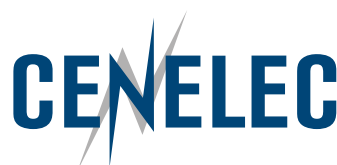


DEFENCE & SECURITY SMART TECHNOLOGIES ELECTROTECHNICAL MACHINERY TOYS & CHILD CARE ACCESSIBILITY & LEISURE SMART TECHNOLOGIES ENVIRONMENTAL CARE & WELL-BEING SPORTS & LEISURE CONSTRUCTION SERVICES ACCESSIBILITY HEATING, COOLING & VENTILATION ELECTROTECHNICAL MACHINERY SMART TECHNOLOGIES SERVICES TRANSPORT & VEHICLES HEALTH & SAFETY ENERGY & UTILITIES FOOD & FEEDSTOCK-BASED PRODUCTS HEALTHCARE & WELL-BEING HEALTH & SAFETY CHEMICAL SERVICES TEXTILES, FASHION & ACCESSORIES MACHINERY ENERGY & UTILITIES AIR AND SPACE CHEMICAL SERVICES TECHNOLOGY ACCESSIBILITY MACHINERY HEALTH & SAFETY SERVICES FOOD & FEEDHOUSEHOLD APPLIANCES MATERIALS ENVIRONMENT FURNITURE & HOUSEWARE TOYS & DIGITAL & INFORMATION SOCIETY HEATING, COOLING & VENTILATION DEFENCE & SECURITY HEALTHCARE & WELL-BEING CHEMICAL



WORK PROGRAMME 2017

European Standardization and related activities

Table of contents

Introduction.....	1
Trending Topics	
Energy & Utilities.....	3
Defence & Security.....	8
Services.....	11
Sectors	
Accessibility.....	15
Air & Space.....	17
Chemical.....	19
Construction.....	22
Digital & Information Society.....	25
Electrotechnology.....	27
Environment.....	30
Food & Feed.....	34
Furniture & Houseware.....	36
Health & Safety.....	38
Healthcare & Well-being.....	41
Heating, Cooling & Ventilation.....	45
Household Appliances.....	46
Machinery.....	47
Materials.....	51
Smart Technologies.....	53
Sports & Leisure.....	57
Textiles, Fashion & Accessories.....	59
Toys & Childcare.....	61
Transport & Vehicles.....	63
Wood & Wood-based Products.....	65
Outreach Activities	
Supporting SME participation.....	66
Including Societal Stakeholders.....	67
Education about Standardization.....	67
Digital Transformation.....	68
Research & Innovation.....	68
International Cooperation.....	69
Members of CEN and CENELEC.....	74

All the facts and figures in this publication were correct on 15 December 2016

Introduction



CEN and CENELEC are fully engaged in the changes digital transformation presents and the opportunities this brings for the digitization of standardization. In 2017, taking this into account, we will continue to enable and support our stakeholders in developing market driven solutions, bringing together new technologies with their businesses and daily life. With the digitization of processes, systems and supply chains transforming European industry and the everyday lives of European consumers, industry stakeholders are looking towards international and European Standards as a reliable reference to support them in this digital transformation. Furthermore, consumers trust that European Standards guarantee the products and services they purchase are conform, meaning safe, reliable and of good quality. CEN and CENELEC will endeavour to include digitization in all our actions and to meet the digitization needs our stakeholders encounter when developing their standardization solutions.

We also want to raise awareness about an ever-developing and modern European Standardization System addressing new challenges and opportunities, and embracing digitization in order to engage a maximum number of people, and encourage and support their participation in and contribution to standardization activities. Further to this, our focus is also on increasing the transparency and openness of the European Standardization System and providing easy access to information about standards and standardization activities.

National members of CEN and CENELEC in 34 countries, as well as partner and liaison organizations, form our underlying strength, providing the knowledge and solutions that facilitate the European standardization process. All of the standards published by CEN and CENELEC are developed by experts from industry, including small and medium-sized enterprises (SMEs), working together with societal stakeholders such as consumer organizations, environmental groups and trade unions, as well as public bodies, researchers, academia and other interested parties. By following an inclusive approach and taking the views of different stakeholders into account, we can ensure that our standards meet market needs, and that they also contribute to achieving societal objectives such as accessibility and sustainability.

In 2016, CEN and CENELEC welcomed the European Commission's commitment to have a 'single standardization policy' through the Joint Initiative on Standardisation (JIS), supporting the European Union objectives set by the European Commission (EC) communication "European Standards for the 21st century". Aimed at reinvigorating the unique public-private partnership between European institutions and the European standardization community, we believe the JIS will serve to further strengthen and

modernize the European Standardization System. We look forward to cooperating with the EC and all other stakeholders on the implementation of this work programme. We also welcome the renewed commitment to promoting the development of standards in relation to services. Based on experience, we know that having common standards at European level can help to strengthen the Single Market, boost growth and create jobs.

Given the diversity of the sectors where we are active, it is important for industry, as well as all our stakeholders, that European Standards remain coherent and compatible, not only with each other but also with international standards. With this in mind, CEN and CENELEC will continue to collaborate with the international standardization organizations (ISO and IEC) to prevent duplication of work while giving primacy to international standards and to ensure that our standards are complementary wherever relevant. Likewise, at European level we coordinate our activities with ETSI and cooperate wherever possible, especially in areas where digital technologies are increasingly being integrated into products and systems of sectors such as energy, security and construction.

In 2017, ISS, the national standardization body of Serbia, will become a member of both CEN and CENELEC, growing our national members in 34 European countries and reaching over 600 million consumers!

We thank all our stakeholders for their unending commitment to making European Standards happen. I wish you a good reading, and look forward to your active participation in standardization in 2017 and beyond!

*Elena SANTIAGO CID
Director General of CEN and CENELEC*



Energy & Utilities

By 2020, the EU aims to reduce its greenhouse gas emissions by 20%, increase the share of renewable energy to at least 20% of consumption, and achieve energy savings of 20%. Its 2030 energy strategy sets even more ambitious targets, aiming to reduce greenhouse gas emissions by 40%, increase the use of renewables to 27% by 2030 and achieve at least 27% of energy savings. At the same time, utilities markets, including gas and electricity, are opening in Europe.

While traditional energy sources are becoming a scarce resource, global demand for energy is growing. European Standards and other deliverables play a major role in helping all actors in the market to deal with this challenge by optimizing and minimizing energy consumption and by helping the market uptake of alternative energy sources.

Over 60 CEN and CENELEC technical bodies are developing European Standards (ENs) to support European policies and legislation, the successful integration of the European energy market and the implementation of the EU's climate and energy targets, thus helping businesses and consumers to make better and more rational use of energy.

When European Standards are developed in support of specific European legislation, the work is generally carried out at the European level. Where possible, Technical Committees strive to work hand in hand with ISO or IEC, as appropriate, to harmonize standards at the European and global levels.

Elements of EU Work Programme 2017

1. A New Boost for Jobs, Growth and Investment
3. A Resilient Energy Union with a Forward-Looking Climate Change Policy
4. A Deeper and Fairer Internal market with a Strengthened Industrial Base

Technical bodies responsible:

32 CEN Technical Committees
15 CENELEC Technical Committees
6 joint CEN-CENELEC Technical Bodies

Standards published by CEN & CENELEC:

457 European Standards (EN/HD)
49 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/400 – Gas quality
M/458 – Household washing machines
M/459 – Household refrigerating appliances
M/470 – Electric motors
M/475 – Standards for biomethane for use in transport and injection in natural gas pipelines
M/481 – Household dishwashers
M/485 – Fluorescent lamps, high-intensity discharge lamps, and ballasts and luminaires able to operate such lamps
M/488 – Air conditioners and comfort fans
M/495 Amdt 1 – Ecodesign of professional storage cabinets, blast cabinets, condensing units and process chillers
M/495 Amdt 2 – Ecodesign of large, medium and small power transformers
M/495 Amdt 3 – Ecodesign of electrical lamps and related equipment
M/498 – Pumps
M/500 – Fans
M/525 – Standards on pyrolysis oils produced from biomass feedstocks to be used in various energy applications or intermediate products for subsequent processing
M/533 – Alternative fuels infrastructure
M/534 – Water heaters
M/535 – Space heaters
M/537 – Ventilation units
M/539 – Non-household washing machines, dryers and dishwashers
M/540 – Vacuum cleaners
M/541 – Measuring instruments (2)
M/543 – Material efficiency aspects
M/544 – Networked standby
M/545 – Computers and computer servers

Further information:

www.cen.eu/work/areas/energy/Pages/default.aspx
www.cenelec.eu/standards/Sectors/SustainableEnergy/Pages/default.aspx



Ecodesign and material efficiency

In response to M/543, in 2017 CEN and CENELEC will develop around 20 European Standards related to the material efficiency of energy-related products. These standards will support the Ecodesign Directive (2009/125/EC). They will have a horizontal nature (non-sector-specific, non-product-specific), and provide the basic principles to take into account when addressing aspects such as extending product lifetime, the ability to re-use components or recycle materials from products at end-of-life and the use of re-used components and/or recycled materials in products.

The aim is for manufacturers to use these standards for their specific products whenever an Ecodesign Regulation imposes requirements on material efficiency.

The work will be carried out in close cooperation with ETSI as well as IEC and ISO.

Ecodesign of vacuum cleaners

CLC/TC 59X (Performance of household and similar electrical appliances) is working in response to M/540 on the development of standards for measurement methods to cover, among other things, water filter vacuum cleaners, full-size battery-operated vacuum cleaners and robot vacuum cleaners.

European Standards on performance measurement methods for cordless dry vacuum cleaners and dry vacuum cleaners for household use are expected to be finalized in 2017. Work will continue on a European Standard (EN) on measurement methods for surface cleaning appliances – cordless dry vacuum cleaners for household use and the committee will begin work on other new standards in 2017.

The standards are developed as far as possible at IEC level through the Dresden Agreement, revised as the Frankfurt Agreement from 2017 onwards and CLC/TC 59X ensures that European interests are integrated in the work.

Nuclear energy

Nuclear power plants provide a large amount of the energy needed in Europe and will probably continue to do so for decades to come. It is therefore important to ensure that existing power plants remain safe and that any new plants comply with the highest safety standards. CEN and CENELEC collaborate closely with the international standardization organizations, ISO and IEC, to ensure the development and publication of standards that are needed to achieve and maintain high levels of health and safety in Europe's nuclear energy industry.

Work will continue in 2017 on Phase 2 of CEN Workshop 64 (WS 64) which brings together European national Competent Authorities, manufacturers, operators, laboratories and academia as well as the EC's Joint Research Centre (JRC) to consider how the existing French codes for the design and construction of GEN II to IV nuclear power plants could be harmonized in Europe. A CEN Workshop Agreement (CWA) is expected to be published in 2017 which will facilitate the harmonization of the safety requirements applied during the construction and maintenance of power plants.



CEN Workshop FaTeDa (Standards-Compliant Formats for Fatigue Test Data) was launched within the framework of the Horizon 2020 project, 'INCEFA-PLUS' ('INcreasing Safety in nuclear power plants by Covering gaps in Environmental Fatigue Assessment'). The workshop is developing data formats that support data collection and exchange between the INCEFA-PLUS partners and provide the nuclear energy sector (as well as other industrial sectors producing or relying on engineering materials data) with an effective means for collecting, exchanging and reporting fatigue and tensile test data. The formats will be compliant with ISO 12106:2003 'Metallic materials – Fatigue testing – Axial-strain-controlled method'.

In 2017 CLC/TC 45B (Radiation protection instrumentation) will adopt as European Standards IEC 61005 'Radiation protection instrumentation – Neutron ambient dose equivalent (rate) meters' and IEC 61577-2 'Radiation Protection Instrumentation – Radon and radon decay product measuring instruments – Part 2: Specific requirements on radon measuring instruments'.

CEN/TC 430 (Nuclear energy, nuclear technologies, and radiological protection) will adopt as a European Standard the ISO standard on 'Dose assessment for the monitoring of workers for internal radiation exposure'.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Ecodesign and energy labelling – Through the use of product-specific Regulations, the EC sets ecodesign and energy labelling requirements that products have to meet if they are to be put on the European market. Ecodesign requirements come in the form of minimum or maximum thresholds linked to various energy efficiency parameters, while labelling requirements describe the energy efficiency category in which the product can be declared. CEN and CENELEC develop harmonized standards containing ad hoc energy efficiency measurement methods that manufacturers can use to check the energy efficiency of their products against the values set forth in EC Regulations.

Currently, over 20 Technical Committees are involved in the development of Ecodesign and Energy Labelling standards. This number is expected to increase in 2017 upon receipt of new standardization requests related to the ecodesign of refrigerated commercial display cabinets, local space heaters, solid fuel boilers and welding equipment. Standards

to be developed or finalized in 2017 include harmonized standards on standby, off mode electric power consumption of electrical and electronic household and office equipment (under M/544) and on ecodesign requirements for computers and computer servers (under M/545). CEN/TC 214 (Textile machinery and accessories) will also develop three new European Standards on the testing of the capacity and consumption of (non-household) washing tunnels, washer-extractors and batch drying tumblers in response to M/539.

The CEN-CENELEC Ecodesign Coordination Group (Eco-CG) explores specific standardization issues linked to the sector, and coordinates the standardization and regulatory aspects of activities.



Alternative fuels infrastructure – In 2017, in response to M/533, relevant ISO standards for Liquefied Natural Gas (LNG) refuelling points for maritime and inland waterway vessels and for liquefied and compressed natural gas connectors and receptacles will be adopted as European Standards.

Gas quality – The composition of natural gas (and thus its quality) varies from one country to another. Quality standards are necessary to ensure the safe and secure delivery and use of gas around Europe.

The CEN Sector Forum Gas Infrastructure and the Sector Forum Gas Utilization have therefore established a Joint Working Group to investigate the quality parameters of H-gas. In 2017, the group will begin to gather evidence as a basis for making recommendations to CEN/TC 234 concerning the revision of the European Standard on the quality of H-gas.

Fuels and bio-fuels – In 2017, CEN/TC 408 (Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid) is expected to finalize a new European Standard establishing a specification for natural gas and biomethane for use as an automotive fuel. The standard is being developed under M/475.

In 2017, CEN/TC 19/WG 41 (Pyrolysis oils) is expected to finalize the first deliverables under M/525: a European Standard on the requirements and test methods for fast pyrolysis bio-oils for industrial boilers and a Technical Report on fast pyrolysis bio-oils for stationary internal combustion engines.

CEN/TC 19 (Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin) is also expected to finalize a revision of its European Standard on Liquefied Petroleum Gas (LPG) and to upgrade its Technical Specification on Ethanol (E85) automotive fuel into a European Standard.

Measuring instruments – In 2017, CEN/TC 92 (Water meters), CEN/TC 176 (Heat meters), CEN/TC 237 (Gas meters) and CLC/TC 13 (Electrical energy measurement and control) will work on the development of new standards and the revision of existing standards in response to M/541 on Measurement Instruments. The European Standards on water meters will be revised so that they cover the essential requirement for the non-exploitation of Maximal Permitted Errors (MPEs). New standards will be developed for the measurement of electricity delivery to the grid by small scale producers (households, commerce and light industry). The scope of the European Standard on electricity metering equipment will be extended to include the measurement of energy delivered to the grid and to the public for use in electrical vehicles and other electrical means of transport, i.e. electric road and maritime transport and inland navigation. The European Standard on thermal energy meters will be revised so that it also covers essential requirements on the non-exploitation of MPEs.

Energy management – In 2017, the CEN-CLC/JWG 9 (Energy measurement plan for organizations), which was created in 2016, is expected to finalize for Public Enquiry the draft of a new European Standard specifying the requirements and methodology for the design and implementation of an energy measurement plan for an organization in order to improve its energy efficiency.

CEN-CLC/JWG 3 (Energy Management and related services – General requirements and qualification procedures) will monitor ISO's work on the revision of the standard on energy management systems (EN ISO 50001) being carried out in ISO.

The CEN-CLC Sector Forum Energy Management acts as an advisory and coordination body for policy and strategic matters in relation to the standardization of energy management. In 2017 the Sector Forum is expected to examine possible standardization needs in relation to energy storage.



Hydrogen in energy systems – In 2017, CEN-CLC/TC 6 (Hydrogen in energy systems) will begin work on European Standards and other deliverables related to hydrogen.

Wind turbines – CLC/TC 88 (Wind turbines) develops standards for wind turbines to demonstrate compliance with European Directives and adopts standards published by IEC/TC 88 (Wind energy generation systems). In 2017, CLC/TC 88 will develop standards on personnel safety and electromagnetic compatibility to support the Machinery and Electromagnetic Compatibility Directives.

Photovoltaic (PV) conversion of solar energy into electrical energy – CLC/TC 82 (Solar photovoltaic energy systems) coordinates its activities in this area with IEC. In 2017, work will continue on test methods for external fire exposure to roofs in combination with PV arrays with a view to converting the existing Technical Report into an EN. TC 82 will consider the inclusion of a fire test for PV modules in the existing EN on PV module safety qualification, with the objective of having one single European fire test for PV modules. A new EN on the marking and documentation requirements for PV modules is expected to be published in 2017.





Technical bodies responsible:

CEN-CLC-ETSI Coordination Group on Defence Standardization (DSCG)

CEN-CLC Focus Group on Cybersecurity

CEN-CLC/JWG 8 – Privacy management in products and services

CEN-CLC Workshop – Towards embedding socio-legal requirements in the certification of security systems: 'Guidelines for the evaluation of installed security systems, based on S-T-E-Fi criteria' (WS CRISP)

CEN/TC 263 – Secure storage of cash, valuables and data media

CEN/TC 391 – Societal and citizen security

CEN Workshop – Police Firearms Technologies

CLC/TC 79 – Alarm systems

Standards published by CEN & CENELEC:

102 European Standards (EN/HD)

32 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/530 – Privacy and personal data protection management

Further information:

www.cencenelec.eu/news/workshops/Pages/WS-2016-001.aspx

www.cencenelec.eu/go/defsec

https://www.cenelec.eu/dyn/www/f?p=104:7:1024744779086601:::FSP_ORG_ID,FSP_LANG_ID:1257171,25

have a significant negative impact on the security of Europe and the well-being of its citizens. Critical infrastructure protection seeks to ensure that the services vital to society, such as health, power, water, transport and communications, continue to function.

Since many critical infrastructures in Europe have a cross-border dimension and there are interdependencies between sectors, agreed minimum levels of assurance and co-operation are crucial factors in their protection. At the same time the ability of public authorities and emergency services to respond effectively to threats against critical infrastructures depends on their having common terminology and procedures, and interoperable communication systems.

