



European Standardization Organizations

DPP-Framework and System Developing the Harmonized Standards in CEN CLC JTC 24

ITU-ETSI Symposium on ICT Sustainability: Standards Driving Environmental Innovation

CEN CENELEC JTC 24

Chair: Thomas Knothe, Co-Chair: Thomas Rödding

Secretary CEN-CLC JTC 24: Samarkhel-Khan Yahya (DIN)

Project Manager CEN CENELEC: Benjamin DeVille (CCMC)

Digital product passports (DPP) as part of European broader regulatory

European Green Deal

EU Plan: climate-neutral by 2050, safeguard biodiversity, establish a circular economy and eliminate pollution, while boosting the competitiveness of the European industry

Entered into force

Ecodesign for Sustainable Product Regulation (ESPR)

- Proposed in Mar 2022, as central part to the Commission's strategy for eco-friendly and circular products
- Aims to promote environmental sustainability across a broader range of products

Requires **digital product passports based on harmonized European Standards (hEN)**

Entered into force

Battery Regulation

- Entered into force in Aug 2023 replacing the EU Battery Directive
- Provides a legal framework aiming to promote sustainability, circularity, safety and transparency

Mandates a **battery passport** for all EV, LMT, and industrial (>2kWh) batteries starting Feb 2027

Proposal

End-of-Life Vehicle Regulation

- Proposed in Jul 2023
- Will replace the End-of-life Vehicle Directive
- Governs the entire vehicle lifecycle, from design to end-of-life treatment

Mandates a **circularity vehicle passport**

European Standard (EN) / harmonized European Standard (hEN)



