WORK PROGRAMME 2021

EUROPEAN COMMITTEE FOR STANDARDIZATION

EUROPEAN COMMITTEE FOR ELECTROTECHNICAL STANDARDIZATION

CEN CENELEC

European Standardization
and related activities

Table of contents

All facts and figures in this publication were correct on 30 November 2020

Introduction

In the current context, ripe with important challenges and developments that call for a thorough rethinking of established processes and ways of working, it is strategic to be able to imagine and define the future, in order to remain resilient and anticipate change. In this sense, 2021 will be a pivotal year for CEN and CENELEC: we will officially start implementing our new Strategy 2030, which will guide our projects through the next 10 years. This forward-looking and multi-level strategic goals, developed thanks to the collective work of our members and stakeholders, are helping our system, and organisations, to be fit for the future.

This reflection is timely: the Covid-19 crisis has shown what a big role standards play for the well-being of Europe. During the first pandemic phase, CEN and CENELEC acted quickly to identify and make freely available a series of European standards for medical devices, ventilators and personal protective equipment (PPE). In this way, it helped ensure a smooth supply of critically needed safe material. The success of our collective effort in the emergency highlights the relevance of a strong standardization system, closely collaborating with the EU institutions, to address present and future challenges.

In particular, European standards have the potential to support some of the most important priorities of the EU institutions in the coming years, such as the Recovery Plan, the European Green Deal, and the Digital Transition, underpinned by a robust and future-proof European Standardization Strategy.

First of all, standards make the Single Market a reality: they are the invisible engine of the Single Market and are crucial for Europe's rapid recovery and resilience, as they provide agile solutions to adapt to the changes of the market, reduce burdens and foster competiveness. In 2021 we plan to further explore how we can support the 14 eco-systems identified by the European Commission as drivers of Europe's recovery.

CEN and CENELEC's commitment to sustainability is long-standing. This work will be strengthened in 2021, under the stewardship of our two dedicated bodies, the CEN-CENELEC Strategic Advisory Body for Environment (SABE) and CENELEC/TC 111X 'Environment', together with realising a mapping on our standards and the SDGs, the UN's Sustainable Development Goals: an initiative which will allow to consolidate our work in the field.

Regarding digitalisation, the CEN and CENELEC communities are ready to support Europe on its quest towards technological sovereignty, contributing to reaping the benefits of new technologies such as AI, IoT and 5G. In particular, 2021 will be crucial in making the Standardization System fit for the digital age: we will pursue two pilot projects on the digitalisation of the standardization process, to launch fully machine-interpretable standards. These projects will benefit from a close cooperation with IEC and ISO, ensuring harmonisation and the interoperability of digital standards in the world market.

Furthermore, we are ready to support the European Commission's ambitious digital policy

plans. In the coming months, we are going to explore extensively with our fellow European standardization organisation ETSI the role of standards on the management of industrial data. The likely outcome of this first phase o f cooperation will be a conference next year on industrial data infrastructure and cybersecurity.

All the above would not be possible without a fully functioning European standardization system. This is why we will continue our work towards ensuring the timely citation of harmonised standards (hENs) in the Official Journal of the EU: hENs provide legal certainty and reduce compliance costs, thus increasing trust in the smooth functioning of the Single Market. The renewed dialogue with the European Commission is already helping to progress on the citation process, contributing to reducing the existing backlog. Nevertheless, more needs to be done to define a more organic, long-term solution that involves all interested stakeholders. Some promising steps along this line have already been taken by the German Presidency of the Council, and in 2021 we are committed to support the next Presidencies, Portugal and Slovenia's, on carrying on along this important path.

Another area that will be crucial in 2021 for the functioning of our system is the impact of Brexit. Based on the future developments regarding the relationship between the UK and Europe, we will work on defining a revised status for our British member BSI in time for our General Assembly in June 2021. This new arrangement will provide certainty to standards makers and users.

Finally, we cannot act in isolation: working on the international level for the primacy of international standards and to ensure the global competitiveness of the European industry remains a key priority. This is why, in 2021, CEN and CENELEC will continue working with ISO and IEC to strengthen their role as the leading international standardization platforms.

As the initiatives mentioned above clearly show, 2021 will be a key year for 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, industry and citizens.

I wish you a good reading and a successful 2021!

Elena SANTIAGO CID
Director General of CEN and CENELEC

Chemicals

With around 7,5% of EU manufacturing by turnover, the chemicals industry is one the largest manufacturing sectors in Europe. Being at the very base of many other industries - and having an impact on safety, health and environment, it is a highly regulated sector. Due to the COVID-19 outbreak, new challenges emerged, highlighting the importance of ensuring the EU independence on raw and secondary material imports and increasing competitiveness. The EU recovery plan gives the chemical sector the opportunity to invest in circular solutions and green technologies, supporting the EU in becoming climate-neutral by 2050.

CEN and CENELEC's standardization activities support the sector towards this direction and directly contribute to the implementation of European legislation. Some of the main pieces of legislation are the Fertilisers Product Regulation (Regulation EU 2019/1009), REACH (Regulation EU 1272/2008), the directive on Explosives for Civil Use (Directive 2014/28/EU) and the recast Directive for pyrotechnic articles (Directive 2013/29/EU). Furthermore, European Standards also support other EU policies and initiatives, such as the Action Plan for the Circular Economy and the Circular Plastics Alliance.

The development of European Standards in the field of chemicals enjoys the cooperation of many stakeholders, namely industry, research institutes, environmental NGOs and public agencies. Furthermore, many projects of international interest are developed in cooperation with ISO under the Vienna Agreement.

22 Technical bodies responsible

CEN/SS C10	Starch
CEN/SS C20	Explosives and firework
CEN/SS I44	Nanotechnologies
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)

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 1281 ENs + 76 other deliverables

Work Items currently in the Work Programme: 204 ENs + 26 other deliverables

Standardization requests from EC/EFTA

M/564 – Fertilisers

M/562 – Explosives for civil use

M/556 – Polycyclic Aromatic Hydrocarbons (PAH)

M/XXX – Pyrotechnical articles, expected in 2021

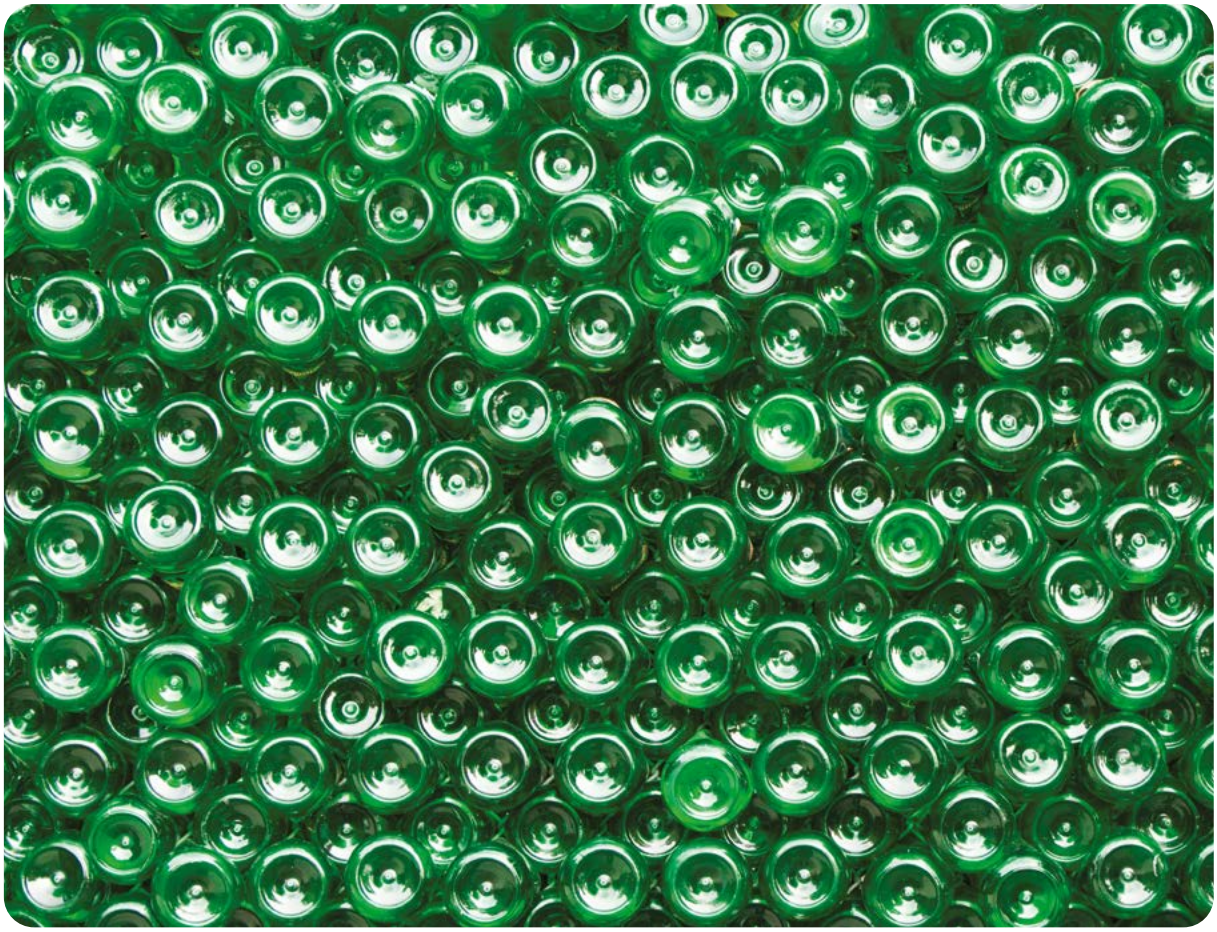
M/XXX – Plastics recycling and recycled plastics, expected in 2021

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 17 – Drinking water

Further information

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



PLASTICS

In September 2019, CEN and CENELEC signed the declaration of the Circular Plastics Alliance - hosted by the European Commission - aimed at boosting the EU market for recycled plastics to 10 million tonnes by 2025. In the Declaration, standards are identified as a key contributor to this ambitious goal. Therefore, through 2020, relevant stakeholders contributed to the preparation of the upcoming Standardization Request 'Plastic Recycling and Recycled Plastics', expected in 2021. CEN/TC 249 'Plastics' and other relevant Technical Bodies will then develop standards related to the collection, sorting and recycling of plastic waste. These standards will bring significant benefits to the entire plastics value chain and to society as a whole, contributing to an actual circular plastics economy where recycled plastics find their way into products and packaging.

In 2021, CEN/TC 249 will publish three standards (EN 12814-2 and -8, EN 16296) related to the welding of thermoplastics, that will harmonise testing procedures and improve controls for welding system processes. The TC will also develop a Technical Report on 'Biodegradable plastics - Status of standardisation and new prospects', which will lay the foundation of standardization on the risk of leakage of solid products and its quantification.

FERTILISERS

In February 2020, CEN accepted the Standardization Request M/564 regarding EU fertilising products in support of Regulation (EU) 2019/1009, which is expected to come into force in 2022. The Standardization Request will include European Standards and Technical Specifications developed in a two-steps approach, which will provide requirements or test methods aimed at allowing analysis and verifying compliance of EU fertilising products with relevant requirements under the six product function categories of the new EU Regulation.

These deliverables will be developed in 2021 by CEN/TC 223 'Soil improvers and growing media', CEN/TC 260 'Fertilisers and liming material' and CEN/TC 455 'Plant biostimulants'.

The deliverables will ensure full harmonisation of the European Single Market - granting producers access to CE marking – and will play a pivotal role in boosting the use of organic and bio-waste based fertilisers. In the same way, they will provide testing methods for safety and environmental criteria e.g. pathogen detection and contaminants determination.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Explosives - Since 2016, the 'Explosives for Civil Use' Directive has been applicable within the EU, recasting its predecessor from 1993. The scope of the Directive includes blasting for mining and aims at achieving a secure, safe and competitive market within the EU. Based on the Standardization Request M/562, in 2021 CEN/TC 321 'Explosives for civil uses' will continue revising more than 50 standards, establishing safety requirements, terminology, categorisation and test methods.

Release of nickel - CEN/TC 347 will work on the revision of EN 1811 'Reference test method for release of nickel from all post assemblies which are inserted into pierced parts of the human body and articles intended to come into direct and prolonged contact with the skin', which is under mandate M/414 and provides methods required in REACH for the restriction of nickel.

Nanotechnologies - CEN/TC 352 'Nanotechnologies' will pursue its activity on vocabulary standards in collaboration with ISO/TC 229, and continue its work on the draft deliverables 'Nano- and micro-scratch scale testing' and 'Suitability of particle size and surface area measurement methods for the assessment of the amount of nano-objects in a sample'.

CEN/TC 352 has set up the Study Group 'Labelling' that will evaluate the revision of the B2C Technical Specification CEN ISO/TS 13830:2013 'Guidance on voluntary labelling for consumer products containing manufactured nano-objects', and the need to work on the standard 'Challenges and capabilities to enhance the NOAA traceability in the B2B value chain for transparency and innovation purposes'. Several new projects will also be developed, including 'Guidelines for the characterization of nanomaterials and/or materials that may contain of particles at the nanoscale in food products', in cooperation with CEN/TC 275 'Food analysis - Horizontal methods'.

PAHs in rubber and plastic - In 2020, the new CEN/TC 462 'Regulated chemicals in products' was established to develop standards under the Standardization Request M/556 'As regards compliance with maximum content criteria of Polycyclic Aromatic Hydrocarbons in rubber and plastic components of articles placed on the market for supply to the general public in support of regulation (EC) No. 1907/2006'. In 2021, CEN/TC 462 will develop standards according to the work programme previously developed by CEN/CLC/BTWG 13 'PAHs in rubber and plastic'. These deliverables will be based on existing methods to determine the total content for PAHs in articles with rubber and plastic components and the associated sample preparation and extraction methodologies.

Photocatalysis - In 2021, CEN/TC 386 will develop two European Standards on Photocatalysis, based on previous Technical Specifications. These Standards will deal with vocabulary and test methods for the determination of the degradation of nitric oxide (NO) in the air by photocatalytic materials, and will enable a common language for researchers, industry and users in the field of Photocatalysis.

Derivatives from coal pyrolysis - In 2021, CEN/TC 317 will carry out the revision of EN 13991 'Derivatives from coal pyrolysis - Coal tar based oils: creosotes - Specifications and test methods', necessary due to recent legal changes to the marketing of Creosote oils in Europe (Regulation 1907/2006/EC).

Construction

The European Union (EU)'s construction products market alone is worth approximately €500 billion. Such a huge business needs to keep an open internal market for construction products consistent with National regulations under continuous technological evolution. Moreover, construction is one of the core European industrial sectors: it is responsible for 9% of the European GDP and provides 18 million jobs through more than 3 million enterprises.

CEN and CENELEC work across the construction sector, developing harmonised European standards (hEN) in support of the Construction Products Regulation (Regulation EU 305/2011 - CPR). Harmonised standards provide a common technical language that can be used by manufacturers to express the technical performance of their construction products, by regulators to express their requirements and by designers, contractors and other construction stakeholders to exchange information efficiently. Harmonised standards play a key role in the implementation of the CPR because they not only contain the assessment methods for determining the performance of construction products in relation to their essential characteristics, but also include provision for their declaration and the clauses on assessment and verification of constancy of performance (AVCP).

Harmonised standards help facilitate the internal market by allowing the free movement of construction products within the EU. They can also help the EU to meet the goals of the EU Green Deal, circular economy, and of the EU industrial recovery plan, and address the UN Sustainable Development Goals (SDGs).

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

82 Technical bodies responsible

CEN/CLC/Guides	Group for CEN-CENELEC Guides
CEN/CLC/JTC 11	Accessibility in the built environment
CEN/SS B02	Structures
CEN/SS B09	Energy Performance of Buildings Directive (EPBD)
CEN/SS B99	Building and construction - Undetermined
CEN/SS F01	Technical drawings
CEN/SS F02	Units and symbols
CEN/SS F16	Graphical symbols
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 33	Doors, windows, shutters, building hardware and curtain walling
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 38	Durability of wood and wood-based products
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/SC 3	Structural steels other than reinforcements
CEN/TC 459/SC 4	Concrete reinforcing and prestressing steels
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/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 BRESAER	Innovative and adaptable envelopes in building refurbishment. Design, economic assessment, logistics and installation guidelines
CEN/WS Smart-CE-Marking	Smart CE marking for the construction industry
CEN/WS SUSTINROADS	Sustainability assessment of roads
CLC/SR 3	Information structures, documentation and graphical symbols

Standards published by CEN & CENELEC
CEN & CENELEC portfolio of deliverables: 2996 ENs + 272 other deliverables
Work items currently in the Work Programmes: 565 ENs + 39 other deliverables

Standardization requests from EC/EFTA
M/129 rev – Space heating appliances

Relevant elements of the Annual Union Work Programme for European standardization for 2021
Actions 2, 4 – Ecodesign and energy labelling

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

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 'Structural Eurocodes' provide rules on 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 parts (products). They are widely used in the construction and civil engineering industry throughout Europe, and have been adopted by 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 in cooperation with stakeholders, including structural design companies, the scientific community, industry associations and engineers, and is 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 was completed in April 2018 and work is ongoing on phases 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.

In 2021, CEN/TC 250 will continue the revision of standards and other deliverables in its work programme, for example:

- EN 1990 'Eurocode - Basis of structural and geotechnical design' which establishes principles and requirements for the safety, serviceability, robustness and durability of structures, including geotechnical structures, appropriate to the consequences of failure;
- EN 1993-1-1 'Eurocode 3 - Design of steel structures - Part 1-1: General rules and rules for buildings', providing basic rules for steel structures.

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 declarations (EPD). In 2021, CEN/TC 350 will continue to develop standards in response to Standardization Request M/350, namely the revision of EN 15978-1 'Sustainability of construction works - Methodology for the assessment of performance of buildings - Part 1: Environmental Performance', which will provide a methodology for determining the environmental performance of buildings. CEN/TC 350 will also revise EN 15978-2 'Sustainability of construction works - Methodology for the assessment of buildings - Part 2: Social performance' for calculating the social performance of buildings and produce a brand-new standard for the evaluation of the potential for sustainable refurbishment of buildings.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Release of dangerous substances - CEN/TC 351 'Construction Products - Assessment of release of dangerous substances' develops harmonised test methods to monitor the release of dangerous substances from construction products. In 2021, CEN/TC 351 will transfer Technical Specifications related to leaching, content and analysis of dangerous substances to European Standards, based on the result of an ongoing round robin validation. It will also develop the standard 'Dose assessment of emitted gamma radiation'. 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.

Thermal performance of buildings - CEN/TC 89 'Thermal performance of buildings and building components' will revise test methods, including 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.

Slip resistance of pedestrian surface - In 2021, CEN/TC 339 'Determination of slip resistance of pedestrian surfaces - Methods of evaluation' will continue to revise EN 16165 'Determination of slip resistance of pedestrian surfaces - Methods of evaluation', which will help to decrease the number of slip accidents in pedestrian areas for any person walking in public, industrial or commercial premises.

Bituminous Binders - CEN/TC 336 'Bituminous Binders' will start the revision of EN 14770 'Bitumen and bituminous binders - Determination of complex shear modulus and phase angle - Dynamic Shear Rheometer (DSR)' and EN 14771 'Bitumen and bituminous binders - Determination of the flexural creep stiffness - Bending Beam Rheometer (BBR)'. Both these documents are new test methods for modelling the bituminous binders performances by rheological testing. It represents a new approach for bituminous binder performance assessment compared to current physical methods. These deliverables will help to better value high quality products and manage the risk on the quality of new sources.

Resilient, textile and laminate floor - In 2021, CEN/TC 134 'Resilient, textile and laminate floor coverings' will start the revision of EN 1307 'Textile floor coverings – Specifications'. CEN/TC 134 will also work on a new deliverable in the area of recyclability and recycling potential of textile floor coverings, which will contribute to the goals of the Circular Economy Action Plan and European Green Deal.

Accessibility in the built environment - CEN-CLC/JTC 11 'Accessibility in the built environment' develops standardization deliverables as requested by Standardization Request M/420 'Accessibility requirements for public procurement in the built environment'. In 2021, JTC 11 will produce one Technical Report (TR1) to cover technical performance criteria and specifications and another Technical Report (TR2) on conformity assessment related to the accessibility and usability of the built environment. Those deliverables will complement EN 17210 'Accessibility and usability of the built environment - Functional requirements'. The accessibility of the built environment is a key element to assure the effective participation of EU citizens in the everyday life, as well as the suitability of the buildings, streets, parks, to being effectively used by people notwithstanding their disabilities or age.

