CII Webinar on Sensitization of Standards Development for Women's day

(EU sustainability and digital standards)

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EU Project SESEI

Project is a local presence in India

SESEI (**S**econded **E**uropean **S**tandardization **E**xpert in **I**ndia) *is a local face for the European standardization community in India: Dinesh Chand Sharma*

Why SESEI: India is a major trade partners for EU/EFTA, Increasing role of standards to gain market access, evolving & complex nature of regulatory and standardization landscapes, sharing best practices, and work together as partners

Priority Sectors/topics: Aligned with EU-INDIA TTC, Connectivity Partnership

Digitization: Strategic technologies, digital governance, and digital connectivity

Smart Cities/Urban Development, ITS, Quantum Technologies, Smart Grid/Meter, **Artificial Intelligence**, 5G/6G, Open RAN, M2M/IoT (Cyber-Physical Systems), DECT, Data Privacy, Satellite Communication, Blockchain, Digital Signature, Smart Manufacturing, e-Accessibility, cybersecurity, digital skills, digital platforms including Research and Innovation etc.

Green & Clean technologies : Clean Energy, Energy Efficiency (Green ICT), Environment, Circular Economy including Resource Efficiency, Waste Management, Energy storage technologies, Electric mobility, Green Hydrogen, Advanced biofuels including R&I etc.

Other topics of mutual interests such as Rail, Ropeways, Machinery Safety etc.

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What is a standard?

It is a document that defines technical or quality requirements with which current or future products, production processes, services or methods may comply

➢ Always voluntary & Consensus based

➢ Established by all interested parties & Driven mainly by Industry

➢ Drafted by technical experts

➢ Approved by a recognized, independent standardization body

Why standards?

➢ Enhance safety of products

➢ Promote common understanding

➢ Facilitate trade by reducing TBs

➢ Promote interoperability of products and services

➢ Benefits of economies of scale

➢ Support environmental sustainability

➢ Facilitate the uptake of innovation and reflect the outcome of research and development

STANDARDS CONNECT THE WORLD
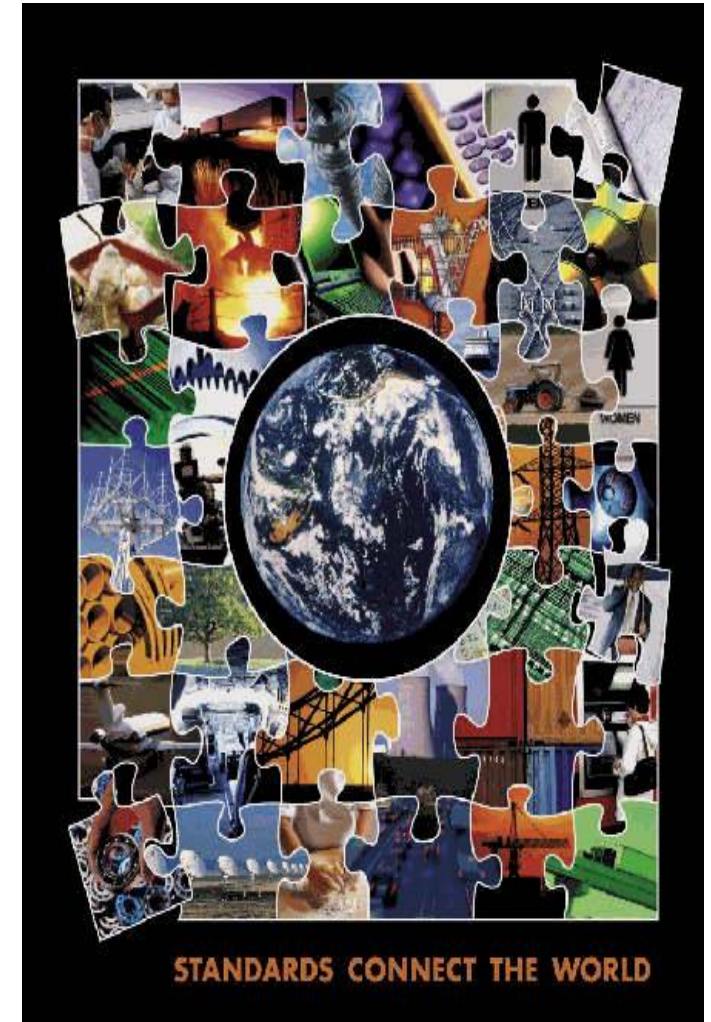
Standards vs Législation

Standards :

1. Voluntary
2. Consensual
3. Developed by independent organisations
4. Revised every 5 years
5. Provide specifications and test methods (interoperability, safety, quality, etc.)

