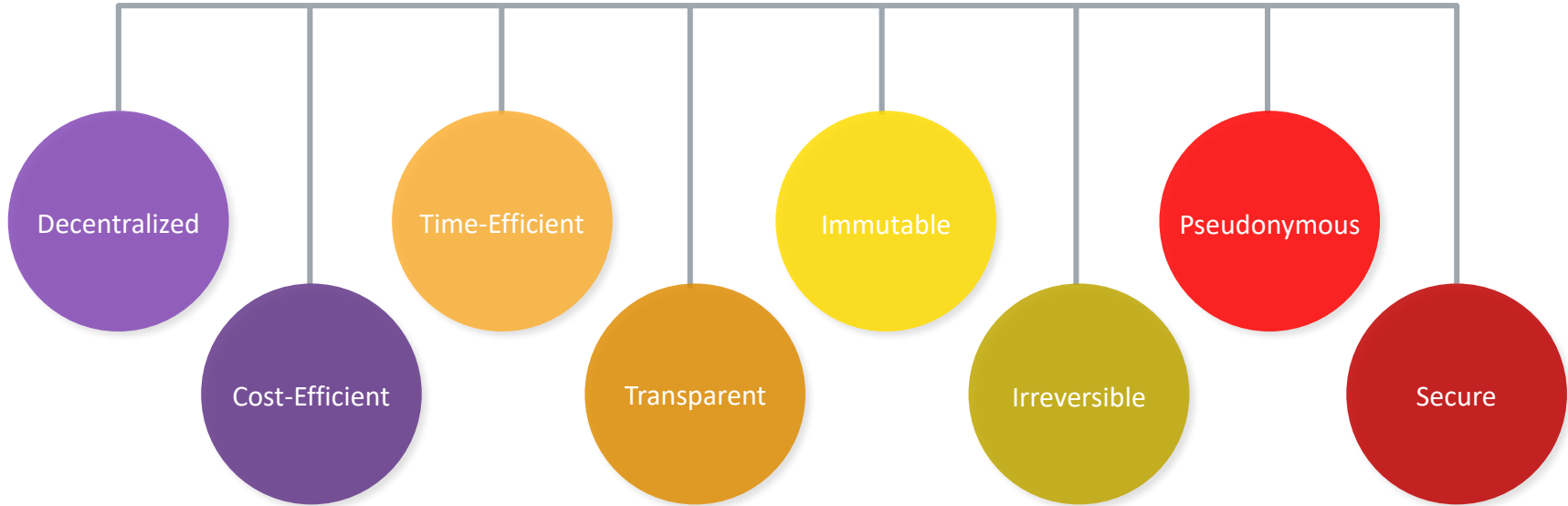
Centralized system with stored ledger

Blockchain System



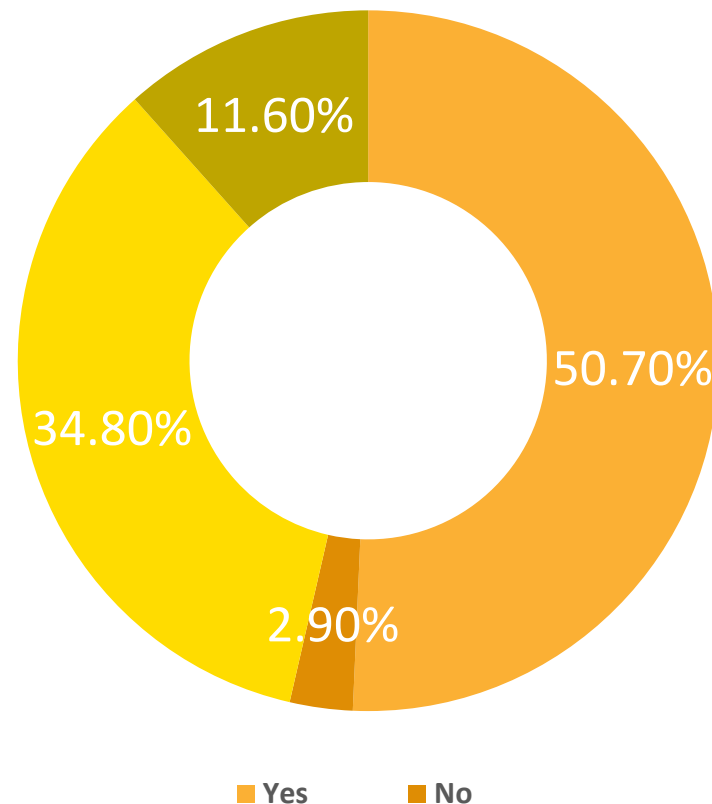
Distributed system with distributed ledger

Benefits of Blockchain



Do US senior ad executives think blockchain will reduce the number of intermediaries in the supply chain?

Q3 2018
% of respondents



Note: n=100
Source: AdLedger, "Blockchain & Advertising Special Report" in partnership with TV[R]EV. November 8, 2018

Benefits of Blockchain For Advertisers



1. Eliminate Middle Man

Increased revenue for content creators and publishers



2. Build Trust

Provide transparency by storing processes publicly



3. Public Accountability

Codified contracts to show CSR initiatives like sustainable practices



4. Consumer Identity

Decentralized control of consumer identity & value exchange



5. Privacy Protection

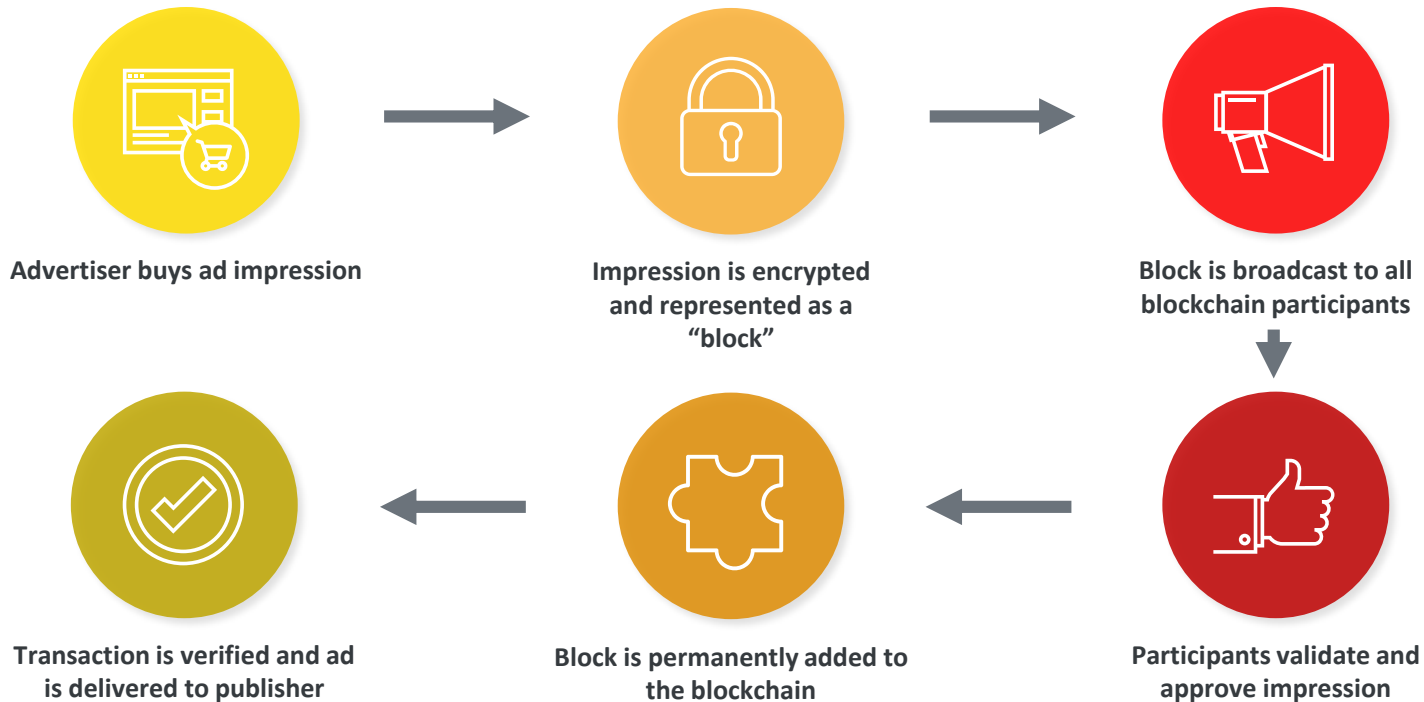
Alternative method for transparent, secure data storage



