

2. May 2024

Developing standards for the circular economy



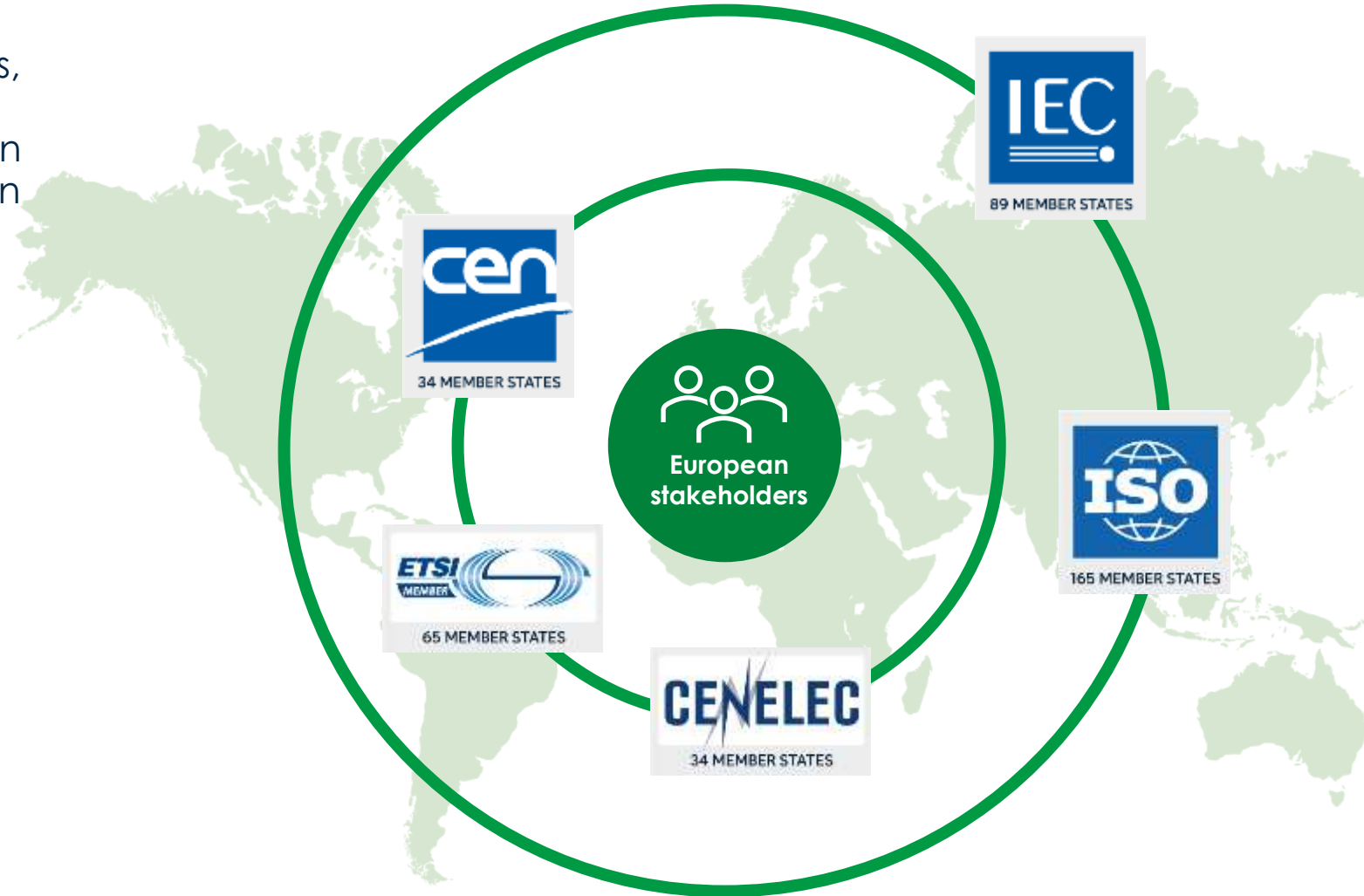
Charlotte Vincentz Fischer,
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Danish Standards

A world without standards



Who is developing the standards?