Legislation :

1. Mandatory
2. Imposed by Law
3. Established by public authorities
4. Revised when legislators decide
5. Gives requirements to protect public interests

ESOs: CEN, CENELEC and ETSI

CEN, CENELEC and ETSI are three officially recognised European Standards Organizations (Regulation EU 1025/2012)

Standardization in various business sectors
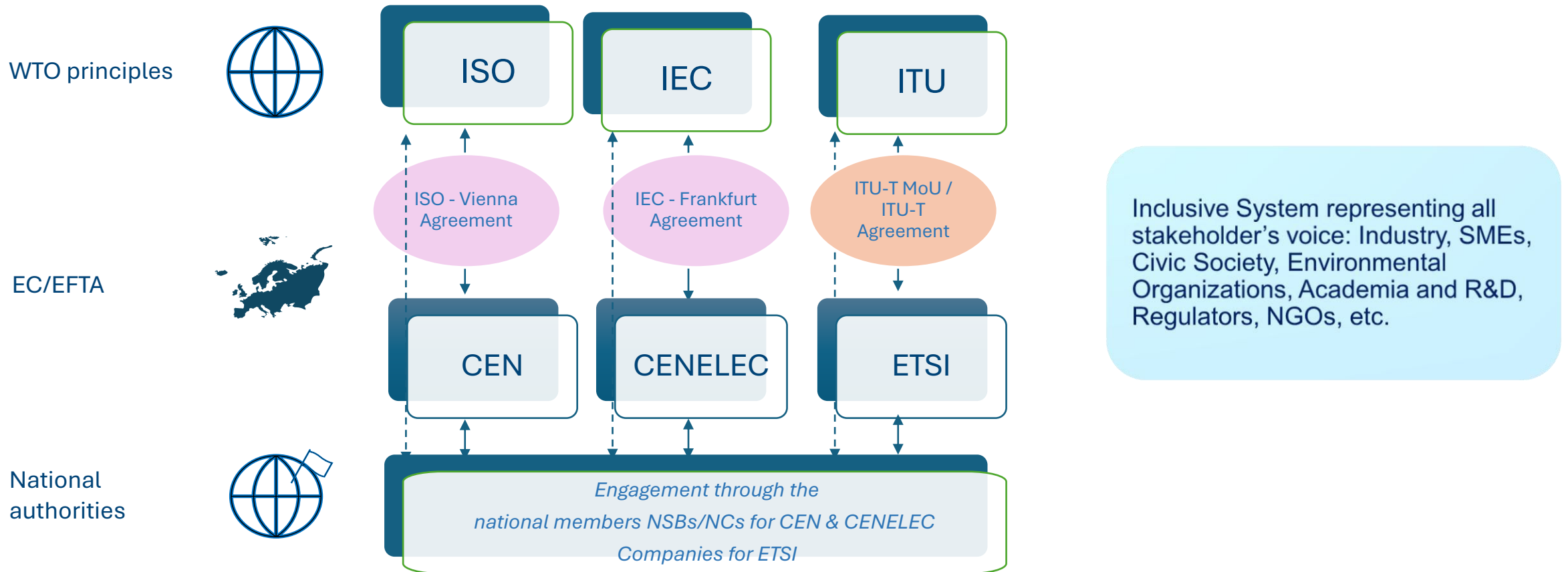
Standardization in the Electrotechnology sector

Telecommunications, broadcasting and other electronic communications networks and services

1 standard in 34 different countries

Austria

Denmark

Greece

Latvia

Poland

Slovenia

Belgium

Estonia

Hungary

Lithuania

Portugal

Spain

Bulgaria

Finland

Sweden

Croatia

Iceland

Luxembourg

Republic of North Macedonia

Switzerland

Cyprus

France

Malta

Romania

Ireland

Netherlands

Serbia

Türkiye

Czech Republic

Germany

Italy

Norway

Slovakia

United Kingdom

A coherent and inclusive system

WTO principles

EC/EFTA

| ISO | IEC | ITU |

ISO - Vienna Agreement

IEC - Frankfurt Agreement

ITU-T MoU / ITU-T Agreement

| CEN | CENELEC | ETSI |

National authorities

Engagement through the national members NSBs/NCs for CEN & CENELEC Companies for ETSI

Inclusive System representing all stakeholder's voice: Industry, SMEs, Civic Society, Environmental Organizations, Academia and R&D, Regulators, NGOs, etc.

Inclusiveness and Diversity are core values of the CEN and CENELEC system and are essential to developing standards that equally benefit everyone:
- Signatories of UNECE's Declaration on Gender Responsive Standards
- CEN-CENELEC Gender Action Plan
- Standards playing an important role in supporting SDG 5 – Gender Equality
- In 2024, CEN and CENELEC also published a brochure on How to Be Gender-Responsive in Standardization for more visit link

examples of standards that support women's well-being across different sectors

☐ **EN ISO 7439:2023 on 'Copper-bearing contraceptive intrauterine devices - Requirements and tests.**

— This document sets out the requirements and tests for single-use, copper-bearing contraceptive intrauterine devices (IUDs) and their insertion instruments.

☐ **EN ISO 10993 series on 'Biological and clinical evaluation of medical devices'** assesses the biocompatibility of medical devices to ensure they do not produce adverse biological responses.

