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Product- and Document Traceability in EBSI

Steffen Schwalm/msg (Co-Coordinator)

13/12/2024

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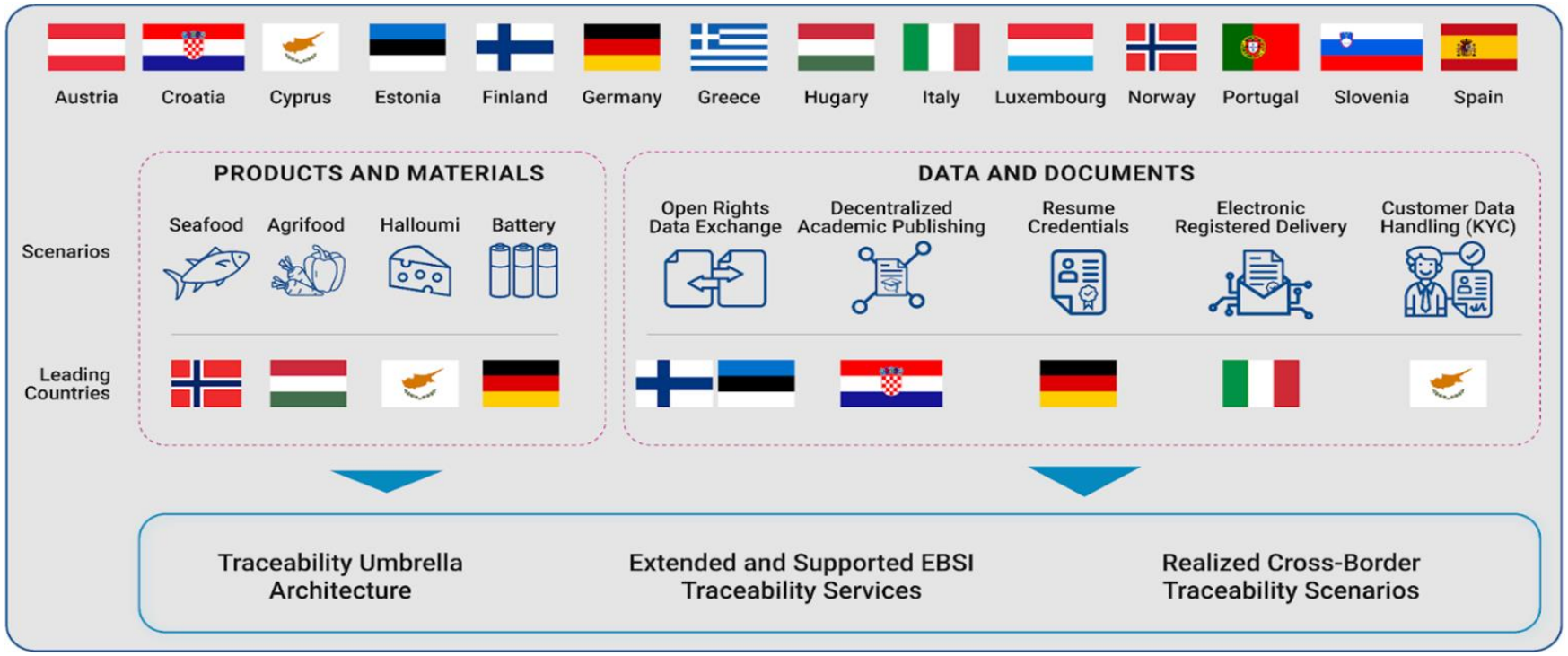
TRACE4EU ensures traceability on products, data and documents accross Europe using EBSI services



Coordinator: Viky Manaila/Intesi Group

Co-Coordinator: Steffen Schwalm/msg

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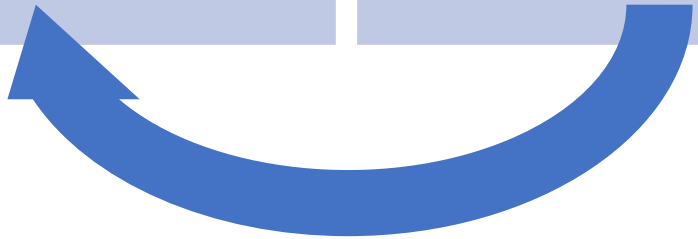
Electronic Ledger and EBSI within the eIDAS ecosystem

EUDI wallet or QTSP using Ledger

- EBSI can be used for –
  - Infrastructure/PKI
  - Trusted Issuer Registries
  - TrustList/Trust Anchors
  - Verifiable Data Registry
- Certification by CAB during conformity assessment for EUDIW/QTSP

QTSP for Ledger

- EBSI or applications provided by QTSP
- Requirements under construction
- Use cases, e.g. –
  - Traceability
  - DeFi, Tokenization etc.
- Certification by CAB during conformity assessment for QTSP for Ledger



Terms and Abbreviations see:
https://medium.com/@schwalm.steffen/collection-of-eidas-identity-related-terms-and-abbreviations-d14eada34364

