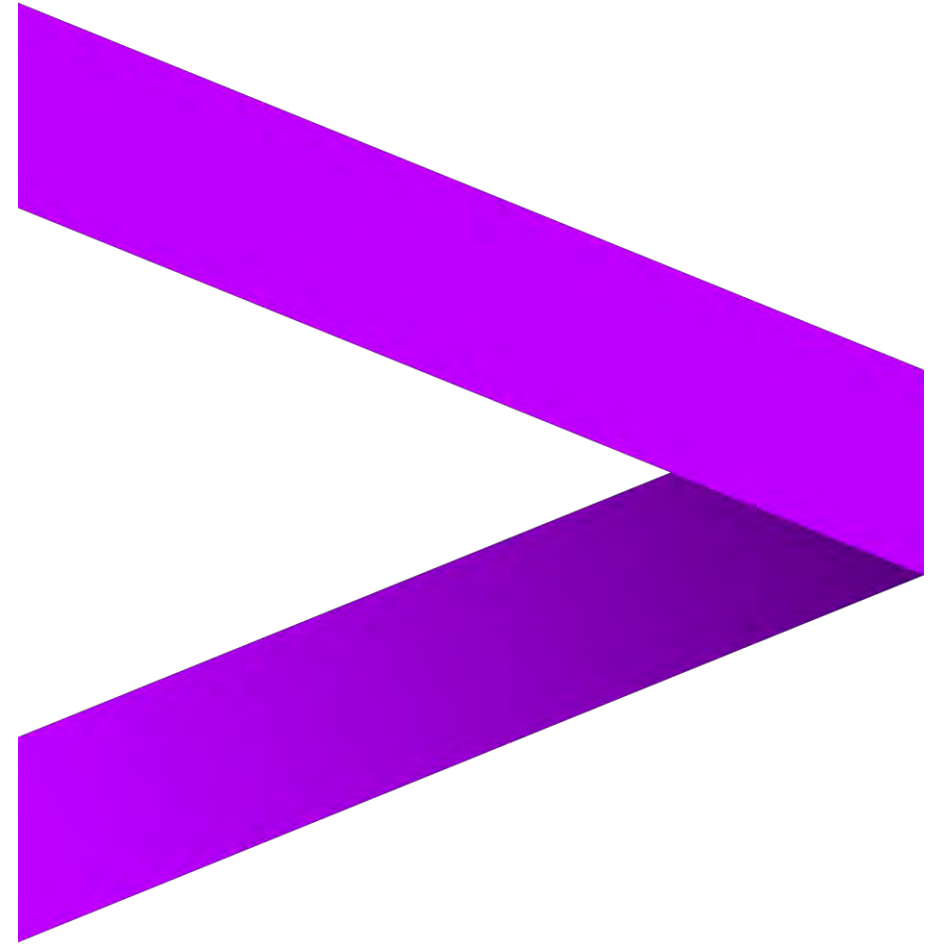


THE ROLE OF EMERGING TECHNOLOGY IN RISK MANAGEMENT

CHRISTINE LEONG
MAY 2019



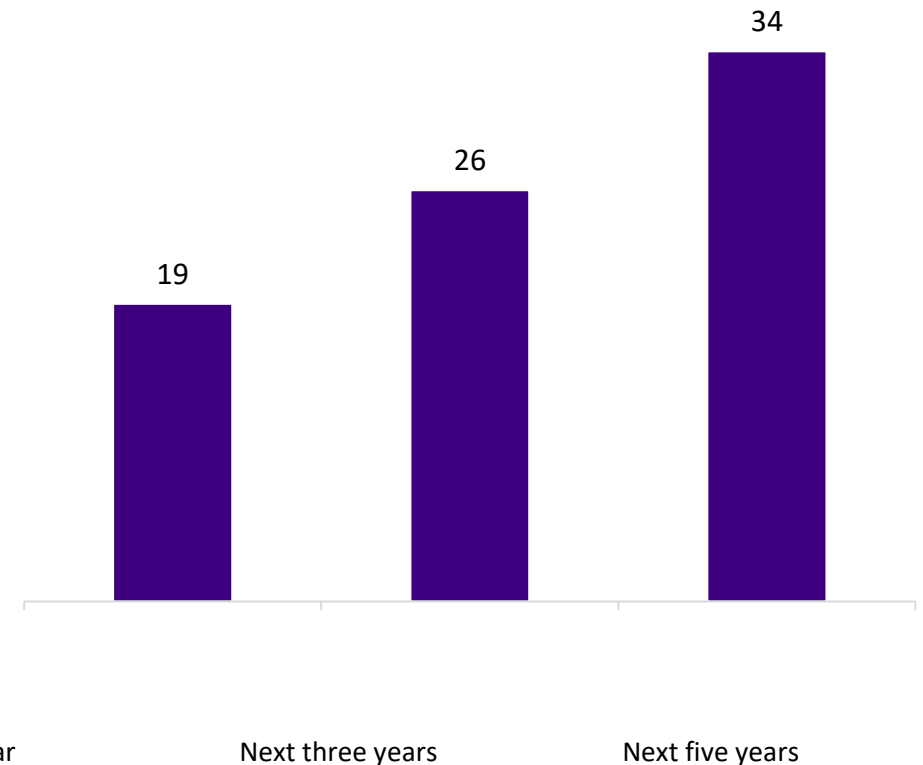
accenture

COMPANIES ARE LARGELY DEPENDENT ON THE INTERNET FOR BUSINESS GROWTH; IN FIVE YEARS, AVERAGE TARGETED GROWTH DEPENDENT ON THE INTERNET WILL DOUBLE.