6. Media Buying

Ad verification and eliminate waste and abuse from ad fraud

Advertising Transaction with Blockchain



Advertising Blockchain Use-Cases

Monetization



Advanced TV



Fraud



Whitelisting

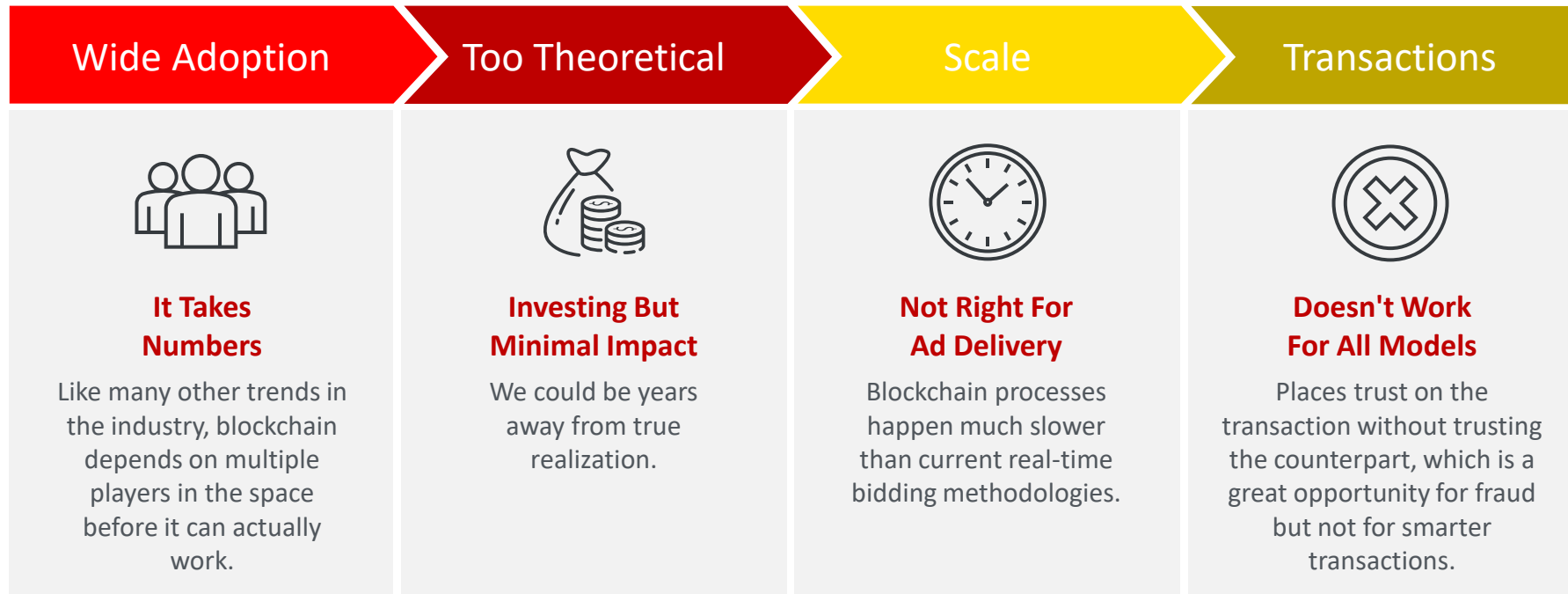


Ad Buying



Sharing a single set of truth and a common database or centralized knowledge

Blockchain Needs More Time





Adobe

MAKE IT AN EXPERIENCE

BLOCKCHAIN IN ADVERTISING

DEMYSTIFYING NEW TECHNOLOGY



distributed databases



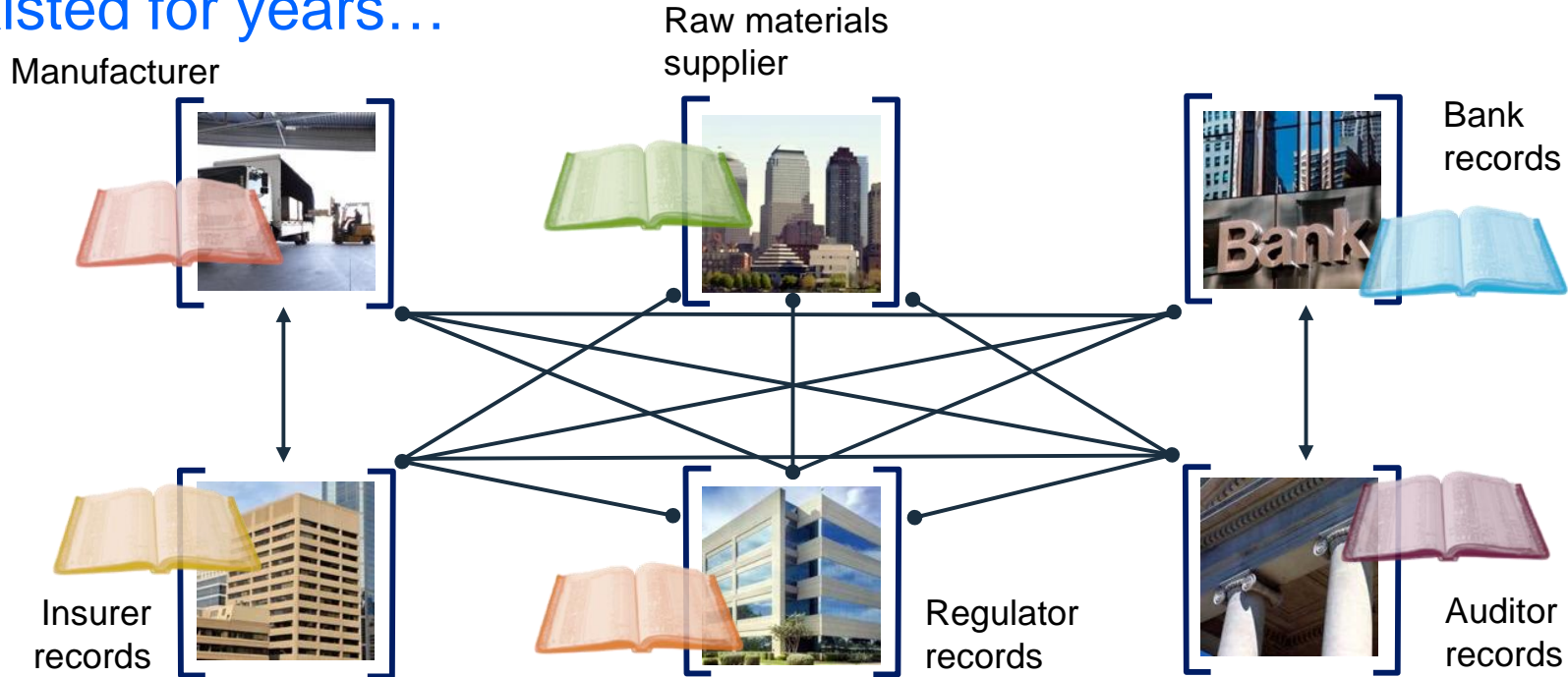
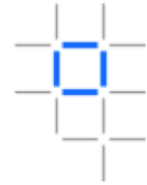
secure, transparent and reliable
autonomous, economical and relevant
improved performance
modular query management



disconnected taxonomy
multiple infrastructure
difficult to maintain integrity
concurrency control



Inefficiencies in business-to-business processes have existed for years...



