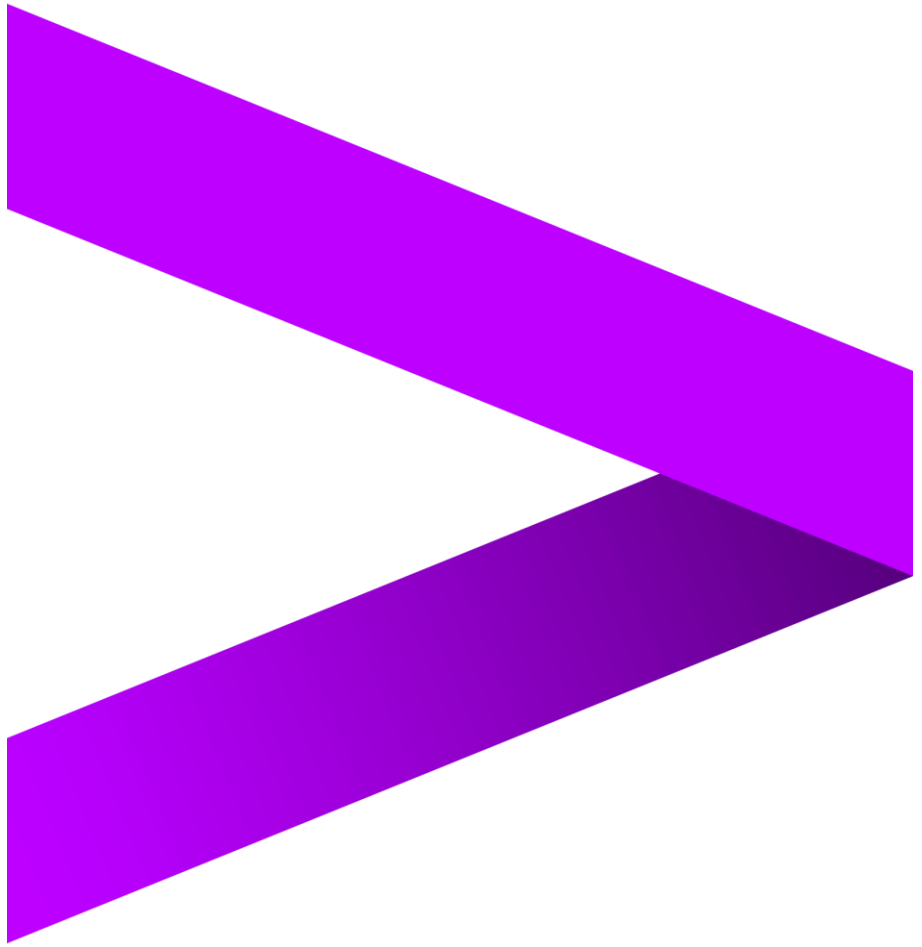
IDENTITY OF PEOPLE, PLACES, & THINGS



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accenture

WHAT IS IDENTITY?

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

Identity

Physical

Physical identity was designed to enable **face-to-face** transactions among entities.[1]

Digital

Digital identity enables transactions in the **digital world** and offers improved functionality for its user.[2]

"?"

Emerging topics and advancements in digital technology, AI, robotics, automation will **require new thinking**

A VERIFIABLE AND TRUSTED 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 inspection** of person making an identity claim and the document(s) presented

DIGITAL IDENTITY

- Enables online, virtual transactions
- **Trust based on the issuer of the Digital identity attribute(s)** and the ability to **bind identity claim(s) to the physical identity**

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

IDENTITY TRENDS: WHERE THE WORLD IS GOING

INCLUSIVE, PERSONALIZED

SEAMLESS USER EXPERIENCE

MOBILE DEVICES EVERYWHERE

BLOCKCHAIN IS THE DISRUPTOR

SELF MANAGED/ OWNED IDENTITY

SECURITY & PRIVACY

AI & ROBOTS

BIOMETRICS ARE EVERYWHERE

TOWARDS A GOOD DIGITAL IDENTITY

World Economic Forum, ***Identity in the Digital World: A New Chapter in the Social Contract***.
http://www3.weforum.org/docs/WEF_INSIGHT_REPORT_Digital%20Identity.pdf

