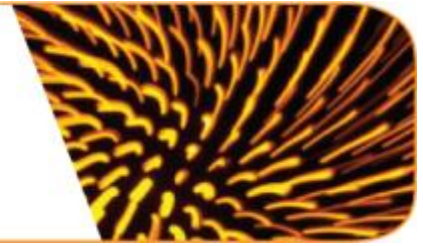


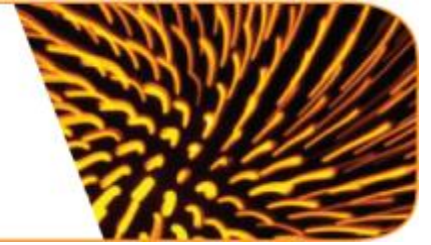
Metrology – a partner in standards

Ashok Ganesh
Director – Innovation



Standards – who cares?

Standards

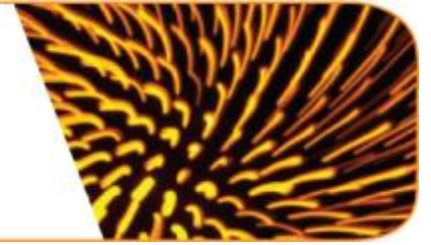


Valuable tools for business

+

**Effective means to protect
workers, consumers and
environment**

Standards Continuum

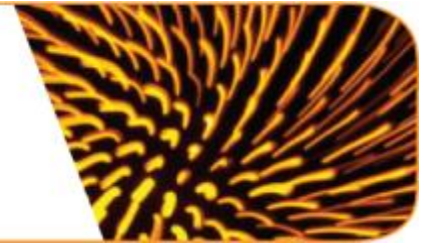


International

European

National

Europe standards?



Innovation

**>30
countries**

Infrastructure

**20% imports
& exports**

**Single
market**



**Cultural
diversity**

History

Philosophy

**Art &
Culture**

**700 million
people**

**European
Standardization
System**

7% land



CEN & CENELEC Members



Austria



Belgium



Bulgaria



Croatia



Cyprus



Czech Republic



Denmark



Estonia



Finland



France



FYROM



Germany



Greece



Hungary



Iceland



Ireland



Italy



Latvia



Lithuania



Luxembourg



Malta



Netherlands



Norway



Poland



Portugal



Romania



Slovakia



Slovenia



Spain



Sweden



Switzerland



Turkey



United Kingdom



CEN & CENELEC network

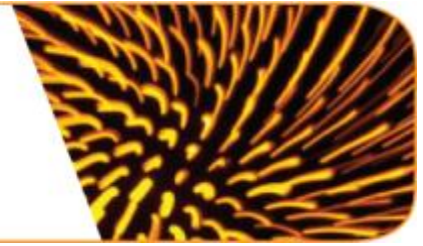


- **33 Members**
National standardization bodies from EU + EFTA and beyond
- **Affiliates** (neighbouring area)
17 for CEN, 14 for CENELEC
- **Partner Standardization Bodies**
3 for CEN
- **Partner organizations**
8 for CEN, 10 for CENELEC
- **Other liaisons at technical level**
100+ organizations



