simpler
stronger
authentication

Pioneers in IT security.
IT Security Association Germany

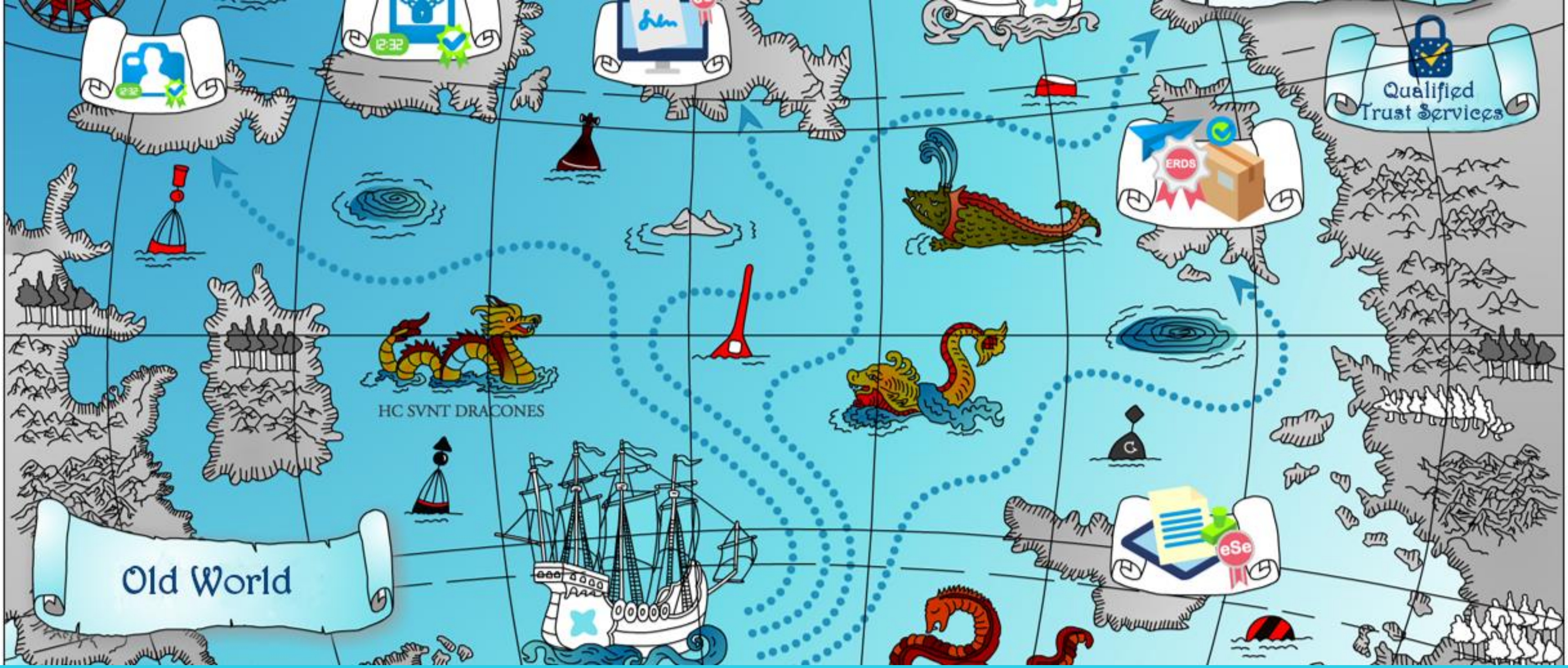
German/US Expert Meeting

IT Security Association Germany (TeleTrusT) in cooperation with FIDO Alliance

San Francisco, 08.05.2024

New kinds of Trust Services in Europe – How the European Wonderwallet should work