Representatives from companies, authorities, consumer organisations, NGOs, universities, etc. develop the standards. The work is open to everyone via the National Standardization Body.



The companies are calling for a standardized framework for sustainability



The European framework



EU GREEN DEAL



CSRD
Corporate sustainability reporting directive



EU Taxonomy

MECHANISM



ESRS
European Sustainability Reporting Standards



CSDDD
Corporate sustainability due diligence directive

... OTHER REGULATORY INITIATIVES

Biodiversity strategy

Action Plan on a circular economy

Fit for 55' initiative

Sustainable Products initiative

Clear air & water action plan

...

VISION

PLAN

CSRD - Corporate Sustainability Reporting Directive



Circular economy

- Principles, terminology and implementation. ISO 59004 (standard under development)
- Business models and value networks. ISO 59010 (standard under development)
- Measurement and assessment of circularity. ISO 59020 (standard under development)
- Circular product design. EN 45560



Sustainability aspects (European rule from the corresponding report)	Examples of topics covered by technical standards
Climate (ESRS E1)	<ul style="list-style-type: none"> • Net zero emissions • Carbon footprint of products and organizations • Adaptation to climate change
Pollution (ESRS E2)	<ul style="list-style-type: none"> • European reference methods for determining pollutants in the air
Water (ESRS E3)	<ul style="list-style-type: none"> • Water footprint • Water use efficiency
Biodiversity (ESRS E4)	<ul style="list-style-type: none"> • Strategic consideration of biodiversity for organizations (in development)
Circular economy and resources (ESRS E5)	<ul style="list-style-type: none"> • Circular Economy Implementation and Circularity Measurement (in development) • Methods to assess the ease of reusing, repairing or recycling products • Energy management
Own workforce (ESRS S1)	<ul style="list-style-type: none"> • Occupational health and safety management • Diversity and Inclusion in Human Resource Management • Implementation of gender equality (in development)
Workers in the value chain (ESRS S2)	<ul style="list-style-type: none"> • Corporate Social Responsibility
Affected communities (ESRS S3)	<ul style="list-style-type: none"> • Sustainable procurement and contracting
Consumers and end users (ESRS S4)	<ul style="list-style-type: none"> • Accessible design • Inclusive service
Governance (ESRS G1)	<ul style="list-style-type: none"> • Governance • Compliance management. General and specific topics: criminal, tax, socio-labour... • Antifraud and Whistleblowing

European Sustainability Reporting Standards 2, General Disclosures. AR 2.



TECHNICAL STANDARDS
(CEN, ISO, CENELEC, IEC)

facilitate organizations' progress on ESG objectives while enabling them to improve the robustness of their reporting.

The undertaking may disclose whether it relies on any European standards approved by the European Standardization System (ISO and IEC or CEN and CENELEC standards), as well as the extent to which data and processes that are used for sustainability reporting purposes have been verified by an external assurance provider and found to conform to the corresponding ISO and IEC or CEN and CENELEC standard.

Challenges

Ressource demanding

Requirements for documentation in the value chain



Companies not directly covered by the CSRD may be affected due to requirements in their value chain