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Reference Architecture

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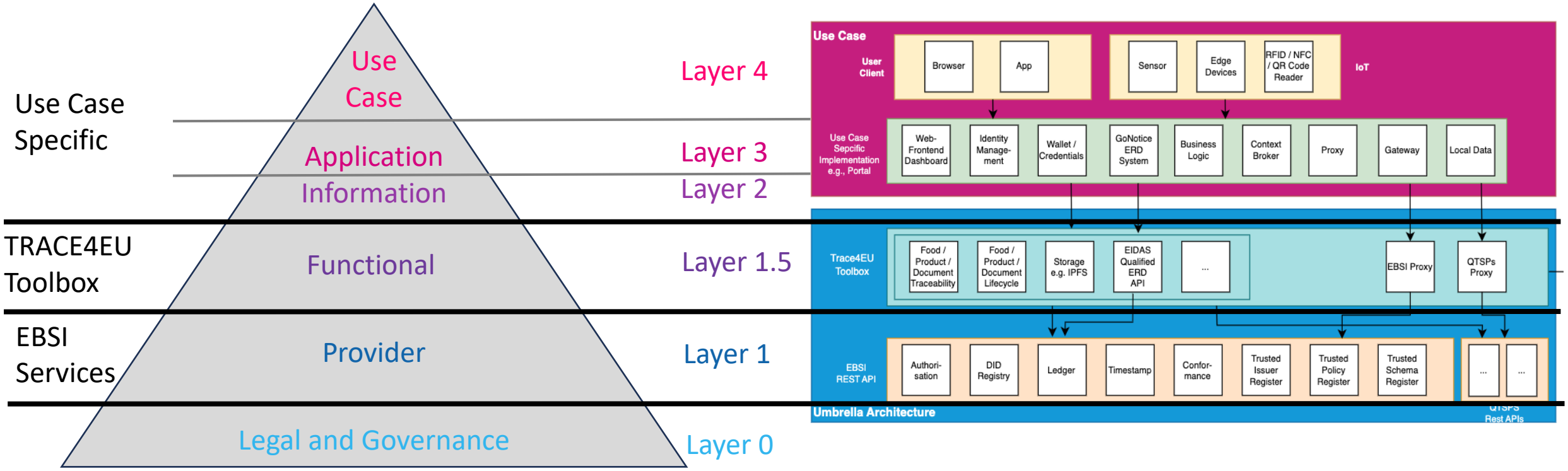
TRACE4EU Umbrella Architecture for all Use Cases



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Product-/Material Traceability

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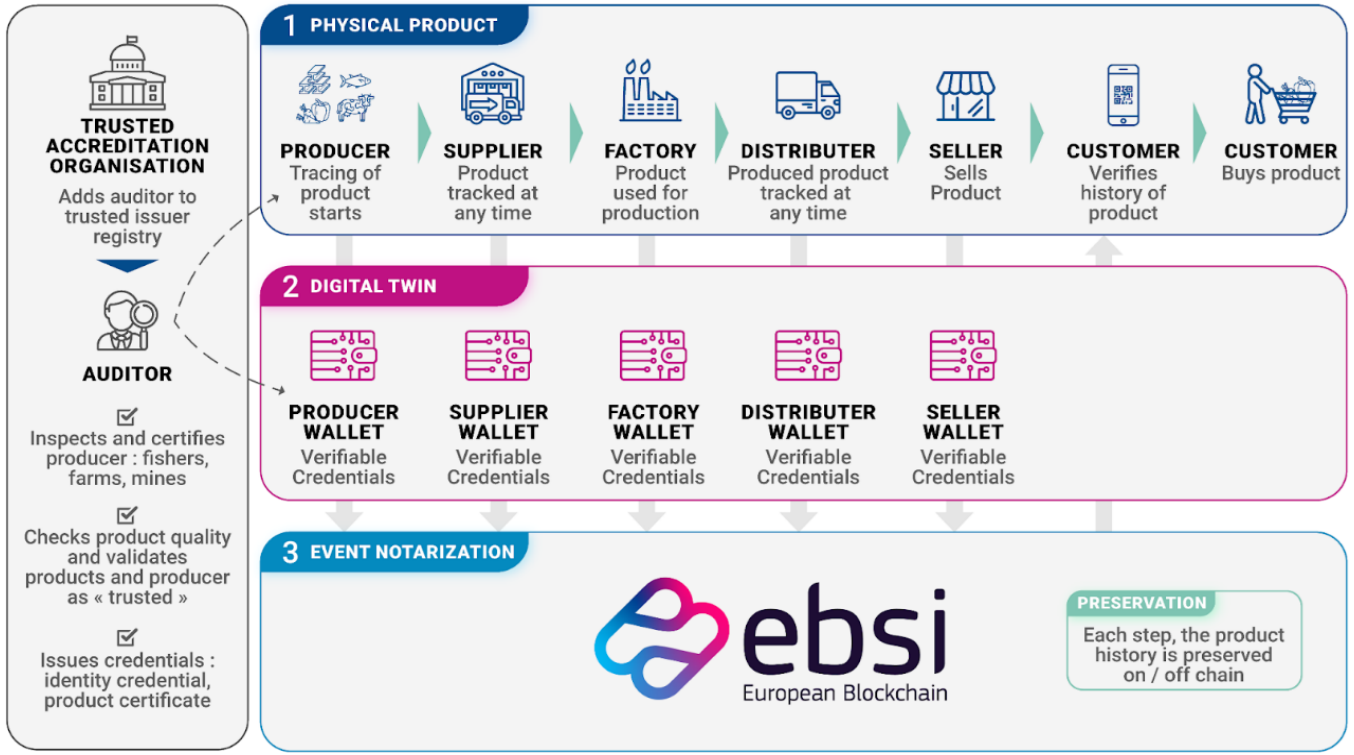
Application Domain Product Traceability on High Level



