WORK PROGRAMME 2020

EUROPEAN COMMITTEE FOR ELECTROTECHNICAL STANDARDIZATION

EUROPEAN COMMITTEE FOR STANDARDIZATION

CEN CENELEC

European Standardization
and related activities

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Introduction

In a world where change is the new constant, it is more and more relevant not only to manage the present, but more importantly, to imagine and define the future. This calls for standardization to be forward-looking and creative. For this reason, I am proud to present this 2020 Work Programme, which provides an overview of the main standardization developments and strategic priority areas we are ready to implement in 2020.

Thanks to a strong and committed membership in 34 countries with a diverse and high-level expertise and a wide network of affiliates, partners and stakeholders, CEN and CENELEC will continue to provide the best standardization environment to deliver technical and digital solutions for European industry and society, contributing to European economic growth and global competitiveness.

2020 will be a strategic year in the evolution of the European Standardization System. Timely citation of harmonised standards (hENs) in the Official Journal of the EU will continue being a high priority due to its particular relevance, especially for SMEs and the industry in general: hENs provide legal certainty and reduce administrative burdens, thus increasing trust in the smooth functioning of the Single Market. The constructive dialogue with the European Commission has already helped to progress on the citation process, starting to reduce the existing backlog, and we will invest as much energy as we can to continuously improve this positive trend. CEN and CENELEC are committed to keep working in 2020 with the technical experts contributing to standardization and the European Commission to ensure the timely citation of hENs, for which we have developed common KPIs, with the benefit of clearer workflows and improved transparency, and where we expect the Commission's commitment too.

A new political cycle has started and we have a new European Commission and European Parliament. In 2020, CEN and CENELEC will put into motion an engagement plan with the European institutions and policy makers based on our Declaration "Standards Build Trust". Our objective is to raise awareness on the value of standards for the Single Market and for the implementation of the new European Commission's political priorities, such as the European Green Deal, where we have a comprehensive standardization work, and the future EU Industrial Strategy, where standards must play a pivotal role, as identified by the EU's Annual Work Programme for Standardisation for 2020.

Digitalisation continues being a high priority in the CEN and CENELEC agenda for 2020. In the coming months, we will consolidate efforts on making the Standardization System fit for the digital age. This means not only providing stakeholders with solutions that meet their digital transformation needs, but also the digitalisation of our own system, through the continued implementation of the Strategic Plan for Digital Transformation. The new Strategic Advisory Group on Digital and Information Technology (DITSAG) launched at the end of 2019 has been created specifically to better manage and coordinate all CEN and CENELEC activities in the digital and IT field. In 2020 DITSAG will deliver four ongoing pilot projects on machine interpretable standards and open innovation.

In this respect, we will also take into account the contribution and suggestions from our Industry Advisory Forum, which has also set among its 2020 priorities to work on digitalisation of standardization.

CEN and CENELEC will also continue their work to enhance the competitiveness of the European industry and contribute to the removal of barriers to trade in the global market. The strong collaboration with and within ISO and IEC and the primacy of international standards remain a fundamental aspect of this effort: CEN and CENELEC aim to increase the collaboration with ISO and IEC to strengthen their role as the leading international standardization platforms, in order to ensure a common global playing field. Another aspect of our internationalisation work consists of promoting the European Standardization System abroad. This is the objective, among others, of the two visibility projects 'Seconded European Standardization Expert in China' (SESEC) and 'Seconded European Standardization Expert in India' (SESEI), which we will continue supporting together with ETSI, EFTA and the European Commission, with the aim to facilitate bilateral cooperation on standardization matters with China and India.

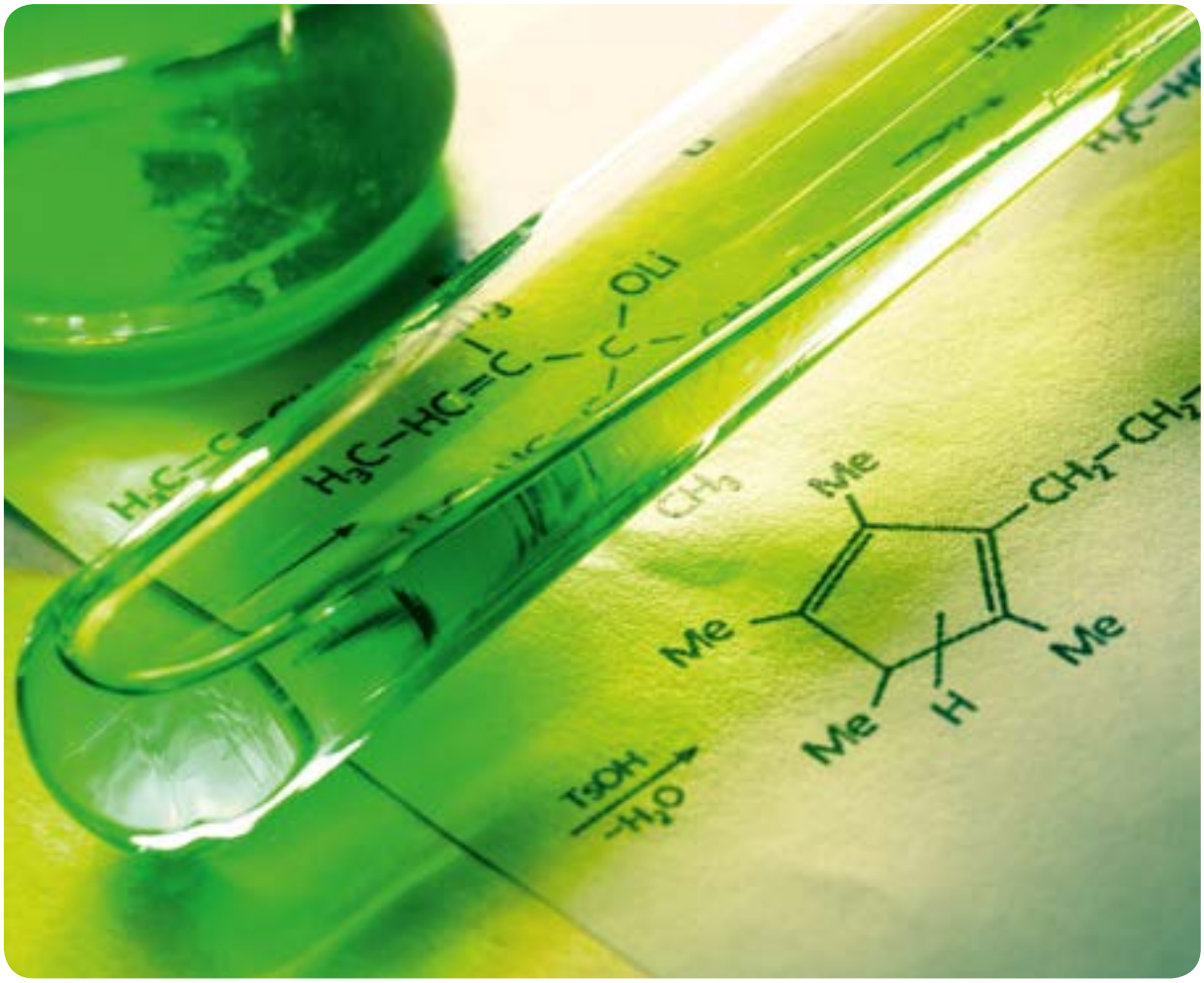
These priorities, along with many others, will feed into the discussion leading up to the new CEN-CENELEC Strategy 2030. With the completion of Ambitions 2020 in sight, the CEN and CENELEC community is now engaged in a collective exercise to determine a path for the long-term strategic development of the European Standardization System, in order to make it fit for the main challenges of the future. The definitive CEN-CENELEC Strategy 2030 will formally be adopted at the CEN-CENELEC General Assemblies in June 2020 in Vienna.

These initiatives clearly show that 2020 will be a fundamental year for the development of European standardization. I am sure that, by working together as a community, we will continue building a successful and effective European Standardization model to the benefit of the Europe's economy and citizens.

I wish you a good reading and a successful 2020!

Elena SANTIAGO CID
Director General of CEN and CENELEC

Chemicals



The chemical industry in Europe is a valuable part of the European economy, which aims at providing unique solutions in the frame of low-carbon and circular economy. Emphasis is also laid on providing innovative materials and solutions. Due to its impact on other sectors and on the health and safety of European citizens, the chemical industry within the EU is highly regulated.

Standardization activities within CEN can support the implementation of European legislation. Some of the legislative acts considered by CEN's activities include the Fertilisers Product Regulation (Regulation EU 2019/1009), REACH (Regulation EU 1272/2008), the directive on Explosives for Civil Use (Directive 2014/28/EU), the Directive for pyrotechnic articles (Directive 2007/23/EC) and the recast Directive 2013/29/EU. Additionally, CEN's work in this area also supports EU policies such as the Action Plan for the Circular Economy (COM (2015) 614) and Key Enabling Technologies, namely Nanotechnologies, in support of the EU's Industrial Policy.

While several projects within CEN are initiated by the industry, the majority of CEN's work in the area of chemicals and chemical products is taken up in response to Standardization Requests from the European Commission. In this context, CEN cooperates actively with industry, research institutes, environmental NGOs and public agencies. Based on the interests of the technical committees involved, projects are also undertaken in cooperation with ISO under the Vienna Agreement.

19 Technical bodies responsible

CEN/TC 139	Paints and varnishes
CEN/TC 193	Adhesives
CEN/TC 223	Soil improvers and growing media
CEN/TC 249	Plastics
CEN/TC 260	Fertilizers and liming materials
CEN/TC 276	Surface active agents
CEN/TC 298	Pigments and extenders
CEN/TC 317	Derivatives from coal pyrolysis
CEN/TC 321	Explosives for civil uses
CEN/TC 347	Methods for analysis of allergens
CEN/TC 352	Nanotechnologies
CEN/TC 360	Coating systems for chemical apparatus and plants against corrosion
CEN/TC 363	Organic contaminants (tar) in biomass producer gases
CEN/TC 366	Materials obtained from End-of-Life Tyres (ELT)
CEN/TC 386	Photocatalysis
CEN/TC 401	Reduced Ignition Propensity Cigarettes
CEN/TC 421	Emission safety of combustible air fresheners
CEN/TC 437	Electronic cigarettes and e-liquids
CEN/WS 089	Platform - Guidelines and best practices for sustainable production of carbon nanotube-based nano-enabled products (CNT-based NEPs)

CEN & CENELEC portfolio of deliverables: 1258 ENs + 75 other deliverables

Work items currently in the Work Programmes: 152 ENs + 16 other deliverables

Standardization Requests from EC/EFTA

M/004 – Nickel and nickel release
M/335 – Modernization of the methods of analysis of fertilizers
M/418 & M/454 amending M/335
M/430 – Bio-polymers and bio-lubricants
M/461 – Nanotechnologies and nanomaterials
M/491 – Bio-surfactants and bio-solvents
M/492 – Bio-based products
M/547 – Algae and algae-based products or intermediaries
M/556 – PAH in rubber and plastic
M/XXX (anticipated) – Fertilizers
M/XXX (anticipated) – Explosives for civil uses

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
Action 4 Registration, Evaluation, Authorisation and Restriction of Chemicals
Action 5 Fertilisers
Action 13 Reuse of fishing gear

Further information

www.cen.eu/work/Sectors/Chemicals/Pages/default.aspx

FERTILISERS

In June 2019, the much-awaited Regulation on Fertilising Products (2019/1009) was approved by the Council and the European Parliament. The Regulation will fully enter into effect in 2022. In preparation, the European Commission is currently finalising a Standardization Request aimed at starting new projects to analyse compliance of fertilising products under the six product function categories with the new EU Regulation. Based on the Standardization Request, in 2020 CEN/TC 223 'Soil improvers and growing media', CEN/TC 260 'Fertilisers and liming material' and CEN/TC 455 'Plant biostimulants' will start developing standards in support of the Regulation.

PLASTICS

CEN/TC 249 'Plastics' develops standards in the domain of plastics, encompassing terminology, test methods, specifications, classifications and designation systems, environmental aspects and plastic product specificities in general. Several work items within this TC are intended to support policies and investigation techniques related to environmental aspects of the production and use of plastics and plastics products (circular economy, recycling, microplastics, biodegradability to name a few), which overall benefit industry, consumers and market surveillance. During the course of 2020, CEN/TC 249 will continue its work in support of the above-mentioned initiatives. CEN and CENELEC have signed the Circular Plastics Alliance (CPA) declaration with the intention of facilitating standardization activities in the area of plastics recycling. In 2020, the working groups within the CPA will provide their inputs to the draft Standardization Request, together with the ongoing standardization activities and in response to which a Standardisation Request is expected.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Explosives - Since 2016, the Explosives for Civil use Directive has been applicable within the EU. The scope of the Directive includes blasting for mining and aims at achieving a secure, safe and competitive market within the EU. Standardization in support of this Directive aims at developing standards establishing safety requirements, terminology, categorisation and test methods. In 2020, CEN/TC 321 'Explosives for civil uses' will continue developing deliverables.

Textiles - In 2020, CEN/TC 248 'Textiles' will continue working on standardization activities in support of M/532 'Methods for quantitative analysis of textile products composed of certain binary and ternary textile fibre mixtures': various parts of the EN ISO 1833 series on 'Textiles - Quantitative chemical analysis' were published in 2019 and the completion of the series is expected for 2020.

In addition, CEN/TC 248 will probably initiate a Preliminary Work Item for the prevention of micro-plastic release from textile sources.

PAHs in rubber and plastic - In 2019, CEN-CENELEC/BTWG 13 'Polycyclic Aromatic Hydrocarbons (PAHs) in rubber and plastic' delivered its scoping study which identifies existing methods to determine the total content for PAHs in articles with rubber and plastic components and the associated sample preparation and extraction methodologies. Based on the findings of the scoping study, a work programme in response to the Standardisation Request M/556 was also delivered, referring to compliance to maximum content criteria of eight restricted PAHs under REACH classified as carcinogenic 1B. The accomplishment of the work programme, which establishes to develop standards, will be carried out by the new CEN/TC 462 'Regulated chemicals in products'.

Release of Nickel - CEN/TC 347 'Methods for analysis of allergens' will continue working on three projects comprising test methods for the simulation of accelerated wear and corrosion for the detection of nickel release from coated items, the analysis of suspected allergens and a reference test method for the release of nickel from all post assemblies interested into pierced human body parts and intended to come in contact with the skin.

Nanotechnologies - CEN/TC 352 'Nanotechnologies' will continue its work on vocabulary standards, standards touching upon the quantification of the release of nano-objects from powders by generation of aerosols and the characteristics and measurements of nanomaterials in powder form. Other projects are also currently under discussion within the Technical Committee. Moreover, CEN/TC 137 'Assessment of workplace exposure to chemical and biological agents' will also be involved in standardization activities related to nanotechnologies. CEN/TC 137 plans to mainly develop standards, among others, for methodologies for the characterisation of nanomaterials in the manufactured form and prior toxicity and ecotoxicity testing, workplace sampling and measurement, consumer and environmental exposure to nanomaterials and methods to simulate exposures to nanomaterials.

Construction

The European construction industry generates approximately 9% of the EU's gross domestic product (GDP) and directly provides 18 million jobs, overall touching upon the lives of approximately 500 million people.

CEN's work in the construction sector predominantly involves the development of European Standards (ENs) in support of the Construction Products Regulation (Regulation EU 305/2011) and for the fulfilment of national buildings regulations. These harmonised standards are important tools to assess performance of the construction product and to provide the respective testing and calculation methods. Once assessed as per the technical basis mentioned in the standards, manufacturers can prepare a declaration of performance (DoP) for their products as defined in CPR to affix the CE marking on their products.

Given the importance and broad applicability of the construction sector, stakeholders working on standards in the field include manufacturers, national/European industry associations, laboratories and notified bodies, engineers, structural designers, the scientific community and the European Commission (DG Growth and DG Energy).

It is important to note that standards for the construction industry do not directly regulate construction products themselves. Instead, they establish requirements on the industry to ensure such products are safe for human health and environment.

73 Technical bodies responsible

CEN/TC 33	Doors, windows, shutters, building hardware and curtain walling
CEN/TC 38	Durability of wood and wood-based products
CEN/TC 50	Lighting columns and spigots
CEN/TC 51	Cement and building limes
CEN/TC 53	Temporary works equipment
CEN/TC 67	Ceramic tiles
CEN/TC 88	Thermal insulating materials and products
CEN/TC 89	Thermal performance of buildings and building components
CEN/TC 99	Wallcoverings
CEN/TC 104	Concrete and related products
CEN/TC 112	Wood-based panels
CEN/TC 124	Timber structures
CEN/TC 125	Masonry
CEN/TC 126	Acoustic properties of building elements and of buildings
CEN/TC 127	Fire safety in buildings
CEN/TC 128	Roof covering products for discontinuous laying and products for wall cladding
CEN/TC 129	Glass in building
CEN/TC 134	Resilient, textile and laminate floor coverings
CEN/TC 135	Execution of steel structures and aluminium structures
CEN/TC 154	Aggregates
CEN/TC 155	Plastics piping systems and ducting systems
CEN/TC 156	Ventilation for buildings
CEN/TC 163	Sanitary appliances
CEN/TC 166	Chimneys
CEN/TC 167	Structural bearings
CEN/TC 169	Light and lighting
CEN/TC 175	Round and sawn timber
CEN/TC 177	Prefabricated reinforced components of autoclaved aerated concrete or light-weight aggregate concrete with open structure
CEN/TC 178	Paving units and kerbs
CEN/TC 185	Fasteners
CEN/TC 187	Refractory products and materials
CEN/TC 189	Geosynthetics
CEN/TC 203	Cast iron pipes, fittings and their joints
CEN/TC 208	Elastomeric seals for joints in pipework and pipelines
CEN/TC 217	Surfaces for sports areas
CEN/TC 218	Rubber and plastics hoses and hose assemblies
CEN/TC 227	Road materials
CEN/TC 228	Heating systems and water based cooling systems in buildings
CEN/TC 229	Precast concrete products
CEN/TC 241	Gypsum and gypsum based products
CEN/TC 243	Cleanroom technology
CEN/TC 246	Natural stones
CEN/TC 247	Building Automation, Controls and Building Management
CEN/TC 250	Structural Eurocodes

CEN/TC 254	Flexible sheets for waterproofing
CEN/TC 277	Suspended ceilings
CEN/TC 284	Greenhouses
CEN/TC 288	Execution of special geotechnical works
CEN/TC 297	Free-standing industrial chimneys
CEN/TC 303	Floor screeds and screed materials
CEN/TC 315	Spectator facilities
CEN/TC 336	Bituminous binders
CEN/TC 339	Slip resistance of pedestrian surfaces - Methods of evaluation
CEN/TC 340	Anti-seismic devices
CEN/TC 341	Geotechnical Investigation and Testing
CEN/TC 346	Conservation of Cultural Heritage
CEN/TC 349	Sealants for joints in building construction
CEN/TC 350	Sustainability of construction works
CEN/TC 351	Construction Products - Assessment of release of dangerous substances
CEN/TC 357	Stretched ceilings
CEN/TC 361	Polymer modified bituminous thick coatings for waterproofing - Definitions/requirements and test methods
CEN/TC 371	Energy Performance of Buildings project group
CEN/TC 396	Earthworks
CEN/TC 407	Cylindrical helical springs made from round wire and bar - Calculation and design
CEN/TC 422	Side curtains ventilation systems - safety
CEN/TC 442	Building Information Modelling (BIM)
CEN/TC 459	ECISS activities
CEN-CLC/JTC 11	Accessibility in the built environment
CEN/WS 063	Structural Condition Determination for Integrated Lifetime Assessment of Plants, Structures and Components
CEN/WS 071	Validation of computational solid mechanics models using strain fields from calibrated measurements (VANESSA)
CEN/WS Smart-CE-Marking	Smart CE marking for the construction industry
CEN/WS SUSTINROADS	Sustainability assessment of roads
CEN/WS BRESAER	Innovative and adaptable envelopes in building refurbishment. Design, economic assessment, logistics and installation guidelines

CEN & CENELEC portfolio of deliverables: 2946 ENs + 312 other deliverables

Work items currently in the Work Programmes: 566 ENs + 16 other deliverables

Standardization requests from EC/EFTA

43 active Standardization Requests (including amendments and revisions)

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
Action 9 Construction products

Further information

www.cen.eu/work/areas/construction

STRUCTURAL EUROCODES

Structural Eurocodes are a comprehensive set of standards that relate to the design of building and civil engineering works. The 59 Structural Eurocodes parts produced by CEN/TC 250 provide rules for principles of design, actions on structures, geotechnical design and structural design rules for the use of all major materials, such as concrete, steel, composite steel and concrete, timber, masonry, and aluminium. Structural Eurocodes are equally applicable to both whole structures and individual elements of structures (products). They are widely used in the construction and civil engineering industry throughout Europe, and have been implemented in neighbouring countries and worldwide.