Building information modelling (BIM) - The standardization of Building Information Modelling (BIM) contributes to the effective management of information during the design, construction and operational phases of an asset's lifecycle. The development of BIM is advancing rapidly and requires the application of common standards to ensure future compatibility of information exchange and use. In 2021, CEN/TC 442 will work towards the finalisation of EN 17549-1 'Information structure base on EN ISO 16739-1 to exchange data templates and data sheets for construction objects'. In parallel, the TC will also focus on the development of EN 17473 'Data templates for construction objects used in the life cycle of any built asset'. Moreover, CEN/TC 442 will strengthen its links with the CENELEC communities on topics of common interest, such as Home and Building Electronic Systems, Light and Lightning, Electric accessories.

Consumer

Standards are used every day by businesses, manufacturers, public bodies and other organisations as a tool for ensuring consumer products are safe. European Standards are continuously improving with the ambition to be proactive and mitigate 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 also concern a number of other pieces of European legislation (Toys Directive 2009/48/EC, etc.).

A large proportion of the standards in this sector are thus drafted at the request of the European Commission in response to Standardization Requests, but standards are also developed in parallel with ISO, e.g. in footwear, sport equipment or textiles, leading to the publication of identical 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 to 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 shall be addressed in all new standardization activities.

23 Technical bodies responsible

CEN/CLC/JTC 12	Design for All
CEN/SS H22	Smokers' lighters
CEN/SS M21	Precious metals - Applications in jewellery and associated products
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/TC 52	Safety of toys
CEN/TC 93	Ladders

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 858 ENs + 65 other deliverables
Work items currently in the Work Programme: 141 ENs + 20 other deliverables

Standardization requests from EC/EFTA

M/253 – Baby walking frames
M/259 – Consumer Safety for oil lamps
M/264 – Childcare articles
M/266 – Safety of consumers and children – lighters
M/285 – Ladders
M/309 – Draw strings on children's clothing
M/372 – Floating leisure products
M/425 – Fire safety
M/427 – Cigarettes lighters
M/445 – Safety of toys – under revision
M/452 – Safety of music players
M/464 – Safety of childcare articles (bath rings, bath aids, bathtubs, etc.)

M/465 – Safety of locking devices
M/497 – Childcare articles 'risks in the sleeping environment'
M/505 – Window blinds
M/506 – Stationary training equipment
M/507 – Gymnastic equipment
M/508 – Bicycles
M/527 – Children's seats
M/531 – Laser products
M/538 – Alcohol-powered flueless fireplaces
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
M/XXX – Safety of Childcare Articles

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 12 – Childcare articles

Further information

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

GUIDELINES FITNESS CENTRES – INFECTIOUS OUTBREAK

Europe, like other parts of the world, was hit hard by the SARS-CoV-2 pandemic in 2020. A new work item is in preparation by CEN/TC 136 to specify guidelines and recommendations for the safe operation of fitness centres during an infectious outbreak – now and during future pandemics.

Its development is meant to support Europeans in maintaining their health and guide the fitness sector in their decision-making so that its facilities are safe to use by customers and staff.

CHILDCARE ARTICLES

A new Standardization Request on childcare articles is in preparation, to replace the current M/264 issued in 1997 in support of the General Product Safety Directive (2001/95/EC). Many new types of childcare products have entered the market since twenty years, and this new legal basis shall provide updated safety requirements.

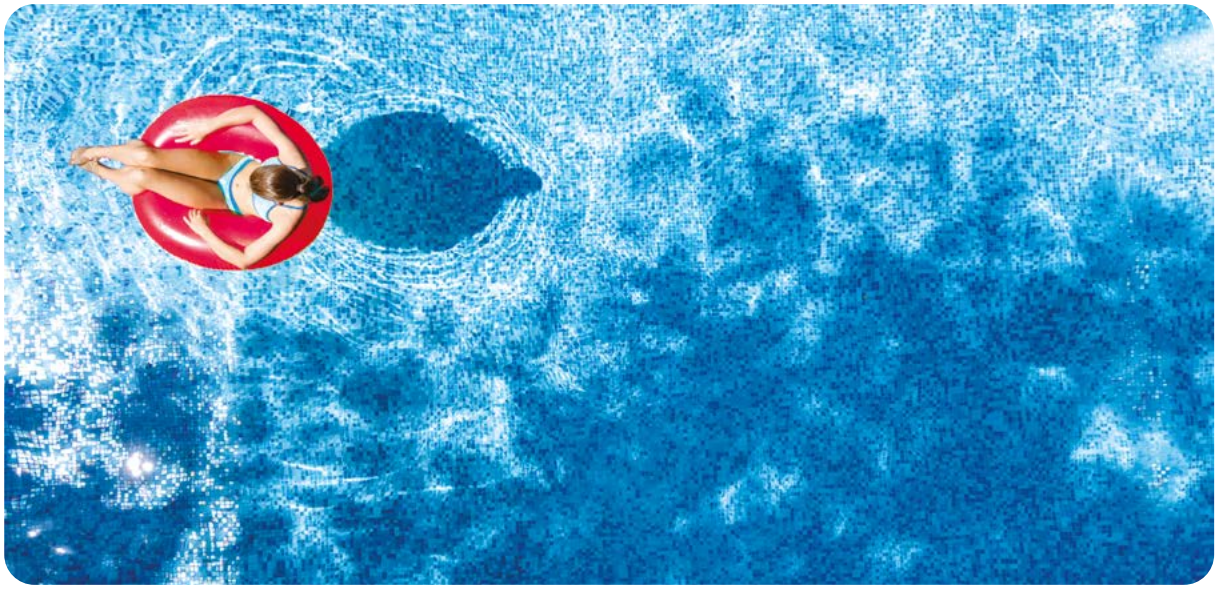
CEN/TC 252 'Childcare articles' will continue working on standardization activities in support of M/264 childcare articles, with namely the revision of EN 1930:2011 'Safety barriers, EN 14344:2004 'Child seats for cycles', and EN 1466:2014 'Carry cots and stands'.

SAFETY OF TOYS

A new Standardization Request is in preparation for 2021 to provide a legal basis for the harmonisation of any new editions of existing European Standards or for new European Standards on Toy Safety, to replace the existing Standardization Request M/445 issued in 2009 in support of the Toy Safety Directive (2009/48/EC).

A new CEN Technical Report is in preparation for 2021 on the Categorisation of projectile toys in EN 71-1 'Safety of toys – Part 1: Mechanical and physical properties'. This CEN/TR will provide a categorisation of real-life examples of projectile toys, with detailed explanations, assisting with the understanding and uniform application of the product safety standard EN 71-1.

A revision of the main standard itself, EN 71-1 'Mechanical and physical properties', one of the main standards in the sector, including its definitions, technical requirements, warnings, test methods and rationale, as appropriate, will start in 2021. Additionally, a standardization deliverable shall be developed regarding ride-on toys, toys propelled by a child, bicycles, scooters and similar toys.



OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Textiles - In 2021, CEN/TC 248 'Textiles' will start working on a higher consensus deliverable on Community face coverings in order to convert the current CWA 17553:2020 'Community face coverings - Guide to minimum requirements, methods of testing and use'. This will include requirements for the design, production and performance assessment of community face coverings (barrier masks) intended for consumers, single or reusable. CEN/TC 248 will also continue working on standardization activities for the prevention of micro-plastic release from textile sources.

Barbecuing - CEN/TC 281 'Appliances, solid fuels and firelighters for barbecuing' should start the revision of the EN 1860 series (Parts 2, 3 and 4) in order to provide with updated safety requirements and to include requirements from the REACH regulation.

Swimming pools - In 2021, CEN/TC 136 'Sports, playground and other recreational facilities and equipment' will finalise the revision of EN 13451-11 'Swimming pool equipment - Part 11: Additional specific safety requirements and test methods for moveable pool floors and moveable bulkheads installed in pools for public use'.

Moveable or height-adjustable pool floors have long been known and implemented in public pools. They are also being used more and more frequently in the private sector. This fascinating technology makes it possible to adjust the water depth of a swimming pool smoothly in order to make the pool usable for the most different purposes. For example, the bottom of the pool can be raised to a child-friendly standing height for swimming lessons with small children and then lowered again for normal swimming.

Furthermore, this technology plays a major role for private pool owners with smaller properties: the lifting floor can be raised to the level of the pool border, thus covering the entire water surface. Thus, the pool becomes a large, usable area in no time at all.

EN 13451-11 specifies safety requirements and the means of their verification. It also deals with significant hazards and hazardous situations and events. The forthcoming revision is intended to be harmonised with the Machinery Directive (2006/42/EC).

It is therefore relevant for the designers of such swimming pool facilities and in the end most relevant for the safety of the younger and older users.

Defence and security

Traditionally, societal resilience was required at the occasion of disrupting events, such as terrorist attacks, public security incidents or natural disasters. Today, we are witnessing the unprecedented effects of the COVID-19 pandemic on our society. As part of Europe's Recovery plan, priority will continue to be given to climate actions and to a digital strategy. During this move towards a fully Digital Europe, security will be a major challenge, where standardization will have a major role to play. Security in a digital world will embrace many aspects including cybersecurity, security of cyber-physical and Internet-of-Things systems, security of critical infrastructures, but also protection of privacy and human rights, the fight against fake news, and many more.

Digital security is only one perspective. Security considerations apply to virtually every sector. The CEN-CENELEC Sector Forum on Security (SF-SEC), created with the primary purpose of advising the CEN-CENELEC BT members on appropriate directions to be taken in security standardization, gathers an extended community of experts from different sectors (such as transport, environment, innovative technologies, cybersecurity, construction, protective equipment, energy, chemicals etc.) that could potentially be impacted by security events.

One aspect that remains relevant is that security often calls for an international approach. In the digital world, this is self-evident, but there are also plenty of real world examples, such as border security, the fight against international crime and terrorist attacks, and today's ongoing fight against COVID-19. However, more broadly, security includes aspects such as the performance of a single device, for instance a fire extinguisher, or of 'FFP' masks (well-known in the COVID-19 context, but also relevant for industrial use), but also a comprehensive security approach to an entire facility or even society.

Furthermore, a lot of technical standardization work exists at the international level, where for instance ISO has produced a solid portfolio of standards. At the Technical Committee level, liaisons exist to avoid the duplication of efforts. For example, CEN/TC 391 liaises with ISO/TC 292 and ISO/TC 8, which allows for coordination between the European and international level.

Finally, it is worth mentioning the close co-operation with EU security research projects, where research outcomes have already been the basis of several CWAs. The STAIR4Security project, financed under the EU's framework programme for research, Horizon 2020, was created to strengthen the uptake of EU security research projects as formal standardization deliverables, and will deliver its final report during 2021.

In addition, CEN and CENELEC have long-lasting 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).

22 Technical bodies responsible

CEN/CLC/JTC 4	Services for fire safety and security systems
CEN/CLC/WS HECTOS	CEN-CENELEC Workshop on Guidelines on evaluation systems and schemes for physical security products
CEN/CLC/WS ZONeSEC	Interoperability of security systems for the surveillance of widezones
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
CEN/TC 70	Manual means of fire fighting equipment
CEN/TC 72	Fire detection and fire alarm systems
CEN/WS 099	CEN Workshop on the Semantic and Syntactical Interoperability for Crisis and Disaster Management
CEN/WS 100	CEN Workshop Trial Guidance Methodology (TGM)
CEN/WS 101	CEN WS Crisis management - Building a Common Simulation Space
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
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
CLC/TC 79	Alarm systems

Standards published by CEN & CENELEC

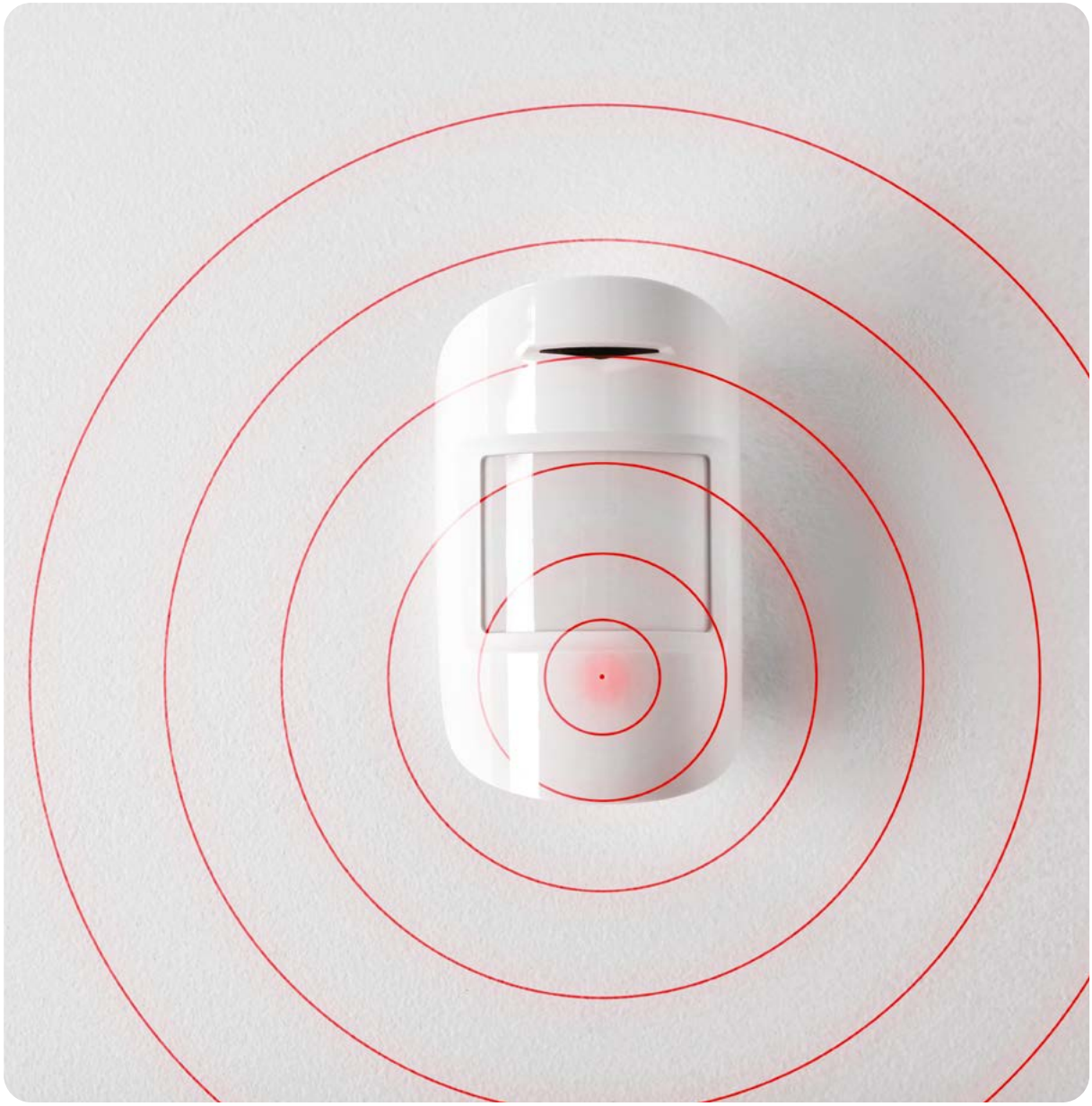
CEN & CENELEC portfolio of deliverables: 250 ENs + 59 other deliverables
Work items currently in the Work Programmes: 39 ENs + 7 other deliverables

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 21 – Digital Identity

Further information

Links to relevant pages on CEN, CENELEC and/or CEN-CENELEC websites
www.cencenelec.eu/standards/sectors/pages/defenceandsecurity.aspx
www.cen.eu/work/Sectors/Defence_Security/Pages/default.aspx



SECTOR FORUM ON SECURITY

Amongst other projects, the CEN-CENELEC Sector Forum on Security (SF-SEC) is working with the European Commission (EC) to identify potential new standardization deliverables in the field of security, building on the findings of the EU-funded ResiStand research project (May 2016 - April 2018). Given the great interest from EC directorates, but also from the wider security sector, the SF-Sec is planning on hosting an event in Brussels in early 2021. This conference will target anyone active in the security sector and interested in getting involved in standardization work.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Mobile devices - Mobile devices, especially smartphones, represent a unique challenge for law enforcement. Criminal offenders, organised crime and terrorist organisations use mobile devices for various purposes, which provides challenges for criminal prosecution. Law enforcement needs to not only access the data stored on mobile devices, but also provide it as court evidence in a trustworthy and reliable manner. Based on the work in the Horizon 2020 project FORMOBILE, CEN/WS MS will develop during 2021 a CWA, which will describe requirements and guidelines for a complete end-to-end mobile forensic investigation chain.

Alarm systems - In addition to the maintenance of a number of European standards (ENs) and Technical Specifications (TSs) within its portfolio, CLC/TC 79 'Alarm Systems' expects to deliver a new TS, CLC/TS 50136-10 'Alarm systems - Alarm transmission systems and equipment – Part 10: Requirements for remote access', which will address the access to the alarm system via IP-connections or other remote access technologies. This part of the new TS series will take into account EN 50710 'Guidelines and requirements for Remote Services for fire safety and security systems', developed within CEN/CLC/JTC 4/WG 1 'Remote Services for fire safety and security systems'.

Firefighting equipment - CEN/TC 70 'Manual means of firefighting equipment' will produce a revision of EN 3-8 on Portable fire extinguishers to make it ready to be cited in the OJEU as a harmonised standard. The TC will also produce a revision of EN 4649, dedicated to the technical specification and qualification conditions of handheld fire extinguishers with synthesis gases, for aircraft use.

CEN/TC 192 'Fire and Rescue Service Equipment' has been responsible for the development of 30 state-of-the-art equipment product standards ranging from high rise firefighting vehicles to firefighting hoses, the majority of which are harmonized standards under either the Machinery Directive 2006/42/EC or the Construction Products Regulation (CPR) EU 305/2011. The TC will work during 2021 on the maintenance of some of its standards.

CEN/TC 191 'Fixed firefighting systems' produces standards relating to suppression systems, components and media that are essential for ensuring the fire protection of buildings and their occupants. During 2021, the TC will deliver a number of European standards for citation as harmonized standards in the EU Official Journal under the Construction Products Regulation (CPR) EU 305/2011.

CEN/TC 72 'Fire detection and fire alarm systems' will continue to deliver standards in the field of fire detection and fire alarm systems in and around buildings. Several of these standards are harmonised standards, meeting the essential requirement 'Safety in case of fire' of the Construction Products Regulation (CPR) EU 305/2011.

Security - In the course of 2021, CEN/TC 391 'Societal and Citizen Security' will deliver an updated version of EN ISO 22300:2018 'Security and resilience – Vocabulary'. As was the case for the 2018 version, the updated standard is developed as a parallel document, with ISO/TC 292 as lead. As a 'living document', which defines key terms used in security and resilience standards, the standard seeks to serve the broad community of security standards users.

Defence - The European defence market suffers from fragmentation and insufficient industrial collaboration. There is consensus that by seeking synergies between civil, space and defence industries in EU programmes, the EU will make more effective use of resources and technologies and create economies of scale. European standardization has a proven track record in supporting openness and competition in the internal market. In 2021, CEN and CENELEC will create a process for constructive dialogue between all stakeholders on standardization for the defence sector, in full transparency with the European Defence Agency and the NATO Standardization Office.

Digital society

CEN and CENELEC engage in multiple sectors at the forefront of the digital transition, such as Cybersecurity, Artificial Intelligence, ICT skills, eBusiness (electronic invoicing and procurement), eAccessibility, Blockchain and Distributed Ledger Technologies, contributing to an inclusive digital society. CEN and CENELEC work extensively with ISO and IEC and other relevant European and international organisations to develop common standards that can be applied worldwide.

Cooperation with a wide variety of European stakeholders, such as trade and industry associations, research projects, standards developing organisations (SDOs), the European Commission and various European institutions, is crucial to provide the relevant architecture of standards for Europe. This cooperation is materialised in the Multi-Stakeholder Platform on ICT standardization, which supports the European ICT standardization agenda.

ETSI represents a key partner for CEN and CENELEC: joint activities take place in the cybersecurity and accessibility domains.

The Rolling Plan on ICT standardization, which CEN and CENELEC contribute to, provides each year an overview of policy actions and supporting ICT standardization activities.