... creating an expensive, vulnerable ecosystem lacking trust and transparency

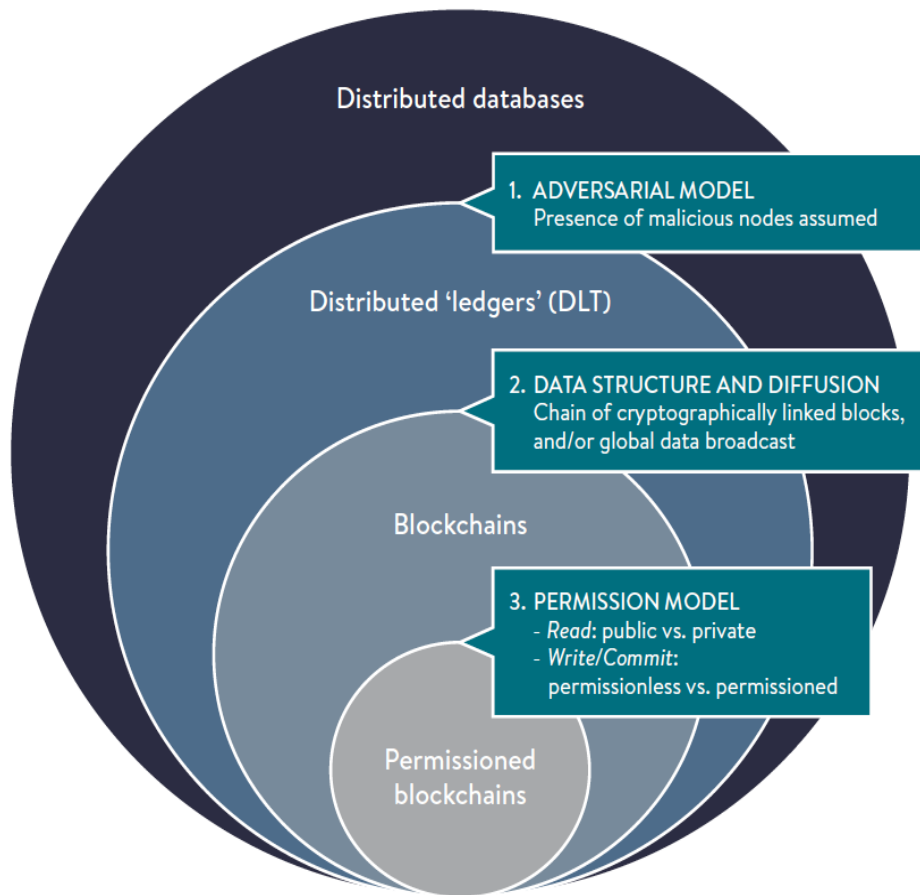
Distributed Ledger Technology

▲
{**blockchain**}

bitcoin

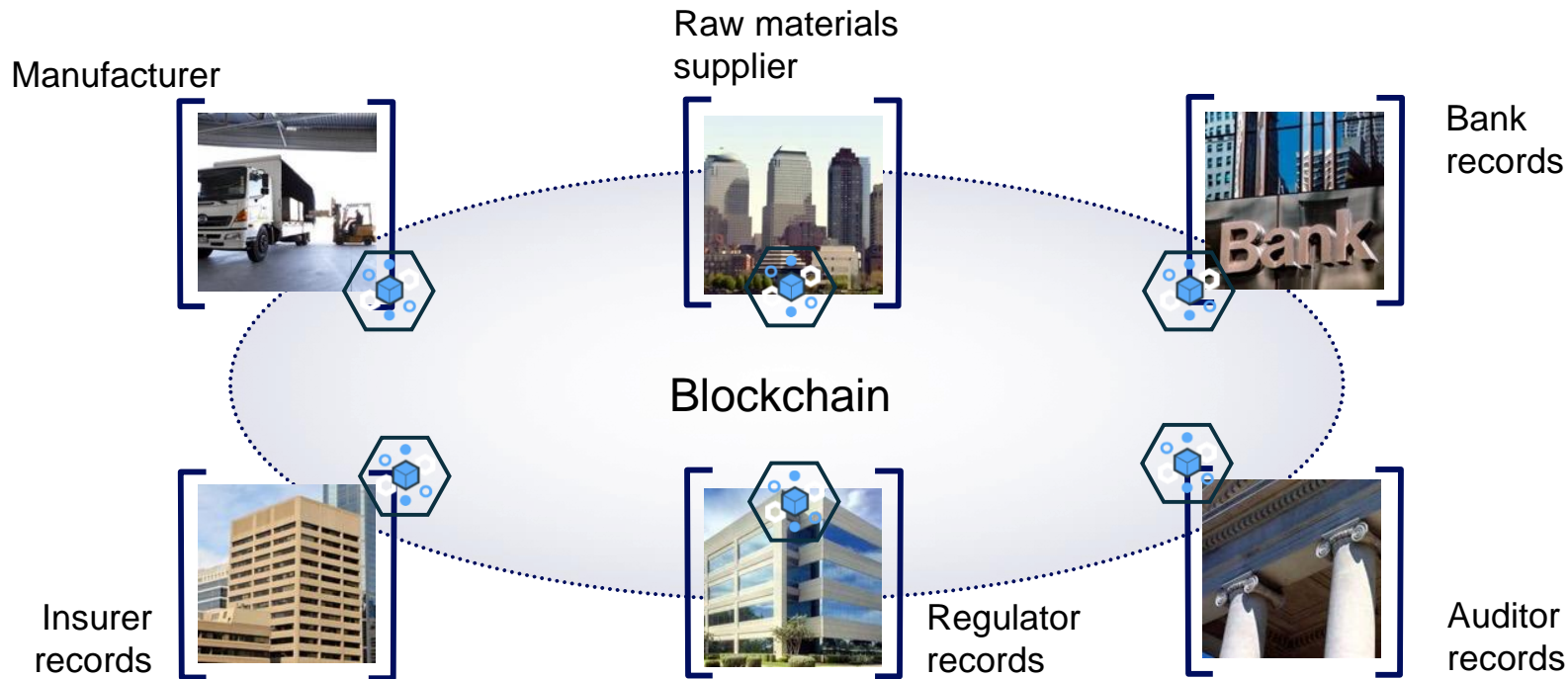
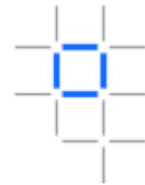
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{**blockchain**}



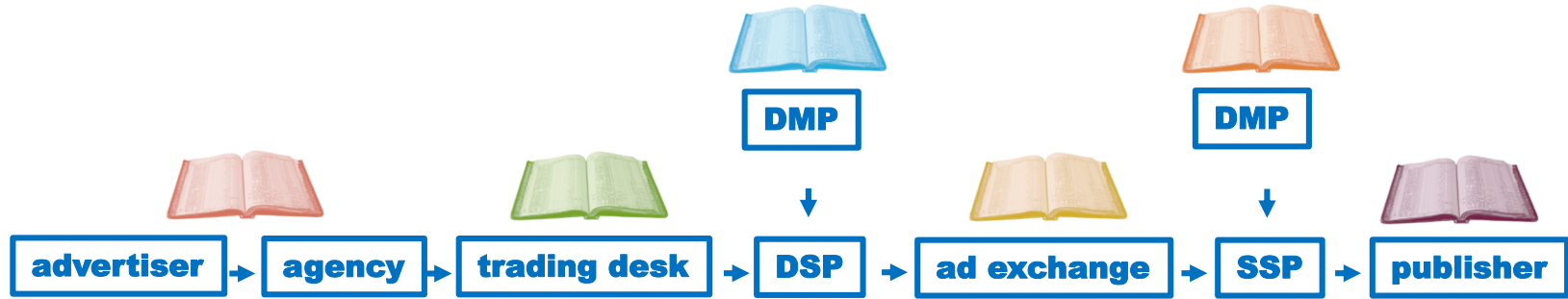
Source: University of Cambridge Global Blockchain Benchmarking Study

Blockchain; a shared, replicated, permissioned ledger



... with consensus, provenance and immutability

asymmetric exchange



1.0\$

estimated at 70 Bn USD in 2018, programmatic spends is **perceived** to have nearly 35 Bn USD across the supply chain, sometimes also called as **non working media**

0.5\$

potential use cases

efficient



media supply
chain
management



reconciliation
& billing

effective



data
management



identity

impactful



asset
provenance &
tracking



content
authenticity

key challenges

ownership

marketers cannot afford to replace existing **band-aids with new ones** from another a luma-scape of blockchain solutions as it defeats the purpose

authority

marketers need to be part of the overall alliance with full **visibility** and **audit rights** with tokens linked to a stable currency

algorithms

inter-operability is very key to the adoption of this technology. Opportunity to integrate all in-house silos onto one ledger.

key limitations

low speed

Blockchain simply isn't yet fast enough to handle the milliseconds-long, real-time decision-making necessary in digital advertising

high cost

Particularly where there are large amounts of data, blockchain is just too expensive to run right now. In order to make blockchain attractive, it has to cost less and be more efficient than a current solution. There's a lot of places where we have a solution in search of a problem

legal

Blockchain is still the Wild West - there currently aren't many regulations in place

Blockchain at IAB Europe

Blockchain Demystified White Paper

Tapping the expertise of leaders in the industry from a wide range of organisations, under the guidance of the IAB Europe Education & Training Committee, this white paper covers key elements which should help provide a better understanding of the technology and its application in digital advertising. Available here: <https://www.iabeurope.eu/education/iab-europe-white-paper-blockchain-demystified/>

Blockchain and its key uses-cases for digital advertising research project

In order to understand how the digital advertising ecosystem expects to use blockchain technologies, define the use cases and gather insight into the language used in relation to Distributed Ledger and Blockchain Technologies we will survey key stakeholders in the digital advertising ecosystem (advertisers, agencies, publishers etc.).