Standards therefore play a vital role in the harmonization of processes and procedures for risk management across Europe and boost both the performance and reliability of security products, systems and services. In addition, standardization helps overcome a highly fragmented market by increasing the interoperability and compatibility of security systems and products.

A high level of information security across Europe and good privacy management practices are also essential to ensure consumer confidence and support the growth of the digital economy. Increasing trust in the online world is an important policy objective of the European Union's Digital Agenda and its Cybersecurity strategy. Standards can provide a means for achieving a common understanding of concepts and fostering the uptake of secure technologies.

Many of the standards used by the defence industry in Europe are civilian. Where specific defence standards are required they are developed nationally, which can hinder cooperation and increase costs for the industry. The use of common defence standards would greatly enhance cooperation and interoperability between European armies and improve the competitiveness of Europe's emerging technologies industry. Since a number of

The world today is beset by a variety of threats to both society and individual citizens. These threats do not respect territorial boundaries and, as well as endangering individuals and their assets, they may target the economy and the infrastructures and services on which we rely.

The destruction or disruption of a critical infrastructure, by natural disasters, terrorism, criminal activity or malicious behaviour, may



technologies can have both military and civilian applications, there is growing potential for synergies between civil and military research ('hybrid' projects).

The European Standardization Organizations (CEN, CENELEC and ETSI) therefore work with national defence standardization management organizations, defence industry stakeholders and international organizations (including ASD-STAN and EUROCAE) in the Defence Standardization Coordination Group (DSCG). The aim is to improve cooperation between the military and civil standards communities in Europe and to act as a forum for dialogue and the exchange of views on the standardization needs of the defence sector. To avoid the duplication of effort, a specific invitation is issued to NATO staff to participate.



© Maksim Kabakou

Cybersecurity - The new CEN-CENELEC Cybersecurity Focus Group has been tasked to define recommendations to support its parent organizations in exploring ways and means for supporting the implementation of a trustworthy Digital Single Market in terms of cybersecurity and data protection. Work is beginning on defining a mapping of standards related to cybersecurity. In 2017, a new Sector Forum Security will be established to create better synergies among the different technical committees that impact societal security (security, construction, transport, energy, protective equipment, ICT) and ensure that both safety and security requirements are addressed.

Privacy - In 2017, CEN-CLC/JWG 8 will begin work on the development of a new European Standard setting out requirements on privacy by design principles in the design and implementation of security technologies and services in response to a request from the European Commission (M/530). The committee will also begin work on two Technical Reports with specific guidelines for the application of privacy by design principles

for video-surveillance and for biometrics for access control including facial recognition.

Security and alarm systems - CENELEC provides standards which help to harmonize the performance requirements of various types of alarm systems. Its work in this area is carried out with the active participation of key stakeholders including EURALARM, which represents 70% of the electronic fire and security industry in Europe. By collaborating with the IEC, European Standards are also aligned with international standards as closely as possible.

In 2017, CLC/TC 79 expects to finalize a new European Standard on monitoring and alarm receiving centres as well as amendments to the standards on intrusion and hold-up systems and the application guidelines for social alarms.

The committee will also produce two Technical Specifications on alarm transmission systems and equipment including application guidelines and the requirements for a common protocol for alarm transmission using the Internet Protocol.



Security of the Citizen - Following a Workshop organized by CEN/TC 391 in November 2016, members of the European standardization community have begun to consider an effective structure for security standardization in order to create new synergies between groups and to better address the challenges of society today. In 2017, a new Sector Forum Security will be established to create better synergies among the different technical committees that impact societal security (security, construction, transport, energy, protective equipment, ICT) and ensure that both safety and security requirements are addressed.

In 2017, TC 391 will produce a new Technical Specification setting out guidance for managing the security of Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) substances for healthcare facilities throughout their lifecycle. This will cover the protection of CBRNE substances used in healthcare facilities against security threats relating to the deliberate misuse of CBRNE substances, and will address the protection of people, assets and information. This Technical Specification will be applicable as part of management systems such as those defined by EN ISO 9001 and ISO 28001.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Defence - The DSCG does not develop standards itself but serves as the single interface in Europe between defence standardization needs (the procurers of defence material – the military) and defence standards developers (the industry). The DSCG is thus a forum where stakeholders can discuss technical defence/hybrid standardization projects. It will assess both the opportunity to launch them, help prevent the duplication of effort (notably with NATO), and allocate projects to the most suitable ESO.

Methods of Evaluation for Security Products -

The CEN-CENELEC Workshop CRISP has been launched under the FP7-funded project CRISP (Evaluation and Certification Schemes

for Security Products) to develop a novel evaluation and certification methodology for security systems that integrates technical, social and legal dimensions (Security, Trust, Efficiency and Freedom Infringement, S-T-E-Fi) as assessment criteria. Data protection authorities, security industry manufacturers, installers and their associations, end-users of video surveillance systems and certification bodies are sharing their expertise to formulate requirements for the methodology and S-T-E-Fi criteria. The final deliverable (CWA), including a best practices document for further standardization efforts, is expected to be published early in 2017.



Services account for 70% of the economic activity and a similar proportion of total employment in Europe. The number of European Standards in the area of services has increased in recent years. Nevertheless, their number is still small in comparison with the total number of European Standards (between 1% and 2%) and the economic importance of the service sector in Europe. This means that there is significant untapped potential from the development and use of European service standards.

European Standards are increasingly used to support the development of a European Single Market for services, to foster cross-border trade, to enhance safety and performance and to ensure the protection of consumers and the environment. Standards can set benchmarks against which businesses can measure the quality and performance of their own services or the services they are purchasing, thus improving transparency and competitiveness and increasing efficiency. Standards are also a useful tool to promote best practices, to spread knowledge throughout the market and to define a common terminology relevant to different service sectors.

The role of standardization in the creation of an internal market for services has been recognized by the recent EC staff working paper, 'Tapping the potential of European service standards to help Europe's consumers and businesses' which accompanies Commission Communication COM

Technical bodies responsible:

19 CEN Technical Committees (319, 320, 329, 331, 348, 381, 403, 409, 419, 427, 431, 432, 435, 439, 445, 447, 448, 449, 450)
CEN-CENELEC/TC 4 – Services for fire safety and security systems

Standards published by CEN & CENELEC:

67 European Standards (EN/HD)
43 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/516 – Interpretation services
M/517 – Horizontal Service Standards
M/548 – Postal services and the improvement of quality of service

Elements of EU Work Programme 2017:

2. Strategic priorities for European Standardisation

Further information:

www.cen.eu/work/areas/services

(2016)358 'European standards for the 21st century'. The Directive on Services (2006/123) encourages the development of European Standards to facilitate compatibility between services, information to the recipient and the quality of service provision.



© Narong Jongsirikul



CEN strategy on services

In recognition of the strategic importance of services, the CEN/CA Strategic Advisory Group on Services (SAGS) is developing a strategy to address European standardization in this area. The group's aim is to increase awareness about service standardization and further engage with stakeholders in order to better understand their needs and show them how they can benefit from European standardization in this area. The group will also define criteria that could help to identify priority sectors with higher potential to benefit from standardization and will consider how the European standardization system could better respond to the needs of service stakeholders, taking into account CEN's relationship with ISO and their ability to deliver international solutions jointly when required.

The strategy, which will also include an action plan for 2017 and 2018, is expected to be released during the first quarter of 2017.

Postal services

CEN is developing standards in support of the Postal Services Directive (97/67/EC and its amendments). The objective of the EU postal policy is to complete the internal market for postal services and to ensure that efficient, reliable and good-quality postal services are available throughout the EU to all consumers at affordable prices.

In 2017, CEN/TC 331 (Postal services) will continue the development of the standards and other deliverables requested under M/548. Topics covered by the request include the measurement of the quality of postal services, the interoperability of postal operations, digital postal services and labelling, and the exchange of data. In terms of digitization, TC 331 will develop standards compliant with security and customs requirements for electronic advanced data and to promote the interoperability of parcel-delivery operations.

These new standards will support the EC roadmap for completing the Single Market for parcel delivery (COM (2013)886) and the creation of a Digital Single Market for the European Union. Most of the requested work is expected to be completed by August 2020.

Healthcare services

Traditionally European standardization in the healthcare sector has been mostly limited to medical devices and eHealth applications. European Standards in these areas support the implementation of European legislation and contribute in a significant way to the safety and quality of medical devices on the European market and the interoperability and effectiveness of healthcare ICT applications and information.

In recent years, there has been a growing demand from stakeholders for standardization related to healthcare services. The improving mobility of both patients and healthcare professionals means that there is an increasing need for transparency, to compare the quality and services offered, ensuring patient safety and further facilitating the mobility of healthcare professionals.



In 2017, it is expected that CEN/TC 403 (Aesthetic surgery and aesthetic non-surgical medical services) will finalize a European Standard on non-surgical aesthetic medical procedures.

The two new technical committees established in 2016 in the area of healthcare services, CEN/TC 449 (Quality of care for older people) and CEN/TC 450 (Minimum requirements of patient involvement in person-centred care), will continue to develop standards for elderly care and patient-centred care.

CEN has created a Focus Group on Healthcare Services to discuss and make proposals in relation to an overall approach and methodology towards standardization in the area of healthcare services, taking into account the work already carried out by SAGS and the Advisory Board on Healthcare Standards (ABHS) Ad-hoc group on healthcare services. The Focus Group is expected to provide a first set of recommendations by mid-2017.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Horizontal services standards – Horizontal or generic service standards cover issues common to many service sectors. In 2017, CEN/TC 447 (Horizontal standards for the provision of services) will prioritize the development of European Standards on common services terminology, service procurement, service contracts and performance measurement.

Security services – Many critical infrastructures in Europe have a cross-border dimension as well as interdependencies between sectors. It is therefore crucial that there is a minimum level of assurance and that consideration for interdependencies and cross-boundary impacts are given for all European citizens to feel safe. CEN/TC 439 (Private security services) is undertaking a survey to identify best practices and existing regulation on critical infrastructure protection. The preparation of a new European Standard covering services delivery processes and the competences of security professionals will begin in 2017.

On-line gambling – Early in 2017, CEN expects to receive a new standardization request for the development of a European Standard in relation to the data (format, content, structure) that

operators need to provide to national gambling regulatory authorities. Should the request be approved by CEN, a new technical committee would be established in order to carry out the requested work.

Facility management – In 2017, CEN/TC 348 (Facility management) will work with ISO to develop a new common European and international standard on requirements and guidance for facilities management systems for use under the Vienna agreement.

Customs – CEN is expected to publish a European Standard developed by CEN/TC 432 (Competency for customs representatives), setting out competence criteria and their assessment methods for 21 line business domains. Compliance with this standard will provide a means of demonstrating the competency required by the authorized economic operators (AEO-C).

Interpretation services – In 2017, two new standards developed in response to M/516 are expected to be published jointly by CEN and ISO, covering the requirements for simultaneous interpretation in permanent and mobile booths.



Accessibility



In Europe, around 80 million people have a disability and this number climbs much higher if we consider all those with a temporary impairment and disabilities due to ageing.

Making provision for accessibility enables people with disabilities and older people to live independently and participate fully in society. Accessibility refers to the extent to which products, systems, services, environments, buildings or facilities can be accessed and used by as many people as possible, regardless of their age or disability. European Standards are powerful tools to promote accessibility, as they can provide a framework of requirements and specifications for the production and delivery of accessible products and services.

Accessibility is a human right recognized by the UN Convention on the Rights of Persons with Disabilities and is at the core of the European Disability Strategy 2010-2020. It is also enshrined in the Proposal for a Directive on accessibility requirements for products and services (COM(2015) 615 final, also known as the European Accessibility Act) which aims to

Technical bodies responsible:

- CEN/TC 452 – Assistance dog and guide dog teams standards and instructors competences
- CEN-CLC/JWG 5 – Design for All
- CEN-CLC/JWG 6 – Accessibility in the built environment
- CEN-CLC-ETSI/JWG – ‘eAccessibility’

Standards published by CEN & CENELEC:

- 2 European Standards (EN/HD)
- 9 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

- M/376 – European accessibility requirements for public procurement of products and services in the ICT domain (eAccessibility)
- M/420 – Accessibility in the built environment
- M/473 – Design for All

Further information:

www.cencenelec.eu/go/accessibility

improve the functioning of the internal market for accessible products and services as well as mainstream accessibility in standardization.

CEN-CENELEC and ETSI standardization activities on accessibility support the principles of Design for All, accessibility in the built environment and eAccessibility. Standards will need to take into account the diverse needs and abilities of the whole population in order to make products and services accessible for the widest possible range of users.

CEN/BT/WG 213 (Strategic Advisory Group on Accessibility (SAGA)) coordinates political and strategic matters related to accessibility and advises the CEN and CENELEC Technical Boards. SAGA includes representatives of national standards bodies, CENELEC and ETSI, as well as organizations representing persons with disabilities and older people. European and national organizations representing people with disabilities and the elderly (i.e. users) are fully involved in the process, together with industry and service providers.



Design for All

In response to M/473, the European Standardization Organizations endeavour to address accessibility following a Design for All approach in all relevant standardization activities for products and services. CEN/BT WG 213 is responsible for coordinating these efforts and ensuring work is carried out in accordance with M/473.

In 2017, JWG 5 will continue working towards the development of a European Standard on 'Accessibility following a Design for All approach in products, goods and services – Extending the range of users'.

Accessibility in the Built Environment

Accessibility to the built environment is essential if people with disabilities are to be able to exercise their rights and participate fully in society. The right to education or to engage at work can only be accessed if people with disabilities are able to enter, leave and use the premises where those activities take place (schools, work environment). In addition, freedom of movement is often related to the feasibility of accessing public spaces, and the ability to move inside such public spaces. Accessibility to the public built environment also includes access to transport (stations, airports, harbours) and to leisure and cultural facilities (libraries, museums, theatres, cultural centres, concert halls, hotels, restaurants etc.). Europe is promoting a Design for All approach for the accessibility requirements of the built environment so that buildings and public spaces are readily usable by as many people as possible and accessible to all.

In response to M/420, CEN and CENELEC will begin developing a European Standard which will set out accessibility requirements for public procurement in the built environment. This work will be carried out by CEN-CLC/JWG 6, together with a group of experts on accessibility and the built environment. Technical Reports on technical performance criteria and on conformity assessment will complement this activity.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Websites and mobile applications – In the frame of the anticipated EU Directive on the accessibility of websites and mobile applications of public sector bodies, CEN, CENELEC and ETSI will begin to revise the existing European Standard on the accessibility requirements suitable for public procurement of ICT products and services in Europe. The revision will ensure the standard fulfils the requirements of the Directive, particularly by covering 'mobile apps'.

Assistance dogs – Building on previous work, 2017 will see the kick-off of a new Technical Committee, CEN/TC 452, which will develop reference criteria for assistance dog and guide dog teams and mobility instructor competences.



© Jeroen van den Boek

**Technical bodies responsible:**

CEN/TC 377 - Air Traffic Management

CEN/CLC/TC 5 - Space

CEN works with ASD-STAN as an associated body to develop European Standards in the Aerospace area

Standards published by CEN & CENELEC:

196 European Standards (EN/HD)

4 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/496 – Space industry

M/524 – Air Traffic Management (ATM) interoperability

Elements of EU Work Programme 2017:

2.3 Strategic Priority fields for standardisation requests to ESOs

Further information:

www.cen.eu/work/areas/airspace

CEN and CENELEC develop standards for aerospace, air traffic management and the space industry.

In the space area, CEN and CENELEC collaborate with the European Cooperation for Space Standardization (ECSS), which brings together the European Space Agency (ESA), several national space agencies and Eurospace (representing the European space industry) .

Standards and technical specifications for the aerospace industry are developed by the Aerospace and Defence Industries Association of Europe – Standardization (ASD-STAN), which is an associated body of CEN. ASD-STAN is responsible for the technical content of standards defining products, materials, and test methods and procedures for the construction, maintenance and use of aircraft and space vehicles.



Global Navigation Satellite Systems (GNSS)

CEN-CLC/TC 5 is working in support of M/496. One aim is to facilitate the large-scale deployment of GNSS-based Intelligent Transport Systems (ITS) in Europe, especially liability-critical and safety-critical systems. There is a particular emphasis on systems based upon the European Geostationary Navigation Overlay Service (EGNOS) and Galileo.

TC 5 plans to continue with and possibly complete its work on the use of GNSS-based positioning for ITS. New parts will be added to the existing European Standard on definitions and system engineering procedures for the establishment and assessment of performances to cover field tests for both the basic performance and the security of GNSS-based positioning terminals.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Air Traffic Management - CEN develops standards to ensure the interoperability of the European Air Traffic Management Network (EATMN) in the context of the Single European Sky (SES) . Standardization work in this area is managed by CEN/TC 377 and supports M/524. In 2017, TC 377 will consider to revise EN 16495:2014 Air Traffic Management - Information security for organisations supporting civil aviation operations.

Aerospace - CEN will continue to collaborate with ASD-STAN on the development of 66 new standards in 2017. These will address issues such as cable outlet accessories for circular and rectangular electrical and optical connectors, electrical cables operating between - 55°C and 260°C, and test methods for electrical cable protection sleeves. In addition, 496 new work items have been registered for future development.



Chemical

The chemical industry is one of Europe's largest manufacturing sectors, producing 17% of the world's chemicals and contributing some €551 billion to the EU economy. Chemical companies in the European Union in 2014 employed a total staff of about 1.2 million^[1].

The chemical industry is a highly regulated sector in Europe and a large part of its production supplies other sectors of the economy (e.g. manufacturing, construction, health, agriculture). The chemical industry also plays an essential role in providing innovative materials and solutions.

Standards are crucial in creating a single market for products and ensuring that those products that are placed in the European market are safe and take into account environmental aspects. Standards can also support the take-up of new products, and they can help to increase market transparency by providing common reference methods and requirements that enable the verification of claims (for example, in relation to safety, bio-based content, environmental sustainability or toxicity) about different products.

Much of CEN's work in the area of chemical and bio-based products is undertaken in response to requests from the European Commission and in cooperation with industry, research institutes, environmental NGOs and public agencies. Some of the work is also done in cooperation with ISO under the Vienna agreement (e.g. in the area of paints and varnishes, surface active agents or laboratory equipment).

Standardization can support the implementation of European legislation including Regulation (EC) 2003/2003 on fertilizers, Directive 93/15/EEC on explosives for civil uses, and Directive 2007/23/EC and the recast Directive 2013/29/EU on the placing on the market of pyrotechnic articles. CEN's work in this area also supports EU policies such as the Action Plan for the Circular Economy (COM (2015) 614).