44 Technical bodies responsible

CEN/CLC/ETSI/JWG eAcc	eAccessibility
CEN/CLC/ETSI/SF-SSCC	CEN-CENELEC-ETSI Sector Forum on Smart and Sustainable Cities and Communities
CEN/CLC/JTC 13	Cybersecurity and Data Protection
CEN/CLC/WS 017	Development of a GALILEO enabled label
CEN/CLC/WS INACHUS	Urban search and rescue (USaR) robotic platform technical and procedural interoperability
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/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/SS F12	Information Processing Systems
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	ICT Professionalism and Digital Competences
CEN/TC 434	Electronic Invoicing
CEN/TC 440	Electronic Public Procurement
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 IHAN	Elements of fair and functioning data economy: identity, consent and logging
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/ETSI/JWG DD	ETSI-CENELEC Joint Working Group Digital Dividend
CLC/SR 100	Audio, video and multimedia systems and equipment
CLC/SR 103	Transmitting equipment for radiocommunication
CLC/SR 110	Flat panel display devices
CLC/SR 47F	Micro-electromechanical systems
CLC/SR 86	Fibre optics
CLC/SR 86B	Fibre optic interconnecting devices and passive components
CLC/SR 86C	Fibre optic systems and active devices
CLC/SS V24	Information technology equipment and audio, video and audio-visual equipment and systems
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
CLC/WS 04	Interoperability framework requirements specification for services to the home (IFRS)

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 2027 ENs + 529 other deliverables
Work items currently in the Work Programmes: 232 ENs + 37 other deliverables

Standardization requests from EC/EFTA

M/XXX - Draft Standardization Request in support of Regulation (EU) 2019/424 laying down Ecodesign Requirements for Servers and Data Storage Products pursuant to Directive 2009/125/EC

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 3 - Ecodesign and energy labelling
Action 19 - Artificial Intelligence systems
Action 20 - Online platforms
Action 21 - Digital identity
Action 22 - Smart Contracts

Further information

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

ARTIFICIAL INTELLIGENCE

Artificial Intelligence (AI) is progressing continuously and is widely affecting the industry in fields such as automation, data management, and integration of smart technology. Society is also impacted as AI changes the way businesses operate, streamlines production, transforms workers' skillsets and, finally, the day-to-day life of consumers. AI applies to a variety of sectors where standardization is of high relevance, such as smart manufacturing, robotics, autonomous transportation (including cars, trains, etc.), virtual reality, healthcare, visual recognition, data analysis/manipulation, AI assisted decision-making, home appliances, cybersecurity or spatial programming, and many others.

Challenges identified in the EC Communication COM(2018) 237 and COM(2020)65 (EC White Paper on AI) refer to the deployment, interoperability, scalability, societal acceptability/concerns, safety and liability of AI, thus creating a need for standardization.

The CEN-CLC Focus Group on AI was created in 2019 to address these challenges from a European perspective. In 2021, the Focus Group will continue to address European use cases, monitor the activities of ISO/IEC JTC 1 SC 42 and make the bridge with European policy-makers as well as ETSI. The Focus Group will be in charge to follow-up and implement the CEN-CENELEC Roadmap on AI, which is available on the AI section of the CEN and CENELEC website.

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. Part of CEN and CENELEC's work in the field 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 to develop, in cooperation with ISO and IEC, a dedicated architecture of standards in Europe, made of International Standards and European Standards, covering all aspects of IT security.

In 2021, 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 finalise the development of a new European Standards on 'Data protection and privacy by design and by default' in the context of the GDPR. CEN-CLC/JTC 13 will also finalise new European standards on 'cybersecurity evaluation methodology for ICT products' and 'Managed Security Providers Requirements'.

CLC/TC 65X 'Industrial-process measurement, control and automation' is responsible for the development of cybersecurity standards in the field of Operational Technology (OT security). 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.

Other CEN and CENELEC Technical Committees are involved in cybersecurity in vertical sectors: healthcare, automotive, energy. They will continue working with CEN-CLC/JTC 13 to develop consistent cybersecurity-related solutions.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

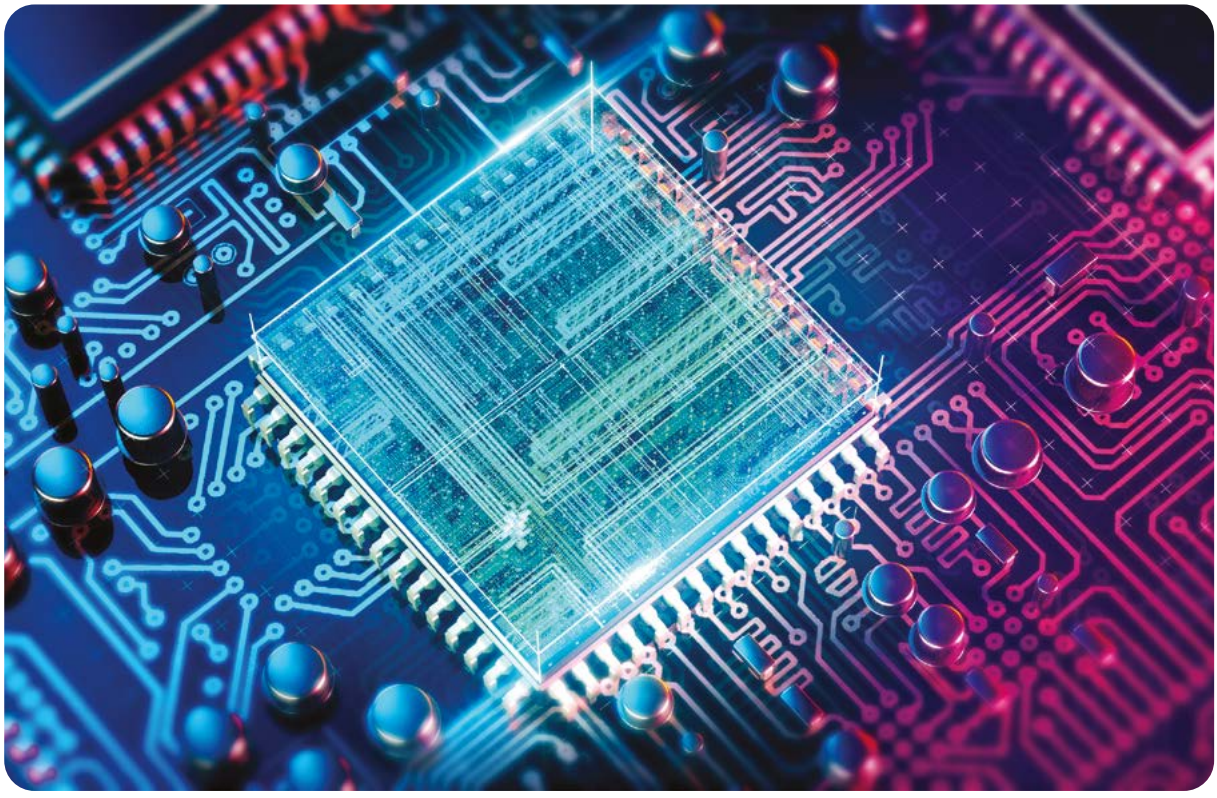
ICT skills - In an economy increasingly dependent on digital technology, the challenge for Europe is to support its citizens in developing sufficient and appropriate ICT skills and competences in all sectors and levels. In this context, closing the gap between the number of job seekers and the number of vacant digital jobs is among the main priorities for 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 2021, the Technical Committee will finalise the elaboration of some 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 revised version of EN 16234-1 'e-Competence Framework (e-CF) – a common European Framework for ICT professionals in all industry sectors'.

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 see 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 2021, 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. In 2021, CLC/TC 215 'Electrotechnical aspects of telecommunication equipment' will continue its work on the EN 50600 series on 'Data centres', notably to contribute building and maintaining a more climate resilient infrastructure throughout the EU.

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, and finance sectors, among others. In 2021, CEN-CLC/JTC 19 'Blockchain and Distributed Ledger Technologies' will continue to mirror the activities of ISO TC 307 to develop a coherent architecture of standards in Europe, taking policy-related developments into account. The JTC will notably address the topics of electronic identification and cybersecurity, in cooperation with CEN/TC 224 'Personal identification and related personal devices' and CEN-CLC/JTC 13 'Cybersecurity and Data protection'.

Quantum Technologies - Quantum Technologies (QT) will be one of the most promising key technologies in the coming decades. To support its uptake, the European Commission launched the QT Flagship, a EUR 1 billion initiative funding leading scientists and engineers over the next ten years, managed as part of the FET (Future and Emerging Technologies) program. This initiative is highlighted as a key action to place and keep Europe at the forefront of the second quantum revolution, which is unfolding worldwide, bringing transformative advances to science, economy and society. This effort will create new commercial opportunities addressing global challenges, provide strategic capabilities for security and generate still unimagined applications for the future. The CEN-CLC Focus Group on Quantum Technologies will address the challenges faced in Europe from a standardization perspective. The Focus Group aims to establish an active dialogue between stakeholders and discuss the needs and challenges for bringing innovations to the market.



Electrotechnology

CENELEC manages and supports 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 standardization activities in the electrotechnical 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, 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.

84 Technical bodies responsible

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/BTTF 60-1	Assembly of electronic equipment
CLC/BTTF 62-3	Operation of electrical installations
CLC/BTWG 128-3	BT efficiency
CLC/BTWG 143-1	LVD standardization in the EU regulatory framework
CLC/BTWG 154-1	EMC standardization in the EU regulatory framework
CLC/Guides	Group for CENELEC Guides
CLC/SR 1	Terminology
CLC/SR 10	Fluids for electrotechnical applications
CLC/SR 101	Electrostatics
CLC/SR 104	Environmental conditions, classification and methods of test
CLC/SR 109	Insulation co-ordination for low-voltage equipment
CLC/SR 112	Evaluation and qualification of electrical insulating materials and systems (to be defined)
CLC/SR 113	Nanotechnology standardization for electrical and electronics products and systems
CLC/SR 119	Printed electronics
CLC/SR 120	Electrical Energy Storage (EES) Systems
CLC/SR 121	Switchgear and controlgear and their assemblies for low voltage
CLC/SR 121B	Low-voltage switchgear and controlgear assemblies
CLC/SR 124	Wearable Electronic Devices and Technologies
CLC/SR 15	Solid electrical insulating materials
CLC/SR 23	Electrical accessories
CLC/SR 23B	Plugs, socket-outlets and switches
CLC/SR 23G	Appliance couplers
CLC/SR 23J	Switches for appliances
CLC/SR 23K	Electrical energy efficiency products
CLC/SR 25	Quantities and units
CLC/SR 27	Industrial electroheating and electromagnetic processing
CLC/SR 29	Electroacoustics
CLC/SR 32B	Low-voltage fuses
CLC/SR 32C	Miniature fuses
CLC/SR 33	Power capacitors and their applications
CLC/SR 35	Primary cells and batteries
CLC/SR 3C	Graphical symbols for use on equipment
CLC/SR 3D	Product properties and classes and their identification
CLC/SR 40	Capacitors and resistors for electronic equipment

CLC/SR 46F	RF and microwave passive components
CLC/SR 47	Semiconductor devices
CLC/SR 47A	Integrated circuits
CLC/SR 47D	Mechanical standardization of semiconductor devices
CLC/SR 47E	Discrete semiconductor devices
CLC/SR 48	Electromechanical components and mechanical structures for electronic equipment
CLC/SR 48B	Electrical connectors
CLC/SR 48D	Mechanical structures for electronic equipment
CLC/SR 49	Piezoelectric and dielectric devices for frequency control and selection
CLC/SR 51	Magnetic components and ferrite materials
CLC/SR 56	Dependability
CLC/SR 70	Degrees of protection provided by enclosures
CLC/SR 87	Ultrasonics
CLC/SR 89	Fire hazard testing
CLC/SR 91	Electronics assembly technology
CLC/SR 94	All-or-nothing electrical relays
CLC/SR 96	Transformers, reactors, power supply units, and combinations thereof
CLC/SS Z99	Undetermined
CLC/TC 106X	Electromagnetic fields in the human environment
CLC/TC 121A	Low-voltage switchgear and controlgear
CLC/TC 20	Electric cables
CLC/TC 204	Safety of electrostatic painting and finishing equipment
CLC/TC 205	Home and Building Electronic Systems (HBES)
CLC/TC 205A	Mains communicating systems
CLC/TC 210	Electromagnetic Compatibility (EMC)
CLC/TC 213	Cable management systems
CLC/TC 216	Gas detectors
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 electrical controls
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/WS 05	Flow batteries - Requirements and test methods

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 3444 ENs/HDs + 43 other deliverables
Work items currently in the Work Programme: 540 ENs/HDs + 7 other deliverables

Standardization requests from EC/EFTA

M/511 – Low Voltage
M/552 – EMC
M/536 – Radio Equipment
M/351 – EMF
M/443 – Cables
M/468 – Charging of electric vehicles
M/495 – Small, medium and large power transformers

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 4 – Ecodesign and energy labelling
Action 6 – Batteries

Further information

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

BATTERIES

Rechargeable batteries are becoming increasingly important to support mobility in the European Single Market. In full alignment with international activities, CLC/TC 21X 'Secondary cells and batteries' addresses the requirements covering the aspects of safety installation principles, performance, applications, dimensions, labelling and testing. In 2021, the TC will further work on the EN IEC 62485 series on Safety requirements for secondary batteries and battery installations. The TC will also finalise the update of EN 50604-1 'Secondary lithium batteries for light electric vehicle applications – Part 1: General safety requirements and test methods'. CLC/SR 35 will continue to develop and maintain European Standards for primary cells and batteries, particularly those relating to specifications, dimensions, and performance, along with guidance on environmental and safety matters (EN IEC 60086 series).

Those activities take place in the context of the EU Strategic Action Plan on Batteries, which defines a strategy to create a competitive and sustainable battery manufacturing industry in Europe. The Action Plan 'combines targeted measures at EU level, including raw materials, research and innovation, financing, standardization/regulatory, trade and skills development, in order to make Europe a global leader in sustainable battery production and use, in the context of the circular economy'.

ELECTRICAL INSTALLATIONS

The evolution in lighting technologies and the ongoing introduction of new electronic technologies in society requires adaptation on an installation level. HD 60364 'Low-voltage electrical installations - Part 1: Fundamental principles, assessment of general characteristics, definitions' gives the rules for the design, erection, and verification of electrical installations. These rules are intended to provide for the safety of persons, livestock, and property against dangers and damage. They also ensure the proper functioning of those installations.

CLC/TC 64 'Electrical installations and protection against electric shock' is responsible for standardization on the protection against electric shock arising from equipment, installations and systems without limit of voltage. In 2021, the TC will continue to work on several projects in the frame of the HD 60364 series: requirements for special installations or locations (such as swimming pools, camping parks, medical locations) and the selection and erection of electrical equipment (such as erection of stationary secondary batteries, wiring systems, switchgear).

This sector is also addressed by 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 121A 'Low-voltage switchgear and controlgear', CLC/TC 205 'Home and Building Electronic Systems (HBES)'. Standardization activities will continue to take place in the context of the EMC Directive, the Low Voltage Directive and the Radio Equipment Directive.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Electromagnetic fields in the human environment - 5G technologies present new opportunities for the entire industry, which go beyond telecommunication equipment. The future of logistics, transport, agricultural business, facility management and telecommunications will change drastically. International and European standardization organisations 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 the compliance of radio devices for use in close proximity to the human body. In 2021, CLC/TC 106X 'Electromagnetic fields in the human environment' will continue to develop such standards for compliance of radio equipment with exposure guidelines.

Communication cables - While the trend for industry is to go 'wireless', cables remain essential parts of the backbone of all communication systems. For this reason, they need to continuously evolve to offer greater speed and quality, and support the ever higher demands of the overall communication system. This is illustrated by the work done by CLC/TC 46X 'Communication cables' to accommodate future high bit rates cabling solutions (40GB/s): the extension of the EN 50288 series to meet frequencies up to 2000 MHz.

Electric cables - The work programme of CLC/TC 20 'Electric cables' for 2021 is dominated by review and 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.

Optical radiation safety and laser equipment - In 2021, CLC/TC 76 'Optical radiation safety and laser equipment' will conclude amending EN 60825-1 'Safety of laser products – Part 1: equipment classification and requirements', which will be offered for citation under the LVD directive. In support of the General product safety directive (GPSD), the TC will work towards the finalisation of EN 50689 'Safety of laser products – particular requirements for consumer laser products'.

Power Transformers - CLC/TC 14 'Energy management, energy audits, energy savings' is responsible for standardization in the field of power transformers, tap-changers and reactors for use in power generation, transmission and distribution. In 2021, the TC will finalise the EN 50708 series on the additional European requirements for medium and large transformers, in the frame of the Standardization Request M/495 'Ecodesign', supporting Regulation 548/2014.

Home and Building Electronic Systems - CLC/TC 205 'Home and building electronic systems' is responsible for standardization in all aspects of home and building electronic systems in relation to the Information Society. In 2021, the TC will focus on the finalisation of EN 50090-6-2 'IoT Semantic Ontology Model Description'. In line with the IEC, the experts in CLC/TC 205 will continue their work on the EN IEC 63044 series on Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS).

Energy and utilities

The transition to a low-carbon economy has started. At the end of 2019, the European Commission published its 'European Green Deal for the European Union and its citizens' that sets the objective to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy. As part of this effort, the Commission has set a global climate target of net-zero emissions of greenhouse gases by 2050.

Many European governments, organisations, companies and citizens are determined to act towards achieving this goal, although a very challenging one. This objective demands to all actors involved to rethink the way we produce and consume and our infrastructures work, the use of resources and the functioning of transportation systems. 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 can bring a big contribution: they are a flexible tool to improve safety and performances, raise levels of energy efficiency and protect consumers, workers and the environment. Standards also lift barriers to the uptake of environmentally friendly technologies and materials, by specifying tests or providing robust definitions that avoid misleading environmental claims. Standards enable the development of sustainable finance, integrating the materiality of technical requirements with due diligence and underwriting the procedures of financial institutions and the disclosure of financial/nonfinancial requirements.

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.

78 Technical bodies responsible

CEN/CLC/ETSI/SEG-CG	CEN-CENELEC-ETSI Coordination Group on Smart Energy Grids
CEN/CLC/ETSI/SMCG	CEN-CENELEC-ETSI Coordination Group on Smart Meters
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/CLC/JTC 15	Energy measurement plan for organizations
CEN/CLC/JTC 2	Power Engineering
CEN/CLC/JTC 6	Hydrogen in energy systems
CEN/CLC/WS EINSTEIN	Good Practice Thermal Energy Audits (GPTEA)
CEN/CLC/WS REEMAIN	CEN/CENELEC Workshop on REEMAIN Methodology for Resource and Energy Efficiency Manufacturing
CEN/SS F23	Energy
CEN/SS N02	Solid fuels
CEN/SS N21	Gaseous fuels and combustible gas
CEN/SS S08	Air quality
CEN/SS S12	Gas analysis
CEN/SS S26	Environmental management
CEN/SS S27	Waste - Characterization, treatment and streams
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 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 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	Environmental characterization of solid matrices
CEN/TC 451	Water wells and borehole heat exchangers
CEN/TC 454	Algae and algae products
CEN/WS 064 Phase 1	Design and Construction Code for mechanical equipments of innovative nuclear installations (European Sustainable Nuclear Industrial Initiative)

CEN/WS 064 Phase 2	Design and Construction Codes for Gen II to IV nuclear facilities (pilot case for process for evolution of AFCEN codes)
CEN/WS 066	Clean harbours - Best practices
CEN/WS 073	Eco-efficient Substations
CEN/WS 079	Sustainable Integrated Water Use & Treatment in Process Industries "SustainWATER"
CEN/WS 082	AquaVir
CEN/WS 106	Specification for bunkering of methanol
CEN/WS 106	Specification for bunkering of methanol
CEN/WS 108	Mapping of the mandatory and voluntary Carbon Management framework in the EU
CEN/WS Energy Retrofit	Sustainable Energy Retrofit Process Management for Multi-Occupancy Residential Buildings with Owner Communities
CEN/WS EvaVOLATILE	Anaerobic digestion plants - Feasibility as-sessment methodology for integrating a Volatile Fatty Acid Platform Technology
CLC/SR 105	Fuel cell technologies
CLC/SR 114	Marine energy - Wave and tidal energy converters
CLC/SR 117	Solar thermal electric plants
CLC/SR 122	UHV AC transmission systems
CLC/SR 28	Insulation co-ordination
CLC/SR 32	Fuses
CLC/SR 32A	High-voltage fuses
CLC/SR 36	Insulators
CLC/SR 37	Surge arresters
CLC/SR 37B	Components for low-voltage surge protection
CLC/SR 4	Hydraulic turbines
CLC/SR 42	High-voltage and high-current test techniques
CLC/SR 45	Nuclear instrumentation
CLC/SR 5	Steam turbines
CLC/SR 73	Short-circuit currents
CLC/SR 90	Superconductivity
CLC/TC 11	Overhead electrical lines exceeding 1 kV a.c. (1,5 kV d.c.)
CLC/TC 111X	Environment
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.)