EN

**Increase
Products safety and quality**

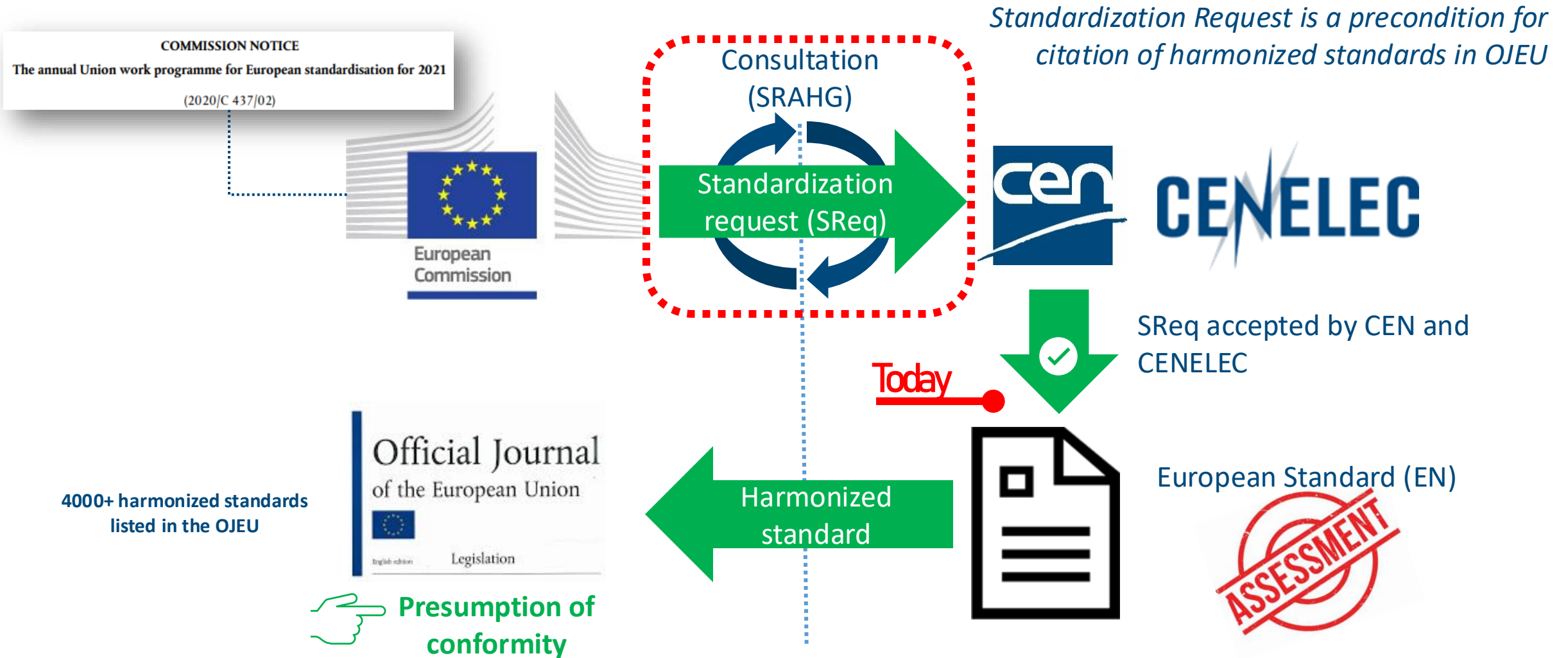
Lower  
Transaction costs and prices 

hEN

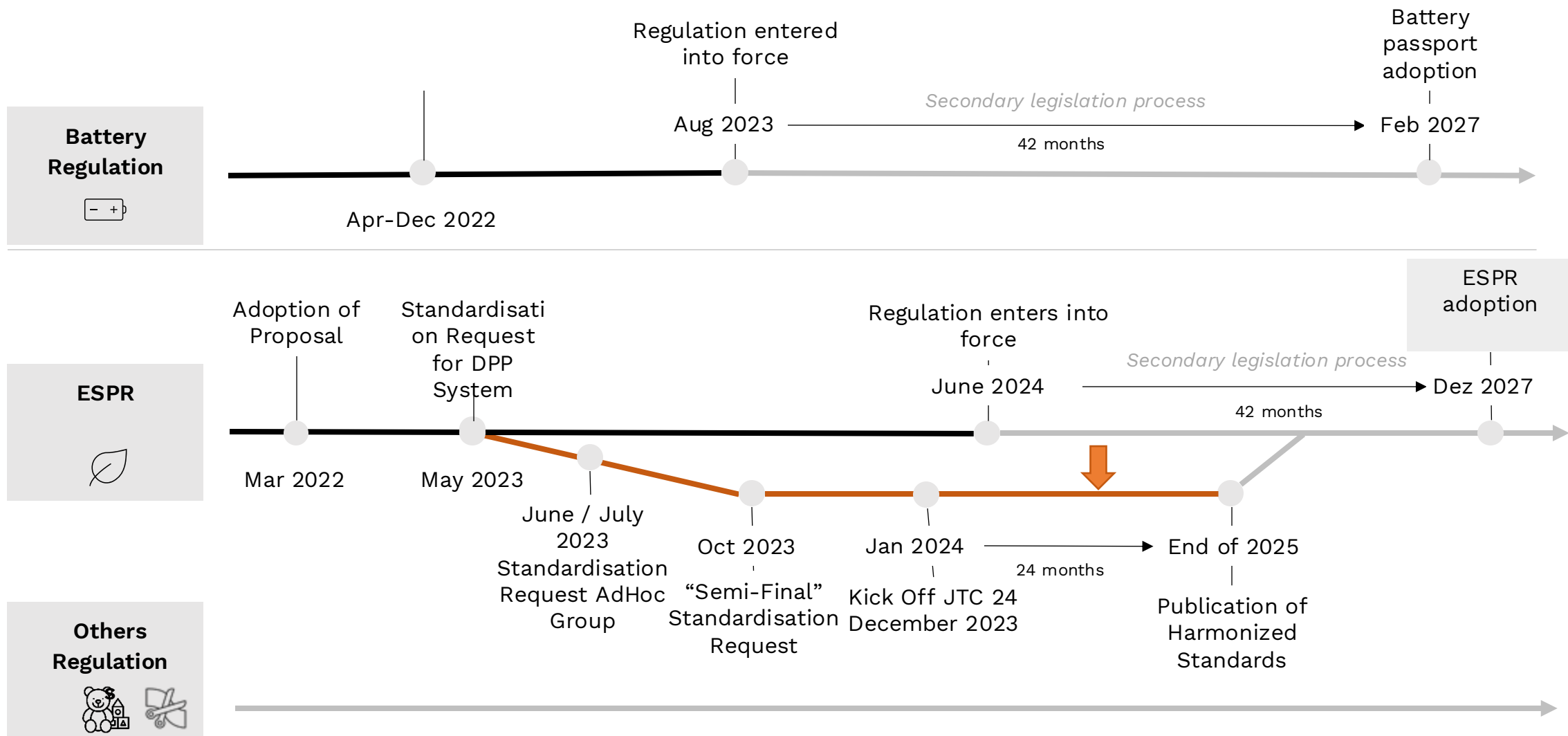
To demonstrate presumption of
conformity regarding
relevant EU legislation
of products, services and process
(listed in official journal of EU)