The European Commission has asked CEN to revise existing Eurocodes to incorporate improvements to the existing suite of standards (Standardization Request M/515), to reflect the state of the art and the needs of the market. Enhancements in user-friendliness, without reducing applicability, will assist new entrants to the market and small and medium-sized enterprises (SMEs). Further developments in new areas include the assessment of existing structures and the use of new materials, such as structural glass, fibre-reinforced polymers and membrane structures.

This work is being carried out by CEN/TC 250 'Structural Eurocodes', in cooperation with stakeholders including structural design companies, the scientific community, industry associations and engineers, supported by the European Commission and its Joint Research Centre (JRC).

76 project teams have been established under M/515 across the four phases of the work programme following successful open calls for experts. The first phase of the work was completed in April 2018 and work is ongoing on phases 2, 3 and 4. A comprehensive publication plan, clearly laying out when standards will be released, has been developed taking into account the complex interdependencies across the suite of standards.

TC250 will achieve a key milestone in 2020 with the publication of the first document developed under mandate M/515, CEN/TS 17440 'Assessment and retrofitting of existing structures'. Further Technical Specifications on timber-concrete composite structures and the design of structural glass are due to be published later in 2020.

RELEASE OF DANGEROUS SUBSTANCES

Release of Dangerous Substances - CEN/TC 351 'Construction Products - Assessment of release of dangerous substances' develops harmonised test methods for the release of dangerous substances from construction products. Over the course of 2020, the Technical Committee will continue working on eight deliverables addressing emissions into indoor air, assessment of gamma radiation, ecotoxicity of eluates, content of substances, leaching and percolation tests. The outcome of this work will allow the declaration of release of dangerous substances from construction products to be included in the CE marking of Construction products in the future.

SUSTAINABILITY IN CONSTRUCTION

CEN/TC 350 'Sustainability of construction works' is responsible for the development of horizontal standardised methods for the assessment of sustainability aspects of new and existing construction works (buildings and civil engineering works), including standards for environmental product declaration (EPD). In 2020, CEN/TC 350 will continue developing standards in response to Standardization Request M/350 concerning the development of horizontal standardised methods for the assessment of the environmental performance of buildings.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Concrete products - CEN/TC 229 'Precast concrete products' will work on the revision of EN 13369 and EN 16757, setting out respectively common rules and product category rules for precast concrete products. These deliverables will help manufacturers of precast concrete products take into account the evolution of building rules, mainly the revision of the Structural Eurocodes (CEN/TC 250), as regards EN 13369, and the evolution of Environmental Product Declarations according to EN 15804/A2, as regards EN 16757.

Building Information Modelling - For the future of Building Information Modelling (BIM), it is important to ensure that data dictionaries are interoperable in tools and applications. The elements of the data dictionaries need to be described by the same attributes. If this is agreed and done by all data dictionary providers,

it is quite simple to map properties in one data dictionary to properties in others, which will ensure reuse and sharing of harmonised properties across data dictionaries. To this end, CEN/TC 442 will work in parallel with ISO on a series of standards focussing on the methodology to describe, author and maintain properties in interconnected dictionaries, concept and principles of data templates and guidance for the overall framework and adaptability of BIM. This work will give architects, engineers and construction professionals the ability to plan, design and manage building projects more efficiently, for the benefit of the whole European construction industry.

Refractory products and materials - CEN/TC 187 'Refractory products and materials' will work on EN 993-10 'Methods of test for dense shaped refractory products - Part 10: Determination of permanent change in dimensions on heating' to include detailed precision statements intended to provide higher confidence in the test method. This is critical for industries with an intensive energy consumption (steel, glass, non-ferrous and cement to name a few), as it enables them to design, build and operate more efficient plant and processes.

Thermal performance of buildings - CEN/TC 89 'Thermal performance of buildings and building components' will revise test methods falling under its domain. Work on this field includes standards for testing the air permeability and thermal resistance of building products and components, as well as assessment criteria for laboratories measuring heat transfer in building material and components.

Cement and building limes - In 2020, CEN/TC 51 'Cement and building limes' will focus on the revision of its product standards, namely EN 413 1, EN 15368 and EN 459-1. Worldwide production of cement (used for making concrete) is responsible for some 8% of CO_2 emissions. The cement sector is in the process of making modern cements with significantly reduced emissions.

Consumer

Standards are used every day by businesses, manufacturers, public bodies and other organizations as a tool for ensuring consumer products are safe. CEN standards are continuously improving with the ambition to be proactive and mitigating risks that can be reasonably foreseen with existing and new types of products.

Currently, 22 CEN and CENELEC Technical Committees are carrying out standardization activities in consumer products. They fall mainly in the area of the General Product Safety Directive (2001/95/EC), but are also concerned by a number of other pieces of European legislation (Toys, Textile, Pyrotechnics, etc.).

A large proportion of the standards in this sector is thus drafted at the request of the European Commission in response to Standardization Requests, but CEN also develops standards in parallel with its international counterpart (ISO) e.g. in footwear, sport equipment or textiles, leading to the publication of European and international standards.

Given the variety of topics covered, ranging from child and toy safety, through clothing and accessories, textiles and leather, sports goods, furniture, furnishings and cleaning, the relevant technical bodies work independently of one another but exchange information through liaison officers and sometimes cooperate on topics of common interest. The exchange of information in the consumer area will become more important in the coming years because horizontal topics such as accessibility now shall be addressed in all new standardization activities.

21 Technical bodies responsible

CEN/TC 52	Safety of toys
CEN/TC 93	Ladders
CEN/TC 136	Sports, playground and other recreational facilities and equipment
CEN/TC 207	Furniture
CEN/TC 212	Pyrotechnic articles
CEN/TC 248	Textiles and textile products
CEN/TC 252	Child care articles
CEN/TC 281	Appliances, solid fuels and firelighters for barbecuing
CEN/TC 289	Leather
CEN/TC 309	Footwear
CEN/TC 355	Lighters
CEN/TC 364	High Chairs
CEN/TC 369	Candle fire safety
CEN/TC 398	Child Protective Products
CEN/TC 402	Domestic Pools and Spas
CEN/TC 410	Consumer confidence and nomenclature in the diamond industry
CEN/TC 426	Domestic appliances used for water treatment not connected to water supply
CEN/TC 443	Feather and down
CEN/TC 456	Reporting in support of online gambling supervision
CEN/TC 457	Digital preservation of cinematographic works
CEN-CLC/JTC 12	Design for All

CEN & CENELEC portfolio of deliverables: 817 ENs + 61 other deliverables

Work items currently in the Work Programmes: 161 ENs + 18 other deliverables

Standardization requests from EC/EFTA

M/416 – Pyrotechnics Articles
M/445 – Safety of Toys
M/464 – Safety of childcare articles (bath rings, bath aids, bathtubs, etc.)
M/473 – Design for All
M/497 – Safety of childcare articles – Risks in the sleeping environment
M/527 – Certain seats for children
M/445 – Safety of toys – under revision
M/506 – Stationary training equipment
M/507 – Gymnastic equipment
M/532 – Methods for quantitative analysis of textile products
M/553 – Advanced garments and ensembles of garments that provide protection against heat and flame, with integrated smart textiles and non-textile elements

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
Action 7 Safety of pyrotechnic articles
Action 12 Accessibility for persons with disabilities

Further information

www.cen.eu/work/Sectors/Consumer/Pages/Default.aspx

SAFETY OF TOYS

A new Standardization Request is in preparation for 2020 to provide a legal basis for harmonization of any new editions of existing European Standards or new European Standards on **Safety of toys,** to replace the existing Standardization Request M/445 issued in 2009.

CHEMICAL SUBSTANCES

In support of new requirements in the Toys Safety Directive 2009/48/EC, CEN/TC 52 'Safety of toys' prepared a project which will result in the elaboration of five new European standards to allow users to test for the presence of chemicals in certain types of toys. Specifically, the new standards will cover: Formamide in foamed toy materials; TCEP and alternative flame retardants; Isothiazolinones in aqueous (toy) materials; Phenol; Bisphenol A. This project is funded by the European Commission and started with a call for tender to select the laboratories that will cooperate in the development and validation of the required test methods in 2020.

Furthermore, in 2020 CEN/TC 52 will start the revision of EN 71-7 'Finger paints', including definitions, requirements, test methods, warnings and rationale, as appropriate. This revision will address changes in Regulation (EC) No 1272/2008 on 'Classification, labelling and packaging of substances and mixtures' and the REACH Regulation (EC) No 1907/2006.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Pyrotechnics articles - CEN/TC 212 'Pyrotechnics articles' will finalise the revision of the EN 15947:2015 series on 'Pyrotechnic articles - Fireworks, Categories F1, F2, and F3' (mandated work under M/416) and will continue the revision of:

- EN 16261:2012 series on 'Fireworks, category 4' (Part 1-4)
- EN 16263 series on 'Other pyrotechnic articles' (Part 1-5)
- EN 16265 on 'Pyrotechnic articles - Ignition devices'

Additionally, the European Commission initiated a consultation with the Member States for the preparation of a new Standardization Request on Pyrotechnic articles referring tocurrent Directive 2013/29/EU. This could lead to the revision in 2020 of the EN ISO 14451:2013 series on 'Pyrotechnic articles for vehicles', the EN 16256-1:2012 series on 'Theatrical pyrotechnic articles', as well as EN 16261-4:2012 'Pyrotechnic articles - Fireworks, Category 4 - Part 4: Minimum labelling requirements and instructions for use'.

Textiles - In 2020, CEN/TC 248 'Textiles' will continue working on standardization activities in support of M/532 'Methods for quantitative analysis of textile products composed of certain binary and ternary textile fibre mixtures': various parts of the EN ISO 1833 series on 'Textiles - Quantitative chemical analysis' were published in 2019 and the completion of the series is expected for 2020.

In addition, CEN/TC 248 will probably initiate a Preliminary Work Item for the prevention of micro-plastic release from textile sources.

Sports and playground equipment standards - CEN/TC 136 'Sports, playground and other recreational facilities and equipment' will start the development of new European standards on:

- Public spas, specifying safety requirements and test methods for indoor and outdoor use. There is a huge interest in sauna in wellness facilities, spa pools in wellness facilities and their operation. It is intended to develop a series of five standards aligning national regulations and specifications as European Standards.

- New mountaineering products on the market for 'Self-belaying lanyards under M/031 for Personal Protective Equipment' (Regulation (EU) 2016/425) and on 'Interface between mountaineering boots for adults and crampons' for improving the lifespan of both boots and crampons due to continuous use, even when one component is worn and needs to be replaced.

- Trampoline parks, in collaboration with ISO (EN ISO 23659), specifying safety requirements for the design, construction, inspection and maintenance of trampoline parks and their components. This new standard will improve safety and market access evenly, thus strongly benefitting the whole industry.

Defence and security

Recent events that have made the news, such as terrorist attacks, public security incidents or natural disasters, have proven that more innovative solutions need to be found to make law enforcement activities more efficient and increase societal resilience in Europe.

For more than a decade now, CEN has been developing standards and specifications on safety and security of equipment, liaising with EU security research projects to gather the latest solutions and disseminate them through standardization deliverables. In addition, CEN and CENELEC have long–lasting collaboration relationships with the security industry represented by European associations such as EURALARM (Association of European manufacturers, installers and service providers of the electronic Fire Safety and Security industry) and COESS (Confederation of European security services).

19 Technical bodies responsible

CEN/TC 70	Manual means of fire fighting equipment
CEN/TC 72	Fire detection and fire alarm systems
CEN/TC 191	Fixed firefighting systems
CEN/TC 192	Fire and Rescue Service Equipment
CEN/TC 263	Secure storage of cash, valuables and data media
CEN/TC 325	Crime prevention through building, facility and area design
CEN/TC 367	Breath-alcohol testers
CEN/TC 368	Product Identification
CEN/TC 391	Societal and Citizen Security
CEN/TC 419	Forensic Science Processes
CEN/TC 439	Private security services
CLC/TC 79	Alarm systems
CLC/BTTF 133-1	Sound systems for emergency purposes which are not part of fire detection and alarm systems
CLC/BTTF 157-1	Public address and general emergency alarm systems
CEN-CLC/JTC 4	Services for fire safety and security systems
CEN/WS D-Box	Demining tool-box for humanitarian clearing of large scale areas from anti-personnel landmines and cluster munitions
CEN/WS TER-CDM	Terminologies in Crisis and Disaster Management
CEN-CLC/WS HECTOS	Guidelines on evaluation systems and schemes for physical security products
CEN-CLC/WS ZONeSEC	Interoperability of security systems for the surveillance of widezones

CEN & CENELEC portfolio of deliverables: 246 ENs + 43 other deliverables

Work items currently in the Work Programmes: 54 ENs + 4 other deliverables

Relevant elements of EU Work Programme 2020

2.2 Strategic priorities for the European standardisation system

Further information

www.cencenelec.eu/standards/Sectors/Pages/DefenceandSecurity.aspx

SOCIETAL AND CITIZEN SECURITY

In the current global security context, preventing and mitigating chemical, biological, radiological and nuclear (CBRN) hazards has become crucial. CEN/TC 391 'Societal and citizen security' has reinforced its expertise in order to pursue the development of new standards on CBRN-E (Chemical Biological, radiological Nuclear and Explosives) and the management of crowd during public events. In 2020, new specifications will be defined on these two sectors.

Together with the international Technical Committee ISO/TC 292 'Security and resilience', the Committee started upgrading the guidance document CEN/TS 17091:2018 for managing capabilities during crisis into a joint EN-ISO publication. The new version will focus on the requirements to develop an organization's crisis management capabilities through preparedness and a better understanding of the context and challenges of crisis management.

SECTOR FORUM ON SECURITY

The newly established CEN–CLC Sector Forum on Security had it first meeting on 16 April 2019. It provides a platform for the exchange of information between concerned stakeholders and offers support and guidance to the technical bodies, in particular by coordinating and advising on on-going standardization activities relevant to the security sector, in areas such as construction, healthcare and transports.

The Forum aims to ensure that law enforcement standardization needs feed into the work programme of standardization committees. For this reason, the group has decided to define an action plan for engaging law enforcement in 2020-2021.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Private security services - Standards are essential for ensuring uniform quality in the provision of security services. European standardization activities on security services respond to the needs of security providers to meet the highest quality criteria set out in public tenders and facilitate the cross-border provision of services. CEN/TC 439 'Private security services' developed an overarching standard on service minimum requirements for critical infrastructure protection. On the long run, the Committee intends to define new standards on additional sector-specific 'branches' (e.g. energy plants, water treatment facility, government buildings, railway, etc.).

Security and defence - The European defence market suffers from fragmentation and insufficient industrial collaboration. The objective is to ensure an open and competitive EU Single Market for defence; in this context, European standardization has a proven track record in supporting openness and competition in the internal market. In 2020 CEN and CENELEC will continue their collaboration with the European Defence Agency to develop an action plan for standardization in the defence area.

Digital society

In the ICT sector, it is imperative that products, services and processes are mutually compatible and interoperable, so that the information can be shared safely and securely and people can communicate with each other through different devices. Relevant standards help to ensure that products, such as computer peripherals and other electronic devices, made by different companies can work together seamlessly.

For this reason, European Standards are key contributors to the EU Digital Single Market, and they represent one of the most critical issues for businesses approaching the global market.

CEN and CENELEC are engaged in multiple sectors, such as Cybersecurity, ICT skills, Advanced Manufacturing, Intelligent Transport Systems, eAccessibility and Distributed Ledger Technologies, contributing to an inclusive digital society. In this context, CEN and CENELEC cooperate extensively with ISO and IEC to develop common standards that can be applied worldwide.

34 Technical bodies responsible

CEN/TC 224	Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment
CEN/TC 225	AIDC technologies
CEN/TC 287	Geographic Information
CEN/TC 294	Communication systems for meters
CEN/TC 353	Information and Communication Technologies for Learning, Education and Training
CEN/TC 365	Internet Filtering
CEN/TC 428	Digital Competences and ICT professionalism
CEN/TC 434	Electronic Invoicing
CEN/TC 440	Electronic Public Procurement
CLC/TC 100X	Audio, video and multimedia systems and equipment and related sub-systems
CLC/TC 108X	Safety of electronic equipment within the fields of Audio/Video, Information Technology and Communication Technology
CLC/TC 209	Cable networks for television signals, sound signals and interactive services
CLC/TC 215	Electrotechnical aspects of telecommunication equipment
CLC/TC 46X	Communication cables
CLC/TC 57	Power systems management and associated information exchange
CLC/TC 65X	Industrial-process measurement, control and automation
CLC/TC 86A	Optical fibres and optical fibre cables
CLC/TC 86BXA	Fibre optic interconnect, passive and connectorised components
CEN-CLC/JTC 13	Cybersecurity and Data Protection
CEN-CLC/JTC 8	Privacy management in products and services
CLC-ETSI/JWG DD	Digital Dividend
CEN-CLC-ETSI/JWG	eAccessibility
CEN-CLC-ETSI/SF	Smart and Sustainable Cities and Communities
CEN/WS 084	Self-Sovereign Identifier for Personal Data Ownership and Usage Control (CEN WS ISÆN)
CEN/WS FATEDA	Standards-Compliant Formats for Fatigue Test Data
CEN/WS ICT	ICT/SKILLS Workshop (IT profiles and curricula)
CEN/WS JXF	XFS for the Java Platform
CEN/WS METEDA	Mechanical Test Data
CEN/WS SCS	Description and Assessment of Good Practices for Smart City Solutions
CEN/WS XFS	eXtensions for Financial Services
CLC/WS 04	Interoperability framework requirements specification for services to the home (IFRS)
CEN-CLC/WS INACHUS	Urban search and rescue (USaR) robotic platform technical and procedural interoperability
CEN-CLC/WS SEP2	Industry Best Practices and an Industry Code of Conduct for Licensing of Standard Essential Patents in the field of 5G and Internet of Things
CEN-CLC/WS SEP-IoT	Workshop on Best Practices and a Code of Conduct for Licensing Industry Standard Essential Patents in 5G and the Internet of Things (IoT), including the Industrial Internet

CEN & CENELEC portfolio of deliverables: 1867 ENs + 403 other deliverables

Work items currently in the Work Programmes: 236 ENs + 21 other deliverables

Standardization requests from EC/EFTA
M/536 – Radio Equipment Directive

Relevant elements of EU Work Programme 2020
2.2 Strategic priorities for the European standardisation system
Action 12 Accessibility for persons with disabilities

Further information
www.cen.eu/work/Sectors/Digital_society/Pages/default.aspx

CYBERSECURITY AND DATA PROTECTION

The relevance of information security is not limited to 'digitally native' businesses: it is increasingly relevant to all sectors, including traditional industries. The security of information and communication systems is an area of increasing concern, both for public authorities and for private companies. While ICT technologies open up new opportunities, they also create threats to operational safety, robustness and resilience. Standards can help mitigate this kind of cyber risks.

CEN and CENELEC are committed to reinforce standardization's participation in the Digital Single Market. Part of this work consists of collecting the new best practices that allow manufacturers and service providers to improve the security features of products, services and processes and boost consumer's trust in the digital environment.

The CEN-CENELEC Joint Technical Committee (CEN-CLC/JTC 13) 'Cybersecurity and Data Protection' will continue working, in cooperation with ISO and IEC, to develop European Standards for cybersecurity and data protection, covering all aspects of the evolving information society. In 2020, CEN-CLC/JTC 13 will strengthen its cooperation with ETSI TC CYBER for the development of standards in the area of consumer Internet of Things (IoT). CEN-CLC/JTC 13 will also finalise the development of an EN on 'Privacy protection by design and by default' in the context of the GDPR.

CLC/TC 65X 'Industrial-process measurement, control and automation' is responsible for the development of cybersecurity standards in the field of Operational Technology. The TC will continue the development and update of the EN IEC 62443 series 'Security for industrial automation and control systems', notably via a new project on 'Security program requirements for industrial automation and control systems (IACS) asset owners'.

In this context, CEN and CENELEC will continue to work extensively with the European Commission, ENISA (European Union Agency for Network and Information Security) and ECSO (European Cyber Security Organisation) in the implementation of the Cybersecurity Act.

BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES

Blockchain and Distributed Ledger Technologies are promising developments in ICT for sharing data and managing transactions in a decentralised, controlled manner. The use of Blockchain and Distributed Ledger Technologies continues to grow rapidly, with many applications and systems being developed, notably in the context of Industry 4.0, with use cases in the energy, health, manufacturing, finance sectors, among others.

The CEN and CENELEC Technical Boards established in 2019 a new Joint Technical Committee on 'Blockchain and Distributed Ledger Technologies'. The Technical Committee is responsible for the development and adoption of standards for Blockchain and Distributed Ledger Technologies, covering the following aspects: organizational frameworks and methodologies, processes and products evaluation schemes, distributed ledger guidelines, smart technologies, objects, distributed computing devices and data services.