Blockchain and digital advertising



JASON MANNINGHAM
General Manager,
Blockgraph (part of FreeWheel)



SAMUEL ZWAAN
EU Product Lead Programmatic Advertising,
eBay



Topic

What are the **current uses of blockchain** in digital advertising, and what makes it a **valuable technology** for the industry?

Blockchain: Characteristics



PROS

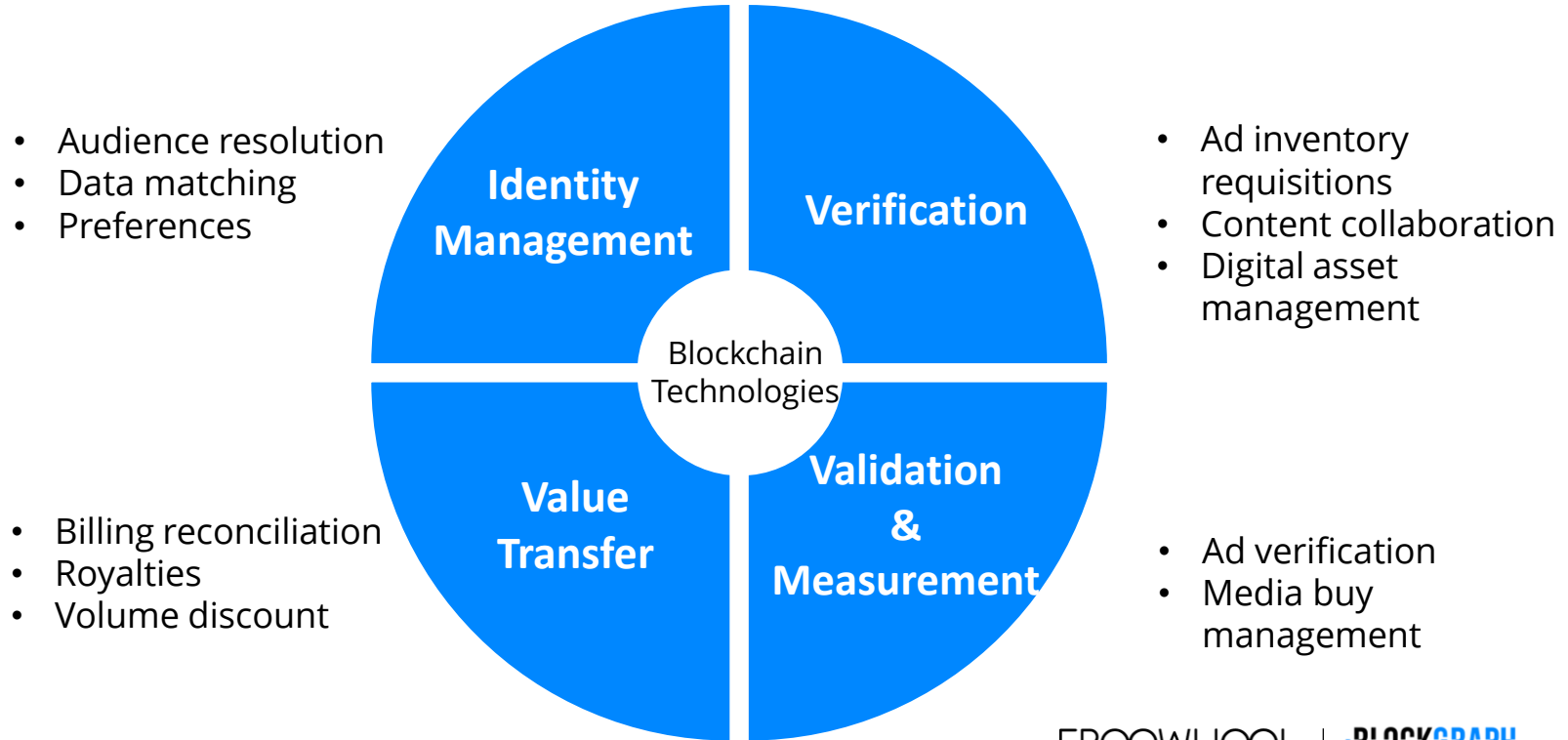
- Immutable (cannot be altered)
- Decentralized (no single controller)
- Security (advanced cryptography)
- Incentivization (guides behaviors)
- Transparent (universal ledger access)



CONS

- Immutable (cannot be altered)
- Scalability (several copies of same data)
- Performance (read/write times)
- Agility (incentives require careful planning)
- Transparent (must consider audience)

Advertising Potential Use Cases



Advertising **Benefits and Considerations**

PROS

- Facilitate coordination between partners
- Potential to reduce reconciliation costs
- Agreed upon truth set, with no gatekeeper
- Advanced security techniques

CONSIDERATIONS

- Requires careful planning and consideration
- Technical and scalability
- Not well suited for real-time use cases
- Not a silver bullet

Examples of current uses of blockchain

ebay

Supply Chain Transparency (Validation & Measurement)