EU product harmonization - Workflow



Tough Timeline for Standardisation



CEN CLC JTC 24 “Digital Product Passport Framework and System”

Objectives

Fulfill the **Standardization Request (SReq)** to define **harmonized standards for the DPP System** according to

Ecodesign for Sustainable Products Regulation (ESPR)

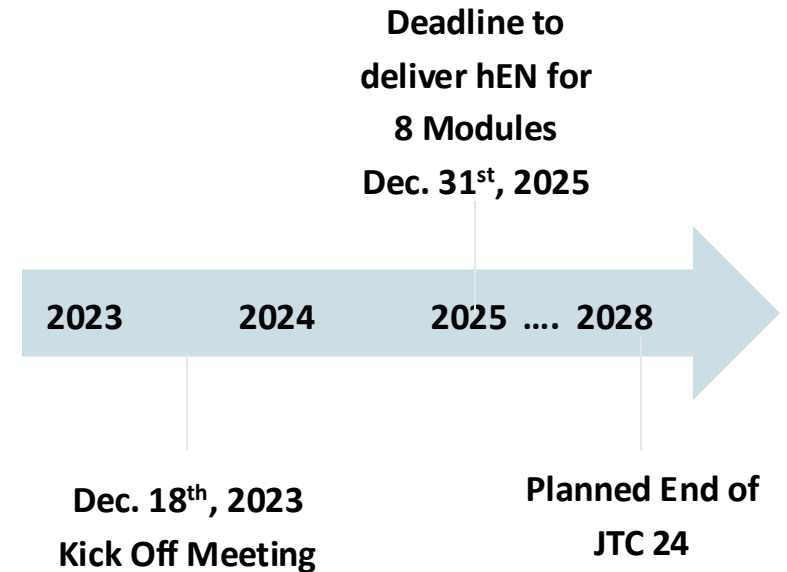
Battery Regulation + ...

Participants

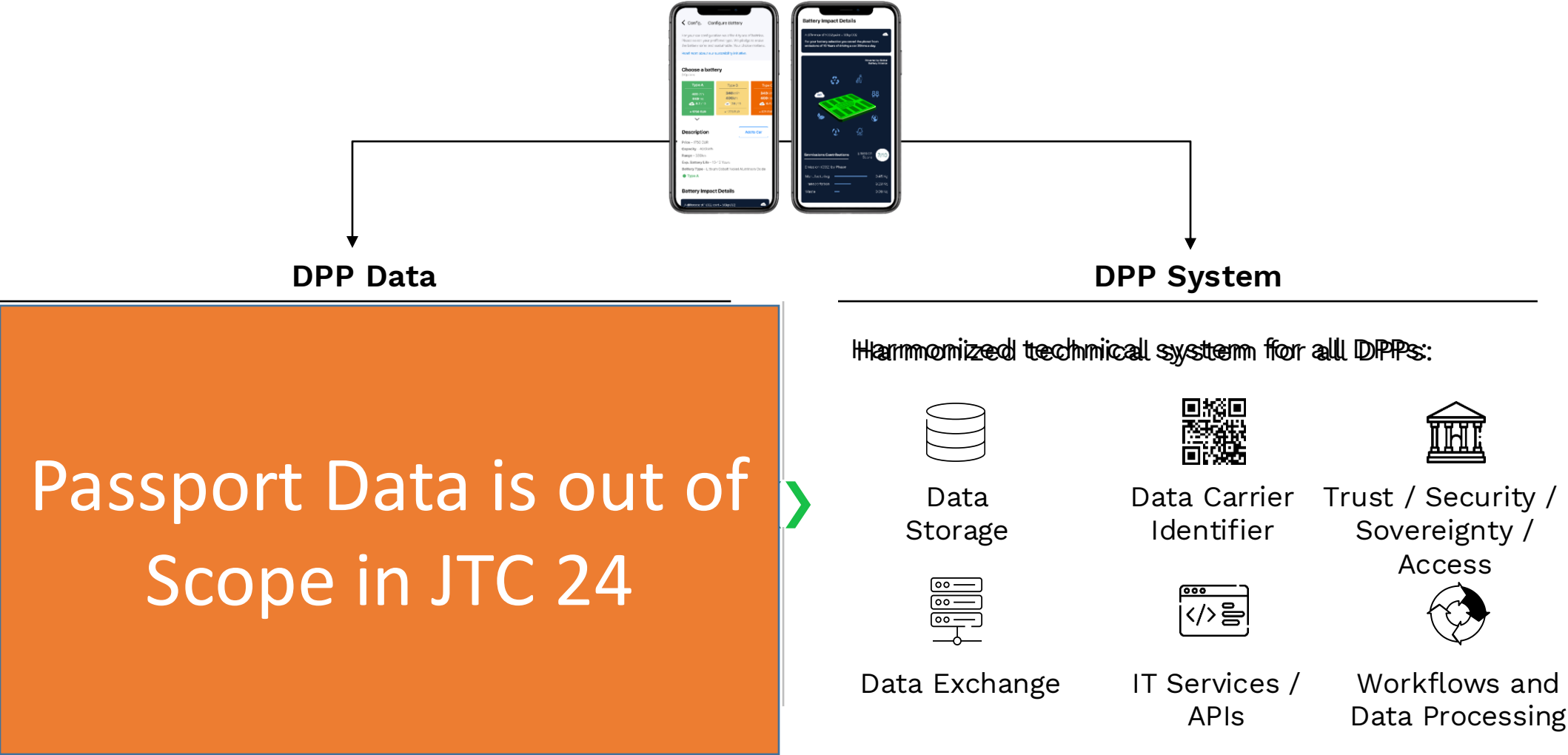
Appr. 350 Experts in Delegations from 24 Member States + Switzerland, UK