In 2020, the Joint Technical Committee will focus on specific European requirements, especially in the legislative and policy context, and will proceed with the identification and possible adoption of standards already available or under development – to avoid duplication of work with ISO/TC 307. The joint Technical Committee will notably suggest the establishment of two specific working groups on eIDAS and GDPR, which will require strong cooperation with CEN/TC 224 'Personal identification and related personal devices with secure elements, systems, operations and privacy' and CEN-CLC/JTC 13 'Cybersecurity and data protection'.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Green Data Centres - The spread of the digital economy has led to an increasing demand for data supported by the continuous construction, across Europe, of data centres of all sizes serving a large variety of business applications. This development has resulted in increased energy demand, which requires proper management and a careful consideration of its environmental and economic impacts.

A data centre encompasses a great variety of products and systems. Therefore, its design and operation sees the involvement of many different industries. There is a need to give guidance to stakeholders in the industry for energy management and environmental viability by providing a foundation of standards on data centres.

In 2020, the CEN-CLC-ETSI Coordination Group on Green Data Centres will continue to develop and maintain two documents: the *Review of standardization activities for Data Centres*, which summarises the standardization landscape and references relevant standards; and the *Standardization landscape for the energy management and environmental viability of data centres*, which provides an in-depth analysis of standardization activities.

Advanced Manufacturing - The development of an inclusive European digital society calls for the uptake of innovative technologies by the European industry. CEN/TC 310 'Advanced automation technologies and their applications', CEN/TC 438 'Additive manufacturing' and CLC/TC 65X 'Industrial-process measurement, control and automation' will continue to work in close cooperation with ISO and IEC in order to develop European Standards supporting the digital transformation of the European industry.

In 2020, the following ENs will be developed, among others: the revision of the EN ISO 10218 series 'Robots and robotic devices – safety requirements for industrial robots', EN ISO/ASTM 52950 'Additive manufacturing – general principles – overview of data processing', and the EN IEC 61158 series on 'Industrial communication networks'.

ICT skills - In an increasingly digital economy, the challenge for Europe is to support its citizens in developing sufficient and appropriate ICT skills and competences in all sectors and levels. In this context, closing the gap between the number of job seekers and the number of vacant digital jobs is among the main priorities of the European economy.

CEN/TC 428 'ICT professionalism and Digital competences' is responsible for all aspects of standardization related to developing ICT skills in all sectors, public and private. In 2020, the Technical Committee will continue the elaboration of European Standards related to the four major building blocks of ICT professionalism: competences, education and certification, code of ethics, body of knowledge. These activities will take place in support of the publication of the revised version of EN 16234-1 'e-Competence Framework (e-CF) – a common European Framework for ICT professionals in all industry sectors'.

Personal identification - CEN/TC 224 'Personal identification and related personal devices with secure elements, systems, operations and privacy in a multi sectorial environment' develops standards to strengthen the interoperability and security of personal identification and related personal devices. The Technical Committee covers a variety of sectors such as government - citizens' interactions, transport, banking, and eHealth. In 2020, the Technical Committee will continue the development of a Technical Specification on 'Secure and Interoperable European breeder documents' and on an European enrolment guide for biometric ID documents.

Cable networks for television signals, sound signals and interactive services - CLC/TC 209 'Cable networks for television signals, sound signals and interactive services' aims at developing Harmonised Standards (hENs) and other European standards and deliverables relating to cable networks. These include equipment and associated methods of measurement for headend reception, processing and distribution of television and sound signals

and for processing, interfacing and transmitting data signals for interactive services using all applicable transmission media. These signals are typically transmitted in networks by frequency-multiplexing techniques. Work ranges from the antennas/headend up to the terminal input of the customer premises equipment. CLC/TC 209 considers coexistence with users of the RF spectrum in wired and wireless transmission systems.

In 2020, CLC/TC 209 will continue the revision of EN 50083-2:2012 'Cable networks for television signals, sound signals and interactive services - Part 2: Electromagnetic compatibility for equipment', in order to align it with current technical and legal requirements. Furthermore, EN 50083-2-4 is expected to be published. It will deal with interference mitigation filters operating in the 700 and 800 MHz frequency bands for digital terrestrial television (DTT) reception, which are used in individual and MATV antenna installations for reception of DTT signals. Both European Standards are needed by the industry to maintain the quality of multimedia signal distribution under changed technical conditions introduced by the transition from analogue to fully digital signal transmission and the release of the 700 and 800 MHz frequency bands for mobile communication services.

After having received the necessary input from the national members, CLC/TC 209 also envisages to start maintenance of EN 50083-8 'Cable networks for television signals, sound signals and interactive services - Part 8: Electromagnetic compatibility for networks'.

Electrotechnical aspects of telecommunication equipment - The work of CLC/TC 215 'Electrotechnical aspects of telecommunication equipment' is closely linked to the work performed at international level, in ISO-IEC/JTC 1 ' Information Technology'.

CLC/TC 215 will continue the revision of the series EN 50600 on 'Data centres', which is developed to address Standardization Requests M/462 and M/526. Particular focus will be put on the revision of EN 50600-2-1 under the revised M/526 to contribute to building and maintaining a more climate resilient infrastructure throughout the EU. New ENs on 'Key Performance Indicators for Resource efficiency of cooling systems', 'Carbon Usage Effectiveness' and 'Water Usage Effectiveness' will be developed and finalised to meet the needs of operators, customers and EU policies for resource-efficient data centres. Last but not least, a Technical Specification for the Data Centre Maturity Model is under development: it will enable data centres to claim compliance with the resource efficiency targets framed by the EU Code of Conduct for Data Centres (CLC/TR 50600-99-1 refers).

CLC/TC 215 will also closely monitor the current development of Single Pair Ethernet (SPE) and produce the required cabling design (and possibly installation) standards to provide the market with state-of-the-art European Standards.

Electrotechnology

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

CENELEC values close cooperation with its international counterpart, the International Electrotechnical Commission (IEC). To facilitate a consensus-based process between European and international standard development activities in the electrical sector, CENELEC and IEC formalised the framework of their cooperation through the signature of an 'agreement on common planning of new work and parallel voting', known as the Frankfurt Agreement. As a result of this cooperation, over 72% 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.

33 Technical bodies responsible

CLC/TC 20	Electric cables
CLC/TC 21X	Secondary cells and batteries
CLC/TC 22X	Power electronics
CLC/TC 23BX	Switches, boxes and enclosures for household and similar purposes, plugs and socket outlet for D.C.
CLC/TC 23E	Circuit breakers and similar devices for household and similar applications
CLC/TC 23H	Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles
CLC/TC 34	Lamps and related equipment
CLC/TC 37A	Low voltage surge protective devices
CLC/TC 38	Instrument transformers
CLC/TC 40XA	Capacitors and EMI suppression components
CLC/TC 40XB	Resistors
CLC/TC 55	Winding wires
CLC/TC 64	Electrical installations and protection against electric shock
CLC/TC 72	Automatic controls for household use
CLC/TC 76	Optical radiation safety and laser equipment
CLC/TC 81X	Lightning protection
CLC/TC 85X	Measuring equipment for electrical and electromagnetic quantities
CLC/TC 95X	Measuring relays and protection equipment
CLC/TC 106X	Electromagnetic fields in the human environment
CLC/TC 121A	Low-voltage switchgear and controlgear
CLC/TC 204	Safety of electrostatic painting and finishing equipment
CLC/TC 205	Home and Building Electronic Systems (HBES)
CLC/TC 210	Electromagnetic Compatibility (EMC)
CLC/TC 213	Cable management systems
CLC/TC 216	Gas detectors
CLC/BTTF 60-1	Assembly of electronic equipment
CLC/BTTF 62-3	Operation of electrical installations
CLC/BTTF 129-1	Thermal resistant aluminium alloy wire for overhead line conductor
CLC/BTTF 132-1	Aluminium conductors steel supported (ACSS type) for overhead electrical lines
CLC/BTTF 132-2	Revision of EN 50156 "Electrical equipment for furnaces and ancillary equipment"
CLC/BTTF 146-1	Losses of small transformers : methods of measurement, marking and other requirements related to eco-design regulation
CLC/BTTF 160-1	Recurrent Test of Electrical Equipment
CLC/WS 05	Flow batteries - Requirements and test methods

CEN & CENELEC portfolio of deliverables: 3189 ENs/HDs + 238 other deliverables

Work items currently in the Work Programmes: 569 ENs/HDs + 25 other deliverables

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
2.2 Strategic priorities for the European standardisation system
Action 1: Review of Regulation (EU) 640/2009 with regard to eco-design requirements for electric motors

Further information

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

ELECTROMAGNETIC FIELDS IN THE HUMAN ENVIRONMENT

5G technologies present new opportunities for the entire industry. This will go beyond telecommunication equipment. The future of logistics, transport, agricultural business, facility management and telecommunications will change drastically. International and European standardization committees are developing procedures for the reproducible and conservative measurement or calculation of the power density occurring near the human body by radio frequency transmitting devices, including RF equipment-embedded garments, millimetre wave and active beamforming antennas. European Standards can be used to evaluate compliance of radio devices for use in close proximity to the human body. In 2020, CLC/TC106X 'Electromagnetic fields in the human environment' will start developing such standards for compliance of radio equipment with exposure guidelines.

OPERATIONS OF ELECTRICAL INSTALLATIONS

Currently, the operation of electrical installations is standardised and harmonised at the European level only. For this reason, the application of CLC/BTTF 62-3 'Operations of electrical installations' to IEC will allow to achieve an international bundling of contents.

In this context, EN 50110-1 'Operation of electrical installations', which is to be adopted in 2020 in a new final version, serves as the basis for drawing up an International Technical Specification.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Electric cables - The work programme of CLC/TC 20 'Electric cables' for 2020 is dominated by review and small maintenance work on existing standards. This is motivated by the fact that electric cables have normally a long life span, which calls for standards to be regularly updated.

Energy and utilities

The transition to a low carbon economy has started. The Energy Union strategy is now in place, with a 'Clean Energy Package' that sets an energy efficiency target of 32,5% and at least 32% of renewable energy consumed in the EU in 2030.

The further modernisation of the EU economy and the development of more secure, affordable and sustainable energy systems for all EU citizens call for the renewal of infrastructures and the emergence of new technologies.

European standards have a big contribution to bring: they are a flexible tool to improve safety and performances, raise levels of energy efficiency and protect consumers, workers and the environment. CEN and CENELEC have a long experience of working with industry partners, the European Commission and other stakeholders to develop standards responding to the need for a cleaner and more sustainable energy system.

Standardization plays an important role in meeting EU targets by promoting best practices, improving energy efficiency and safety and providing tools to optimise installations and systems.

51 Technical bodies responsible

CEN/TC 107	Prefabricated district heating and district cooling pipe system
CEN/TC 164	Water supply
CEN/TC 165	Waste water engineering
CEN/TC 183	Waste management
CEN/TC 19	Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin
CEN/TC 230	Water analysis
CEN/TC 234	Gas infrastructure
CEN/TC 235	Gas pressure regulators and associated safety devices for use in gas transmission and distribution
CEN/TC 264	Air quality
CEN/TC 282	Installation and equipment for LNG
CEN/TC 292	Characterization of waste
CEN/TC 308	Characterization and management of sludge
CEN/TC 312	Thermal solar systems and components
CEN/TC 335	Solid biofuels
CEN/TC 343	Solid Recovered Fuels
CEN/TC 345	Characterization of soils
CEN/TC 383	Sustainably produced biomass for energy applications
CEN/TC 408	Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid
CEN/TC 411	Bio-based products
CEN/TC 430	Nuclear energy, nuclear technologies, and radiological protection
CEN/TC 441	Fuel labelling
CEN/TC 444	Test methods for environmental characterization of solid matrices
CEN/TC 451	Water wells and borehole heat exchangers
CEN/TC 454	Algae and algae products
CLC/TC 11	Overhead electrical lines exceeding 1 kV a.c. (1,5 kV d.c.)
CLC/TC 13	Electrical energy measurement and control
CLC/TC 14	Power transformers
CLC/TC 17AC	High-voltage switchgear and controlgear
CLC/TC 36A	Insulated bushings
CLC/TC 45AX	Instrumentation, control and electrical power systems of nuclear facilities
CLC/TC 45B	Radiation protection instrumentation
CLC/TC 7X	Overhead electrical conductors
CLC/TC 82	Solar photovoltaic energy systems
CLC/TC 88	Wind turbines
CLC/TC 8X	System aspects of electrical energy supply
CLC/TC 99X	Power installations exceeding 1 kV a.c. (1,5 kV d.c.)
CLC/TC 111X	Environment
CEN-CLC/JTC 2	Power Engineering
CEN-CLC/JTC 6	Hydrogen in energy systems
CEN-CLC/JTC 10	Energy-related products - Material Efficiency Aspects for Ecodesign
CEN-CLC/JTC 14	Energy management and energy efficiency in the framework of energy transition

CEN & CENELEC portfolio of deliverables: 1771 ENs + 210 other deliverables

Work items currently in the Work Programmes: 404 ENs + 29 other deliverables

Standardization requests from EC/EFTA

M/400 – Gas quality
M/458 – Household washing machines
M/459 – Household refrigerating appliances
M/481 – Household dishwashers
M/485 – Fluorescent lamps, high-intensity discharge lamps, and ballasts and luminaires able to operate such lamps
M/495 – Ecodesign
M/498 – Pumps
M/500 – Fans
M/519 – Light Emitting Diodes (LEDs)
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/543 – Material efficiency aspects
M/550 – Local space heaters
M/551 – Solid fuel boilers
M/559 – Welding equipment
M/XXX (Anticipated) – Ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coils
M/XXX (Anticipated) – Hydrogen

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
Action 1: Review of Regulation (EU) 640/2009 with regard to eco-design requirements for electric motors
Action 2: Eco-design and Energy labelling regulation for water heaters

Further information

www.cencenelec.eu/standards/Sectors/Pages/EnergyandUtilities.aspx
www.cencenelec.eu/standards/Topics/Ecodesign/Pages/Default.aspx
www.cencenelec.eu/standards/Topics/EnergyEfficiency/Pages/default.aspx

ENERGY MANAGEMENT & ENERGY EFFICIENCY

The CEN-CENELEC Sector Forum on Energy Management (SFEM) acts as an advisory and coordination body for policy and strategic matters in relation to the standardization of energy management and efficiency.

The Sector Forum adapts its activity to the latest scientific and policy trends. It gathers all stakeholders from innovation to business and finance, and from policy makers to consumers, with the aim to pave the way from innovation to market and to anticipate needs for further standardization developments. SFEM puts big emphasis on identifying the standardization needs for the energy transition and the financing, de-risking tools which can make energy efficiency possible.

At the end of 2019 SFEM finalised the 'Energy management in airports' report. Follow-up actions will continue in 2020.

In 2020, SFEM's Working Group (WG) 'Financing tools' will continue to focus on linking energy efficiency standards and sustainable financing. A joint WG was set up with CEN BTWG 219 'Strategic Advisory Body on Environment' (SABE) on 'Behaviour change' to measure the benefits of behaviour change actions. Behaviour change is one of the major challenges identified by the European Commission during the last Energy Summit.

The SFEM WG 'Energy storage' – which includes electricity, gas and heating & cooling related Task Forces – finalised the mapping exercise of standardization needs regarding Energy Storage in the electricity sector in 2019. As the topic is of high interest for CEN and CENELEC stakeholders but also for the European Commission, follow-up actions will be identified and followed up in 2020. The mapping exercise for the two other sectors, gas and heating & cooling, will continue in 2020.

The SFEM Ad-hoc-group on Clean Energy Package, which has been tasked to investigate how standardization can contribute to the energy transition (and to draft the subsequent position paper), will pursue its activities in 2020 and identify proper follow-up actions for further implementation.

The major future challenge the Sector Forum will look at in 2020 is the digitalisation of the sector, including a blockchain related strategy.

GAS INFRASTRUCTURE

In 2020, CEN/TC 234 'Gas infrastructure' will further work on a document containing general requirements for the design, manufacture, construction, testing, commissioning and operation of plants for the injection of renewable gases into natural gas networks. In addition, the group will progress on the development of a Technical Report that will investigate the consequences of hydrogen in the natural gas infrastructure (as well as a standardization roadmap for TC 234).

As part of the CEN initiative on 'Adaptation to Climate Change' (in the context of Standardization Request M/526), CEN/TC 234 will further progress on the revision of EN 15399 eliminer 'Gas Supply Systems - Guidelines for Management systems for Gas Distribution Networks' and EN 16348 'Gas infrastructure - Safety Management System (SMS) for gas transmission infrastructure and Pipeline Integrity Management System (PIMS) for gas transmission pipelines – Functional requirements' in order to consider a larger set of effects.

The Committee will also pursue the revision of the standard dealing with requirements for the production and testing of weld joints for the installation and modification of onshore steel pipelines and pipework used in gas infrastructure (prEN 12732). The revision of the project (prEN 12583) dealing with specific functional requirements for the design, construction, operation, maintenance and disposal activities for safe and secure gas compressor stations will also be on the programme of TC 234 in 2020.

ECODESIGN

In the field of Ecodesign (2009/125/EC) and Energy Labelling (2017/1369), CEN and CENELEC develop European Standards that provide dedicated methods for measuring the energy performance of various energy-related products against the compulsory determined in the Ecodesign Regulations adopted by the European Commission.

The CEN-CENELEC Ecodesign Coordination Group (ECO-CG) coordinates and advises on standardization activities in the fields of Ecodesign and Energy Labelling. The group serves as a focal point concerning all standardization issues relating to the Ecodesign Standardization Requests delivered under the framework Directive 2009/125/EC on 'Ecodesign of energy-related products' and the framework Regulation (EU) 2017/1369 on 'Energy labelling of energy-related products' and their future versions. In 2020, several Standardization Requests in support of Ecodesign and Energy Labelling Regulations are expected.

In 2020, the CEN-CENELEC Joint Technical Committee 10 (CEN-CLC/JTC 10) 'Energy-related products - Material Efficiency Aspects for Ecodesign' expects to publish the following standards developed under Standardization Request M/543 on 'Material efficiency aspects of energy-related products':

- EN 45552 'General method for the assessment of the durability of energy-related products';
- EN 45553 'General method for the assessment of the ability to remanufacture energy-related products';
- EN 45557 'General method for assessing the proportion of recycled material content in energy-related products'.

Following the publication of this series of standards, a Technical Report (TR) is expected to be published. The TR 'Definitions related to material efficiency' will constitute a collection of common terms used in deliverables prepared in accordance with M/543 with the purpose of providing a single definition of key terms used in different deliverables.

The aim of these horizontal standards - applicable to any product covered by Directive 2009/125/EC – is to give general principles to consider when addressing the material efficiency of products, such as extending product lifetime, the ability to reuse components or recycle materials from products at end-of-life and the use of recycled materials in production.

It should be noted that the standards developed by CEN-CLC/JTC 10 are intended to be used by product Technical Committees as input for the development of product-specific or product-group publications.

HYDROGEN

Hydrogen is a significant element for the energy transition as it is both an energy carrier and a storage medium with great potential for clean applications. Hydrogen is facilitating the large-scale integration of renewables, enabling grid balancing and the decarbonisation of natural gas through innovative technologies.

The uptake of hydrogen as a more common source of energy in Europe cannot succeed without proper safety standards. In this context, performative research aiming at reducing barriers to the injection of hydrogen in the natural gas grid will start in 2020. This work will require expertise and feedback from several TCs dealing with gas (such as CEN/TC 234 'Gas infrastructure', CEN/TC 408 'Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid'). This pre-normative research exercise would directly feed standardization work, allowing committees to prepare, revise or amend European Standards.

In parallel, the CEN-CENELEC Joint Technical Committee 6 'Hydrogen in energy systems' deals with devices and connections for the production, storage, transport and distribution, measurement and use of hydrogen from renewable energy sources. In 2020, the Committee will pursue its activities on the following issues: terms and definitions, guarantee of origin and safety of hydrogen in confined environments.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2019

Wind Energy - Recent years have seen a very strong uptake of renewable energy sources in Europe, with wind energy one of the most widely used. In this field, CLC/TC 88 'Wind turbines' will continue working with IEC/TC 88 'Wind energy generation systems' to develop standards for wind turbines under the framework of the Frankfurt agreement. Also in 2020, the Committee's work on several parts of the EN IEC 61400 'Wind energy generation systems' series will progress.

Solar Energy - Solar photovoltaic energy systems convert solar energy into electrical energy. CLC/TC 82 'Solar photovoltaic energy systems' is involved in all aspects of the topic, from the conversion of light to the interfaces, up to the public grid.

Standardization in this field is necessary to ensure a high level of product quality, product safety and the consideration of environmental aspects. The majority of CLC/TC 82 standards are developed by IEC and then adopted at the European level. In 2020, the publication of the EN IEC 62788 series on 'Measurement procedures for materials used in photovoltaic modules' is expected.

Nuclear Energy - Nuclear Energy, mainly used to produce electricity, generates around a third of the electricity consumed in the European Union. In the coming years, nuclear power could potentially play an important role in reducing CO2 emissions while ensuring reliable and affordable energy supplies.

The core principle for the nuclear industry is to guarantee its safety. For this reason, CEN and CENELEC, in close collaboration with ISO and IEC, are working on the development and publication of standards that ensure the safety and the environmental and technical requirements of the European nuclear energy industry.