IDENTITY IN EVERYDAY LIFE

- 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.
- Through our lives, we will have 1000s of identities and 10000s more related to us

People

Employment background checks

Healthcare services

Border control

Private Sector

Banking & insurance e.g. KYC

Making payments

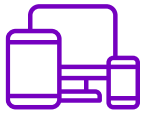
Telecom

Public Sector

Getting an ID e.g. driving license

Paying & collecting taxes

Travel & hospitality



Connected Devices

Social benefits & welfare

Trade finance

Paying & collecting taxes

'Things'

Goods in supply chain

Forests & Wildlife tracking

Processes

Virtual entities

Social Media

Workforce mgmt.

Machine to machine

IMPACT OF LACK OF TRUSTED IDENTITY IN A DIGITAL WORLD TO ORGANIZATIONS

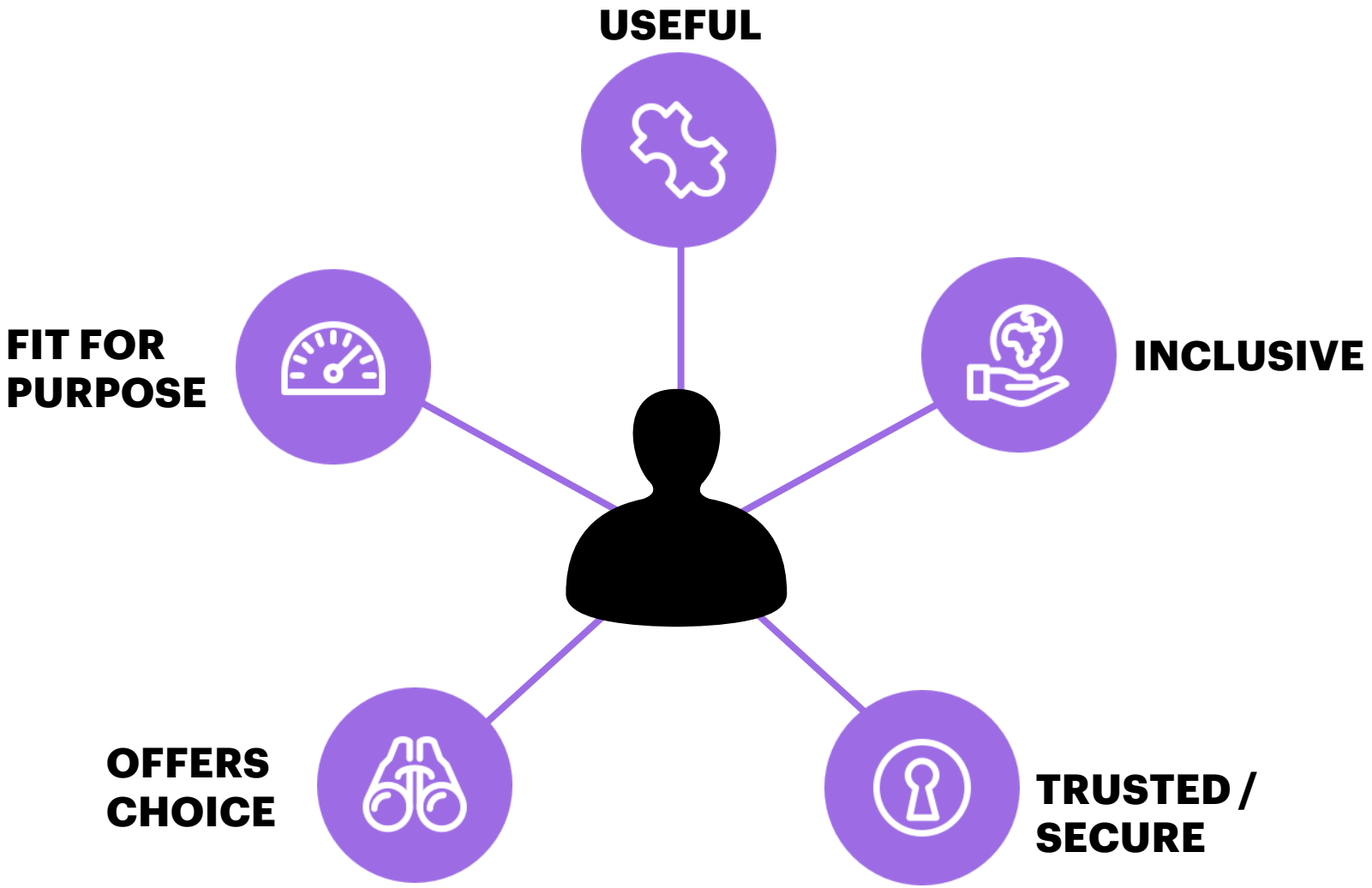
Governments

- Low **financial inclusion**
- Low **economic development**
