European Standardization & Digital Transformation

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CEN-CENELEC Members

Fundamentals – CEN and CENELEC standards are...

- Based on the **national delegation principle**

- Representing a **consensus** among all interested parties, including **industry** & **SMEs** and **societal stakeholders**

- **Voluntary**

- Developed by **independent organizations** clearly distinct from authorities

CEN & CENELEC Standardization Sectors and Topics

CEN

Bio-based products
Chemicals
Construction
Food
Heating, Ventilation & Air Conditioning
Materials
Nanotechnologies
Pressure equipment
Services

CEN & CENELEC

Air and Space
Consumer products
Electric Vehicles
Energy and utilities
Health and safety
Healthcare
ICT
Machinery safety
Measurement
Medical equipment
Railways
Security and Defence
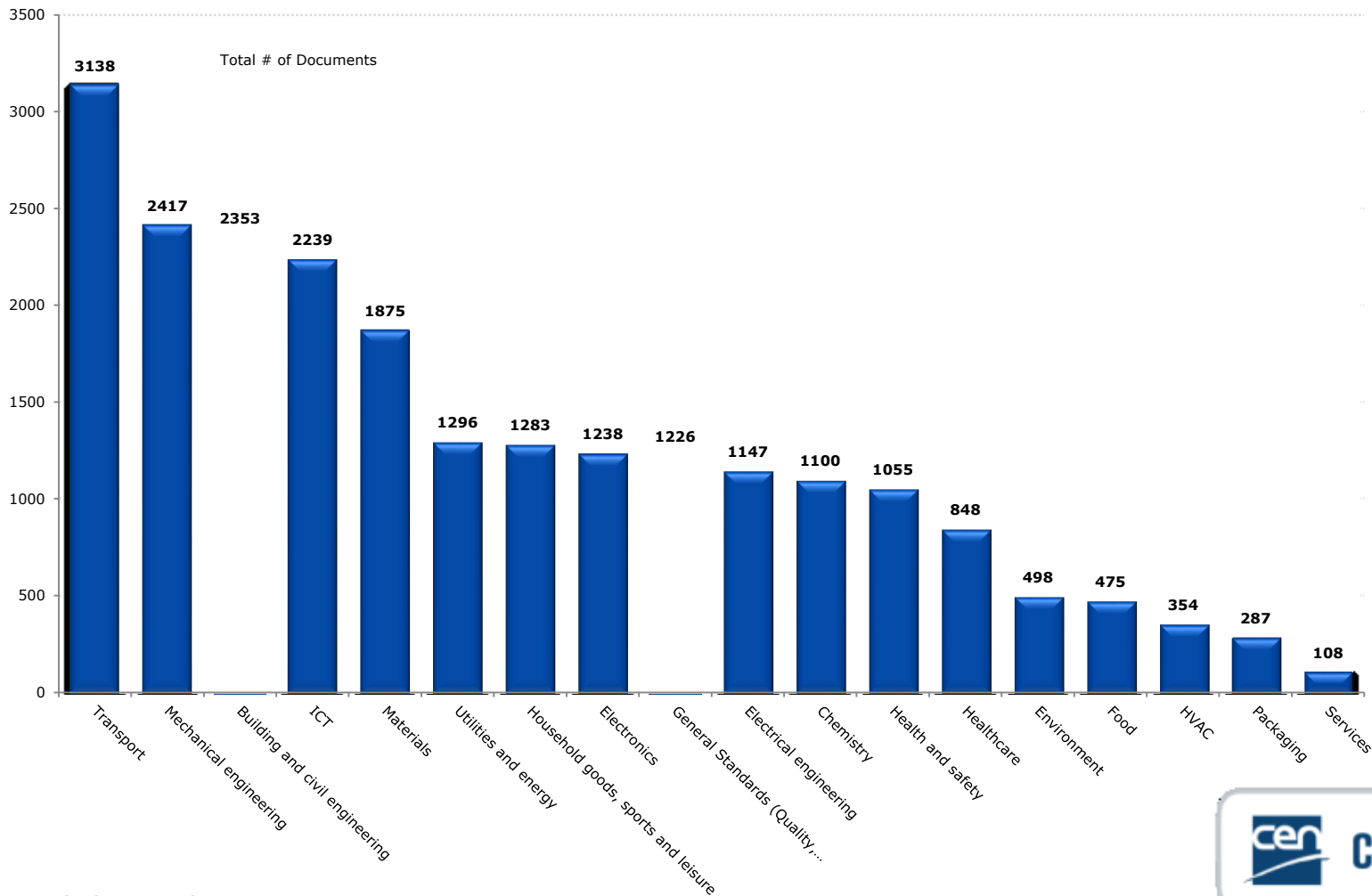**Smart Grids / Smart Meters**
Transport and Packaging