90% rank business growth through internet-enabled initiatives in their top three strategic priorities

77% of businesses became largely dependent on the internet over the past 10 years

Average targeted growth dependent on the Internet economy (%)



WHICH MEANS.....

Every transaction will become digital.

And in order to benefit from this growth,

92% say a trustworthy internet economy is very or extremely critical to their organization's future growth.

Technology is now front and center of every organization and indeed has taken over much of our daily lives.

As everything becomes digital,

trust and user experience will become critical to success.

KEY TECHNOLOGY TRENDS



**HUMAN CENTRIC &
PERSONALIZATION**



**SEAMLESS USER
EXPERIENCE**



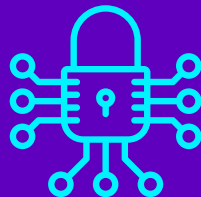
**SECURITY & PRIVACY,
REGULATIONS**



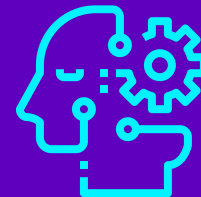
**BLOCKCHAIN IS THE
DISRUPTOR**



**SELF MANAGED
DIGITAL IDENTITY**



AUGMENTED REALITY



IOT, AI & ROBOTS

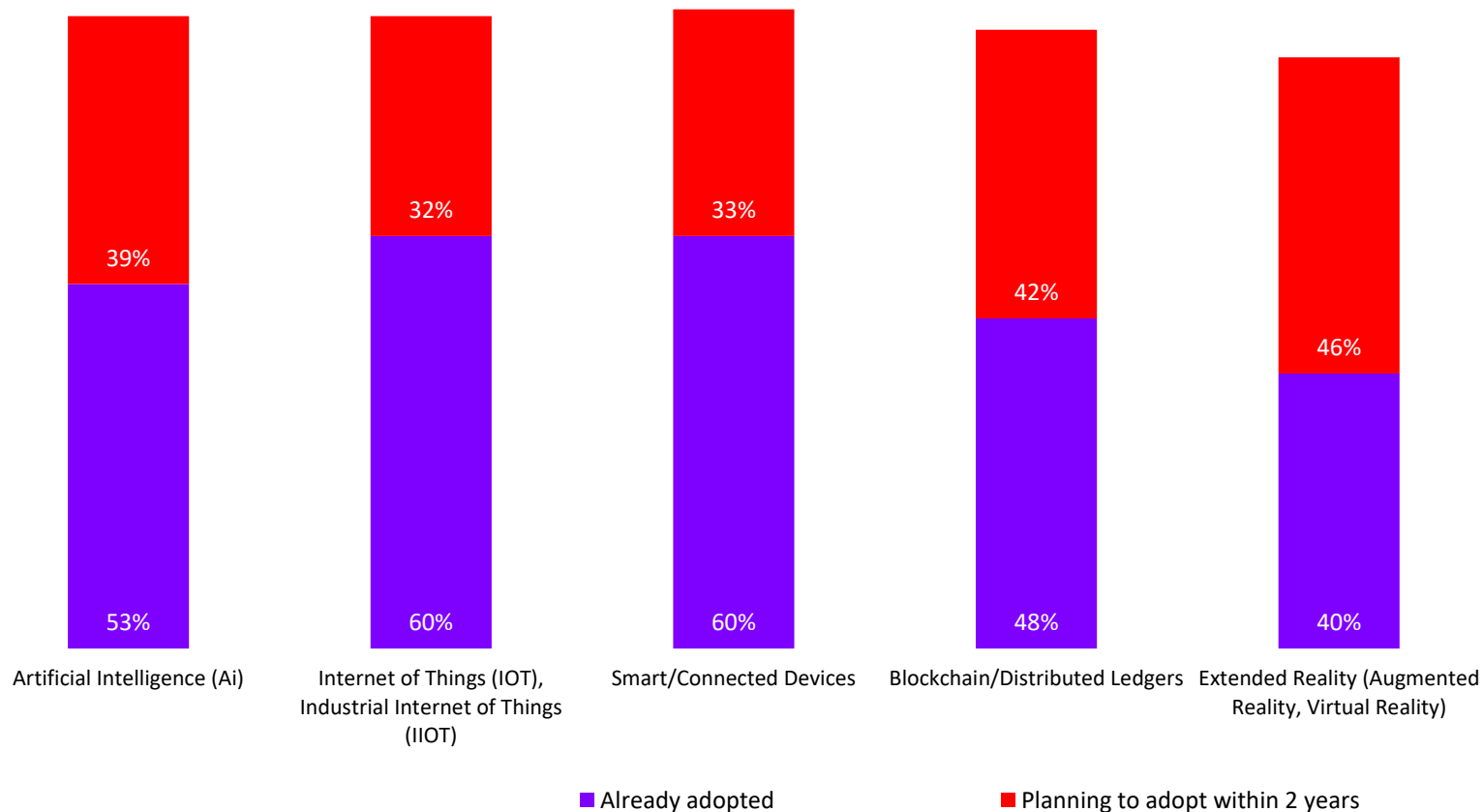


**BIOMETRIC IS
EVERYWHERE**

KEY EMERGING TECHNOLOGIES STATS

87% Solutions involving Digital Identity, Blockchain, and AI are promising with regard to their potential to reduce cybersecurity issues

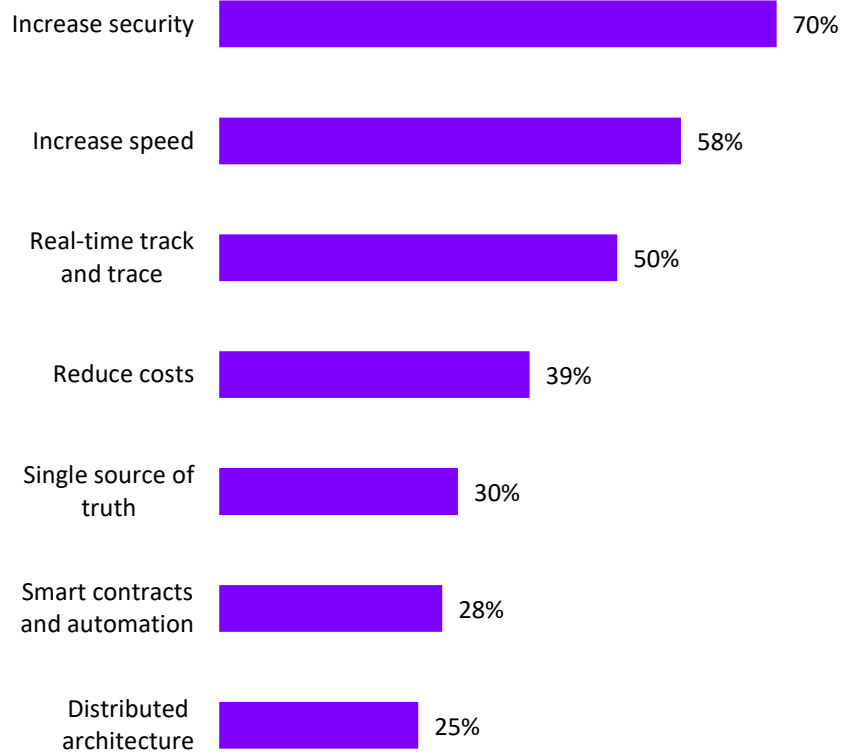
Top 5 technologies companies have adopted or are planning to adopt in the next 2 years



93% agree:
An ambitious emerging technology agenda demands a trustworthy internet economy.

THE MAIN BENEFITS OF BLOCKCHAIN ARE SECURITY, SPEED AND TRACEABILITY. THE MAJORITY BELIEVE IT IS ALREADY HELPING WITH INTERNET SECURITY.

Advantages of blockchain technology?
(Top three)

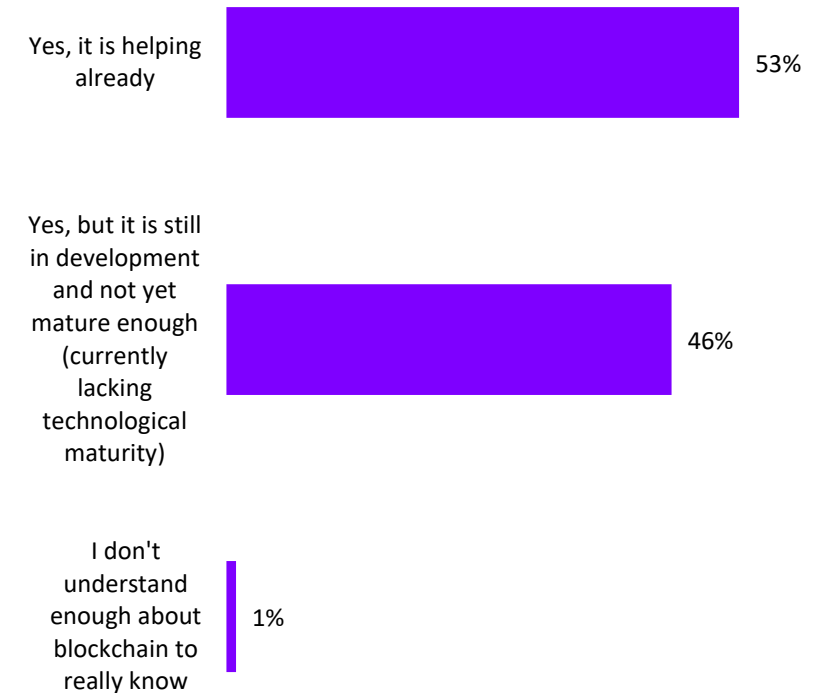


Percent of infrastructure expected to be on blockchain by 2030 (average)

