Cross-domain applications (Northbound)

CEN-CENELEC ICT Standardization activities

Javier GARCÍA DÍAZ
IoT for Smart Cities and Communities – Bilbao (2018-06-06)
Who we are & Where do we fit in

International Standards Bodies

- ISO
- IEC
- ITU

European Bodies

- CEN
- CENELEC
- ETSI

National Bodies

- National committees
- National standards bodies

Industry, SMEs, federations, researchers, academia, Regulators, other stakeholders...

More than 200,000 experts are connected:

- 800 European industry federations and societal stakeholder organizations
- 30,000 experts in CEN and CENELEC
- 55,000 experts in ISO and IEC
- 160,000 participants in national mirror committees

Vienna, 1991
Frankfurt, 2017

Javier GARCÍA DÍAZ
Bilbao (2018-06-06)
National Standardization Organizations

34 full members

Austria
Bulgaria
Belgium
Croatia
Czech Republic
Denmark
Estonia
Finland
France
Germany
Hungary
Iceland
Ireland
Italy
Latvia
Lithuania
Luxembourg
Netherlands
Norway
Poland
Portugal
Romania
Serbia
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
United Kingdom

© CEN-CENELEC 2017
CEN & CENELEC Standardization:
Sectors and Topics

**CEN**
- Bio-based products
- Chemicals
- Construction
- Food
- Heating, Ventilation and Air Conditioning (HVAC)
- 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)
CEN-CENELEC Portfolio per business domain

- Services
- Packaging
- Environment
- HVAC
- Food
- Healthcare
- Chemistry
- Health and safety
- Electronics
- General Standards (Quality, Measurement, ...)
- Utilities and energy
- Household goods, sports and leisure
- Electrical engineering
- Materials
- ICT
- Building and civil engineering
- Mechanical engineering
- Transport
Market evolution

1960/1980 Industrialization
- Product standards
- Test Methods

1980/2000 Single market
- Machinery safety
- Pressure equipment
- Lifts
- Construction
- Toy safety

2000/2010 Processes & consumers
- ICT convergence
- eBusiness
- Management Systems
- Environment

2010 – 2020 New Technologies
- Eco-design
- Renewable energy
- Smart grids
- Smart Cities

>2020 Tech disruption
- Servitization?
- Open Source?
- Quantum Engineering?
- IoEverything?

...meeting customer needs

Javier GARCÍA DÍAZ
Bilbao (2018-06-06)
Digital transformation of industry

- European industry is increasingly using digital technologies
- Traditional sectors need ICT standardization responses
- Rapidly evolving regulatory landscape
- Growing number of standardization providers
- R&D-led growth (H2020, FP9...)
Response... building on:

- **European Single Market** for goods and services
  - and synchronizing with regulatory developments

- **Unique standardization model**: coherence & transparency
  - ISO and IEC alignment: facilitating international trade
  - National Delegation principle: experts from NSBs and NCs
  - The same European experts in CEN, CENELEC, ISO and IEC

- Bringing innovation and research outputs **to the market**
  - Innovation-friendly & Market-driven, flexible solutions
  - Successful Public – Private partnerships

- **Ensuring** safety, societal & environmental protection
Ensure CEN and CENELEC can meet the needs of industry sectors that digitally transform

**Digital transformation of industry**

Although the required standards will be developed mainly at international level within ISO/IEC, they have to be adapted to the EU context (Safety, Cybersecurity Regulations…)

The Joint MSP/DEI WG on standardisation in support of digitising European industry is currently:
- Identifying the standardisation needs of European Industry
- Mapping the ongoing activities being carried out
- Developing a model for the synchronisation of the standardisation activities

Javier GARCÍA DÍAZ
Bilbao (2018-06-06)
### ICT-related standardization activities:

<table>
<thead>
<tr>
<th>Category</th>
<th>Activity</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyber Security</td>
<td>E-Privacy (CEN-CLC/JTC 13, JTC 8, and CEN/TC 224)</td>
<td>Smart Meters (CLC/TC 11, CLC/TC 205, CEN/TC 294)</td>
</tr>
<tr>
<td>ICT competences</td>
<td>Blockchain (Focus Group on DLT)</td>
<td>Broadband infrastructure (CEN/TC 209, CLC/TC 215)</td>
</tr>
<tr>
<td>Construction BIM</td>
<td>eHealth (CEN/TC 251)</td>
<td>RFID (CEN/TC 225)</td>
</tr>
</tbody>
</table>

*Note: JWG = Joint Working Group, BIM = Building Information Modelling, DLT = Distributed Ledger Technology.*

**Javier GARCÍA DÍAZ**
*Bilbao (2018-06-06)*
Standardization work supporting Smart & Sustainable Cities

Complex Challenges but Great Opportunities ➔ Long term vision and commitment
➔ Holistic approach, priorities
➔ Integrated planning,
    ➔ Citizens’ engagement
➔ Culture of results

Standardization from best practices and innovative models/partnership
in support of:

• Replication
• Business models
• Dissemination
CEN/CENELEC/ETSI Sector Forum SSCC

smart and sustainable cities and communities

- Horizontal *strategic and advisory body* on smart & sustainable cities and communities
- Permanent representation in European Innovative Partnership initiative from the European Commission (Smart Cities and Communities – EIP SCC)
- Permanent representation of EIP AHA (Active and Healthy Ageing) through AGE Platform
- Permanent participation of the European Commission

SERVING THE CITIES’ NEEDS
Thank you for your attention

Any questions?