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 1917 ENs + 209 other deliverables
Work items currently in the Work Programme: 387 ENs + 23 other deliverables

Standardization requests from EC/EFTA

M/400 – Gas quality
M/459 – Household refrigerating appliances
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/560 – Ecodesign requirements for air heating products, cooling products, high temperature process chillers and fan coils
M/XXX - Ecodesign and energy labelling requirements for refrigerating appliances with a direct sales function
M/XXX - Ecodesign and energy labelling requirements for electronic displays
M/XXX - Ecodesign requirements for air-to-air air conditioners, air-to-air heat pumps and comfort fans
M/XXX – Ecodesign servers and data storage products
M/XXX – Taps and showers
M/XXX (Anticipated) – Hydrogen
M/XXX (Anticipated) – Batteries

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 1 – Ecodesign
Actions 2, 3, 4, 5 – Ecodesign and energy labelling
Action 6 – Batteries
Action 7 – Waste electrical and electronic equipment
Action 13 – Refuelling, recharging points

Further information

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

THE CEN-CENELEC SECTOR FORUM ON ENERGY MANAGEMENT ENERGY TRANSITION (SFEM)

The CEN-CENELEC Sector Forum on Energy Management Energy Transition (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 types of stakeholders, from innovation to business and finance, from policy makers to consumers, with the aim to pave the way from innovation to market. The role of SFEM is to anticipate future standardization developments and map the need for legislative improvements, as well as support innovation for the energy transition and its financing, de-risking the tools contributing to the energy efficiency.

In 2021, SFEM intends to launch a Working Group dedicated to Blockchain, exploring the framework for the Internet of energy in which energy, efficiency, peer-to-peer transactions and services are delivered in real time.

SFEM's Working Group (WG) 'Financing tools' will continue working on linking energy efficiency standards and sustainable financing, especially thanks to its enhanced collaboration with the EU Energy Efficiency Financial Institutions Group (EEFIG) and the European Mortgage Federation. The SFEM WG dedicated to 'Energy storage' – including Task Forces working on electricity, gas and heating & cooling – will continue to carry out related follow-up actions, especially on thermal energy storage.

Moreover, SFEM will pursue follow-up actions, based on the position paper on how standardization can contribute to the energy transition drafted by its Ad-hoc-group on Clean Energy Package.

In 2020, SFEM decided to realign its activities and priorities in accordance with the most recent policy and market needs. Based on this, in 2021 its work will be organised in accordance to the newly identified priorities in line with the European Green Deal. The main focus will continue to be on energy efficiency, energy management, energy transition, taxonomy adoption and the digitalisation of the sector. The security of the energy supply, increasing the share of renewable energy and the renovation wave are planned to be high on SFEM's agenda. The objective will be to support through standards a forward-looking, modern, secure and smart energy infrastructure that facilitates the decarbonisation and transformation of our society, where no-one is left behind.

GAS INFRASTRUCTURE

CEN/TC 234 'Gas Infrastructure', taking into account the Commission's objective to reduce methane emissions in the EU, established a new Working Group that plans to publish in 2021 a Technical Report on the assessment of methane emissions in the gas transmission and distribution network. This report intends to provide aligned technical guidance on how to assess and quantify methane emissions, as well as ensure transparency and comparability of data, to build a reliable basis for the data analysis, identification and monitoring of systematic mitigation activities to the gas sector, authorities and other interested parties.

Moreover, CEN/TC 234 will progress on the development of a series of standards providing specific requirements on hydrogen and biogas, as well as on the plants for the preparation of combustible gas mixtures and for the injection of renewable gasses into natural gas networks.

The TC 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 EN 12007 series for pipelines for maximum operating pressure up to an including 16 bar will also be on the work programme of CEN/TC 234 in 2021.

In this context, ongoing work on the revision of a large amount of standards dealing with the requirements for gas infrastructures to support safety and energy efficiency, the optimisation of installations and systems and the uptake of renewable gases and new technologies is to be highlighted, aiming at contributing to reach the EU's climate and energy targets.

HYDROGEN

Hydrogen can support the decarbonisation of industry, transport, power generation and buildings across Europe and facilitate the large-scale integration of renewables, enabling grid balancing and the decarbonisation of natural gas through innovative technologies.

In this context, the CEN-CENELEC Sector Forum Energy Management's Working Group 'Hydrogen', the CEN Sector Forum Gas Infrastructure and the Sector Forum Gas Utilisation combine their expertise in a Joint Task Force on hydrogen in natural gas systems with the intention to support the timely provision of coherent deliverables in the different CEN and CENELEC Technical Committees, thus allowing a safe and reliable use of hydrogen in a decarbonising energy system.

In addition, several CEN and CENELEC Technical Committees are preparing the integration of hydrogen in their system and product standards. In 2021, CEN/TC 234 'Gas infrastructure' is expecting to publish a Technical Report summarising the consequences of hydrogen in the natural gas infrastructure. As a result of this work, the work on the revision of gas infrastructure standards to enable the use of hydrogen as a blend with natural gas or in converted infrastructure will continue.

In parallel, the CEN-CENELEC Joint Technical Committee 6 'Hydrogen in energy systems' is dealing with devices and connections for the production, storage, transport and distribution, measurement and use of hydrogen from renewable energy sources and other sources. In 2021, the Committee will continue its activities related to terms and definitions, guarantee of origin and hydrogen safety in confined environments.

ECODESIGN

In the EU, energy-related products are regulated by two pieces of legislation: the Ecodesign Framework Directive (2009/125/EC), which sets minimum requirements for such products, with the aim of ensuring their free movement within the internal market; and the Energy Labelling Framework Regulation (EU) 2017/1369, which enables consumers to make a better and more rational use of energy by informing them about the energy efficiency of products.

CEN and CENELEC develop European Standards that provide dedicated methods for measuring the energy performance of various energy-related products against the compulsory values and thresholds laid down in the 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 standardization issues related to the Ecodesign Standardization

Requests, delivered under framework Directive 2009/125/EC (on Ecodesign of energy-related products) and framework Regulation (EU) 2017/1369 (on Energy labelling of energy-related products).

In 2021, several standardization request in support of Ecodesign and Energy Labelling regulations are expected.

Moreover, following the European Commission's request to the three European Standardization Organisations – CEN, CENELEC and ETSI – to develop standards on material efficiency that would establish future Ecodesign requirements on, amongst others, durability, reparability and recyclability of products, it is expected that the work under the Standardization Request M543 on material efficiency aspects of energy-related products will be concluded by the end of 2020 or the beginning 2021 with the publication of a Technical Report containing definitions related to material efficiency, with the purpose of providing a single definition of key terms used in different deliverables.

Finally, the CEN-CENELEC Ecodesign Coordination Group (Eco-CG) expects to publish in 2021 a guidance document to present how the standards developed by CEN-CLC/JTC 10 'Energy-related products – Material Efficiency Aspects for Ecodesign' could be used by product-specific Technical Committees when developing product-specific or product group standards addressing material efficiency aspects. In addition, the Eco-CG plans also to publish guidelines for anti-circumvention in standards developed in support of Ecodesign and energy labelling regulations.

BATTERIES

Since 2018, CEN and CENELEC are part of the European Battery Alliance (EBA), a platform gathering the European Commission, Member States, relevant stakeholders, the EU Investment Bank and 'innovators' with the objective 'to create a competitive manufacturing value chain in Europe with sustainable battery cells at its core'.

In 2021, CEN and CENELEC intend to continue their participation to the European Battery Alliance and actively contribute to the development of standards in support of the upcoming Standardization Request on performance and sustainability requirements for rechargeable batteries with internal storage. The future standards (to be possibly initiated in 2021) would aim at supporting the upcoming new regulatory framework for batteries that will establish essential requirements (e.g. design for reuse, repurpose and recycling) for the placing on the market and putting into service of rechargeable batteries with internal storage.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Wind Energy - Wind energy has already played, and will continue to play, an important role to achieve the EU's renewable energy targets. CLC/TC 88 'Wind turbines' will continue its work on the development of standards for wind turbines under the framework of the Frankfurt agreement. In 2020, the committee will continue working on the development of several parts of EN IEC 60400 'Wind energy generation systems' series and the publication of the future EN IEC 61400-50-3 dedicated to the use of nacelle mounted lidars for wind measurements is expected.

Solar Energy - In 2021, CLC/TC 82 'Solar photovoltaic energy systems', which develops standards related to all topics of solar photovoltaic energy systems, from the conversion of light to the interfaces to the public grid, will develop new standards in parallel with its international

counterpart (IEC/TC 82), such as the EN IEC 61215 series on design qualification and type approval of terrestrial photovoltaic (PV) modules.

In 2021, the TC expects to publish the revised version of EN 50524 that describes data sheet and name plate information for photovoltaic inverters in grid parallel operation, with the intention to provide minimum information required to configure a safe and optimal system with photovoltaic inverters.

Standardization in this field is necessary to ensure a high level of product quality, product safety and the consideration of environmental aspects.

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 and responsibility of the nuclear industry is guaranteeing its safety. For this reason, CEN and CENELEC, in close collaboration with the international standardization organisations, ISO and IEC, are working on the development and publication of standards that ensure the safety, 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 analyse the potential adoption of several IEC Standards as European standards.

CLC/TC 45B 'Radiation protection instrumentation' expects to adopt as European Standard IEC 61563:2019, which applies to instruments used to measure the activity and/or activity concentration of gamma-emitting radionuclides in food and/or foodstuffs.

CEN/TC 430 'Nuclear energy, nuclear technologies, and radiological protection' expects to adopt several ISO standards developed by its international counterpart ISO/TC 85.

Electricity distribution and equipment - In 2020, CLC/TC 8X 'System aspects of electrical energy supply,' developing standards to facilitate the functioning of electricity supply systems in open markets, will continue with the revision of EN 50160. This standard defines, describes and specifies the amin characteristics of the voltage at a network user's supply terminal in public low voltage, medium voltage and high voltage electricity distribution networks under normal operating conditions.

Gas distribution and related services - LNG: CEN/TC 282 'Installation and equipment for LNG' develops and maintain standards in the field of installations, equipment and procedures used for production, transportation, transfer, storage, regasification and use of LNG. In 2020, the plans to publish the future EN 1473 that gives guidelines for the design, construction and operation of all onshore-liquefied natural gas (LNG) installations for the liquefaction, storage, vaporisation, transfer and handling of LNG and natural gas (NG).

Gas quality: With the increasing use of renewable gases such as hydrogen or biomethane in the European natural gas systems, gas qualities need to be predictable for the end-applications. In this context, the CEN Sector Forum Gas results of the pre-normative studies on the Wobbe Index and oxygen will be fed into the revision of EN 16726 on gas quality for H-gas. In addition, CEN/TC 234 'Gas infrastructure', in cooperation with CEN-CLC/JTC 6 'Hydrogen in energy systems', will start working on a document regarding the quality of hydrogen for the injection into natural gas and for its use in converted natural gas systems.

Water utilities - CEN/TC 165 'Waste water engineering' is responsible for developing standards for performance and installation in the field of wastewater engineering for systems and components. In 2021, CEN/TC 165 will continue revising some parts of the series EN 12255 on wastewater treatment plants.

CEN/TC 164 'Water supply' is in charge of elaborating standards for the installation and performance requirements of systems and for the construction of components used for the water supply. At the end of 2021, the committee expects to finalise a series of standards on various chemicals used for the treatment of water intended for human consumption and for swimming pool water. The TC is planning to contribute to the elaboration and delivery

of a European Commission's Standardization Request on materials in contact with drinking water.

Waste management - The deliverables of CEN/TC 183 'Waste management' specify technical requirements to minimise all significant hazards and hazardous situations which may occur during operation and maintenance of refuse collection vehicles (RCV) and help prevent accidents. In 2021, the TC will publish a new standard on data communication between communication management system and the back-office system for stationary waste containers (EN 17367).

Fuels and alternative fuels - The development of European Standards for methods of sampling and testing of fuels is important for ensuring that consumers and businesses have access to safe and reliable fuels.

To help alternative fuels enter existing stations, related TCs (CEN/TC 268 for hydrogen, CEN/TC 286 for LPG, CEN/TC 326 for natural gas,

CEN/TC 393 for petrol and IEC/TC 69 for electricity) are developing a guide for multi-fuel stations designers and operators. The guide will address terms and definitions, applicable requirements, emergency shutdown systems and risk assessment. It will facilitate compliance with standards applicable to different fuels and support authorities for permitting.

The preparation of the standardization work supporting the removal of the technical barriers to the use of bio-methane in gas networks and gas appliances and the technical barriers to the use of hydrogen in natural gas networks and for natural gas end users will continue in 2021.

In 2019, CEN finalised the project 'Engine tests with new types of biofuels and development of biofuel standards' funded by EU Horizon2020 Programme. The objective of the project was to present input to the standardization work of CEN/TC 19 'Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin'. Its findings presented the necessary revisions needed for liquid and gaseous fuels specification standards and the related legislation (Fuels Quality Directive). The TC expects that these changes will be implemented from 2021 onwards.

A study was initiated at the end of 2020 to pave the way for the development of a standardization deliverable on the quality of pyrolysis oil suitable for mineral oil refinery co-processing to produce alternative fuels under mandate M/525. The main objective of the project is to produce the basis of a mass balance standard for co-refining of the fast pyrolysis bio-oil (FPBO).

Furthermore, CEN/TC 19 is the most active TC developing specifications for biofuels. In 2021, it will finalise the revision of EN 15522 Parts 1 and 2, related to the identification of the nature of oils spilled in the environment. The standard will be revised to cover the spills originating from newer types of biofuels. The TC will also continue the development and revision of a series of EN and EN ISO standards.

CEN/TC 335 'Solid biofuels' works on the parallel development and adoption of ISO standards on solid biofuels.

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 wanting to sell their products in many different markets beyond the EU Single Market.

The increased awareness of the industry's ecological footprint has led to projects with a focus on circularity. For instance, an ongoing proposal foresees the establishment of a new CEN/TC that will deal with 'Sustainable fisheries, aquaculture and fishing gear'. Amongst other things, this committee will develop standards that will incorporate repairing and recycling, as well as environmental monitoring and data reporting, in support of Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment, expected for 2021.

The standards for circular design of fishing gear developed by the new committee should provide the level playing field for organisations to develop higher quality and lower environmental impact fishing gear to be easily reused or recycled at the end of life and will provide organisations with the opportunity to act sustainably for healthier planet.

18 Technical bodies responsible

CEN/SS C01	Food Products
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/TC 463	Microbiology of the food chain
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/WS 096	Mapping of future needs of standardisation in the paper and board sector
CEN/WS ClimeFish	CEN Workshop on ClimeFish

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 633 ENs + 82 other deliverables
Work items currently in the Work Programmes: 86 ENs + 9 other deliverables

Standardization requests from EC/EFTA

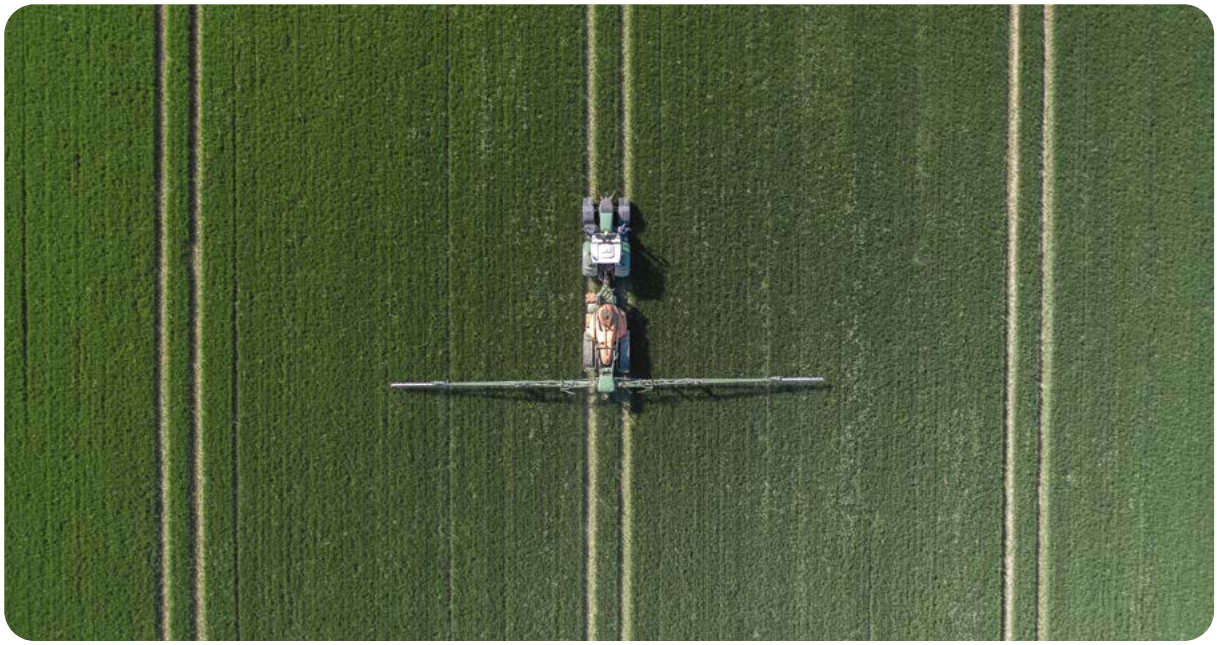
M/523 – Animal Nutrition – Part III
M/521 – Animal Nutrition – Part I
M/520 – Mycotoxins in the food
M/XXX – Circular Design of Fishing Gear

Further information

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

FOOD ANALYSIS

In a continuous effort to ensure the safety of food products, not just regarding possible contaminants, CEN/TC 275 'Food analysis - Horizontal methods', which develops horizontal methods for food analysis, is planning to launch a project regarding minimum performance requirements for allergen testing. Such a standard would be a great contribution to an increasingly important aspect of food safety and one that is of great concern to European consumers.



OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2020

One of the major developments that will impact both CEN/TC 275 'Food analysis - Horizontal methods' and CEN/TC 327 'Animal feeding stuffs - Methods of sampling and analysis' is the revision of Commission Regulation (EC) No 152/2009. As a result of this revision, the European Commission is working on a future standardization request, which will include deliverables on up to 18 different topics, amongst others:

- Tetrahydrocannabinol (THC);
- Determination of SR-90 in feed;
- Packaging materials in former food products.

CEN/TC 463 'Microbiology of the food chain' continues to work in close contact with the European Commission Directorate-General for Health and Food Safety in order to establish priority areas for standardization. In addition, CEN/TC 463 continues to adopt international standards, such as the EN ISO 23036 series, which specifies a method to quantify parasitic infections by estimating the number of parasites in the fish's musculature.

Furthermore, CEN/TC 275 is currently working on a possible work item on the 'QuPPe Method', which focuses on the detection of polar pesticides, including Glyphosate. Whilst glyphosate is still an EU-approved substance until 15 December 2022, the technical committee anticipates future restriction, due to consumer safety concerns as well as green policy. A standardization deliverable in this area is thus of the utmost important, as there currently does not exist an adequate document to address this.

The 'QuPPe Method' is of particular interest to the food sector, as many products, such as coffee, are imported from outside of the EU. EU reference laboratories, tasked with promoting uniform practices and the reliability of methods of analysis, tests and diagnosis are among the interested parties in the development of such a document.

This case is a good example of European standardization anticipating market needs and starting the work, well before the status of a given substance changes or becomes problematic. In this way, we avoid a situation in which there is no validated method within the EU that can be used to test for this substance.

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 country 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 2021, the ABHS will continue to focus on guiding relevant Technical Committees (TCs) in the transition to the new landscape under the Medical Devices Regulation (MDR) (2017/745/EU) and the In Vitro Medical Devices Regulation (IVDR) (2017/746/EU).

In addition, the standardization of individual protective products, such as protective clothing 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. One of the Sector Forum's priorities for 2021 is to pursue the alignment of the existing standards with the PPE Regulation 2016/425/EU. This would ensure a smooth citation of those standards in the Official Journal of the European Union, allowing manufacturers, notified bodies and other stakeholders using these standards to benefit from a presumption of conformity against the essential requirement the new PPE Regulation (2016/425/EU).

Furthermore, the CEN's Strategic Advisory Board for Occupational health and safety (OH&S) plays an important role in European legislation. It is closely linked to standardization in Technical Committees (TCs) developing product standards with OH&S aspects in support of EU Regulation and Directives for products like machinery, pressure equipment and personal protective equipment. OH&S also affects cross-sectorial issues dealt with in TCs which prepare standards with hazard-oriented generic functions, such as in the field of noise, vibration, ergonomics or hazardous substances, and is a horizontal issue in emerging standardization fields like services, qualification and management systems.

Many standards in healthcare and health & safety are developed in response to standardization requests from the European Commission. However, 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.