CENELEC

Electrical engineering
Electromagnetic Compatibility (EMC)
Fibre-optic communications
Fuel Cells
Household Electrical Appliances
Solar (photovoltaic) electricity systems

Cross-sectoral issues

Accessibility | Environmental Protection | Energy-efficiency (Eco-Design)

Industry sector coverage

Total # of Documents

Sector	Value
Transport	3138
Mechanical engineering	2417
Building and civil engineering	2353
ICT	2239
Materials	1875
Utilities and energy	1296
Household goods, sports and leisure	1283
Electronics	1238
General Standards (Quality,…	1226
Electrical engineering	1147
Chemistry	1100
Health and safety	1055
Healthcare	848
Environment	498
Food	475
HVAC	354
Packaging	287
Services	108

European Standards – Evolution
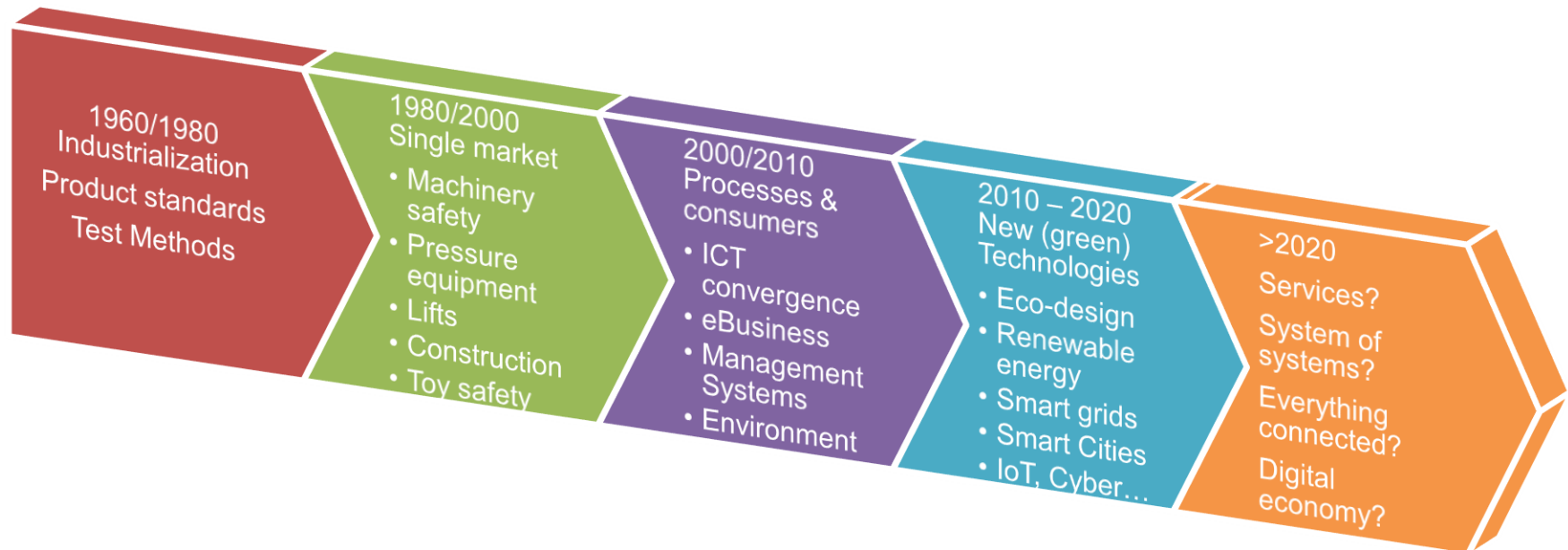
…meeting stakeholder needs