[1] Source: CEFIC www.cefic.org/Facts-and-Figures/

Technical bodies responsible:

13 CEN Technical Committees (19, 139, 212, 249, 260, 276, 298, 317, 321, 332, 360, 382, 411)
CEN/BT/WG 218 – Algae
CEN-CLC/BTWG 11 (Sustainable chemicals)

Standards published by CEN & CENELEC:

1305 European Standards (EN/HD)
68 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/335 – Modernization of the methods of analysis of fertilizers
M/418 and M/454 amending M/335
M/430 – Bio-polymers and bio-lubricants
M/491 – Bio-solvents and bio-surfactants
M/492 – Horizontal standards for bio-based products
M/547 – Algae and algae-based products or intermediates

Elements of EU Work Programme 2017:

4. A Deeper and Fairer Internal Market with a Strengthened Industrial Base

Further information:

www.cen.eu/work/areas/chemical



© Swapan Photography

Chemical



Bio-based products

Standards contribute to the creation of a bio-based economy for Europe encompassing the sustainable production of renewable resources from land, fisheries and aquaculture and their conversion into food, feed, bio-based products and bio-energy.

Standards can promote consumer uptake of new bio-based products and green public procurement. In particular, they can help to increase market transparency by providing common reference methods and requirements that enable the verification of claims regarding the bio-based content, bio-degradability or environmental sustainability of different bio-based products.

Under mandates from the European Commission, CEN is developing European Standards (ENs) and other deliverables covering the horizontal aspects of bio-based products as well as for specific types of bio-based products.

For example, CEN/TC 411 (Bio-based products) is developing a series of standards covering the horizontal aspects of bio-based products under M/492. TC 411 expects to complete its work under this Mandate in 2017 with the publication of four ENs. Two will establish the requirements for the Business-to-Business communication of the characteristics of bio-based products and the requirements for Business-to-Consumer communication and claims. The other two will address the determination of bio-based carbon content using the radiocarbon and the material balance methods respectively.

Regarding the development of standards and other deliverables for specific types of bio-based products under M/491, in 2017, TC 411 will upgrade its existing Technical Specification on requirements and test methods for bio-based solvents into a European Standard.

By March 2017, the recently established CEN/BTWG 218 will finalize a work programme in response to M/547 on algae and algae-based products or intermediates. Development of the proposed new standards and other deliverables, or the revision of existing ones, will begin once the European Commission has approved the work programme.



© Mr. Mrs. Marcha



SUSTAINABLE CHEMICALS FROM PRIMARY AND SECONDARY RAW MATERIALS

Following a request from the European Commission, in 2017 CEN and CENELEC will work on the mapping of existing standards and identify possible needs in relation to chemicals from primary and secondary raw materials. CEN/CLC/BTWG 11 (Sustainable Chemicals) will study the full lifecycle of chemicals (from feedstock to production, products, use and recycling) and assess for each stage how standardization can contribute to the better sustainability of chemicals. The work will be carried out in the context of the Commission Action Plan for the Circular Economy and is expected to last 18 months.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Paints and varnishes - CEN/TC 139 (Paints and varnishes) will continue to cooperate with ISO/TC 35 (Paints and varnishes) on the development of standards intended for parallel adoption at the European and ISO level (in the framework of the Vienna Agreement). A joint two-part standard on determining the resistance to humidity of paints and varnishes is expected to be finalized in 2017. TC 139 will also continue its work on a new five-part EN on reactive (intumescent) coatings for the fire protection of structural elements.

Fertilizers - Fertilizers and liming materials are widely used in the agricultural sector throughout Europe and worldwide. Much of the work of CEN/TC 260 (Fertilizers and liming materials) is undertaken in response to European Commission mandates (M/335, M/418 and M/454) concerning methods of analysis.

In 2017, the publication of two deliverables developed under M/335 is expected: a Technical Specification on fertilizers (determination of molybdenum in concentrations > 10% using a gravimetric method with 8-hydroxyquinoline) and a new edition of the EN on the determination of the water-soluble potassium content in fertilizers.

In 2017, TC 260 also expects to begin new work updating its series of standards for analytical methods in response to a new mandate to support the anticipated regulation on fertilizing products.

Fireworks - CEN/TC 212 (Pyrotechnic articles) and CEN/TC 321 (Explosives for civil uses) will undertake a routine review of its standards.

Laboratory Equipment - CEN/TC 332 (Laboratory equipment) collaborates with ISO/TC 48 (Laboratory equipment) to facilitate the adoption of European Standards identical to ISO standards for various types of glass and plastic ware used in laboratories. In 2017, TC 332 and ISO/TC 48 will evaluate the existing standards and identify appropriate future action.

**Technical bodies responsible:**

96 CEN Technical Committees covering different products and materials

Standards published by CEN & CENELEC:

43 active standardization requests (including amendments and revisions)

Standardization requests from EC/EFTA:

Provide a complete list of 'Mandates' that will be ongoing in 2016

Elements of EU Work Programme 2016

4. A Deeper and Fairer Internal Market with a Strengthened Industrial Base

Further information:

www.cen.eu/work/areas/construction

The majority of CEN's work in the construction sector involves the development of European Standards (ENs) to assess the performance of construction products and to provide the respective testing and or calculation methods. These harmonized European Standards are an essential tool for the application of the Construction Products Regulation (CPR) ((EU) No 305/2011) and for the fulfilment of national building regulations. Harmonized standards provide a solid technical basis for testing the performance of products, allowing manufacturers to prepare a declaration of performance (DoP) for their products as defined in the CPR and to affix the CE marking.

Work in this sector is driven by its main stakeholders: manufacturers, national/European industry associations, laboratories and notified bodies, engineers, structural designers, the scientific community and the European Commission (DG Grow and DG Energy).

Some products are also affected by a number of European directives that do not regulate the product itself, but instead establish requirements on the industry with regard to chemicals, the environment and safety in the workplace.



© naharyani



Building Information Modelling

The construction industry is one of the largest European industries. It produces 10% of the GDP of the EU and provides 20 million jobs. It uses 50% of the materials taken from the Earth's crust and generates about 40% of all greenhouse gas emissions in Europe. The industry is seen as being relatively inefficient in both process and service delivery. Current practices lead to the duplication of activities as well as increases in costs and timescales for the delivery of construction projects. Construction clients and users typically receive poor operating information at the handover of the built assets and, as such, management of the asset portfolio can be improved.

The introduction of Building Information Modelling (BIM) is seen as being the solution to the management of information during the design, construction and operational phases of the asset lifecycle. The development of BIM is advancing rapidly and requires the application of common standards to ensure future compatibility of data exchange and use.

The recently created CEN/TC 442 (Building Information Modelling) is adopting a number of ISO standards as ENs. These include an interaction framework and a methodology and format for an information delivery manual, Industry Foundation Classes for data sharing in the construction and facility management industries, and a framework for object-oriented information in the organization of information about construction works. The first of these standards is expected to be published in 2017.

TC 442 is also working in parallel with ISO on the development of a two-part standard dealing with information management using BIM.

During 2017, CEN expects to start work on support data dictionaries. This may deal with the European specificities of the construction sector in relation to the CPR.

Energy Performance of Buildings

Standards in this area set a common framework for the measurement and calculation of the energy efficiency of buildings. Factors involved include a healthy indoor environment, the building fabric and all technical building systems as well as the overall energy efficiency of the building. CEN/TC 371 (Energy Performance of Buildings) coordinates CEN's activities in this area and works in response to EC M/480.

The full set of European Standards and Technical Reports that comprise a common methodology for the assessment of the energy performance of buildings (EPB) is expected to be published in May 2017. Some of these deliverables, including the overarching EPB assessment general framework and procedures, were developed in parallel with ISO but with CEN leading the project. This international dimension will allow European engineers and architects to design for markets outside Europe.

Within Europe, Member States are expected to use this set of standards to support the implementation the Directive on the Energy Performance of Buildings at the national level.



Eurocodes

The Structural Eurocodes are a comprehensive set of standards that relate to the design of building and civil engineering works. They are widely used in the construction and civil engineering industry throughout Europe, and have also been implemented in neighbouring countries and in other countries around the world.

In M/515, the European Commission has asked CEN to revise the existing Eurocodes and extend their scope, incorporating new performance requirements and design methods. This work is being carried out by CEN/TC 250 (Structural Eurocodes) in cooperation with stakeholders including structural design companies and the scientific community, supported by the European Commission and its Joint Research Centre (JRC). A series of project teams has been established which will undertake the first phase of the planned work programme in 2017. Several project teams will be selected to continue the second phase of work which will include further developments in new areas, including the assessment and retrofitting of existing structures, and the use of new materials, such as structural glass, fibre reinforced polymers and membrane structures.

TC 250 will also finalize the draft of a new European Standard on the design of fastenings for use in concrete to replace the existing series of Technical Specifications.

Construction products

In 2017, CEN will continue to adapt various standards to the requirements of the CPR. New European Standards will also be prepared to support the implementation of the Regulation. CEN/TC 33 (Doors, windows, shutters, building hardware and curtain walling) expects to finalize a new European Standard on internal pedestrian doorsets.

In addition, CEN/TC 227 (Road materials) will complete its revision of the European Standard for unbound mixtures and CEN/TC 88 (Thermal insulating materials and products) will finalize a new European Standard for products formed in situ from loose-fill expanded polystyrene (EPS) beads and bonded expanded polystyrene beads.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Dangerous substances - CEN/TC 351 (Construction Products – Assessment of release of dangerous substances) is revising the European Standard on the determination of emissions into indoor air. The TC is also developing Technical Specifications addressing aspects such as the analysis of inorganic substances. The development of assessment methods for the release of dangerous substances will support the fulfilment of the Basic Requirements for Construction Works (BRCW) in the framework of the CPR.

Sustainability of construction works - CEN/TC 350 (Sustainability of construction works) will begin revising the European Standard which contains the rules for the different categories of construction products with regard to Environmental Product Declarations. The main objective will be to include additional indicators for the declaration of the environmental performance of construction products and for the assessment of the environmental performance of buildings.



Digital & Information Society

CEN and CENELEC are working together to develop standards that support the development of open and competitive markets, meeting the needs of business, consumers and other stakeholders.

The CEN-CLC/BTWG 6 (ICT Standardization Policy) supports the development by the CEN and CENELEC governing structures of a strategy for Information and Communications Technologies (ICT). The group has established a clear strategy on the possible adoption of JTC 1 standards as European Standards, thereby capitalizing on international efforts. This would support the European Digital Agenda in achieving its ICT standardization goals.

BTWG 6 continues to provide the CEN and CENELEC input to the European Multi-Stakeholder Platform (MSP) on ICT Standardization. CEN and CENELEC activities support the Digital and Information Society in many electronic activities (eActivities) including eInvoicing, eProcurement, eSignature, ePrivacy, eSkills, eLearning, eAccessibility, eHealth and eToll.

Other related activities supported by CEN and CENELEC include smart grids and smart metering, smart and sustainable cities and communities, Intelligent Transport Systems (ITS) and Advanced Manufacturing.

Biometrics - CEN/TC 224 (Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment) is developing a European Standard (EN) on a biometrics multilingual vocabulary based upon the English version of ISO/IEC 2382-37. This EN will establish a systematic description of the concepts in the field of biometrics pertaining to the recognition of specific human beings, and will reconcile variant terms in use in pre-existing biometric standards against the preferred terms. This will help clarify the use of terms and prevent discrepancies in the implementation of biometric standards within Europe.

Technical bodies responsible:

10 CEN Technical Committees (224, 434, 440, 428, 225, 287, 304, 310, 365, 445)

CEN WS – ICT skills

CEN WS ISAEN – Individual perSonal data
Auditable addrEss Number

Standards published by CEN & CENELEC:

101 European Standards (EN/HD)

432 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/460 - Electronic signatures

M/528 - Electronic invoicing in public
procurement

Elements of EU Work Programme 2017:

2.1. ICT Standardisation

2.3. Strategic priority fields for standardisation
requests to the ESOs in 2017

Further information:

www.cen.eu/work/areas/ICT

www.cenelec.eu/go/ICT

www.cencenelec.eu/go/ICT

In 2017, CEN/TC 428 (Digital competences and ICT professionalism) will begin revising its European Standard which provides a reference of 40 eCompetences required and applied in the ICT business related workplace, using a common language for competences, skills and proficiency levels that can be understood across Europe. This standard aligns its proficiency levels with the European Qualifications Framework (EQF) learning levels.

Electronic invoicing - CEN/TC 434 (eInvoicing) is developing a set of standards in response to M/528 to support the implementation of Directive 2014/55/EU on electronic invoicing in public procurement.



CEN/TC 434 will develop a list of syntaxes that comply with the EN on the semantic data model for the core elements of an electronic invoice. It will also produce syntax binding(s) (guidelines on how the semantic data model could be represented in the listed syntaxes (formats) and their automatic validation artefacts), guidelines on the interoperability of electronic invoices at the transmission level and guidelines on the use of sector or country extensions in conjunction with the European Standard, including a methodology to be applied in the real environment.

eSkills and eLearning - The spread of digital technologies is having a massive impact on the labour market and the type of skills needed in the economy and society. TC 428 will therefore define new standardization activities to support the upskilling of ICT professionals and set out new benchmarks for digital competences and skills for ICT users and practitioners.

The CEN Workshop on ICT skills will provide an updated list of 30-40 job profiles relevant to ICT and human resources companies. This will help maintain and enhance the quality, maturity, usability and stakeholder outreach of the existing CEN Workshop Agreement (CWA) on this topic.

This work contributes directly to the goals defined by the European Commission's Rolling Plan 2015 for ICT Standardization.

Privacy management - CEN Workshop ISAEN seeks to operationalize the burgeoning policy initiatives related to personal data usage, in particular in relation to personal data management and the protection of individuals' fundamental rights. This work is set against the backdrop of the rapidly expanding digital era of personal data usage and the evolving European Digital Single Market.

In 2017, a CWA will be produced consisting of a set of specifications, good practice and interoperability guidelines for describing a self-sovereign identifier for the use of policy-makers, companies and individuals. The identifier is

represented by this set of specifications and will serve as a measurement tool to empower individuals, helping them take control of their data and making their fundamental right to privacy more accessible and actionable.

This workshop supports the EU's principles of Privacy by Default and by Design.

e-Procurement - CEN/TC 440 (Electronic Public Procurement) will develop Technical Specifications (TSs) to support electronic public procurement processes and their accompanying information flows. The specifications will be based on CWAs produced previously by the CEN Workshop on Business Interoperability Interfaces on public procurement in Europe Phase 3 (WS/BII 3) . The new TSs will cover eProcurement, eNotification, eTendering, eOrdering and eFulfilment.

e-Signatures - In response to M/460, TC 224 will complete its part of the electronic signature work programme by producing standards on protection profiles for signature creation and verification application, an application interface for secure elements for electronic identification, authentication and Trusted Services, and trustworthy systems supporting server signing.

'Flagship activities' / Major Work Items - The main standard in the set developed by TC 434 for electronic invoicing in the frame of M/528, is an EN defining a semantic data model of the core elements of an electronic invoice, which is cited in the Directive and will be required to be used for any public procurement transaction in Europe with effect from May 2017.

The standard describes a semantic model including all of the essential information elements that an electronic invoice needs in order to ensure legal and fiscal compliance and to enable interoperability for cross-border and cross-sector trade. It will take into account the needs of small and medium-sized enterprises (SMEs) and contracting authorities (such as local and regional governments), as well as data protection requirements.



Electrotechnology

European standardization in the electrotechnical sector is managed and supported by CENELEC. A wide range of CENELEC Technical Committees, Task Forces and Working Groups deal with different topics and types of products, but common to all of their standardization activities is a strong commitment to ensuring the highest possible levels of safety and performance and the most efficient use of energy.

CENELEC works in close cooperation with its international counterpart, the International Electrotechnical Commission (IEC). As a result, over 70% of CENELEC standards are identical to international standards adopted by the IEC, and another 6% are based on IEC standards.

The high level of alignment between European and international standards means that companies active in the electrotechnical sector can benefit from access to markets around the world, with lower compliance costs and integrated supply chains.



© Wood Water Wall

Technical bodies responsible:

More than 70 CENELEC Technical Bodies and Certain CEN Technical Committees (such as CEN/TCs 169, 247 – among others).
CEN-CENELEC Coordination Group Light

Standards published by CEN & CENELEC:

7116 European Standards (EN/HD)
209 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

- M/313 – Electromagnetic Compatibility
Telecommunication Networks
- M/351 – Workers' exposure to magnetic and
electromagnetic fields with frequencies
from 0Hz to 300 GHz
- M/485 – Fluorescent lamps, high-intensity
discharge lamps, and ballasts and
luminaires able to operate such lamps
- M/495 – Ecodesign
- M/511 – Low Voltage Directive
- M/519 – Light Emitting Diodes (LEDs)
- M/536 – Radio Equipment Directive
[Anticipated] – Electromagnetic
Compatibility

Further information:

[https://www.cenelec.eu/aboutcenelec/
whatwedo/technologysectors/
electromagneticcompatibility.html](https://www.cenelec.eu/aboutcenelec/whatwedo/technologysectors/electromagneticcompatibility.html)



Electric cables

In 2017, CLC/TC 20 (Electric cables) will continue developing and finalizing standards for the characterization of materials for electric cable accessories. Based on international work, TC 20 will amend its multi-part European Standard (EN) on tests on electric and optical fibre cables under fire conditions, and finalize its standard on test methods for electric and optical fibre cables.

CLC/TC 213 (Cable management systems) is developing standards for conduit systems buried underground for the protection and management of insulated electrical cables or communication cables. The TC expects to finalize an EN which will provide a test method for the content of halogens.

TC 213 also expects to finalize two Technical Reports: one on cable management systems providing support for cables with intrinsic fire resistance and the other on the electromagnetic characteristics of linear cable management systems.

Electromagnetic Compatibility (EMC)

The electromagnetic environment is becoming more and more complex as demand for spectrum and the need for innovative and flexible solutions increases and higher data rates are required of copper networks. The migration from old to digital technologies brings new challenges.

Convergence in electronics is leading to the development of multimedia EMC standards, which in turn relies on improving communication and cooperation between the committees responsible for different products. In this context, CLC/TC 210 (EMC) deals with a wide range of product family, generic and basic EMC standards. Some of these standards are initiated and produced within the TC itself but the majority issue from cooperation with IEC/TC 77 (Electromagnetic Compatibility) and with the International Special Committee on Radio Interference (CISPR) committees.

Based on CISPR activities, in 2017 TC 210 will continue amending its EMC generic standards, including standards on the limits for harmonic current emissions.

In addition, TC 210 is responding to requests from the European Commission for standards to comply with the requirements of the new Electromagnetic Compatibility Directive (2014/30/EU) and the new Radio Equipment Directive (2014/53/EU). TC 210 is therefore revising many standards, including several which relate to radio disturbance and immunity measuring apparatus and methods.

TC 210 cooperates with CEN and ETSI to ensure a coordinated and coherent approach to EMC-related matters.