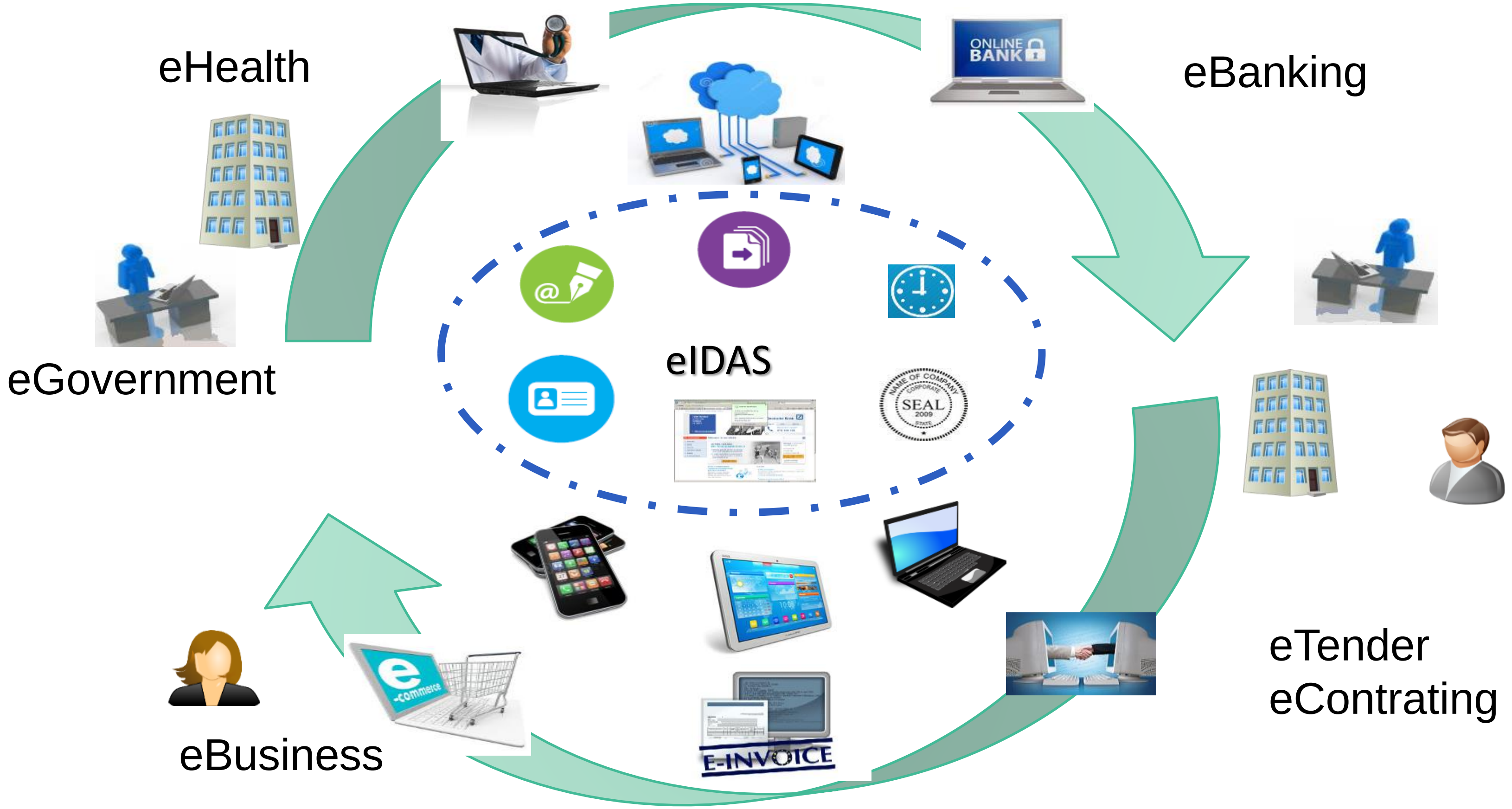
Arno Fiedler, Nimbus



New kinds of Trust Services in Europe – How the European Wonderwallet should work

NIMBUS Technologieberatung GmbH

eIDAS 2014: Vision to enable "EU Digital Single Market via Pan-European Trust Services"



Vision for a European Digital Identity (Framework)

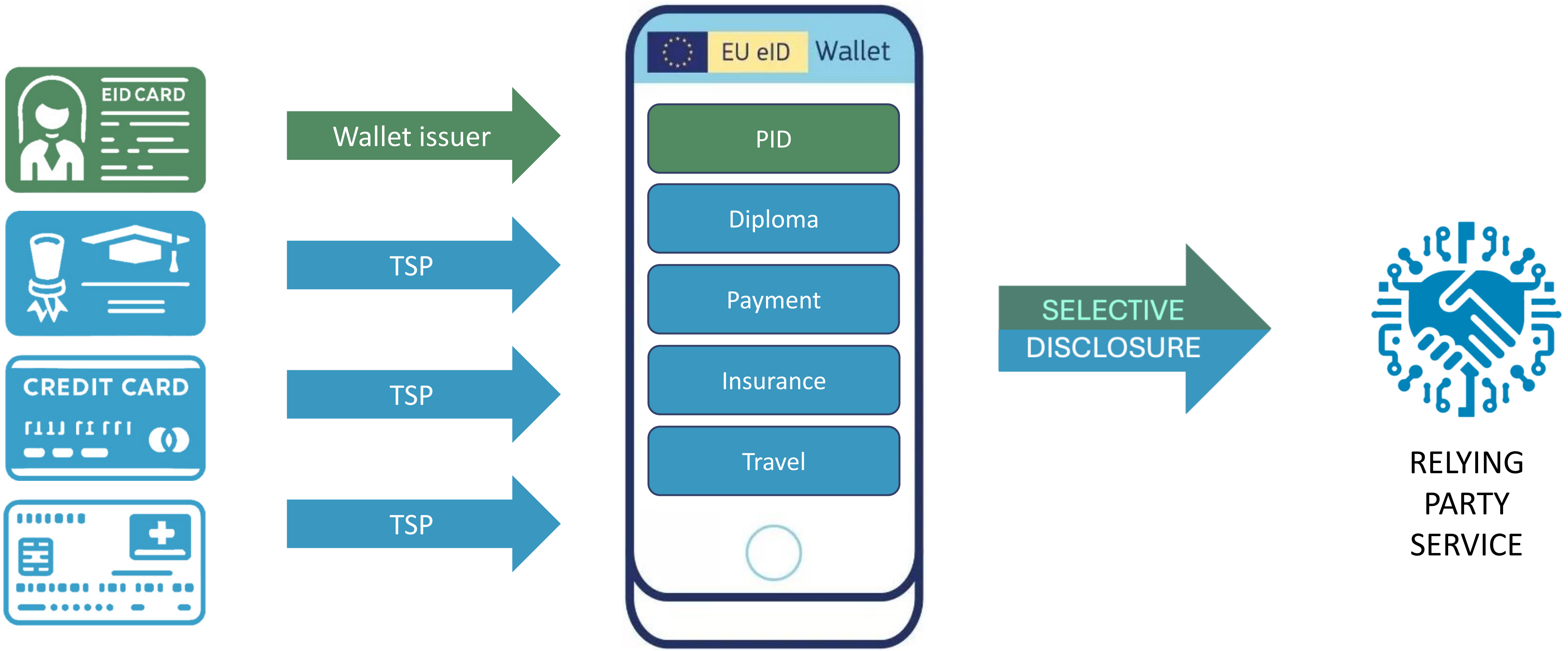
«The Commission will soon propose a **secure European e-identity**. One that we trust and that any citizen can use anywhere in Europe to do anything from paying your taxes to renting a bicycle. A technology where we can control ourselves what data and how data is used. »

(State of the Union - 16 September 2020)

« The European Council calls for the development of **an EU-wide framework for secure public electronic identification (e-ID)**, including interoperable digital signatures, to provide people with **control over their online identity and data** as well as to enable **access to public, private and cross-border digital services**.»