In 2020, CLC/TC 45AX 'Instrumentation, control and electrical power systems of nuclear facilities' will adopt as European Standard IEC 61225:2019 'Nuclear power plants - Instrumentation, control and electrical power systems - Requirements for static uninterruptible DC and AC power supply systems'.

CLC/TC 45B 'Radiation protection instrumentation' expects to adopt as European Standards IEC 62401:2017 'Radiation protection instrumentation - Alarming personal radiation devices (PRDs) for the detection of illicit trafficking of radioactive material' and IEC 62327 'Radiation protection instrumentation - Hand-held instruments for the detection and identification of radionuclides and for the estimation of ambient dose equivalent rate from photon radiation'.

CEN/TC 430 'Nuclear energy, nuclear technologies, and radiological protection' expects to publish EN ISO 20785-1 and EN ISO 20785-2 on 'Dosimetry for exposures to cosmic radiation in civilian aircraft.

Electricity distribution and equipment - In 2020, CLC/TC 8X 'System aspects of electrical energy supply' will continue the development of the EN 50549 series 'Requirements for generating plants to be connected in parallel with distribution networks' with a new part regarding 'Tests demonstrating compliance of units'. The Committee will also start working on requirements for power frequency measurement in distributed energy resources to be connected to electrical energy supply systems.

In addition, the series EN 50160 'Voltage characteristics of electricity supplied by public electricity networks' will be amended. These adjustments will adapt the Standard (which specifies the main characteristics of the voltage at a network user's supply terminals in public

low, medium and high voltage AC electricity networks under normal operating conditions) to recent developments in the grids and in standardization.

Gas distribution and related services - CEN's work on gas supply covers all issues related to gas supply systems, including associated plants, from the input of gas to the transport system, up to the inlet connection of gas appliances.

Standardization in this field plays an important role in the context of the liberalisation and globalisation of markets, where both gas suppliers and manufacturers are currently facing a new economic reality characterised by increasing competition and the need for cost effectiveness.

- **Gas classification:** CEN/TC 238 'Test gases, test pressures, appliance categories and gas appliance types' will finalise and publish its work on prEN 1749 'Classification of gas appliances according to the method of supplying combustion air and of evacuation of the combustion products'. The project is intended to become a European Standard giving guidance on the harmonisation of products standards, for the preparation of installation standards and for the common understanding of the types of gas appliances around Europe.

- **Gas quality:** The composition of natural gas (and thus its quality) varies from one European country to another. Gas quality standards are important for the safe and secure delivery and use of gas all around Europe. Based on this, the CEN Sector Forum 'Gas Infrastructure' and the Sector Forum 'Gas Utilisation' have established a Joint Working Group to investigate the quality parameters of H-gas in 2017. In 2020, the group will continue gathering evidence to make recommendations to CEN/TC 234 concerning the revision of the European Standard on the quality of H-gas.

Water utilities: CEN/TC 164 is in charge of elaborating standards for the installation and performance requirements of systems and components used for the supply of water. In 2020 the Committee will finalise the revision of EN 15096 and EN 14451 related to devices to prevent pollution by backflow of potable water.

Waste management - CEN/TC 183 'Waste management' develops technical requirements to minimise all significant hazards and hazardous situations which may occur during operation and maintenance of Refuse Collection Vehicles (RCV), thus helping preventing accidents.

Besides other standardization projects, CEN/TC 183 will finish its work on four projects of the EN 1501 series in 2020. The revision of the EN 1501 series became necessary due to the increased safety precautions, in particular in connection with the use of the footboards.

- EN 1501-1 'Refuse collection vehicles - General requirements and safety requirements - Part 1: Rear loaded refuse collection vehicles'
- EN 1501-2 'Refuse collection vehicles - General requirements and safety requirements - Part 2: Side loaded refuse collection vehicles'
- EN 1501-3 'Refuse collection vehicles - General requirements and safety requirements - Part 3: Front loaded refuse collection vehicles'
- EN 1501-5 'Refuse collection vehicles - General requirements and safety requirements - Part 5: Lifting devices for refuse collection vehicles'

In addition, CEN/TC 183 intends to start revising EN 1501-4 'Refuse collection vehicles and their associated lifting devices - General requirements and safety requirements - Part 4: Noise test code for refuse collection vehicles'.

Fuels and biofuels - The development of European Standards for methods of sampling and testing of fuels is important for ensuring that consumers and businesses are provided with safe and reliable fuels.

CEN/TC 19 'Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin' is the most active TC in this sector. In 2020, the TC will finalise the development of two EN ISO standards, Part 3 of EN ISO 4259 'Petroleum and related products - Precision of measurement methods and results - Part 3: Monitoring and management of precision data in relation to methods of test' and EN ISO 8222 'Petroleum measurement systems - Calibration - Temperature corrections

for use when calibrating volumetric proving tanks'. The Committee will also complete the revision of three EN ISO standards: two of them on petroleum and related products, EN ISO 3104 'Transparent and opaque liquids - Determination of kinematic viscosity and calculation of dynamic viscosity' and EN ISO 14935 'Determination of wick flame persistence of fire-resistant fluids'. The third standard is EN ISO 12922 'Lubricants, industrial oils and related products (class L) - Family H (Hydraulic systems) - Specifications for hydraulic fluids in categories HFAE, HFAS, HFB, HFC, HFDR and HFDU4'.

The Part 1 of the Technical Report CEN/TR 15367-1 'Petroleum products - Guidelines for good housekeeping - Part 1: Automotive diesel fuels' will also be revised in 2020.

Food and agriculture

European standardization in the field of food and agriculture 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 public authorities for official control purposes and by companies producing food and feed for internal checks.

Many of the standards adopted by CEN are developed in response to formal requests from the European Commission, and they 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 cooperation between CEN and ISO. Having test methods that are recognised internationally is especially important for food companies that want to sell their products in many different markets.

An emerging topic in the field in 2020 will be in the area of plant biostimulants, in support of the recently adopted Regulation (EU) 2019/1009 laying down rules on making available on the market EU fertilising products. This regulation is based on the New Legislative Framework: as such, the legislation will rely on harmonised standards to demonstrate conformity with the essential requirements on products' safety and high quality.

14 Technical bodies responsible

CEN/TC 172	Pulp, paper and board
CEN/TC 194	Utensils in contact with food
CEN/TC 275	Food analysis - Horizontal methods
CEN/TC 302	Milk and milk products - Methods of sampling and analysis
CEN/TC 307	Oilseeds, vegetable and animal fats and oils and their by-products - Methods of sampling and analysis
CEN/TC 327	Animal feeding stuffs - Methods of sampling and analysis
CEN/TC 338	Cereal and cereal products
CEN/TC 415	Sustainable and Traceable Cocoa
CEN/TC 453	Dietary supplements and sports food free of doping substances
CEN/TC 455	Plant Biostimulants
CEN/TC 460	Food Authenticity
CEN/WS 076	Batch-based Calculation of Sustainability Impact for Captured White Fish products Acronym: WhiteFish BCSI
CEN/WS 083	Mechanically Separated Poultry Meat (MSM)
CEN/WS 086	Authenticity in the feed and food chain - General principles and basic requirements

CEN & CENELEC portfolio of deliverables: 575 ENs + 79 other deliverables

Work items currently in the Work Programmes: 115 ENs + 5 other deliverables

Standardization requests from EC/EFTA

M/520 – Test methods for mycotoxins in food
M/521, M/522, M/523 – Test methods in the field of animal nutrition
M/XXX (Anticipated) – Fertilizing products (Plant biostimulants)

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation

Further information

www.cen.eu/work/Sectors/Food_agriculture/Pages/default.aspx

FOOD AUTHENTICITY

The costs related to food fraud for the global food industry have been estimated at around 30 billion $ every year. Such a high amount threatens the proper functioning of the internal market. For this reason, the recently established CEN/TC 460 'Food authenticity' aims to strengthen consumer protection through the standardization of analytical methods regarding food authenticity, thus supporting public policy and European regulations dealing with food fraud. To that effect, the Technical Committee established four Working Groups (WG1: Concepts, terms and definitions; WG2: Species analyses using DNA-based methods; WG3: Coffee and coffee products; WG4: NMR analysis) that will start working in this field in 2020. New activities foreseen for 2020 are the development of a new European standard on 'Concepts, terms and definitions' based on CEN CWA 17369 'Authenticity and fraud in the feed and food chain - Concepts, terms, and definitions' and a European standard on differentiation between 'Robusta' and 'Arabica' coffee (HPLC method).

ANIMAL FEEDING

CEN/TC 327 'Animal feeding stuffs: methods of sampling and analysis' is preparing a prioritisation of the topics for a future Standardization Request on animal feeding stuffs in 2020. This will ensure a continuation of the work currently being finalised under Standardization Requests M/523, M/521 and M/522. With 153 million of tonnes of feedstuffs consumed by farm animals in the EU each year, this is a sector of utmost importance. Indeed, the quality of feed has a direct impact on the quality of food: by protecting the quality of feed, consumers are indirectly protected from the low-quality foodstuffs, which, even if not always toxic, might not fulfil the European legislation concerning the allowed contents and additives, residues or contaminants.

In the frame of M/523, two methods are expected to be published in 2020 on:

- Determination of pentachlorophenol (PCP) (prEN 17362 'Animal feeding stuffs: Methods of sampling and analysis - Determination of pentachlorophenol (PCP) in feed materials and compound feed by LC-MS/MS') and;
- Determination of inorganic arsenic (prEN 17374 'Animal feeding stuffs: Methods of sampling and analysis - Determination of inorganic arsenic in animal feed by anion-exchange HPLC-ICPMS')

The work will continue under the same mandate on the following items: probiotics – bacteria and yeast, simultaneous vitamins, carotenoids, mineral oil, glucosinolates, pyrrolizidine alkaloids, free gossypol and radionuclides.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Food chain microbiology - In 2020, the recently established CEN/TC 463 'Microbiology of the food chain' will continue developing standards on horizontal microbiological methods for all food and animal feeding stuffs and for any other sample (excluding human samples) that can be the source of microbial contamination of food products. The work was previously handled by the CEN/TC 275 'Food analysis' WG6, but the increased responsibilities over the years required the establishment of a proper, dedicated Technical Committee. Most of its deliverables are developed in cooperation with ISO/TC 34/SC 9 'Foods products- Microbiology' under the CEN/ISO Vienna Agreement.

Plant biostimulants - CEN/TC 455 'Plant biostimulants' will finalise its preparatory work together with CEN/TC 223 'Soil improvers and growing media', CEN/TC 260 'Fertilizers and liming materials', and ISO/TC 134 'Fertilizers, soil conditioners and beneficial substances' on the forthcoming Standardization Request on fertilizing products in support to the Regulation (EU) 2019/1009, which lays down rules on the availability on the market of EU recently adopted fertilising products.

Healthcare and health & safety

CEN and CENELEC develop European Standards setting quality, performance and safety requirements for a wide variety of medical devices and associated products ranging from contact lenses through antiseptics to road ambulances and including health informatics. Standardization plays a fundamental role in this sector, as it ensures a high level of safety for patients and users of medical devices, and it guarantees that a device used in one country can also be used in any other with the same results.

The CEN and CENELEC Advisory Board for Healthcare Standards (ABHS) advises CEN and CENELEC on possible new standardization areas in the medical field. In 2020, the ABHS will continue its focus on guiding relevant Technical Committees (TCs) in the transition to the new landscape under the Medical Devices Regulation (2017/745/EU) and the In Vitro Medical Devices Regulation (2017/746/EU), contributing to relevant Standardization Requests.

Moreover, the standardization of individual protective products, such as helmets, ropes used to prevent falls from a height or footwear resistant to chemicals, is handled by Technical Committees of the CEN-CENELEC Sector Forum on Personal Protective Equipment (PPE). One of the Forum's priorities for 2020 is to pursue the alignment of existing standards with the new PPE Regulation 2016/425/EU. This would ensure a smooth citation of those standards in the Official Journal of the European Union, allowing the manufacturers using these standards to benefit from a presumption of conformity to the Regulation.

If many standards in this sector are produced in response to Standardization Requests from the European Commission, CEN and CENELEC also develop standards initiated by the industry, which contain requirements based on the latest technology. These voluntary standards provide manufacturers with confidence that their products meet the highest safety and quality standards in Europe.

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. In 2020, SAB OH&S will concentrate on better identification of standardization projects that concern the prevention of occupational risks, health and safety protection, and the elimination of risk and accident factors by developing an early information system.

35 Technical bodies responsible

CEN/TC 55	Dentistry
CEN/TC 79	Respiratory protective devices
CEN/TC 85	Eye protective equipment
CEN/TC 102	Sterilizers and associated equipment for processing of medical devices
CEN/TC 122	Ergonomics
CEN/TC 137	Assessment of workplace exposure to chemical and biological agents
CEN/TC 140	In vitro diagnostic medical devices
CEN/TC 158	Head protection
CEN/TC 159	Hearing protectors
CEN/TC 160	Protection against falls from height including working belts
CEN/TC 161	Foot and leg protectors
CEN/TC 162	Protective clothing including hand and arm protection and lifejackets
CEN/TC 170	Ophthalmic optics
CEN/TC 204	Sterilization of medical devices
CEN/TC 205	Non-active medical devices
CEN/TC 206	Biological and clinical evaluation of medical devices
CEN/TC 215	Respiratory and anaesthetic equipment
CEN/TC 216	Chemical disinfectants and antiseptics
CEN/TC 231	Mechanical vibration and shock
CEN/TC 239	Rescue systems
CEN/TC 251	Health informatics
CEN/TC 285	Non-active surgical implants
CEN/TC 293	Assistive products and accessibility
CEN/TC 305	Potentially explosive atmospheres - Explosion prevention and protection
CEN/TC 362	Healthcare services - Quality management systems
CEN/TC 392	Cosmetics
CEN/TC 403	Aesthetic surgery and aesthetic non-surgical medical services
CEN/TC 449	Quality of care for older people
CEN/TC 450	Patient involvement in person-centred care
CLC/TC 31	Electrical apparatus for potentially explosive atmospheres
CLC/TC 62	Electrical equipment in medical practice
CLC/TC 78	Equipment and tools for live working
CEN-CLC/JTC 3	Quality management and corresponding general aspects for medical devices
CEN-CLC/JTC 16	CEN/CENELEC Joint Technical Committee on Active Implantable Medical Devices
CEN/WS 068	Quality criteria for health checks

CEN & CENELEC portfolio of deliverables: 1540 ENs + 109 other deliverables

Work items currently in the Work Programmes: 430 ENs + 23 other deliverables

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/426 – Cosmetic products (microbiological analysis)

M/467 – Medical beds
M/BC/CEN/92/46 – Explosive atmospheres (ATEX)
M/553 – Garments with integrated smart textiles and non-textiles elements for protection against heat and flame
M/XXX (Anticipated) – Explosive atmospheres (ATEX)
M/XXX (Anticipated) - Personal Protective Equipment (PPE)
M/XXX (Anticipated) – Medical Devices
M/XXX (Anticipated) – In vitro diagnostic medical devices

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
2.2 Strategic priorities for the European standardisation system
Action 6 Explosive Atmospheres (ATEX)
Action 8 Radionuclide calibrators

Further information

www.cen.eu/work/Sectors/Healthcare/Pages/default.aspx

ASSISTIVE PRODUCTS AND ACCESSIBILITY

In 2020, CEN/TC 293 'Assistive products and accessibility', in parallel with ISO/TC 173 'Assistive products', will start working on the development of an EN ISO 17966 project on 'Assistive products for personal hygiene that support users - Requirements and test methods'. The project will specify requirements and associated test methods for assistive products for personal hygiene (APPHs) that support users and are intended by the manufacturer to alleviate or compensate for disability.

In addition, the Technical Committee will start developing guidelines for interoperability between mainstream products and assistive technology. The work will include interoperability and interface between assistive and mainstream products to achieve full accessibility of technical solutions. The benefit for stakeholders is to have clearer guidelines on how to ensure that their products are interoperable with any assistive technology customer use.

ERGONOMICS

CEN/TC 122 'Ergonomics' will start a project on 'Ergonomics Personal Protective Equipment (PPE) ensembles'. The proposed standard would enable PPE ensembles, such as those worn by police, firefighters and other emergency services or industrial users, to be evaluated and objectively assessed for ergonomic performance as a whole, rather than in their individual component parts. The new standard will provide a valuable tool to help PPE manufacturers and purchasers to make informed and objective decisions in designing and selecting PPE items and creating awareness of interaction issues among them. In addition, the group will be involved in the revision of EN ISO 10075-2 'Ergonomic principles related to mental workload - Part 2: Design principles (ISO 10075-2:1996)' that shall start in 2020.

HEALTH INFORMATICS

CEN/TC 251 'Health informatics' will closely follow the new standardization activities in ISO/TC 215/SC1 'Genomics' and investigate which projects might be relevant for adoption at European level. In addition, two CEN deliverables, EN 17269 and CEN/TS 17288, will be brought to the attention of the European Commission as starting points for possible standardization activities linked to the European Electronic Health Record Exchange Format. This format has been described in Communication C(2019)800 on a 'European Electronic Health Record exchange format', which sets out the EU framework for the development of a European electronic health record exchange tool in order to achieve secure, interoperable, cross-border access to, and exchange of, electronic health data in the Union.

Furthermore, CEN/TC 251 will, in parallel with ISO, further progress on:

- CEN-ISO/TS Health informatics 'Quality & reliability criteria for developers of health and well-being apps'
- CEN-ISO/TS 22756 'Requirements for a knowledge base for clinical decision support systems'
- CEN-ISO/TS 22703 'Requirements for Medication Safety Alerts'

In order to respond to specific needs, CEN/TC 251 will continue its revision of EN 1064 'Health informatics - Standard communication protocol - Computer-assisted electrocardiography'.

CEN/TC 251 will also finalise EN ISO 12967 'Health informatics - Healthcare informatics service architecture' (together with ISO) and prCEN ISO/TS 18530 'Health informatics - Automatic identification and data capture marking and labelling - Subject of care and individual provider identification', while pursuing together with ISO the revision of EN-ISO (IEEE) 11073-series 'Health informatics - Standard communication protocol'.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Hearing protectors - CEN/TC 159 'Hearing protectors' will further discuss the inclusion in its standards of new requirements for hearing protection products and possibly on hearing protection for children. In addition, the Committee will continue its revision of the EN 352 series 'Hearing protectors' and prEN 13819-1 'Hearing protector', which include respectively new requirements and new test methods for hearing protection products.

Personal Protective Equipment - CEN/TC 162 'Protective clothing including hand and arm protection and lifejackets' will continue its work on baby neck ring (CEN/TC 162 WG 10) and will focus on the following activities in 2020:

- Protective gloves for hairdressers – Requirements and test methods
- SUCAM document on Guidelines for Selection, Use, Care and Maintenance of smart garments protecting against heat and flame
- Smart garments - Terms and Definitions

Further to that, CEN/TC 162 anticipates commencing the ISO revision of EN ISO 16602 'Protective clothing for protection against chemicals - Classification, labelling and performance requirements'.

CEN/TC 161 'Foot and leg protectors' will finalise the EN ISO 13287 'Personal protective equipment – Footwear – Test method for slip resistance' (with an ISO lead under the Vienna Agreement) in 2020. In addition, the group will further work with ISO on the developments of the following projects:

- prEN ISO 20344 'Personal protective equipment – Test methods for footwear'
- prEN ISO 20345 'Personal protective equipment – Safety footwear'
- prEN ISO 20347 'Personal protective equipment – Occupational footwear'

Further work will begin next year on the revision of prEN ISO 17249 Safety footwear with resistance to chainsaw cutting.

Chemical disinfectants - In 2020, CEN/TC 216 'Chemical disinfectants and antiseptics' will continue working on the revision of EN 14885 'Chemical disinfectants and antiseptics - Application of European Standards for chemical disinfectants and antiseptics'.

On wipes and mops, the Committee, which has been working since several years to develop testing method standards in order to evaluate the biocidal efficacy of a biocidal product combined with a mechanical action, will progress on the revision of EN 16615 'Quantitative test

method for the evaluation of bactericidal and yeasticidal activities on non-porous surfaces with mechanical action employing wipes in the medical area (4- field test) - Test method and requirements (phase 2, step 2)'.

In addition, in 2020 progress will be made on a new standard for applications of chemical disinfectants and antiseptics in food, industrial, domestic and institutional areas, while the first standard to address biocidal efficacy of product use for teat disinfection in the veterinary area will be finalized.

TC 216 will also continue its reflection on the replacement of Poliovirus across all its standards: the virus is used as a model for testing efficacy of some biocidal product CEN/TC 216 has started a reflection to identify suitable candidate.