Electromagnetic Fields (EMF)

CLC/TC 106X (Electromagnetic fields in the human environment) is developing new European Standards in response to M/351 in support of the EMF Directive (2013/35/EU) which aims to safeguard workers exposed to the risks arising from electromagnetic fields.

These standards include a European Standard providing a means of evaluating electrical appliances in the home and the workplace against limits on human exposure to electric and magnetic fields, and a standard providing a means of evaluating electronic and electrical equipment against limits on human exposure to electric, magnetic and EMF and induced and contact currents.

Standards also allow manufacturers and suppliers to demonstrate that products used by the public are compliant with the Radio Equipment Directive and the Low Voltage Directive (2014/35/EU), proving that they are safe with respect to the effect of their emitted EMF on human health.

TC 106X will also continue to revise its existing European Standards in line with the latest regulatory and technical requirements.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Lighting – In 2017, the CEN-CENELEC Coordination Group Light will finalize its work programmes for the standards required by mandates M/485, M/495 and M/519.



Technical bodies responsible:

8 CEN Technical Committees (223, 230, 264, 292, 308, 345, 366, 444)

1 CENELEC Technical Committee (111X)

CEN-CENELEC Adaptation to Climate Change Coordination Group (ACC CG)

5 CEN Workshops

Standards published by CEN & CENELEC:

506 European Standards (EN/HD)

105 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/503 – Ambient air quality legislation

M/513 – Gaseous hydrogen chloride (HCl) emissions

M/514 – Volatile organic compounds (VOC) emissions

M/518 – Waste Electrical and Electronic Equipment (WEEE)

M/526 – Adaptation to climate change

Elements of EU Work Programme 2017:

Expected new mandates in the field of air quality:

- Methodology for identification and quantification of the factors contributing to air pollution
- Validated standard for air quality modelling to ensure comparability of models throughout Europe
- Development of standard method for determining total gaseous mercury using sorbent traps for periodic and long term measurements
- Development of standard for formaldehyde emissions monitoring

Further information:

www.cen.eu/work/areas/env

www.cenelec.eu/go/TC111X

CEN and CENELEC's work in the environmental sector involves both the development of standards and an advisory role.

Technical Committees in this sector develop standards for the protection of the environment, mainly in support of European environmental legislation.

By making use of these standards, as well as protecting the environment and meeting legal requirements, companies and organizations also benefit financially by reducing their use of valuable resources such as energy and water, producing less waste, preventing accidents and avoiding clean-up and compensation costs. In addition, by demonstrating their commitment to the environment, companies and organizations may be perceived in a more positive way by their current and potential customers, as well as by their employees and other stakeholders.

The Strategic Advisory Body for Environment (SABE) in CEN and CLC/TC 111X 'Environment' provide advice and recommendations to their respective Technical Boards and TCs on how best to address environmental aspects such as sustainability, resource efficiency and climate resilience in standardization. They also maintain close cooperation with the European Commission and regularly discuss with policy-makers how standards can support the implementation of environmental policies.

In addition to its advisory role, CLC/TC 111X also develops standards to reduce the detrimental impacts of electrotechnical activities/products/systems on the natural environment.

All technical bodies in CEN and CENELEC are expected to take environmental aspects into account. A set of tools and support services (such as the environmental helpdesk for CEN) are also available to help TCs in all sectors with how to address environmental aspects in standards.

CEN and CENELEC work closely in this sector with ISO and the IEC respectively to avoid the duplication of work, with CEN/CENELEC and their global counterparts adopting each other's standards as appropriate.



Adaptation to climate change

Recent severe weather events and changes in temperatures clearly show what impact climate change may have in Europe. Left unmanaged, climate change may significantly affect the operational, financial, environmental and social performance of large fixed assets and infrastructures.

Technical standards are an effective instrument for improving climate resilience in different sectors. In early 2017, CEN and CENELEC will finalize the preliminary work programme required by the standardization request supporting the EU Strategy on Adaptation to Climate Change. The work programme will establish a list of twenty priority standards that need to be developed or revised in each priority sector (transport, energy and construction), along with the supporting ICT. The development of standards will then begin.

The CEN-CENELEC Adaptation to Climate Change Co-ordination Group coordinates the delivery of the standardization request related to climate change adaptation.

Air quality

As knowledge about the influence of air pollutants on human health and the environment increases, so too do the challenges facing CEN/TC 264 'Air quality'. New pollutants are being identified, which need to be measured and compared, and acceptable concentrations of known air pollutants need to be lowered as a result. This requires a continual stream of new standards. TC 264 maintains close cooperation with policy-makers and is developing a series of standards that contribute to the implementation of EC legislation on air quality.

Reference methods for emission measurements and ambient air quality measurements for the implementation of EU Directives on air quality enable comparable field measurement results throughout the Member States. TC 264 is tasked with harmonizing the different practices throughout Europe by establishing a coherent list of minimum requirements for the specified pollutant (s) in European Standards, covering all measurement steps, measurement planning, sampling, sample conditioning, analysis/quantification, data processing and reporting. Each standardized measurement method includes field validation data for the robustness and variability (repeatability and reproducibility) attached to the measurement results.

In 2017, TC 264 expects to complete standards for measuring particulate matter in ambient air in support of the Implementation of the Ambient Air Quality Legislation (under M/503), automated measuring systems for the measurement of the concentration of particulate matter, a standard method for measurement of NO_3^- , SO_4^{2-} , Cl^- , NH_4^+ , Na^+ , K^+ , Mg^{2+} , Ca^{2+} in $\text{PM}_{2,5}$ as deposited on filters, and the measurement of elemental carbon and organic carbon deposited on filters.



Electronic Waste

In the field of Waste Electrical and Electronic Equipment (WEEE), TC 111X will complete two new Technical Specifications : a specification for the collection and logistics associated with WEEE and a specification for the end-processing of WEEE fractions for copper and precious metals. These will be published as part of a series of standards and technical specifications developed under M/518 in support of the WEEE Directive.

Environmental Characterization of Solid Matrices

TC 444 (Test methods for the environmental characterization of solid matrices) deals with the standardization of test methods for the environmental characterization of soil, solid and liquid waste, biowaste and sludge, covering digestion/extraction, chemical analysis, physical methods, quality assurance and quality control (laboratories) .

TC 444 cooperates closely with other TCs in the environmental sector by inviting them to investigate the possibility of developing multi-matrix standards, thus improving the efficiency of the standardization process.

In 2017, TC 444 will finalize the standard on the up-flow percolation test to support EU waste legislation. A number of existing standards will be assessed and when possible merged into multi-matrix standards. Additionally, proposals for new standards with a multi-matrix scope are expected.

TC 444 will revise the standard on the up-flow percolation test to support EU waste legislation. A new standard on the determination of selected polychlorinated biphenyls (PCB) in solid waste by gas chromatography with electron capture or mass spectrometric detection will also be published in 2017.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Waste – European Standards contribute to the prevention and reduction of waste, as well as providing tools to facilitate the characterization, collection and treatment of waste, including the recovery and recycling of valuable materials. The development of standards is increasingly better aligned with the concept of the ‘circular economy’ which addresses not only the management of waste and turning it into a resource but also improving design to prevent or reduce the generation of waste.

CEN/TC 292 (Characterization of waste) deals with standards related to sampling, assessment methods and vocabulary. Other work in this area is being undertaken by CEN/TC 444. TC 292 aims to provide standards to characterize

the behaviour of waste in order to allow harmonization at the European level. The use of these standards enhances the comparability of results and increases transparency in waste practice. Many of TC 292’s standards are directly referenced in European legislation on waste and landfilling.

The management of end-of-life tyres (ELT) is becoming a significant recovery activity, with potential impact on both the economy and the environment. CEN/TC 366 (Materials obtained from End-of-Life Tyres) is standardizing the relevant physical and chemical properties of tyre-derived materials with the aim of improving the potential for the re-cycling of ELTs.



Water – Water management has a significant impact on population, industry, agriculture, land planning, the energy sector and the environment. The comprehensive European water policy aims to address all these aspects. In order to implement the requirements of the European Water Framework Directive, national bodies and water laboratories need uniform standards to ensure that they are all producing and reporting water quality data based on agreed analytical methods and best practice procedures.

CEN/TC 230 (Water analysis) elaborates standard test methods for the physical, chemical, biochemical, biological and microbiological examination of water quality. Also included are methods for sampling, quality assurance, classification and performance requirements for water monitoring equipment.

Soil and sludge – European expertise in sludge treatment and management is world-leading, which leads to global business opportunities for consultancy, design, construction, supply and operation. Innovation in this sector is important for maintaining this competitive advantage. The production, treatment and use or disposal of sludge is supported by a large ancillary industry consulting on, designing, developing, manufacturing, supplying and maintaining equipment. Phosphorus recovery from waste water is also moving higher up CEN's agenda.

CEN/TC 308 (Characterization and management of sludge) develops generic standards appropriate for all sludge within its scope and all routes for the use and disposal of sludge.

Soil is a critical component of the natural system and a vital contributor to all terrestrial populations. Despite the essential role that soil plays in the life of people, soil resources are degrading increasingly due to inappropriate practices. Sustainable land management is needed in order to obtain an equilibrium between soil use and its preservation, which comes with an intrinsic need for the characterization of soils. CEN/TC 345 (Characterization of

soils) deals with standardization in the field of soil quality, including sampling, assessment methods and the definition of terms. Other related standardization work will be taken over by TC 444.

There has been steady growth in the demand for soil improvers and growing media since the 1990s, in agriculture, horticulture, gardening and landscaping, and customers include the general public. Standards in this area are the responsibility of CEN/TC 223 (Soil improvers and growing media) . The forthcoming revision of the Fertiliser Regulation 2003/2003 is expected to trigger intensive standardization work.

The Circular Economy – CEN and CENELEC support the European Commission's 'Circular Economy' Strategy. By the end of 2017, they expect to have completed an assessment of the extent to which current standardization supports resource efficiency and the circular economy in Europe. The aim is to identify ways in which standardization activities can be enhanced to work more effectively to support these policies and to develop a strategic plan through which the identified gaps in standardization activities can be filled.

Guide on chemicals – In 2017, CEN also expects to complete a new CEN Guide which will provide support to Technical Committees on how to develop requirements in product standards to help minimize the use of hazardous chemicals in products, thereby reducing health and environmental risks arising from exposure to chemicals. The project, which was launched with the support of the EC, also includes the development of a strategy for the promotion and implementation of the finished Guide.





Technical bodies responsible:

- CEN/TC 194 – Utensils in contact with food
- CEN/TC 275 – Food analysis – Horizontal methods
- CEN/TC 302 – Milk and milk products – Test methods
- CEN/TC 307 – Oilseeds, vegetable and animal fats and oils – Test methods
- CEN/TC 327 – Animal feeding stuffs – Test methods
- CEN/TC 338 – Cereal and cereal products
- CEN/TC 415 – Traceable and sustainable cocoa

Standards published by CEN & CENELEC:

- 542 European Standards (EN/HD)
- 56 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

- M/381 – Test methods for food hygiene
- M/422 – Test methods for heavy metals and iodine in food
- M/463 – Test methods for food contaminants
- M/520 – Test methods for mycotoxins in food
- M/521, M/522 & M/523 – Test methods in the field of animal nutrition

Elements of EU Work Programme 2017:

In the framework of Regulation (EC) No. 1935/2004 on materials and articles intended to come into contact with food, the European Commission is intending to issue a standardization request for programming work on development priorities, development of standards for oligomer migration, multi-analyte methods (analysis of multiple samples at once), and specific substances (according to trans/internal market relevance).

Further information:

www.cen.eu/work/areas/food



© Kostiantyn Kravchenko

public authorities for official control purposes and by food and feed producing companies for internal checks. Many of the standards adopted by CEN are developed in response to formal requests from the European Commission, and these standards play a valuable role in supporting the implementation of relevant European legislation.

The majority of European Standards in this field (around 70%) are identical to international standards as a result of the close and continuous cooperation between CEN and ISO. Having test methods that are recognized internationally is especially important for food companies that want to sell their products in many different markets.

An emerging topic in the field of food and feed in 2017 will be in the area of food authenticity. Food authenticity has been identified as a new area of interest for most of the CEN Technical Committees working in the food and feed safety field. In 2017, it is expected that CEN will establish a Coordination Group between the different committees in order to map existing methods, determine their degree of validation and to identify European standardization needs. The long-term goal will be standardization of the methods required both by the industry and by the official control laboratories.

European standardization in the field of food and feed contributes to improving levels of food safety and protecting the health of consumers. CEN provides validated test methods that are used by the food industry and by the competent



Test Methods

The main focus of CEN work in the field of food and feed is standardization of validated analytical methods for a variety of species and substances, ranging from horizontal methods applicable to various matrices to specific food-group standards.

In 2017, CEN/TC 275 will develop fifteen new European Standards on the microbiology of food in response to a request from the European Commission (M/381). The TC will also continue developing European Standards for the detection and determination of mycotoxines in food in response to M/520.

CEN/TC 307 will work, in parallel with ISO, on the revision of the methods of determination of different attributes of oils and fats such as refractive index, insoluble impurities, conventional mass per volume and water content.

CEN/TC 327 will continue working on a range of test methods for animal feed, in response to M/521, M/522 and M/523. The resulting standards, to be published in 2017 and 2018, will enable regulatory authorities to determine if animal feeds on the market comply with the legal requirements laid down in Regulation (EC) 882/2004.

CEN/TC 338 will continue to work on the revision of European Standards for tests to determine the biometric characteristics of kernels and different methods for the determination of bulk density in cereals.

Cocoa

In 2017, CEN/TC 415 expects to finalize four European Standards on the sustainability and traceability of cocoa, which are being developed in parallel with ISO. These standards will set requirements for sustainability management systems, performance (related to economic, social and environmental aspects), traceability and certification schemes.

Food and feed authenticity

Food authenticity has been identified as a new area of interest for most of the CEN Technical Committees active in food and feed safety field. In 2017, CEN will explore the possibility to establish a Coordination Group between the different Committees in order to map the existing methods, determine their degree of validation and to identify the European standardization needs. The long-term goal will be standardization of methods required both by the industry and by the official control laboratories.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Materials in contact with food - In 2017, CEN expects to receive a request from the European Commission in the framework of Regulation (EC) No. 1935/2004 on materials and articles intended to come into contact with food. CEN/TC 194, which has developed a number of

methods in this field in the past, will start by drawing up a programme of work leading to the development of standardization priorities for methods for oligomer migration, multi-analites and other specific substances.

**Technical bodies responsible:**

CEN/TC 207 - Furniture
CEN/TC 369 - Candle fire safety

Standards published by CEN & CENELEC:

76 European Standards (EN/HD)
9 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/497 - Safety of child-care articles - risks
in the sleeping environment
M/527 - Certain seats for children

Elements of EU Work Programme 2017:

The European Commission is expecting to address a standardization request to CEN in the area of candle safety in the framework of the EU Directive on General Product Safety (2001/95/EC).

Further information:

www.cen.eu/work/areas/consumerproducts

European standardization work in relation to furniture and houseware products is carried out by CEN/TC 207 and CEN/TC 369. Their work focuses primarily on defining safety requirements and developing associated test methods in order to ensure that products placed on the European market are safe and suitable for consumers.

European Standards in this area support the implementation of the EU Directive on General Product Safety (2001/95/EC). In the framework of the ongoing collaboration between CEN and ISO, all European Standards relating to furniture are made available to ISO/TC 136 (Furniture), so that they may be considered for adoption as international standards.

European Standards for furniture and houseware are developed with the participation of experts representing a wide range of stakeholders including manufacturers, suppliers of base materials, testing laboratories and national public authorities responsible for market surveillance. In addition, as in all matters related to safety, CEN collaborates closely with ANEC, which represents consumer interests in standardization.



© Kostiantyn Kravchenko



Candles

CEN/TC 369 continually updates its European Standards relating to the safety requirements for candles, candle supports, containers and accessories in line with new requirements issued by the European Commission.

CEN seeks to involve consumer representatives in this work, alongside product manufacturers and suppliers of base materials.

Furniture

In 2017, CEN/TC 207 will continue to develop standards addressing the safety aspects of furniture in the framework of M/497 and M/527. In 2017, a new European Standard setting out safety requirements and test methods in relation to mattresses for cots and cribs will be published, and TC 207 will continue with the development of specifications for child seats and suspended baby beds.

The committee will also revise the European Standards which set the requirements for kitchen and office furniture and will produce a new European Standard on the coordination of sizes for kitchen furniture and kitchen appliances.



Technical bodies responsible:

14 CEN Technical Committees (70, 79, 85, 122, 137, 158, 159, 160, 161, 162, 211, 231, 305, 416)

3 CENELEC Technical Committees (31, 78, 216)
CLC/BTTF 62-3 – Operation of electrical installations

Standards published by CEN & CENELEC:

981 European Standards (EN/HD)
67 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/031 – Personal Protective Equipment
M/BC/CEN/92/46 – Explosive Atmospheres (ATEX)

[Anticipated] – Personal Protective Equipment

[Anticipated] – Garments with integrated smart textiles and non-textile elements for protection against heat and flame

Further information:

www.cencenelec.eu/go/healthsafety

European Standards that contribute to protecting the health and safety of employees and workers are developed across a wide range of sectors within CEN and CENELEC. Health and safety is addressed by Technical Committees responsible for product standards, for example for machinery, equipment and protective systems intended for use in explosive atmospheres (ATEX), and Personal Protective Equipment (PPE).

CEN and CENELEC cooperate with all relevant stakeholders including industry representatives, equipment manufacturers and users, consumer groups, employers' associations and trade unions. They also collaborate closely with ISO and IEC in order to support parallel development and the adoption of standards at European and international levels.

The standardization of individual protective products, for example helmets, ropes used to prevent falls from a height or footwear resistant to chemicals, is handled by the technical committees of the Personal Protective Equipment sector. In line with its recently adopted strategy, the PPE Sector Forum assists TCs in addressing the need, when standardizing PPE, to take account of factors such as the integration of Information and Communications Technologies (ICT), putting the user at the centre, and comfort and ergonomics.

CEN's Strategic Advisory Board for Occupational Health and Safety (SAB OH&S) coordinates European standardization activities related to various kinds of hazards in the workplace and health-related issues such as noise, vibration, ergonomics and exposure to hazardous substances. Occupational Health & Safety (OHS) today faces various challenges including rapidly increasing technical innovation, a growing number of requests for management systems, new fields of standardization for example in ICT, services, qualifications, and a call for accelerated, simplified and modernized standardization processes. SAB OH&S cooperates with the sectors responsible for coordinating European standardization activities for machinery, PPE and services, and with stakeholders including the European Institutions, Euroshnet (the European network for occupational safety and health experts), international organizations and associations, as well as OHS research networks.