☐ **Publication of a new Workshop Agreement, CWA 18062:2023** 'Determination of trace chemicals extracted from absorbent hygiene products (AHPs) using simulated urine/menstrual fluid'.

☐ **FprEN ISO 14607 'Non-active surgical implants - Mammary implants - Specific requirements'** establishes the safety and performance requirements for mammary implants.

☐ **prEN ISO 53800 'Guidelines for the promotion and implementation of gender equality and women's empowerment'** is currently under approval.

☐ **While there are no standards specifically for menstrual products yet**?

— a Technical Committee (ISO/TC 338) now exist at the international level.

— The Swedish Institute for Standards (SIS) holds the Secretariat for this important work.

— The TC is currently working on ISO/AWI 25130 which sets out general and safety requirements for menstrual products, covering both internally and externally used products intended for single and multiple use.

Smart & Online Standards Development (OSD)

Strategy 2030: Goal 2
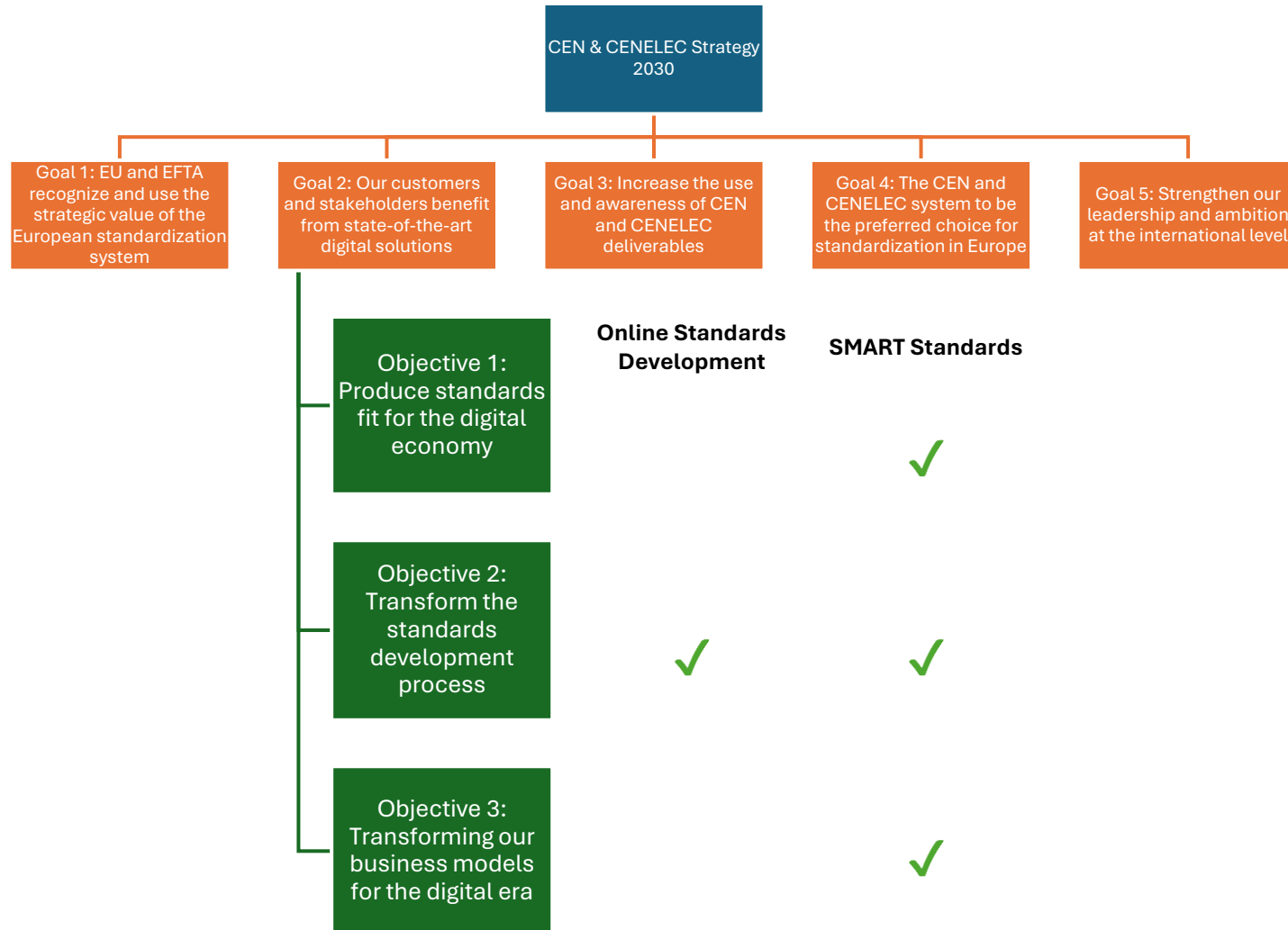
Strategy 2030 Implementation
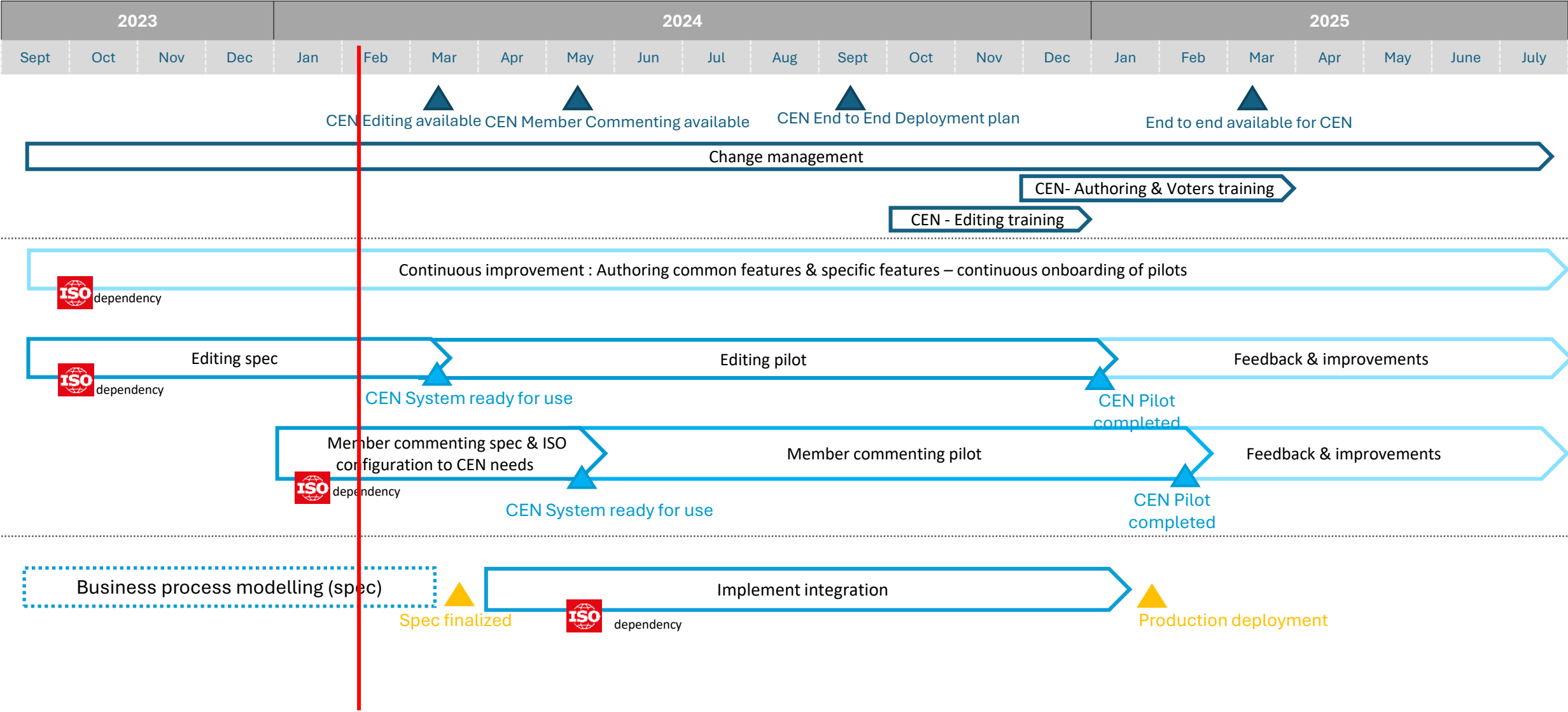https://experts.cenelec.eu/key-initiatives/strategy-2030-implementation/