40 Technical bodies responsible

CEN/CLC/JTC 16	CEN/CENELEC Joint Technical Committee on Active Implantable Medical Devices
CEN/CLC/JTC 3	Quality management and corresponding general aspects for medical devices
CEN/SS S02	Transfusion equipment
CEN/SS S03	Syringes
CEN/SS S99	Health, environment and medical equipment - Undetermined
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
CEN/TC 55	Dentistry
CEN/TC 79	Respiratory protective devices
CEN/TC 85	Eye protective equipment
CEN/WS 068	Quality criteria for health checks
CEN/WS 102	CEN Workshop on guidelines for introducing tele-medical and pervasive monitoring technologies balancing privacy protection against the need for oversight and care
CLC/SR 31G	Intrinsically-safe apparatus
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

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 1660 ENs + 111 other deliverables
Work items currently in the Work Programmes: 376 ENs + 19 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 the Annual Union Work Programme for European standardization for 2021

Action 16 – Medical devices

Further information

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

SMART GARMENTS

CEN/TC 162 'Protective clothing including hand and arm protection and lifejackets', in cooperation with other TCs in the PPE sector, will be focusing on the finalisation of the document 'Guidelines for selection, use, care and maintenance of smart garments protecting against heat and flame and Protective clothing - Protection against heat and flame - Requirements and test methods for garments with integrated smart textiles and non-textile elements' developed in support of the standardization request on 'Smart garments' (M/553).

HEALTH INFORMATICS

In 2021, CEN/TC 251 'Health informatics' will participate in the H2020 project 'X-health' aiming to develop EHR Exchange Format. The Committee's main contributions will be based on EN 17269 'Health informatics – The International Patient Summary'. In addition, the committee will contribute to the H2020 project 'UNICOM', aiming to support the implementation of the Identification of Medicinal products (IDMP) standards. CEN/TC 251's main contributions will be providing a bridge for feedback for the (future) revision of this set of standards. See further below for the update on new revision activities.

It is also to be noted that after the publication of CEN-ISO/TS 82304-2 'Health informatics – Quality & reliability criteria for developers of health and well-being apps', the committee will consider further developments, in light of the 'COVID-19 Addendum to ICT Standardisation Rolling Plan'.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Protective clothing - CEN/TC 162 'Protective clothing including hand and arm protection and lifejackets' is envisaging a lot of new revision projects beginning in 2021. This includes projects in the areas of protection against heat and flame, and of protective gloves and protection against rain. Most of them are revisions or attempts to combine existing EN and ISO standards.

In 2021, the committee is looking forward to fulfil the mandate for standardization activities under the PPE Regulation (EU) 2016/425, in order to have the State of the Art of PPE-standards offered for citation in the OJEU.

CEN/TC 162, more specifically its WG 3 dealing with Protective clothing against chemicals, infective agents and radioactive contamination, will work, in parallel with ISO, on the revision of the EN ISO 16602 series on protective clothing for protection against chemicals.

Regarding new activities for 2021 in the area of motorcyclists' protection, CEN/TC 162, and more specifically its group dealing with motorcycle rider protective clothing (WG 9), will start to develop requirements for inflatable protectors as part 5 of EN 16251-series.

CEN/TC 158 'Head protection' will make a fresh start with a new secretariat. The priority is to align with the PPE Regulation 2016/425/EU to produce harmonized standards that will provide manufacturers with confidence that their products meet the highest safety and quality standards in Europe. The TC will also continue working on ongoing projects to develop a standard on industrial safety helmets (EN 397:2012+A1:2012), test methods for protective helmets and a technical specification for S-EPAC users. Finally, CEN/TC 158 also expects to start the revision of standards in response to the PPE Standardization Request for PPE Regulation 2016/425/EU and in particular, under ISO lead, of the EN ISO 10256 series on protective equipment for use in ice hockey parts 1 through 4.

CEN/TC 159 'Hearing protectors' will discuss the inclusion in its standards of new requirements for hearing protection products and possibly the development of a new standard on hearing protection for children. In addition, the Committee will amend specific parts of the EN 352 series 'Hearing protectors' and EN 13819-3 'Hearing

protector', to include respectively new requirements and new test methods for new technologies not yet covered in these standard series.

- CEN/TC 161 'Foot and leg protectors' work will continue on the following projects:
- prEN ISO 20344 'Personal protective equipment – Test methods for footwear';
- prEN ISO 20345 'Personal protective equipment – Safety footwear';
- prEN ISO 20346 'Personal protective equipment – Protective footwear';
- prEN ISO 20347 'Personal protective footwear – Occupational footwear'

Ergonomics - CEN/TC 122 'Ergonomics' will start the revision of the EN 614 series 'Safety of machinery - Ergonomic design principles' and in particular of its part 1 'Terminology and general principles'. EN 614 is a harmonised standard under the Machinery Directive (2006/42/EC) and establishes the ergonomics principles and procedures to be followed during the design process of machinery and operator work tasks. It deals specifically with task design in the context of machinery design, but the principles and methods may also be applied to job design. It is directed to designers and manufacturers of machinery and other work equipment and will also be helpful to those who are concerned with the use of machinery and work equipment.

Furthermore, the TC is carrying out a project on anthropometric and strength data of children funded by the European Commission. 2021 will mainly be dedicated to conducting the related surveys in at least two European countries. The resulting technical report on anthropometric and strength data of children in Europe will be complemented by another technical report with guidelines on how to apply such data. Anthropometric and strength data are not only a crucial basis for health and safety requirements in standards but also very important for the design of ergonomic and safe products (including for instance facial masks) and workplaces. As outcome of the first project phase, CEN/TC 122 will publish in 2021 a Technical Report on 'Demands and availability of anthropometric and strength data of children in Europe'.

In addition, CEN/TC 122 is working on EN 17558 'Ergonomics - Ergonomics of PPE ensembles' which 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.

CEN TC122 WG11 'Ergonomics of the physical environment' also conducts work, under ISO lead, with ISO TC159 SC5. Of relevance are EN ISO 9920, that presents the thermal properties of clothing and measurement methods, EN ISO 7933, and EN ISO 7243, that consider heat stress, often an undesired outcome of wearing PPE. EN ISO 7730 considers thermal comfort and discomfort and includes clothing as an integral factor. Future deliverables will take into account the effects of the environment on the performance of clothed workers and could include those wearing PPE and the adaptive approaches to providing thermalcomfort. .

Non-active medical devices - CEN/TC 205 'Non-active medical devices' will continue working on a standard specifying requirements and test methods for the antimicrobial activity of antimicrobial wound dressings. After further investigations in appropriate test procedures, the Committee is now able to proceed to an Enquiry manuscript in 2021. In the area of medical gloves, the foreseen new part 5 of the EN 455 series with the title 'Extractable chemical residues' is slowly taking shape. Adverse reactions to residual chemicals present in medical gloves (as part of the manufacturing process) have been reported over many years in variable rates of prevalence. The intended standard provides requirements for the evaluation of potentially harmful residual extractable chemicals in medical gloves as part of a risk management process, in accordance with EN ISO 10993.

Respiratory and anaesthetic equipment - CEN/TC 215 'Respiratory and anaesthetic equipment' will work to develop European Standards for respiratory equipment harmonised to Regulation (EU) No 2017/745 'Medical devices' to support European manufacturers in bringing to the market products that are safe and clinically effective in treating patients during anaesthesia and those with

respiratory diseases, as well as improving long-term health outcomes. As far as possible, CEN/TC 215 will perform all these activities in cooperation with ISO/TC 121 and its subcommittees.

Health informatics - The main part of the work programme of CEN/TC 251 'Health informatics' is in development with projects under VA-ISO or CEN lead. Among others, ongoing standardization activities that will be further developed in 2021 are:

- prCEN ISO/TS 23261 'Requirements for accessing digital medicinal products information by using the existing data carrier'
- prCEN-ISO 17251 'Health informatics – Business requirements for a syntax to exchange structured dose information for medicinal products (revision)'
- Ongoing revision activities for the EN-ISO (IEEE) 11073-series.

For activities foreseen in 2021, CEN/TC 251 anticipates the new revision VA projects for the following IDMP standards:

- CEN-ISO/TS 19844 'Health informatics - Identification of medicinal products (IDMP) - Implementation guidelines for ISO 11238 for data elements and structures for the unique identification and exchange of regulated information on substances';
- EN-ISO 11615 'Health informatics – Identification of Medicinal Products – Data elements and structures for the unique identification and exchange of regulated medicinal product information';
- EN-ISO 11239 'Health informatics - Identification of medicinal products - Data elements and structures for the unique identification and exchange of regulated information on pharmaceutical dose forms, units of presentation, routes of administration and packaging';
- CEN-ISO/TS 20440 'Health informatics - Identification of medicinal products - Implementation guide for ISO 11239 data elements and structures for the unique identification and exchange of regulated information on pharmaceutical dose forms, units of presentation, routes of administration and packaging'.

Quality management - CEN-CENELEC/JTC3 'Quality management and corresponding general aspects for medical devices' intends to work on a new Technical Report to indicate the relationship with the MDR-IVDR for CEN/TR 20416 'Medical devices – Post-market surveillance for manufacturers'.

Accessibility - In 2021, as part of CEN/TC 293 'Assistive products and accessibility', Working Group 12 focusing on 'Accessibility' will proceed on its work to include interoperability and interface between assistive and mainstream products to achieve the full accessibility of technical solutions in their standards. The benefit for stakeholders is to have clearer guidelines on how to ensure that

their products are interoperable with any assistive technology customer use.

The work has so far resulted in a proposal for a European standard, 'Accessible systems for living independently - Guidelines and recommendations', which CEN/TC 293 will further develop in 2021. The document presents requirements and recommendations to ensure the accessibility of systems for living independently. This includes equal access to technology and other solutions for all users, notwithstanding their ability and knowledge and ensuring the opportunity to use the same appliances as others. Systems for living independently includes technological solutions like social care alarms, domestic appliances, medical appliances, and others, to improve participation for persons both at home and in society.

The Committee has decided to adopt, in 2021, the following ISO standards for cognition as European standards since there is currently no European standard for this particular category:

- EN ISO 21802 'Assistive products - Guidelines on cognitive accessibility - Daily time management (adoption of a published ISO standard)';
- EN ISO 21801-1 'Cognitive accessibility - Part 1: General guidelines (adoption of a published ISO standard)';
- EN ISO 21801-2 'Cognitive accessibility - Part 2: Reporting (under development, ISO lead)'.

EN ISO 21802 'Assistive products — Guidelines on cognitive accessibility — Daily time management' and EN ISO 21801-1 'Cognitive accessibility - Part 1: General guideline' are the first parts of a series whose next part, EN ISO NWIP 21802-2 'Cognitive accessibility - Part 2: Reporting', is under development.

Activity limitations and participation restrictions for people with cognitive impairment can be reduced significantly through the design of systems and the built environment. The adoption of Universal Design (UD) approaches in standards and policies is key to facilitate access to mainstream systems. Strategies and principles consistent with the UD approach strive to promote features in systems and the built environment that are functional and comfortable for everyone. Mainstream systems are often considered to be more affordable and socially acceptable than assistive products. Unlimited access to mainstream technologies and systems, including information technologies, contributes to the inclusion of people with the widest range of cognitive needs, in the widest range of life situations.

Algae and algae products - In response to M/547 on algae and algae-based products or intermediates, CEN/TC 454 'Algae and algae products' will finalise in 2021:

- EN 17477, which presents an identification method to identify algae biomass;
- EN 17480, which presents uniform methods for the determination of productivity of algae growth sites;
- EN 17605, which presents algae biomass sample treatment methods.

The Committee will continue the interlaboratory studies to support standards for total lipid determination and quantification of chlorophyll and will launch the development of 9 new European standards and 1 Technical Report. It is also expected that CEN/TC 454 will finalise:

- TR 17611 'Algae and algae products - Specifications for cosmetic sector applications';
- TR 17559 'Algae and algae products - Specifications for food/feed sector applications';
- TR 17612 'Algae and algae products - Specifications for pharmaceutical sector applications'
- A Technical Report providing Specifications for chemical/fuel sector applications.

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. 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, and people with disabilities, to name only a few).

25 Technical bodies responsible

CEN/CLC/JTC 17	Fuel Cell Gas Appliances with Combined Heat and Power
CEN/SS H99	Products for household and leisure use - Undetermined
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 and/or cooling appliances without integral thermal 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	Cleaning equipment for air and other gases
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.
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
CLC/TC 59X	Performance of household and similar electrical appliances
CLC/TC 61	Safety of household and similar electrical appliances

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 730 ENs + 22 other deliverables
Work items currently in the Work Programme: 232 ENs + 1 other deliverable

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
M/566 – Ecodesign and energy labelling for household dishwashers, household washing machines and household washer-dryers
M/XXX (Anticipated) – Ecodesign and energy labelling for refrigerating appliances

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 1 – Ecodesign
Action 2 – Ecodesign and energy labelling
Action 5 – Ecodesign and energy labelling

Further information

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

SAFETY OF ELECTRICAL HOUSEHOLD APPLIANCES

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 close cooperation with its international counterpart IEC/TC 61, standards providing 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 evolutions.

In 2021, CLC/TC 61 will continue to focus on the alignment of their standards to European legislation (more precisely to the Low Voltage Directive – 2014/35/EU and to the Machinery Directive 2006/42/EC).

In addition, CLC/TC 61 will take care of the adoption at European level of the latest IEC standards.

ECODESIGN OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

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

In 2021, the European Commission will adopt new Ecodesign implementing regulations and Energy Labelling regulations for different groups of household appliances. In this context, CLC/TC 59 expects to work on an amendment to EN IEC 63252:2020 that defines methods for the measurement of energy consumption of vending machines, whether or not fitted with refrigerating appliances.

In addition, CLC/TC 59X will, through a dedicated Working Group on material efficiency, start working on material efficiency of household and similar electrical appliances that cover aspects such as, among others, durability, reparability or recyclability.

In the field of vacuum cleaners, the Committee is following up on the development by 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.

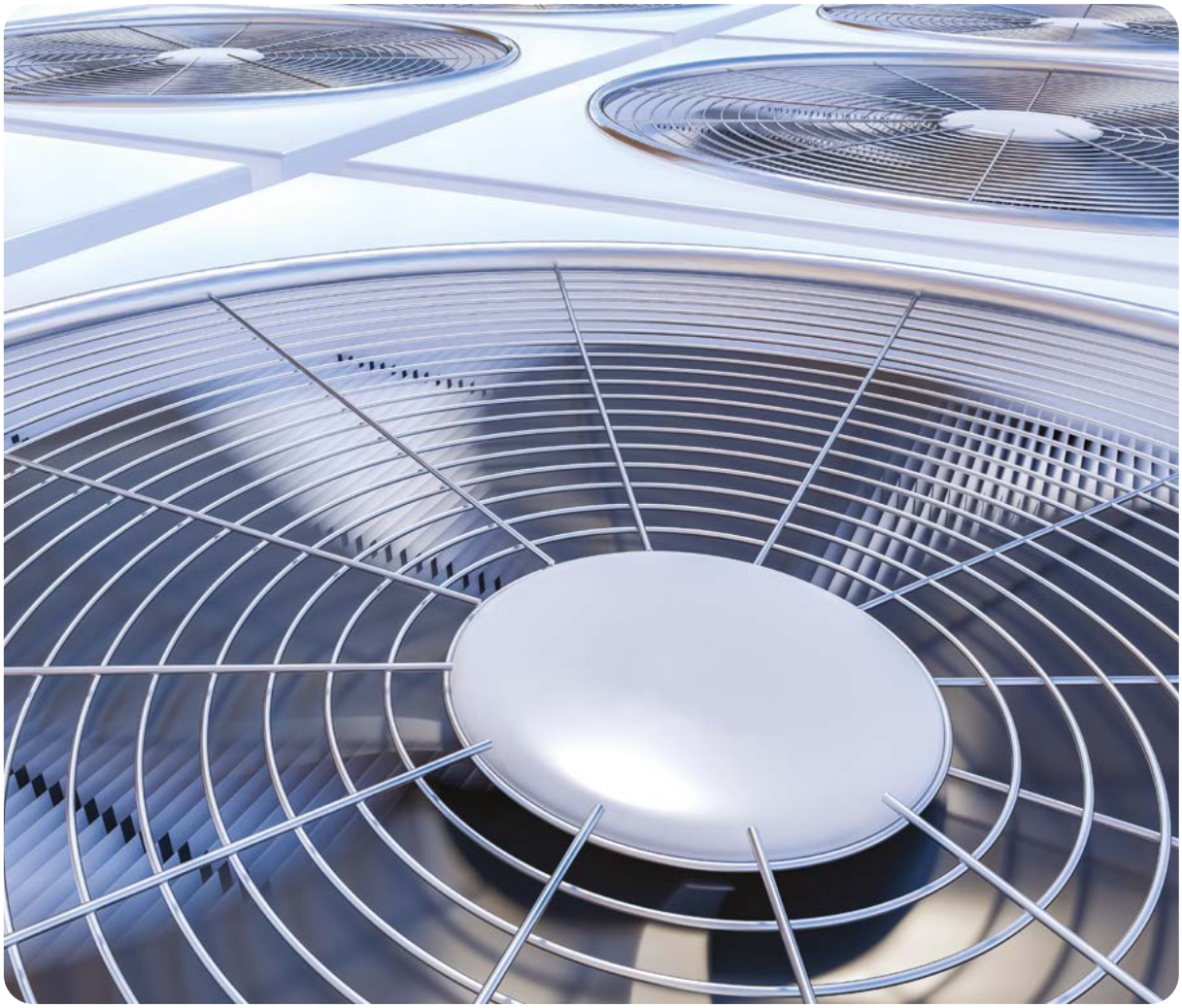
The Technical Committee will also work on a series of standards regarding household appliances network and grid connectivity, defining for example data models for interoperable and connected household appliances.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Heating, cooling, ventilation and air conditioning (HVAC) - The HVAC sector includes applications ranging from appliances burning gas or oil and solid fuels to refrigeration, heat pumps and heat exchanger 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, CEN/TC 113 'Heat pumps and air conditioning units' will further progress on the revision of EN 14511 series on 'Air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers, with electrically driven compressors'.

Safety of household appliances - In 2021, CEN/TC 106 'Large kitchen appliances using gaseous fuels' will finalise 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

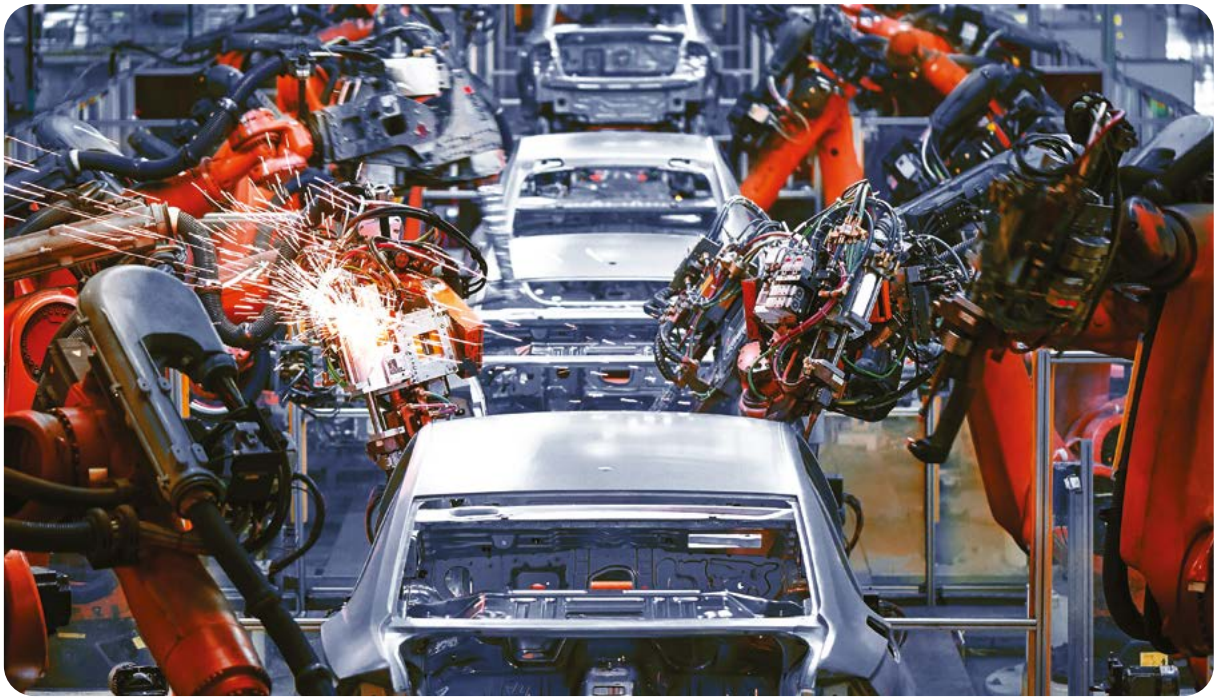


and the associated test methods for gas-heated commercial catering and bakery appliances intended to be used indoor. These projects aim to support the Gas Appliances Regulation (2016/426/EU).