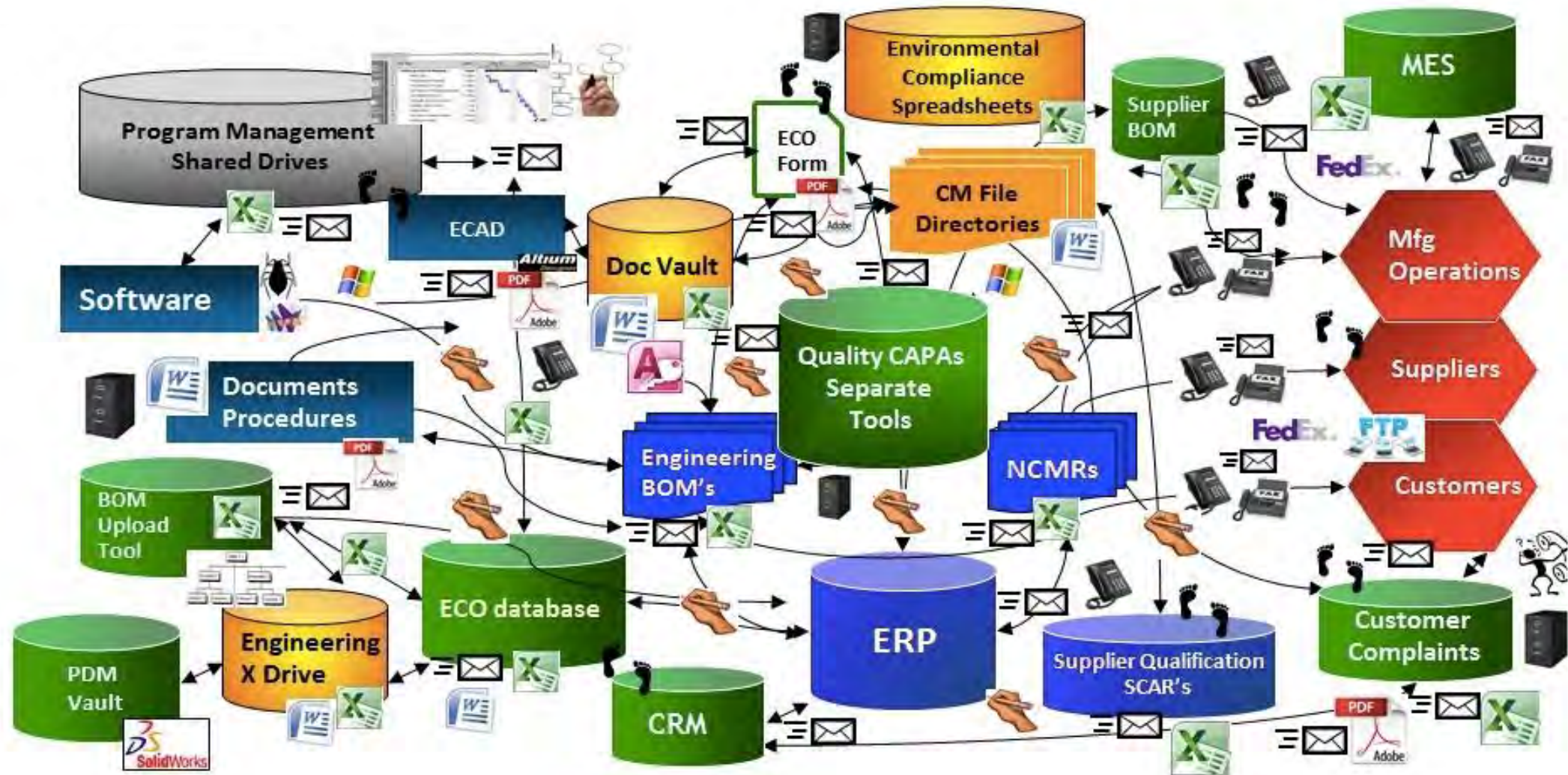
Average percent of infrastructure on blockchain by 2030