- Seafood Tracing Application scenario
- Agrifood Tracing Application Scenario
- Materials Tracing Application Scenario (Digital Product Pass)
- Halloumi Cheese (PDO)Tracing Application Scenario

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Materials

Challenges

Supply chain due diligence and carbon footprint

- prone to greenwashing, lack of data verifiability
- major regulatory implications in almost every product category:
  - Carbon Border Adjustment Mechanism
  - Battery regulation, Ecodesign for sustainable products regulation
  - Green Claims Directive

EBSI benefits

- Authentication of parties
- Third-party verifications, product information, and materials transactions as verifiable credentials
- Timestamping of information
- Integration with dataspaces (Catena-X)
- Future eIDAS 2 integration (Organisational wallet)

Impact: reducing compliance risk and costs for all major industries (automotive, textiles, appliances, etc.)

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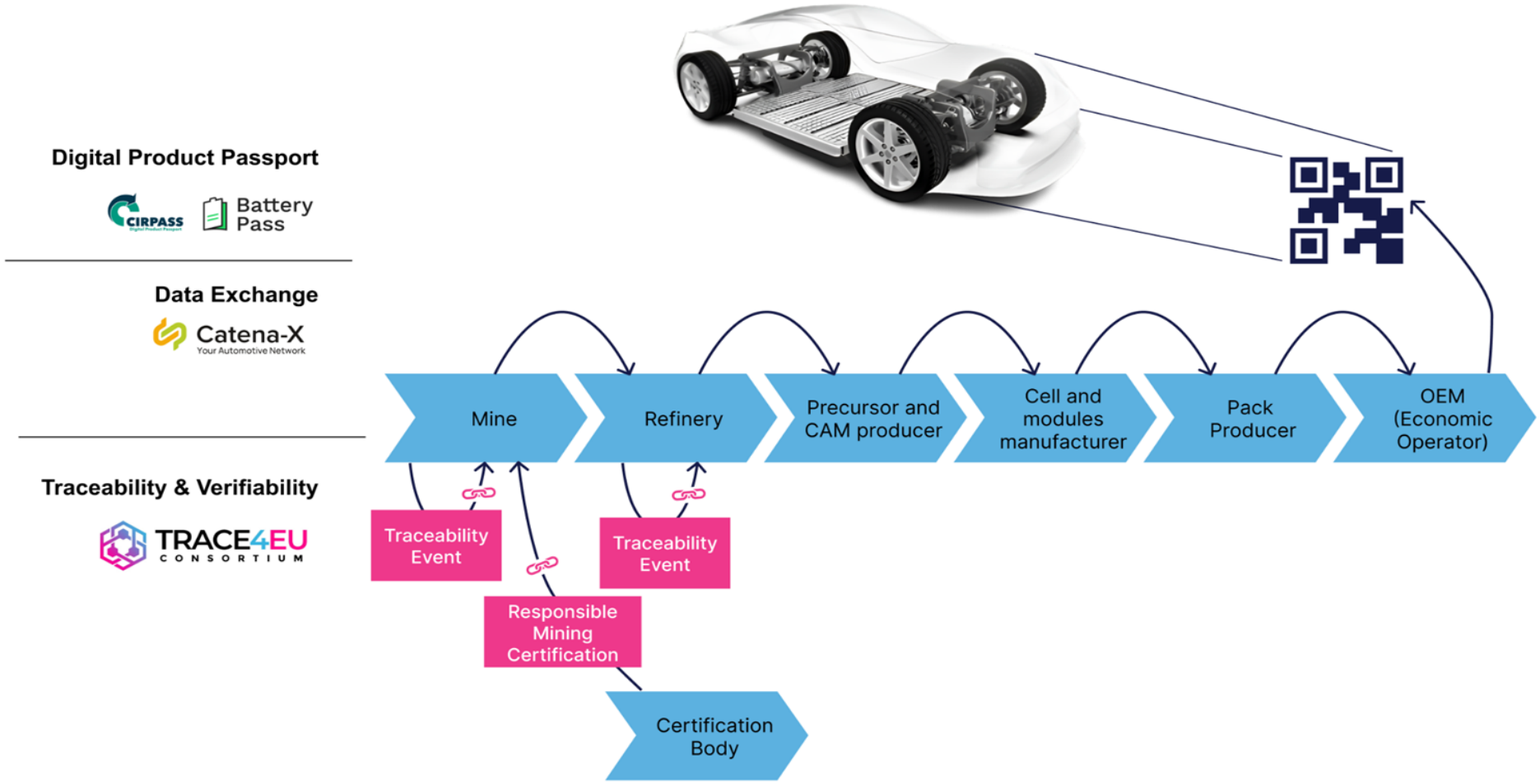
Digital Product Passport