Standardization in the field of explosion prevention and protection is carried out by CEN/TC 305 (Potentially explosive atmospheres – Explosion prevention and protection) and CLC/TC 31 (Electrical apparatus for potentially explosive atmospheres). In a majority of cases the standards produced are harmonized standards, which provide technical solutions to enable manufacturers to demonstrate their compliance with the Essential Safety Requirements of the ATEX Directive (2014/34/EU). The cooperation of these two European technical committees with their international counterparts in ISO and IEC respectively increases every year.



Personal fall protection

CEN/TC 160 (Protection against falls from height including working belts) will continue to revise its standards, adapting them to technical progress and new working practices resulting from the use of new types of ropes and the increasing ease with which they can be bought. The committee expects to finalize revisions of its European Standards on retractable-type fall arresters, on personal fall protection systems, and on belts and lanyards for work positioning or restraint. Work will continue on revisions of the European Standards on rope adjustment devices and on guided-type fall arresters. One of the objectives is to ensure consistency in the requirements and test methods used for all the personal fall protection equipment covered by TC 160.

Respiratory protective devices

CEN/TC 79 (Respiratory protective devices) is revising its European Standard for self-contained open-circuit compressed air breathing apparatus with a full face mask, to include a new system test for impact and the thermal exposure to firefighters. These tests will increase the safety for the user of such devices. In addition, TC 79 is revising several standards to take account of the increasing understanding of human factors and new test methods.

Vibration

In 2017, CEN/TC 231 (Mechanical vibration and shock) will continue developing European Standards in cooperation with its counterparts at the international level (ISO/TC 108 and, for the vibration emission of pneumatic tools and machines, ISO/TC 118). This work includes a series of European Standards on laboratory tests for the evaluation of the vibration of vehicle seats. The series of European Standards on test methods for the evaluation of the vibration emission of hand-held portable power tools will be improved.

For the first time a new amendment of the standard for angle and vertical grinders will provide the requirements for a tool which could be inserted in a grinder (cupped wire brushes) to address vibration caused by imbalances. In addition, TC 231 will revise its Technical Report which enables employers to use existing information provided by a manufacturer in a technical description for a risk analysis of the exposure of workers, without the need to carry out additional measurements. TC 231 also intends to develop guidance on databases for human vibration with the aim of providing a common structure and conditions for taking measurements and for the maintenance of these kinds of databases.



OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Personal Protective Equipment - In 2017, several CEN TCs and one CLC TC will continue to develop standards for personal protective equipment, the vast majority of which are harmonized with requirements provided by EU legislation for PPE. In addition, the TCs will be adapting existing harmonized standards to the new PPE Regulation (EU) 2016/425 which will become applicable on 21 April 2018.

Explosive Atmospheres (ATEX) - In 2017, in cooperation with its IEC counterpart, CLC/TC 31 will continue reviewing and revising its series of European Standards on potentially explosive atmospheres.

Acoustics - In cooperation with ISO, CEN/TC 211 (Acoustics) expects to finalize the revision of two parts of the joint ISO-CEN standard on hearing protectors, specifically those dealing with subjective methods for the measurement of sound attenuation and the estimation of effective A-weighted sound pressure levels when hearing protectors are worn. This work is being driven by occupational health and safety agencies, manufacturers of relevant devices, research institutes and the industry, all of which are expected to make use of these standards, once they have been adopted as harmonized European Standards.



© SpeedKingz



Healthcare & Well-being

CEN and CENELEC develop European Standards (ENs) which set quality, performance and safety requirements for a wide variety of medical devices and associated products, from dental instruments through antiseptics to wheelchairs and including health informatics. Standardization in this sector is of paramount importance as it ensures a high level of safety for both patients and users of medical devices, and it guarantees that a device used in one country can also be used in any other country with the same results.

In addition, CEN/TC 392 (Cosmetics and cosmetic products) is specifically dedicated to establishing methods of detecting and identifying different substances present in cosmetics, as well as methods of determining sunscreen protection and analytical methods in support of microbiological safety. Its standards help the cosmetics industry and the consumer products authorities to avoid generating conflicting results when using different methods.

A large proportion of the standards in this sector are drafted at the request of the European Commission in response to mandates, but CEN and CENELEC also develop standards which have been initiated mainly by industry and which may contain requirements based on the latest technology. Use of such voluntary standards gives manufacturers confidence that their products meet the highest safety and quality standards in Europe.

In addition to the contribution of national experts, CEN and CENELEC's medical standardization work is made possible thanks to the active involvement of industry partners such as Eucomed and EDMA, which play a major role in shaping many medical standards.

As far as possible, CEN and CENELEC align their work with that of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). Whenever possible, international and European standards are drawn up jointly, leading to the publication of European and international standards which are

Technical bodies responsible:

17 CEN Technical Committees (55, 102, 140, 170, 204, 205, 206, 215, 216, 239, 251, 285, 293, 316, 347, 362, 392)

CLC/TC 62 – Electrical equipment in medical practice

CEN-CLC/TC 3 – Quality management and corresponding general aspects of medical devices

CEN-CLC/JWG AIMD – Active implantable medical devices

Standards published by CEN & CENELEC:

818 European Standards (EN/HD)

51 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/023 and M/295 – Medical devices and active implantable medical devices

M/252 – In vitro diagnostic medical devices

M/375 – Cosmetic products (manufacturing)

M/389 – Cosmetics (sunscreen products)

M/426 – Cosmetic products (microbiological analysis)

M/467 – Medical beds

Anticipated standardization requests in 2017:

M/XXX - Medical devices

M/XXX - In vitro diagnostic medical devices

Elements of EU Work Programme 2017:

2. Strategic priorities for European Standardisation

2.1 ICT Standardisation

Further information:

www.cencenelec.eu/standards/Sectors/healthcare

www.cenelec.eu/aboutcenelec/whatwedo/technologysectors/medicalequipment.html

harmonized at the global level. In CEN, about 50 % of the portfolio is aligned with ISO while in CENELEC about 80 % is aligned with the IEC.

The CEN-CENELEC Advisory Board for Healthcare Standards (ABHS) advises CEN and CENELEC on possible new standardization areas in the medical field. It also solves specific issues, coordinates technical work and attracts stakeholders to the standardization community.



Transition to the new Medical Devices Regulations

EC mandates in the medical field ask CEN and CENELEC to develop European Standards that provide manufacturers with a means of demonstrating presumption of conformity with the requirements of the Medical Devices Directive (93/42/EEC), the Active Implantable Medical Devices Directive (90/385/EEC) and the In Vitro Diagnostic Medical Devices Directive (98/79/EC).

In 2017, these three Medical Devices Directives will be replaced by two Medical Devices Regulations, with a transition period until the full and exclusive applicability of the Regulations. CEN and CENELEC will therefore have to adapt approximately 300 harmonized European Standards which currently support the three existing Directives to the new legislative texts.

In 2017, CEN and CENELEC will review how best to achieve this task by the end of the regulatory transition period. They will also support the European Commission in the drawing up of a standardization request for the necessary standardization activities.

Eyes and vision

Mirroring ISO/TC 172/SC 7, CEN/TC 170 (Ophthalmic optics) ensures that Europe benefits from globally harmonized terminology, requirements and test methods for spectacle lenses, frames, contact lenses, ophthalmic implants, ophthalmic instruments and equipment and procedures for visual acuity testing. TC 170 feeds the European viewpoint into international standardization activities.

The market for ophthalmic products is now global. As these products deal with very sensitive and minute parts of the human body, they have to meet strict and precise requirements in order to ensure their efficiency while safeguarding the safety of the patient. In Europe, manufacturers must comply with the requirements of the Medical Devices Directive, which they can demonstrate by compliance with the harmonized standards developed by TC 170. The technical development of these standards is mainly carried out by ophthalmic products manufacturers and by opticians, optometrists and ophthalmologists.

In 2017, TC 170 will contribute to the revision of three parts of ISO's standard on intraocular lenses, specifically the fundamental requirements applicable to all types of intraocular lenses, clinical investigations and phakic intraocular lenses. The revised documents will be adopted by CEN as European Standards in support of the Medical Devices Directive.

TC 170 will also contribute to the development of a joint international/European standard for contact lenses, which is being produced under the leadership of ISO/TC 170/SC 7. Initiated by the industry, the standard will cover the quality, properties and efficacy of contact lenses, and be defined in four parts: the vocabulary, classification system and recommendations for labelling specifications; tolerances; measurement methods; and the physicochemical properties of contact lens materials.

TC 170 is contributing to the revision of the joint international/European Standard which describes a method for determining the physical compatibility of contact lens care products with contact lenses.



Patient Summaries

In 2015, the Joint Initiative Council on Global Health Informatics Standardization (JIC) launched a global standardization activity resulting in a set of implementable international standards for the exchange of an International Patient Summary. In Europe, that activity will be mirrored in the form of a specific project, funded by the EC that will be managed and monitored by CEN/TC 251 (Health informatics). It aims to support the participation of European players in international activities, and subsequently to develop a European Standard on Patient Summaries on the basis of the international output. TC 251 also expects to produce a corresponding CEN Technical Specification to describe how the European Standard should be used in the European context. This work is expected to continue throughout 2017 and beyond.

Medical beds

Following several fatal accidents in Europe where children and adults with an atypical anatomy were trapped between the mattress of their bed and its bars, the European Commission issued M/467 to CEN and CENELEC with a request to elaborate a European Standard to prevent future accidents of this sort.

In 2017, CENELEC expects to publish a European Standard on the particular requirements for the basic safety and essential performance of medical beds for children. The standard is being developed by CLC/TC 62 (Electrical equipment in medical practice) in close collaboration with CEN/TC 293 (Assistive products for persons with disability).

While a European Standard already exists for medical beds for adults, no such harmonized standard has ever been developed for children or for adults with an atypical anatomy. This standard therefore represents a breakthrough for the safety of medical beds in hospitals and at home.

Once published, the standard is expected to be used by manufacturers to demonstrate conformance with the Medical Devices Directive.





OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Cosmetics - In 2017, TC 392 expects to finalize and publish a new European Standard on the high performance liquid chromatography/ultraviolet (HPLC/UV) method for the identification and assay of hydroquinone. Other planned publications include revised European Standards on the microbiological safety of cosmetics, focusing on the enumeration of yeast and mould, general instructions for microbiological examination, and the detection of specified and non-specified microorganisms. In addition, publication of a new European Standard providing guidelines for the risk assessment and identification of microbiological low-risk products is expected late in 2017.

Medical equipment (including surgical implants) - In support of the Medical Devices Directive, CEN/TC 205 (Non-active medical devices) will begin revising its EN on the requirements and test methods for medical face masks.

CEN/TC 239 (Rescue systems) will develop two amendments to its two-part EN which outlines the requirements for medical devices used in air ambulances (rescue helicopters) .

CEN/TC 206 (Biological and clinical evaluation of medical devices) will participate in the ISO revision of its standard on good clinical practice for the clinical investigation of medical devices for human subjects. CEN will then adopt the resulting international standard as a European Standard, in support of the Medical Devices and the Active Implantable Medical Devices Directives.



CLC/TC 62 (Electrical equipment in medical practice) will contribute to the IEC's revision of its standard on the life cycle requirements for the development and maintenance of medical device software when software is itself a medical device or when software is an embedded or integral part of the final medical device. CENELEC will adopt the finished standard as a European Standard in support of the three Medical Devices Directives.



Heating, Cooling & Ventilation



Technical bodies responsible:

23 CEN Technical Committees (44, 46, 47, 48, 49, 57, 58, 62, 106, 109, 113, 130, 131, 156, 180, 181, 182, 195, 228, 238, 243, 295, 299)
CEN-CLC/JWG FCGA (Fuel cell gas appliances)
2 CEN SS (H07 & H99)

Standards published by CEN & CENELEC:

415 European Standards (EN/HD)
9 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/105 – Chimneys, flues and specific products
M/109 – Fire alarm/detection, etc.
M/129 – Space heating appliances
M/480 – Energy performance of buildings
M/495 – Ecodesign
M/535 – Ecodesign of space heaters

Further information:

www.cen.eu/work/areas/construction/hvac

The 'Heating, cooling, ventilation and air conditioning' sector includes applications ranging from appliances burning gas or oil and solid fuels through refrigeration, heat pumps and heat exchangers for ventilation. It also covers complete systems such as cleanrooms.

Energy Performance of Buildings

CEN/TC 156 (Ventilation for buildings) and CEN/TC 228 (Heating systems in buildings) will complete a batch of new European Standards and Technical Reports to support the Directive on the Energy Performance of Buildings.

Household Appliances



Technical bodies responsible:

CLC/TC 61 (Safety of household and similar electrical appliances)

Standards published by CEN & CENELEC:

343 European Standards (EN/HD)
1 other deliverable (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/396 – Machinery Directive
M/511 – Low Voltage Directive
M/536 – Radio Equipment Directive
[Anticipated] – Electromagnetic
Compatibility Directive

Further information:

www.cenelec.eu/go/household

Household appliances are one of the most obvious areas where the application of standards is perceptible in daily life. From the kitchen toaster to the tumble drier, European Standards developed for these products ensure a high level of safety and take into account the diversity of users (the young, elderly people or those with disabilities etc.).

The standardization of household appliances ensures that consumers can use appliances without being exposed to harmful risks. European standardization activities in this field are dealt with by CLC/TC 61, which develops standards for a broad range of products covering safety requirements for electrical appliances intended primarily for household use, as well as for commercial purposes, such as appliances used in professional kitchens.

The internationalization of standards is crucial for manufacturers as it enables products to be sold around the world. CLC/TC 61 therefore follows the work of its international counterpart, IEC/TC 61, so that European Standards are aligned with international ones as much as possible.



© MIA Studio

Safety of household appliances

The multi-part European Standard on the safety of household and similar electrical appliances (EN 60335 series) is continuously improved in line with technological developments. For example, CLC/TC 61 is considering the effect of advances in LEDs in relation to toys, as well as the development of new products using radio frequencies, and in 2017 will work with IEC/TC 61 to revise the series.

CLC/TC 61 experts are also working to align CENELEC standards with the health and safety requirements and objectives of European Directives such as the Low Voltage (2014/35/EU), Machinery (2006/42/EC), Electromagnetic Compatibility (2014/30/EU) and Radio Equipment (2014/53/EU) Directives.



Machinery

CEN and CENELEC have about 50 technical bodies working in the machinery sector and a further 29 developing standards for pressure equipment. These committees are mainly composed of industry representatives (manufacturers), together with notified bodies, national health and safety institutes and market surveillance organizations from interested Member States.

A considerable proportion of the standards produced are harmonized standards that give presumption of conformity to the EU Directives on Machinery (2006/42/EC), Lifts (2014/33/EU), Pressure Equipment (2014/68/EU) and Simple Pressure Vessels (2009/105/EC).

Many CEN and CENELEC standards for machinery and pressure equipment are identical to international standards, which is particularly important since machine markets tend to be wider than national or European markets, even for 'niche' sectors.

The Safety of Machinery Sector (SMS) Network works as a sector forum, facilitating the exchange of information between different stakeholders, coordinating and identifying standardization needs. Within the SMS-network, the Safety of Machinery Advisory Nucleus, which comprises a balanced representation from the community of sector partners, considers issues relevant for standardization in the field of machinery safety.

CEN/TCs for Machinery:

72 CEN Technical Committees (10, 12, 23, 47, 54, 57, 58, 69, 70, 74, 79, 98, 114, 121, 123, 131, 132, 133, 138, 142, 143, 144, 145, 146, 147, 149, 150, 151, 152, 153, 155, 168, 182, 183, 185, 186, 188, 190, 192, 194, 196, 197, 198, 202, 210, 214, 232, 234, 235, 237, 240, 255, 267, 268, 269, 270, 271, 286, 310, 313, 322, 326, 334, 337, 342, 354, 397, 399, 406, 422, 429, 438)

4 CEN Sub-Sectors (H10, I09, I17)

4 CENELEC Technical Committees (16, 18X, 44X, 116)

European Committee for Iron and Steel Standardization (ECISS) Technical Committees (100, 107, 110, 111)

Standards published by CEN & CENELEC:

1678 European Standards (EN/HD)

67 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/071 – Pressure equipment

M/396 – Machinery

M/435 – Inspection of pesticide application equipment in use

M/471 – Machinery for pesticide application

M/549 – Lifts

Further information:

www.cencenelec.eu/go/machinery

www.cen.eu/go/pressure



© Dmitry Kalinovsky

Machinery



Safety of machinery

CEN/TC 114 (Safety of machinery) produces standards and other documents on general principles for the safety of machinery, including terminology and methodology. Nearly 100% of the standards published by TC 114 related to the safety of machinery are developed in cooperation with ISO/TC 199. Most of them support the Machinery Directive.

In 2017, TC 114 will continue its work on the transposition of the ISO Technical Report (TR) 22100-1 'Safety of machinery – Relationship with ISO 12100 – Part 1: How ISO 12100 relates to type-B and type-C standards' into a CEN TR. This TR provides for the first time a transparent guideline on how to choose the appropriate standard(s) and to apply it/them correctly in order to achieve a level of tolerable risk by adequate risk reduction for given machinery.

TC 114 will also begin a revision of the EN/ISO on safety requirements and guidance for the design and integration of the safety-related parts of control systems, including the design of software to improve practicability.

The committee will begin a new project on the general drafting principles for an instruction handbook to be developed in parallel with ISO. The proposed standard is intended to deal with safety-related content and the corresponding structure and presentation of instructions for use, taking into account the whole lifecycle of the machine.

In addition, TC 114 will continue to work on the development of joint European/ISO standards on the functional aspects and design principles for two-hand control devices and on the prevention of unexpected start-up

Electric motor-operated tools

CLC/TC 116 (Safety of motor-operated electric tools) collaborates with its international counterpart, IEC/TC 116, in order to share knowledge, avoid the unnecessary duplication of work and promote the technical alignment of European and international standards wherever possible. In particular, CENELEC aims to ensure that European Standards for motor-operated electric tools take into account the requirements of the Machinery Directive in terms of safety, as well as vibration and noise aspects.

In 2017, TC 116 will continue to work on the development of a series of European Standards for the safety of various electric motor-operated hand-held tools, transportable tools and lawn and garden machinery. These will replace a number of existing standards. Advances in battery technology and the increasing use of electronic circuits will have significant impact on this work and could result in the development of additional new standards, in particular for garden machinery.

Dust emissions from electric motor-operated tools may present a significant health hazard, both to the operator of the tool and other people in the vicinity. TC 116 will therefore finalize several new European Standards on procedures for how to measure the dust concentration produced by an electric motor-operated tool. The results of dust measurements according to these standards will be used, for example, for a declaration of the dust emission, for comparing the dust emission from tools of the same type and in a preliminary assessment of dust exposure at a workplace.