The Ecodesign Directive and ESPR – Ecodesign for Sustainable Products Regulation



Standards are voluntary, until someone makes them binding

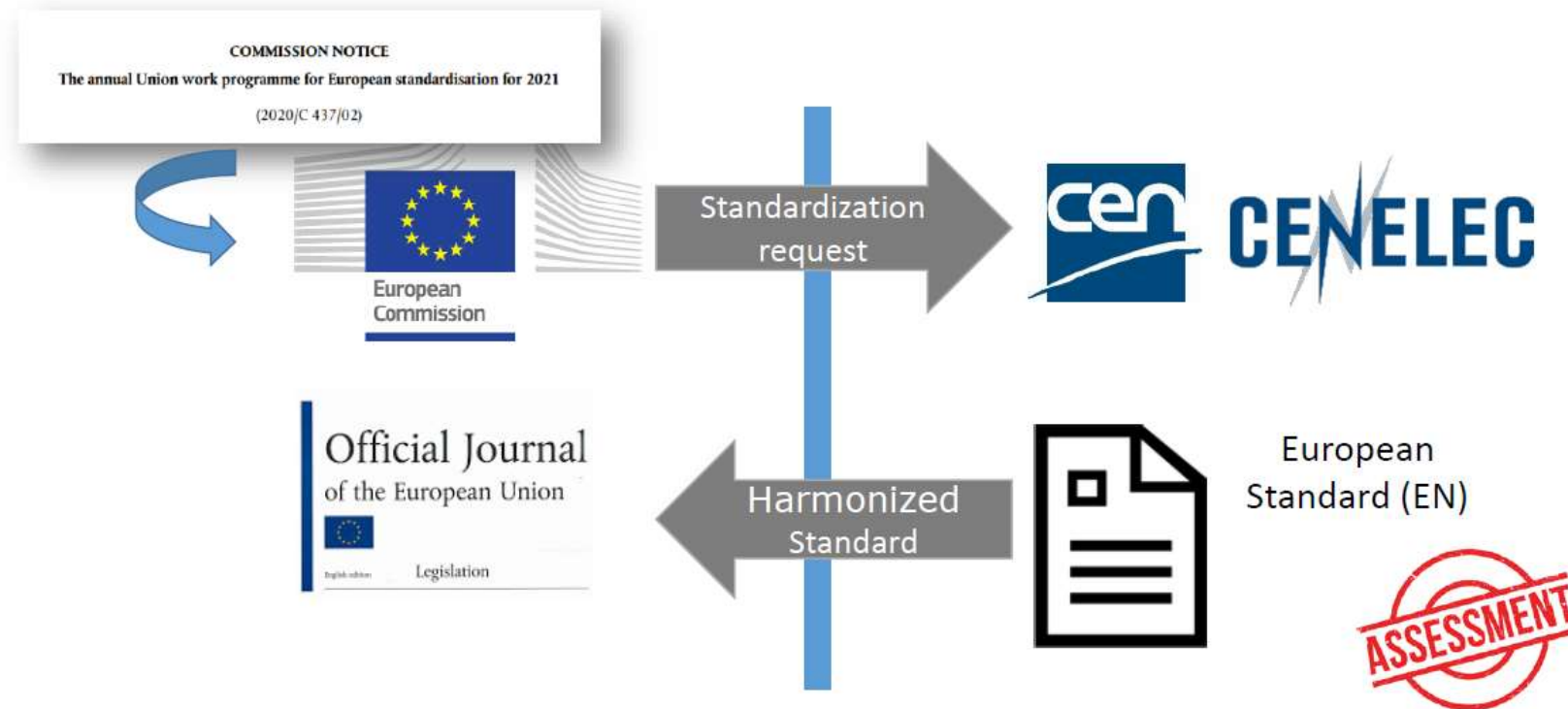
Standards can become binding in two ways:

- An agreement between two parties
- National or European law (acts and directives)