44%

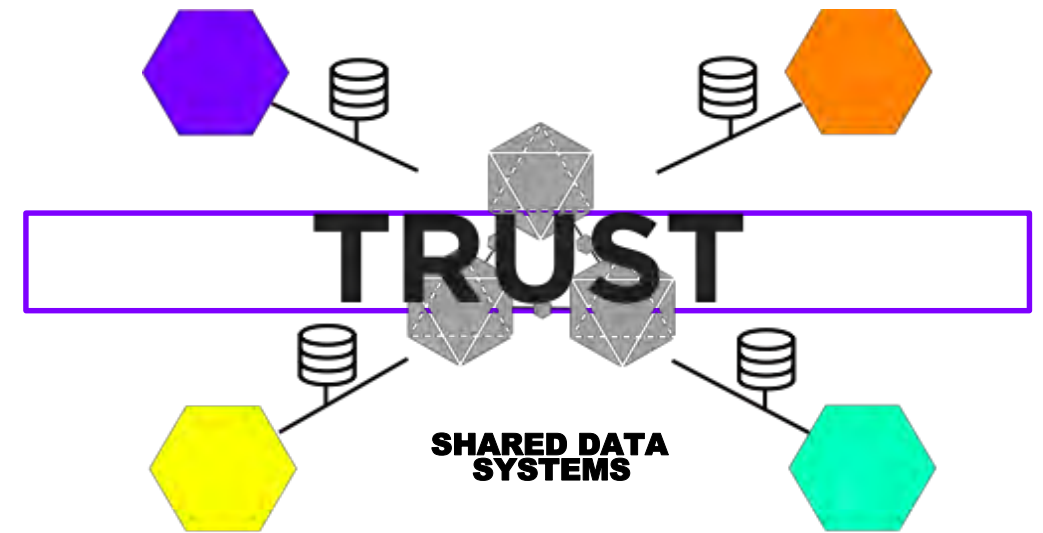
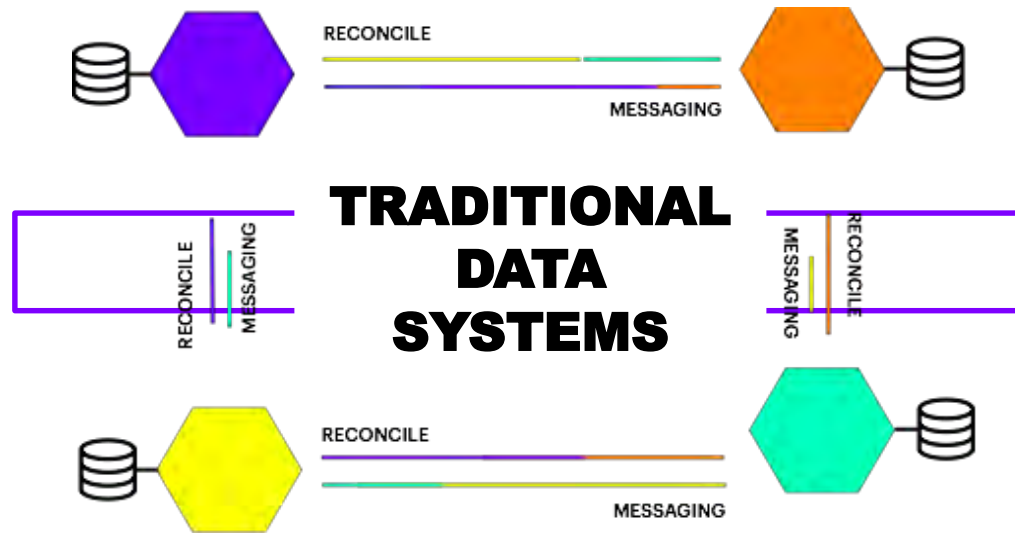
Blockchain as a part of the solution to network/internet security



WE ESTIMATE >30% OF A BUSINESSES COST BASE IS LOCKED UP IN DATA MESSAGING AND QUALITY ISSUES



BLOCKCHAIN = BUSINESS TRANSFORMATION



- “Can you send me what I need?”
- “Here’s what I know, what do you know?”
- “How can we align?”
- “Did you receive it?”
- “Is it right?”

- “I see what you see”