Smart City

Smart Grid/ Smart Energy

Smart Agriculture

Internet of Things
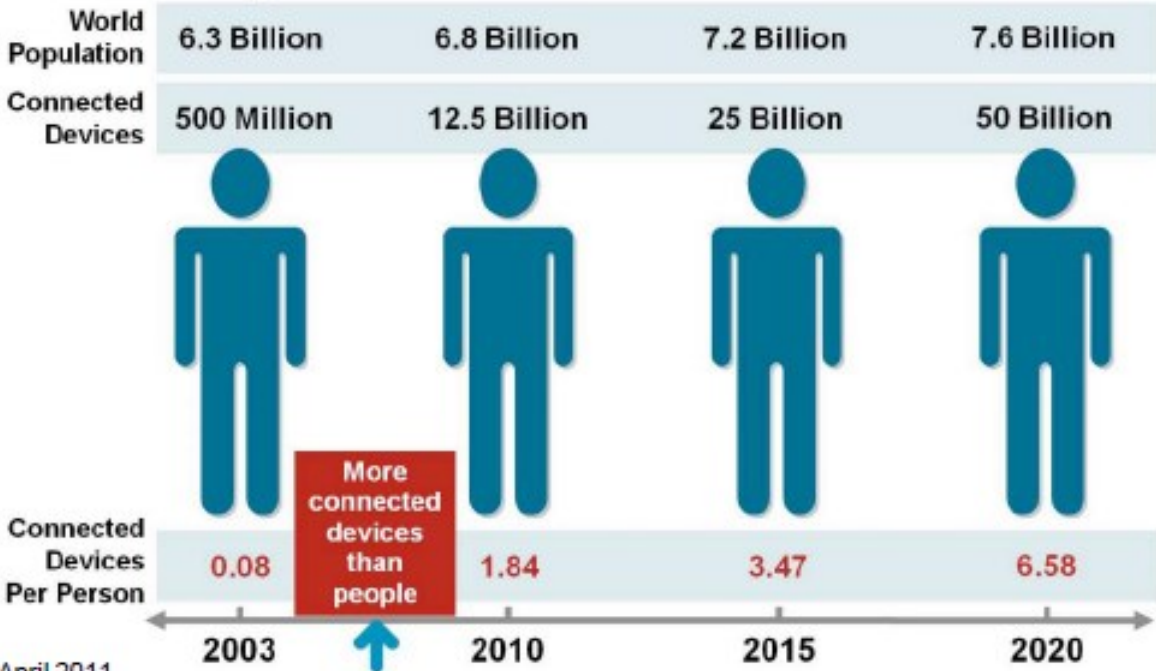
Smart Retail

Smart Health

Smart Mobility

Smart Home

Open Data

Internet of Things

World Population	6.3 Billion	6.8 Billion	7.2 Billion	7.6 Billion
Connected Devices	500 Million	12.5 Billion	25 Billion	50 Billion
Connected Devices Per Person	0.08	1.84	3.47	6.58
	2003	2010	2015	2020

More connected devices than people

The world is changing

- European industry is digitizing
- Traditional sectors now need IT standardization responses
- Rapidly evolving regulatory landscape
- Growing number of standardization providers

Standardization Bodies Supporting Digitization

Home/Building — Manufacturing/Industry Automation — Vehicular/Transportation — Healthcare — Energy — Cities — Wearables — Farming/Agrifood
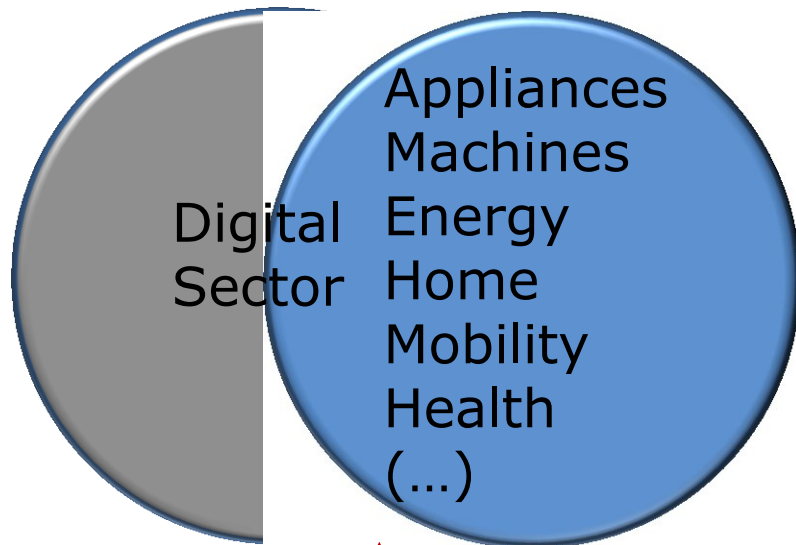
Horizontal/Telecommunication