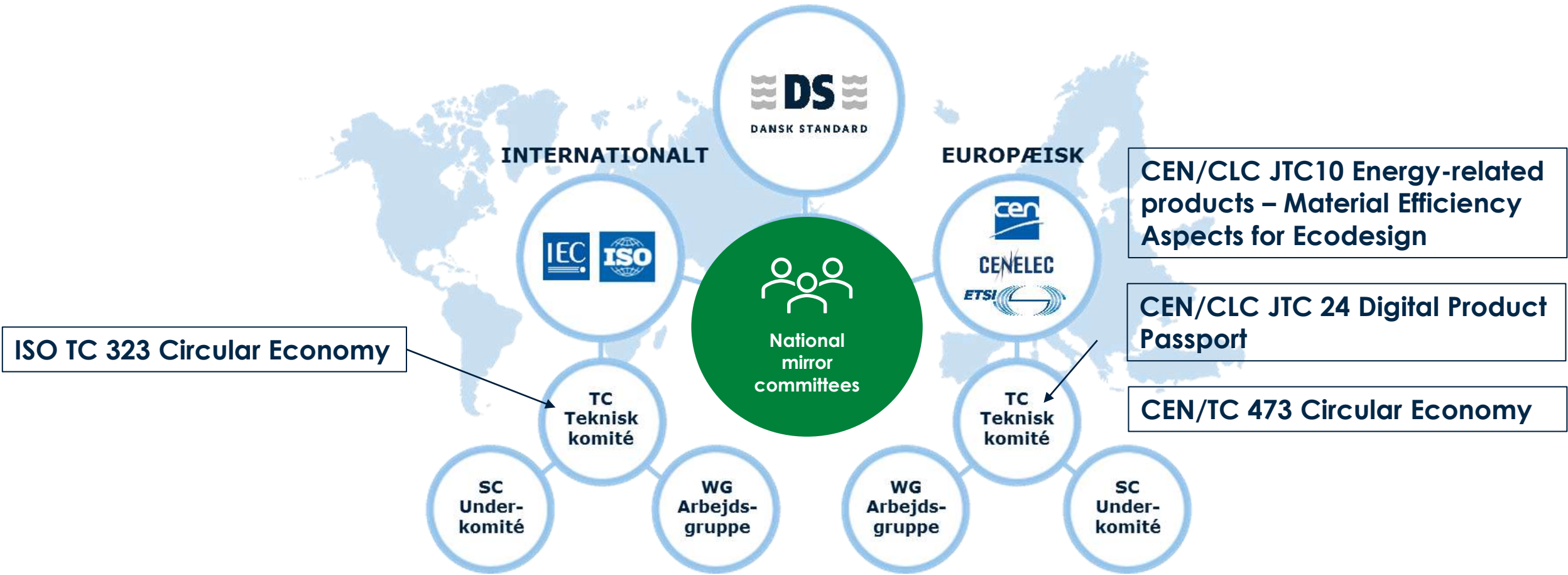
What is a harmonised standard?

REGULATION (EU) No 1025/2012 defines a harmonised standard as:
'harmonised standard' means a European standard adopted on the basis of a request made by the Commission for the application of Union harmonisation legislation



Standardization Request a **precondition** for citation of harmonized standards in OJEU