Reduce fraud and error

Improve efficiency

Increase consumer and partner trust

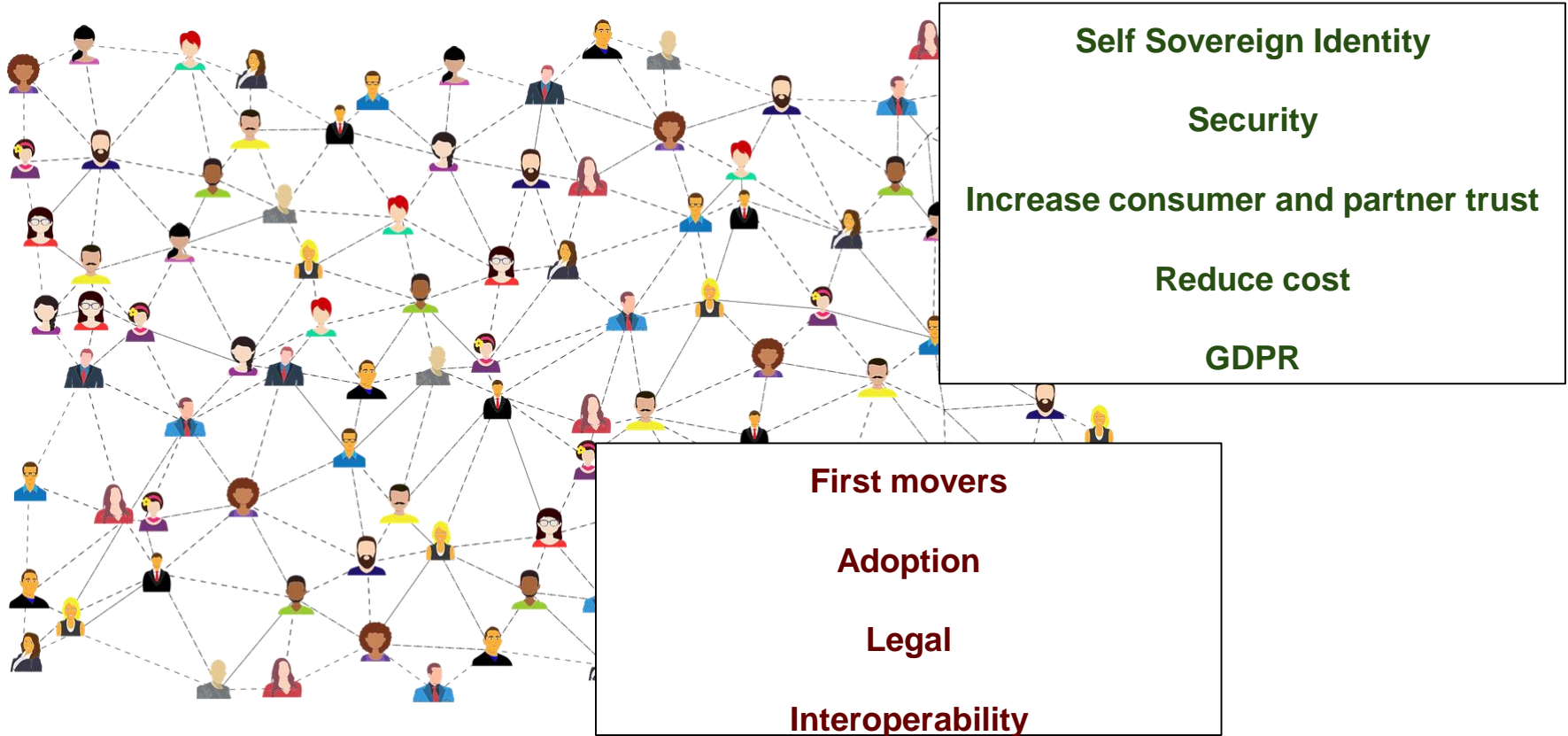
Reduce cost

First movers

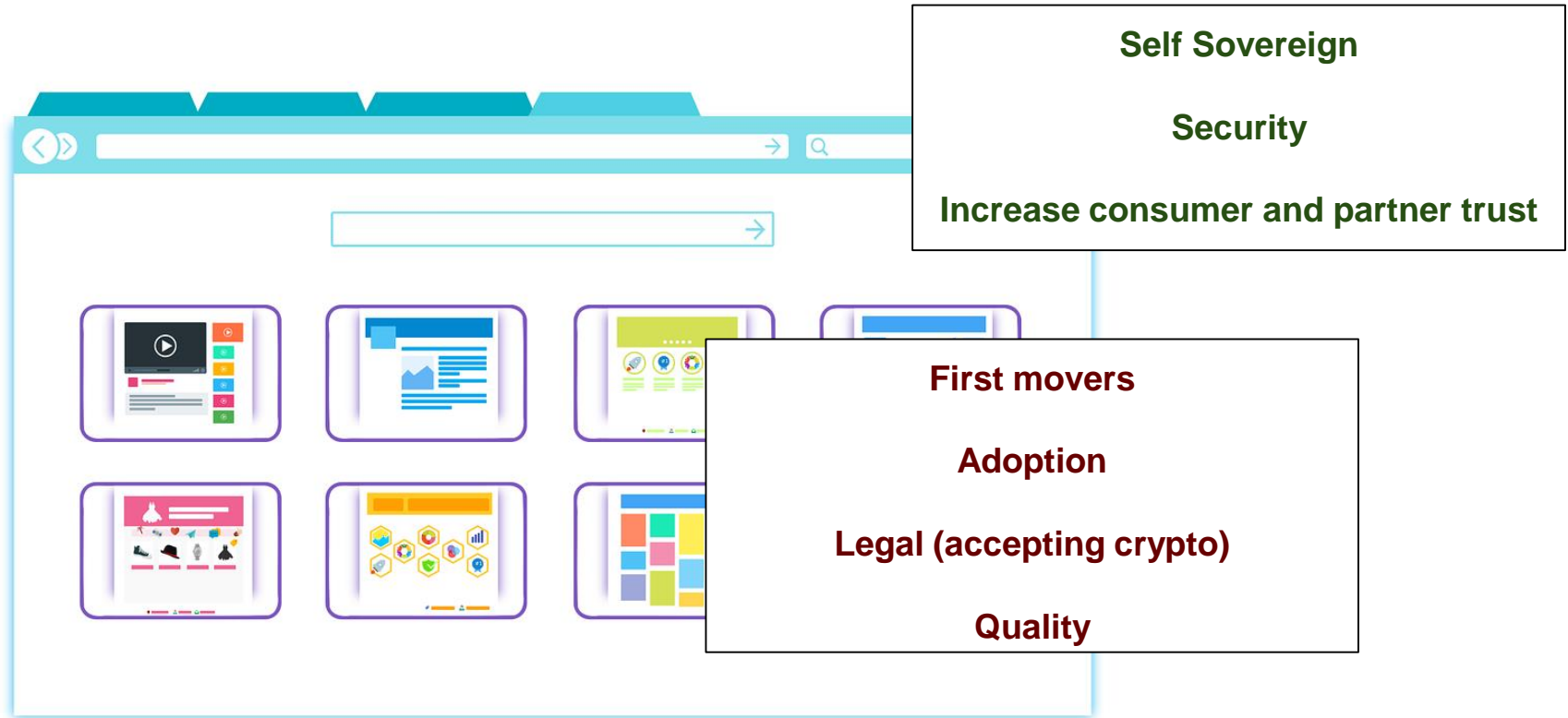
Adoption

Legal Constraints

Zero Knowledge Digital Identity Management



Privacy Browsing (Value Transfer)



Challenges and limitations



TOM KERSHAW,
Chief Technology Officer,
Rubicon Project



SHAILLEY SINGH,
Vice President, Product Management,
IAB Tech Lab



Blockchain **Challenges and limitations**

Tom Kershaw, CTO, Rubicon Project

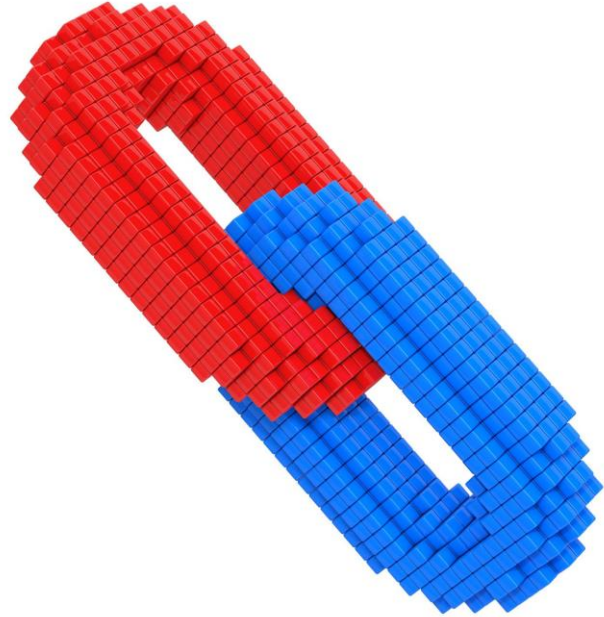
Current Marketplace Model

- 1000+ small players doing everything from data, to targeting, to measurement, to conversion tracking, etc
- Too large and too complex
- Large players to develop marketplace models for buyers and sellers to find and activate services easily
- Towards “on demand” targeting and measurement model

Can We Use Blockchain?

Blockchain creates an opportunity to reinvent the ad tech stack on several levels:

- infrastructure
- transparency
- billing and discrepancies
- viewability
- identity