Source: AIOTI WG3 (IoT Standardisation) – Release 2.0

CEN and CENELEC sectors and Digitization

Internet   'Things'

Digital Sector

Appliances
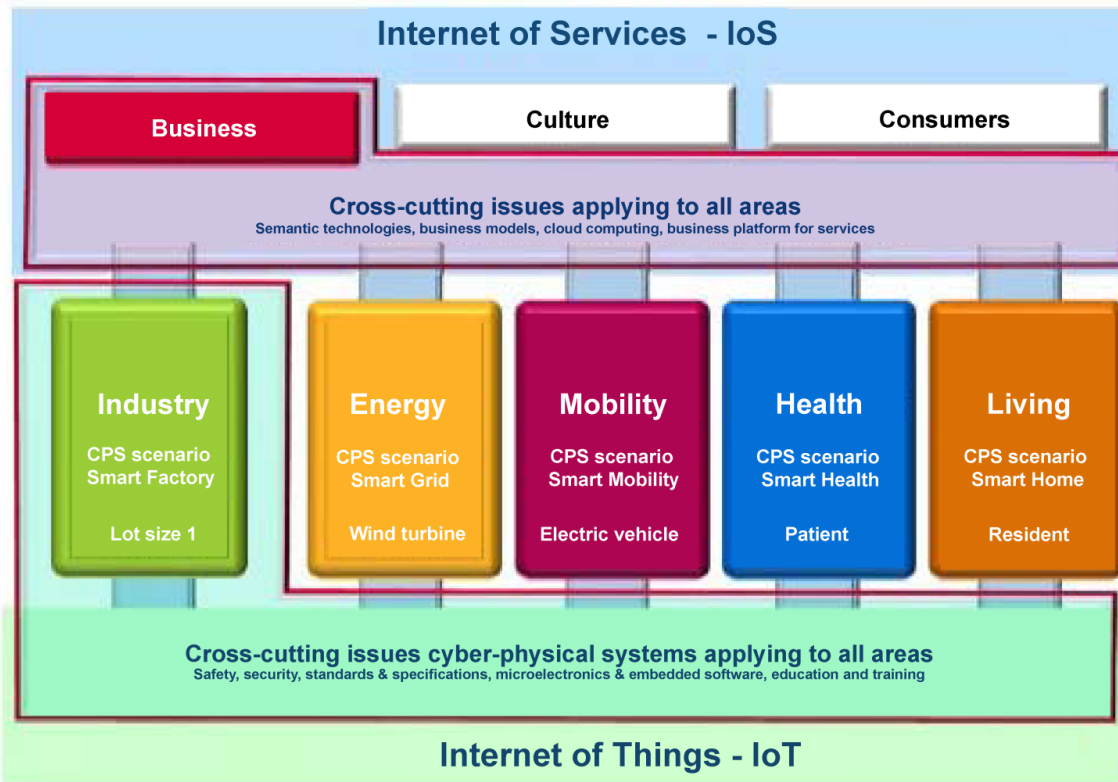Machines
Energy
Home
Mobility
Health
(…)

IoT happens here

Industry sectors are undergoing digital transformation

Target sectors are longstanding and active stakeholders in CEN and CENELEC

Sectors and cross-cutting issues

Technology, Connectivity, Semantics, Interoperability…

Sectors (verticals)

Cybersecurity, Functional safety, Data privacy…

CEN-CENELEC Strategy for Digitization

CEN-CENELEC
Ambitions 2020

Strategic Plan
for Digitization

**Implementing
Projects**

CEN and CENELEC projects in support of Digitization

Joint Initiative on Standardization JIS Action 14 'Digitization'	National initiatives ISO / IEC
Strategic alliances and partnerships	ETSI, oneM2M, AIoTI,…
Digitization of CEN and CENELEC processes	Online Standardization Content management
Specific IoT Pilot projects	Identification and Pilots Kick – Off
Data, Cyber-security Functional Safety,…	**CEN-CLC-ETSI contributions to ICT Standardization priorities**