Quality management - CEN-CENELEC/JTC 3 'Quality management and corresponding general aspects for medical devices' will further progress on the development of CEN ISO/TR 20416 on 'Medical devices – Post-market surveillance for manufacturers' and will continue developing the rest of its work programme with an ISO lead under the Vienna agreement. In addition, the following activities are due to be completed in 2020 in order to respond to specific market needs:

- Formal Draft International Standard (Enquiry) for the revision of ISO 15223-1:2016 'Medical devices - Symbols to be used with medical device labels, labelling and information to be supplied - Part 1: General requirements'
- Publication of the 3rd edition of EN-ISO 14971 'Medical devices – Application of risk management to medical devices'
- Formal Vote draft for the development of EN-ISO 20417 'Medical devices – Information to be provided by the manufacturer'

Furthermore, in preparation of the Standardization Request based on the new European Medical Devices and In Vitro Diagnostic Medical Devices Regulations (respectively 2017/745/EU and 2017/746/EU), standards EN 13485 and EN 15223-1 (both published in 2016) will be amended to include the European Annexes, allowing them to be offered to the EC for citation in the Official Journal of the European Union, thus giving presumption of conformity to the Regulations.

Non-active medical devices - CEN/TC 205 'Non-active medical devices' will finalise a major revision on test methods for primary wound dressings (EN 13726). The Committee has also an ongoing project of a standard specifying requirements and test methods for the antimicrobial activity of antimicrobial wound dressings. In the area of medical gloves, a new part for the EN 455 series is foreseen with the title 'Extractable chemical residues'.

Mechanical vibration and shock - CEN/TC 231 'Mechanical vibration and shock' will continue developing European Standards in cooperation with its counterparts ISO/TC 108 'Mechanical vibration, shock and condition monitoring', focusing especially on the vibration emission of pneumatic tools and machines.

In addition, CEN/TC 231 will finalize a Technical Report, CEN/TR 15350, which will enable employers to use existing information provided by a manufacturer of a tool for a risk analysis of the exposure of workers using it, without the need to carry out additional measurements. This Technical Report will provide employers with a benchmark facilitating risk assessment for workingplaces with vibration exposure. The new Technical Report will help employers and persons in charge of buying new equipment to estimate the quality of tools, machines and vehicles with respect to vibration emissions.

CEN/TC 231 will also progress on the development of a Technical Report giving 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.

Household appliances and HVAC

Household appliances and HVAC (Heating, Ventilation and Air Conditioning) is one of the areas where the use and importance of standards is evident in everyday life. The standardization work in this field is very broad and covers a wide range of activities. From kitchen toasters to washing machines and central heating boilers, more than 20 CEN and CENELEC Technical Committees are developing European Standards that ensure a high level of performance and safety for a wide variety of everyday products, bearing in mind the diversity of their users (such as professionals, youngsters, elderly people, people with disabilities, to name only a few).

24 Technical bodies responsible

CLC/TC 61	Safety of household and similar electrical appliances
CEN/TC 44	Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption
CEN/TC 46	Fireplaces for liquid fuels
CEN/TC 47	Atomizing oil burners and their components - Function - Safety - Testing
CEN/TC 48	Domestic gas-fired water heaters
CEN/TC 49	Gas cooking appliances
CEN/TC 57	Central heating boilers
CEN/TC 58	Safety and control devices for burners and appliances burning gaseous or liquid fuels
CEN/TC 62	Independent gas-fired space heaters
CEN/TC 106	Large kitchen appliances using gaseous fuels
CEN/TC 109	Central heating boilers using gaseous fuels
CEN/TC 110	Heat exchangers
CEN/TC 113	Heat pumps and air conditioning units
CEN/TC 130	Space heating appliances without integral heat sources
CEN/TC 131	Gas burners using fans
CEN/TC 171	Heat cost allocation
CEN/TC 180	Decentralized gas heating
CEN/TC 181	Appliances and leisure vehicle installations using liquefied petroleum gas and appliances using natural gas for outdoor use
CEN/TC 195	Air filters for general air cleaning
CEN/TC 238	Test gases, test pressures, appliance categories and gas appliance types
CEN/TC 295	Residential solid fuel burning appliances
CEN/TC 299	Gas-fired sorption appliances, indirect fired sorption appliances, gas-fired endothermic engine heat pumps and domestic gas-fired washing and drying appliances.
CLC/TC 59X	Performance of household and similar electrical appliances
CEN/CLC/JTC 17	Fuel cell gas appliances

CEN & CENELEC portfolio of deliverables: 672 ENs + 13 other deliverables

Work items currently in the Work Programmes: 218 ENs + 1 other deliverables

Standardization requests from EC/EFTA

M/BC/CEN/89/6 – Gas appliances
M/XXX (Anticipated) – Gas appliances Regulation
M/511 – Low Voltage Directive
M/536 – Radio Equipment Directive
M/552 – Electromagnetic Compatibility
M/396 – Machinery
M/534 – Water heaters
M/535 – Space heaters
M/550 – Local space heaters
M/551 – Solid fuel boilers

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
Action 2 Eco-design and Energy labelling regulation for water heaters
Action 3 Eco-design requirements for household dishwashers, household washing machines and household washer-dryers

Further information

www.cencenelec.eu/standards/Sectors/Pages/HouseholdappliancesandHVAC.aspx
www.cencenelec.eu/standards/Topics/Ecodesign/Pages/Default.aspx

SAFETY OF HOUSEHOLD APPLIANCES (ELECTRICAL)

The standardization work on the safety of household appliances is under the responsibility of CLC/TC 61 'Safety of household and similar electrical appliances'. This Technical Committee develops, in parallel and close cooperation with its international counterpart IEC/TC 61, standards containing safety requirements for electrical appliances intended primarily for household use, but also for appliances for commercial use, such as those used in professional kitchens. European Standards on the safety of household and similar electrical appliances (part of the EN 60335 series) are continuously adapted in order to fit with the latest technological changes.

ECODESIGN OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

CLC/TC 59X 'Performance of household and similar electrical appliances' prepares European Standards on methods of measurement for characteristics which are important to determine the performance of electrical appliances for household or commercial use that are of interest for the user.

Following the adoption by the Commission of new energy efficiency labels covering, among others, dishwashers, washing machines, washer-dryers and refrigerators, CLC/TC 59X expects to publish in 2020 EN 60436 'Electric dishwashers for household use - Methods for measuring the performance' and EN IEC 62512 'Electric clothes washer-dryers for household use - Methods for measuring the performance'. CLC/TC 59X will also deal with the development of resource-efficiency standards regarding household dishwashers, washing machines and washer-dryers via a specific Working Group. In addition, the Committee will also be involved in the drafting and publication of CLC/TS 50707 'Clothes washing machines and washer-dryers for household and similar use - Method for the determination of temperature inside the laundry load', which provides a measurement and evaluation method for the determination of the representative maximum temperature reached inside the base load during the washing cycle of a washing machine or washer-dryer.

In the field of vacuum cleaners, the Committee is following up the development in its international counterpart, IEC/TC 59 'Performance of household and similar electrical appliances', of standards that are relevant for European legislation on Ecodesign and Energy Labelling. An example is EN IEC 62885-7, which defines methods for measuring the performance of dry-cleaning robots for household use.

The Ad-hoc Group on consumer-relevant products will continue discussing the ways of assessing standards to reflect 'real-life conditions' while also being suitable for producing measurement standards with the required repeatability and reproducibility necessary to support Ecodesign and Energy labelling legislation. The Working Group, in close collaboration with CEN-CENELEC Ecodesign Coordination Group – Task Force 2 on Tolerance and Uncertainties, will continue addressing anti-circumvention in the development of standards under Ecodesign and Energy Labelling regulations.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Safety of household appliances - In 2020, CEN/TC 106 'Large kitchen appliances using gaseous fuels' will continue its revision of the EN 203 series dealing with gas heated catering equipment. These ENs specify the general requirements and the operating characteristics related to aspects such as safety, rational use of energy, marking and the associated test methods for gas-heated commercial catering and bakery appliances intended to be used indoor. These projects aim to support the Gas Appliances Regulation (2016/426/EU).

In 2020, CEN/TC 49 'Gas cooking appliances' shall finalise its revision of the EN 30 series, dealing with domestic cooking appliances burning gas. The ENS in this series specify the requirements and the test methods for the safety and marking of freestanding and built-in domestic cooking appliances burning combustible gases (such as table cookers, griddles, hobs and grills), in support of the Gas Appliances Regulation (2016/426/EU).

In 2020, CEN/TC 109 'Central heating boilers using gaseous fuels' will progress on work on the EN 13203 series setting out a method for the assessment of energy consumption of gas-fired domestic appliances producing hot water.

Heating, cooling, ventilation and air conditioning (HVAC) - The HVAC sector includes applications ranging from appliances burning gas or oil and solid fuels through refrigeration, heat pumps and

heat exchangers for ventilation. Also in this sector, CEN and CENELEC are developing harmonised standards that provide dedicated methods for measuring the energy performance of various energy-related products, such as heating and cooling appliances or ventilation units, against the compulsory values and thresholds laid down in Ecodesign Regulations adopted by the European Commission for energy-related products.

These harmonised standards are elaborated on the basis of a request from the European Commission to develop a European standard that provides solutions for compliance with legal provisions. In 2020, the relevant CEN and CENELEC Technical Committees will continue with the revision and development of 26 standards under the Standardization Request on Ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coils.

In 2020, CEN/TC 113 'Heat pumps and air conditioning units' will further progress on the revision of EN 14511 series regarding 'Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors'.

Mechanical and machinery

The work of CEN and CENELEC in standardization for the mechanical and machinery sector brings together about 50 technical bodies dealing with different types of machinery for use in agriculture, industrial manufacturing, mining, construction and by consumers. The sector also includes ten technical bodies dealing with laboratory, optical and precision equipment (excluding glasses), two technical bodies developing standards on welding and a further twelve that handle the standardization work on tanks and pressure equipment. These Technical Committees (TCs) are mainly composed of industry representatives (manufacturers), notified bodies, national health and safety institutes and representatives from the market surveillance organizations from interested Member States.

A considerable proportion of the documents produced are harmonised standards that give users the presumption of conformity with the EU Directives on Machinery (2006/42/EC), Lifts (2014/33/EU), Pressure equipment (2014/68/EU), Simple pressure vessels (2014/29/EU) and Measuring instruments (2014/32/EU).

Many CEN and CENELEC standards for machinery, pressure equipment and measuring instruments are identical to international standards: this is an important characteristic, since the markets for these products tend to be global, going beyond national or European markets.

The mechanical and machinery sector is therefore a good example of bringing together European requirements with an internationally accepted approach.

Standards keep the pace of technological development through the involvement of experts from different backgrounds. The aim of the new CEN-CENELEC-ETSI Coordination Group on Smart Manufacturing is to ensure an overall coordination of the standardization activities related to Industry 4.0/Smart manufacturing in cooperation with stakeholder groups outside CEN and CENELEC.

The CEN-CENELEC Sector Forum on Machinery Safety facilitates the exchange of information between different stakeholders, coordinates between them and identifies standardization needs.

75 Technical bodies responsible

CEN/TC 10	Lifts, escalators and moving walks
CEN/TC 12	Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries
CEN/TC 23	Transportable gas cylinders
CEN/TC 54	Unfired pressure vessels
CEN/TC 69	Industrial valves
CEN/TC 74	Flanges and their joints
CEN/TC 92	Water meters
CEN/TC 98	Lifting platforms
CEN/TC 114	Safety of machinery
CEN/TC 121	Welding and allied processes
CEN/TC 123	Lasers and photonics
CEN/TC 142	Woodworking machines - Safety
CEN/TC 143	Machine tools - Safety
CEN/TC 144	Tractors and machinery for agriculture and forestry
CEN/TC 145	Plastics and rubber machines
CEN/TC 146	Packaging machines - Safety
CEN/TC 147	Cranes - Safety
CEN/TC 148	Continuous handling equipment and systems - Safety
CEN/TC 149	Power-operated warehouse equipment
CEN/TC 150	Industrial Trucks - Safety
CEN/TC 151	Construction equipment and building material machines - Safety
CEN/TC 152	Fairground and amusement park machinery and structures - Safety
CEN/TC 153	Machinery intended for use with foodstuffs and feed
CEN/TC 168	Chains, ropes, webbing, slings and accessories - Safety
CEN/TC 176	Thermal energy meters
CEN/TC 182	Refrigerating systems, safety and environmental requirements
CEN/TC 186	Industrial thermoprocessing - Safety
CEN/TC 188	Conveyor belts
CEN/TC 190	Foundry technology
CEN/TC 196	Mining machinery and equipment - Safety
CEN/TC 197	Pumps
CEN/TC 198	Printing and paper machinery - Safety
CEN/TC 202	Foundry machinery
CEN/TC 210	GRP tanks and vessels
CEN/TC 211	Acoustics
CEN/TC 213	Cartridge operated hand-held tools - Safety
CEN/TC 214	Textile machinery and accessories
CEN/TC 232	Compressors, vacuum pumps and their systems
CEN/TC 236	Non industrial manually operated shut-off valves for gas and particular combinations valves-other products
CEN/TC 237	Gas meters
CEN/TC 240	Thermal spraying and thermally sprayed coatings
CEN/TC 255	Hand-held, non-electric power tools - Safety
CEN/TC 265	Metallic tanks for the storage of liquids
CEN/TC 267	Industrial piping and pipelines
CEN/TC 268	Cryogenic vessels and specific hydrogen technologies applications

CEN/TC 269	Shell and water-tube boilers
CEN/TC 270	Internal combustion engines
CEN/TC 271	Surface treatment equipment - Safety
CEN/TC 286	Liquefied petroleum gas equipment and accessories
CEN/TC 310	Advanced automation technologies and their applications
CEN/TC 313	Centrifuges
CEN/TC 318	Hydrometry
CEN/TC 322	Equipments for making and shaping of metals - Safety requirements
CEN/TC 332	Laboratory equipment
CEN/TC 334	Irrigation techniques
CEN/TC 344	Steel static storage systems
CEN/TC 393	Equipment for storage tanks and for filling stations
CEN/TC 397	Baling presses - Safety requirements
CEN/TC 399	Gas Turbines applications - Safety
CEN/TC 406	Mechanical products - Ecodesign methodology
CEN/TC 423	Means of measuring and/or recording temperature in the cold chain
CEN/TC 429	Food hygiene - Commercial warewashing machines - Hygiene requirements and testing
CEN/TC 433	Entertainment Technology - Machinery, equipment and installations
CEN/TC 438	Additive Manufacturing
CEN/TC 458	Industrial rotating mixing systems
CEN/WS 093	Industrial Symbiosis
CEN/WS 097	Articulated industrial robots - Elastostatic compliance calibration
CLC/TC 2	Rotating machinery
CLC/TC 26	Electric welding
CLC/TC 44X	Safety of machinery: electrotechnical aspects
CLC/TC 66X	Safety of measuring, control, and laboratory equipment
CLC/TC 116	Safety of motor-operated electric tools
CLC/BTTF 128-2	Erection and operation of electrical test equipment
CEN-CLC/JTC 18	Non automatic weighing instruments (NAWI)
CEN-CLC/WS Monsoon	Predictive management of data intensive industrial processes

CEN & CENELEC portfolio of deliverables: 2187 ENs/HDs + 97 other deliverables

Work items currently in the Work Programmes: 589 ENs/HDs + 19 other deliverables

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/541 - Measuring instruments
M/549 - Lifts
M/XXX (Anticipated) – Machinery
M/XXX (Anticipated) – Machinery used in the offshore oil and gas industry

Relevant elements of EU Work Programme 2020

2.2 Strategic priorities for the European standardisation system

Further information

www.cencenelec.eu/standards/Sectors/Pages/Mechanicalandmachinery.aspx

LIFTS

Lifts and escalators were among the first industrial goods to have a dedicated Technical Committee in European standardization: CEN/TC 10 'Lifts, escalators and moving walks', established in 1962. The TC has in its portfolio more than 40 published standards, 75% of which are harmonised under the Lifts (2014/33/EU) or Machinery (2006/42/EC) Directives. In 2020, CEN/TC 10 will work on a number of revisions of these standards as well as on certain new interesting projects, in particular:

- a joint project with ISO/TC 178 under the Vienna Agreement (CEN lead) to revise ISO 8100-1 and ISO 8100-2, which are identical adoption of EN 81-20 and EN 81-50. The project will result in establishing EN ISO 8100-1 and EN ISO 8100-2 as global standards for safety of lifts. Those EN ISO standards are expected to be published by September 2022 and will supersede EN 81-20 and EN 81-50 accordingly. In addition, CEN/TC 10 will start the alignment of the EN 81 series of standards to EN ISO 8100-1 and EN ISO 8100-2.
- two brand new standards EN 81-45 and EN 81-46 addressing safety requirements for lifting appliances with and without well enclosure;
- a new CEN/TS 81-60 providing a checklist to verify compliance of an installed lift to EN 81-20;
- a new CEN/TS 81-13, providing guidance on safe access to lift wells.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Mechanical engineering - CEN/TC 114 'Safety of machinery' produces standards and other documents on general principles for the safety of machinery, including terminology and methodology. Close to 100% of the standards published by CEN/TC 114 related to the safety of machinery are developed in cooperation with ISO/TC 199, and most of them support the Machinery Directive (2006/42/EC).

In the framework of activities related to smart manufacturing, CEN/TC 114, in cooperation with ISO/TC 199, will work on several documents addressing safety of machinery for new technologies. The following documents are planned to be published:

- CEN/ISO/TR 22100-4 'Safety of machinery - Relationship with ISO 12100 - Part 4: Guidance to machinery manufacturers for consideration of related IT-security (cyber security) aspects' will provide a machine manufacturer with practical assistance regarding the impact of cybersecurity attacks on machine safety;
- EN ISO 21260 'Safety of Machinery - Mechanical safety data for physical contacts between moving machinery and people' will specify maximum levels for forces, pressure, speed of movements etc. The project is carried out in co-operation with ISO/TC 299 'Robotics'.

Laboratory, optical and precision equipment (excl. glasses) - The activities on measuring instruments, laboratory and lasers equipment are partially undertaken to support Directive 2014/32/EU on Measuring Instruments (MID). As part of this work, CEN/TC 176 'Thermal energy meters' will continue a full revision of the EN 1434 series 'Thermal energy meters' on requirements and tests for heat meters, with the objective to update it in line with new knowledge in the field. Furthermore, CEN/TC 176 will work on a related CEN/TR referring to the EN 1434 series in order to provide a guideline on the selection, installation and operation of thermal energy meters for users.

Recently reactivated CEN-CLC JTC 18 'Non automatic weighing instruments (NAWI)' will start working on the revision of harmonised standard EN 45501:2015 'Metrological aspects of non-automatic weighing instruments' in support of NAWI Directive 2014/31/EU.

CEN/TC 332 'Laboratory equipment' will continue collaboration with its international counterpart, ISO/TC 48, on the adoption of European Standards for laboratory equipment. Furthermore, another major project of CEN/TC 332 is the revision of EN 14175-3 'Fume cupboards – Part 3: Type test methods', which aims at improving technically the test method related to the usage of SF6.

CEN/TC 332/WG 2 'Fittings and fixtures' has been reactivated recently in order to update according to the latest developments EN 14740 'Safety storage cabinets for flammable liquids' and EN 14056 'Laboratory furniture - Recommendations for design and installation'. The new CEN/TC 322/WG 8 'Safety cabinets and isolators' will further work on the revision of EN 12469 'Biotechnology - Performance criteria for microbiological safety cabinets' in order to bring it to the current state of the art.

Agriculture machinery & motor-operated electric tools - For 30 years CEN/TC 144 'Tractors and machinery for agriculture and forestry' has been producing standards in the service of agriculture, forestry and gardening activities. CEN/TC 144 is currently developing 35 projects that are geared towards machine safety and operator protection, taking into account the protection of the environment, technological innovations and efficiency needs. These documents play an important part in decreasing the risk of accidents for farmers and foresters and in reducing the use of pesticides. They also contribute to the renewal of the machinery fleet, contributing to adapting it to new farming techniques. The standards target as main users not only farmers, foresters and manufacturers, but also public authorities in charge of prevention at work and inspection of machines, insurance companies, research and testing organizations and technical institutes.