Things We are Exploring

Transparency

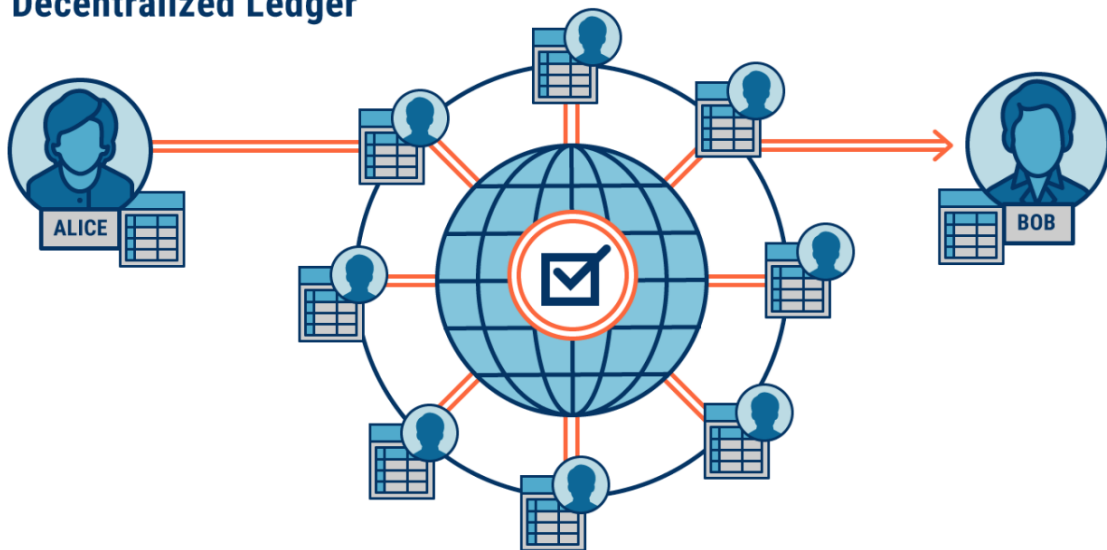
Real-Time Payments

Micropayments

Viewability

Identity

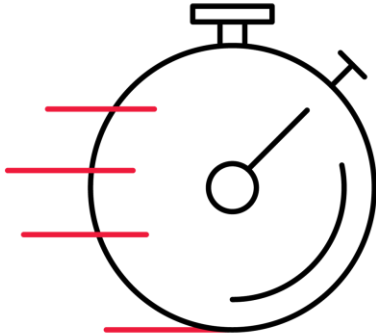
Decentralized Ledger



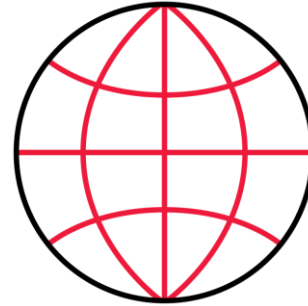
CBINSIGHTS

The biggest Technical Issues

TIME



SCALE



Pain points for the Application of Blockchain



Technological limitations

Limited speed



Infrastructure costs

Indefinite storing and continuous growth



Data Management

Influx of data difficult to interpret



Education and Awareness

To foster adoption

Current Focus of Blockchain Efforts: Payments

- Adtech payment model is slow and broken: we process billions of transactions per day, many of which have values of less than \$0.05
- Several links in the chain have independent records of when an ad renders
 - Buyers
 - Sellers
 - Intermediaries
- We literally spend millions of \$ on sorting through discrepancies and agreeing on who owes what to whom

The Real Problem



Using Blockchain to Move to Real Time Payments

- Programmatic advertising biggest advantage is real-time measurement: needs to be extended to settlement
- For trusted transactions, tx admitted to the blockchain, we should move towards a micropayment model where sellers are paid immediately
- This won't work for all transaction types
- Scale will be a real issue given the volumes: every Internet page load is an auction
- Some entities have vested interest in maintaining the “float”

Equal conditions to everyone

The biggest challenge to blockchain in advertising does not lie in the technology itself, but rather in the prerequisite of an industry-wide agreement on blockchain as a tool that leaves basically no hiding holes for anyone in the market.



Blockchain: Limitations and Challenges

IAB Europe Blockchain Webinar

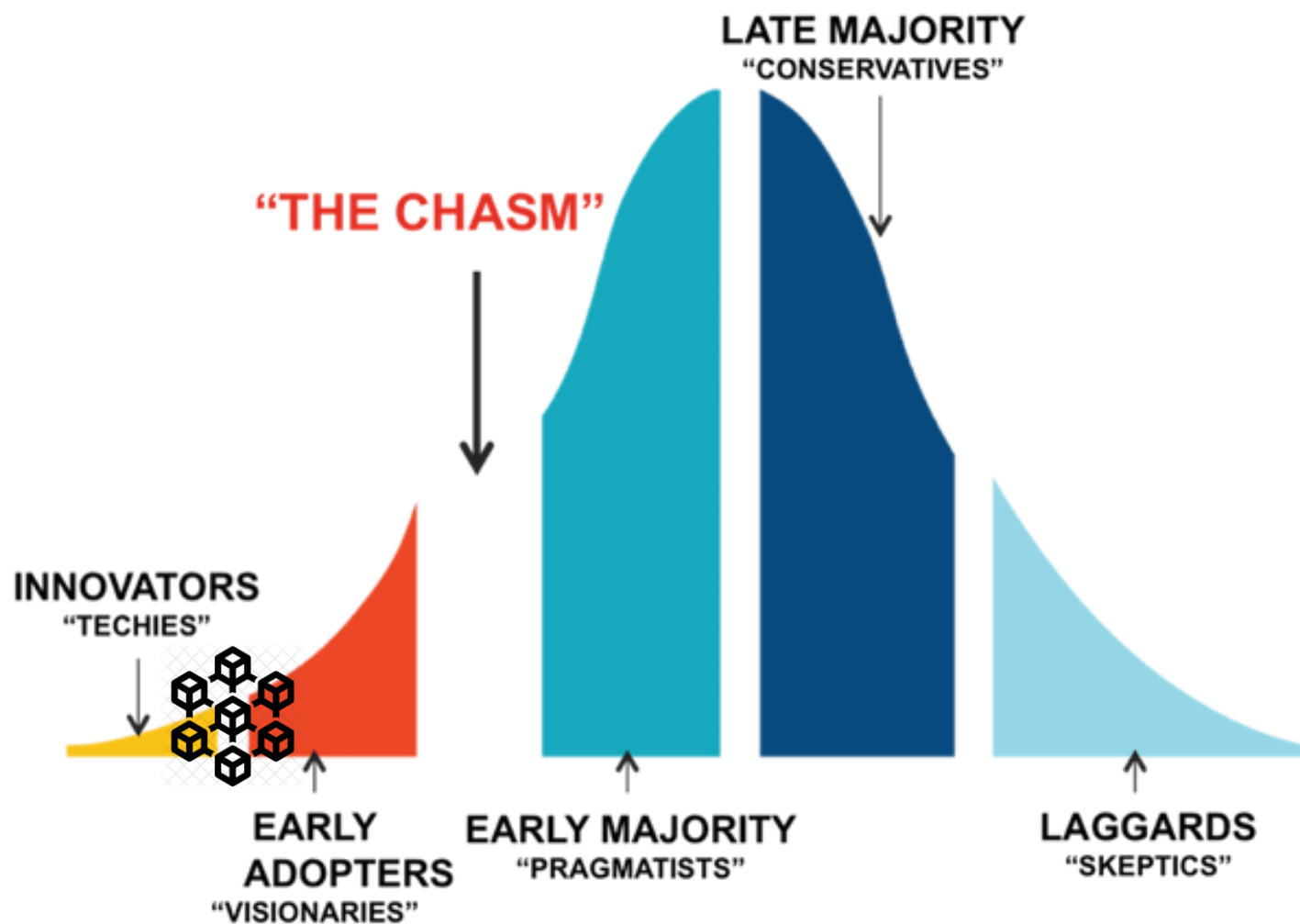
September 25, 2019



Motorola Vice President John F. Mitchell showing off the DynaTAC portable radio telephone in New York City in 1973
(Source: Reddit)