■ Members
■ Affiliates





20 000 European standards

Global standards




CEN – ISO → Vienna Agreement



CENELEC – IEC → Dresden Agreement



30% of CEN standards
are identical to ISO

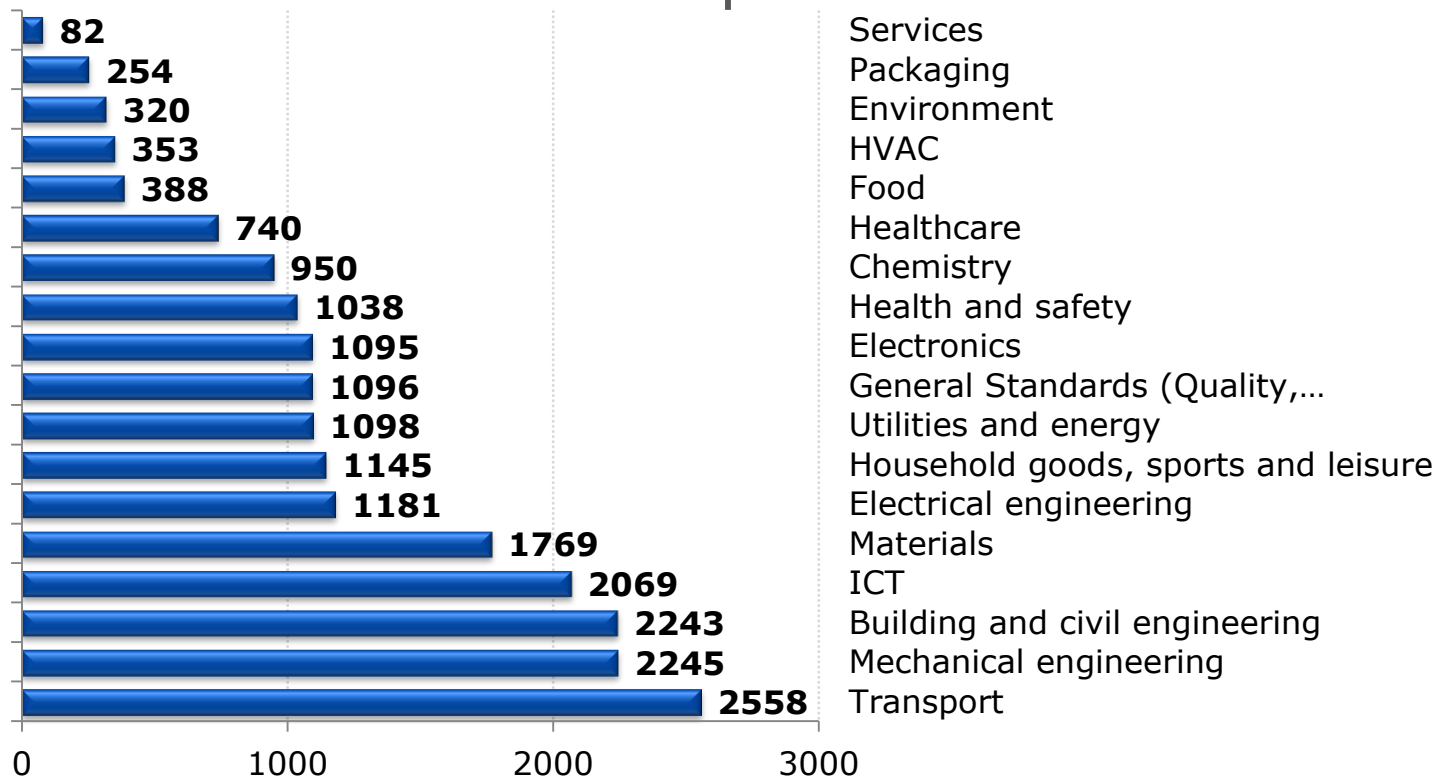


70% of CENELEC
standards identical to
IEC

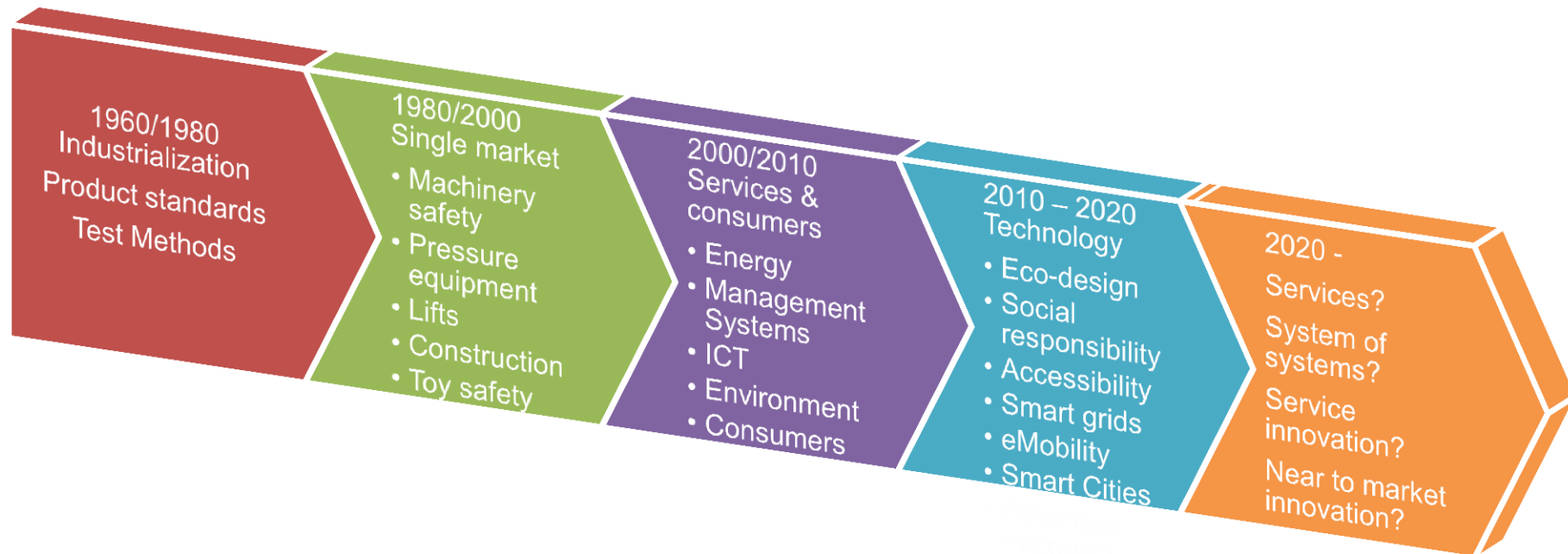
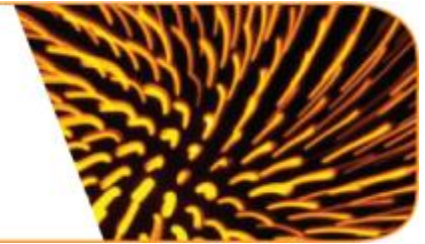
What we standardize