- Poor **resource allocation**
- Vulnerable populations with higher rates of human trafficking, violence, and **more easily exploited** for other criminal activities
- **Higher identity fraud**, and other types of fraud, in the economy

Organizations

- Difficult to detect fraud due to **no reliable source of identity data**
- **Poor customer experience**
- Difficult to manage **compliance**
- **Inefficient & costly**, e.g. Expensive to do background checks
- Cash-heavy transactions **prone to fraud**

IDENTITY IN THE DIGITAL WORLD NEEDS TO BE: USER-CENTRIC



BEYOND IDENTIFICATION & AUTHENTICATION

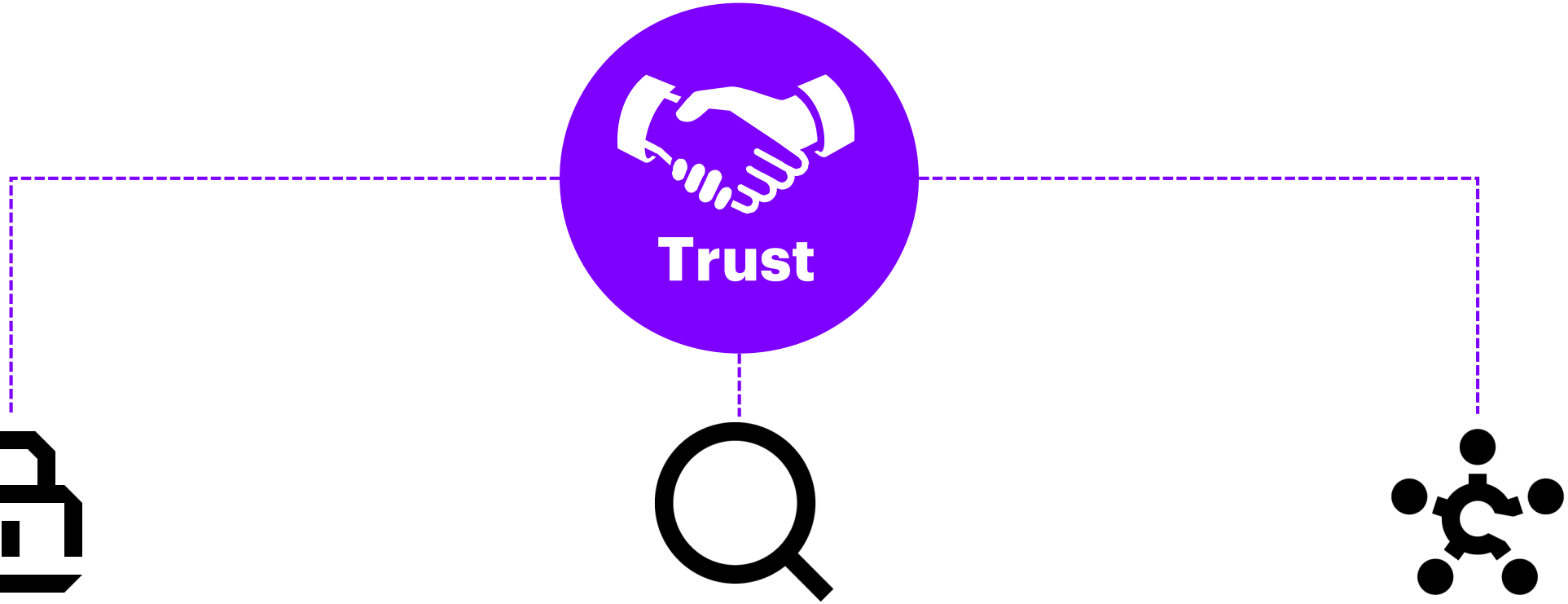
Most countries have different forms of recognized identities within their countries. Some require compulsory carry IDs, some don't. **For any type of digital identity, however, it must be useful.**