Online Standards Development (OSD)

OSD will help **committees** to **draft higher quality deliverables** using a **collaborative authoring online solution** designed for standards drafting

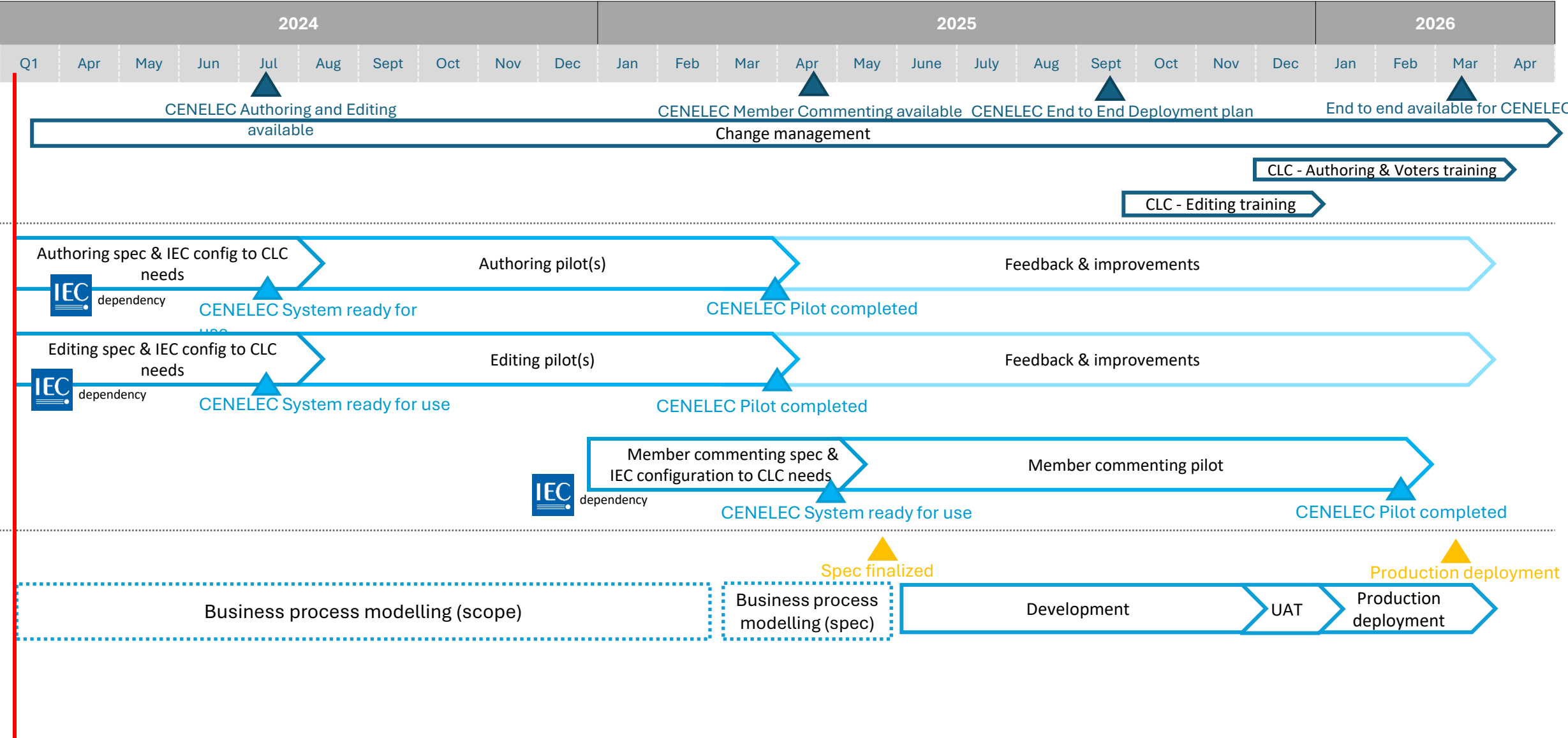# CEN OSD for EN : building blocks to achieve end-to-end process

	2023				2024											2025					
Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July

Project

▲ CEN Editing available ▲ CEN Member Commenting available ▲ CEN End to End Deployment plan ▲ End to end available for CEN

Change management

CEN- Authoring & Voters training

CEN - Editing training

OSD-CEN Tool

Continuous improvement : Authoring common features & specific features – continuous onboarding of pilots

[ISO] dependency

Editing spec ▷ Editing pilot ▷ Feedback & improvements

[ISO] dependency

CEN System ready for use

CEN Pilot completed

Member commenting spec & ISO configuration to CEN needs ▷ Member commenting pilot ▷ Feedback & improvements

[ISO] dependency

CEN System ready for use

CEN Pilot completed

CCMC Tools*

Business process modelling (spec) ▲ Spec finalized Implement integration [ISO] dependency ▲ Production deployment

*1st scope : EN, TR, TS, CWA

CENELEC OSD and other deliverables : building blocks to achieve end-to-end process

	2024									2025												2026		
Q1	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr

Project

▲ CENELEC Authoring and Editing available

▲ CENELEC Member Commenting available ▲ CENELEC End to End Deployment plan

▲ End to end available for CENELEC

Change management

CLC - Authoring & Voters training

CLC - Editing training

OSD-CLC Tool

Authoring spec & IEC config to CLC needs

IEC dependency

Authoring pilot(s)

▲ CENELEC System ready for use

Feedback & improvements

▲ CENELEC Pilot completed

Editing spec & IEC config to CLC needs

IEC dependency

Editing pilot(s)

▲ CENELEC System ready for use

Feedback & improvements

▲ CENELEC Pilot completed

Member commenting spec & IEC configuration to CLC needs

IEC dependency

▲ CENELEC System ready for use

Member commenting pilot

▲ CENELEC Pilot completed

CCMC Tools*

▲ Spec finalized

▲ Production deployment

Business process modelling (scope)

Business process modelling (spec)

Development

UAT

Production deployment

*2nd scope : CLC integration, HAS, Amendments

Our market will transform
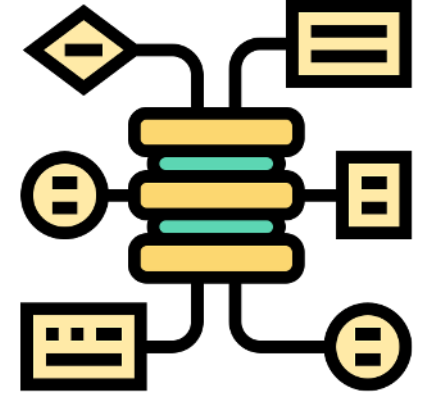
From...