International and European initiatives



European Committees

CEN/CLC JTC 10

**Material efficiency aspects for products
in scope of Ecodesign legislation**

EN4555X-series

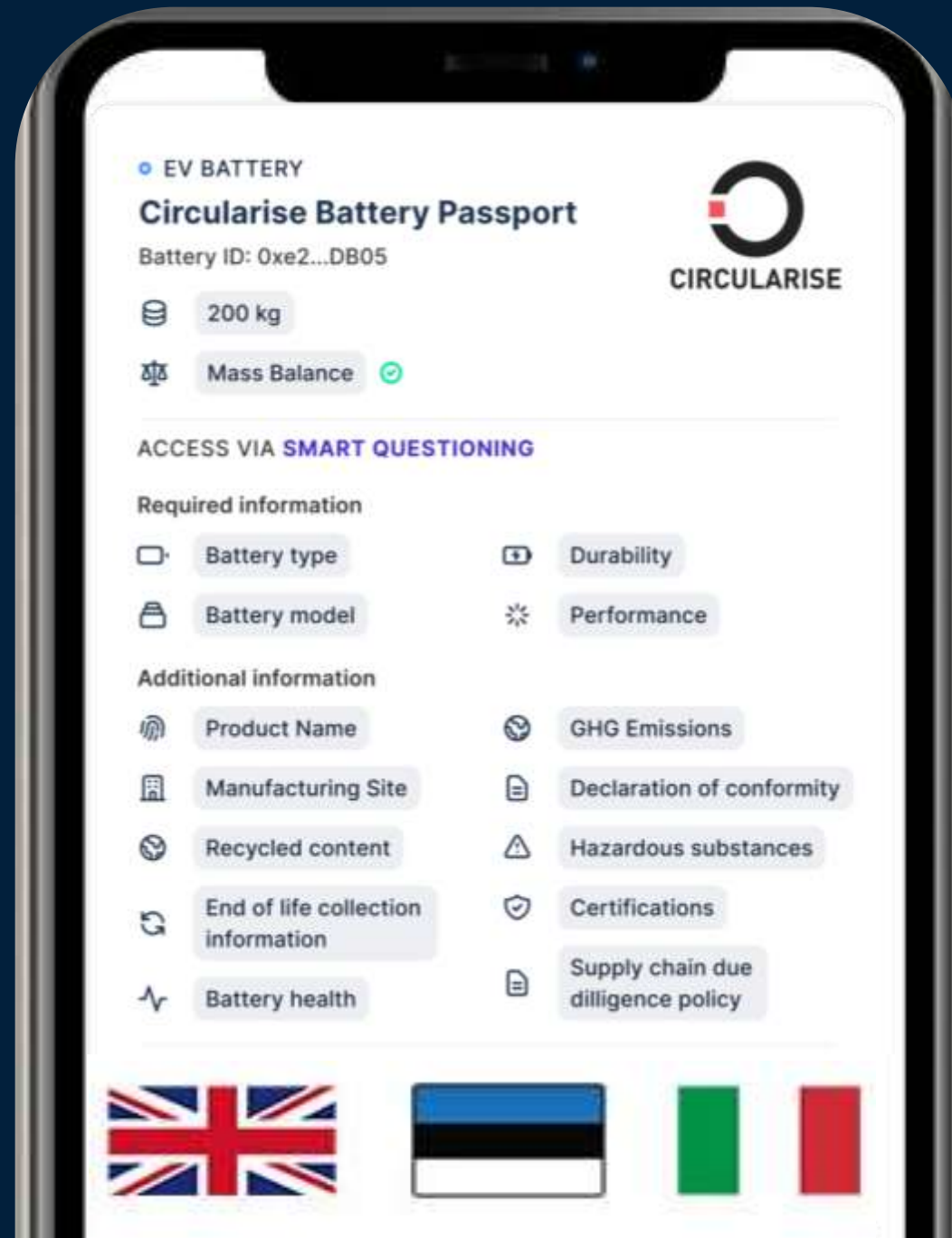
- Terminology
- Durability
- Repair, reuse, upgrade
- Remanufacturing
- Recycling
- Communication and dokumentation
- Cirkular design

CEN/TC 473 Circular Economy

- EU Circular Economy Terminology, Framework & Principles
- Information Sharing
- Extended Producer Responsibility
- Circular Business Models



DPP The Digital Product Passport



DPP design

DPP-system



Digital Product Passport



DPP-data

(the **“HOW”**. To be developed horizontally for all product groups and legislations)

(the **“WHAT”**. To be identified when developing product-group specific secondary legislation)

- All **standards** and **protocols** related to the IT architecture (8 modules)
- The DPP registry

- The data to be included in each DPP will be decided through ESPR Delegated Acts adopted by the Commission when regulating specific product groups