Even if one can be identified and authenticated, there are a lot of others issues e.g.

- Reliability/trust worthiness
- Validity
- Mutual recognition
- Portability
- Permanence
- Acceptance
- User Adoption

Digital identity must provide value to the users of the systems and must be useful to drive adoption.

BLOCKCHAIN ENABLES DECENTRALIZED IDENTITY THROUGH TRUST

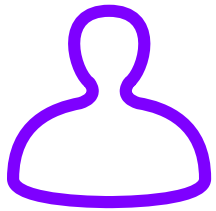


Secure
Data is cryptographically secure and cryptographically verified without an intermediary

Tamper-Evident
Built-in mechanisms to verify data has not been changed – information cannot be altered without detection

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

WHY IS DECENTRALIZED IDENTITY RELEVANT



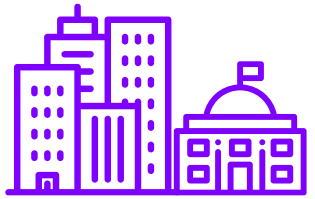
FOR THE USER:

PORTABLE
Users can take their identity data with them

USER EXPERIENCE
Reduce amount of repeated input

ACCURATE
Data shared more accurately and consistently

PRIVATE
User is in control of what to share, and with whom



FOR ORGANIZATIONS:

EFFICIENCY
Decrease dependence on manual processes

VERIFIABLE
Data can be easily verified and shared confidentially

TRUST & INTEROPERABILITY
No need for direct trust relationships

COMPLIANCE
Immutability and auditability of blockchain

REDUCE RISK
Index of data persists; don't share info if not required

DIGITAL IDENTITY

ACCENTURE´S APPROACH

Blockchain can be used for **interoperability** between existing databases and systems

No PII is stored on chain – permanence of the blockchain needs to be considered

The end user is in control of their data, or they can choose to delegate control to trusted parties

Traditional trust anchors, e.g. banks, governments play a key role in being the gatekeepers and source of trust of an identity

Biometrics may be used to bind an identity claim to the individual making the claim

EXAMPLE PROJECTS [1/4]

HEALTHCARE RECORDS: Enables patients to share and manage their own health records so that they can easily get healthcare services and prescriptions anywhere

STREAMLINED KYC: accelerate the KYC process with client consent through attestations from network of banks

BACKGROUND CHECKS & TRAINING RECORDS: Reduce repetition in background checks & build trusted records of education and professional certificates

PROOF OF OWNERSHIP / INSURANCE: attestations of property ownership, for instance, used to get insurance or file taxes

EXAMPLE PROJECTS [2/4]

FOOD SAFETY - How blockchain technology can be used to enhance the traceability of the pork health export certification process.

- A web app which allows both the ante mortem and post mortem vets to conduct their inspections, approvals and reporting; removing duplication of paperwork.
- A mobile companion app, enabling vets to upload photographs onto the chain as immutable evidence. e.g. to prove the seal on a pallet has not been tampered with and also removing the need to use personal devices.
- An analytics dashboard to digitally present key data metrics and enable reporting.
- A user research document, highlighting how the combination of blockchain and design could transform industry processes in the future.