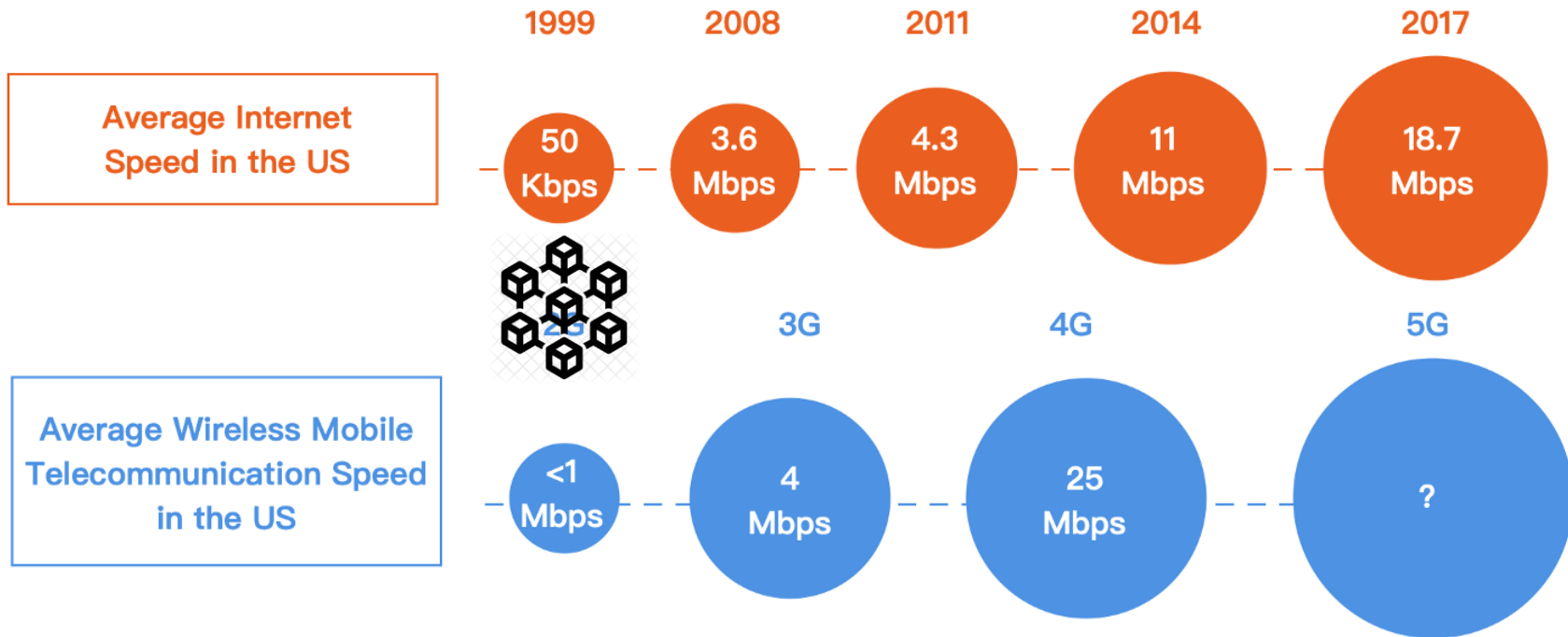
Agenda

- ❖ **Technology Adoption Cycle**
- ❖ **Comparison with Internet adoption**
- ❖ **Cost and Scale**
- ❖ **Education**
- ❖ **Expectation and Application**
- ❖ **Regulatory**
- ❖ **How Tech Lab is helping**

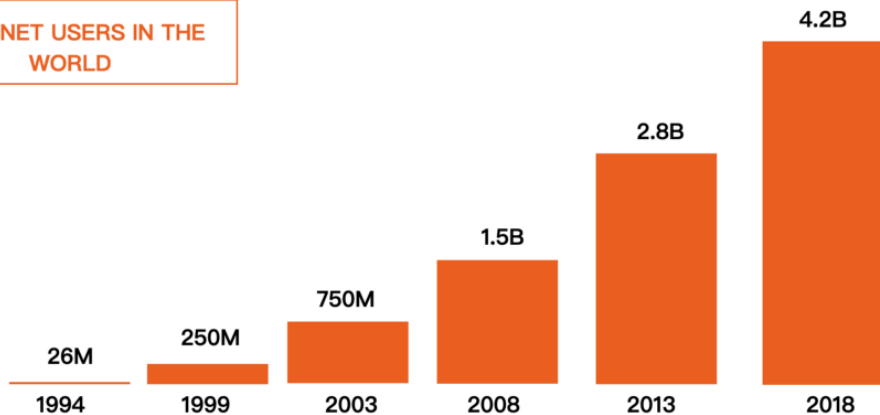


“History doesn’t repeat itself, but it does rhyme”