Currently 29 Liaisons requests (European and Global)

Timing



System Scope of JTC 24 is to deliver harmonised standards for the DPP System



Standardization Request - Scope



Module 1: Unique identifiers

Module 2: Data carriers and links between physical product and digital representation

Module 3: Access rights management, information, system security, and business confidentiality

Module 4: Interoperability

Module 5: Data processing, data exchange protocols and data formats

Module 6: Data storage, archiving, and data persistence

Module 7: Data authentication, reliability, integrity

Module 8: APIs for the DPP lifecycle management and searchability

Scope of JTC 24 - META Structure

★ EC foresee implementing acts for this elements – need interfaces

CEN CLC JTC 24 – Delivery Structure

Module 8 : APIs for the DPP lifecycle management and searchability

Module 3 : Access rights management, information, system security, and business confidentiality

Module 7 : Data authentication, reliability, integrity

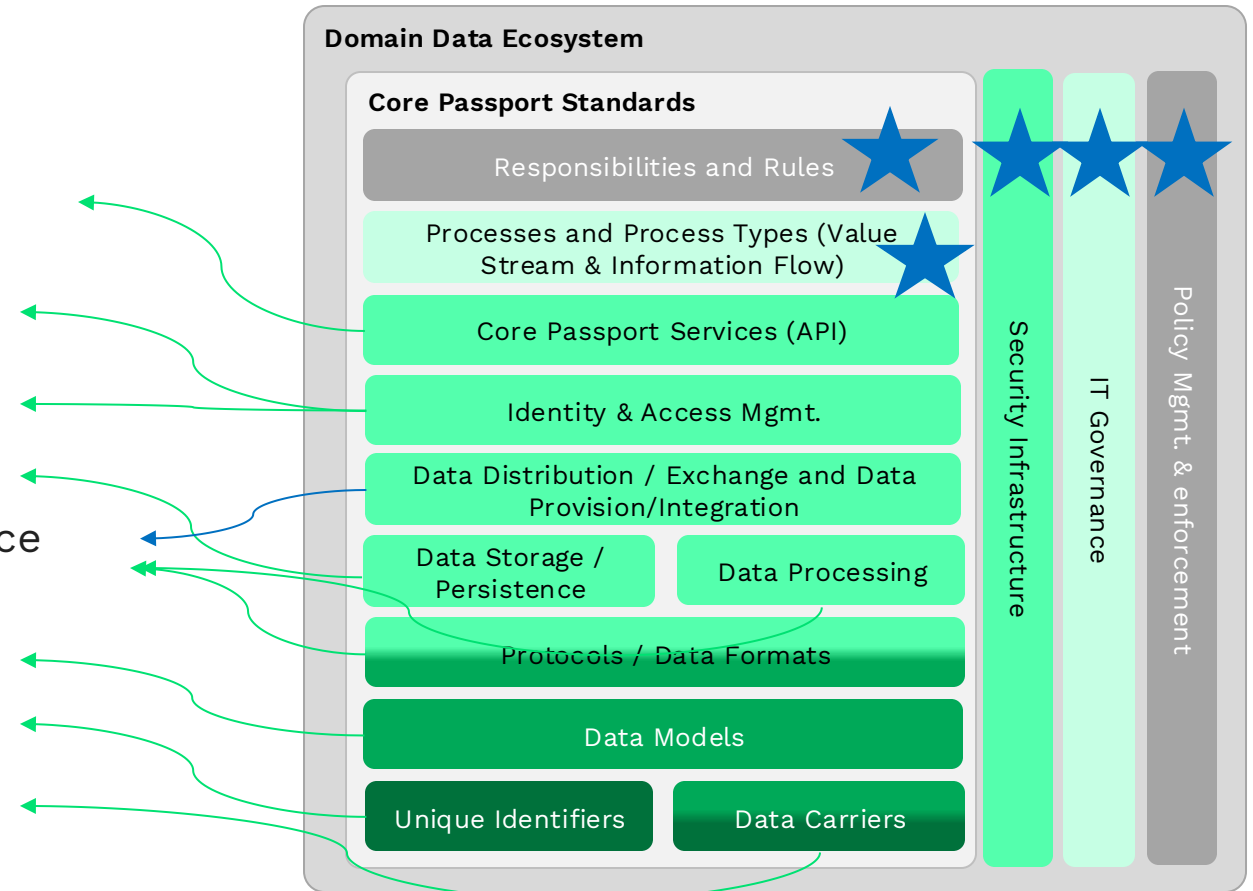
Module 6 : Data storage, archiving, and data persistence