Generating verifiable data at the source by leveraging SSI and EBSI Blockchain



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Seafood Tracing

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Objective

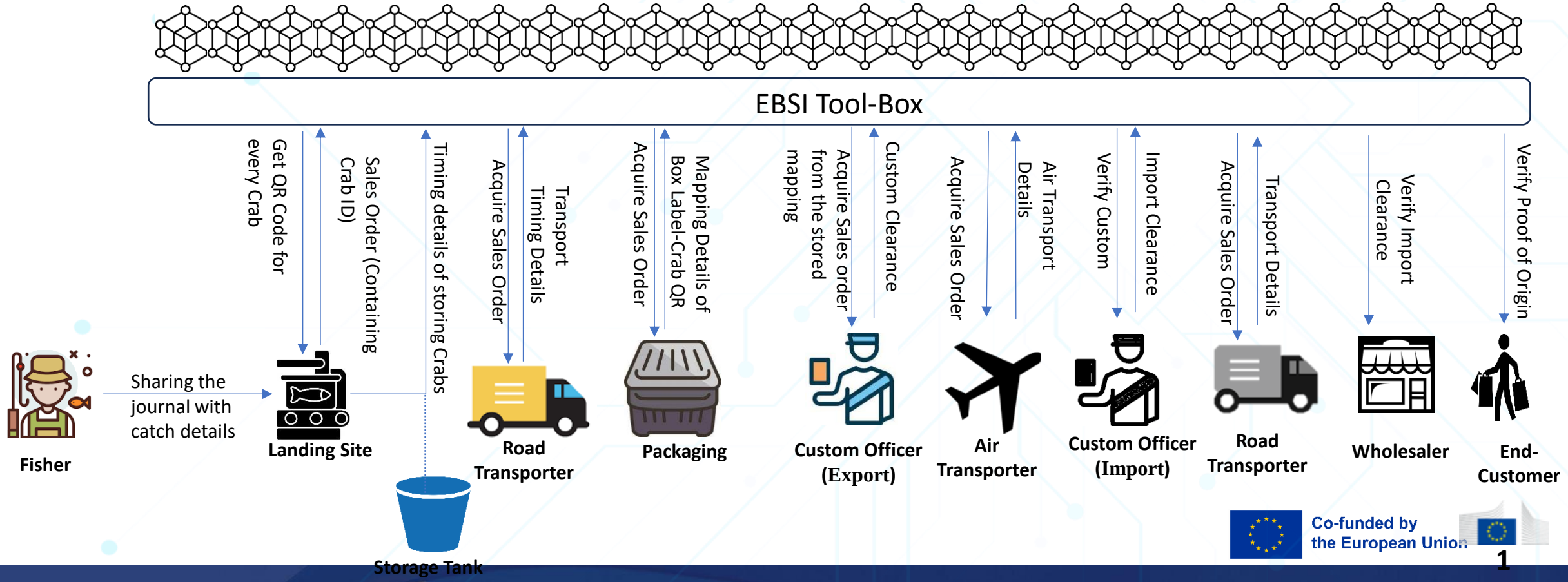
A blockchain based system to create a transparent and verifiable seafood supply chain.

Enables

Track every seafood product's journey, with a complete and tamper-proof record.

Impact

Empower consumers & promote sustainable practices for a healthier future.



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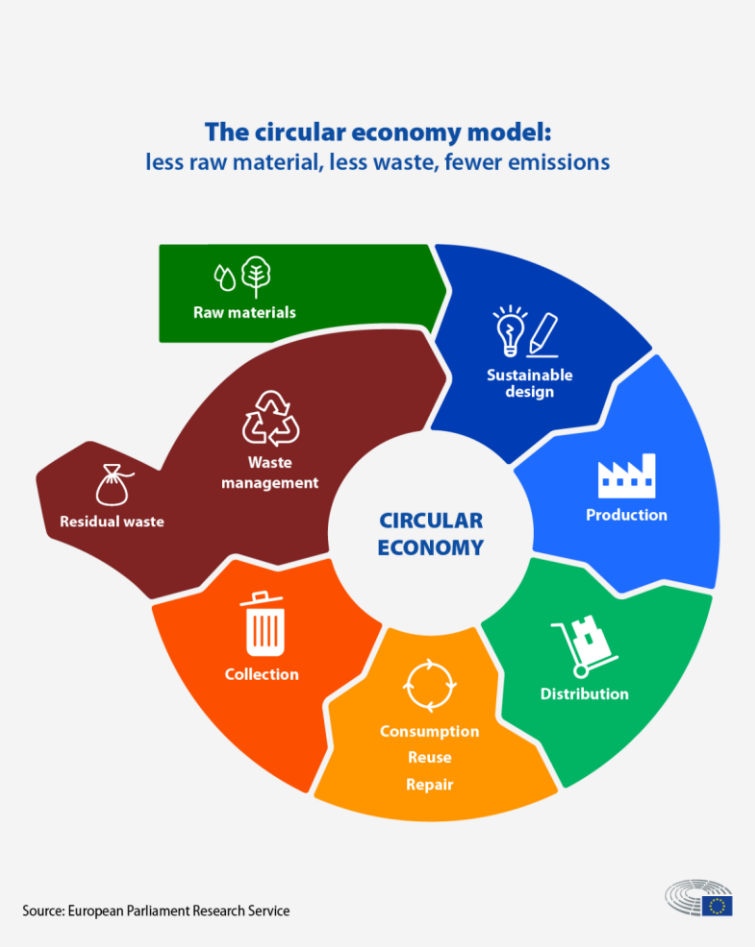
Alignment with EU Digital Policy

The Seafood Tracing project aligns with EU's digital policy and circular economy goals.