Agricultural machinery

CEN/TC 144 (Tractors and machinery for agriculture and forestry) is working on 40 standards. More than 50% of these are developed in parallel with ISO. The vast majority of TC 144's standards address the safety requirements arising from the Machinery Directive.

In 2017, TC 144 expects to finalize a revised version of the European Standard (EN) on rough-terrain work platforms for operations in orchards. These platforms are designed to work on unimproved natural or disturbed terrain and are intended to move at least two people into working positions in an orchard for fruit picking, thinning out or pruning. The standard will specify safety requirements and measures for all types and sizes of such platforms and will provide clear and uniform requirements to help authorities wishing to check this type of equipment.

CEN also expects to publish a revised version of its EN on the protection of operators (drivers) against hazardous substances. The two parts of the standard address cab classification and filters respectively.

Other revisions to be completed include the EN on trailers, which will enhance safety levels and reduce the risk of accidents.

TC 144 is also revising the EN/ISO standard on equipment for crop protection, specifically knapsack sprayers. This standard consists of two parts, specifying the safety and environmental requirements and their means of verification for the design and construction as well as test methods.

Lifts

CEN/TC 10 (Lifts, escalators and moving walks) is responsible for more than 40 standards and documents. Its work programme includes about 30 harmonized European Standards for lifts and escalators in support of the new Lifts Directive and the Machinery Directive. Given the wide usage of these ENs outside Europe, TC 10 utilizes cooperation agreements between CEN and other national or regional organizations in order to involve non-European stakeholders and experts in the development of its standards. As a result, the standards are used as the basis for national standards in many countries around the world and contribute significantly to the worldwide harmonization of technical and safety requirements for lifts and escalators.

In 2017, TC 10 will continue to revise its European Standards on safety rules for the construction and installation of lifts, including standards for new passenger lifts in existing buildings, remote alarms, vertical lifting platforms, fire resistance, and accessibility for people with disabilities. The main safety standard for escalators is also under revision; the work is expected to be completed in 2017.



OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Machinery for use with foodstuffs and feed - CEN/TC 153 (Machinery intended for use with foodstuffs and feed) develops European Standards that help ensure high levels of safety and hygiene in the food processing sector. Most of these standards are harmonized standards in support of the Machinery Directive.

In 2017, TC 153 will finalize four new European Standards setting out safety and hygiene requirements for various types of artisan ice-cream machinery. It will complete a revision of three pasta machinery standards and one standard on slicing machines. The TC will also begin revising or amending several other standards, setting out safety and hygiene requirements for bakery equipment and meat processing machinery. A revision of the EN on bulk milk coolers will extend its scope to cover energy consumption and continuous milking systems, thus addressing sustainability aspects while at the same time including new technological developments.

Construction equipment and building material machines - In 2017, CEN/TC 151 (Construction equipment and building material machines – Safety) expects to complete a revision of its 13-part EN on earth-moving machinery. The committee is also amending all seven parts of its EN on drilling and foundation equipment to reflect the latest technical developments. A new two-part EN on electromagnetic compatibility (EMC) is expected to be completed by mid-2017. Developed jointly with ISO, this standard will cover general requirements under typical EMC environmental conditions and additional EMC requirements for the user to ensure functional safety.

Pressure Equipment - CEN continues to maintain more than 200 harmonized European Standards on pressure equipment which support the implementation of the new EU Pressure Equipment Directive.

In 2017, CEN/TC 54 (Unfired pressure vessels) will revise its European Standards for unfired pressure vessels and for simple unfired pressure vessels designed to contain air or nitrogen.

CEN/TC 267 (Industrial piping and pipelines) will develop standards for metallic industrial piping, while CEN/TC 269 (Shell and water-tube boilers) will work on standards for shell boilers. Additional work will be undertaken by various Technical Committees on standards for flanges, pressure testing and creep.

Offshore machinery - CEN/TC 12 (Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries) will continue its partnership with ISO/TC 67 for the development and maintenance of standards for offshore machinery. In 2017, the first standards related to Arctic operations are scheduled for publication. These will help ensure that operations in the Arctic are safe for both humans and the environment, supporting the EU Arctic policy that focuses on international cooperation and sustainable development. The revision of several standards on offshore structures will be finalized in 2017, incorporating new developments related to offshore oil and gas production. Adherence to these standards is considered key for a 'licence to operate'.

Industrial trucks - CEN/TC 150 (Industrial trucks – safety) is developing a multi-part standard on rough-terrain trucks, addressing in particular variable-reach trucks (i.e. trucks which are designed to transport, lift and place loads, which may also be equipped with a variety of attachments (such as bale spikes) and interchangeable equipment (such as mowers, sweepers)). Additional requirements for attachments fitted to the appropriate section (carriage) on the telescopic boom will also be covered.

Additive manufacturing - CEN/TC 438 (Additive manufacturing) will finalize joint EN/ISO standards on terminology and additive manufacturing file format (AMF) Version 1.2.

Packaging machines - In 2017, CEN/TC 146 (Packaging machines – safety) is revising its multi-part EN on the safety of packaging machines in support of the Machinery Directive to ensure clearer and common understanding of specified requirements as well as better comparison and evaluation of related test results.



Materials (Mining & Metals)



Technical bodies responsible:

15 CEN Technical Committees (67, 132, 133, 137, 138, 172, 184, 195, 209, 230, 248, 249, 289, 306, 352)

European Committee for Iron and Steel Standardization (ECISS)

CENELEC Workshop – Specifications for Graphene Related Material (WS SGRM)

Standards published by CEN & CENELEC:

624 European Standards (EN/HD)

24 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/102 – Membranes

M/112 – Structural timber products and ancillaries

M/115 – Reinforcing steel

M/119 – Floorings

M/120 – Structural metallic products

M/121 – Wall and ceiling finishes

M/127 – Adhesives

M/131 – Pipes, tanks not in contact with drinking water

M/461 – Nanotechnologies and nanomaterials

Further information:

<http://www.cen.eu/work/areas/nanotech>

<http://www.cen.eu/work/areas/materials>

CEN develops standards for a wide range of materials from metallic alloys to textile products. Some of these are harmonized standards that support the implementation of the EU's Construction Products Regulation (CPR). CEN also develops standards in relation to nanotechnologies and nanomaterials, an area of growing importance that has been identified as a Key Enabling Technology by the European Commission.



Nanotechnologies and Nanomaterials

The EC has asked CEN to develop activities in the area of nanotechnologies by issuing a Mandate (M/461). M/461 covers the methodologies for nanomaterial characterization, the sampling and measurement of exposure to nanomaterials, methods to simulate exposures to nanomaterials, and health, safety and the environment.

Throughout 2017, CEN will continue to address M/461, developing a series of deliverables including nine European Standards and seven Technical Specifications. All these standards are expected to be finalized by the end of 2018. The work is coordinated by CEN/TC 352 (Nanotechnologies) but several other Technical Committees, both within CEN and at the international level (ISO and IEC) are directly involved in related standardization activities.

TC 352 is developing Technical Specifications related to various aspects of nanotechnologies, nanomaterials and manufactured nano-objects.

CEN/TC 137 (Assessment of workplace exposure to chemical and biological agents) is developing a number of standards dealing with issues related to workplace exposure, including ultrafine aerosols and nano-aerosols, the inhalation of nano-objects, the dustiness of bulk nanomaterials, and dermal exposure to manufactured nanoparticles.

CEN/TC 195 (Air filters for general air cleaning) is developing standardized test methods to measure the efficiency of air filtration media against spherical nanomaterials.

Graphene

The Workshop Agreements deriving from the work of CENELEC WS SGRM are expected to be published early 2017.

This Workshop, which involves more than 160 partners, is preparing a series of deliverables addressing key control characteristics and material specifications for graphene related materials. It will also disseminate research results within the 'Graphene Flagship' – the EU's largest ever research initiative, which brings together academic and industrial researchers and covers the entire value chain, from materials production to components and system integration.

The Workshop is developing the preliminary standards required to support scientific research programmes in the EU graphene projects and facilitating the dissemination of their results into the production of graphene related products on an industrial scale.

The Workshop also seeks to align the activities of the Graphene Flagship Standardization Committee (GFSC) with international standardization by liaising with IEC/TC 113.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Steel - The first draft of a new standard for a small punch test method for metallic materials is expected to be ready in 2017. This standard is being developed by ECISS/TC 101, with

the participation of the EC's Joint Research Centre. It is thus a successful example of how research and innovation can be integrated into standardization.



Smart Technologies

Smart technologies are transforming our everyday life, our way of learning, living and doing business, and the term 'smart' is now applied to various and different technological areas (for example, smart grids, smart meters, smart buildings, smart homes etc.). 'Smartness' implies a holistic approach, including good governance and adequate organization, processes and behaviours, and an appropriate innovative use of techniques, technologies and natural resources. Energy efficiency, energy savings and low-carbon technologies are therefore at the heart of the EU's Europe 2020 Strategy for smart, sustainable and inclusive growth as well as the EU Climate and Energy Framework 2030.

Standards provide a basis for the integration of technologies into complex, innovative systems and solutions, and assist in ensuring interoperability. Standardization is therefore a key instrument for smart, connected technologies, the consolidation of the Digital Single Market and for strengthening the competitiveness of European companies.

In the future, the challenge will be the harmonization of standards (such as those for data models from both the utility industry and the telecommunications industry) or the development of interfaces to other domains (grid-building).

CEN and CENELEC are developing activities in a number of 'smart' fields including smart metering and smart grids, smart cities, the Internet of Things (IoT), smart appliances, smart homes and Intelligent Transport Systems (ITS).

Technical bodies responsible:

8 CEN Technical Committees (92, 171, 176, 234, 237, 278, 294, 318)

CEN/WS DPP – Data Protection and Privacy
8 CENELEC Technical Committees (8X, 13, SR57, 59X, 205, 205A, 210, 215)

CEN-CLC-ETSI SEG-CG – Smart Energy Grid Coordination Group

CEN-CLC-ETSI SM-CG – Smart Metering Coordination Group

CEN-CLC-ETSI SSCC-CG – Smart and Sustainable Cities and Communities Coordination Group

CEN-CLC-ETSI ITSCG – Intelligent Transport Systems ' Coordination Group

Standards published by CEN & CENELEC:

417 European Standards (EN/HD)

95 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/338 – Electronic Fee Collection

M/453 – Co-operative systems for Intelligent Transport

M/546 – Intelligent Transport Systems in urban areas

Elements of EU Work Programme 2017:

2.1. ICT Standardisation

2.3 Strategic priority fields for standardisation requests to the ESOs in 2017

CEN and CENELEC are contributing to the annual EU Rolling Plan for ICT Standardisation of the European Multi Stakeholder Platform on ICT Standardisation (MSP).

Further information:

www.cen.eu/work/areas/transport/ITS

www.cencenelec.eu/standards/Sectors/SustainableEnergy/SmartMeters

www.cencenelec.eu/standards/Sectors/SustainableEnergy/SmartGrids

www.cencenelec.eu/standards/Sectors/SmartLiving/smartcities



Intelligent Transport Systems

Intelligent Transport Systems can contribute to a cleaner, safer and more efficient transport system. They use Information and Communications Technologies (ICT) in order to control traffic flow, collect road tolls, provide timely traffic and safety information, notify accidents and give priority to emergency vehicles.

The European Commission has laid down a legal framework in order to accelerate the deployment of ITS across Europe (Directive 2010/40/EU) and has requested the European Standardization Organizations to develop and adopt European Standards in support of this framework (M/453), to ensure interoperability across countries. Standards developed by CEN/TC 278 (ITS) in support of M/453 cover a variety of aspects including cooperative systems, travel and traffic information, route guidance and navigation, public transport and emergency vehicles. Standards for electronic fee collection are developed in response to M/338.

In 2017, CEN will update its existing standards on eCall, the in-vehicle emergency call service, and will develop a Technical Specification to include heavy goods vehicles. Other work will include revision of the European/ISO standard on electronic fee collection.

In addition, in response to M/546, CEN and CENELEC will address location referencing harmonization, the status of mixed vendor environments traffic management systems, fault and quality standards, emissions management in urban areas and traffic management data models and infrastructure.

General Strategy Towards Digitalization

In 2017, CEN and CENELEC will engage with stakeholders in traditional sectors of the economy, including those which were not previously significant IT users, to analyse their needs linked with the digitization of their activities in diverse domains such as the IoT, Cloud computing, Big Data, cybersecurity and privacy.





Smart grids

A Smart Grid is an electricity network that uses ICT to integrate the behaviours and actions of all users connected to it (generators and/or consumers) in a cost-efficient manner in order to deliver sustainable, economic and secure electricity supplies efficiently. When coupled with smart metering systems, smart grids provide consumers and suppliers with information on real-time consumption. With smart meters, consumers can adapt – in time and volume – their energy usage to different energy prices throughout the day, saving money on their energy bills by consuming more energy in lower price periods.

In 2017, the Smart Energy Grids Coordination Group will advise on European requirements relating to smart energy grid standardization, identify and prioritize gaps that could prevent the deployment of smart grids in Europe, address cybersecurity, data protection and privacy aspects and continue to ensure interoperability within smart metering and smart grids systems (as well as smart appliances, smart home systems, buildings etc.).

The group will also promote the wider implementation of smart grids standards by the industry and liaise with other international standardization organizations (particularly the IEC) to achieve consistency between European and international standards, to avoid the duplication of work and to ensure that a consolidated European view is taken into account within the IEC.

Smart Metering

In 2017, the Smart Metering Coordination Group will advise on European requirements relating to smart metering standardization, continue to monitor, coordinate and provide input to the development of new and the maintenance of existing standards for advanced metering infrastructures and promote further identification of standards supporting the roll-out of smart meters in Europe.

The group will continue its work on Demand Response functionalities with the harmonization of data models developed by different technical committees.

Work on privacy and security requirements related to Smart Metering as a basis for certification is also ongoing.

The group will promote the exchange of experiences in the roll-out of smart meters in Europe, specifically on any interoperability and security issues.

The SM-CG may also provide recommendations on standards or formats to support secure and standard access by consumers to their energy consumption data, while respecting relevant data privacy issues, in the context of new initiatives such as 'My Energy Data'.



OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Smart appliances/Internet of Thing (IoT) –

The Internet of Things is the internetworking of physical devices, vehicles, buildings and other items embedded with electronics, software, sensors, actuators and network connectivity that enables these objects to collect and exchange data.

The IoT encompasses various technologies including Radio Frequency Identification (RFID), Machine-to-Machine (M2M) platforms and wireless sensor networks. Its potential is enormous; the market value of the IoT in the EU alone is expected to exceed one trillion euros in 2020.

Smart appliances are some of the key 'things' which are connected in the IoT. They include familiar products such as fridges and freezers, ovens, vacuum cleaners, TVs, radios, digital media players, home and building sensors, heating, ventilation and air conditioning. Providing such 'domestic or industrial energy using and producing products' with an intelligence enables them to offer a wide range of new functionalities. Their 'smartness' can relate to drivers such as energy efficiency, surveillance and security, automation, assisted living and eHealth.

Smart homes – Today renewable energy is not always available to meet demand. To increase efficiency, the energy request should be aligned with the available energy. Communication between the different stakeholders is necessary to achieve this. In 2017, CLC/TC 205 will therefore develop a standard dedicated to home and building electronic systems and Building Automation and Control Systems (BACS). This standard will specify the general requirements and architecture of a smart grid premises side system.

Smart and sustainable cities and communities –

Today 78% of European citizens live in cities and 85% of the European GDP is generated in cities. By 2050, 85% of the population of Europe is forecast to be living in urban areas. The development of sustainable and smart urban living is thus becoming a key societal challenge.

In 2017, the Smart and Sustainable Cities and Communities Coordination Group will continue to act as a focal point, coordinating the activities of all technical bodies/advisory groups working on smart and sustainable related standards. Following the outcome of the World Smart City forum and the meeting of Standards Developing Organizations (SDOs) in 2016, in which the need for further collaboration among the SDOs was highlighted, the SSCC-CG will consider organizing an event to promote collaboration at the European level. Other work in 2017 will include promotion of stakeholders' involvement (cities, cities associations, service providers, industry) and strengthening the link with the European Innovation Partnership on Smart Cities and Communities (EIP-SCC).



Sports & Leisure

CEN's standardization of sports equipment and bicycles addresses mainly the need for a common terminology, safety requirements, operational requirements, performance requirements, test methods, marking, information for consumers and users, installation and maintenance.

CEN/TC 136 develops standards for a wide range of products and facilities for various sports and recreational activities, including playground equipment for children, while standards for bicycles are developed by CEN/TC 333. Most sports, recreational and playground facilities and equipment come under the scope of the EU Directive on General Product Safety (2001/95/EC), while helmets and other personal protective equipment are covered by the PPE Regulation (EU) 2016/425.

The main players involved in European standardization in this field are manufacturers of sports equipment and bicycles, testing laboratories, consumer representatives and public authorities responsible for market surveillance. CEN cooperates with various European associations representing key stakeholders.

CEN also collaborates with ISO/TC 83 (Sports and other recreational facilities and equipment) and ISO/TC 149 (Cycles), and offers European Standards to be considered for adoption as international standards.

Technical bodies responsible:

CEN/TC 136 – Sports, playground and other recreational facilities and equipment

CEN/TC 333 – Cycles

Standards published by CEN & CENELEC:

132 European Standards (EN/HD)

8 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/372 – Floating leisure products

M/506 – Stationary training equipment

M/507 – Gymnastic equipment

M/508 – Bicycles and luggage carriers

Elements of EU Work Programme 2017:

In 2017, the European Commission may request the development of European Standards in the area of playing field equipment, roller skates and similar equipment. These requests, if issued, would support the implementation of the EU Directive on General Product Safety (2001/95/EC).

Further information:

www.cen.eu/work/areas/consumerproducts





Sports and playground equipment

CEN/TC 136 is collaborating with its international counterpart, ISO/TC 83, to transform a series of ten standards on stationary training equipment into European and international standards. In 2017, CEN is expected to publish five of these standards, namely on strength training benches; stationary exercise bicycles; steppers, stair climbers and climbers; elliptical trainers; and exercise bicycles. This work is being undertaken in response to M/506.

In the field of playground equipment, three revised standards, which set requirements for playground equipment and surfacing for, respectively, swings, slides and rocking equipment, are expected to be published in 2017.

In addition, TC 136 is developing new and revised European Standards for playing field equipment, covering functional and safety requirements and test methods for portable and fixed goalposts and football goalposts. The European Commission is considering the development of a formal request for European standards in this area in support of the implementation of the EU Directive on General Product Safety (2001/95/EC). This would be expected to lead to the introduction of new standardization activities.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Bicycles - In 2017, CEN/TC 333 is expected to finalize a revised European Standard on test methods in relation to trailers. The committee also expects to complete a revised edition of the European Standard for electrically power assisted cycles.