Module 5 : Data processing, data exchange protocols and data formats

Module 4 : Interoperability

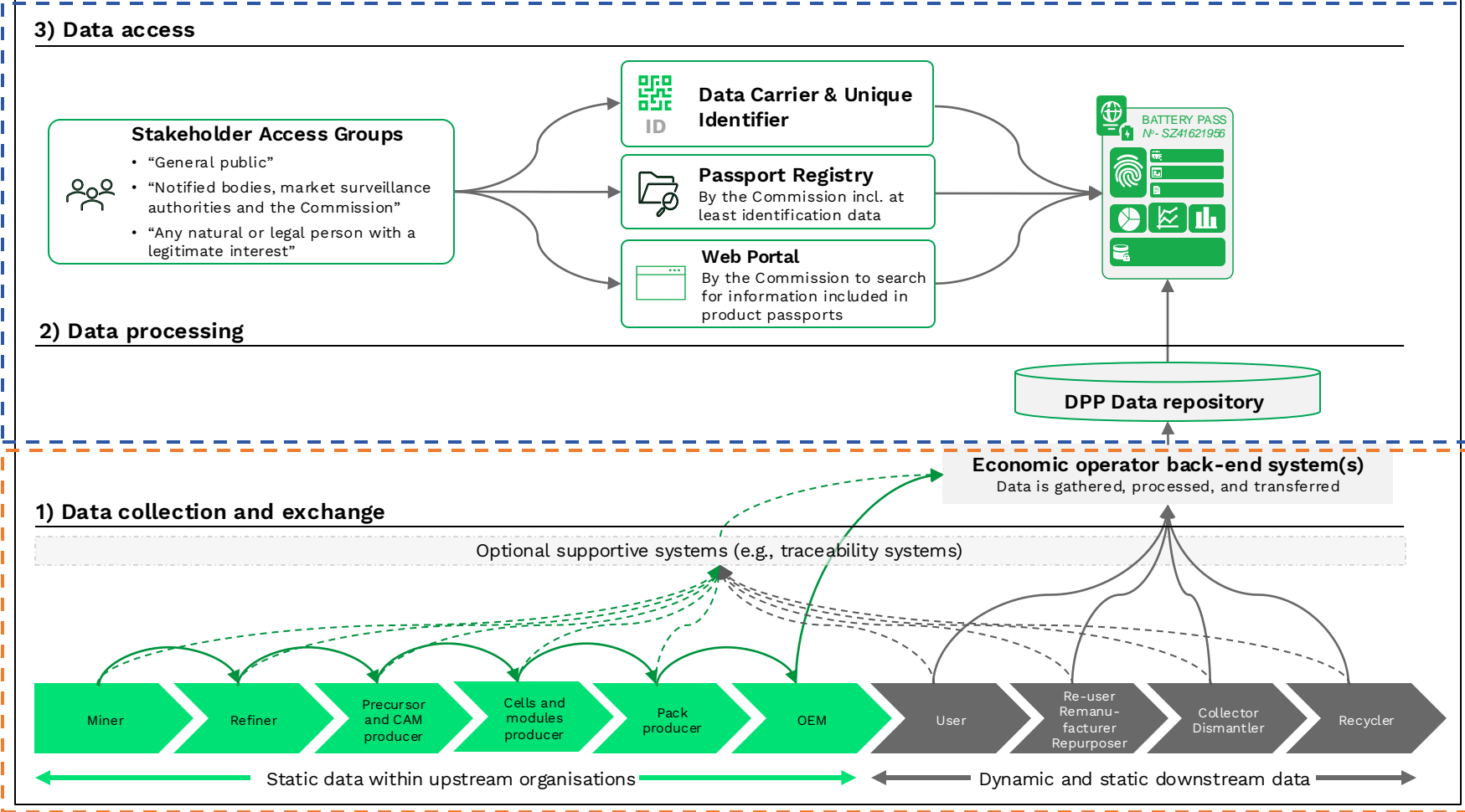
Module 1 : Unique identifiers

Module 2 : Data carriers and links between