Aims to develop traceability capabilities using Digital Product Passport (DPP).

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Document-/Data Traceability

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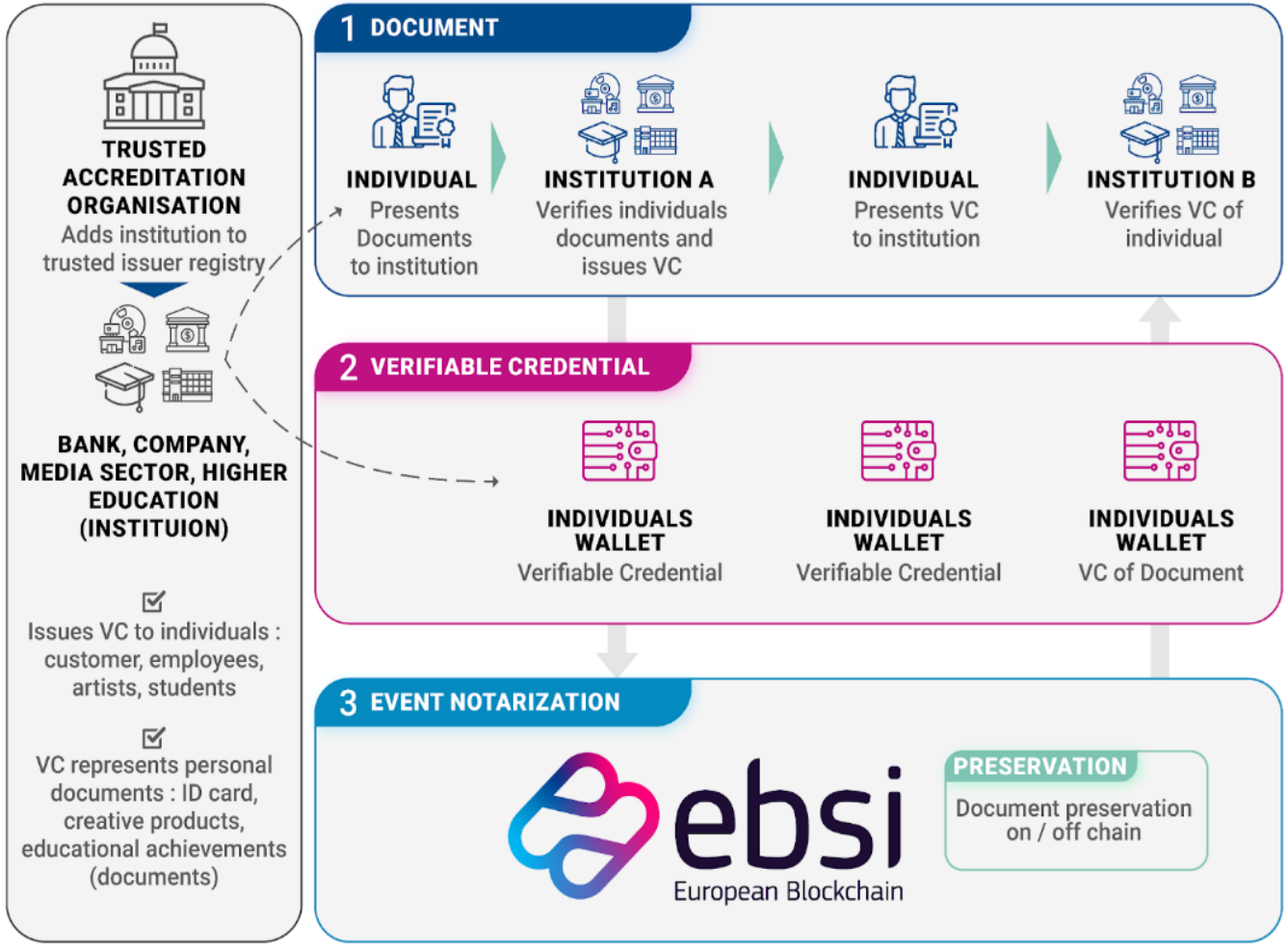
Application Domain Document and Data Traceability on High Level



- Open Rights Data Exchange
- Resumé Credentials Application
- Democratisation of Academic Publishing - DAP
- Electronic Registered Delivery
- Know Your Customer

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Creative industries and copyright

Challenges

Rights and royalty management –

- is complicated, slow, inaccurate, and expensive,
- assures neither proportionate nor transparent remuneration, nor copyright protection in the age of Generative AI,
- is not aligned with the objectives of self-sovereign data and identity.