Textiles, Fashion & Accessories

European Standards developed by CEN and CENELEC set out requirements for textiles and various products that are used by people in their daily lives, including clothes, fashion accessories, shoes and leather goods. These standards support the implementation of relevant EU legislation, including the General Product Safety Directive (2001/95/EC) and Regulation (EU) 1007/2011 on textile fibre names and related labelling.

CEN Technical Committees support standardization activities in relation to textiles and textile products (CEN/TC 248), leather (CEN/TC 289) and footwear (CEN/TC 309). Various stakeholders are involved in the TCs' work including fashion and clothing companies, manufacturers and distributors, consumer representatives, testing laboratories, research institutes and market surveillance authorities.

Due to the close cooperation between CEN and ISO, around 80% of all European Standards and other CEN deliverables for the fashion and textiles sector are identical to international standards published by ISO.

Technical bodies responsible:

CEN/TC 248 – Textiles and textile products

CEN/TC 289 – Leather

CEN/TC 309 – Footwear

Standards published by CEN & CENELEC:

707 European Standards (EN/HD)

26 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/497 – Safety of child-care articles: risks in the sleeping environment

M/532 – Methods for quantitative analysis of textile products

Elements of EU Work Programme 2017:

The European Commission intends to address a Standardization Request dealing with garments and ensembles of garments, with integrated smart textiles and non-textile elements, providing for protection against heat and flame to CEN and CENELEC in 2017.

Further information:

<http://www.cen.eu/work/areas/consumerproducts>



© Nejron Photo

Textiles, Fashion & Accessories



Footwear

European standardization related to footwear focuses mainly on the development of test methods, terminology and minimum performance requirements for components for footwear; test methods and terminology for whole shoes; and environmental aspects of footwear. Most of the standards in this area are developed in parallel with ISO, through collaboration between TC 309 and ISO/TC 216.

In 2017, TC 309 will revise its existing standards on test methods for various aspects of shoe manufacture including the longitudinal stiffness of shanks, the bondability of stiffeners and toepuffs, the delamination resistance of insoles and the dimensional stability of outsoles.

Textiles and textile products

TC 248 will revise its standards on methods of quantitative analysis of textile products composed of certain binary and ternary textile fibre mixtures. This work is being carried out in response to a standardization request from the European Commission (M/532) for harmonized standards that will enable producers to comply with the labelling and marking requirements set out in EU Regulation 1007/2011.

In 2017, TC 248 expects to finalize a number of revised European Standards, developed in cooperation with ISO, which set out test methods in relation to textiles and rubber-coated or plastic-coated fabrics. TC 248 will also develop standards in the area of professional care, and the dry-cleaning and wet-cleaning of fabrics and garments, specifically on the assessment of performance after cleaning and finishing, the procedure for testing performance when cleaning and finishing using tetrachloroethene and the procedure for testing performance when cleaning and finishing using a hydrocarbon solvent.

Smart textiles

TC 248's Working Group on Smart Textiles (CEN/TC 248/WG 31) is developing further standards for textiles containing phase change materials (PCM) to complete its series on this topic. The Working Group is also developing two new standards on smart textiles based on smart textile materials, and smart textiles with integrated electronics and ICT.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Leather - TC 289 is responsible for the standardization of terminology, sampling, test methods, requirements and characteristics for any intended end use in the field of raw hides and skins, tanned hides and skins and finished leather. In 2017, the TC expects to finalize and publish a number of revised European Standards containing methods for the testing of different

chemical attributes of leather such as the colorimetric method for determining chromium (VI) and the chromatographic method, as well as standards on 'Ethoxylated alkylphenols - Part 2: Indirect method' and on water-soluble matter, water-soluble inorganic matter and water-soluble organic matter.



Toys & Childcare

CEN and CENELEC aim to ensure that their standards address all possible hazards that products may pose to their youngest users. Standardization plays a significant role in improving the safety of products that are intended for use by or with children, and in the care of children.

CEN and CENELEC develop and adopt European Standards that support child safety under the following categories: toys, nursery products and furniture, child resistant products and protective devices, and playground and sports equipment for children.

A wide range of stakeholders including manufacturers, consumer representatives and testing bodies are actively involved in standardization activities related to child safety. Public authorities responsible for market surveillance also follow this work.

While developing standards in support of child safety, CEN and CENELEC take full account of relevant legislation adopted by the European Union, including the Toy Safety Directive (2009/48/EC) and the General Product Safety Directive (2001/95/EC).



Technical bodies responsible:

CEN/TC 52 – Safety of Toys
CEN/TC 252 – Child use and care articles
CEN/TC 364 – High Chairs
CEN/TC 398 – Child protective products
CLC/TC 61 – Safety of household and similar electrical appliances

Standards published by CEN & CENELEC:

41 European Standards (EN/HD)
13 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/264 – Safety of childcare articles (general)
M/445 – Safety of toys
M/464 – Safety of childcare articles (bath rings, bath aids, bath tubs, etc.)
M/497 – Safety of childcare articles (mattresses, duvets, sleep bags, etc.)
M/527 – Certain seats for children

Elements of EU Work Programme 2017:

The European Commission may request standardization deliverables to address hazards posed to children by small parts in shoes and clothing.

Further information:

<http://www.cen.eu/work/areas/consumerproducts>



Childcare articles

In 2017, CEN is expected to finalize and publish a number of new and revised European Standards in the area of nursery furniture including revised standards on highchairs (developed by CEN/TC 364), table-mounted chairs and chair-mounted seats (developed by CEN/TC 252). Work will continue in CEN/TC 207 (Furniture) with the development of a new standard on seats for children. This work is being carried out in response to M/527.

In addition, CEN/TC 252 will produce two new draft European Standards addressing the drowning hazard posed to children while bathing. These will cover safety requirements and test methods for bathing aids and bath tubs and stands.

In the field of children's textiles, CEN expects to finalize and publish three new European Standards setting safety requirements and test methods for children's sleeping bags, children's cot bumpers and cot duvets. These standards are being developed jointly by CEN/TC 248 (Textiles and textile products) and CEN/TC 252 and the work is being performed in response to M/497 to address risks posed to the youngest children while sleeping.

Toys

The main focus of CEN and CENELEC's work on toy safety remains the development of new and revised European Standards in support of Essential Requirements laid down in the EU Directive on the Safety of Toys (2009/48/EC).

CEN/TC 52 is expected to finalize a number of amendments with regard to the standard on the mechanical and physical properties of toys, addressing such aspects as cords and drawstrings in toys and packaging, projectiles, rotors, propellers and flying toys. In the chemical area, the focus will be on the development of standardized methods to address limit values in Appendix C to the EU Directive on the Safety of Toys (2009/48/EC).

As regards electric toys, CLC/TC 61 is expected to finalize a full revision of the European Standard on the safety of electric toys. This work is being conducted in parallel with IEC's activities in this area.



Transport & Vehicles

Maintaining a safe and efficient transport system is of vital importance for Europe's economy. Many European companies are world leaders in infrastructure, logistics and the manufacturing of transport equipment and traffic management systems.

CEN and CENELEC develop standards for various transport modes (road, rail and maritime), and for horizontal topics such as interoperability, intermodal transport, the transport of dangerous goods and Intelligent Transport Systems (ITS).

Many of the standards developed and adopted by CEN and CENELEC in this sector respond to EC Mandates. Some of these are harmonized standards that support the implementation of relevant European legislation including the EU Directives relating to the interoperability of Europe's rail system (2008/57/EC), cableway installations designed to carry passengers (2000/9/EC), recreational craft and personal watercraft (2013/53/EU – replacing 94/25/EC) and the deployment of alternative fuels infrastructure (2014/94/EU).

A wide range of professional associations support these standardization activities.



Technical bodies responsible:

20 CEN Technical Committees (15, 23, 119, 242, 256, 261, 268, 274, 278, 286, 296, 300, 301, 320, 326, 333, 354, 379, 393, 413)

CLC/TC 9X – Electrical and electronic applications for railways

CEN-CENELEC-ETSI Joint Programming Committee for Railways (previously known as JPC Rail)

CEN BTWG 69 – Small Craft

Standards published by CEN & CENELEC:

1088 European Standards (EN/HD)

69 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/086 – Transport of Dangerous Goods

M/300 – Cableway installations

M/421 – On-board diagnosis and information management

M/468 – Charging of electric vehicles

M/483 – Interoperability of the rail system

M/486 – Urban Rail

M/502 – Seals for Digital Tachograph

M/533 – Alternative Fuels Infrastructure

M/542 – Recreational craft II

Elements of EU Work Programme 2017:

- Directive 2008/57/EC: Close open points of the rail Technical Specifications for interoperability namely in the field of interior passive safety and simplification of the methodology for the calculation of the free passage of the pantograph (mechanical kinematic pantograph gauge) to facilitate the assessment of the acceptance of pantograph; heads in overhead contact lines (revision of EN 50367);
- Directive 2016/424/EU Regulation of the European Parliament and of the Council on cableway installations; Align the European harmonized standards to the provisions of the new Regulation;
- Directive 94/62/EC on Packaging and Packaging Waste (reference to the interinstitutional file: 2013/0371 (COD) Circular economy (Plastic Strategy, Marine litter) and develop a standard for home compostable plastic packaging (definitions of biodegradability and compostability).

Further information:

www.cencenelec.eu/go/transport

www.cen.eu/work/areas/transport



Automotive

Vehicle refuelling stations – In 2017, to support M/533, CEN will revise its European Standards on gas connectors (for liquefied natural gas and compressed natural gas) for vehicle refuelling stations.

Automotive – CEN/TC 301 (Road vehicles) is developing standards in response to various EC mandates including M/502 and M/533. The committee is also developing standards on access to automotive repair and maintenance information (RMI), in response to M/421.

Rail transport – In the railways sector, CEN and CENELEC, together with ETSI, maintain the Sector Forum Rail (previously known as JPC Rail), which brings together representatives from the railway industry (supply industry and networks), relevant European and international organizations (such as UIC, UNIFE, UITP), Technical Committee chairs and project leaders.

Most European Standards relating to the rail transport sector are developed in CEN/TC 256 (Railway applications) and in CLC/TC 9X (Electrical and electronic applications for railways). These TCs collaborate with the European Railway Agency (ERA) in order to ensure that European Standards are compatible with the latest Technical Specifications for Interoperability (TSI).

The main task for 2017 will be the updating of numerous existing standards to take account of the needs of the industry or changes in the TSIs but, in addition, new standards will be finalized including 'Design for Persons with Reduced Mobility use – Equipment and components on board rolling stock', 'Ballastless Track Systems', and 'Creation and modification of maintenance plan'.

Waterborne transport – CEN/SS T01 (Shipbuilding and maritime structures) is collaborating with its international counterpart,

ISO/TC 188 (Small Craft), to review and revise its harmonized standards in line with the requirements of the latest EU Directive on recreational craft and personal watercraft (2013/53/EU).

CEN/TC 15 (Inland navigation vessels) is addressing standardization in the field of shipbuilding for inland waterway vessels and inland waterway navigation. It will amongst other finalize a standard on: 'Plate with instructions for rescue, resuscitation and first aid for drowning persons'.

Cableways – CEN/TC 242 (Safety requirements for passenger transportation by rope) will finalize a standard on 'Prevention and fight against fire'.

Transport of dangerous goods – CEN and CENELEC develop and adopt standards to support the implementation of EU Directives on the inland transportation of dangerous goods (2008/68/EC) and on Transportable Pressure Equipment (2010/35/EU).

These standards are updated regularly to meet the needs of the industry. In 2017, the existing standards on transportable gas cylinders will be revised to take into account hydrogen distribution. The European Standard on the toughness requirements for cryogenic vessels will also be updated.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2017

Vehicle refuelling stations – In 2017, to support M/533, CEN will revise its European Standards on gas connectors (for liquefied natural gas and compressed natural gas) for vehicle refuelling stations.



Wood & Wood-based Products

CEN's work in this area involves developing European Standards to assess the performance of wooden products and elaborating standards for wood preservatives and both treated and untreated wood. CEN also develops terminology, analytical methods, biological tests, classifications and specifications to meet market needs and to support European regulations.



Technical bodies responsible:

CEN/TC 38 – Durability of wood and wood-based products
CEN/TC 112 – Wood-based panels
CEN/TC 124 – Timber structures
CEN/TC 175 – Round and sawn timber

Standards published by CEN & CENELEC:

270 European Standards (EN/HD)
39 other deliverables (TS/TR/CWA)

Standardization requests from EC/EFTA:

M/113 – Wood-based panels
M/112 – Structural timber products and ancillaries
M/119 – Floorings
M/121 – Wall and ceiling finishes

Further information:

www.cen.eu/work/areas/materials

Solid wood panelling and cladding

CEN/TC 175 is amending its European Standard on the characteristics, requirements and marking of solid wood panelling and cladding in line with the new Regulation (No. 305/2011) on harmonized rules for the marketing of construction products. Publication is expected early in 2017.

Outreach Activities

Inclusiveness of the European Standardization System

CEN and CENELEC with their members, the national standardization organizations, invest a great deal of effort in supporting organizations representing SMEs, consumers, workers and environmental interests in European standardization, represented in particular by the Annex III organizations ANEC, ECOS, ETUC and SBS. Their active contribution to the European Standardization System is valuable for the values and benefits that European standards provide to all stakeholders.

The main interaction for all stakeholders to take part in the European standardization system is however through the national standardization organizations, whose national delegates represent the consensus of all stakeholders in their respective countries, also known as the 'national delegation principle'.

Supporting SME participation

For SMEs, who make up the vast majority of European businesses, CEN and CENELEC have put in place a number of products, tools and services to help that part of the business community to benefit fully from standards and standardization.

Together with their national members, and in close cooperation with Small Business Standards (SBS), CEN and CENELEC have developed a range of tools and means to make it easier for SMEs to learn about standardization, to access and apply standards, and to get involved in standardization activities, which include:

- The approval of a set of 58 recommendations¹ for measures to improve SMEs' awareness of standardization, facilitate their access to and use of standards, and increase SMEs' participation in the development of standards.
- The development of an online 'SME Toolbox of Solutions' that can be accessed via the CEN-CENELEC website and that describes the benefits of standards, how to find the right standards, and where to obtain relevant

information. It also invites SMEs to get involved in standardization activities, and outlines the ways in which they can influence the development of standards at national, European and international levels.

- The development of an interactive educational tool to enable entrepreneurs and people who work for small and medium-sized enterprises (SMEs) to learn about standards and standardization in a way that corresponds with their own needs. This 'e-Learning Tool for SMEs' is available in 23 languages, and can be accessed (free of charge) via the CEN-CENELEC website. The tool provides an interactive environment for entrepreneurs, managers and employees to learn about standards and standardization. It also offers users the possibility to test their knowledge and obtain a Certificate of Achievement to show how much they have learned.
- The CEN-CENELEC (European) SME helpdesk as well as 42 national SME Helpdesks are service centers that provide direct support to SMEs.
- CEN-CENELEC Guide 17 'Guidance document for standard writers taking into account SME needs' is one of the reference documents that have been published by CEN and CENELEC to give advice and recommendation on standardization principles and policies and that gives guidance to standards writers. In The Guide was also jointly adopted by ISO and IEC and published as ISO/IEC Guide 17.
- the majority of CEN and CENELEC members provide user-friendly online platforms for public commenting, which can be accessed in the national language of the country concerned. These platforms are designed to make it easy for representatives of SMEs and other stakeholders to access the texts of draft European Standards and submit their comments via the internet.
- Several CEN and CENELEC members provide a "tailor made" alert system to inform SMEs of developments within their field of interest, such as new topics for standardization, standards evolution and forecast, etc.

- brochures, webpages, SME Newsletters, social media (LinkedIn), etc.

In 2017, CEN and CENELEC and the national standardization organizations, in close cooperation with SBS, will continue their support to SMEs to facilitate their participation to standardization at national and European level and promote awareness and take up of the existing tools and measure their implementation and evaluate effectiveness, in particular:

- Promotion of the use of CEN-CENELEC Guide 17 for standards-writers to take into account the needs of SMEs.
- Enhance cooperation with trade associations as intermediates between standardization and SMEs and to engage them in supporting SMEs on standardization.

¹ *These 58 recommendations were developed as part of a study on 'Access for SMEs to Standardization' published in 2009, which was commissioned by CEN and CENELEC and carried out by the Erasmus University in Rotterdam.*

Including Societal Stakeholders

European Standards take into account the needs and concerns of all stakeholders, including consumers, workers and the wider society. These societal stakeholders are represented through dedicated umbrella organizations ANEC (the European Consumer Voice in Standardization), ECOS (the European Environmental Citizens Organization for Standardization), and ETUC (the European Trade Union Confederation). Together with the CEN and CENELEC members, these organizations have set up a Societal Stakeholders Group (SSG), which provides a framework ongoing cooperation and dialogue.

The Societal Stakeholder Toolbox that is available on the CEN CENELEC website provides information to consumer groups, environmental organizations and trade unions on the benefits of getting actively involved in the standards development process and helps them to better understand how they can should participate to standardization.

In 2016, CEN and CENELEC undertook a specific project with ANEC, ECOS and ETUC to help them to participate more effectively in the European Standardization System and to raise understanding of the role of these societal stakeholders in the system.

In 2017, ANEC, ECOS and ETUC will be granted an additional 'right' to submit an Opinion to draft standards submitted to Public Enquiry and Formal Vote or UAP. This 'Right to submit Opinion' complements their already existing right to access and submit Comments on the content of standards under development.

In addition, CEN and CENELEC will undertake measures to raise awareness of the role of societal stakeholder organizations and to promote the inclusiveness of societal stakeholders at international level, in particular for standardization work being developed under the Vienna and Frankfurt Agreements and responding to EC/EFTA requests.

Education about Standardization (EaS)

Europe needs to maintain competitiveness of European businesses at world-class level and prepare current and future CEOs, managers and workers for the changing needs of the emerging markets. A key factor in this is education about standardization, using a wide spectrum of learning approaches including conventional and innovative methods. This is expected to improve the employability of the European workforce, as they understand, to a greater level the significance of using standards and how to participate in the standardization process.

Education has a crucial role to play in preparing students to work with standards as a major tool in their future professional lives. If they have already encountered and learned about standards during their studies, they will be much more quickly able to deal with any situation in which the knowledge of standards and standardization might be needed.

In 2017, CEN and CENELEC will provide training sessions to different sectors at EC/EFTA level to

ensure that policy makers have the appropriate understanding of the effective referencing of standards in European public policy and legislation (e.g. the New Legislative Framework / New Approach model).