(European Council Conclusions - 2 October 2020)

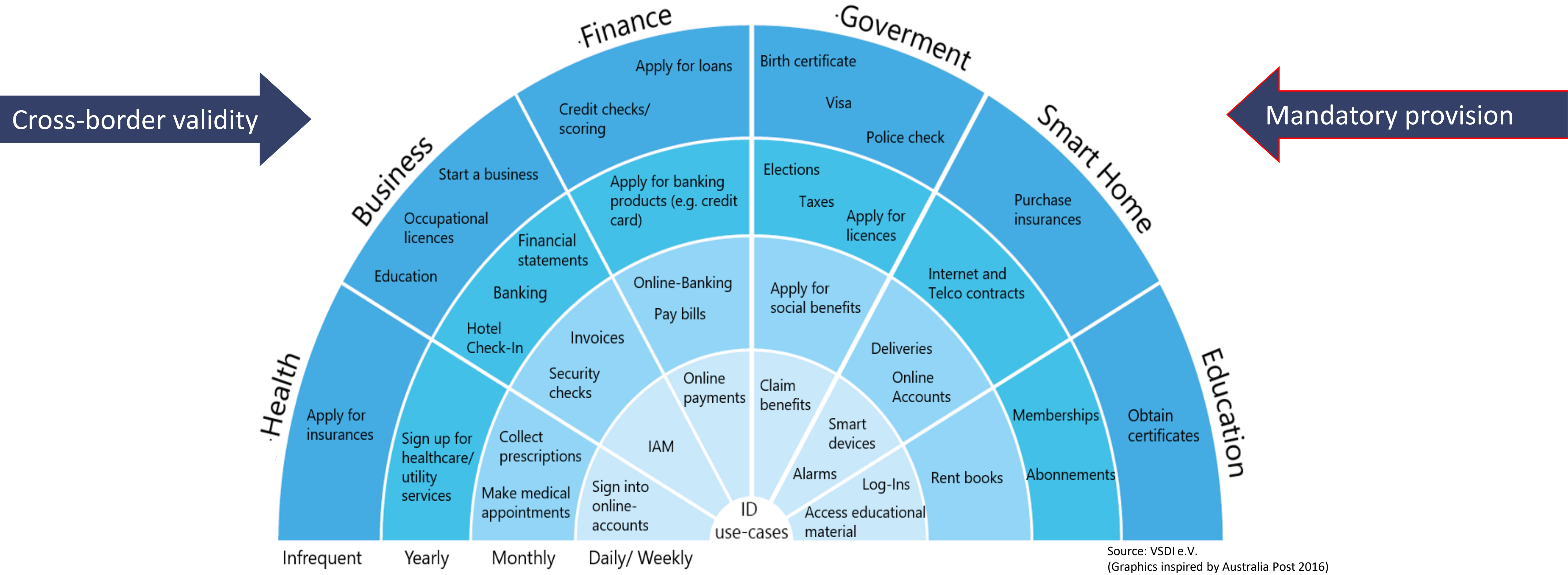
European Digital Identity Wallet



European Digital Identity Wallet

- ✓ Member state obliged to offer to every citizen
- ✓ Means for authentication – online (AL High) and offline
- ✓ Free QES
- ✓ Mandatory for very large platforms and several sectors

Use Cases for the wallet



Source: VSDI e.V.
(Graphics inspired by Australia Post 2016)