CEN-CENELEC Portfolio per business domain

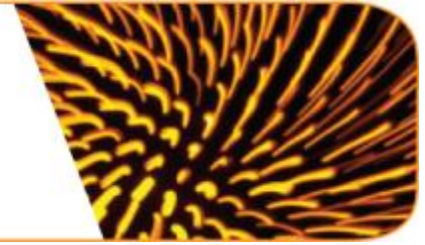


European Standards – evolution



...meeting stakeholder needs

Opportunities & needs....

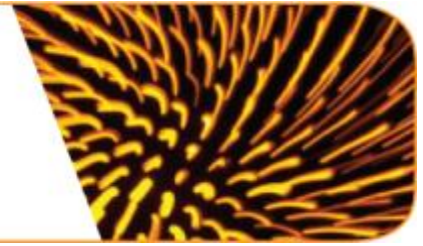


Ever widening spectrum: research & innovation outputs, societal needs, sustainability initiatives and systems thinking

New clusters: smart- (cities, grids, meters), **eco-** (innovation, labelling), **e-** (services, business, government)

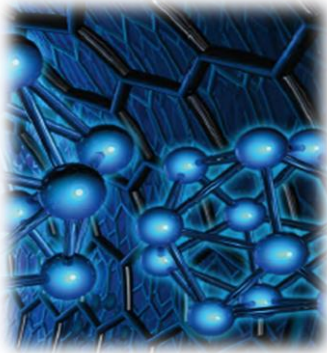
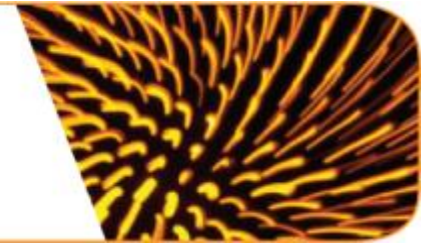
Application of standards: 1° (technical and product specifications), **2°** (management systems and processes) and **3°** generation (values, principles and behaviours)



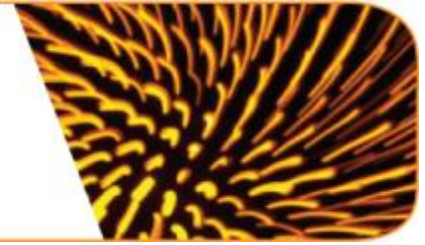


400 technical committees

New needs



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

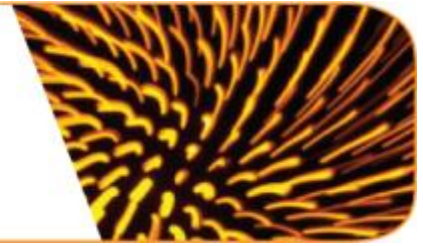
Air and Space
Consumer products
Electric Vehicles
Energy and utilities
Health and safety
Healthcare
ICT
Machinery safety
Measurement
Medical equipment
Railways
Security and Defence
Smart Grids / Smart Meters
Transport and Packaging

CENELEC

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

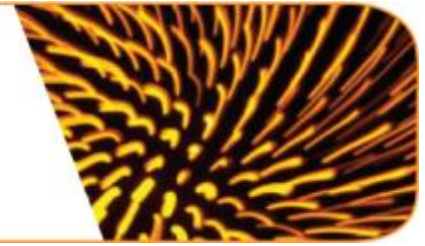
Cross-sectoral issues

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



60 000 experts

CEN and CENELEC vision



Strategic Objectives to 2020

CEN & CENELEC Ambitions to 2020

Global
Influence

Regional
Relevance

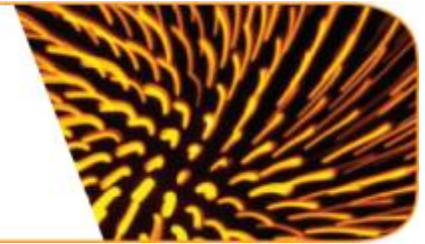
Wider
Recognition

Network of
excellence

Innovation &
Growth

Sustainable
System

Research and innovation aims...