KEY SOLUTION CRITERIA

Traceability
Provide greater transparency and immutability of data

Decentralised Processing
Distributed and resilient infrastructure with no single point-of-failure

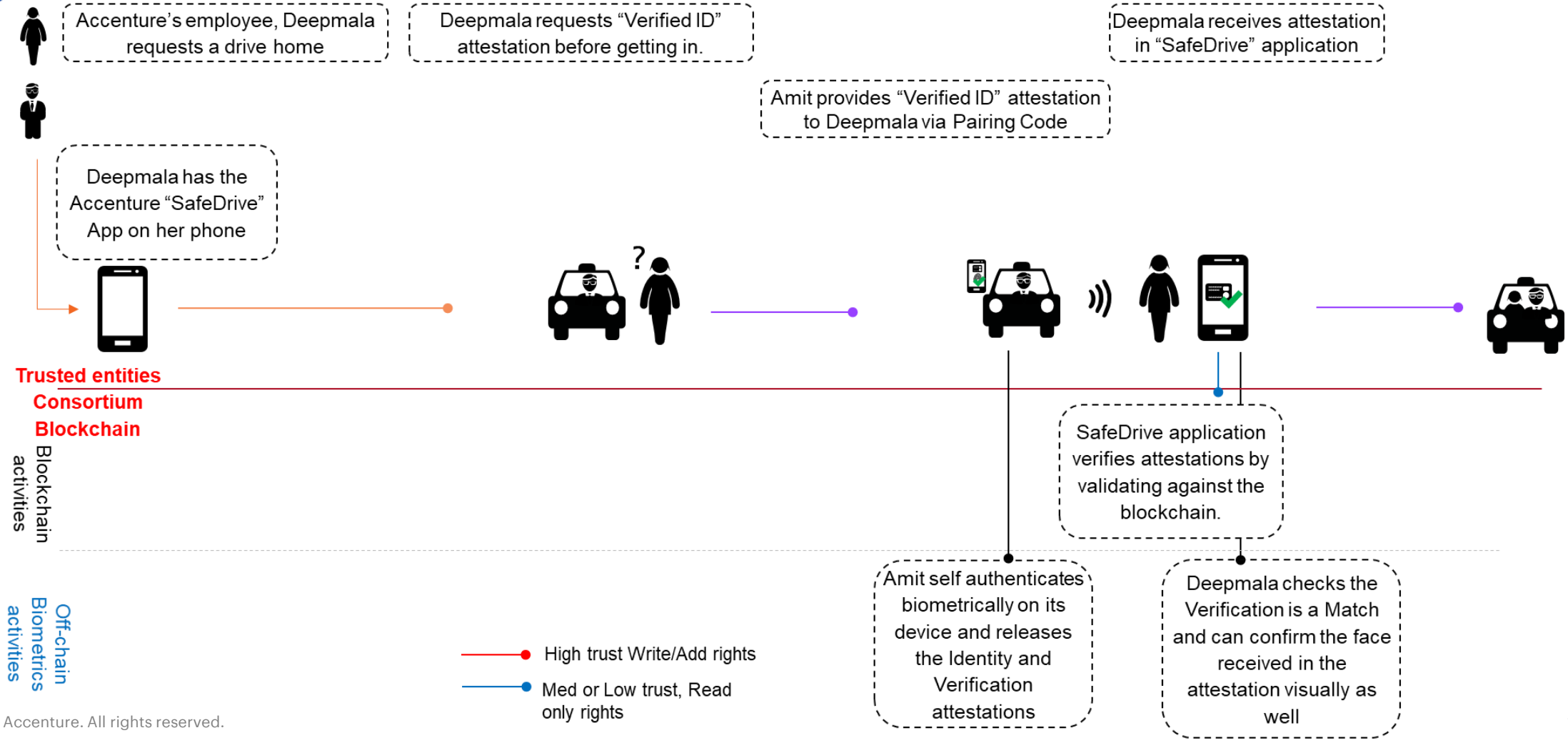
Smart Contracts
Show how Smart Contracts can simplify and automate business processes

Privacy of Transactions
Only relevant parties will have visibility and access to transaction details

Regulatory Oversight
Allow regulators to more easily and closely follow trading behavior to help combat fraud and resolve legal disputes