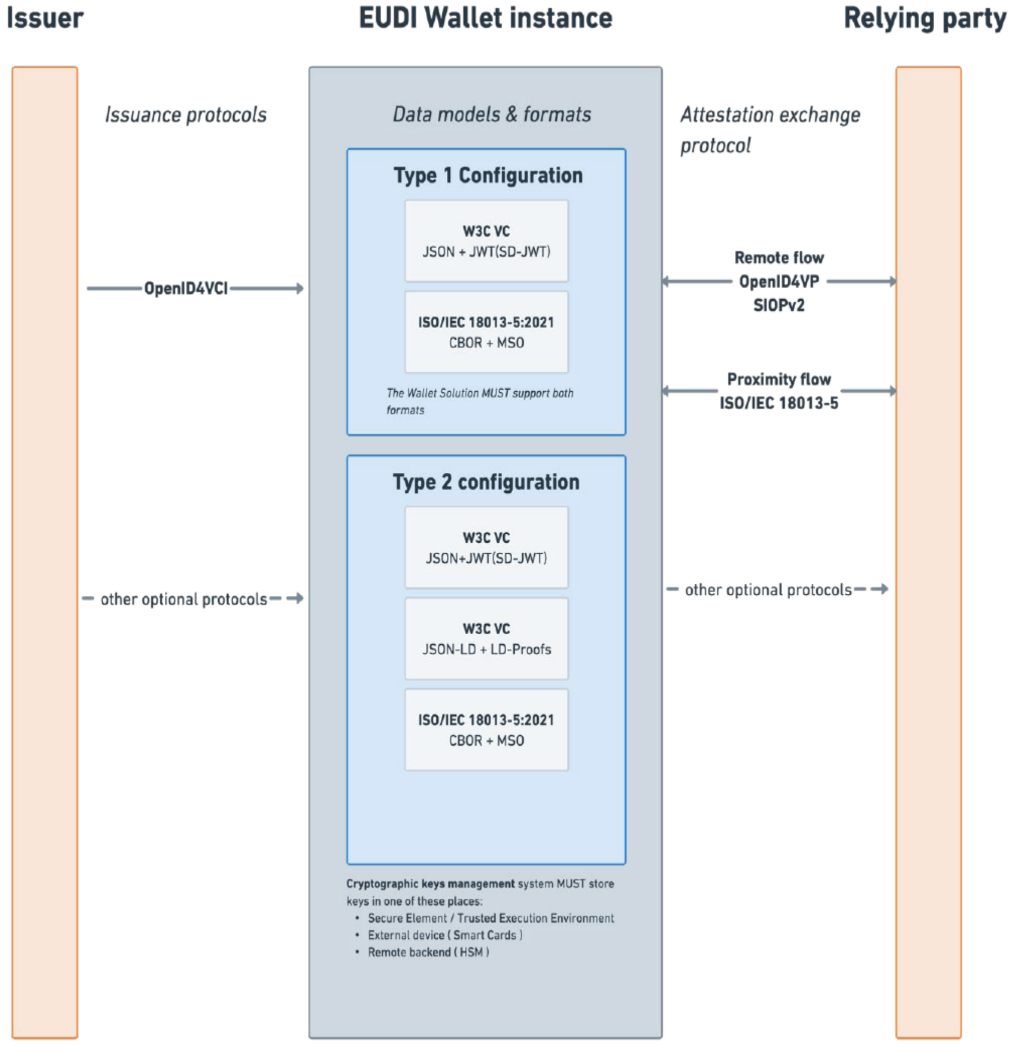


Figure 7. EUDI Wallet configurations.

Architecture and Reference Framework (ARF)

- The ARF is a guideline for the member states on the technical implementation of the EUDIW and new trust services.
- It outlines specifications for an interoperable European Digital Identity Wallet Solution,
- and summarizes current progress by the eIDAS Expert Group, without formal agreement.
- The Final version will provide a comprehensive framework for implementation.

- **The document itself holds no legal value and SHALL not prejudge the forthcoming legislative process and the final mandatory legal requirements for European Digital Identity Wallets.**

No reg-tech without standardization

Regulation on
EU Digital Identity Framework
Replacing 910/2014 (eIDAS 2)

EU Digital Identity Wallet
Architecture and Reference
Framework

ETSI Standards
for Trust services
Supporting EUDIW

CEN Standards
for
EUDIW

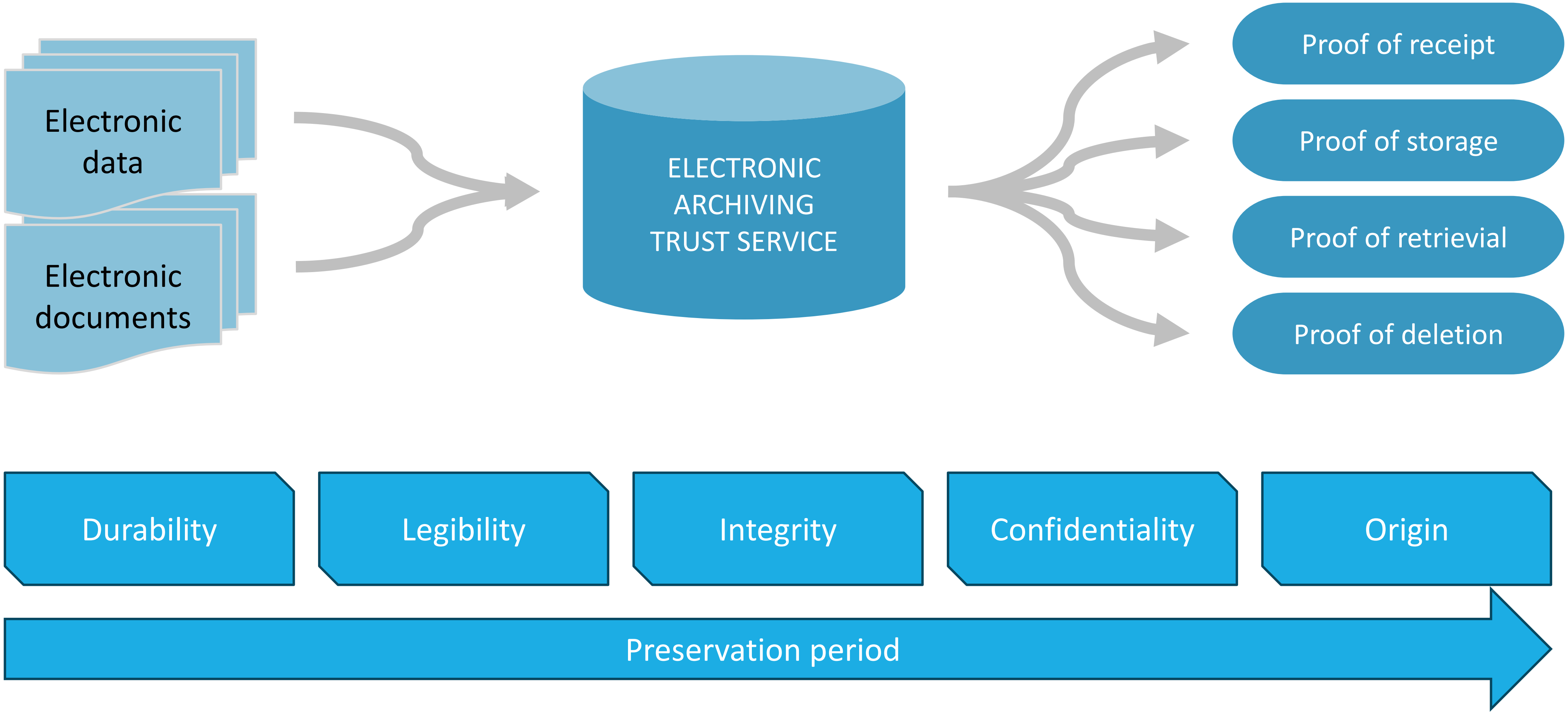
Internationally Recognised
Standards for
Mobile Identities