EBSI benefits

- Authentication of parties
- Verifiable assertions of authorship and ownership
- Automation of licensing and remuneration through tokenisation
- Non-discriminatory data exchange
- Creator-centric data, funds, and identity through digital wallet

Impact: EU creative industries and cultural heritage, 6% of EU GDP

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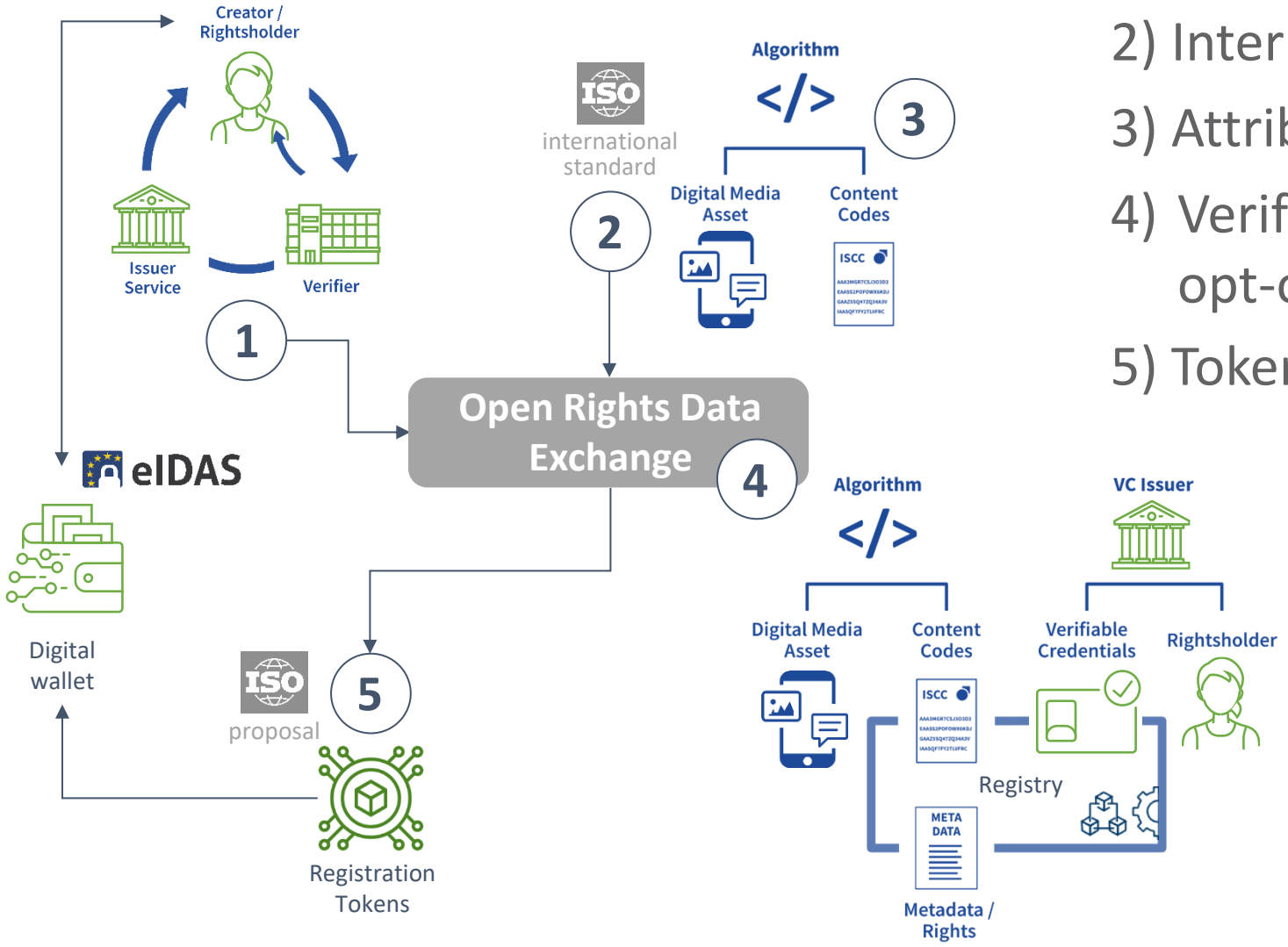
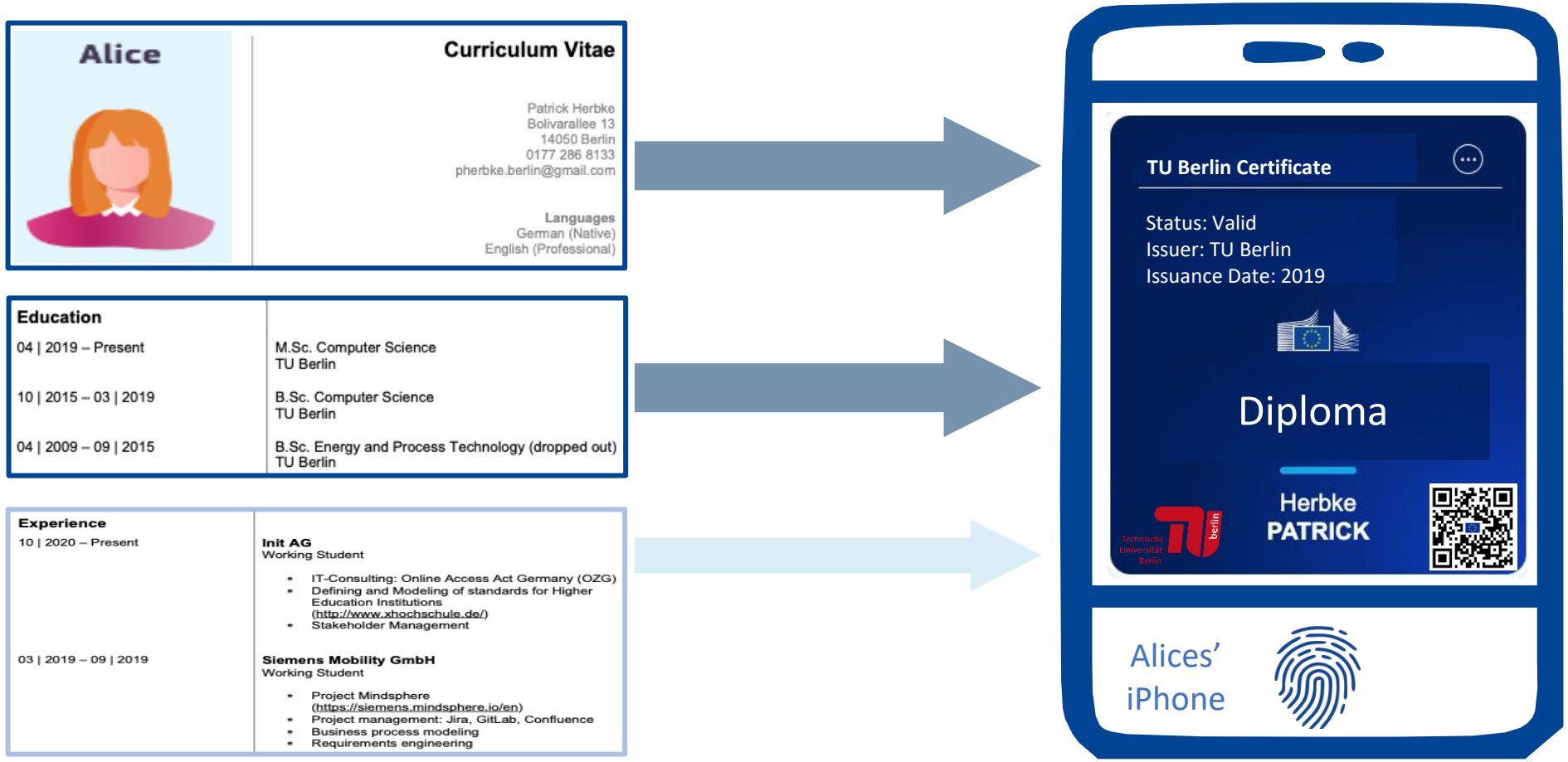
The AI and Copyright use case