Paper on a screen

- No real change since 1920
- Others reverse-engineering the info & providing the services that customers really need

Catalysts

- Other providers progressively muscling-in on the value chain
- Regulators demanding free access in some markets
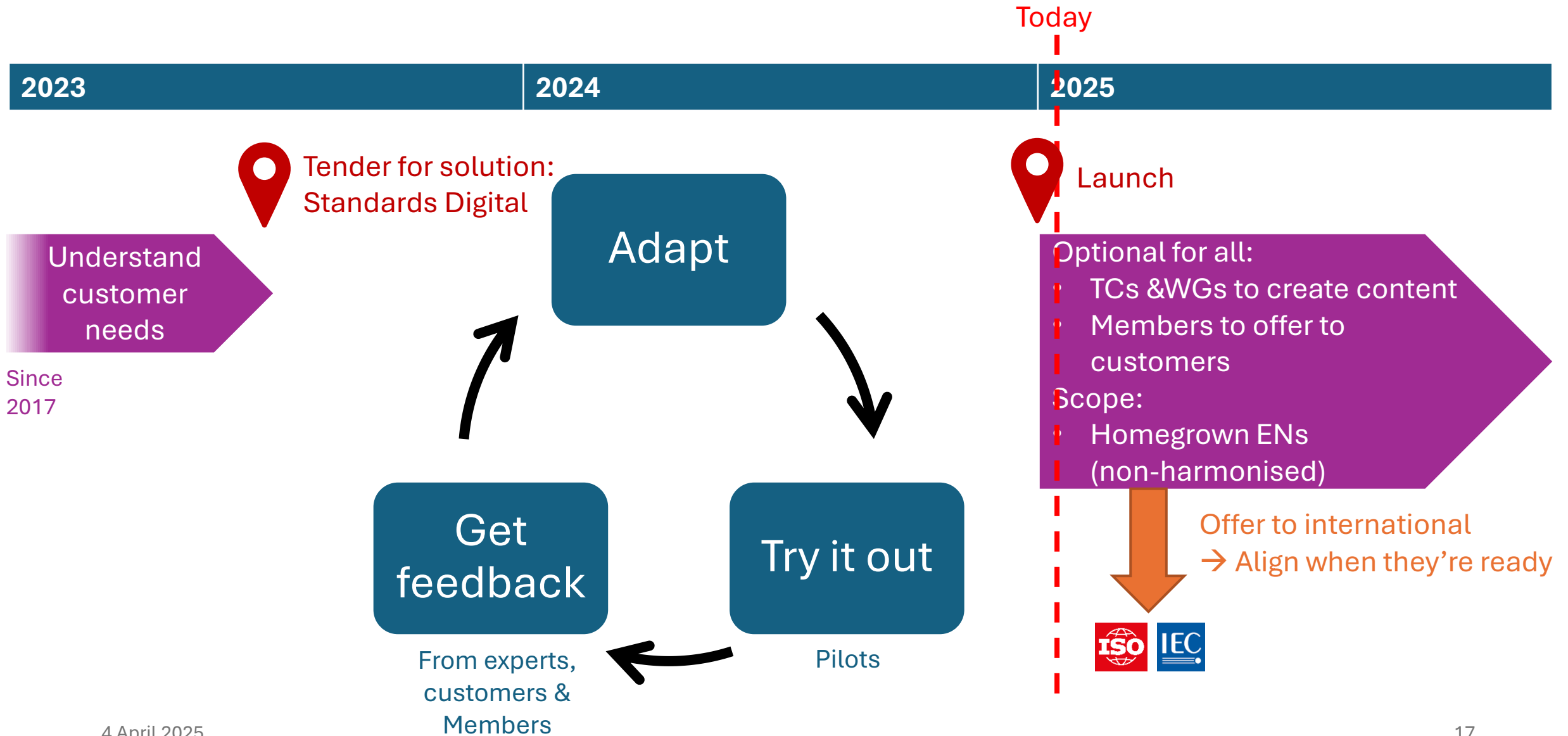
... to...

Interconnected data elements

- A fundamentally different product
- Ability to build resilience through diverse business models

Implementing SMART

Today

2023	2024	2025

Tender for solution: Standards Digital

Understand customer needs

Since 2017

Adapt

Get feedback

Try it out

From experts, customers & Members

Pilots

Launch

Optional for all:
- TCs &WGs to create content
- Members to offer to customers

Scope:
- Homegrown ENs (non-harmonised)

Offer to international
→ Align when they're ready

ISO   IEC

What's the difference?