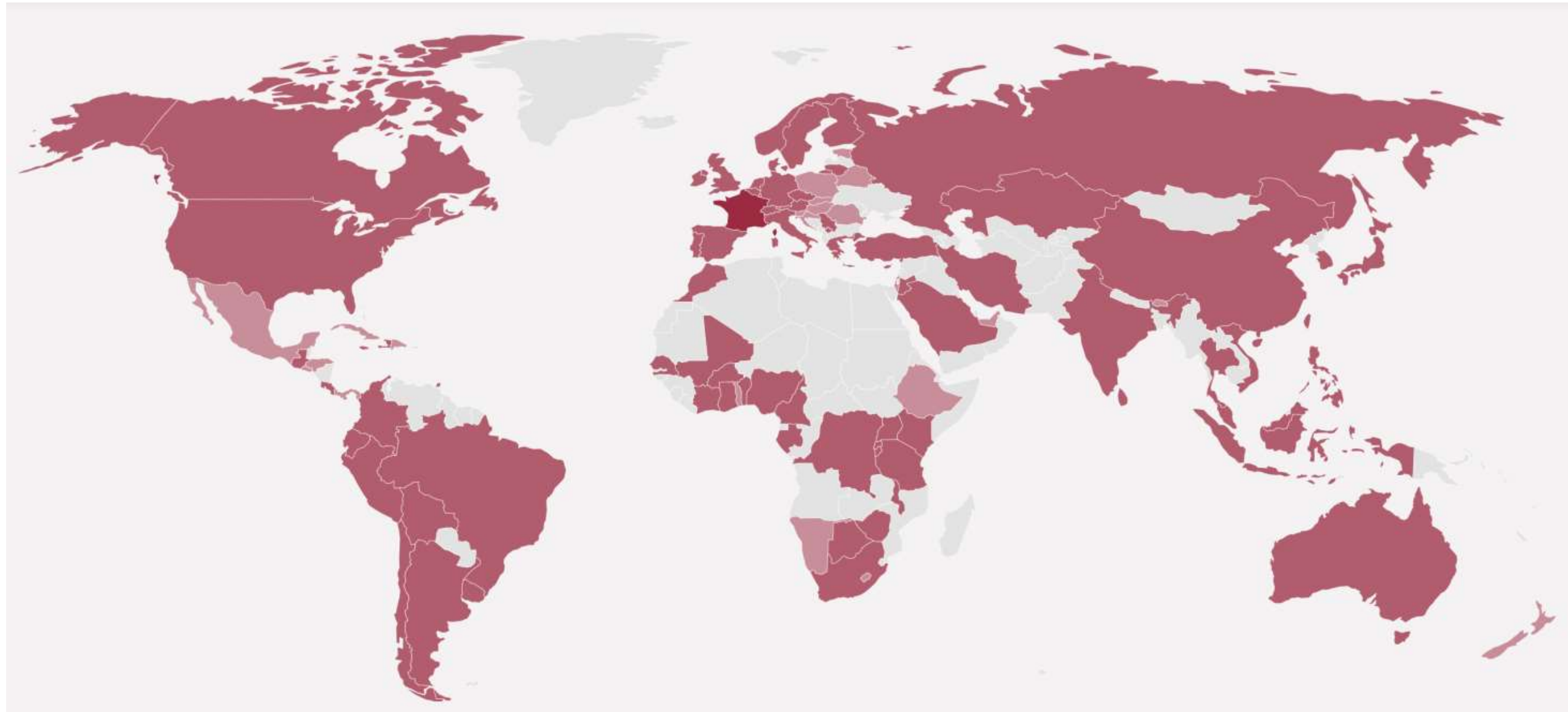
List of Standards to be delivered by JTC24

List of European standards to be drafted and deadlines for their adoption as referred to in Article 1

	Reference information	Deadline for the adoption by the ESOs
1.	European standard(s) on unique identifiers	31 December 2025
2.	European standard(s) on data carriers and links between physical product and digital representation	31 December 2025
3.	European standard(s) on access rights management, information, system security, and business confidentiality	31 December 2025
4.	European standard(s) on interoperability (technical, semantic, organisation)	31 December 2025
5.	European standard(s) on data processing, data exchange protocols and data formats	31 December 2025
6.	European standard(s) on data storage, archiving, and data persistence	31 December 2025
7.	European standard(s) on data authentication, reliability, integrity	31 December 2025
8.	European standards on Application Programming Interfaces (APIs) for the product passport lifecycle management and searchability	31 December 2025