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

CEN/TC 58 expects to finalise several parts of the EN 88 series regarding the safety and control devices for gas burners and gas burning appliance. The series specifies the safety, construction and performance requirements for pressure regulators and pneumatic gas/air ratio pressure regulators intended for use with gas appliances.

Mechanical and machinery



CEN and CENELEC's standardization work 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 eleven 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 organisations from interested Member States.

A considerable proportion of the deliverables 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 wholly global.

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 advise on the European standardization activities related to smart manufacturing in cooperation with stakeholder groups outside CEN and CENELEC.

Finally, the CEN-CENELEC Sector Forum on Machinery facilitates the exchange of information between different stakeholders, coordinates between them and identifies standardization needs, in particular in relation to harmonised standards under the Machinery Directive.

79 Technical bodies responsible

CEN/CLC/JTC 18	Non automatic weighing instruments (NAWI)
CEN/CLC/WS Monsoon	Predictive management of data intensive industrial processes
CEN/SS F05	Measuring Instruments
CEN/SS H10	Sewing machines
CEN/SS I03	Limits and fits
CEN/SS I09	Small tools
CEN/TC 10	Lifts, escalators and moving walks
CEN/TC 114	Safety of machinery
CEN/TC 12	Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries
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 23	Transportable gas cylinders
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/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/WS 093	Industrial Symbiosis
CEN/WS 097	Articulated industrial robots - Elastostatic compliance calibration
CLC/BTTF 128-2	Erection and operation of electrical test equipment
CLC/TC 116	Safety and environmental aspects of motor-operated electric tools
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

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 2272 ENs/HDs + 99 other deliverables
Work items currently in the Work Programme: 583 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

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 5 – Ecodesign and energy labelling
Action 8 – Lifts
Action 9 – Metrology

Further information

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

STANDARDIZATION ON INDUSTRIAL TRUCKS

CEN/TC 150 'Industrial Trucks – Safety', which has been developing standards for more than 30 years, has an important portfolio of standards and an extensive work programme. The TC continues to work closely with ISO to create both European and International standards, with the following key projects expected to be developed in 2021:

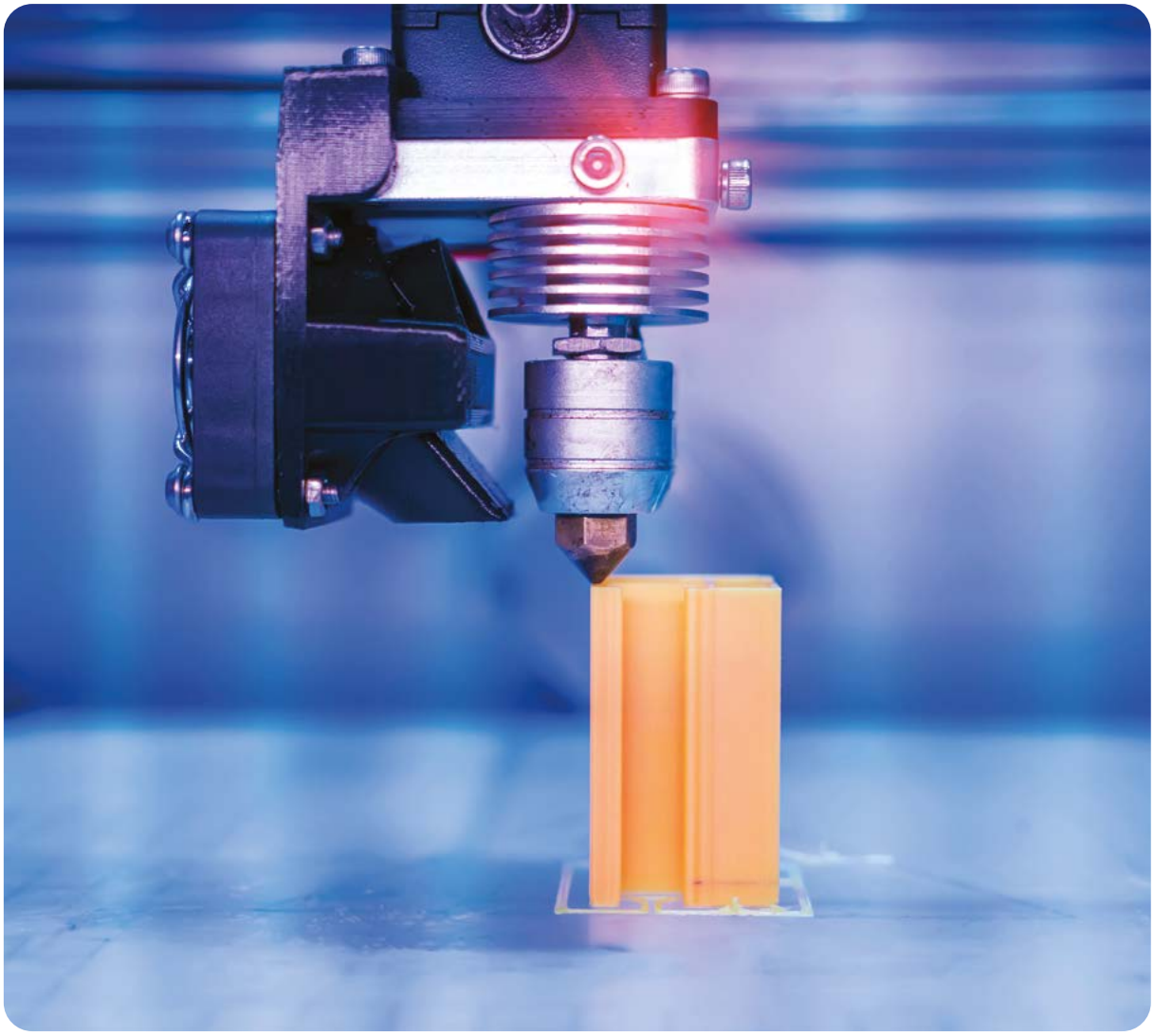
- the revision of EN 1755 'Industrial Trucks - Safety requirements and verification - Supplementary requirements for operation in potentially explosive atmospheres' in support of ATEX Directive (2014/34/EU) will address requirements for driverless trucks in light of learnings and experience of past 5 years. The revision will consider the state of the art of lithium-ion technology in ATEX applications;
- the revision of EN 1757 'Safety of industrial trucks – Pedestrian controlled manual platform trucks' will create a single, standalone standard for pedestrian-controlled manual platform trucks providing machinery safety information for machine manufacturers and health & safety bodies;
- EN 16307-2 'Industrial trucks - Safety requirements and verification - Part 2: Supplementary requirements for self-propelled variable-reach trucks' will provide the European regional requirements for industrial self-propelled variable-reach trucks when used in combination with EN ISO 3691-2. It will thus have the 'harmonised' status under Machinery Directive (2006/42/EC);
- a brand new standard, EN 1459-9 'Rough-terrain trucks - Safety requirements and verification - Part 9: Variable-reach trucks equipped with work platforms having a front guard that can be opened'. The standard will provide safety requirements for working from a platform at height where the activity requires the guardrail to be opened, for example when removing fragile asbestos roof panels. The document will address unsafe working practices by ensuring the operator is constrained within the confines of the working platform. It will benefit contractors and their workers carrying out these activities as well as provide requirements for manufacturers and re-assurance for market surveillance and health & safety bodies.

ADDITIVE MANUFACTURING

CEN/TC 438 'Additive Manufacturing' was established in 2015 in order to transpose to CEN the international standards developed on Additive Manufacturing. In this context, CEN/TC 438 'Additive Manufacturing', develops EN ISO/ASTM standards and other deliverables together with the corresponding ISO/TC 261 and ASTM F42.

Among its main objectives, it aims to standardise the processes of additive manufacturing, their process chains (hard- and software), test procedures, environmental issues, quality parameters, supply agreements, fundamentals and vocabularies.

In 2021, CEN/TC 438 'Additive Manufacturing', together with ISO/TC 261 and ASTM F42, will work on their first harmonised standard under the Machinery Directive (2006/42/EC), EN ISO/ASTM 52938-1 'Additive manufacturing — Environmental health and safety — Part 1: Safety requirements for PBF-LB machine using metallic feedstock'.



OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Mechanical engineering – general - 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 on the safety of machinery are developed in cooperation with ISO/TC 199, and most of them support the Machinery Directive (2006/42/EC).

In cooperation with ISO/TC 199, CEN/TC 114 will work on several documents addressing safety of machinery, among them the revision of CEN ISO/TR 22100-1 explaining how EN ISO 12100 relates to type-B and type-C standards.

CEN/TC 211 plans for 2021 the publication of EN ISO 11202:2010/A1 'Acoustics – Noise emitted by machinery and equipment – Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections – Amendment 1'. The amendment updates the usage of some terms and gives clarification on some of the technical content. This allows the manufacturer of the machine to get detailed knowledge about its sound emission in situ at

specified positions. It will be harmonised under the Machinery Directive 2006/42/EC and its standardization request, M/396.

In 2021, CEN/TC 211 will also continue to revise EN ISO 7574 rev 'Acoustics – Statistical methods for determining and verifying stated noise emission values of machinery and equipment'. The standard is providing requirements and guidelines for the determination and verification of noise emission values of machinery and equipment and supports the manufacturer in the collection of data.

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) and the non-automatic weighing instruments (NAWI) Directive 2014/31/EU.

CEN/TC 176 'Thermal energy meters' is going to finalise the ongoing full revision of the EN 1434-series (parts 1, 2, 4, 5 and 6). The benefit will be a more up-to-date standard series on requirements for thermal energy meters; for instance on fast response meters, high resolution and information on how to handle electromagnetic fields. Those who will benefit are producers of thermal energy meters, consumers of energy, energy companies.

The newly-reactivated CEN-CENELEC JTC 18 'Non automatic weighing instruments (NAWI)' will start revising a very important standard for

the sector, EN 45501:2015 'Metrological aspects of non-automatic weighing instruments'.

The standards on test methods for laser beam widths, divergence angles and beam propagation ratios are currently under revision. CEN/TC 123 'Lasers and photonics' will publish a new edition of those standards, EN ISO 11146-1 and EN ISO 11146-2. They define the test methods for stigmatic and simple astigmatic beams (Part 1) and general astigmatic beams (Part 2). The beam propagation ratio of a laser beam is a common measure of the beam quality of the laser beam and these new editions harmonise the Vocabulary with ISO 11145 and update the standard.

Furthermore, it is expected that the projects EN ISO 12005 on test methods for laser beam polarisation, and EN ISO 13696 on test methods for radiation scattered by optical components, will be published for Enquiry. These standards are developed in close cooperation with ISO/TC 172/SC 9 via the Vienna Agreement.

Agriculture machinery & motor-operated electric tools - The work of CEN/TC 144 'Tractors and machinery for agriculture and forestry' is at the heart of contributing to the transition towards a green economy, in particular in the preservation of biodiversity, by proposing more efficient equipment for agriculture, forestry and gardening activities adapted to new operational practices.

In 2021, the equipment for forestry will benefit from several new standards of CEN/TC 144, which will help forests exploitation operators to work in safe conditions. Among them, it is worth mentioning EN 16517 'Agricultural and forestry machinery – Mobile yarders for timber logging – Safety' which provides safety requirements for equipment used in work on rough terrains for the maintenance of forests.

CEN/TC 144, in cooperation with ISO/TC 23 members, will continue working on the following two series of standards:

- EN ISO 11806 'Agricultural and forestry machinery - Safety requirements and testing for portable, hand-held, powered brush-cutters and grass-trimmers': Part 1 'Machines fitted with an integral combustion engine' and Part 2 'Machines for use with back-pack power unit';
- EN ISO 11680 'Machinery for forestry - Safety requirements and testing for pole-mounted powered pruners: Part 1 'Machines fitted with an integral combustion engine' and Part 2 'Machines for use with back-pack power source'.

As far as digitalisation is concerned, CEN/TC 144 will work on EN ISO 3991 'Agricultural machinery — Robotic feed systems — Safety' on the systems used to distribute, mix feed or clean residual feed without the need of human intervention.

CENELEC TC 116 'Safety of hand-held motor-operated electric tools' has ongoing standardization activities that will be further developed in 2021. The most significant among them is the European adaption and publication of the following new parts of EN IEC 62841 'Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety': Part 2-16 (hand-held fastener driving tools), Part 3-7 (transportable wall saws), Part 4-4 (lawn trimmers, lawn edge trimmers, brush cutters and brush saws), Part 4-5 (grass shears), Part 4-xx (garden blowers and vacuums), Part 4-xy (lawn scarifiers and aerators). Further to this important update, the TC will work to make amendments to several parts of the EN 50632 series 'Electric motor-operated tools - Dust measurement procedure'.

Industrial machinery - The 'Industrial machinery' subsector comprises 39 CEN and CENELEC technical bodies, dealing with a 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).

CEN/TC 10 'Lifts, escalators and moving walks' and ISO/TC 178 will continue an important joint project under the Vienna Agreement and CEN lead to revise ISO 8100-1 and ISO 8100-2, which are identical adoptions of the key standards for lifts, EN 81-20 and EN 81-50. The project will result in global standards for the safety of lift: EN ISO 8100-1 on 'Safety rules for the construction and installation of passenger and goods passenger lifts' and EN ISO 8100-2 on 'Design rules, calculations, examinations and tests of lift components', both expected to be published by September 2023 and harmonised under the Lifts Directive (2014/33/EU).

CEN/TC 10 will also continue its work on:

- EN 81-44 'Safety rules for the construction and installation of lifts - Special lifts for the transport of persons and goods - Part 44: Lifting appliances in wind turbines',aimed at allowing a safe installation of a lifting appliance in a wind turbine.

and will start the work on:

- brand new standards EN 81-45 and EN 81-46, addressing safety requirements for lifting appliances with and without well enclosure, respectively;

- a new technical specification CEN/TS 81-60, providing a check list to verify compliance of an installed lift to EN 81-20;
- a new technical specification CEN/TS 81-13, providing guidance on safe access to lift well;
- a brand new standard EN 81-42 providing requirement for lifting appliances with enclosed career with speed up to 0,15m/s.

CEN/TC 12 'Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries' will anticipate the forthcoming Standardization Request under Machinery Directive (2006/42/EC) for the part dedicated to the machinery used in drilling and well interventions. In this context, a new work item about the safety requirements for drawworks will serve as a pilot. In addition, CEN/TC 12 will contribute to the 'lower carbon agenda' of the global oil and gas sector, which involves developing new standards and revising existing ones to address low carbon and circularity / green manufacturing aspects. The TC will also promote its standards among new energy sectors, such as carbon capture, transportation, utilisation or storage (CCUS), geothermal, offshore wind, power-to-X, given the similarities.

In 2021, CEN/TC 145 'Plastics and rubber machines' will work on the following projects addressing safety requirements of the Machinery Directive (2006/42/EC):

- revision of EN 289:2014 on compression moulding machines and transfer moulding machines which are listed in Annex IV of the Machinery Directive (2006/42/EC) covering machines with high risk factor;
- revision of EN 1417:2014 on two-roll mills;
- revision of EN 16474:2015 on tyre curing machines, that have a particular relevance for the large use in the tyre industry;
- amendment of EN 12012-4:2020 on agglomerators;
- brand new standard EN ISO 23582-1 on magnetic clamping systems for plastics and rubber machines.

CEN/TC 148 'Continuous handling equipment and systems – Safety' will complete two important standards under the Machinery Directive (2006/42/EC):

- revision of EN 619 'Continuous handling equipment and systems - Safety and EMC requirements for equipment for mechanical handling of unit loads';
- revision of EN 620 'Continuous handling equipment and systems - Safety requirements for fixed belt conveyors for bulk materials'.

Moreover, CEN/TC 153 'Machinery intended for use with foodstuffs and feed' will continue current work on the brand new standards under Machinery Directive (2006/42/EC), which will establish a high level of safety and, at the same time, bring hygiene requirements to the state of the art, to the benefit of both machine operators and consumers:

- EN 17537 'Food processing machinery - Tenderizing machines - Safety and hygiene requirements' on meat processing;
- and the first Europe-wide standardised solutions for ice-cream machinery:
- EN 16876 'Food processing machinery - Soft ice cream machines - Safety and hygiene requirements',
- EN 16878 'Food processing machinery - Combined machines and batch freezers - Safety and hygiene requirements',
- EN 16881 'Food processing machinery - Pasteurizers, vats and cream cookers - Safety and hygiene requirements' and
- EN 16888 'Food processing machinery - Cream whippers - Safety and hygiene requirements'.

CEN/TC 399 'Gas Turbines applications – Safety', together with ISO, will continue working on its first standard:

EN ISO 21789 'Gas turbine applications - Safety (ISO/DIS 21789:2020)' under Machinery (2006/42/EC) and ATEX (2014/34/EU) Directives.

Machinery for mining, quarrying, construction equipment - EN ISO 20500 Parts 1-7 'Mobile road construction machinery — Safety' is a series of important standards from CEN/TC 151 'Construction equipment and building material machines – Safety'.

These new standards are developed under the Vienna Agreement and will replace the existing European Standard series EN 500 'Mobile road construction machinery – Safety', parts 1-6, in order to adequately reflect the latest health and safety requirements with regards to the safety of mobile road construction machinery.

Pressure Equipment - CEN continues to support ongoing standardization activities in relation to pressure equipment, including the regular revision and maintenance of more than 200 harmonised European Standards supporting the implementation of the new EU Pressure Equipment Directive (2014/68/EU).

In 2021, CEN/TC 74 'Flanges and their joints' will continue the revision of the EN 1759 series on circular flanges. CEN/TC 269 'Shell and water-tube boilers' will revise EN 12952 series on water-tube boilers and auxiliary installations and EN 12953 series on shell boilers.

CEN/TC 237 'Gas meters' will revise prEN 12261 'Gas meters - Turbine gas meters' in support of the Pressure Equipment Directive.

Mining and metals

The mining and metal sector plays a key role in supporting the EU economy and is instrumental to many other sectors, including construction, automotive and electronics. The ever-growing demand of minerals requires a high effort in standardization, in relation to the definition, classification, testing, analysis and technical delivery requirements of the products of the metal industry.

Given the substantial interest around this sector, many stakeholders are involved in the standardization activities, including National Standardization Bodies (NSBs), manufacturers, users of metallic products and laboratories. A remarkable number of standards produced in the mining and metal sector support several pieces of legislation, such as the new Pressure Equipment Directive, the Simple Pressure Vessels Directive and the Construction Products Regulation. Moreover, European standardization in this field features a close collaboration with international standardization, with around 30% of iron- and steel-related standards adopted from, or developed in collaboration with, ISO.

21 Technical bodies responsible

CEN/SS M11	Powder metallurgy
CEN/SS M14	Nickel
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/SC 1	Test methods for steel (other than chemical analysis)
CEN/TC 459/SC 10	Steel tubes, and iron and steel fittings
CEN/TC 459/SC 11	Steel castings and forgings
CEN/TC 459/SC 12	General issues
CEN/TC 459/SC 2	Methods of chemical analysis for iron and steel
CEN/TC 459/SC 5	Steels for heat treatment, alloy steels, free-cutting steels and stainless steels
CEN/TC 459/SC 6	Wire rod and wires
CEN/TC 459/SC 7	Steels for pressure purposes
CEN/TC 459/SC 8	Steel sheet and strip for electrical applications
CEN/TC 459/SC 9	Coated and uncoated flat products to be used for cold forming
CEN/WS MODA	Materials modelling terminology, classification and metadata
CLC/SR 68	Magnetic alloys and steels
CLC/WS SGRM	CENELEC workshop on Specifications for Graphene Related Material

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 976 ENs + 30 other deliverables
Work items currently in the Work Programme: 113 ENs + 2 other deliverables

Standardization requests from EC/EFTA

M/115 rev – Reinforcing and Pre-stressing steel.

Further information

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

IRON AND STEEL

Since 2018, standardization activities in the field of iron and steel are performed by CEN/TC 459 'ECISS - European Committee for Iron and Steel Standardization', which replaced the 12 Technical Committees of the former European Committee for Iron and Steel Standardization (ECISS).

In 2021, CEN/TC 459 will continue to provide inputs to the draft Standardization Request on 'Reinforcing and Pre-stressing and steel'.

STEEL FORGINGS AND CASTINGS

In 2021, CEN/TC 459/SC 11 'Steel forgings and castings' will continue developing the EN 10250 series on 'Open die steel forgings for general engineering purposes' and will publish the amended versions of EN 10222-2 and -4 about 'Steel forgings for pressure purposes'. These standards will update the technical content related to steel forging and casting, bringing significant benefits to the manufacturers and the industry.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Metal hoses, hose assemblies, bellows and expansion joints - CEN/TC 342 will develop two new standards: EN 14585 'Corrugated metal hose assemblies for pressure applications', that will merge its previous three parts, and the revision of EN 15266 'Stainless steel pliable corrugated tubing kits in buildings for gas with an operating pressure up to 0,5 bar'. It will also publish the standard EN 14917 'Metal bellows expansion joints for pressure applications'. Moreover, the TC will review EN 14800 'Corrugated safety metal hose assemblies for the connection of domestic appliances using gaseous fuels', mandated under the Construction Product Regulation.