in collaboration with Liccium B.V.



1) Creator Credentials
2) International Standard Content Code
3) Attribution application
4) Verifiable declarations including opt-out expressions
5) Tokenisation of media registration

Resumé Credentials Plan – Issuance and Storage of VCs



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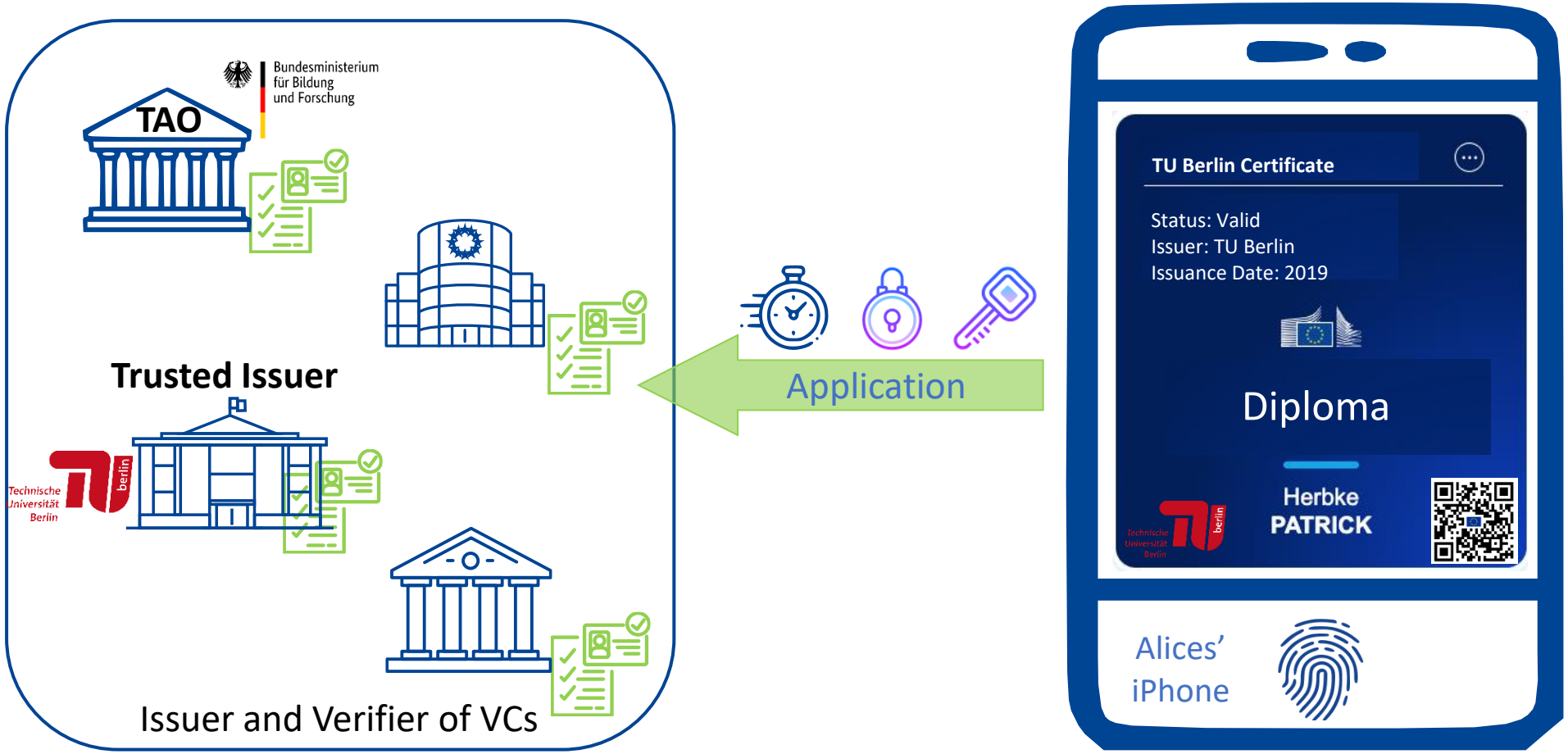
Resumé Credentials Plan – Request and Present VCs