ISO/TC 323 Circular Economy

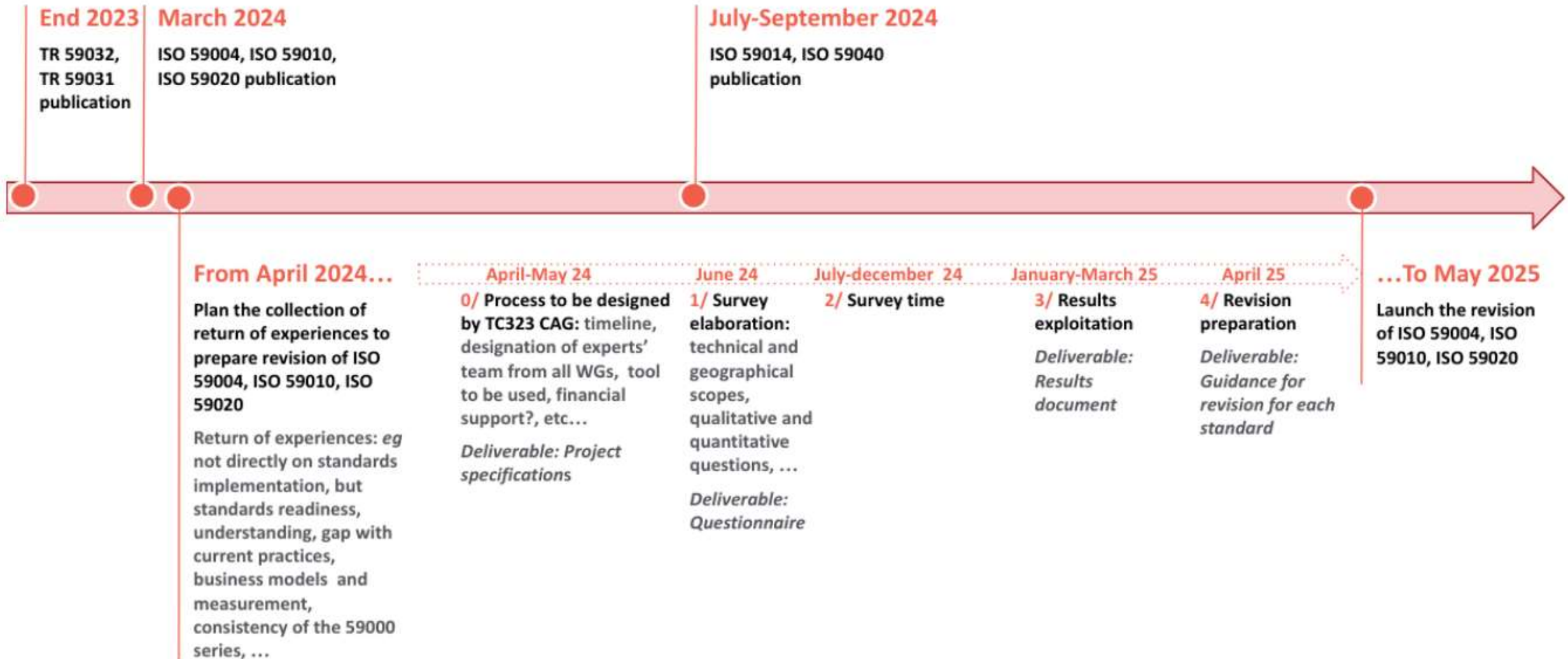
78 P-members
22 O-members



ISO/TC 323 standards May 2024

WG1 (lead by Brazil-France) ISO 59004 – Circular Economy – Terminology, Principles and Guidance for implementation			
WG2 (lead by Japan-Rwanda) ISO 59010 Circular Economy – Guidance on business models and value networks	WG3 (lead by Netherlands) ISO 59020 Circular Economy – Measuring and assessing circularity	WG5 (lead by Luxembourg-China) ISO 59040 Circular Economy – Product Circularity Data Sheet	JWG14 (lead by Switzerland-Mauritius) ISO 59014 Environmental management and circular economy – Sustainability and traceability of secondary materials recovery – Principles and requirements
WG4 (lead by Brazil - secretariat Kenya) ISO TR 59031 – Circular Economy – Performance based approaches ISO TR 59032 – Circular Economy – Review of business model implementation			

ISO/TC 323 Circular Economy - timeline



Take aways

- EU Commission has set very ambitious goals for sustainable development – can be challenging for SME's
- Many initiatives and standards are developed or under development to support a sustainable development
- Global network: Many European Companies are depending on a Global value chain – and efficient communication
- Challenge: The maturity level of circularity and ambition is higher in Europe than in some other parts of the world

Contact



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