5 Priorities for ICT Standardization

Strategic Plan - projects supporting Digitization

Online, collaborative standards development

Flexible, accessible online standardization platform

Strategic Alliances

ECSO, oneM2M, AIOTI

Digital transformation of CEN-CENELEC

Online Standardization, Content Management

21st Century standards content

Machine readable, user ready

Next Generation

Digital professionals & Natives
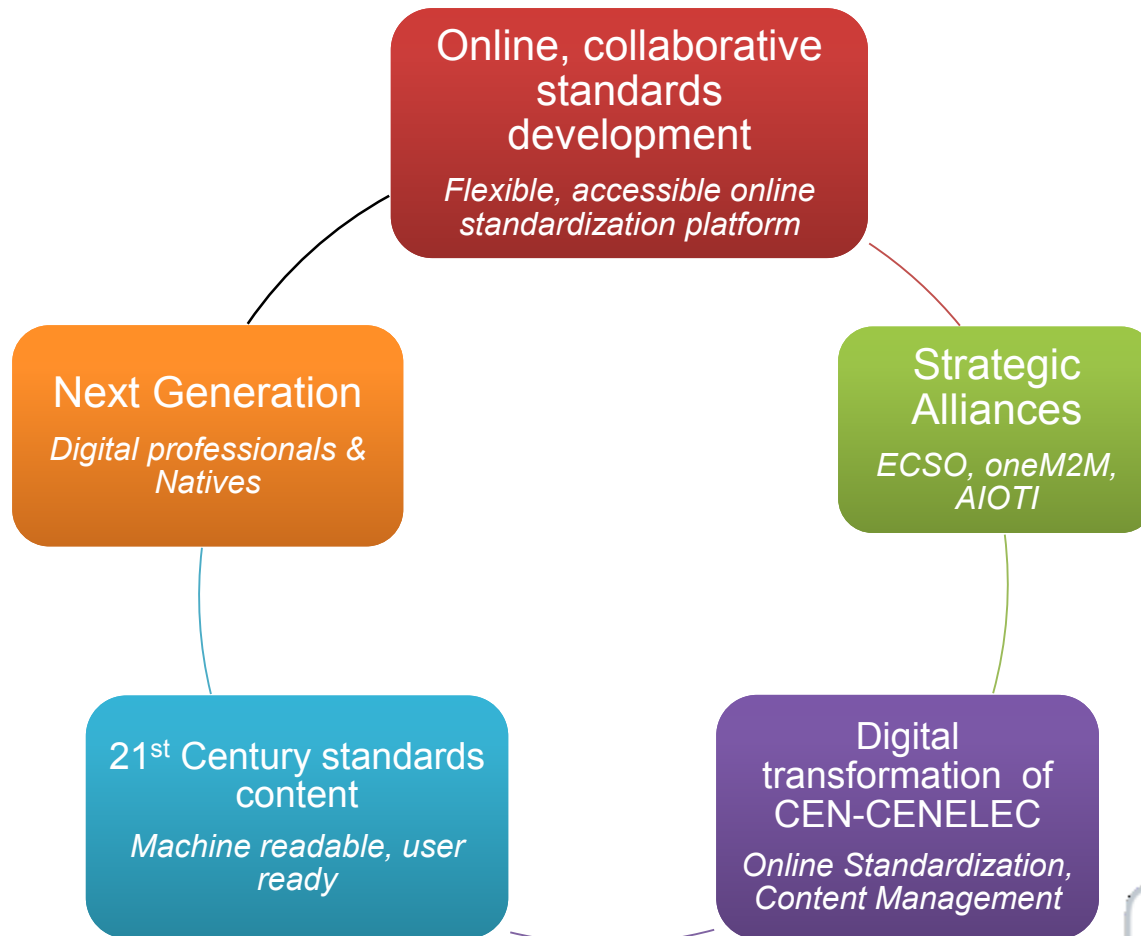
CEN & CENELEC supporting Digitization of European Industry

- European standardization: essential for the effective digitization of industry
- Vertical Sectors drive digitization, with digital technology providers, enabled by standards
- CEN – CENELEC System's own digital transformation
- Support national digitization initiatives
- Cooperation with ISO and IEC
- Partnerships with ETSI and others (oneM2M, ECSO, AIOTI…)
- Robust and innovation-friendly patent policy

Thank you very much for your attention