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Achievements and Next Steps

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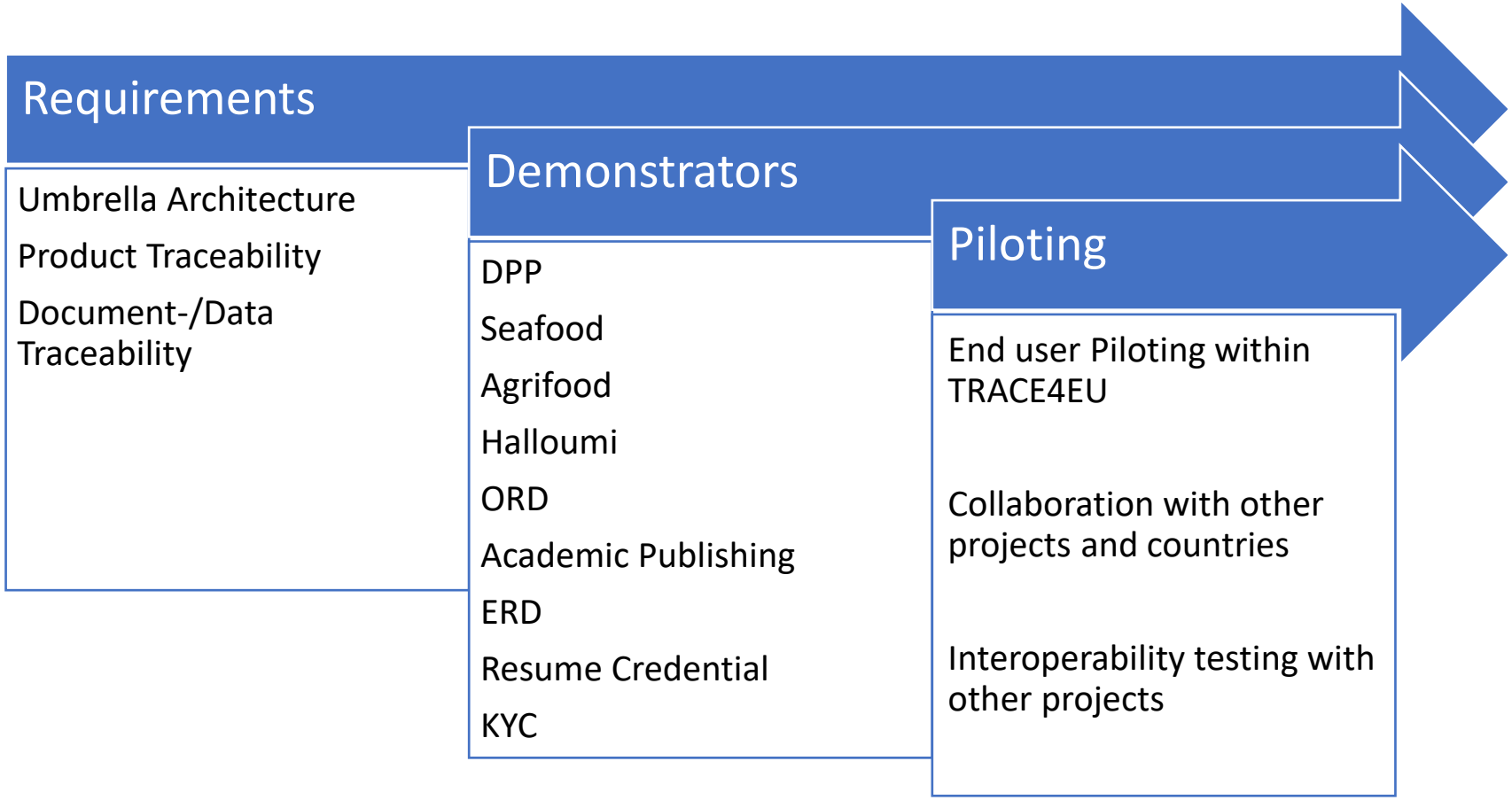
TRACE4EU directly supports certain EBSI goals



- ✓ Comprehensive infrastructure
- ✓ Cross-border use cases
- ✓ Use cases for industries and public authorities
- ✓ Proven interoperability within EBSI and cross-ledger

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Questions?

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https://trace4eu.eu/

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