Mark Twain



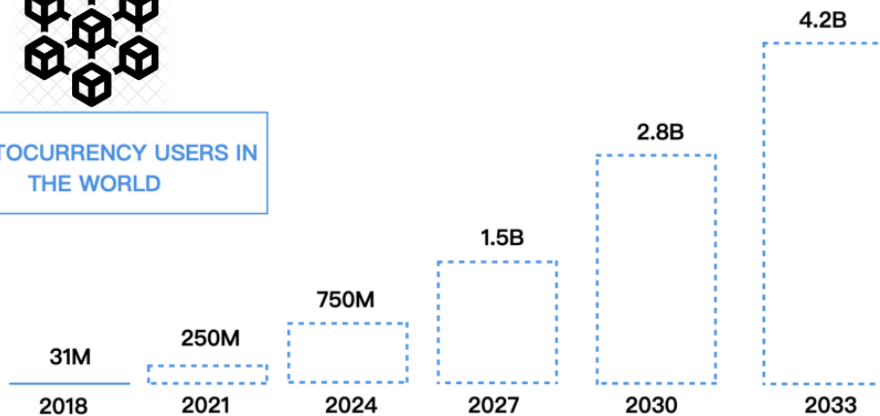
INTERNET USERS IN THE WORLD



24 YEARS



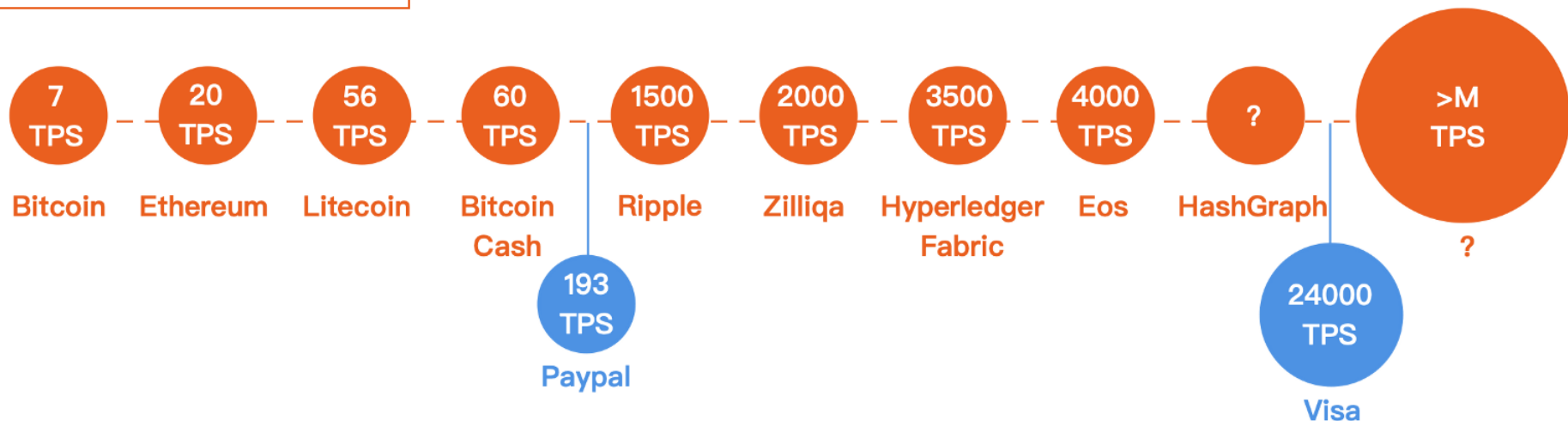
CRYPTOCURRENCY USERS IN THE WORLD



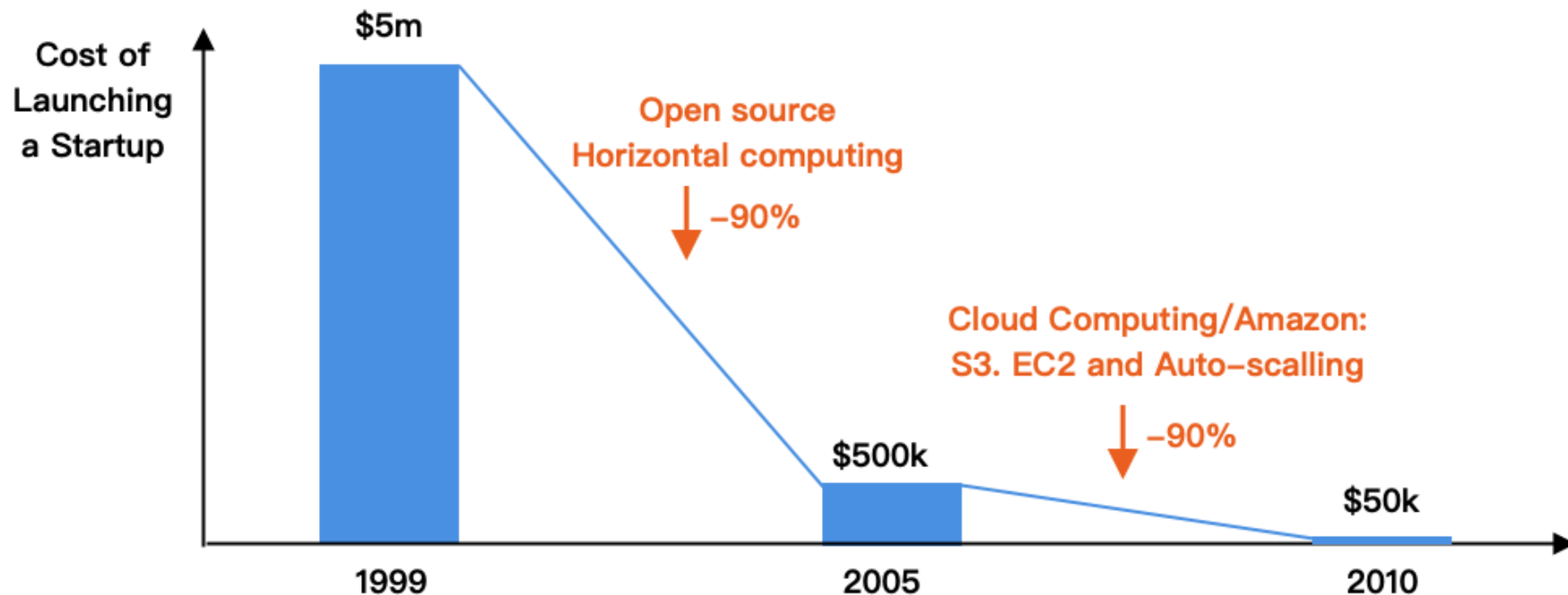
15 YEARS

Scale

Transaction Speed of Different Blockchain Projects



Cost

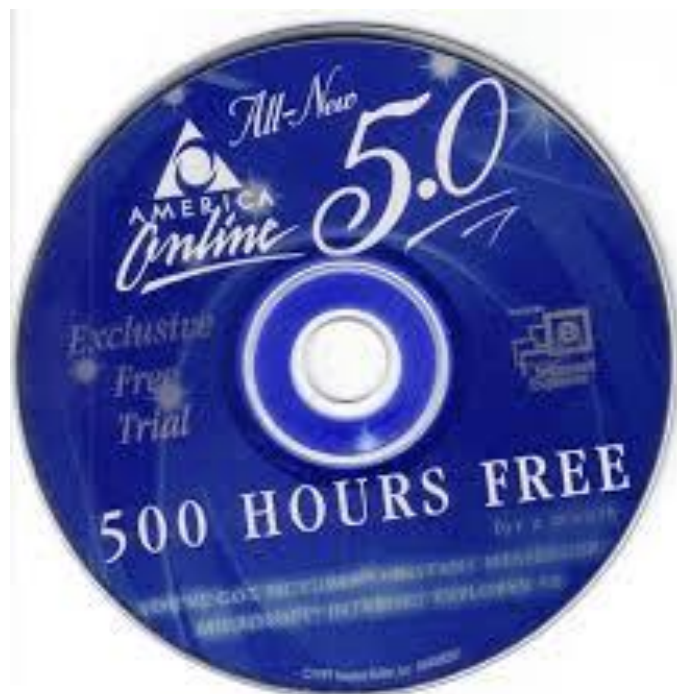


The decrease in the cost of launching a Startup from 1999–2010 (Source: [Mark Suster](#))

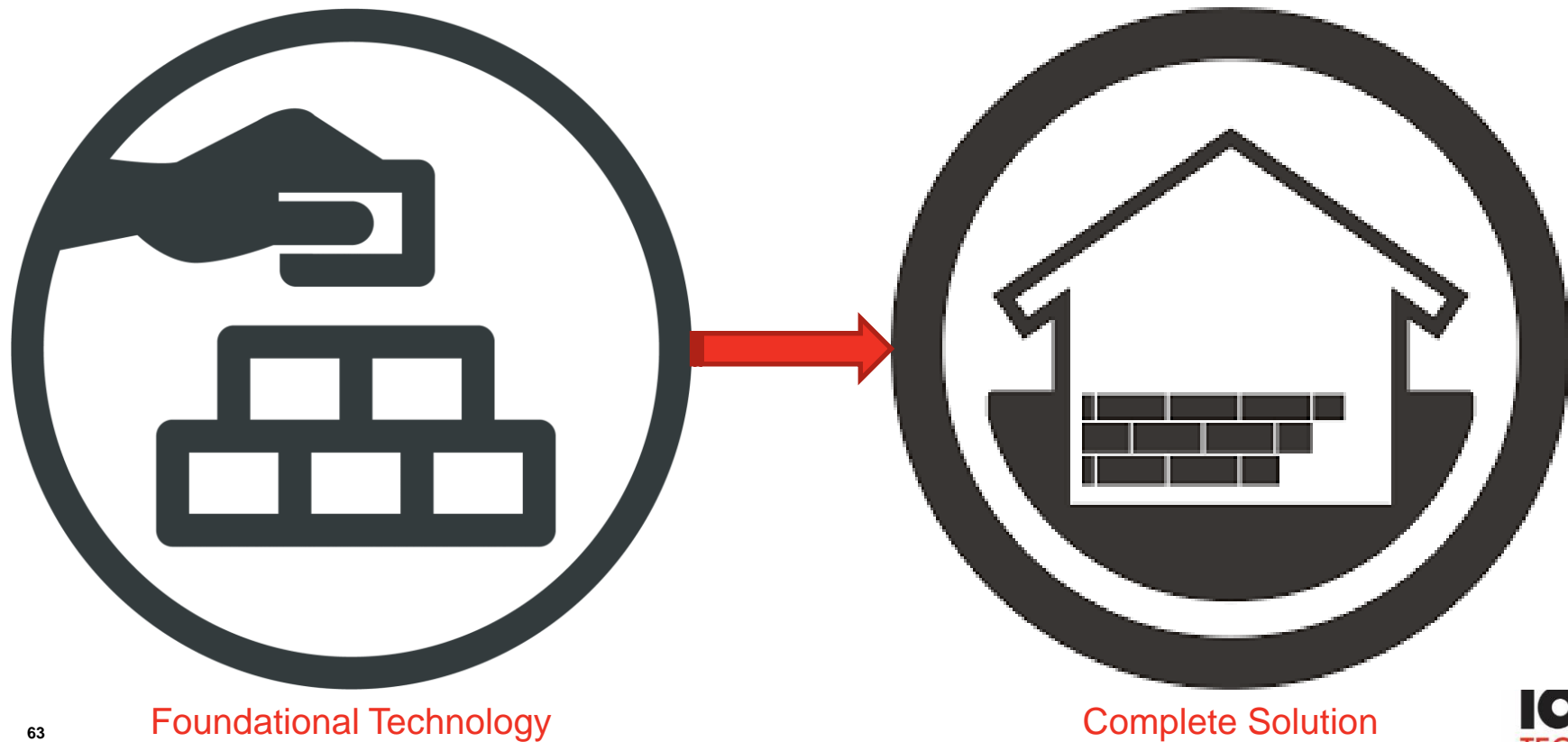
Cost

- ❖ Gartner: deploying enterprise blockchain proof-of-concepts has a starting cost of \$275,000 and can go up to several millions of dollars
- ❖ deployment and transaction fees of simple dapps on public blockchains can cost you \$30–85k (<https://ylv.io/how-much-does-it-costs-to-run-dapp-in-2018/>)
- ❖ Talent acquisition cost: Expensive and in short supply

Education



Expectation



Application

- ❖ **Governance:** A new paradigm for operating and maintaining a network of distributed records
- ❖ **Complexity:** Not a benign technology- new concepts, new technology stack
- ❖ **Database management:** maintenance and performing regular reporting and analytics operations

Regulatory

- ❖ Legal nature of blockchains and shared ledgers- no specific location. What is the jurisdiction?
- ❖ Recognition as immutable tamper proof nodes- what is your identity?
- ❖ Interpretation of right to be forgotten? Or is it right to prohibited use?
- ❖ Legal validity of token/documents on blockchain as evidence of possession/existence

This is besides the questions around ICOs

Tech Lab work

Education

Resources Wiki-

<https://iabtechlab.com/blockchain-wiki>

Technology Primer

<https://iabtechlab.com/blockchain-primer>

Digital Advertising Primer (in progress)

Events and product showcase

Technology

Privacy Chain

<https://tools.iabtechlab.com/privacychain>

IO Trifecta:

Transparency,
Smart Contract,
Payment

Network Pilots

Real World Testing
Industry best practices

Lucidity, Metax,
Xchng, FusionSeven
and more in review

<https://iabtechlab.com/working-groups/blockchain-working-group/>

<https://tools.iabtechlab.com/privacychain>

https://www.youtube.com/playlist?list=PL6aT9elthl50_4byTNtslC8H7qU1bNLWI

Thank you

Three requests

- ✓ *Please help support adoption of standards*
- ✓ *Please provide inputs to 2020 proposals*
- ✓ *Please let us know top priorities for you*

Panel discussion: The future of blockchain

Moderator



ANTON
KOPYTOV



TOCCARA
BAKER



TOM
KERSHAW



JASON
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Q&A

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