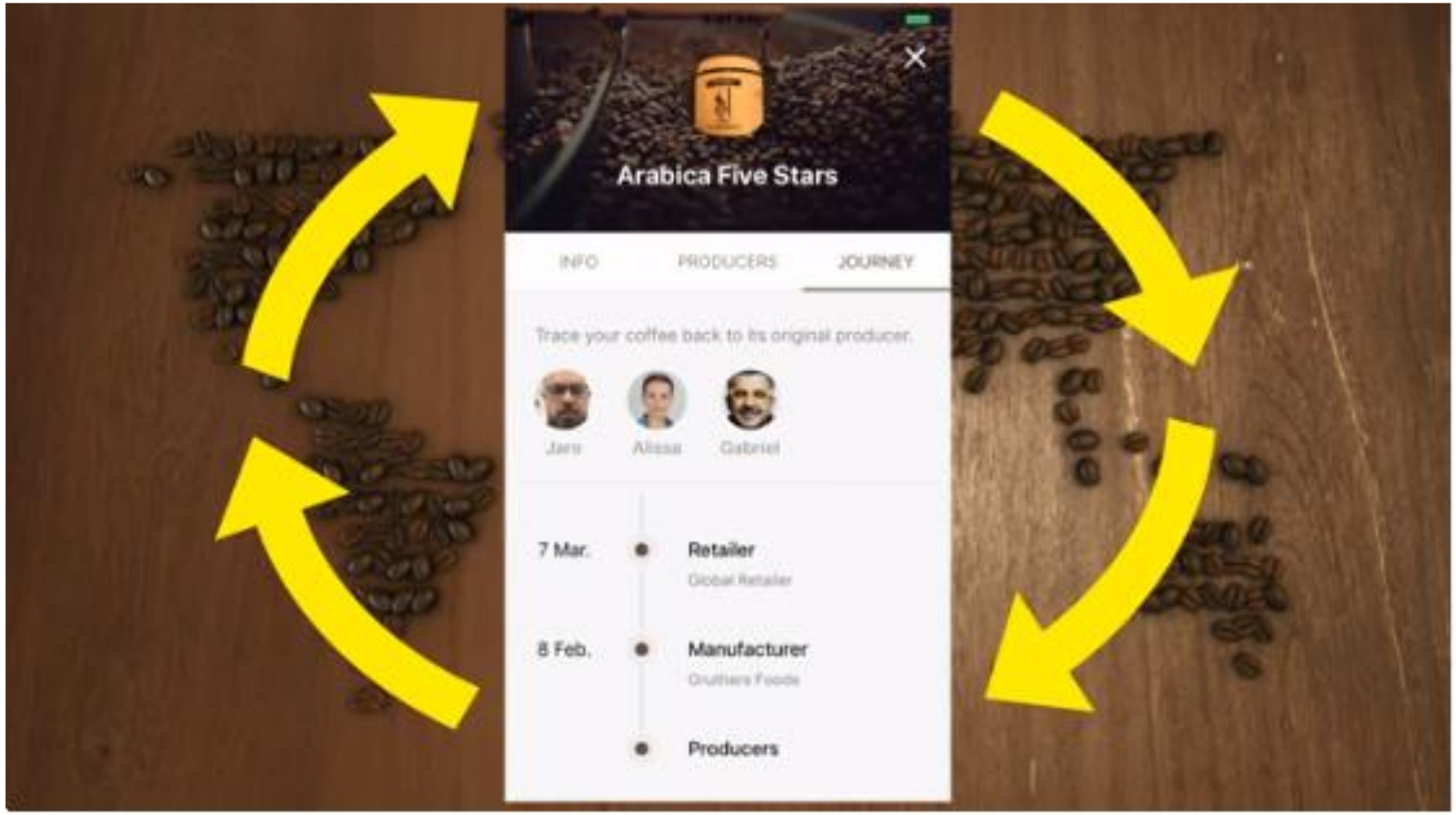
EXAMPLE PROJECTS [3/4]

SAFE DRIVE: Rideshare providers can verify the identity and authorizations of drivers and passengers can verify driver identity to ensure that the driver is legitimate