physical product and digital representation



Meta Structure based on ISO 11354
From Battery Pass Project

Process Scope of JTC24



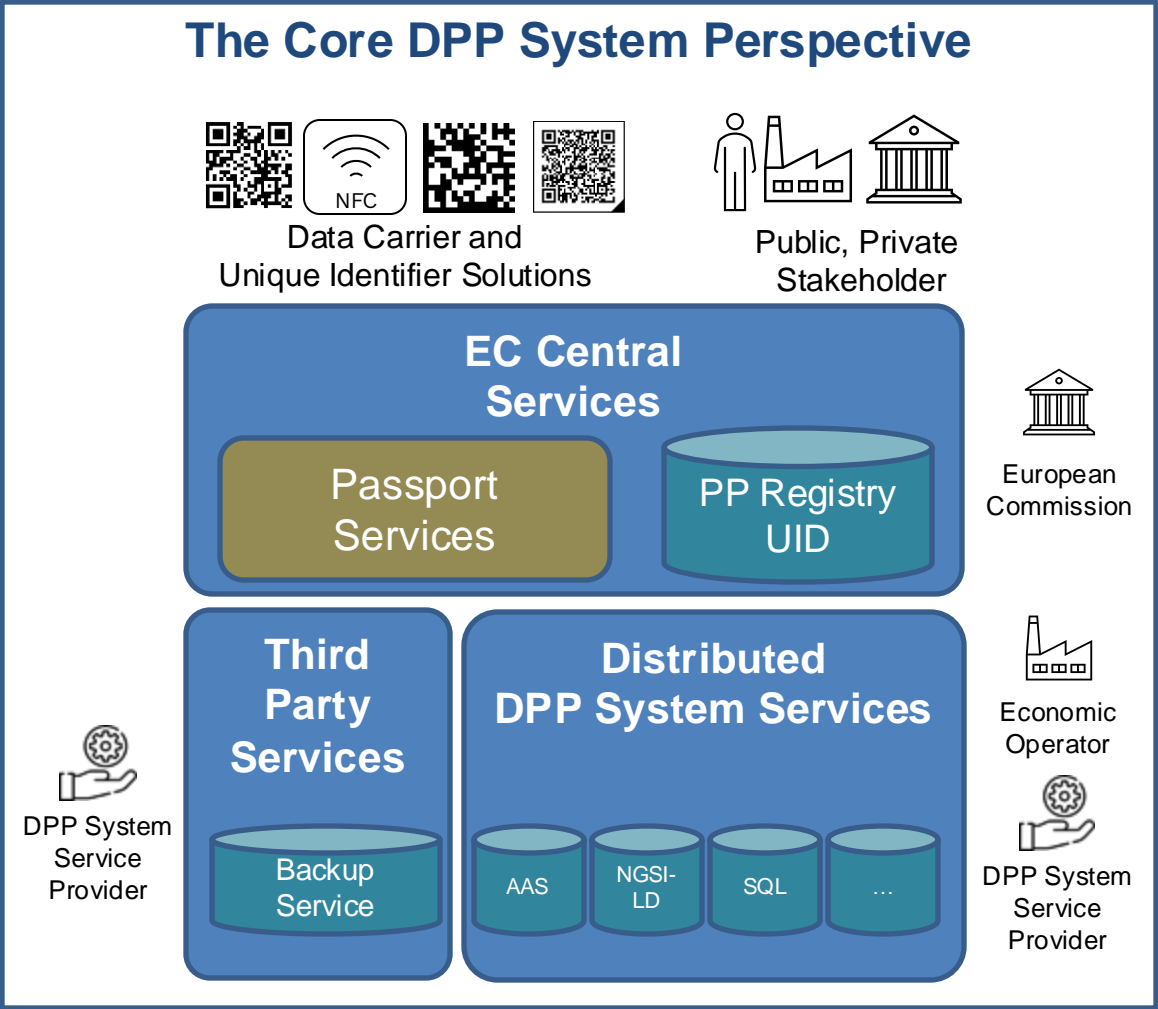
Scope in JTC 24:
Data Access,
Data Processing