TCs & WGs will need to choose their tool for drafting standards:
- In ~2 years: SMART or OSD or Word
- In ~4 years: SMART or OSD

	OSD	SMART
Impacts the drafting process?	✓	✓
FontoXML-based?	✓	✓
Granular structure of content?	✗	✓
New product? New business models?	✗	✓
Satisfies customer demands?	✗	✓
Requires Member action?	✓ default	✗ optional for drafting & publishing
Aligned with ISO/IEC?	✓	Future ambition
Volumes in ~4 years	Large	Medium

EU: Digital in Standards
Supporting the Digital Transition through standardization

ETSI-CEN-CENELEC TCs working on Emerging technologies

- **CEN-CLC/JTC 19 'Blockchain and Distributed Ledger Technologies':** development and/or adoption of standards for Blockchain and Distributed Ledger technologies

- **CEN-CLC/JTC 21 'Artificial Intelligence':** Developing standards/deliverables for AI and related use of data.

- **CEN-CLC/JTC 13 'Cybersecurity and data protection':** Development of standards for cybersecurity and data protection

- **CEN/CLC/JTC 22: Quantum Technologies** : Producing standardization deliverables in area of quantum technologies.

- **CEN/CLC/JTC 25: Data management, Dataspaces, Cloud and Edge**: Standardisation in the area of data management, dataspaces, cloud and edge

- **ETSI TC on Securing AI (ISG AI) :** Developing technical specifications to mitigate threats arising from deployment of AI throughout multiple ICT-related industries

- **ETSI ISG ENI (Experiential Networked Intelligence):** Aims to help operators facilitate their network deployment by using AI techniques

- **ETSI ISG Quantum Key Distribution (QKD)** : development of standards in area of quantum key distribution

- **ETSI TC CYBER:** Development of standards that are applicable across different domains, for the security of infrastructures, devices, services, protocols, and to create security tools and techniques.

- **ETSI ISG Permissioned Distributed Ledgers (PDL):** provides the foundations to operate permissioned distributed ledgers to be deployed across various industries and governmental institutions.

- **Many more......**

EU Policies/Regulations/Directives in support of sustainability

Key EU Sustainability Regulations/Directives/Policies

European Green Deal

- Aims to make the EU the first climate-neutral area in the world by 2050, to cut pollution and restore a healthy balance in nature and ecosystems.

Circular economy action plan

- Aims to transition the European economy towards a circular model, reducing waste and resource consumption while promoting sustainable growth and job creation.
- focuses on the entire product lifecycle, from design to end-of-life, with initiatives targeting sustainable products, circular processes, and waste prevention

Ecodesign for Sustainable Products Regulation [ESPR]

- Aims to regulate sustainable, eco-friendly materials used in design.

Corporate Sustainability Due Diligence Directive (CSDDD)

- Requires companies to identify their actual and potential impacts on the environment and human rights.
- Holds company boards and leadership responsible for overseeing and reporting on due diligence.

Corporate Sustainability Reporting Directive (CSRD)

- Stipulates that companies are required to disclose information on their sustainability practices and their impact on the environment and society.

Carbon Border Adjustment Mechanism (CBAM)

- Aims to reduce carbon emissions, put a fair price on carbon emitted during the production of carbon intensive goods imported into the EU

EU Deforestation Regulation (EUDR)

- Requires companies sourcing coffee, cocoa, palm oil, soy, beef, and wood commodities to conduct due diligence on their supply chains to identify, prevent, and mitigate deforestation and forest degradation.

Sustainable Finance Disclosure Regulation (SFDR)

- Requires financial market participants and financial advisers to inform investors about how they consider the sustainability risks.

EU Taxonomy

- Create a uniform and harmonized classification system providing a common language for investors, companies, policymakers and financial institutions

EU Sustainability Standards

ETSI/CEN/CLC TCs

ETSI TC-EE : Environmental Engineering (EE)

CEN/TC 473: Circular Economy

CLC/TC 111X: Environment

CEN/CLC/JTC 10: Material efficiency aspects for products in scope of Eco-design legislation

CEN/CLC/JTC 14: Energy management and energy efficiency in the framework of energy transition

CEN/CLC/JTC 24: Digital Product Passport - Framework and System

CEN/TC 350: Sustainability of construction works'

CEN/TC 465: Sustainable Cities and Communities

CEN/TC 383: Sustainably produced biomass for energy applications

CEN/TC 249: Plastic

CEN/SS S26: Environmental management

CEN/SS S29: Social responsibility

Many more.....

ESG standards

Environmental

- Emissions, adaptation to climate change, circular economy and biodiversity are some of the key elements in this area.

- The environmental aspect is the area of sustainability that has traditionally had the longest history and the most regulation associated with it through national and European policies.

- List of standards that support organizations in defining and achieving their goals in these areas while helping them to comply with the applicable regulatory frameworks.