Advanced technical ceramics - CEN/TC 184 'Advanced technical ceramics' will focus on the possible adoption of ISO standards as EN ISO, in relation to measurement methods for properties of advanced ceramic materials. The experts will evaluate if ISO testing methods include up-to-date and/or broader information compared to the corresponding EN methods. This exercise will ensure a higher level of harmonisation, eventually facilitating a broader endorsement of the standards by the users.

Services

The services industry is key for the new Industrial Strategy for a green and digital Europe. Standardization of services is seen as a crucial catalyst to foster cross-border services provision.

Currently, 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%) in comparison to the total 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 use of European standards can contribute to the creation and development of a Single Market for services, 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.

28 Technical bodies responsible

CEN/BT/TF Beauty Salons	Beauty Salons - Definition of additional specifications for the advanced treatments
CEN/CLC/JTC 1	Criteria for conformity assessment bodies
CEN/SS A03	Postal services
CEN/SS A07	Translation and Interpretation services
CEN/SS A08	Funeral services
CEN/SS A10	Services of Real Estate Agents
CEN/SS A11	Security services
CEN/SS A99	Services - Undetermined
CEN/SS F17	Administrative documents
CEN/SS F20	Quality assurance
CEN/SS S29	Social responsibility
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 452	Assistance Dogs
CEN/WS JTI	Journalism Trust Indicators
CEN/WS Unicorn	CEN Workshop on Analytics Insights and Scaling Policies for Microservices (UNICORN)

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 328 ENs + 74 other deliverables
Work items currently in the Work Programme: 47 ENs + 9 other deliverables

Standardization requests from EC/EFTA

M/558 – Online gambling

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 10 – Postal Services
Action 11 – Public Procurement

Further information

Links to relevant pages on CEN, CENELEC and/or CEN-CENELEC websites
www.cen.eu/work/Sectors/Services/Pages/default.aspx

POSTAL SERVICES

As part of its continued work to ensure a frictionless quality of service, CEN/TC 331 'Postal services' will focus on the harmonisation of track and trace events. The work planned on recorded and contactless delivery of postal items will be of particular importance, following the impact of the COVID-19 crisis.

Furthermore, in support of the European Commission's roadmap for completing the Single Market for parcel delivery (COM (2013)886) and the creation of a Digital Single Market for European Union, CEN/TC 331 is planning the publication of a technical specification on the packaging for boxable items, which will lay out the characteristics for packaging of small and light-weight items to be delivered into the consumer's letterbox. In addition, in support of the European Green Deal's goal of reaching zero net emissions of greenhouse gases by 2050, the TC will aim to develop standards to measure environmental impacts of end-to-end parcel transportation.

PUBLIC PROCUREMENT

2021 will see the continued collaboration between CEN, national standardization bodies and public procurement stakeholders within the framework of the European Network for Public Procurement. This network, now representing 17 European countries, has the principal objective of bringing together stakeholders, discussing best practices and educating procurers on how to reference standards in public procurement. The increased use of standards in public procurement will lead to more transparency and improved opportunities for applicants to meet the requirements specified by the tender. In addition, public procurement is a good example of an area in which standards can provide a useful tool to underpin legislation.

In this context, CEN/TC 461 'Public Procurement' aims to develop a European standard on integrity and accountability in public procurement. In the future, the technical committee may identify new areas for standardization within public procurement, such as definitions, general concepts, best practices, guides for the procurement process, checklists, and other guidelines of relevance. CEN has an important role to play in the field's harmonisation: increased harmonisation would facilitate cross-border public procurement, which in turn would increase competition. As a result, the potential for public authorities to save money is considerable.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Online gambling services - Following the European Commission's Standardization Request M/558, CEN/TC 456 'Reporting in support of online gambling supervision' will develop a standard on reporting to support the supervision of online gambling services by the gambling regulatory authorities of the Member States (prEN 17531). This standard has the aim of providing a voluntary tool to the National regulatory authorities, without prejudice to the scope of competence of Member States in the regulation of online gambling.

Forensic Sciences - The development of standards for forensic science is important to enhance the reliability, transparency and confidence in forensic evidence. Standards harmonise work practices, thus allowing forensic facilities from different countries to work collaboratively in response to cross-border investigations and facilitating the exchange of forensic results and information.

CEN/TC 419 'Forensic Science Processes' will progress, in parallel with its ISO counterpart ISO/TC 272 'Forensic sciences', on the development of the EN ISO 21043 series that specifies requirements for the different components of the forensic process and describes best practices in the sector.

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 organisations. The European standards developed by CEN/TC 445 'Digital information interchange' will facilitate the connection between insurance companies, their customers and their market partners, such as brokers, sales organisations, portals, service providers, and other insurers. The new standard (FprEN 17419-1) 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 support consumer strong privacy protection.

Transport and vehicles

In an age of constant change, developing and maintaining a safe, efficient, resilient and sustainable transport system in Europe is vital for the citizens, the economy and the environment. Thanks to a strong expertise of the European industrial actors, SMEs and sectorial federations on this domain, the European standardization of transport systems is active on every field: from the road to the space, from the rails to the water. This work encompasses horizontal topics of various nature 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. In this field, European standards developed by CEN and CENELEC are a crucial support for the EU Directives relating to the interoperability of Europe's rail system (2016/797/EU), the recreational crafts and personal watercrafts (2013/53/EU), the deployment of alternative fuels infrastructure (2014/94/EU) and the cableway installations designed to carry passengers (2016/424/EU).

36 Technical bodies responsible

CEN/CLC/JTC 5	Space
CEN/SS T01	Shipbuilding and maritime structures
CEN/SS T03	Road Vehicles
CEN/SS T14	Packaging
CEN/TC 119	Intermodal Loading Units and Cargo Securing (ILUCS)
CEN/TC 15	Inland navigation vessels
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 098	Bionic Aircraft - ALM technology and bionic design
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/SR 107	Process management for avionics
CLC/SR 18A	Electric cables for ships and mobile and fixed offshore units
CLC/SR 80	Maritime navigation and radiocommunication equipment and systems
CLC/SR 97	Electrical installations for lighting and beaconing of aerodromes
CLC/TC 18X	Electrical installations of ships and of mobile and fixed offshore units
CLC/TC 69X	Electrical systems for electric road vehicles
CLC/TC 9X	Electrical and electronic applications for railways
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.

Standards published by CEN & CENELEC

CEN & CENELEC portfolio of deliverables: 1492 ENs + 205 other deliverables
Work items currently in the Work Programme: 265 ENs + 56 other deliverables
ASD-STAN portfolio: 2506 ENs
ASD-STAN Work Programme: 299 ENs

Standardization requests from EC/EFTA

M/300 – Cableway installations
M/421 – On-board diagnosis and information management
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/557 – Marine equipment
M/XXX – Drones
M/XXX – PEMS
M/XXX – Caps & Lids II
M/XXX – Interoperability of the rail system II
M/XXX – Alternative fuels infrastructure II

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Actions 13, 14 – Refuelling and recharging points
Action 15 – Marine equipment
Action 18 – European Electronic Toll Service

Further information

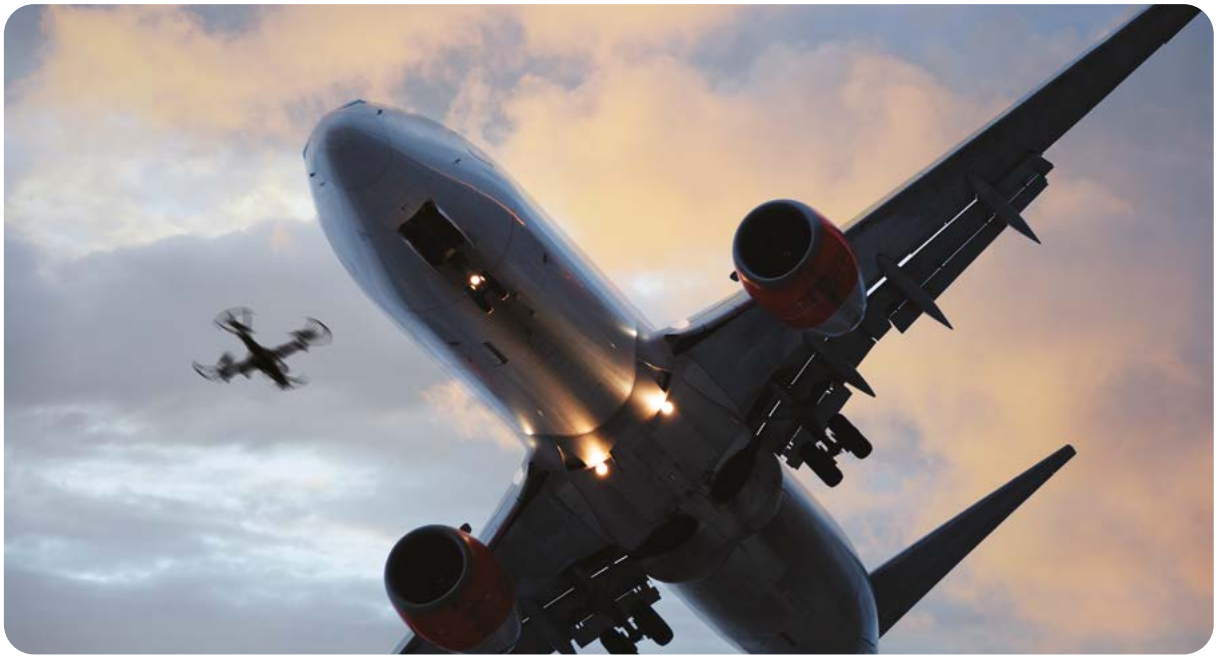
www.cen.eu/work/Sectors/Transport/Pages/default.aspx

ROAD VEHICLES

In 2021, CEN/TC 301 'Road vehicles' will finalise EN 17507, a standard dedicated to the performance assessment of the Portable Emission Measuring Systems (PEMS) for road vehicles. This standard is of crucial importance following the turmoil affecting the automotive industry on the emissions performance of vehicles. This document defines the procedures for assessing the performance of PEMS equipment, which is used for the on-road measurement of tailpipe emissions of light-duty vehicles, on the basis of a common test procedure that simulates the range of conditions experienced during on-road tests. It will benefit to the industry, the consumers and the regulators.

ELECTRICAL AND ELECTRONIC APPLICATIONS FOR RAILWAYS

A major project in railways standardization for 2021 is the revision of a very important set of standards by CLC/TC 9X 'Electrical and electronic applications for railways': the EN 50122 series. This series of standards is dedicated to electrical safety, earthing and the return circuit of fixed installations. Part 1 will deal with the protective provisions against electric shock, part 2 with the provisions against the effects of stray currents caused by DC traction systems, and part 3 with the mutual Interaction of AC and DC traction systems. The impact of this standard is huge, as its range of application is not only trains but also other transport systems. Indeed, it applies to all new lines and to all major revisions of existing lines for railways, tramways, trolleybus systems, elevated and underground railways, mountain railways, electric traction supplies for road vehicles, and magnetically levitated systems which use a contact line system. Also, this series of standards is of major importance as it supports the Directive (EU) 2016/797 in the framework of the Standardization Request on the interoperability of the rail system within the European Union.



OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Aircraft and spacecraft, and related equipment - CEN and CENELEC are coordinating the development of harmonised 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 will be performed under a Delegated Act within the frame of a specific Standardization Request, implemented by the European Commission in autumn 2020.

Furthermore, a series of standards for UAS (Unmanned Aircraft Systems) open category will be progressed to Formal Vote.

CEN and CENELEC will continue coordinating the development of standards for space products and applications within CEN-CENELEC JTC5 'Space', 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 (incourse of renewal). These standards will 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 beginning 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 European Commission's 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.

In the electric vehicles sector, CEN/TC 301 'Road vehicles' will develop a new standard, prEN ISO 19363, on the safety and interoperability requirements for the magnetic power transfer in electrically propelled road vehicles.

In the hydrogen application for transport, CEN/TC 268 'Cryogenic vessels and specific hydrogen technologies applications' will complete the revision of the standard EN 17124, dedicated to product specification and quality assurance for Proton exchange membrane (PEM) fuel cell applications for hydrogen propelled road vehicles.

Railway and tramway locomotives and rolling stock and associated parts - In the railways sector, CEN and CENELEC together with ETSI participate in the Sector Forum Rail, which brings together representatives from the railway industry (supply industry and networks), relevant European and international organisations (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 this context, a new Standardization Request connected to the new (EU) 797/2016 will be finalised in 2021. It aims mainly to update and maintain the current collection of harmonised standards.

In order to maintain the competitiveness of the 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'.

For example, CLC/TC 9X 'Electrical and electronic applications for railways' will revise EN 50617-1. This standard describes the technical parameters to consider for achieving the compatibility of the track circuit with the emissions limits defined in the frequency management for rolling stock.

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, it will focus on 'Waste water treatment' and 'Steering Systems'. The revision work will continue on multiple parts of the EN ISO 12217 'Stability and buoyancy assessment and categorization' in parallel with the development of new standards like EN ISO 15085 'Man-overboard prevention and recovery'.

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 one 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 proceed with the revision of EN 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 road signalling. Initial exchanges have taken place on this regard, even if no projects have been initiated at this stage.

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

CEN/TC 286 'Liquefied petroleum gas equipment and accessories' will initiate the revision of EN 12252, the standard that specifies equipment and accessories for road tankers used for the transport of Liquefied Petroleum Gas (LPG) and identifies the equipment that is considered necessary to ensure that filling, transportation and discharge operations can be carried out safely.

Accessibility

The adoption 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. 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 EU Disability Strategy.

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/376 – European accessibility requirements for public procurement of products and services in the ICT domain
M/420 – Accessibility in the built environment
M/473 – Design For All
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 the Annual Union Work Programme for European standardization for 2021

Action 8 – Lifts
Action 11 – Public Procurement
Action 19 – Artificial Intelligence systems

Further information

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

ACCESSIBILITY

In 2021 and for the coming years, the support and engagement of key stakeholders will be required 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.

In 2021, SAGA will organise a workshop for the implementation of the 17161:2019 'Design for All - Accessibility following a Design for All approach in products, goods and services - Extending the range of users'. Additionally, SAGA will produce a short Guide that explains the principles of accessibility and Design for all. This document will be useful for both technical committees and working groups that develop standards not specifically on accessibility issues, but dealing with topics that have a user interface towards humans. The purpose is to raise awareness among those committees that normally do not deal with 'special needs' on the fact that accessibility concerns must be included in their clauses in order to have a complete picture of the usability of the product or service they are working on. The outcome will be increased awareness among technical committees and working groups that accessibility should be an integral part of their usability requirements, alongside others, such as technical clauses.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Lifts - CEN/10 'Lifts, escalators and moving walks' will continue its work on the revised prEN 81-70 on the safety rules for the construction and installation of lifts. The document will specify the minimum requirements for the safe and independent access and use of lifts by users, including persons with disabilities.

Sustainability

European Standards developed to contribute to the protection of the environment are important to reach the objectives of the EU Green Deal and the Sustainable Development Goals (SDGs) of the UN 2030 Agenda. Standards help tackle climate change, ensure the conservation of the natural environment and implement the sustainable use of resources and energy. They are key tools that complement national and European policies aiming to lead the transition towards a green economy and reach the climate target of net zero by 2050.

All technical bodies in CEN and CENELEC are expected to take environmental aspects and climate change adaptation considerations into account. A set of tools and support services (such as CEN's environmental helpdesk) are also available to help TCs in all sectors address these aspects in standards.

Thanks to CEN and CENELEC's efforts dedicated to the greening of European Standards, companies and organisations using them are contributing to the protection of the environment. The use of these standards not only helps companies 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 impacts and avoiding clean-up costs and fines. In addition, by demonstrating their commitment to the environment, companies and organisations can be perceived in a more positive way by their current and potential customers, and therefore more easily access new business opportunities.

CEN and CENELEC's work in the environmental sector also involves an advisory role. The environmental sector representatives provide help to standard writers by including environmental and climate change adaptation considerations in standards all across the board.

In order to better address major horizontal environment-related standardization challenges, the new CEN-CENELEC Strategic Advisory Body for Environment (SABE), which previously was a CEN-only body, will continue to ensure a better

coordination of standardization work in support of the Green Deal. SABE will maintain close cooperation with the European Commission and regularly discuss with policy-makers how standards can support the implementation of environmental, climate and related policies.

The CEN-CENELEC Adaptation to Climate Change Co-ordination Group coordinates all standardization work on adaptation to climate change. Its major objective is to support the resilience of the European infrastructures by developing standards that incorporate climate adaptation needs.

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

17 Technical bodies responsible

CEN/TC 164	Water supply
CEN/TC 165	Waste water engineering
CEN/TC 183	Waste management
CEN/TC 223	Soil improvers and growing media
CEN/TC 230	Water analysis
CEN/TC 260	Fertilizers and liming materials
CEN/TC 264	Air quality
CEN/TC 308	Characterization and management of sludge
CEN/TC 335	Solid biofuels
CEN/TC 343	Solid recovered fuels
CEN/TC 351	Construction Products - Assessment of release of dangerous substances
CEN/TC 366	Materials obtained from End-of-Life Tyres (ELT)
CEN/TC 406	Mechanical Products - Ecodesign Methodology
CEN/TC 411	Bio-based products
CEN/TC 444	Environmental characterization of solid matrices
CEN/TC 454	Algae and algae products
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
Ancillary action - Material efficient recycling and preparation for re-use of CRMs from different waste streams

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 1 – Ecodesign
Actions 2 to 5 – Ecodesign and energy labelling
Action 7 – Waste electrical and electronic equipment
Action 17 – Drinking water

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

CIRCULAR ECONOMY

CEN and CENELEC will continue strengthening the role of circularity in standardization in line with the European Commission's Circular Economy Action Plan when developing standards for the key value chains: electronics and ICT; batteries and vehicles; packaging; plastics; textiles; construction and buildings; food; water and nutrients. The European Standards covering specifications on design, production and waste are drafted in support of the requirements of the relevant legislations.

SABE's dedicated group on 'Circular Economy' will, in 2021, focus on identifying and discussing strategic standardization issues related to Circular Economy and will advise on standardization priorities based on the identified needs (for example through the mapping of ongoing standardization activities on the topic and liaising with relevant groups). The group also intends to facilitate the exchange of information between technical committees to promote a mutual understanding of current standardization issues in the field of circular economy.

SUSTAINABILITY

CEN and CENELEC are already developing European Standards in support of the Sustainable Development Goals (SDGs) of the UN 2030 Agenda in most business sectors.

Considering the importance of achieving the SDGs, it was decided to introduce a more systematic approach to addressing sustainable development objectives in standards. This new approach will enable the standardization community to demonstrate whether a specific European standard is supporting one or several SDGs. The project is expected to start at the beginning of 2021.

CLIMATE AMBITION AND CLIMATE ADAPTATION

CEN and CENELEC will continue to work intensively on the development and revision of the standards in support of the EU Strategy on Adaptation to Climate Change, based on Standardization Request M/526. The objective of the work is to make European infrastructure resilient to the impact of a changing climate.

The revision and development of the identified highest-priority standards is ongoing in the relevant technical committees working in the priority sectors, i.e. transport, energy and construction, and the supporting ICT. The first set of standards will present best practices for making the standards resilient to the adverse effects of climate change. In 2021, CEN and CENELEC will organise a conference to share the results of the work with the broader public and to get on board more experts from other sectors that may be impacted by climate change.

A lot of standardization work supporting the climate neutrality objective of the EU is also ongoing in various CEN and CENELEC sectors such as fuels, gas, air quality, transport etc. The related standardization work is described in the relevant sectors' chapters.

In order to be able to better coordinate the specific climate-related work at the international level, particularly at ISO, a new technical committee may start its activity in 2021.

OTHER STANDARDS AND ACTIVITIES TO BE DEVELOPED IN 2021

Improved participation in the environmental aspects of standardization - The EU-funded project 'Engaging more standard bodies and national environmental organisations in the environmental aspects of standardization' aims at engaging less active CEN and CENELEC members and national environmental organisations to participate more actively in CEN's strategic discussions and standardization work related to environmental protection. Thanks to the project, standardization and its environmental aspects gain more and more visibility and appreciation at the national level. A much larger number of CEN members are participating in the strategic environmental discussions at the European level and more national environmental NGOs get involved in the standardization work, helping standard drafters 'green' the standards. The project will be continued in 2021 and networking events (with the aim to attract new stakeholders in standardization) will be organised in Bulgaria, Romania, Latvia, Lithuania and Malta.