Out of Scope in JTC 24:
Data Collection and
aggregation

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1) Galatola, M. Digital Product Passport (DPP). Circular Economy Europe. [Online] [Cited: 20 03 2023.] <https://circulareconomy.europa.eu/platform/sites/default/files/michele-galatola-european-commission.pdf>

Organisation Scope : Who should be interested into JTC24



European Commission and National Authorities
(e.g. Market Surveillance)

Economic Operators, brings products on the market
(e.g. manufacturers, importers)

DPP System and Service Providers
(e.g. for operating services, backup services)

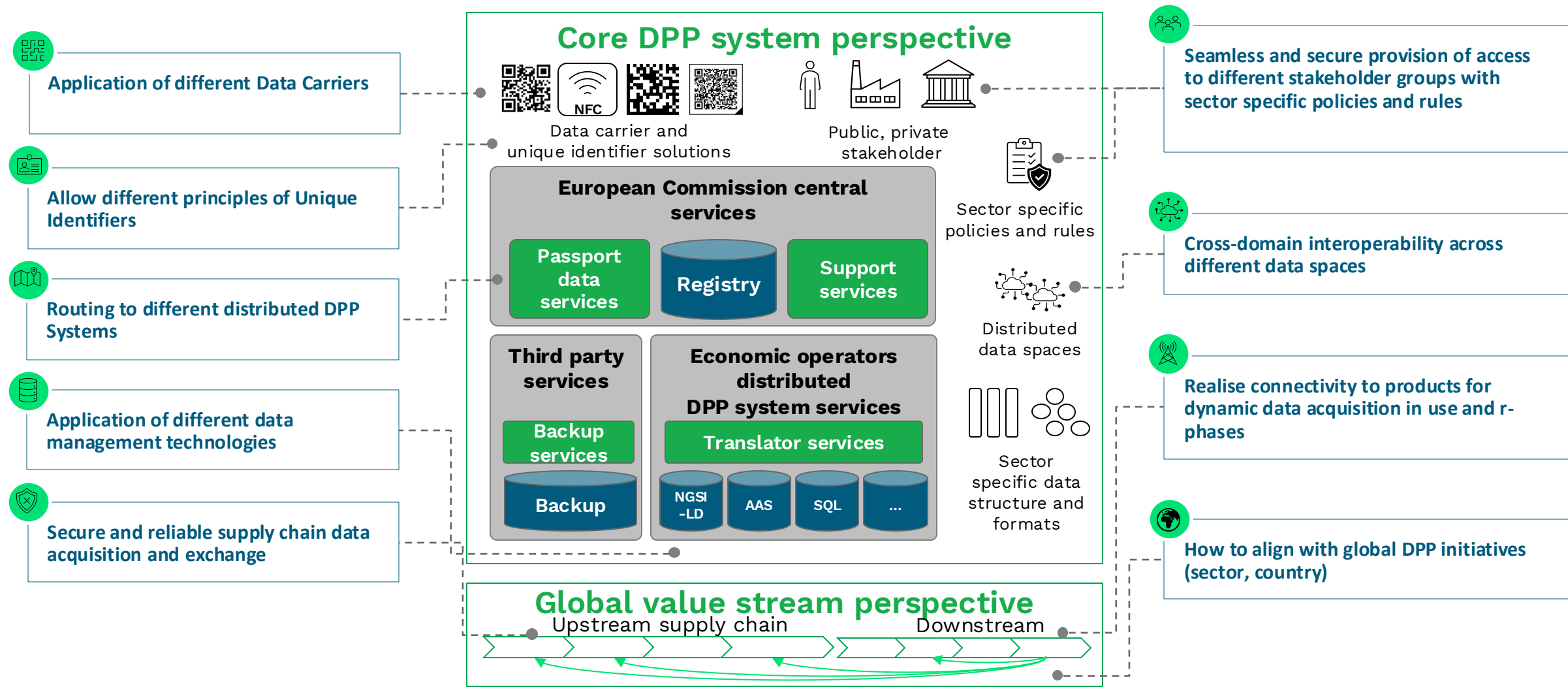
DPP System Component Suppliers
(e.g. for Data Carrier)