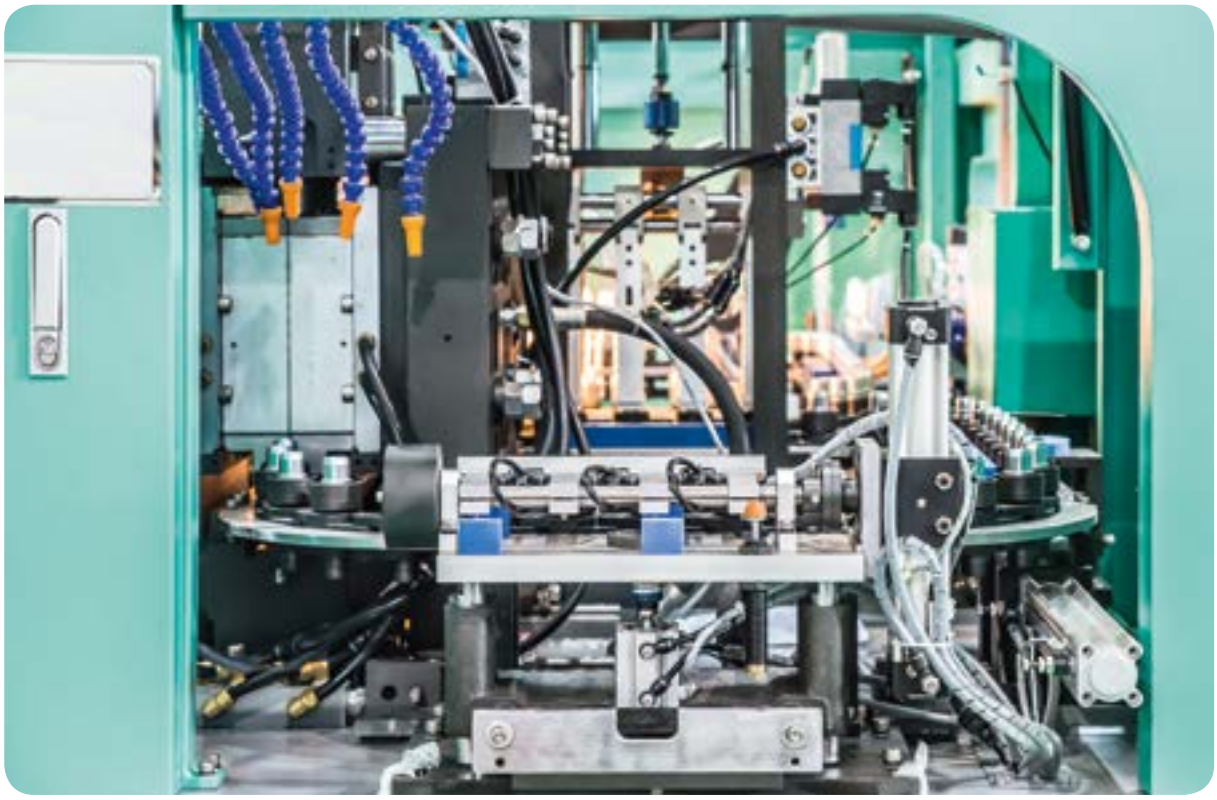
In 2020, CEN/TC 144 will also work on EN 17344 'Requirements for braking deals of self-propelled agricultural and forestry vehicles for on-road use', which will mainly deal with means for verification. It will be possible to use the document in approval processes.

Furthermore, the TC plans to develop several standards for forestry machines, such as for wood chippers (EN 13525), for portable chain-saw (EN ISO 11681-1 and EN ISO 11681-2) or for winches (EN ISO 19472-2) in support of the Machinery Directive (2006/42/EC) in order to cover the hazards linked with the use of the machines and specify the information to be provided by manufacturers to users.

In addition, TC 144 will work on the three-part EN ISO 19932 series on knapsack sprayers of a volume bigger than 6 litres for a professional use, the first two parts of which aim to support the Machinery Directive (2006/42/EC) while, the third part aims to support the Directive on Sustainable use of pesticides (2009/128/EC). The standards will help manufacturers to address both the safety aspects - by preventing contact with pesticides - and environmental aspects - by preventing leakage of a product and improving the accuracy of spraying.

The main role of CLC/TC 116 'Safety of motor-operated electric tools' is to adapt the standards of its counterpart, IEC/TC 116, to the requirements of the Machinery Directive (2006/42/EC). In 2020, CLC/TC 116 will continue working on the development of a series of harmonized European Standards (hENs) for the safety of various electric motor-operated hand-held tools, transportable tools, and lawn and garden machinery which will include among others:

- EN IEC 62841-2-3 on 'Hand-held grinders';
- EN IEC 62841-2-6 on 'Hand-held hammers';
- EN IEC 62841-3-7 on 'Transportable wall saws';
- EN IEC 62841-4-4 on 'Lawn trimmers'.



In addition, CLC/TC 116 and its IEC counterpart will work on the revision of the Part 1 of the series (EN IEC 62841-1) dealing with general requirements.

Industrial machinery - The 'Industrial machinery' subsector comprises 38 CEN and CENELEC technical bodies, dealing with the wide range of machinery used by the industry (e.g. paper, textile, food, oil and gas, amusement....).

Many of the documents are harmonised standards in support of the Machinery Directive (2006/42/EC).

The standards developed by CEN/TC 12 'Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries' support petroleum and natural gas industries in the reduction of their costs, the increase of business efficiency (economic benefits), the improvement of technical integrity and the establishment of a common technology base. Such standards are used by oil and gas companies, service companies, manufacturers and authorities.

In 2020, CEN/TC 12 'Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries' will publish EN 16808 'Safety of machineries - Manual elevators' which will be the TC's first harmonised standard in support of Machinery Directive (2006/42/EC).

Moreover, a considerable number of documents will be finalised in cooperation with ISO/TC 67. Among them:

- EN ISO 29001 'Petroleum, petrochemical and natural gas industries - Sector-specific quality management systems - Requirements for product and service supply organizations';
- several revisions and certain new documents in the ISO 19900 series in the field of offshore structures;
- the first documents in the ISO 35100 series in the field of Arctic operations.

CEN/TC 12 will also work on a number of documents, including EN ISO 10423 'Petroleum and natural gas industries - Drilling and production equipment - Wellhead and Christmas tree equipment', the EN ISO series 10426 'Petroleum and natural gas industries - Cements and materials for well cementing' and the revision of EN ISO 13703 'Petroleum and natural gas industries - Piping systems on offshore production platforms and onshore plants (will become a 2 parts document).

In 2020, CEN/TC 145 'Plastics and rubber machines' will:

- start the revision of EN 289:2014 on safety requirements for compression moulding machines and transfer moulding machines, which covers machines listed in Annex IV of the Machinery Directive 2006/42/EC;
- start the revision of EN 422:2009 on safety requirements of blow moulding machines, that has a particular relevance for the large use of such machines in the production of bottles and containers for food packaging;
- finalise, in cooperation with ISO/TC 270, the new standard EN ISO 23582-1 on magnetic clamping systems for plastics and rubber machines.

CEN/TC 150 'Industrial Trucks – Safety' will continue the revision of EN 16307-1 on 'Safety requirements and verification for supplementary requirements for self-propelled industrial trucks, other than driverless trucks, variable-reach trucks and burden-carrier trucks' to reduce risk to operators of industrial trucks and provide manufacturers with clearly defined minimum levels of design safety. This will focus on the challenge of foreseeable misuse by operators attempting to circumvent safety devices intended to ensure that the operator is restrained within the protective structure in the event of the truck tipping over. This will benefit workers, as every year there are fatalities where restraint devices are not correctly used.

CEN/TC 310 'Advanced automation technologies and their applications' in cooperation with ISO/TC 299 will continue the revision of the two EN ISO 10218 standards 'Robots and robotic devices - Safety requirements for industrial

robots' in support of the Machinery Directive (2006/42/EC): Part 1 on robots and Part 2 on robot systems and integrators. The documents will address safety functions in light of new or developing technologies.

The standards of CEN/TC 433 'Entertainment Technology - Machinery, equipment and installations' provide common safety requirements and guidelines for the use of machinery throughout Europe to the benefit of workers in the entertainment industry. In 2020, the TC will continue the work on two main projects: EN 17206 'Lifting and Load-bearing Equipment for Stages and other Production Areas within the Entertainment Industry - Specifications for general requirements (excluding aluminium and steel trusses and towers)' and 'Codes of Practice - Part 5: Lifting and motion Operations in the Event Industry'.

Machinery for mining, quarrying, construction equipment - The subsector 'Machinery for mining, quarrying, construction equipment' comprises six CEN technical bodies, the biggest of which is CEN/TC 151 'Construction equipment and building material machines – Safety', which carries out standardization activities in the field of safety of machines and equipment used on construction sites, for winter service and highway maintenance, as well as for the production and processing of mineral building materials.

In 2020, CEN/TC 151 will start working on the revision of EN ISO 13766-1 'Earth-moving and building construction machinery - Electromagnetic compatibility (EMC) of machines with internal electrical power supply - Part 1: General EMC requirements under typical electromagnetic environmental conditions (ISO 13766-1:2018)'; the objective of the revision is to improve the test methods. The main users of this standard are laboratories for EMC testing, construction and earth-moving machinery manufacturers and notified bodies for EMC.

Pressure equipment - CEN/TC 54 is a major actor of standardization in the field of Pressure equipment. In this framework, CEN/TC 54/WG 11 has the task of working on standards dealing with pressure equipment and components fabricated with additive manufacturing methods. This field is a promising and innovative field of standardization for pressure equipment. In 2020, additive manufacturing will be a new dimension of the EN 13445 series. In particular, CEN/TC 54 will work on EN 13445 'Unfired pressure vessels – Part 14: Additional requirements for pressure equipment and pressure components fabricated with additive manufacturing method'.

Mining and metals

Standards in the mining and metals sector address the definition, classification, testing, analysis and technical delivery requirements of the products of the metal industry. The main stakeholders involved in this standardization work are National Standards Bodies (NSB), manufacturers and users of metallic products.

This sector produces European standards that support several pieces of legislation, such as the new Pressure Equipment Directive, the Simple Pressure Vessels Directive and the Construction Products Regulation. Furthermore, in this field, European standardization enjoys close collaboration with international standardization. In particular, around 30% of iron- and steel-related standards are adopted from, or developed in collaboration with, ISO.

9 Technical bodies responsible

CEN/TC 132	Aluminium and aluminium alloys
CEN/TC 133	Copper and copper alloys
CEN/TC 184	Advanced technical ceramics
CEN/TC 219	Cathodic protection
CEN/TC 262	Metallic and other inorganic coatings, including for corrosion protection and corrosion testing of metals and alloys
CEN/TC 342	Metal hoses, hose assemblies, bellows and expansion joints
CEN/TC 459	ECISS activities
CEN/WS MODA	Materials modelling terminology, classification and metadata
CLC/WS SGRM	Specifications for Graphene Related Material

CEN & CENELEC portfolio of deliverables: 923 ENs + 39 other deliverables

Work items currently in the Work Programmes: 134 ENs + 3 other deliverables

Standardization requests from EC/EFTA

M/120 – Structural metallic products
M/131 – Pipes, tanks not in contact with drinking water

Relevant elements of EU Work Programme 2020

2.2 Strategic priorities for the European standardisation system

Further information

www.cen.eu/work/areas/Materials/Pages/default.aspx

IRON AND STEEL

In 2020 CEN/TC 459 ' ECISS - European Committee for Iron and Steel Standardization' will provide inputs to the draft Standardization Request on 'Reinforcing and Pre-stressing and steel', whose first draft CEN received in 2019 and finalization is expected in 2020.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Metal hoses, hose assemblies, bellows and expansion joints - CEN/TC 342 'Metal hoses, hose assemblies, bellows and expansion joints' will focus on developing two standards, the first one on metal bellows expansion joints for pressure applications and the second one, in collaboration with ISO, on pipework vocabulary.

Chemical analysis for iron and steel - CEN/TC 459/SC 2 'Methods of chemical analysis for iron and steel', in the course of 2020, will work in parallel with ISO to develop standards on the determination of cobalt, total silicon, vanadium, low carbon content in unalloyed steel and sampling.

Steel tubes and fittings for steel tubes - CEN/TC 459/SC 10 'Steel tubes and fittings for steel tubes' will work on general, technical delivery and tolerances, dimensions and sectional property standards for cold formed welded structural stainless steel hollow sections. The SC will also work on malleable cast iron fittings with compression ends for steel pipes, a series for buried and above ground piping components for fluids, fittings in general and fittings for food, chemical and pharmaceutical industries.

Services

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 remains small (around 2% of total) in comparison to the number of European standards and the economic importance of the service sector in Europe. This means that there is significant untapped potential for the development and use of European service standards.

The creation and use of European standards can contribute to the creation and development of a Single Market for services, to foster cross-border trade and enhance safety and performance, together with ensuring 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, competitiveness and increasing efficiency. Service standards are a useful tool to promote best practices, to spread knowledge throughout the market and to define a common terminology relevant to different services sectors.

19 Technical bodies responsible

CEN/TC 138	Non-destructive testing
CEN/TC 279	Value management - Value analysis, function analysis
CEN/TC 290	Dimensional and geometrical product specification and verification
CEN/TC 319	Maintenance
CEN/TC 329	Tourism services
CEN/TC 331	Postal services
CEN/TC 348	Facility Management
CEN/TC 381	Management consultancy services
CEN/TC 389	Innovation Management
CEN/TC 409	Beauty Salon Services
CEN/TC 431	Service Chain for Social Care Alarms
CEN/TC 435	Tattooing services
CEN/TC 445	Digital information Interchange in the Insurance Industry
CEN/TC 447	Horizontal standards for the provision of services
CEN/TC 448	Funeral services
CEN/TC 452	Assistance Dogs
CEN/TC 456	Reporting in support of online gambling supervision
CEN/TC 457	Digital preservation of cinematographic works
CEN-CLC/JTC 1	Criteria for conformity assessment bodies

CEN & CENELEC portfolio of deliverables: 288 ENs + 54 other deliverables

Work items currently in the Work Programmes: 56 ENs + 8 other deliverables

Standardization requests from EC/EFTA

M/517 - Horizontal Service Standards
M/548 - Postal services and the improvement of quality of service in support of Directive 97/67/EC
M/558 - Reporting in support of supervision of online gambling services by the gambling regulatory authorities

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
2.2 Strategic priorities for the European standardisation system

Further information

www.cen.eu/work/areas/services/Pages/default.aspx

POSTAL SERVICES

For more than a decade, CEN has been developing Standards in support of the Postal Services Directive (97/67/EC and amendments). The EU policy objective consists of ensuring that efficient, reliable and good-quality postal services are available throughout the EU to all consumers at affordable prices.

In 2019, CEN/TC 331 'Postal services' continued the development of standards and other deliverables in response European mandate M/548 'Postal services and the improvement of quality of service'. The 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. Based on this work, in 2020 TC 331 will develop standards compliant with security and customs requirements for electronic advanced data and to promote the interoperability of parcel-delivery operations. CEN also will publish a new Standard on 'Postal services - Quality of service - Complaints handling principles' (EN 14012).

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.

HORIZONTAL SERVICES

Horizontal services cover common elements in the provision of services, such as service contracts, performance measurements and terminology.

Currently, CEN/TC 447 'Horizontal service standards' activities focus on defining a suite of three horizontal standards in response to Standardization Request M/517. These standards, related to the provision of services and due for 2020, will need to be capable of flexible application across the wide range of services, such as guidance for the design and structure of contracts, performance measurement and assessment of the capacity of service providers.

INTEGRITY AND ACCOUNTABILITY IN PUBLIC PROCUREMENT

In 2020, the newly established Technical Committee CEN/TC 461 'Public Procurement' will strive to set out requirements on integrity and accountability in the context of EU public procurement.

The standardization initiative stems from the discussions under the JIS Action 11 'Increased use of standards in Public Procurement' and the need expressed by stakeholders (EU businesses and public authorities). The new standard which will originate from this work will underpin EU legislation on public procurement - Directive 2014/24/EU on public procurement and Directive 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sectors.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Facility management services - CEN/TC 348 'Facility management' has been developing a series of standards related to the operational, tactical and strategic aspects to support primary facility management processes in Europe. In 2020 a new suite of the EN 15221 series will be finalised by the committee experts: taxonomy, classification and structures (Part 4), Guidance on facility management processes (Part 5) and area and space measurement (Part 6).

Insurance services - Digitalisation and the automation of insurance business processes require the standardization of information interchange whenever electronic business processes address insurance clients and other independent organizations.

The European standards to be developed by CEN/TC 445 'Digital information interchange' will facilitate the connection between insurance companies, their customers and their market partners, e.g. brokers, sales organizations, portals, service providers, and other insurers.

The new standard on interfaces for document transfer and processing will benefit the insurance industry by reducing the costs for printing, paper and physical transportation and secure transfer will highly support consumer privacy protection.

Tattooing services - CEN/TC 435 'Tattooing services' will publish a standard (EN 17169) on 'Hygiene requirements before and during tattooing and for aftercare'. This standard sets out best practices for tattooists and their routine interactions with clients and public authorities. It also gives guidelines for the correct procedures to be used to ensure optimum protection of the client and the tattooist (and whichever other person) in the tattoo work area.

Online gambling services - The scale of reporting obligations for online gambling providers, namely on the type, format and frequency, varies from one country to another. CEN/TC 456 'Reporting in support of online gambling supervision' gathered gambling operators, software providers and consumer organizations to define a methodology to report on online gambling activities which will allow to meet reporting obligations stemming from national gambling legislations.

Work is underway to develop a standard on the core elements for the reporting of data for supervision purposes to the competent gambling regulatory authorities in Europe.

The upcoming standard will answer Standardization Request M/558 'Reporting in support of supervision of online gambling services by the gambling regulatory authorities'.

Transport and 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 (aerospace, road, rail, maritime, etc.) and for horizontal topics such as interoperability, intermodality, 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 Standardization Requests by the European Commission. These Harmonised Standards (hENs) support the implementation of relevant European legislation, including the EU Directives relating to the interoperability of Europe's rail system (2016/797/EU), cableway installations designed to carry passengers (2016/424/EU), recreational craft and personal watercraft (2013/53/EU) and the deployment of alternative fuels infrastructure (2014/94/EU). CEN and CENELEC's standardization activities on the field count on the support of a wide range of professional associations.

29 Technical bodies responsible

CEN/TC 15	Inland navigation vessels
CEN/TC 119	Intermodal Loading Units and Cargo Securing
CEN/TC 226	Road equipment
CEN/TC 242	Safety requirements for passenger transportation by rope
CEN/TC 245	Leisure accommodation vehicles
CEN/TC 256	Railway applications
CEN/TC 261	Packaging
CEN/TC 274	Aircraft ground support equipment
CEN/TC 278	Intelligent transport systems
CEN/TC 296	Tanks for the transport of dangerous goods
CEN/TC 301	Road vehicles
CEN/TC 320	Transport - Logistics and services
CEN/TC 326	Natural Gas Vehicles - Fuelling and Operation
CEN/TC 333	Cycles
CEN/TC 337	Road operation equipment and products
CEN/TC 354	Light motorized vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use
CEN/TC 377	Air Traffic Management
CEN/TC 413	Insulated means of transport for temperature sensitive goods with or without cooling and/or heating device
CEN/TC 436	Cabin Air Quality on civil aircraft - Chemical Agents
CEN/WS 069	Car-Adaptations for Drivers and Passengers of Motor Vehicles
CEN/WS 090	Real drive test method for collecting emission
CEN/WS CORE	Multiconstellation based services for goods transport tracking & tracing applications
CLC/BTTF 116-2	Alcohol interlocks
CLC/BTTF 69-3	Road traffic signal systems
CLC/TC 9X	Electrical and electronic applications for railways
CLC/TC 18X	Electrical installations of ships and of mobile and fixed offshore units
CLC/TC 69X	Electrical systems for electric road vehicles
CEN-CLC/JTC 5	Space
ASD-STAN	Aerospace *

** ASD-STAN is a special case: in the frame of a Cooperation Agreement with CEN, ASD-STAN develops specifications that are taken over in the CEN procedures for publication as ENs. The figures related to ASD-STAN standards & work programme are counted separately.*

CEN & CENELEC portfolio of deliverables: 1234 ENs + 180 other deliverables

Work items currently in the Work Programmes: 311 ENs + 71 other deliverables

Standardization requests from EC/EFTA

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/496 – Space Industry

M/524 – Air Traffic Management
M/533 – Alternative Fuels Infrastructure
M/542 – Recreational craft II
M/557 – Marine equipment
M/XXX – Drones
M/XXX -- PEMS
M/XXX – Plastic Bottle Caps

Relevant elements of EU Work Programme 2020

Directive (EU) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment
Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems
Directive (EU) 2019/520 of the European Parliament and of the Council of 19 March 2019 on the interoperability of electronic road toll systems and facilitating cross-border exchange of information on the failure to pay road fees in the Union
Directive (EU) 2019/1161 of the European Parliament and the Council of 20 June 2019 amending Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles
New Standardization Request on Caps of beverage containers to support article 6 of the new Directive 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment
New Standardization Request on Compostability of plastic carrier bags to support Directive (EU) 2018/852 of the European Parliament and of the Council of 30 May 2018 amending Directive 94/62/EC on packaging and packaging waste
Portable Emission Measuring Systems (PEMS) performance assessment.
"Open" Category (<25kg) Unmanned Aircraft Systems (UAS) – Buy and fly air drones – EASA Opinion 2018/001 (see below).
New Standardization Request to support Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system within the European Union (recast).

Further information

www.cen.eu/work/areas/transport
www.cen.eu/work/areas/airspace/aerospace/Pages/default.aspx

AIRCRAFT AND SPACECRAFT, AND RELATED EQUIPMENT

CEN and CENELEC are coordinating the development of harmonized standards (hENs) for small (<25 kg) 'buy and fly' drones, as requested by the European Aviation Safety Agency's (EASA) Opinion 2018/001.

Work on the issue shall be performed under a Delegated Act within the frame of a specific Standardization Request, to be implemented by the European Commission in early 2020.

CEN and CENELEC will continue coordinating the development of standards for space products and applications within CEN-CENELEC JTC5, managed by the European Coordination for Space Standardization (ECSS), in line with the new EU-Space Programme and as required in Standardization Request M/496 (in the course of renewal).These standards shall support the proposed Space Programme of the EU.