FOUR KEY FEATURES CREATE THE CONFIDENCE



PROVENANCE

We know where it came from and can trace its' complete history



TAMPER EVIDENCE

We know if someone has tried to change it



CONTROL

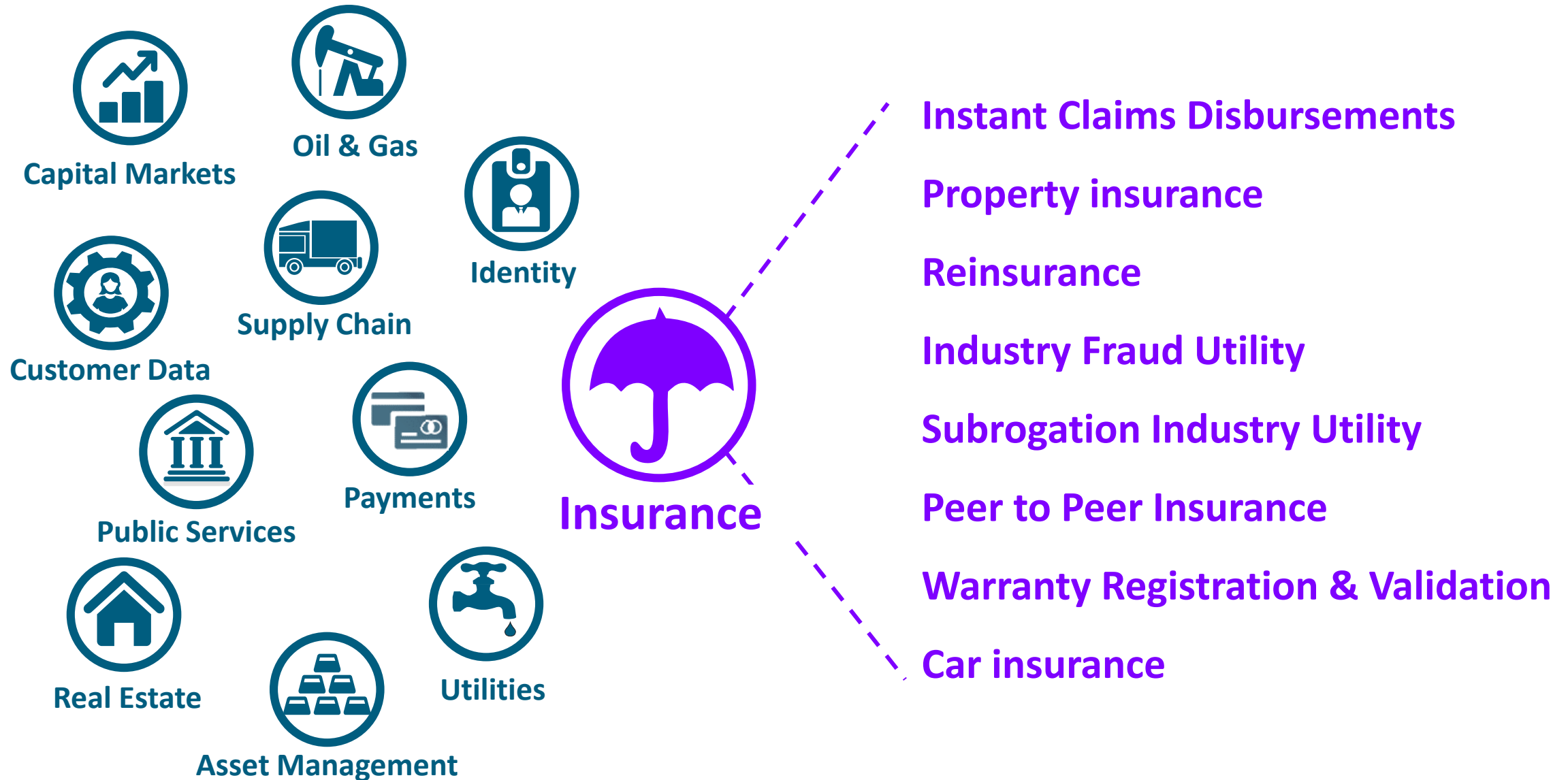
We can control what someone can see and do at a data element level