New Trust Services and new challenges for Trust Service Providers

Introduction to new Trust Services

electronic Identification Means (eIM)	Trust Services				
	Archiving Services	RSCD management	Attribute Attestation Services	Ledgers	Validation services (time stamps, ERDS, EAA)
EU Digital Identity Wallet (EUDIW)	Qualified Archiving Services	Qualified RQSCD management	Qualified Attribute Attestation Services	Qualified Ledgers	Qualified validation services

(Qualified) Electronic Archiving



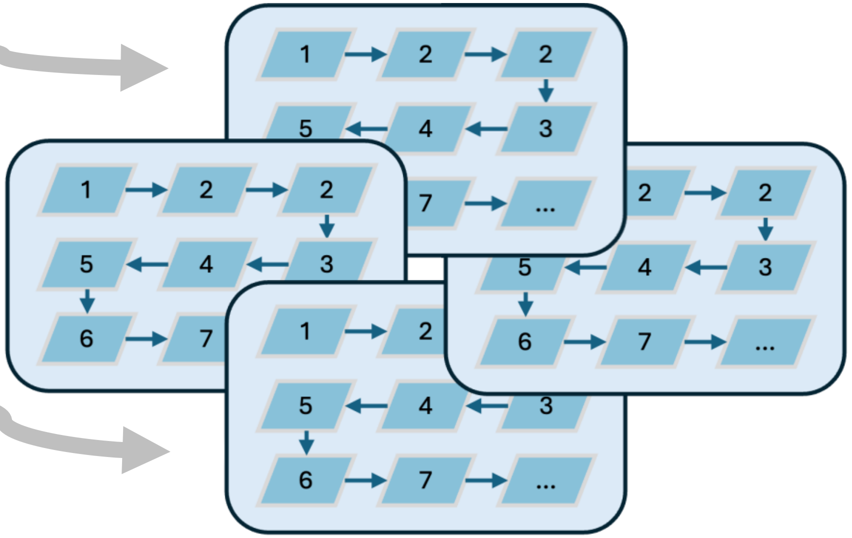
(Qualified) Electronic Ledgers

Electronic data

RECORDING OF ELECTRONIC DATA IN AN ELECTRONIC LEDGER
TRUST SERVICE A

Electronic data

RECORDING OF ELECTRONIC DATA IN AN ELECTRONIC LEDGER
TRUST SERVICE B



Integrity of data records

Unique chronological ordering

(Qualified) Electronic Attestation of Attributes

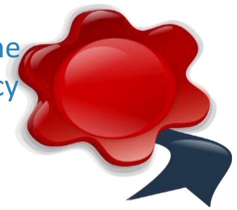
- Links attributes to an entity
- Verified information
- Cryptographically verifiable
- Structured data
- Machine readable
- Build-in privacy characteristics
- Decentralised portability

Benefits of EAA

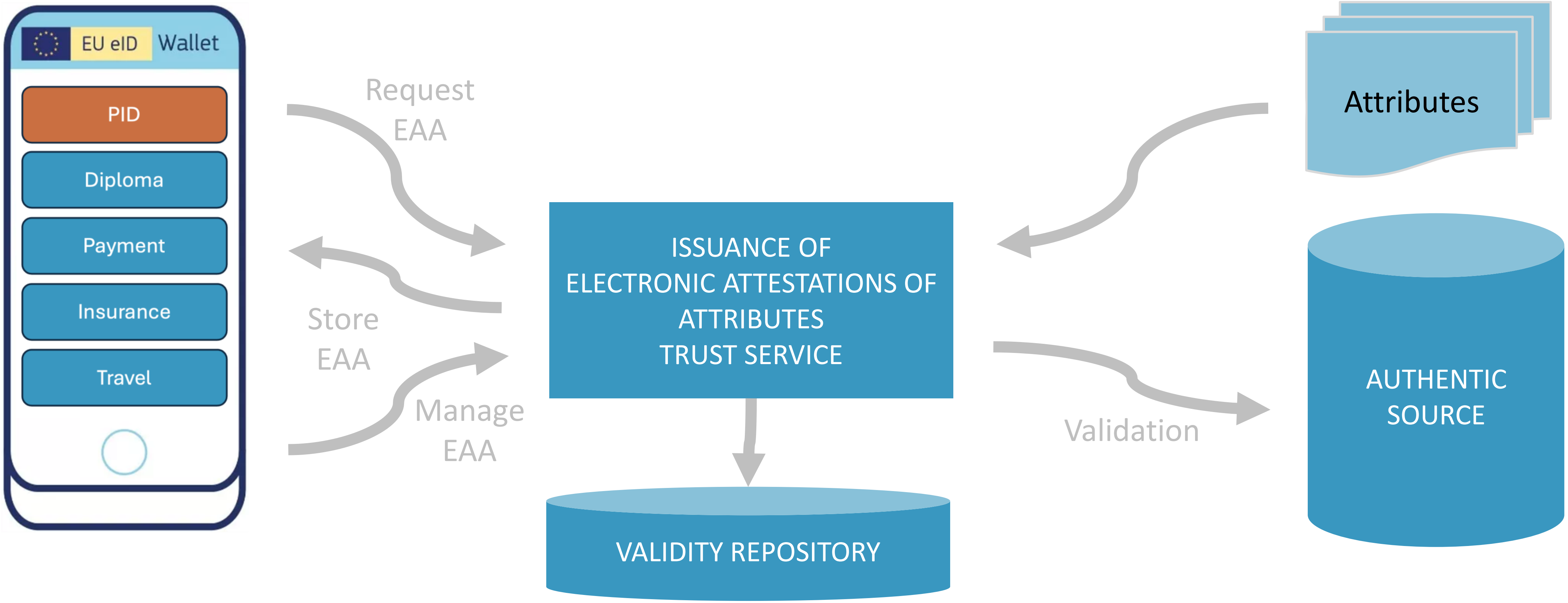
- Allows for full automation of decisions on eligibility
- No more falsifications
- No need for a central (monopolising) party
- No big brother
- Trustworthiness in its core