Partners in the value chain (e.g. supplier, dealer, recycler)
to know how data has to be provided, how to get access

Standardisation Bodies
(e.g. for sector specific data standardisation)

Consumer Organisations
to ensure applicability of DPP

Major Interoperability Goal – Co-existence of standards/technologies



How to participate in JTC 24



Work Group Overview

Strategic Advisory	Unique identifiers and data carriers	Security	Interoperability framework
<u>Work group 1</u>	<u>Work group 2</u>	<u>Work group 3</u>	<u>Work group 4</u>
Facilitate, coordinate and exchange between working groups	Unique Identifier for Product	Individual decentral Data Repository	API for CRUD (Create, read, update, delete) of data
Liaisons	Unique Identifier for Economic Operator	System for (role /function/attribute-based) access rights management	Querying of Passport Data
Clarify non-technical issues	Unique Identifier for Facilities	Verification of authentication	Back Up Data Base
Interaction with sector specific data standardisation	Data Carrier	Verification of DPP conformance	Data Modelling:
Business plan	Registry	Cryptographic verification of DPP (digital signature check)	DPP Issuing Service
	Routing Services	Data verification of data integrity and originality	Data modelling services
		Logging Monitoring	Schema Definition

- Technical Expert** for elaborating harmonised standards (hEN) for system elements
- Select and adopt existing standards
 - Elaborate interoperability solutions
 - Elaborate new standards

Meetings
Plenary Meeting – app. 3 times/year
Work Group Meetings – Elaboration – weekly
Alignment with European Commission - monthly

Time Frame
Delivery of hEN until end of 2025

How ETSI / ITU is and can be involved



- ETSI is one of two addressed European Standardisation Organisations by the SREQ in M/604
- As agreed with CCMC of CEN CLC in August 2023 - ETSI foresee to join into the work groups
- Some possible contributions from ETSI (non-exhausting)
 - NGSI LD for data and information modelling and API
 - Electronic Signature for Security
- Testing experiences coming from Centre for Testing & Interoperability

Status Workgroups

<div>WG 1</div> <div>Strategic Advisory Group</div> <div>Convener: Martin Schreck (SN)</div> <div><ul style="list-style-type: none">• Common Time Line elaborated• System Picture (Architecture) elaborated• Use Cases and User Stories elaborated• Business Plan• Monthly Update with EC</div>	<div>WG 2</div> <div>Unique identifiers and data carriers</div> <div>Convener: Johan Dahlgren (SIS)</div> <div><ul style="list-style-type: none">• NWIP for Data Carrier and Unique Identifier established• Drafts for Data Carrier and Unique Identifier elaborated</div>	<div>WG 3</div> <div>Security</div> <div>(Torgeir Waterhouse, SN)</div> <div><ul style="list-style-type: none">• NWIP established• Convenor appointed and approved• Drafts expected in January 2025</div>	<div>WG 4</div> <div>Interoperability framework</div> <div>Convener: Otto Handle (ASI) Co-Convener: Richard Merkel (DIN)</div> <div><ul style="list-style-type: none">• NWIP established for all related modules:<ul style="list-style-type: none">• Data processing and exchange• Data storage• API• Data Modelling<div>First Drafts expected in December 2024</div></div>
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Thank you very much



Chair JTC 24
Thomas Knothe
thomas.knothe@ipk.fraunhofer.de



Co-Chair JTC 24
Thomas L. Rödding
thomas.roedding@narravero.com

www.cencenelec.eu

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Secretary JTC 24
Samarkhel-Khan Yahya
samarkhel-khan.yahya@din.de