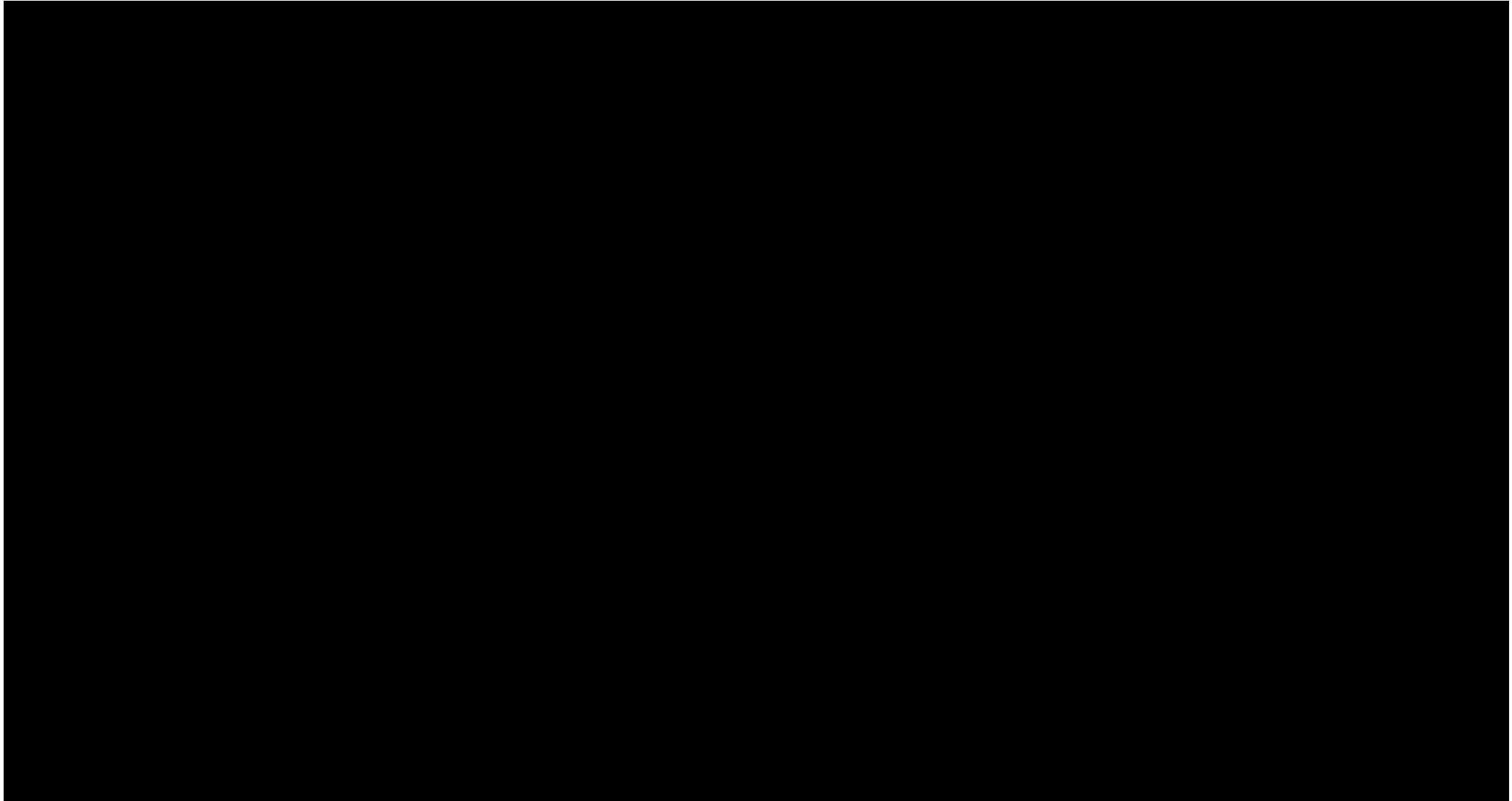
SECURITY

We can encrypt and segregate data at a data element level

Emerging blockchain use cases



DECENTRALIZED IDENTITY: KNOWN TRAVELLER DIGITAL IDENTITY



IDENTITY & RISK MANAGEMENT?

\$ 12 bn

Estimated expense to achieve worldwide identification by 2020

Source: Project ID2020 documentation, 2017

21 Different **digital identity instances** per person (on average)



Source: FinTechStage Festival, 2018

20 bn

connected "things" by 2020 with **consumer applications** to represent **63 %** of IoT applications



Source: Gartner Newsroom, 2017

The global **multi-factor authentication services market** is expected to grow at a CAGR of close to 23% from 2017 to 2021 **up to \$ 14.2 bn**

Source: Businesswire

130

Average number of **security breaches** each year

Percentage increase over last five years **+91%**

Source: 2017 Cost of Cyber Crime Study - Accenture, 2017

1.9 bn

usernames and passwords exposed via data breaches and traded on black-market forums between Mar 16 - Mar 17



Source: Google, 2017

Identity theft 69%

of all data breach incidents, with over **600 million records** impacted resulting in a 73% increase from 2016



Source: Gemalto, 2018







\$141

average cost for each lost or stolen record containing sensitive and confidential information