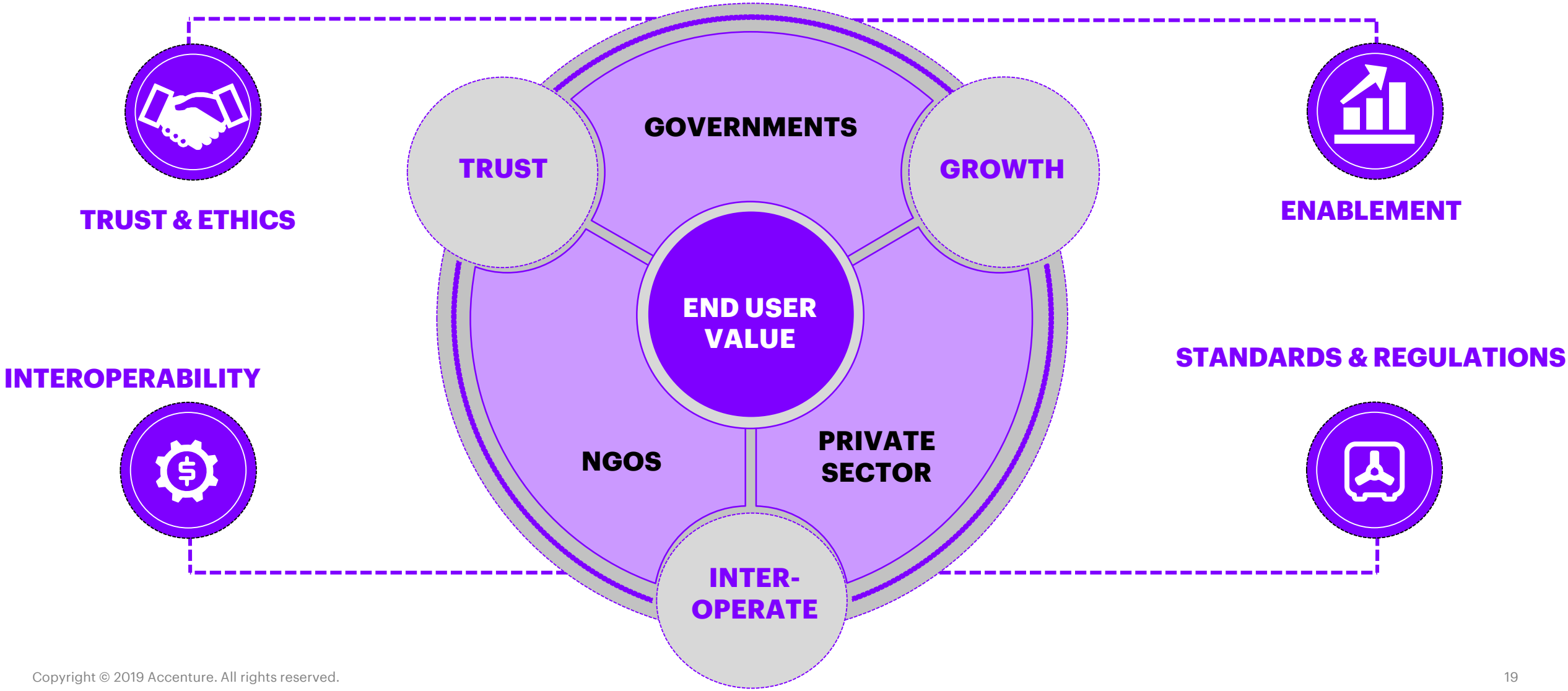
EXAMPLE PROJECTS [4/4]

CIRCULAR SUPPLY CHAIN: Connects consumers directly to producers, influences positive behaviors of each provider through transparency and traceability in supply chains



PUBLIC-PRIVATE COOPERATION IS KEY

CROSS-SECTOR COLLABORATION:
A COLLABORATIVE ECOSYSTEM IS CRITICAL



GETTING TO THE NEW WORLD OF IDENTITY

Focus on user value

Stewardship

Shift in mindset

Accountability

Partnerships & ecosystem

Speed in technology changes

Governance

Innovation

Security & privacy

THANK YOU

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