Professional Qualities
Issuer: Atatserp BV
Subject: Wim Coulier
Validity: From 02/11/2023 to 02/12/2023
Value:

- Project Management:
  - PRINCE II certified
  - 06/06/2010
- ETSI contributor
- eIDAS expert @ itsme
- Founder Trust Agency



(Qualified) Electronic Attestation of Attributes with Digital Identity Wallet



Wallet main use case for trust services

Identity proofing

ISSUANCE OF ELECTRONIC SIGNATURE CERTIFICATES

ISSUANCE OF ELECTRONIC SEAL CERTIFICATES

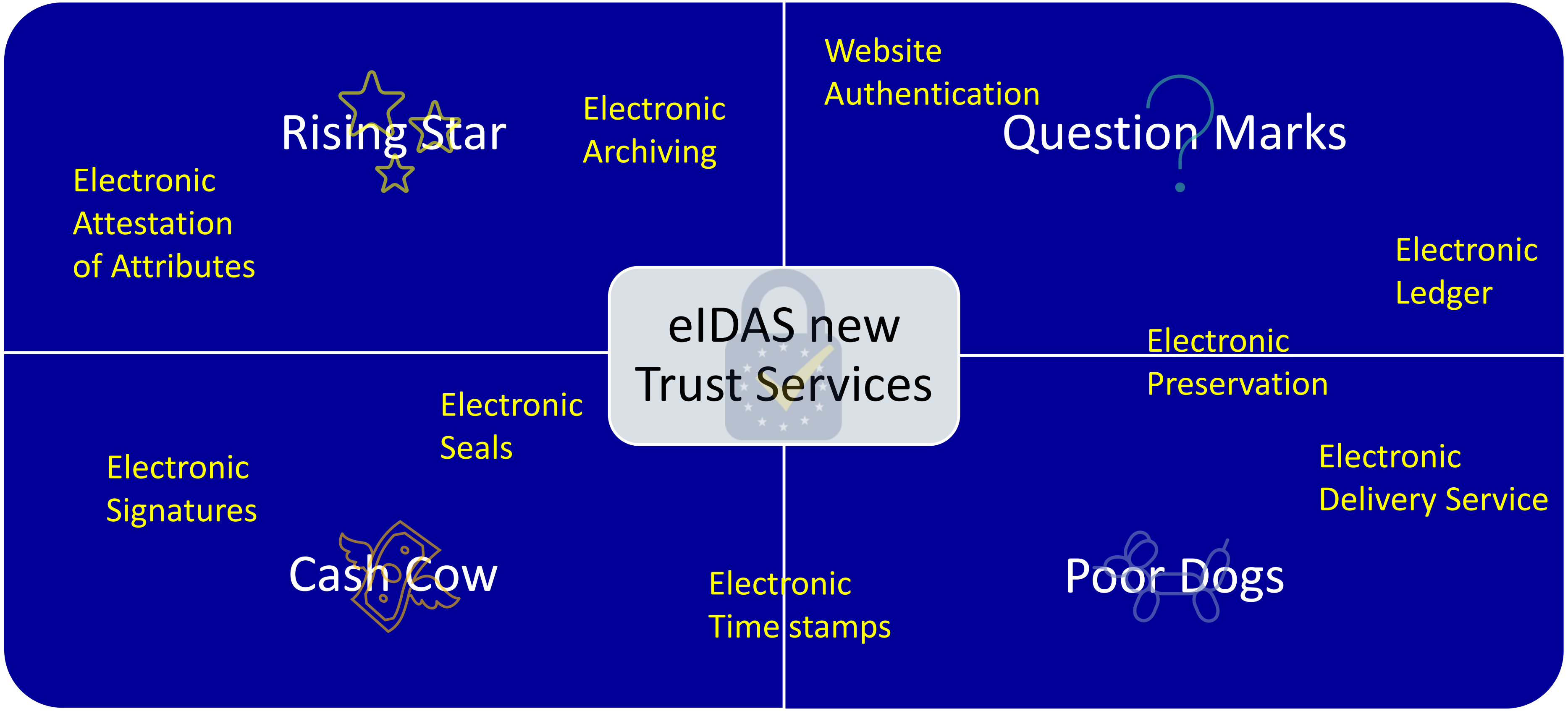
ISSUANCE OF ELECTRONIC ATTESTATIONS OF ATTRIBUTES

REGISTERED ELECTRONIC DELIVERY SERVICE

MANAGEMENT OF REMOTE ELECTRONIC SIGNATURE CREATION DEVICES

High Level of Assurance

Boston Matrix: eIDAS trust services 2024



Conclusion - EUDIW Ecosystem success conditions:

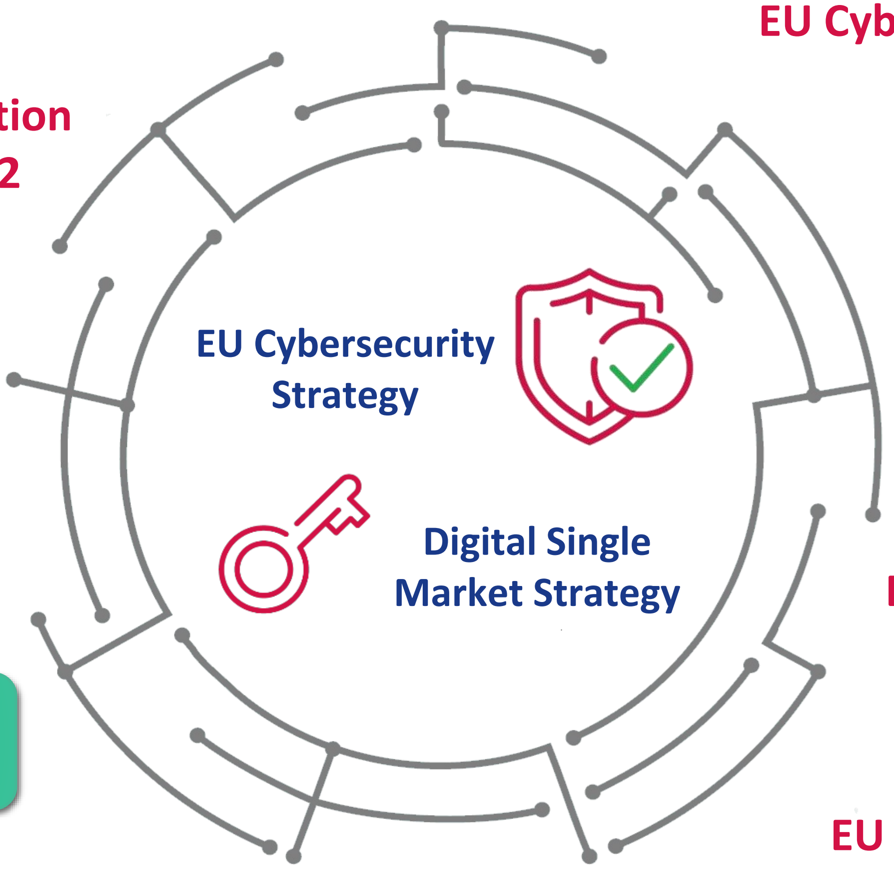
I. Ensuring market awareness of EUDIW and its role and potential
II. Interoperability and internationality of EUDIW
III. Good UX of the application, with reference to applications provided by big tech companies or mobile banks
IV. Incorporating EUDIW functionalities (onboarding, signing, sharing attribute credentials...) into the business processes of recipients as a condition for attractive business models
V. Building an environment of startups and investors utilizing EUDIW potential
VI. Avoid overregulation and actively involve the private sector in the development and implementation of digital identity solutions.