On the specific subject of Cabin Air Quality, CEN will pursue its cooperation with all stakeholders in the frame of CEN/TC 436 'Cabin Air Quality on civil aircraft - Chemical Agents', including EASA. The publication of EN 17436 'Cabin air quality on civil aircraft - Chemical compounds' is expected for end 2020.

MOTOR VEHICLES, VEHICLE BODIES, TRAILERS OR SEMI-TRAILERS, PARTS AND ACCESSORIES FOR VEHICLES AND THEIR ENGINES

CEN/TC 301 'Road vehicles' is developing standards in response to various EC Standardization Requests, including M/421 and M/533.

In relation to alternative fuels vehicles, CEN and CENELEC will be finalising the standards needed for the deployment of electric buses.

CEN/TC 326, the Technical Committee working on natural gas vehicles, will issue a new standard (EN 13423) on the requirements for NGV workshops and the management of compressed natural gas (CNG) vehicles. This standard is a major step for the deployment of the alternative fuels infrastructure on the European road network, and it constitutes a new phase of standardization within the frame of M/533 on Alternative Fuels Infrastructure. EN 13423 will have a huge impact on various categories of stakeholders, such as gas suppliers, the car industry, national regulators, and users.

RAILWAY AND TRAMWAY LOCOMOTIVES AND ROLLING STOCK AND ASSOCIATED PARTS

In the railways sector, CEN and CENELEC together with ETSI maintain the Sector Forum 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) with the aim to ensure that European Standards are compatible with the latest Technical Specifications for Interoperability (TSI).

In order to maintain the competitiveness of this sector, it is important to incorporate the relevant elements of research into existing or new standards. CEN and CENELEC work in close collaboration with the Joint Undertaking 'Shift2Rail'. The main task for 2020 will be the updating of numerous existing standards to take into account the needs of the industry or changes in the TSIs but brand new standards will be finalised such as:

- FprEN 50641:2019 'Railway applications - Fixed installations - Requirements for the validation of simulation tools used for the design of traction power supply systems'
- prEN 50702:2019 'Railway applications - Rolling stock - Third rail current collectors (shoegear): Characteristics and tests'
- prEN 50546:2019 'Railway applications - Rolling Stock - Three phase shore (external) supply system for rail vehicles and its connectors'
- CLC/prTS 50701:2019 'Railway Applications – Cybersecurity'
- FprCEN/TR 17469 'Railway applications - Axle design method'
- prEN 17285 'Railway applications - Acoustics - Measuring of door audible warnings'

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Ships, boats and related equipment - Recently created CEN/TC 464 'Small Craft' is collaborating with its international counterpart, ISO/TC 188 (Small Craft), to review and revise its Harmonised Standards in line with the requirements of the latest EU Directive on recreational craft and personal watercraft (2013/53/EU). In particular, work will be focussed on 'Waste water treatment' and 'Steering Systems'.

In support to the Marine Equipment Directive (2014/90/EU), CEN and CENELEC are developing respectively a Standard on 'Fire Hose for marine use' and on 'Public address and general emergency alarm systems'.

Cable-supported transport systems with cabins - CEN/TC 242 (Safety requirements for passenger transportation by rope) will continue the initiated revision of prEN 15700 'Safety for conveyor belts for winter sport or leisure use', a standard that is important for the safety of children using those devices.

Road equipment and miscellaneous transport equipment - In the frame of the future deployment of automated vehicles, CEN/TC 226 'Road Equipment' is investigating on the needs and possibilities to improve the road signalling; initial exchanges have taken place. No projects have been initiated at this stage.

Supporting and auxiliary transport services - 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 regularly updated to meet the needs of the industry.

Alternative fuels - In the continuation of its work on the development of alternative fuels, CEN-CENELEC will work on the following projects in 2020:

- prEN IEC 62196-2 'Plugs, socket-outlets, vehicle connectors and vehicle inlets - Conductive charging of electric vehicles - Part 2: Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories'
- prEN IEC 61980-1 'Electric vehicle wireless power transfer (WPT) systems - Part 1: General requirements'
- prEN 17127 rev 'Outdoor hydrogen refuelling points dispensing gaseous hydrogen and incorporating filling protocols'
- prEN 17124 rev 'Hydrogen fuel - Product specification and quality assurance - Proton exchange membrane (PEM) fuel cell applications for road vehicles'
- prEN ISO 19363 'Electrically propelled vehicles - Magnetic field wireless power transfer - Safety and interoperability requirements'
- prEN ISO 18246 rev 'Electrically propelled mopeds and motorcycles - Safety requirements for conductive connection to an external electric power supply'
- FprEN 17360 'Inland navigation vessels - Stanchions and holders for tiltable and detachable railings'
- FprEN 17361 'Inland navigation vessels - Outboard ladders'
- prEN 17321 'Intermodal loading units and commercial vehicles – Transport stability of packages – Minimum requirements and tests'
- FprEN 16990 'Light motorized vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use - Side by Side Vehicles - Safety requirements and test methods'
- FprEN 17128 'Light motorized vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use - Personal light electric vehicles (PLEV) - Safety requirements and test methods'

Accessibility

The adoption in 2019 of the 'European Accessibility Act' (Directive EU 2019/882) is a big step forward to promote the inclusion of the 80 million persons with disabilities in Europe. As a direct consequence of population ageing, this figure is expected to increase to 120 million by 2020.

The Directive includes common accessibility requirements for a wide range of products and services. European standardization has a role to play in ensuring the proper functioning of the EU internal market for accessible products and services, by developing consensus-based requirements and specifications.

European Standards are powerful tools to promote accessible products and services that people with functional limitations, including persons with disabilities, can use, operate and understand on an equal basis with others. Persons with disabilities and ageing people, among others, benefit directly from a product, good or service when it is easy to access, understand and use.

Accessibility is also recognised as a human right by the UN Convention on the Rights of Persons with Disabilities and is at the core of the European Disability Strategy 2010-2020.

CEN/BT/WG 213, the Strategic Advisory Group on Accessibility (SAGA), advises the CEN and CENELEC Technical Boards on political and strategic matters related to accessibility. It is working to promote further accessibility throughout the process of developing European Standards, from the early stages

7 Technical bodies responsible

CEN/TC 10	Lifts, escalators and moving walks
CEN/TC 293	Assistive products and accessibility
CEN/TC 315	Spectator facilities
CEN/TC 452	Assistance Dogs
CEN-CLC/JTC 11	Accessibility in the built environment
CEN-CLC/JTC 12	Design for All
CEN-CLC-ETSI/JWG eAcc	eAccessibility

Standardization requests from EC/EFTA

M/420 – Accessibility in the built environment
M/554 – Requirements on the accessibility of the websites and mobile applications in support of Directive (EU) 2016/2102 on the accessibility of the websites and mobile applications of public sector bodies

Relevant elements of EU Work Programme 2020

Action 12 Accessibility for persons with disabilities

Further information

www.cencenelec.eu/standards/Topics/Accessibility/Pages/default.aspx

eACCESSIBILITY

The CEN-CENELEC-ETSI Joint Working Group on eAccessibility will finalize the third edition of EN 301 549 'Accessibility requirements for ICT products and services'. The standard will be a candidate for citation in the Official Journal of the European Union, which will allow it to provide presumption of conformity with the requirements of Directive 2016/2102/EU (relevant to accessibility of websites and mobile applications of public sector bodies) through Standardization Request M/554.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Accessibility - In 2020 and for the coming years, support and engagement by key stakeholders will be required to continue the work on Standardization Request M/473 'Design For All' and for the long-term implementation of accessibility in standards. The CEN/BT/WG 213 Strategic Advisory Group on Accessibility (SAGA) will continue acting as the key coordinating group for CEN and CENELEC related to accessibility and Design For All.

SAGA will keep supporting the work of the CEN and CENELEC technical bodies by providing recommendations on how to approach the deliverables in relation to Accessibility and by encouraging training and education. The European Accessibility Act (EEA) mentions standards from M/473 'Design For All', and new Standardization Requests are expected. SAGA will also play an important role in the preparatory work concerning new (accessibility related) Standardization Requests with regards to other Regulations and Directives than the EEA and the Web Accessibility Directive.

In addition, SAGA will keep following the activities under M/420 and M/554 and acting as a central point of contact for the CEN and CENELEC members, the ISO community and the European institutions.

Another objective is also to extend the cooperation with non-European standardization committees, e.g. in China, Canada, USA and South Korea, while maintaining the close level of cooperation with the Japanese Industrial Standards Committee (JISC).

Environment

European standards developed in support of the protection of the environment are important to reach the objectives of EU environmental policies and legislation and the Sustainable Development Goals of the UN 2030 Agenda. Standards help to tackle climate change, ensure the conservation of our natural environment and implement the sustainable use of resources and energy.

In order to be more successful in its mission, CEN and CENELEC's work in the environmental sector is also strongly reliant on engaging environmental experts in an advisory role. In the standards development process, representatives from the environmental sector help standard writers to include environmental and climate change considerations in standards.

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

Thanks to CEN and CENELEC's work invested in the greening of European Standards, companies and organizations using them are contributing to the protection of the environment. The use of these standards not only helps companies to meet legal requirements, but they can also benefit financially by reducing their use of resources such as energy and water, producing less waste, preventing accidents, improving resilience to climate change and avoiding clean-up costs and fines. 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, thus gaining access to new business opportunities.

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 and climate policies.

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

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.

8 Technical bodies responsible

CEN/TC 230	Water analysis
CEN/TC 264	Air quality
CEN/TC 292	Characterization of waste
CEN/TC 308	Characterization and management of sludge
CEN/TC 345	Characterization of soils
CEN/TC 366	Materials obtained from End-of-Life Tyres (ELT)
CEN/TC 444	Test methods for environmental characterization of solid matrices
CLC/TC 111X	Environment

Standardization requests from EC/EFTA

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
M/561 – Measurement of VOCs that are Ozone precursors

Relevant elements of EU Work Programme 2020

2.1 Harmonised European standards in support of EU legislation
2.2 Strategic priorities for the European standardisation system
Action 13 Reuse of fishing gear

Further information

www.cen.eu/work/areas/env/Pages/default.aspx

www.cenelec.eu/dyn/www/f?p=104:7:1549404979927101::::FSP_ORG_ID,FSP_LANG_ID:1258637,25

www.cencenelec.eu/standards/Topics/Environment/Pages/Default.aspx

CIRCULAR ECONOMY AND PLASTICS

In 2020, the CEN Strategic Advisory Body for the Environment (SABE) will change its organizational structure to better address major horizontal standardization challenges related to the implementation of the Circular Economy. The new structure will allow a better coordination and a quicker response to related initiatives.

SABE will continue to work on the elaboration of the Standardization strategy on Circular Economy with a focus on plastics.

ADAPTATION TO CLIMATE CHANGE

CEN and CENELEC work intensively on the development and revision of fourteen standards identified in 2017 to support of the EU Strategy on Adaptation to Climate Change. The objective of this effort is to make European infrastructure resilient to the impact of a rapidly changing climate.

The revision and development of the fourteen priority standards is ongoing in the relevant Technical Committees working on the priority sectors, such as transport, energy, construction, and ICT. The first set of standards will represent best practice examples for ensuring resilience to the adverse effects of climate change within other sectors.

In 2020, CEN and CENELEC will also start working on the extension of the adaptation work to cover more sectors that may be impacted by climate change.

IMPROVED PARTICIPATION IN ENVIRONMENTAL ASPECTS OF STANDARDIZATION

The EU-funded project 'Engaging more standard bodies and national environmental organizations in the environmental aspects of standardization' aims at engaging some active members and national environmental organizations to participate more actively in the environmental protection-related strategic discussions and standardization work of CEN. The project is at its mid-term and in 2020 a good amount of work will be based on the experience gained in the previous two years. Standardization and its environmental aspects enjoy increasing visibility and appreciation through the national workshops organised in the country of each project partner.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Air quality - CEN/TC 264 'Air quality' closely follows the latest technical research and policy developments related to the identification of air pollutants and continuously develops and revises standards that allow the measurement and the comparison of measurement results of known pollutants across the EU, in line with the current European legislation.

In 2020, the TC will finalise the development of the following standards in the field of air emissions: EN 17340 'Determination of mass concentration of fluorinated compounds expressed as HF - Standard reference method', EN 17389 ' Quality assurance and quality control procedures for automated dust arrestment plant monitors' and EN 17359 'Bioaerosols and biological agents - Sampling of bioaerosols and collection in liquids - Impingement method'. The revision of EN 13725 'Determination of odour concentration by dynamic olfactometry and odour emission rate from stationary sources' will also be completed.

In the field of ambient air quality, EN 17346 'Standard method for the determination of the concentration of ammonia by diffusive sampling' will be finalised in 2020.

Following the completion of validation works, the development of the standards under M/513 on the measurement of gaseous hydrogen chloride and M/514 on the determination of fugitive emissions of Volatile Organic Compounds will continue in 2020. The development of new standards under the Ozone precursor mandate M/561 will start in 2020. The TC also works on the development of a series of standardization requests with the EC.

Environmental characterization of solid matrices - CEN/TC 444 'Test methods for environmental characterization of solid matrices' was established to develop horizontal multi-matrix standards. It covers standardization of test methods for the environmental characterization of soil, solid and liquid waste, biowaste and sludge. Since its establishment, the TC has operated in close co-operation with the TCs that develop related standards in the environmental sector. The work of TC 444 is expected to be expanded in 2020 to cover the work of CEN/TC 292 'Characterization of waste' and / or CEN/TC 345 'Characterization of soils', which decided to transfer their last remaining standards to TC 444.

Regarding standardization work, the TC will continue developing and revising a number of standards. The revision of EN 16192 'Analysis of eluates', a standard on waste characterisation and the revision of EN ISO 11063 'Direct extraction of soil DNA', a standard on soil quality, will be completed. EN 17322 'Environmental Solid Matrices - Determination of polychlorinated biphenyls (PCB) by gas chromatography - mass selective detection (GC-MS) or electron-capture detection (GC-ECD)' will merge the revision of two earlier standards in 2020.

Water analysis - CEN/TC 230 'Water analysis' will continue developing a large number of standards will be ongoing in 2020, many of them in parallel with ISO.

In 2020, TC 230 will publish a new guidance document, EN 17233 'Guidance for assessing the efficiency and related metrics of fish passage solutions using telemetry', and it will revise a second one, EN 14614 'Guidance standard for assessing the hydromorphological features of rivers'.

Part 1 of EN ISO 5667-1 'Guidance on the design of sampling programmes and sampling techniques' will also be revised.

Smart technologies

Technologies are becoming 'smarter' every day and capable of adapting and modifying their behaviour to fit the environment through wireless access, databases and sensors. The Internet of Things (IoT) is, for example, one of the enablers of the current Industrial revolution, known as Industry 4.0, fostering the automation and data exchange in manufacturing technologies.

Standardization needs to adapt quickly in order to cope with developments such as the rapid changes in markets, their increased levels of complexity, the changing business environment and a more dynamic and participatory society. Lines between traditional standardization areas are blurred, thus requiring effective action to break down the traditional 'vertical silos' approach.

The concepts of 'smartness' and 'digitalisation' should not only be addressed in terms of technology performance, but also be embedded in the process of long-term sustainable development. Standards provide a basis for integrating technologies into complex systems, preventing vendor lock-in, and facilitating interoperability and data exchange. Standards play a crucial role in the consolidation of the European Digital Single Market and contribute to the competitiveness of the European Industry.

CEN and CENELEC are engaged in many technical sectors such as smart grids, smart meters, smart cities, IoT, smart appliances and smart homes. The two standardization organizations work together to develop standards supporting the development of an open and competitive market and actively cooperate with ISO and IEC to reach agreements on common standards that can be applied throughout the world, thereby facilitating international trade.

49 Technical bodies responsible

CEN/TC 92	Water meters
CEN/TC 171	Heat cost allocation
CEN/TC 176	Heat meters
CEN/TC 224	Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment
CEN/TC 225	AIDC technologies
CEN/TC 234	Gas infrastructure
CEN/TC 237	Gas meters
CEN/TC 247	Building Automation, Controls and Building Management
CEN/TC 251	Health informatics
CEN/TC 278	Intelligent transport systems
CEN/TC 287	Geographic Information
CEN/TC 294	Communication systems for meters
CEN/TC 318	Hydrometry
CEN/TC 353	Information and Communication Technologies for Learning, Education and Training
CEN/TC 365	Internet Filtering
CEN/TC 428	Digital Competences and ICT professionalism
CEN/TC 434	Electronic Invoicing
CEN/TC 440	Electronic Public Procurement
CEN/TC 445	Digital information Interchange in the Insurance Industry
CEN/TC 465	'Sustainable and Smart Cities and Communities'
CEN/WS 084	Self-Sovereign Identifier for Personal Data Ownership and Usage Control (CEN WS ISÆN)
CEN/WS FATEDA	Standards-Compliant Formats for Fatigue Test Data
CEN/WS ICT	ICT/SKILLS Workshop (IT profiles and curricula)
CEN/WS JXF	XFS for the Java Platform
CEN/WS METEDA	Mechanical Test Data
CEN/WS SCS	Description and Assessment of Good Practices for Smart City Solutions
CEN/WS XFS	eXtensions for Financial Services
CLC/WS 04	Interoperability framework requirements specification for services to the home (IFRS)
CLC/TC 8X	System aspects of electrical energy supply
CLC/TC 13	Electrical energy measurement and control
CLC/TC 46X	Communication cables
CLC/TC 57	Power systems management and associated information exchange
CLC/TC 59X	Performance of household and similar electrical appliances
CLC/TC 65X	Industrial-process measurement, control and automation
CLC/TC 86A	Optical fibres and optical fibre cables
CLC/TC 86BXA	Fibre optic interconnect, passive
CLC/TC 100X	Audio, video and multimedia systems and equipment and related sub-systems
CLC/TC 108X	Safety of electronic equipment within the fields of Audio/Video, Information Technology and Communication Technology

CLC/TC 205	Home and Building Electronic Systems (HBES)
CLC/TC 209	Cable networks for television signals, sound signals and interactive services
CLC/TC 210	Electromagnetic Compatibility (EMC)
CLC/TC 215	Electrotechnical aspects of telecommunication equipment
CLC-ETSI/JWG	Digital Dividend
CEN-CLC-ETSI SF	Smart and sustainable cities and communities
CEN-CLC/JTC 13	Cybersecurity and Data Protection
CEN-CLC/JTC 8	Privacy management in products and services
CEN-CLC/WS INACHUS	Urban search and rescue (USaR) robotic platform technical and procedural interoperability
CEN-CLC/WS SEP2	Industry Best Practices and an Industry Code of Conduct for Licensing of Standard Essential Patents in the field of 5G and Internet of Things
CEN-CLC/WS SEP-IoT	Workshop on Best Practices and a Code of Conduct for Licensing Industry Standard Essential Patents in 5G and the Internet of Things (IoT), including the Industrial Internet and connectorised components

Standardization requests from EC/EFTA

M/338	Interoperabilty of electonic road toll systems in the community
M/453	Information and communication technologies to support the interoperability of co-operative for intelligent transport in the European community
M/546	Urban ITS (Intelligent Transport Systems) in the field of road transport and for interfaces with other modes of transport

Relevant elements of EU Work Programme 2020

2.2 Strategic priorities for the European standardisation system

Further information

www.cencenelec.eu/standards/Sectors/ICT/Pages/default.aspx

SUSTAINABLE AND SMART CITIES AND COMMUNITIES

The CEN Technical Board created in October 2019 the new CEN/TC 465 'Sustainable and Smart Cities and Communities'. The Technical Committee is responsible for standardization in the field of Sustainable and Smart Cities and Communities covering the development of requirements, frameworks, guidance and supporting tools and techniques.

The Technical Committee will address specific European needs through a consistent approach with the activities of ISO/TC 268 'Sustainable Cities and Communities'. Furthermore, it is expected to support the UN Sustainable Development Goals and address European research projects.

The activities of CEN/TC 465 will support the development and implementation of a holistic and integrated approach to the achievement of sustainable development and sustainability in response to the needs of European Cities and Communities. In particular, the TC is expected to develop a series of standards relying on:

- ISO's six purposes of urban development sustainability: resilience, attractiveness, well-being, social cohesion, preservation and improvement of environment, responsible resource use;
- Provisions for all cities and communities and their interested parties in both rural and urban areas;
- The use of smart solutions as a means to achieve the sustainability of urban development.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

Artificial Intelligence - Artificial Intelligence (AI) is progressing continuously and is widely affecting the industry through, among others, automation, data management, and the integration of smart technology. Society is also impacted, as AI changes the way businesses operate, streamlining production, transforming workers' skillsets and affecting the day-to-day life of consumers.

Challenges identified in the European Commission's Communication COM(2018) 237 refer to the deployment, interoperability, scalability, societal acceptability, concerns, safety and liability of AI, thus creating a need for standardization. European standardization is an essential element to avoid fragmentation in the Digital Single Market and ensure a people-centric approach to AI by making sure that it is benefitting society.