ESRS	EU standard
ESRS 1 General Requirements	**EN ISO 14008:2021** Monetary valuation of environmental impacts and related environmental aspects **EN ISO 14007** : Determining environmental costs and benefits **EN ISO 22301** Security and resilience – Business continuity management systems – Requirements **EN ISO 14063** Environmental management - Environmental communication - Guidelines and examples **EN ISO 14015** Environmental management - Guidelines for environmental due diligence assessment
ESRS-E Environment	**EN ISO 14001:2015** Environmental management systems — Requirements with guidance for use
ESRS E1 Climate	**EN ISO 50001:2018** Energy management systems — Requirements with guidance for use **EN 16247-1:2022** Energy audits - Part 1: General requirements **EN 19694-1:2016** Stationary source emissions - Determination of greenhouse gas (GHG) emissions in energy-intensive industries - Part 1: General aspects **EN ISO 14064-1** Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals **EN ISO 14067** Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification **EN ISO 14064-3** Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements **EN ISO 14031** Environmental management - Environmental performance evaluation - Guidelines **EN ISO 22301:2019** Security and resilience – Business continuity management systems – Requirements **EN ISO 14090:2019** Adaptation to climate change – Principles, requirements and guidelines **EN ISO 14091:2021** Adaptation to climate change - Guidelines on vulnerability, impacts and risk assessment
ESRS E2: Pollution	**EN ISO 15175:2018** Soil quality — Characterization of contaminated soil related to groundwater protection Parts of **EN ISO 16198:201**5 Soil quality — Plant-based test to assess the environmental bioavailability of trace elements to plants (ISO 16198:2015) **EN ISO 19204:201**7 Soil quality — Procedure for site-specific ecological risk assessment of soil contamination **EN ISO 15799:2022** Soil quality - Guidance on the ecotoxicological characterization of soils and soil materials **EN ISO 14067:2018** Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification
ESRS E3 Water and marine resources	**EN ISO 15175** Soil quality — Characterization of contaminated soil related to groundwater protection **EN ISO 14046:2016** Environmental management - Water footprint - Principles, requirements and guidelines **EN ISO 14044** Environmental management –Life cycle assessment –Requirements and guidelines **EN 16941 series**: Use of rainwater and greywater
ESRS E4 Biodiversity and ecosystems	Strategic and operational consideration of biodiversity. **ISO 17298** (standard under development) Design and implementation of projects with biodiversity net gain. **ISO 17620** (standard under development) Natural capital accounting. **ISO 1405**4 (standard under development)
ESRS E5 : Resource use and circular economy	**EN ISO 14040** Environmental management – Life cycle assessment – Principles and framework **EN ISO 14009** Environmental management systems - Guidelines for incorporating material circulation in design and development **EN ISO 14006** Environmental management systems – Guidelines for incorporating ecodesign **EN 17267:2020** Energy measurement and monitoring plan - Design and implementation - Principles for energy data collection **EN 45552:2020** General method for the assessment of the durability of energy-related products **EN 45553:2020** General method for the assessment of the ability to remanufacture energy-related products **EN 45554:2020** General methods for the assessment of the ability to repair, reuse and upgrade energy-related products **EN 45556:2019** General method for assessing the proportion of reused components in energy-related products **EN 45557:2020** General method for assessing the proportion of recycled material content in energy-related products **EN 45558:2019** General method to declare the use of critical raw materials in energy-related products **EN 45559:2019** Methods for providing information relating to material efficiency aspects of energy-related products

ESG standards: Social

- These standards help organizations to balance business objectives with social interests, increasing the social commitment of their policies and programs.

- They provide guidelines to improve the opportunities and management of disadvantaged groups and communities, both in their value chain and in their own work environment, while helping them to take these needs into account when designing their activities, products and service

ESRS	Standards
ESRS S1: Own workforce	EN ISO 45001 Occupational health and safety management systems — Requirements with guidance for use EN ISO 26000:2020 Guidance on social responsibility
ESRS S2: Workers in the value chain	EN ISO 45001 Occupational health and safety management systems — Requirements with guidance for use
ESRS S3 : Affected communities	- -
ESRS S4: Consumers and end users	EN ISO 9001:2015 - Quality management systems – Requirements EN ISO 9004:2018 Quality management - Quality of an organization - Guidance to achieve sustained success EN 17161:2019 Design for All. Accessibility following a Design for All approach in products, goods and services. Extending the range of users

ESG standards: Governance

- These good governance standards help organizations to establish practices, policies and structures that enable them to direct and control their operations in an ethical and transparent way.

- They facilitate the identification of and compliance with the legal frameworks that apply to them while helping them to prevent irresponsible or fraudulent business practices.

- They also offer support to increase their resilience through risk management and business continuity in the face of adverse contexts.

ESRS G1 : Governance Business conduct

- EN ISO 26000:2020 Guidance on social responsibility

- **EN 31010** Risk assessment techniques

- **EN ISO 22301** Business continuity management.

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