Digital Transformation

European industry is transforming through the digitization of processes, systems and supply chains. Non-digital sectors are increasingly employing digital technologies and this means that CEN's and CENELEC's industry stakeholders are looking for support.

Stakeholders expect standardization solutions from recognised and trusted providers that allow them to integrate a range of new technologies in their businesses.

To respond to these expectations, CEN and CENELEC set the first pillars of their joint Digital Standardization Strategy in appointing Dr. Bernhard Thies as CEN – CENELEC Digital Champion and defining first priorities based around the following principles:

- Building on European assets: including leadership in technology areas such as electronics, robotics, lasers and the experience of digitization of our national members and industry partners.
- Deepening engagement with stakeholders to identify digital standardization needs for smart technologies (applications and services such as robotics, additive manufacturing, printed electronics, Building Information Management (BIM), e-Learning, e-Skills) beyond connectivity issues.
- Coordination with relevant organizations including ISO, IEC, ISO/IEC JTC1, oneM2M, Alliance for Internet of Things Innovation (AIOTI).
- Promoting and raising awareness of the role and benefits of standards to support take up of digital technologies in non-digital sectors and other industry engagement actions.

- Addressing transversal topics including cybersecurity and a range of data-related issues including security, ownership, privacy, functional safety, product security, identity of objects and persons.

CEN and CENELEC are currently putting these principles in to action in projects including the joint leadership with ETSI of Action 14 'Standardization to support digitization of industry' of the Joint Initiative on Standardisation and in the joint response with ETSI to the EC Communication on ICT Standardisation Priorities for the Digital Single Market.

Research and Innovation

Standardization is vital to support innovation at the European level. Through standards, research can be deployed onto the market and enable the scale up of innovative products and services.

European standardization plays an important role in achieving the objectives set out by the 'Innovation Union' initiative. This role is further strengthened by the European Commission in linking standardization with Horizon2020, in order to facilitate the exploitation of project results. The 2016/2017 calls for proposals under Horizon2020 encourage the use and contribution to standardization to enable innovation, as follows:

- 19% of Societal Challenges calls for proposals reference standardization,
- 31% of Industrial Leadership calls for proposals reference standardization.

There are many arguments as to why using existing standards or even shaping future standards will benefit researcher and innovation projects:

- Using standards as a knowledge source in the earliest possible stages of research and innovation avoids duplication of work and provides the basis for marketable products and services,
- Validating research findings with the standardization community ensures that innovations to be deployed will be market ready



- Building upon standards ensures compliance with market conditions and increases the transparency for prospective customers,
- Being involved in standardization and shaping future standards helps to translate new findings, including intellectual property rights, into marketable solutions and helps lower future R&D risks and costs.

CEN and CENELEC provide a Research Helpdesk which offers advice and support to all those stakeholders active in preparing and implementing research and innovation projects. The helpdesk is supported by a network of 41 national Research, Development and Innovation Correspondents (RDI-COR).

The joint CEN-CENELEC Working Group on Standardization, Innovation and Research (STAIR) coordinates the CEN and CENELEC activities in support to innovation. These include collaboration with relevant European partners such as EURAMET (European Association of national Metrology Institutes), the EPO (European Patent Office), and the European IPR Helpdesk. Notably in 2017, CEN, CENELEC and ETSI together with SBS will develop a factsheet on IPR and Standards with the European IPR Helpdesk

As part of our efforts to bring the scientific, research and standardization work closer together, CEN and CENELEC also cooperates with the Joint Research Centre of the EC on an annual joint workshop 'Putting Science into Standards'. The annual topic is chosen to be of common interest to both organizations.

Suitable solutions to join research, innovation and standardization activities

- develop a 'Business Innovation Package' to tailor support and information for the research and innovation community in how to address and take up standards,
- engage with the relevant European Technology Platforms to help bridge the gap between research and market access, particularly with EFFRA (European Factories of the Future Research Association) in identifying

synergies between research, innovation and standardization,

- host stakeholder engagement workshops to identify innovations which might need standardization to ensure their full deployment at the European or international level (eg on cybersecurity and rail transport).

Bridge the Gap Project

BRIDGIT 2 (Bridge the Gap Project) which will look at developing tools for the researcher and innovation community to ensure they have the right tailored information from the standardization community – website, material, webinars, videos, apps etc.

International Cooperation

Strengthening and expanding the CEN and CENELEC network of international partners

In 2016, CEN and CENELEC revised their foreign partnership concept, signed two new cooperation agreements, and opened the door for negotiations to new regional and national standardization bodies. 2017 foresees the expansion of the CEN and CENELEC foreign partner network as well as strengthened ties with existing ones while creating more cooperation opportunities for CEN and CENELEC stakeholders and their international partners.

Focus on specific regions and countries

CEN, CENELEC and the South Asian Regional Standards Organization (SARSO) plan to sign a **Memorandum of Understanding (MoU)** in 2017 aiming at enhancing mutual understanding and exchanging views and experiences on the support standardization brings to regional economic integration. With the signature of this MoU, CEN, CENELEC and SARSO will endeavor to promote the use of international practices, regulations and standards. Likewise, they will continue working closely to identify and prevent duplication of work as much as possible.

Following the revision of their Cooperation Agreement in September 2016, **CEN, CENELEC** and **the Standardization Administration of the People's Republic of China (SAC)** have committed to strengthening their cooperation in 2017. Partners will finalize an implementation plan to identify concrete sectors of interest as well as related cooperation activities.

The **Eurasian Economic Commission (EEC)**, the executive body of the Eurasian Economic Union, requested the establishment of an MoU with CEN and CENELEC. EEC voiced interest in the harmonization of interstate standards (GOST) and national standards of EEC Member States with European Standards in areas where no suitable ISO or IEC standard exists. The MoU will also focus on the sharing of information and experiences concerning technical regulations and standardization developments of mutual importance to both partners.

In 2016, CEN and CENELEC began talks with the **Dirección General de Normas (DGN)**, the NSB of Mexico, in order to strengthen our collaboration in 2017. DGN has proposed regular information sharing sessions with CEN and CENELEC on standardization developments in sectors of mutual interest and to collaborate on increased technical harmonization. This growing cooperation will serve to reinforce current negotiations of an EU-Mexico Free Trade Agreement.

New CEN and CENELEC foreign partnership concepts

In 2016, CEN and CENELEC **reassessed their foreign partnership concepts**, offering more flexible, tailored and efficient solutions for NSBs outside their membership who are interested in establishing close working ties with us.

The **Affiliate** status applies to NSBs in countries that are candidates or potential candidates for EU membership and **Companion Standardization Body (CSB)** status for those outside the CEN and/or CENELEC Members or Affiliates status.

CEN and CENELEC's objectives are to create stronger relationships with our partners worldwide, to enhance the competitiveness of

European industries in global markets, and to contribute to the removal of technical barriers to trade.

CEN and CENELEC 2017 partnership objectives are:

- to ensure a smooth transition to the new foreign partnership concepts,
- to promote the adoption of European Standards among Affiliates and CSBs as a complement to harmonization via the adoption of ISO and IEC deliverables thus enabling Affiliates to gradually integrate the European Single Market and also contribute to the removal of technical barriers to trade with the CSBs,
- to facilitate participation in CEN and CENELEC Technical Committees and the sharing of expertise between the CSBs, Affiliates and the CEN and CENELEC Community. The resulting synergies at the expert levels will undoubtedly pave the way for an increased technical alignment,
- to develop IT tools to help Affiliates and CSBs achieve maximum benefits from their status, gain familiarity with the CEN and CENELEC publication databases, and offer us a more accurate and detailed view of the uptake of European Standards worldwide.

We anticipate that these partnership concepts will increase our partners worldwide and, in some cases, build upon existing Agreements. Certain NSBs such as the **Servicio Ecuatoriano de Normalización (INEN)** in Ecuador, DGN and l'Agence des Normes et de la Qualité du Cameroun (ANOR) have already indicated a clear intention to become a CSB.

Using the CEN and CENELEC Intelligence to achieve stakeholder engagement and support their business worldwide

Numerous agreements connect CEN and CENELEC with their regional and national counterparts in all regions of the globe. These agreements:

- help promote the European standardization model,
- support sharing of best practices and cooperation at technical level,
- foster alignment in the framework of ISO and IEC and via the adoption of European Standards.

Likewise, they support the opening of global markets to European industries and SMEs, making collaboration a priority for us in 2017. Nevertheless, the intelligence gathered via these agreements is extremely important for the CEN and CENELEC network. To this end, CEN and CENELEC will:

- create channels for sharing information gathered from our international partners or our European stakeholder projects (data about the dissemination of European Standards, non-European experts participation in CEN and CENELEC Technical Committees, and developments in priority sectors in China and India),
- create social-media communities of interest for easy interaction, exchange of ideas and information on specific topics or regions (seek input from European stakeholders about their priorities and needs towards a country, a region or a specific sector),
- organize dedicated workshops, webinars and meetings on specific topics of interest.

Hot topics



Feedback gathered from the workshop on the new **Gulf Technical Regulation on Low Voltage Equipment and Appliances** will be integrated into CEN and CENELEC's dialogue with the Gulf Standardization Organization (GSO) to assess the impact this regulation will have on European businesses in the Gulf region, and to find solutions for technical barriers that may stem from the implementation of the regulation.



CEN and CENELEC will follow-up on the transposition of the **Toys European Directives** in the Gulf region. Eventually, CEN and CENELEC will seek stakeholders' input and organize a workshop with GSO to address the challenges of its implementation, with a view to maximize alignment and convergence for the benefit of businesses and consumers from both sides.



Following an invitation from the NSB in Kazakhstan to support the organization of an event in the **construction sector**, CEN and CENELEC will contribute and raise awareness on the value of standardization for regulators, businesses and other relevant stakeholders. Likewise, we will promote the added value European Standards bring to the construction sector and encourage their adoption in sectors where no suitable ISO or IEC standard exists.



Since 2014, the African Electrotechnical Standardization Commission (AFSEC) has been an observer in the CEN-CENELEC-ETSI

Smart Energy Grids Coordination Group. In the framework of the Memoranda of Understanding (MoU) between CENELEC and AFSEC, new interactions and activities are foreseen in 2017 in this field, as well as a transfer of know-how and expertise from Europe to Africa.

Promoting the success of the European integration model and supporting third regions quality infrastructure development

Strategy towards Africa

The launch of the African Union negotiations for a Continental Free Trade Area (CFTA) may impact EU-African trade, in particular for European industries and SMEs active in the region or targeting the African market. Considering that the EU is Africa's biggest trading partner and EU-African trade has grown by more than 50%¹ since 2007, the establishment of an African CFTA will create greater market access opportunities both for European and African businesses.

The strong relationships CEN and CENELEC have developed with the African Organization for Standardization (ARSO) and the African Electrotechnical Standardization Commission (AFSEC) offer a competitive edge to Europe in helping Africa shape a standardization strategy to help harmonize the continental market. This strategy will bring together key European and African stakeholders to foster the principles and features of the European standardization and regulatory model as a basis for the development of the African CFTA.

In parallel, we will work closely with ARSO and AFSEC to:

- exchange technical expertise (e.g. electricity, road, rail, and communication),
- promote the European standardization model and the principles of the New Approach and New Legislative Framework,
- promote technical harmonization between Europe and Africa, via the adoption of ISO and IEC standards or through the dissemination of homegrown European Standards for adoption by African standardization bodies.

The CEN and CENELEC strategy towards Africa is reflected under the Action 13 of the Joint Initiative on Standardization (JIS), whose objective is to promote the European regulatory model supported by voluntary standards and its close link to international standardization

in third countries. Already eight JIS sponsors, representing a variety of interests, expressed their interest to join forces with CEN and CENELEC to offer support to the African market integration process.

Strengthening the quality infrastructure of the Western Balkans

Quality infrastructure is a crucial part of **Chapter 1 of the European Union acquis**, focusing on the free movement of goods. EU candidate or potential candidate countries are assessed on their readiness to transpose the related legislation in the framework of their accession negotiations. In this context, CEN leads the **Technical Assistance project Quality Infrastructure in the Western Balkans**. It provides assistance to countries in the region, not only to transpose EU legislations, but also to build up their capacity for industrial implementation, in particular in two sectors: construction products and, electrical and electronic products.

In 2017, the project will continue undertaking reviews of the legislation among project beneficiary countries, carry out workshops and training to support them in better implementing European legislation in the construction and the electro-electrical sectors.

Supporting the needs of the European industries in China and India

CEN, CENELEC, ETSI, EC and EFTA run two visibility projects, namely the Seconded European Standardization Expert in China (**SESEC**) and in India (**SESEI**). These initiatives focus on specific priority areas and encompass a broad range of activities, e.g. gathering market intelligence, promoting the European standardization model and supporting cooperation between Europe and respectively China and India.

In 2017, the SESEC and SESEI experts will focus on better engaging with the European stakeholders having an interest in China and India. Several sector-specific webinars and workshops will be organized, and CEN and CENELEC will additionally try to develop

1- <http://www.africa-eu-partnership.org/en>

platforms supporting direct interactions between European stakeholders and the SESEC and SESEI experts.

Based on the CEN and CENELEC input and guidance, the SESEI expert contributes to the Bureau of Indian Standards Technical Committees on Smart City, Smart Infrastructure sharing the European expertise and approach towards this sector. They will also participate in the India Smart Grid Week (ISGW) on 8 – 10 March, 2017 in New Delhi, India.

The SESEC expert will conduct training sessions for several Chinese standardization organizations and for the national technical committees they manage. These training sessions will serve to promote the principles and features of the European standardization model and its high level of alignment with ISO and IEC. They will thereby contribute to the very concrete implementation of the recently revised Cooperation Agreement between CEN, CENELEC and the Standardization Administration of the People's Republic of China (SAC).

Participation in trade negotiations and Regulatory Dialogues

CEN and CENELEC will continue contributing to regulatory dialogues between the EU and its main trade partners, notably those involving the US, China and Japan.

More details about the CEN and CENELEC International Cooperation activities: www.cencenelec.eu/intcoop/

Members of CEN and CENELEC

For more information about standards and how you can participate in standardization, please contact the National Standards Body or National Electrotechnical Committee in your country.

Austria

AS - Austrian Standards Institute
www.austrian-standards.at

OVE - Österreichischer Verband
für Elektrotechnik
www.ove.at

Belgium

NBN - Bureau de Normalisation /
Bureau voor Normalisatie
www.nbn.be

CEB/BEC - Comité Electrotechnique Belge / Belgisch
Elektrotechnisch Comité
www.ceb-bec.be

Bulgaria

BDS - Българският институт за стандартизация
www.bds-bg.org

Croatia

HZN - Hrvatski zavod za norme
www.hzn.hr

Cyprus

CYS - Κυπριακός Οργανισμός Τυποποίησης
www.cys.org.cy

Czech Republic

ÚNMZ - Úřad pro technickou normalizaci, metrologii a
státní zkušebnictví
www.unmz.cz

Denmark

DS - Dansk Standard
www.ds.dk

Estonia

EVS - Eesti Standardikeskus
www.evs.ee

Finland

SFS - Suomen Standardisoimisliitto SFS ry
www.sfs.fi

SESKO - Suomen Sähköteknillinen
Standardisoimisjärjestö
www.sesko.fi

France

AFNOR - Association française de normalisation
www.afnor.org

Germany

DIN - Deutsches Institut für Normung
www.din.de

DKE - Deutsche Kommission Elektrotechnik Elektronik
Informationstechnik im DIN und VDE
www.dke.de

Greece

ΕΣΥΠ/ΕΛΟΤ - Ελληνικός Οργανισμός Τυποποίησης
www.elot.gr

Hungary

MSZT - Magyar Szabványügyi Testület
www.mszt.hu

Iceland

IST - Staðlaráð Íslands
www.stadlar.is

Ireland

NSAI - National Standards Authority of Ireland
www.nsai.ie

Italy

UNI - Ente Italiano di Normazione
www.uni.com
CEI - Comitato Elettrotecnico Italiano
www.ceiweb.it

Latvia

LVS - Latvijas standarts
www.lvs.lv

Lithuania

LST - Lietuvos standartizacijos departamentas
www.lsd.lt

Luxembourg

ILNAS - Organisme luxembourgeois de normalisation
www.portail-qualite.public.lu

The former Yugoslav Republic of Macedonia

ISRM - Институт за стандардизација на Република Македонија
www.isrm.gov.mk

Malta

MCCAA - Malta Competition and Consumer Affairs Authority
www.mccaa.org.mt

The Netherlands

NEN - Nederlands Normalisatie-instituut
NEC - Nederlands Elektrotechnisch Comité
www.nen.nl

Norway

SN - Standard Norge
www.standard.no

NEK - Norsk Elektroteknisk Komite
www.nek.no

Poland

PKN - Polski Komitet Normalizacyjny
www.pkn.pl

Portugal

IPQ - Instituto Português da Qualidade
www.ipq.pt

Romania

ASRO - Asociația de Standardizare din România
www.asro.ro

Serbia

ISS - Institute of Standardization for Serbia
www.iss.rs

Slovakia

UNMS - Úrad pre normalizáciu, metrológiu a skúšobníctvo
www.unms.sk

Slovenia

SIST - Slovenski inštitut za standardizacijo
www.sist.si

Spain

UNE - Asociación Española de Normalización
www.une.org

Sweden

SIS - Swedish Standards Institute
www.sis.se

SEK - Svensk Elstandard
www.elstandard.se

Switzerland

SNV - Schweizerische Normen-Vereinigung
www.snv.ch

Electrosuisse
www.electrosuisse.ch

Turkey

TSE - Türk Standardları Enstitüsü
www.tse.org.tr

United Kingdom

BSI - British Standards Institution
www.bsigroup.com



CEN (European Committee for Standardization) and **CENELEC** (European Committee for Electrotechnical Standardization) are recognized by the EU and EFTA as European Standardization Organizations responsible for developing standards at European level. These standards set out specifications and procedures in relation to a wide range of materials, processes, products and services.

The members of CEN and CENELEC are the National Standardization Bodies and National Electrotechnical Committees of 34 * European countries. European Standards (ENs) and other standardization deliverables adopted by CEN and CENELEC are accepted and recognized in all of these countries.

European Standards contribute to enhancing safety, improving quality, facilitating cross-border trade and strengthening the European Single Market. They are developed through a process of collaboration among experts nominated by business and industry, research institutes, consumer and environmental organization and other stakeholders.

CEN and CENELEC work to promote the international alignment of standards in the framework of technical cooperation agreements with ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission).

* number of full members in January 2017



CEN – European Committee for Standardization
CENELEC – European Committee for Electrotechnical Standardization
Avenue Marnix 17 - 1000 Brussels - Belgium | info@cencenelec.eu

www.cen.eu | www.cenelec.eu | www.cencenelec.eu