Overlapping EU regulations for QTSPs and Relying Parties

EU Cybersecurity Act

Network and Information Security Directive v2

General Data Protection Regulation



Radio Equipment Directive

Digital Markets Act

Cyber Resilience Act

EU Chips Act

Digital Services Act

eIDAS Regulation

Artificial Intelligence Act

EU Data Governance Act

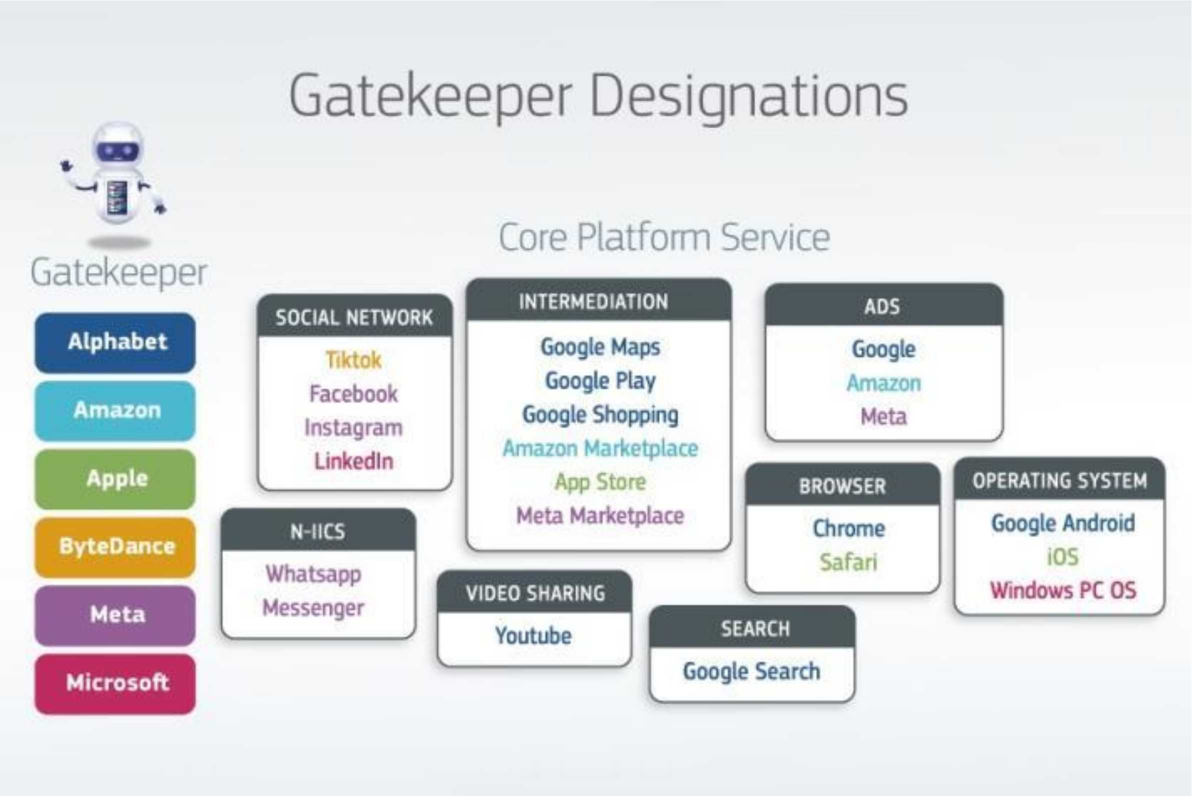
EU Cyber Solidarity Act

Data Act

Digital Operational Resilience Act

Source: Slawomir Gorniak, **ENISA** Cybersecurity Standardisation Conference,
https://www.enisa.europa.eu/events/cybersecurity_standardisation_2024/pdf/gorniak.pdf

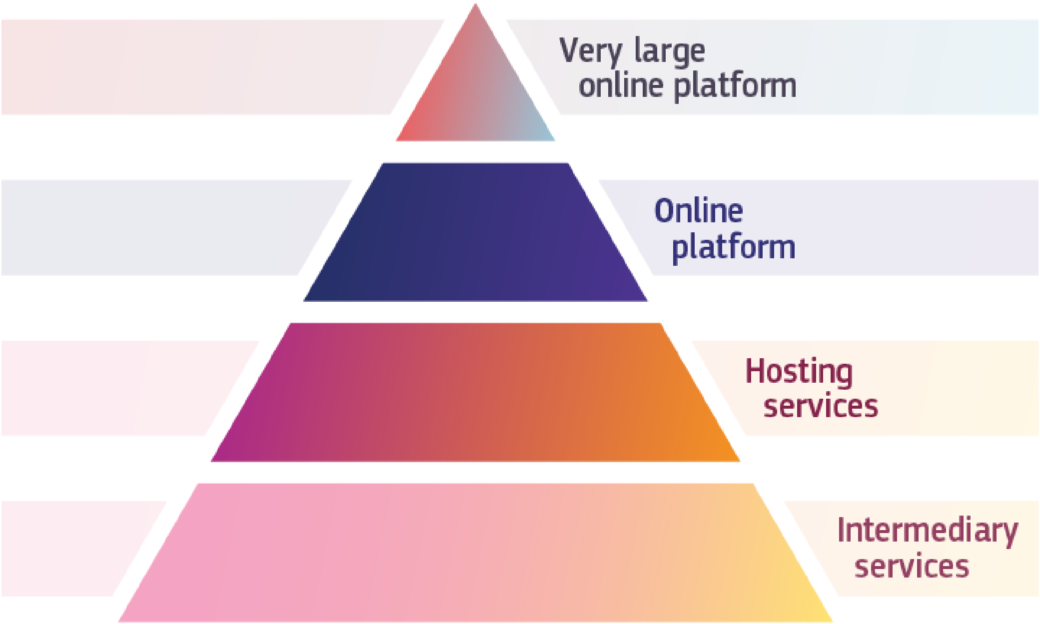
Digital Markets Act (DMA)



- EU law to make the markets in the digital sector fairer and more contestable.
- Establishes a set of clearly defined objective criteria to identify “gatekeepers”.
- Fines: of up to 10% of the company’s total worldwide annual turnover, or up to 20% in the event of repeated infringements

➢ **Supports aims of eIDAS 2024 regarding digital sovereignty**

Digital Services Act (DSA)



→ Very large online platforms, which require user authentication for access to their online services, shall accept and facilitate the use of the EUDIW upon the voluntary request of the user and in respect of the minimum data necessary.

NIS 2 directive

Stricter cybersecurity risk management controls

Stringent reporting obligations on organizations falling under specific economic sectors, referred to as Essential and Important Entities (EIEs).

All TSPs are classified as high critical

- **qualified as essential**
- **non-qualified large entities as essential**
- **smaller non-qualified entities as important.**

All entities will be supervised. , essential entities not only be supervised ex-post, but also ex-ante. Regular external audits are required and evidence need to be provided of implementing cyber security policies. All essential and important entities might undergo on-site inspections & off-site supervision, targeted security audits, security scans, requests for information.

Since NIS 2 is a directive, it needs to be **translated into national legislation**

Included in upcoming new version **ETSI EN 319 401**

Conclusion

"What is emerging in the market is a new environment where the focus has shifted from the provision and use of rigid digital identities to the provision and reliance on specific attributes related to those identities."

European Commission

Three final thoughts:

I. Build new ways on existing roads – There is not *the* one way for digital identities.

II. Public-Private Partnerships are essential for the evolvement of innovative solutions that can compete with existing (monopolistic) solutions.

III. The most secure and innovative technology is useless if there is no functional business model behind it that can bring the solutions to a broad use.