- Support **deployment** of innovation and **market acceptance** of innovative solutions.
- Cooperate with research & development community → **timely inclusion of research results in standardization** activities will become routine.
- Be a natural channel for innovators to **bring their ideas for development of standards** for innovative solutions



Conference 30 October 2014



**STANDARDS:
YOUR INNOVATION BRIDGE**

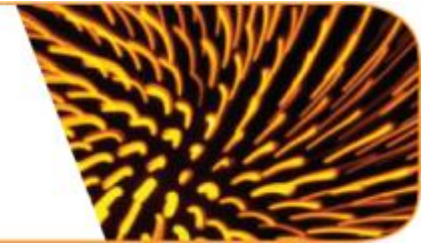
European Conference

Save the date: 30 October 2014

Brussels



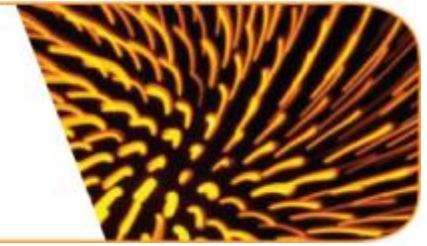
CEN & CENELEC Work Programme 2014



Based on market needs and linking to EU Work Programme



CEN & CENELEC Work Programme



Accessibility

Design for All
e-Accessibility
Accessible Tourism
Accessibility in the built environment

Construction

Eurocodes
Construction products
Dangerous substances
Energy performance
Sustainability

Electrotechnology

Electrical engineering
Resource efficient ICT
Cables
Automation
Electronics
Electromagnetic compatibility

Air and Space

Aerospace
Air Traffic Management
Space

Consumer Products

Child safety
Household goods, sports and leather
Household electrical appliances
Cosmetics

Energy

Renewables and new technologies
Nuclear Energy
Energy management and energy efficiency
Smart Grids
Smart metering
Electricity
Gas
Solar energy
Wind energy
Fuel cells
Bio-fuels and bio-mass
Ecodesign
Energy labelling
Electric vehicles

Chemical

Bio-based products
Fireworks and other pyrotechnic articles
Fertilisers

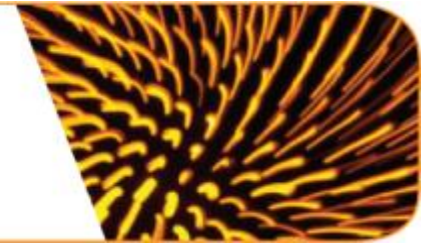
Defence and Security

Cybersecurity
Security of the Citizen

Alternative transport fuels



CEN & CENELEC Work Programme



Environment

Adaptation to climate change
Resource efficiency
Air quality
Water quality
Waste
Soil and sludge
Sustainable food

Health and Safety

Occupational Health and Safety
Personal Protective Equipment
Explosive atmospheres

Healthcare

Medical equipment
e-Health

ICT

Cloud computing
eSkills and eLearning
Radio Frequency Identification

Machinery

Additive manufacturing

Materials

Nanotechnologies

Transport and Packaging

Road transport Rail transport Waterborne transport
Intelligent Transport Systems Dangerous goods

Cableways
Packaging

Science, metrology
and standardization

Services

Healthcare services
Security services

Smart Living

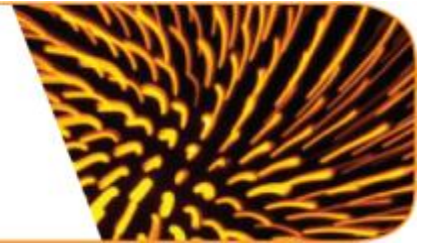
Smart and sustainable cities
and communities
Smart homes

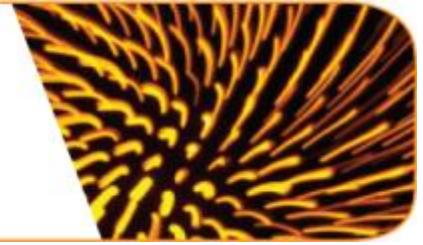
Food and Feed

Pressure Equipment

Research and Innovation



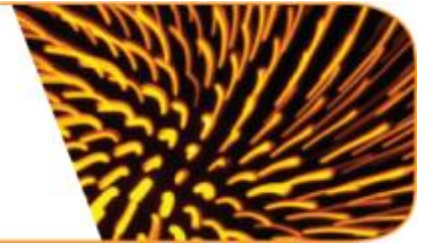




The world is dominated by engineering, science and technology.

The future is more **complex**, competitively **intense**, and in which standards and standardization systems will play an increasingly **important role**.

Standards need to be **robust** and provide **reliability** and **certainty**.



Metrology – We care!



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