In 2020, the CEN-CENELEC Focus Group on Artificial Intelligence will continue developing the European roadmap for AI standardization, which is the starting point for the identification of specific European standardization needs. The Focus Group will mirror international standardization, where the development of standards has already started in ISO/IEC JTC 1 SC 42 and in IEC SEG 10.

AI ethics is one of the core issues at the heart of the European approach to AI and hence a core issue for the AI Focus Group. The European Commission's High-Level Expert Group on AI (AI HLEG) has already proposed a set of guidelines that need to be considered and protected in the context of AI. The Focus Group will provide recommendations on how to best support and implement this set of guidelines using standardization.

Smart Grids and Smart Metering + Ontologies - Ensuring a smooth and sustainable energy transition, together with the adaptation to climate change, are among the most critical developmental challenges of our time. In order to tackle them, the transition to a low carbon and circular economy has already started. In November 2016, the European Commission published the 'Clean Energy for All Europeans' package, setting an energy efficiency target of 32.5% and at least 32% for the share of renewable energy consumed in the European Union in 2030.

In this context, smart grids mark a new development on the path towards greater consumer empowerment and integration of renewable energy sources - wind, solar, biomass, biofuels, geothermal, hydropower, and ocean energy - into the grid and higher energy efficiency, while making a considerable contribution to reducing greenhouse emissions. It is clear that the energy transition goes together with the digitalisation of the industry. Accordingly, CEN and CENELEC continue working on breaking down technical barriers that prevent the creation of a single market for energy, the reduction of energy costs and the further deployment of new technologies that can support the energy transition.

In 2020, the Smart Energy Grids Coordination Group will continue advising on European requirements relating to smart energy grids standardization, especially in respect to the set of requirements resulting from the European Commission's the Clean Energy Package (CEP), which contains proposals for new rules for a consumer-centred clean energy transition. Following the publication of the 'Clean Energy Package' report by the group in 2019, the publication of an updated report is expected. This report intends to address the key legal propositions of the CEP that are considered as most relevant for standardization and an initial assessment of priority topics for the CG-SEG. Moreover, the update of the report on Smart Grids set of standards is also expected by beginning 2020.

In the field of smart meters, the Coordination Group on Smart Meters will continue to advise on European requirements relating to smart metering standardization, and to monitor, coordinate and provide input to the development of new and update of existing standards for advanced metering infrastructures. The Group will also promote further identification of standard supporting the roll-out of smart meters in Europe. In this context, standards support the expected massive rollout of smart metering systems in Europe: by 2020, at least 80% of consumers shall be equipped with

intelligent metering systems. Standards will assist consumers to obtain timely accurate information from their meters, and take into account the different market models already in place in the Member States.

Both Coordination Groups will continue working to ensure interoperability within smart metering and smart grids systems (as well as smart appliances, smart home systems, buildings, etc.). In light of this, back in 2015, the European Commission funded the development of a study aiming at bringing together semantics and data from smart appliances in buildings and households. This information was gathered in a Smart Appliances Reference Ontology, known as SAREF, which aims to link information coming from different smart appliances, based on different standards, in order to reach interoperability. In this context, and as a follow-up to the CEN-CENELEC Mapping Ontologies Workshop held in November 2018, CEN and CENELEC's work on ontologies will take place in the Ad-Hoc Group 'Energy management ontology', which was created under the umbrella of CLC/TC 205 'Home and Building Electronic Systems (HBES)'. This ad-hoc group aims to develop a common standard ontology starting from existing data models available (CEN, CENELEC, ISO and IEC).

The Coordination Groups will also promote the industry's wider implementation of standards for smart grids and meters and liaise with the international standardization organizations, ISO and – especially - IEC. The collaboration aims to achieve consistency between European and international standards, to avoid the duplication of work and to ensure that a consolidated view is taken into account at international level. In particular, the Coordination Group on Smart Energy Grids will formalise its relationship with the IEC System Committee on Smart Energy.

Intelligent Transport Systems - CEN/TC 278 'Intelligent Transport Systems' is developing European Standards and Technical Specifications within the domain of Intelligent Transport Systems (ITS) as a response to relevant Standardization Requests (such as M/338, M/453 and M/546).

Such standards cover aspects that include cooperative systems, travel and traffic information, route guidance and navigation, public transport, emergency vehicles and electronic fee collection.

CEN cooperates closely with CENELEC, ETSI and ISO to ensure a coherent approach to standardization.

The most promising field of activities is ITS in Urban areas (M546): work has been initiated within the new WG 17 of CEN/TC 278 and deliverables will continue to be published in 2019. Other projects could be initiated, such as on ITS Public Transport Alternative Modes (intended to be the basis for the alternative modes DATA exchange format).

A series of new projects for an 'eCall' system for automatic notification of road accidents will continue to be progressed in 2020 with the initiation of a project team on eCall Extension & Migration Preparatory Study.

Strategic highlights

Digital Transformation

In a continuously evolving global market, standardization must become more flexible and agile in order to address the challenges of the digital transformation of industry.

CEN and CENELEC, in the framework of their Strategic Plan for Digital Transformation, are currently working on three Digital Transformation projects in close collaboration with their international counterparts ISO and IEC. CEN and CENELEC strongly believe that it is essential for all members of the international standardization community to coordinate and work together to offer a unique user interface for their experts and ensure interoperability across the international, regional and national levels. For this reason, they will continue working on three ongoing projects:

- **1. Online Standardization** focusses on creating a modern, consistent, and integrated working environment for Technical Bodies, NSBs and central secretariats.

  In this context, CEN and CENELEC are participating to the developments at ISO and IEC level on collaborative tools, such as online authoring and web conferencing. A pilot project on 3 or 4 CEN-CENELEC Technical Committees is likely to start in the first months of 2020Further planning details are expected from ISO and IEC in order to align the start of the CEN-CENELEC pilot phase to ISO and IEC one. In parallel to the pilot, the project will focus on assessing the impact of online standardization on the CEN and CENELEC production line, the translation process and the assessment of consultants.

  For the collaboration tool, CEN will follow the decision of ISO on the eCommittees platform.

- **2. Standards of the future** explores how to adapt the standardization process and governance to securely deliver machine-interpretable standards.

  Two pilot projects, managed in parallel between CEN and ISO/TC 67/SC3, are currently being conducted on Construction and on Petroleum. The objective of these projects is to work with existing standards and focus on XML-restructuring requirements, in order to make them machine-interpretable. The two pilot projects will be continuing in 2020 given the complexity of the tasks encountered during their implementation.

  The Task Force Digital Content will liaise with the Working Group tasked to analyse the financing models of the SDOs and with Project 1 'Online Standardization' in order to exchange information and consider each other's recommendations. The same Task Force will also continue its work on the English language versions of XML-structured CEN standards (which will be acquired from 6 CEN-CENELEC Members) and will provide its feedback on the XML content available.

  In relation to XML, ISO, IEC, CEN and CENELEC need to work together on harmonised rules for the use of the NISO STS (National Information Standards Organization Standards Tag Suite), a standard for the XML-encoding of standards documents essential for the exploitation of the digital content by National Standardization Bodies.

- **3. Open Source Innovation** aims at linking standardization and 'open source' by establishing relationships with open source communities and adopting a methodology to integrate open source activities and their output into standardization. In 2020, the main results of an initial pilot project on e-invoicing (CEN/TC434) will be evaluated in further projects. Hence, the draft proposal for a structure of Open Source Software Groups and the development process for Open Source Software (OSS) deliverables will be further analysed: in the first months of 2020, the responsible Task Force will organise a workshop to discuss the main requirements with OSS Communities and TC experts. In 2020, a call for pilot projects will be launched among CEN-CENELEC, OSS Groups and JRC. The Task Force will also analyse the final report from the JRC study.

In 2020, the newly established Strategic Advisory Group on Digital and Information Technology (DITSAG) will provide strategic guidance and advice to CEN-CENELEC Boards on IT strategic priorities, mirroring the corresponding international groups, ISO ITSAG and IEC ITAG.

Research and innovation

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

Under the leadership of the joint CEN-CENELEC BT Working Group on Standardization, Innovation and Research (STAIR), the standardization community has invested substantial resources to promote the inclusion of work packages in Research & Innovation projects and to ensure members build up the necessary expertise to participate in these projects.

As part of their Innovation Strategic Plan, CEN and CENELEC focus their efforts on fully engaging the research and innovation (R&I) community in standardization. This objective will be achieved through a number of initiatives. Some examples:

- **Success stories,** collected from the CEN and CENELEC members and offered to the R&I community, will promote the value of standards for creating market impact.
- **Standards + Innovation Awards** will be given to innovators and researchers as well as to European research projects who have contributed to standardization to scale up their innovative ideas. CEN and CENELEC's standardization processes will be fine-tuned to lower the perceived barriers for contributing project outcomes to standardization, while ensuring that the link with the existing standardization infrastructure is optimised.
- **CEN-CENELEC's Technology Market Watch** will allow to gather process information on promising new topics for standardization, thus fostering the development of appropriate actions.

Inclusiveness of the European Standardization System

CEN and CENELEC, with their members, the national standardization organizations, are fully committed to supporting organizations representing small and medium-sized enterprises (SMEs), consumers, workers and environmental interests in standardization. Stakeholders are encouraged to engage with the national standardization organizations and, through them, to take part in the European and international standardization system. To reinforce further the representativeness of SMEs and of societal stakeholders in the process of developing standards, CEN and CENELEC encourage and facilitate their appropriate representation and effective participation at the different stages of the development of European standards or other deliverables. In particular, European stakeholder organizations – the European Association for the Coordination of Consumer Representation in Standardisation (ANEC), the European Environmental Citizens Organization for Standardization (ECOS), the European Trade Union Confederation (ETUC) and Small Business Standards (SBS) – receive Union financing in accordance with European Regulation 1025/2012. ANEC (representing the interests of consumers in standardization), ECOS (representing environmental interests) and SBS (representing SMEs) have signed partnership agreements with CEN and CENELEC, while ETUC (representing workers' interests) has signed a partnership agreement with CEN only. In line with CEN-CENELEC Guide 25 'The concept of partnership with European organizations and other stakeholders', partnerships with stakeholders organizations are developed taking into account their complementary roles and are respectful of the different levels at which such cooperation may take place, be it at national or European level. However, partnerships developed under Guide 25 do not remove the need for the members of the partner organizations to participate in the work of their national standard bodies and national electrotechnical committees, where

national opinions are formed, votes are decided and consensus has to be reached.

Supporting SME participation

CEN and CENELEC, in close cooperation with SBS, in the framework of the implementation of Regulation 1025 with regards to Annex III organisations, facilitate SMEs' participation in standardization at the national and European levels and promote awareness amongst SMEs of the added value standardization brings for their business. Together with their national members, and in close cooperation with 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 at all levels. These tools include the following:

- An interactive educational tool providing an interactive environment for entrepreneurs, managers and employees who work for 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. An evaluation and possible revision of the tool is foreseen for the 2020 joint activities.
- An online 'SME Toolbox of Solutions' describes the benefits of standards, how to find the right standards and where to obtain relevant information.
- 42 national SME helpdesks are service centres that provide direct support the SMEs' participation in the standardization system.
- CEN-CENELEC Guide 17 'Guidance document for standard writers taking into account SME needs' has been published by CEN and CENELEC to give advice and recommendation to standard writers on how to take into account SMEs needs. The Guide is available in 27 languages and has also been jointly adopted by ISO and IEC and published as ISO/IEC Guide 17.

Furthermore, 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 and 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. All the above-mentioned tools, and many others, will continue to be used in 2020 to reach CEN and CENELEC's objective to facilitate SMEs' participation in standardization at national and European level.

Including societal stakeholders

Standards can have a broad impact on society, in particular on the safety and well-being of citizens, the efficiency of networks, the environment, the safety of workers and working conditions, accessibility and other public policy fields. For this reason, it is crucial that all those who have an interest in a particular standard contribute to its development. This is why CEN and CENELEC encourage and facilitate the appropriate representation and effective participation of consumer and environmental organizations, as well as representatives of trade unions in their standardization activities, in particular through the so-called Annex III organizations: ANEC (representing consumer interest), ECOS (representing environmental interests), ETUC (representing workers' interests) and SBS (representing SMEs). Together with the members of CEN and CENELEC, these organizations have set up a Societal Stakeholders Group (SSG), which provides a framework for ongoing cooperation and dialogue. Furthermore, similar to the toolbox for SMEs, a toolbox for societal stakeholders is already available on the CEN-CENELEC website. CEN and CENELEC also launched in 2018 'Standards for all', an eLearning course for societal stakeholders on standardization.

CEN and CENELEC's efforts to include societal stakeholders in standardization will continue in 2020. A particular focus will be dedicated to fostering inclusion at the national level through

the continuing implementation of the 'Engage' project, in collaboration with ECOS. The aim of Engage is to help smaller and newer countries overcome the disadvantage they experience on environmental matters, for lack of resources or know-how. The project, which started in 2018 and will last for 3 years and a half, has each participating country send two members, one from the National Standardization Body and one societal stakeholder representative, to participate to every SABE meeting.

Strategy 2030

With the completion of Ambitions 2020 in sight, the CEN and CENELEC CAs in November acknowledged the need for CEN and CENELEC to jointly develop a concise and agile Strategy 'beyond 2020'. An Ad-Hoc Working Group on Future Strategy (AHWG FS) was established in January 2019 to guide the drafting process for a new long-term 'Strategy 2030'. In April 2019, the CEN and CENELEC Presidential Committee (PC) decided to invite the CAs of CEN and CENELEC to engage directly in the development of the new strategy in order to enhance the visibility of, and ownership over, the new Strategy. This high-level engagement further aimed to guarantee a closer alignment with the strategic frameworks at both international level (ISO and IEC) and at national level, focussing on the individual CEN and CENELEC members.

Following the request of the PC and the CEN and CENELEC General Assemblies, a CA Workshop was organised on 17-18 July 2019, in which the CEN and CENELEC CAs, along with top executives from CEN and CENELEC members agreed on a draft vision and mission statement, and identified a preliminary set of four strategic priority areas for development and validation. This first draft underwent a first round of limited, internal consultations amongst the members who participated in the Workshop, and then was accepted by the PC and circulated amongst all CEN and CENELEC members, before being put forward to the Common Session of the CAs on 19 November 2019 for approval.

The four priority areas, on which further work will be undertaken in the first half of 2020, identify sectors on which to base the strategic development of CEN and CENELEC in the coming ten years: strengthening the relationship with the EU; embracing the digital transformation; increasing awareness and communication with stakeholders on the value of the European standardization system; and further enabling and engaging end-users.

In 2020, the discussion on the Strategy 2030 will continue, and will be further developed through parallel consultations at national and European level. These wide-ranging consultations will allow for a final, consolidated text, which is expected to be formally adopted at the CEN-CENELEC General Assemblies in June 2020 in Vienna.

International Cooperation

In 2020, CEN and CENELEC's global outreach will continue to focus on the development of the international partnerships with five priority regional and national standardization organizations, namely GSO (the Gulf), BIS (India), JISC (Japan), SAC (China) and ARSO and AFSEC (Africa).

The CEN-CENELEC Task Forces on Gulf, India, Japan, China and Africa are the focal points leading the activities with the respective international partners. Among these activities, these Task Forces have developed Roadmaps with long-term objectives, specifying commonly agreed aims and outcomes with the partner organizations. More specific goals for 2020 will be concretely defined in Action Plans.

Together with promoting the uptake of ISO and IEC standards among all partners, the activities undertaken in the framework of these partnerships vary, depending on the topics of interest identified with each partner.

Foreseen activities will include:

- providing input to BIS to support the development of its standardization strategy;

- identifying additional areas of common interest with JISC (such as the circular economy);
- building on the strategy dialogue with SAC for better understanding of each other's standardization policies;
- holding a workshop with GSO on low-voltage electrical equipment and appliances;
- identifying opportunities to support the objectives of ARSO and AFSEC towards the development of the African Continental Free Trade Area.

European Standardization presence in China and India

CEN and CENELEC, together with ETSI, EFTA and the European Commission, will continue supporting the two visibility projects 'Seconded European Standardization Expert in China' (SESEC) and 'Seconded European Standardization Expert in India' (SESEI). These projects build on the success of the European Standardization model to inspire the two countries, provide intelligence, and facilitate bilateral cooperation on standardization matters, thereby supporting European companies in accessing those markets. SESEC and SESEI are engaged in Task Force China and Task Force India, respectively.

- **China:** CEN, as leader of the SESEC project, works with project partners and focusses on concrete sectoral and market needs, while also mapping the landscape for specific important technologies and sectors (cybersecurity, medical devices) in order to foster increased alignment with Europe.
- **India:** In 2020, the fourth phase of the SESEI project (SESEI IV) will build on previous phases to influence the alignment of key activities of common interest for India and Europe, including the railway sector and supporting the development of a strong partnership with BIS, the Indian National Standardization Body. Among the other areas of cooperation, the organisation of a large common event is foreseen during the lifetime of the project.

Events

The organisation of events is one of the most effective and relevant ways for CEN and CENELEC to proceed with their stated objectives of raising awareness on the European standardization process and creating lasting networks among all stakeholders involved in the standardization process.

For 2020, CEN and CENELEC plan to organise a series of important events, both in their headquarters in Brussels and in their members' locations. The preliminary list of events proposed for 2020 contains a variety of concepts, focussing on CEN and CENELEC's priorities for their way forward. Among them, it might be interesting to give a glimpse of some of the most relevant events expected for 2020:

- **StandarDays (2-3 April 2020):** the event is the yearly occasion in which standardization is open to the public. Its aim is to provide a clear and structured overview of the European Standardization System and of the CEN and CENELEC products and processes, as well as the benefits of involvement to potential stakeholders.
- **Industry stakeholder engagement workshops:** in 2020, they will be dedicated to 'eHealth & AI and care in a digital single market' (May) and 'Cybersecurity and the role of standardization' (October). The Cybersecurity workshop is organised jointly by CEN, CENELEC and ETSI with the aim to improve the involvement of all parties in the Cybersecurity Act Implementation and recognize the role of standardization in the set-up of the European Cybersecurity Certification Group.
- **Workshop on Green Financing and Standards:** CEN and CENELEC are contributing to the implementation of the UN's Sustainable Development Goals (SDGs) and they are ready to catch the opportunities offered by the

ecological transition. In May 2020, a one-day workshop on **'The role of standards in Green Financing'** will bring stakeholders together from the corporate and finance sectors to identify how standards can help in the ecological transition. The consideration of the ecological sustainability aspects in the current financing tools and mechanisms is crucial for the success of this transition. Standards could help in setting the benchmarks and making the approaches repeatable, comparable and easy to apply.

- Interactive conference 'Living the Frankfurt Agreement': the one-day conference, which will take place in the fourth quarter of 2020, aims to improve the knowledge of the Framework Agreement with stakeholders in both IEC and CENELEC and gather feedback to IEC/CO and the CEN-CENELEC Management Centre.

Seminars and Workshops

Providing guidelines on the different aspects of standardization to stakeholders and raising awareness on the European standardization system are two core objectives of CEN and CENELEC's activities. For this reason, in 2020 CEN and CENELEC will maintain the tradition of organising seminars and workshops dedicated to interested stakeholders, such as staff, members of the Technical Committees and the wider public.

In particular, CEN and CENELEC will organise also in 2020 the following **recurrent trainings:**

- **10-10 webinars:** during the year, CEN and CENELEC will continue holding regularly 30 minutes-webinars on specific topics that will take place on the 10th of every month.
- **Webinars for Standard Drafters:** they consist of webinars for Technical Body Secretaries and TC Working Group convenors. These webinars aim at a common understanding of the drafting rules and the related procedures. At the same time, it is an excellent opportunity for CCMC editors to better understand TCs' expectations and strengthen working relationships with Technical Bodies.
- **IT Tools trainings:** they consist of trainings dedicated to CEN and/or CENELEC IT Tools, depending on the updates of the tools or needs of the customers.

Other one-time trainings and seminars are in preparation and expected to take place in the course of 2020. Among them:

- A webinar on Drafting Standards under the Gas Appliances Regulation (2016/426/EU), open to Technical Body Officers is foreseen for the first half of 2020.
- For the end of 2020, depending on when the concerned standards are published, a training on standards on material efficiency aspects for eco-design under the stewardship of CEN-CENELEC/JTC 10 is planned. These standards are intended to be used by product Technical Committees as input for the development of a communication strategy in horizontal, generic, product-specific, or product-group publications.

The complete list will be updated and completed in the course of the year. The overall training page (url: https://www.cencenelec.eu/aboutus/ourservices/Training/Pages/default.aspx) on the CEN-CENELEC website, regularly updated, gives the best overview of planned events.

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 International
Standardization and Innovation
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 - БДС – Български 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-Comité Electrotechnique Français
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
https://www.ceinorme.it/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 for Standardization of Serbia
www.iss.rs

Slovakia
UNMS SR - Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky
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 European Union (EU) and the European Free Trade Association (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 organizations, trade unions 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 the IEC (International Electrotechnical Commission).

** Number of full members in December 2019*

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