Source: IBM, 2018

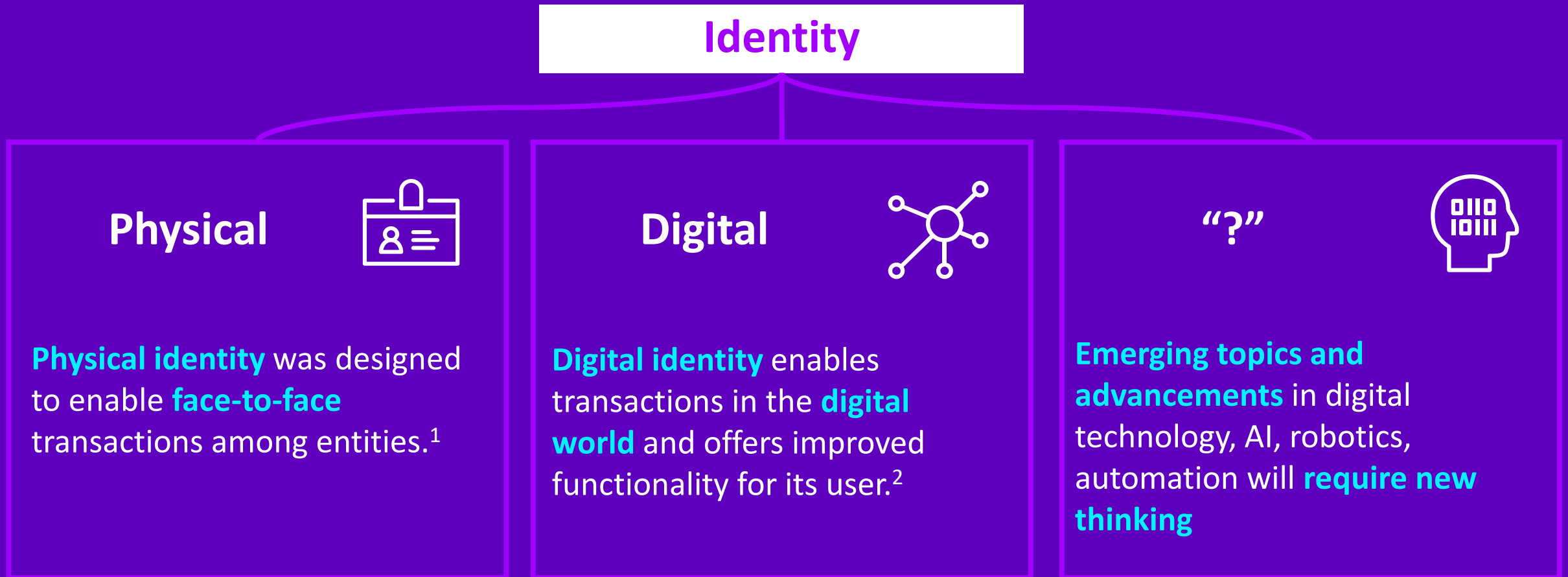
EVERY TRANSACTION STARTS WITH AN IDENTITY

- The need for an identity both the digital and physical world from getting access to essential services to accessing social media.
- Identity verification touches almost every industry from people to supply chain.
- **A more trustworthy identity means a more trusted transaction and thus lower risk**

|  People |  Private Sector |  Public Sector |  Connected Devices |  'Things' |  Virtual entities |
|--|--|---|---|--|--|
| Employment background checks | Banking & insurance e.g. KYC | Getting an ID e.g. driving license | Social benefits & welfare | Goods in supply chain | Social Media |
| Healthcare services | Making payments | Paying & collecting taxes | Trade finance | Forests & Wildlife tracking | Workforce mgmt. |
| Border control | Telecom | Travel & hospitality | Paying & collecting taxes | Processes | Machine to machine |

WHAT IS IDENTITY?

It makes something or someone the same today as it, she, or he was yesterday.



A VERIFIABLE AND TRUSTABLE DIGITAL IDENTITY IS BECOMING ESSENTIAL IN OUR DAILY LIFE

Trust is based on face-to-face interaction



...No face-to-face trust

PHYSICAL IDENTITY

- Designed for face-to-face transactions
- Trust based on visual documents/person

You can see me, so you can trust me



DIGITAL IDENTITY

- Digital identity is **acknowledgement** by trusted parties of our **existence** in the digital world
- Have the **rights & permissions** to transact

I am **real** and I **exist**



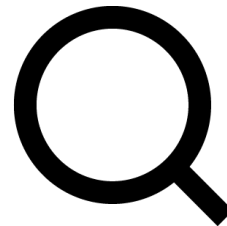
Without a trusted identity in a digital world, we would struggle to transact, access services, and be acknowledged that we are who we claim to be

BLOCKCHAIN ENABLES DECENTRALIZED IDENTITY THROUGH TRUST



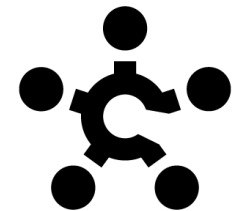
Secure

Data is cryptographically secure – sensitive data can be locked down



Tamper-Evident

Built-in mechanisms to verify data has not been changed – information cannot be altered



Distributed

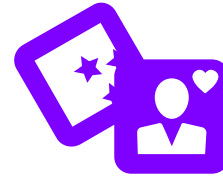
Participants have access to the same data – real-time updates and information

OPPORTUNITIES FOR INSURANCE

Capabilities such as RPA, Blockchain, Digital ID, AI, Biometrics could help to reduce risks and augment existing risk management capabilities



New **business models** and ways of sharing risks



Greater **trust in data**, identities, and transactions



New **role for the insurance market?**



Greater **transparency** and auditability



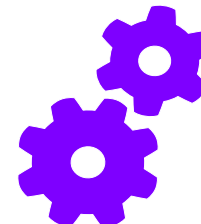
More **accurate**, higher quality data



Better user experience and **trust-building** with customer



Enabling **greater trust** where it did not exist before

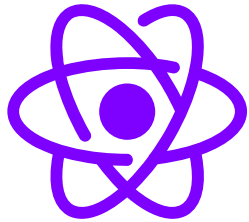


Efficiency gains through sharing and automation

RISKS & CONSIDERATIONS



AI & Machine Learning - Ethics



Technology led, not value led



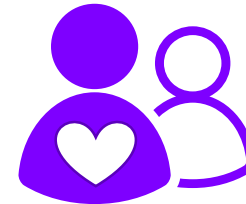
Blockchain – Security is still essential



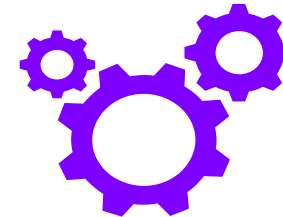
Digital ID – privacy and security, and choice



Speed of change in technology & lock in



User experience



Interoperability

WHAT DOES THIS MEAN FOR INSURANCE?



Consider the new role and potential new products - insuring against risks for corporates to share data?



Insurance is critical to enable partnerships & new ecosystem for data sharing and organizations to take risks



Be prepared for disruptions and new partnerships

**THANK
YOU**