Waste and secondary raw materials - In 2021, CLC/TC 111X 'Environment' will start the revision of the standards for collection, logistics and treatment requirements for Waste Electrical and Electronic Equipment (WEEE) developed in support of the WEEE Directive (2012/19/EU) and under Mandate M/518.

The TC will also work on the delivery of a European Commission Ancillary Action on material efficient recycling and preparation for re-use of Critical Raw Materials (CRMs) from different waste streams. The work started at the end of 2020 and is expected to end in 2022. The outcome will be a report comprising the mapping of already existing national, European and international standards in the area of waste treatment and production of secondary critical raw materials. This mapping will also include a gap analysis and proposals on how to address those gaps in future standardization actions, as well as a ranking of the key waste streams in question and their components in terms of high potential for high quality recycling of CRMs through European standardization.

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

In 2021, the TC will finalise the revision of EN 13725 'Determination of odour concentration by dynamic olfactometry and odour emission rate from stationary sources'. This standard specifies a method for the objective determination of the odour concentration of a gaseous sample using dynamic olfactometry with human assessors.

Following the completion of the 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 2021, as a series of activities had to be postponed due to the global pandemic.

Furthermore, the development of new standards under the Ozone precursor mandate M/561 will continue in 2021.

Finally, the TC is also working on the development of a series of standardization requests with the European Commission.

Water analysis - CEN/TC 230 'Water analysis' is developing standards in the area of water analysis.

In 2021, TC 230 intends to launch new work on the determination of the sum of perfluorinated substances (Sum of PFAS) in drinking water with a method using liquid chromatography/ mass spectrometry (LC/MS). The project was initiated as a result of a formal request from the European Commission. The EU Commission is currently preparing its new Chemicals Strategy

for Sustainability and its PFAS Action Plan. The standard would support these initiatives, as well as the new European Drinking Water Directive, which requires the Commission to establish technical guidelines regarding the analytical methods, including detection limits, parameter values and frequency of sampling for monitoring of 'PFAS total' and 'Sum of PFAS.

In 2021, the TC will also finalise several standards developed in parallel with ISO.

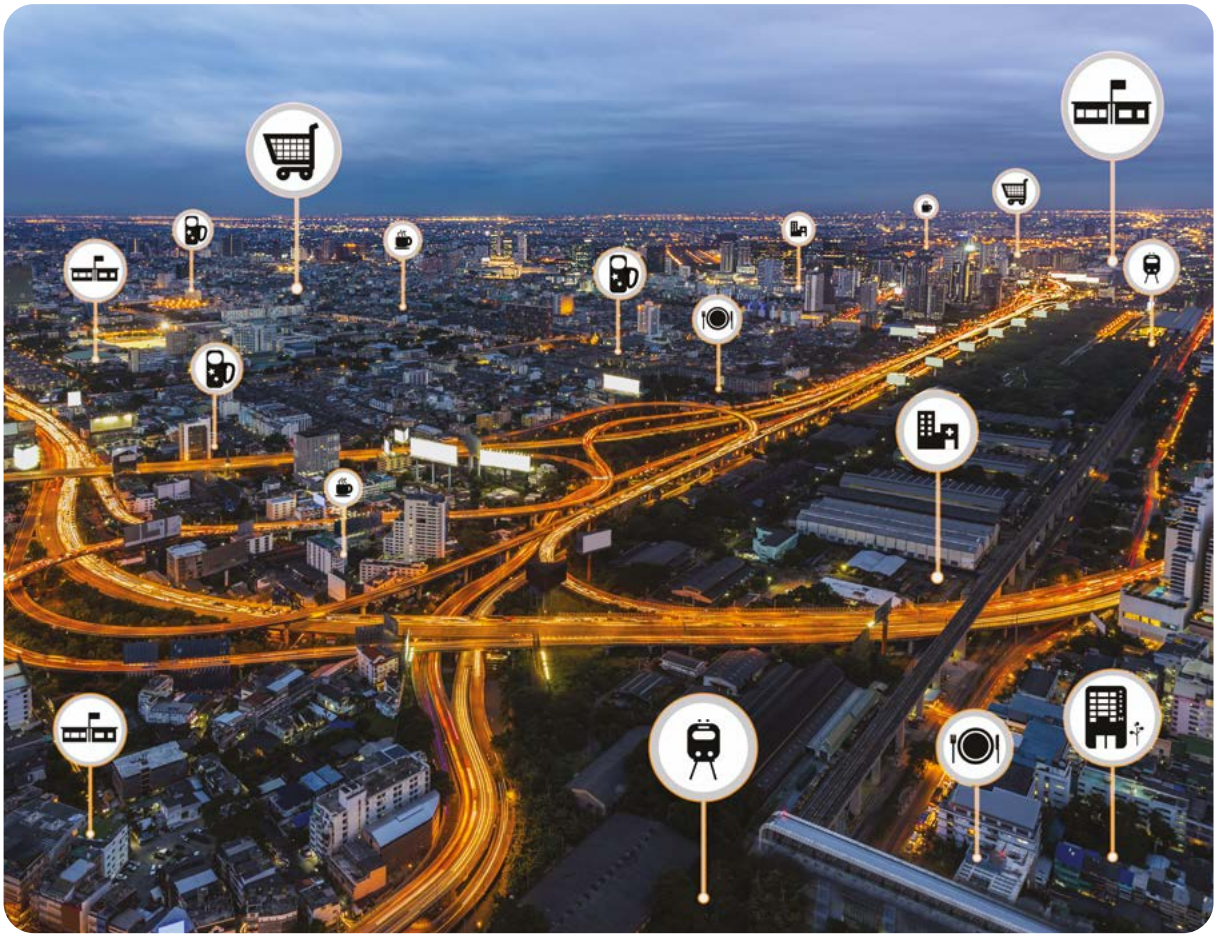
Environmental characterisation of solid matrices - CEN/TC 444 'Environmental characterisation of solid matrices' was established to develop horizontal multi-matrix standards. It covers the standardization of test methods for the environmental characterisation of soil, solid and liquid waste, biowaste and sludge.

In 2021, TC 444 will complete the revision of several European Standards: 'Determination of total dissolved solids (TDS) in water and eluates - Complementary element' (EN 15216) for environmental matrices; 'Determination of loss on ignition' (EN 15935) for sludge, treated biowaste, soil and waste; 'Determination of polycyclic aromatic hydrocarbons (PAH) by gas chromatography (GC) and high performance liquid chromatography (HPLC)' (EN 17503) for environmental solid matrices; and 'Determination of adsorbed organically bound halogens (AOX)' (EN 16166) and 'Determination of total organic carbon (TOC) by dry combustion' (EN 15936) for sludge, treated biowaste, soil and sediments.

A new European Standard will also be adopted on 'Soil and waste characterisation — Temperature dependent differentiation of total carbon (TOC400, ROC, TIC900)' (EN 17505).

Finally, in 2021 the TC will also complete the development and revision of a series of EN ISO standards.

Smart technologies



Technologies are becoming 'smarter' and capable of adapting their behaviour to fit the environment through wireless access, sensors and data. The Internet of Things (IoT) is one of the enablers of the fourth industrial revolution, known as Industry 4.0, as it fosters the automation and data exchange in manufacturing technologies.

Standardization needs to adapt quickly 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 inclusive society. Lines between traditional standardization sectors are blurred, thus requiring effective action to break down the vertical silos approach.

The concepts of 'smartness' and 'digitalisation' should not only be addressed in terms of technological performance, but also be considered 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.

For these reasons, standards play a crucial role in the consolidation of the European Single Market and contribute to the competitiveness of European industry. CEN and CENELEC are engaged in several horizontal activities on topics such as smart grids, smart cities, cybersecurity or Artificial Intelligence. The two organisations work together to develop standards supporting the development of an open competitive market and actively cooperate with ISO and IEC to reach agreements on common standards that can be applied worldwide, thereby facilitating international trade.

54 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 JWG	eAccessibility
CEN-CLC-ETSI SF	Smart and sustainable cities and communities
CEN-CLC-ETSI	Coordination Group on Smart Energy Grids
CEN-CLC-ETSI	Coordination Group on Smart Meters
CEN-CLC/JTC 13	Cybersecurity and Data Protection
CEN-CLC/JTC 19	Blockchain and Distributed Ledger Technologies
CEN-CENELEC	Focus Group on Quantum Technologies
CEN-CENELEC	Focus Group Artificial Intelligence
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/XXX (Anticipated) – Ecodesign and energy labelling requirements for electronic displays
M/XXX (Anticipated) – Ecodesign servers and data storage products

Relevant elements of the Annual Union Work Programme for European standardization for 2021

Action 3 – Ecodesign and energy labelling
Action 13 – Refuelling, recharging points
Action 18 – European Electronic Toll Service
Action 19 – Artificial Intelligence systems
Action 22 – Smart Contracts

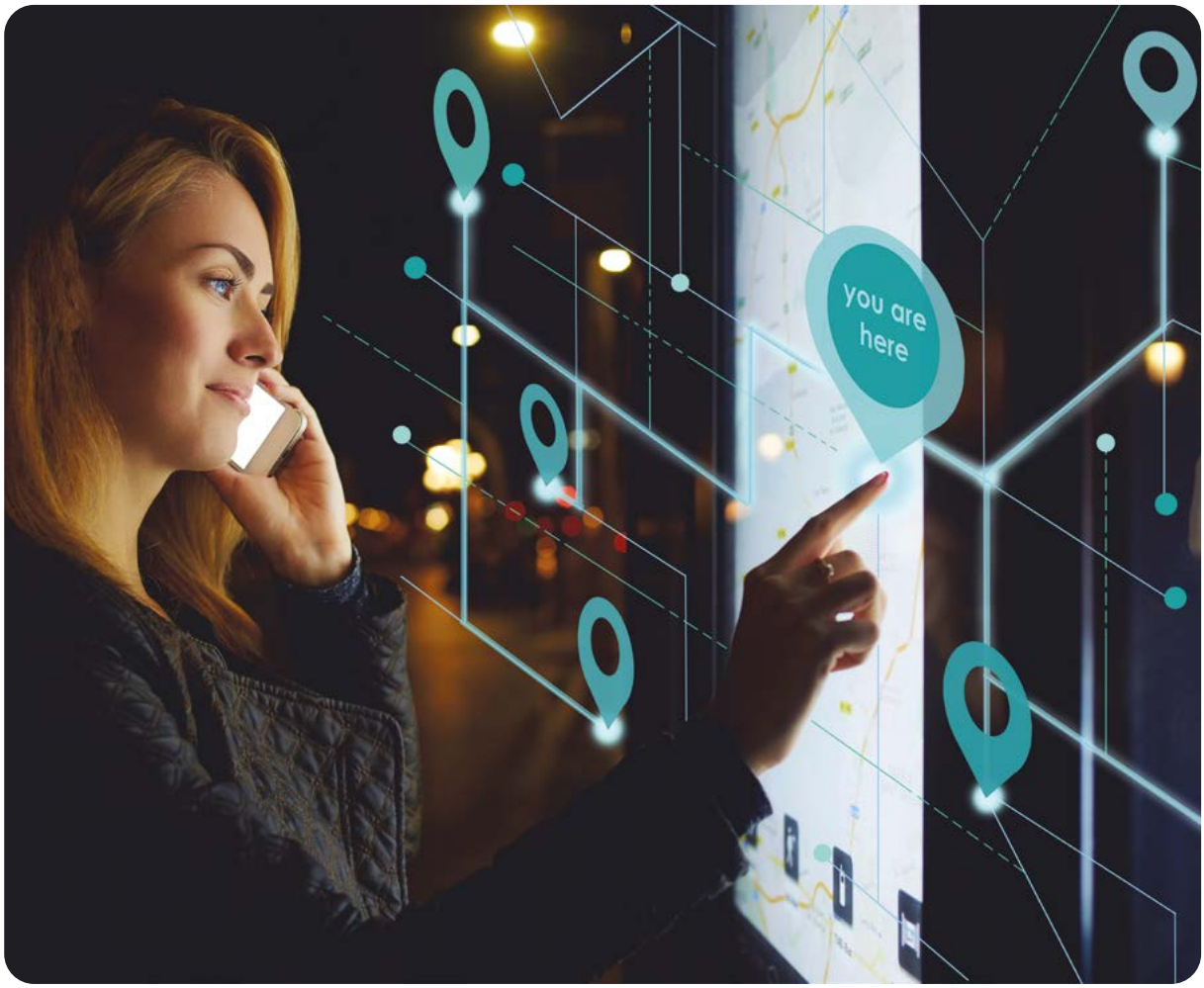
Further information

www.cencenelec.eu/standards/Topics/Smartgrid/Pages/default.aspx
www.cencenelec.eu/standards/Topics/Smarthouse/Pages/default.aspx
www.cencenelec.eu/standards/Topics/SmartMetering/Pages/default.aspx

SUSTAINABLE AND SMART CITIES AND COMMUNITIES

CEN/TC 465 'Sustainable and Smart Cities and Communities' is responsible for standardization in the field of sustainable and smart cities and communities, covering the development of requirements, frameworks, guidance, supporting tools and techniques. The Technical Committee in 2021 will continue to address specific European needs through a consistent approach with ISO TC 268 'Sustainable Cities and Communities'. 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. The activity is particularly in line with the 'twin (green and digital) transition', as put forward by the European Commission. Specifically, the TC is expected to develop a series of standards relying on:

- ISO's six purposes of urban development sustainability;
- 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 2021

Intelligent Transport Systems - CEN/TC 278 'Intelligent Transport Systems' develops 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).

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

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

In 2021, CEN/TC 278 will continue working on the Urban ITS area, which includes the development of the so-called EU-ICIP project. EU-ICIP will deliver an extensive guide providing information on what communications and data standards are available in the field. This will enable the interoperability and regulated requirements for ITS in Europe, informing potential users of the compatibilities and incompatibility issues of various options.

A series of other projects will also continue, such as the revision of the Electronic Fee Collections standards portfolio or the ITS public transport alternative mode API. The latter was launched in the second half of 2020 and focuses on the development of a data exchange format dedicated to the publication of data concerning 'Alternative Modes', in particular car sharing, cycle sharing, carpooling, car/cycle rental to improve mobility in Smart Cities.

In the field of Electronic Fee Collection, CEN/TC 278 expects to complement its portfolio with standards in the field of 'Automatic Number Plate Recognition'. A draft Standardization Request is currently under discussion.

Aside from CEN/TC 278, CEN and CENELEC Joint Technical Committee JTC5 'Space' develops standards on the Use of GNSS-based positioning for ITS within WG1 'Navigation and positioning receivers for road applications'. WG1 is currently focused on delivering standards for the EN 16803 series.

Smart Grids, Smart Metering and Ontologies - 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 this context, smart grids mark a new development on the path towards greater consumer empowerment, the 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.

In 2021, 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 Clean Energy Package (CEP), which contains proposals for new rules for a consumer-centred clean energy transition.

In the field of smart metering, the Coordination Group on Smart Meters will continue to provide valuable advice on European requirements relating to smart metering standardization, and to monitor and coordinate the development of new and the update of existing standards for advanced metering infrastructures.

The Coordination Groups will also promote the industry's wider implementation of standards for smart grids and meters and liaise with the international standardization organisations, 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 the international level.

In particular, the Coordination Group on Smart Energy Grids will continue benefiting from its relationship with the IEC System Committee on Smart Energy.

Both Coordination Groups will continue working to ensure interoperability across 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 on the 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).

Digital Transformation

The rapid evolution in society, markets, industrial solutions and governments is enabled by innovative digital solutions, which in turn are made possible thanks to smart standards. Since this entails a massive change across the whole standardization process, a strategic approach is crucial, linking and prioritising various digital transformation initiatives.

In this context, CEN and CENELEC are engaged in comprehensive Digital Transformation activities, in close collaboration with ISO and IEC, in view to coordinate and work together to offer a unique interface for the Members and their experts and ensure interoperability across the international, regional and national levels.

Digital transformation and IT projects within CEN and CENELEC are supervised by the CEN-CENELEC Digital and IT Strategic Advisory Group (DITSAG), which provides clear and coordinated advice on all aspects related to the implementation of the CEN-CENELEC's Digital Transformation strategy, including all Digital and Information Technology projects.

In 2021, DITSAG will continue working on the following three key projects:

- **'Online Standardization Platform'** focusses on providing Technical Bodies, NSBs and central secretariats with a more modern, consistent, seamless and integrated working environment.

  Along with ISO and IEC, CEN and CENELEC have now chosen FontoXML with just-in-time architecture (to handle large documents) as the tool to host the Online Authoring Platform. Technical bodies of the four organisations will test the final functionalities with a pilot project starting in October 2020 and running through the beginning of 2021. Once the experiences are shared by the technical bodies participating in the pilots, the four organisations will work together to incorporate the feedback within the FontoXML tool and work towards a deployment strategy.

- **'Standards of the future'** explores how to adapt the process and governance to deliver machine-interpretable standards content in a secured way.

  After the completion of two initial pilot projects (Construction and Petroleum), in which already existing standards were re-written in a machine-readable way, primary recommendations were made about bringing machine readable standards into practice. In order to ensure the applicability of these results and recommendations in a broader context, two new pilots, 'Product Standards' and 'New Work Items', have been established. The aim of the pilot on Product Standards is to detect potential specifics within this standards category as a basis to validate and/or further refine the model for smart standards and evaluate the robustness or general validity of the model applying it to product standards from different industries or sectors.

  On the other hand, the aim of the second pilot on New Work Items is to work with technical experts to determine what skills and roles are needed to create smart content. Additionally, the pilot project will also provide inputs towards defining how the standard development process, supporting mechanisms and tools need to be adapted. These two pilot projects will continue their work in 2021.

  Project 2 also collaborates with ISO (and IEC) on the topic of the new samples of NISO STS schemas for XML standards. The refinement of the NISO STS schema is an important step towards the exploitation of the digital content by the National Standardization Bodies and Committees, which will continue in 2021.

- **'Open Source Innovation'** aims at developing an approach to link standardization and Open Source (OS) activities by establishing relationships with OS communities and adopting a methodology to integrate OS outputs in standardization.

  In 2021, the project will continue investigating open questions around platform, licensing options, and contractual, legal and commercial obligations to be able to host an Open Source deliverable. This process aims at defining the new OS standardization deliverables, which will be an integral part of a complete and coherent set of digital standardization solutions CEN and CENELEC will provide in the future.

Last but not the least, CEN and CENELEC continue to closely collaborate with ISO and IEC on the deployment of new IT tools supporting standardization processes such as document management, balloting tool, harmonised APIs, meeting registration tool amongst others.

Research and innovation

CEN and CENELEC will continue to be fully committed to collaborate with the research and development (R&D) community and to support innovation and research results in reaching the market.

Building on the achievements of the **CEN and CENELEC Innovation Plan** since 2018, specific activities will be organised to strengthen the cooperation with researchers and innovators. The involvement of CEN and CENELEC Members in these activities will continue to be a key element for a successful cooperation. In fact, the CEN-CENELEC Innovation Plan Steering Committee recommends regular monitoring of the engagement of CEN and CENELEC Members with R&I.

The launch of **Horizon Europe** - the next European research and innovation Framework programme - in 2021 will represent a significant opportunity to link standardization with EU-funded research projects. Strengthening the link with Horizon Europe activities will facilitate the take-up of research outputs through the development of new standards. Calls for proposals coming from Horizon Europe will be regularly screened to identify standardization opportunities for the CEN and CENELEC system and to promote the involvement of members in research activities at an early stage.

Finally, with the aim of identifying emerging science and technology areas where standardisation activities can support innovation and promote industrial competitiveness, CEN and CENELEC will work closely with the European Commission's Joint Research Centre (JRC) under the **Putting Science into Standards** (PSIS) initiative, to explore the potential for standardization.

Inclusiveness of the European Standardization System

CEN and CENELEC, with their Members, the national standardization organizations, are fully committed to supporting organisations 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 further reinforce the representativeness of SMEs and of societal stakeholders in the standardization process, 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 organisations – 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 organisations and other stakeholders', partnerships with stakeholders organisations 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 are only complementary to the need for the members of the partner organisations to participate in the work of their National Standard Bodies and National Electrotechnical Committees, where national opinions are formed, votes are decided, and consensus is built.

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. Among these tools:

- An online 'SME Toolbox of Solutions' describes the benefits of standards, how to find the right standards and where to obtain relevant information, which will be updated in 2021.
- 42 national SME helpdesks are service centres that provide direct support to 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 2021 to reach CEN and CENELEC's objective to facilitate SMEs' participation in standardization at national and European level. This includes the development of new eLearning materials dedicated to entrepreneurs, managers and employees who work for SMEs to learn about standards and standardization in a way that corresponds with their own needs, set to start in 2021.

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 relevant parties that 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 organisations, as well as representatives of trade unions in their standardization activities, in particular through the so-called Annex III Societal organisations: ANEC (representing consumer interest), ECOS (representing environmental interests), and ETUC (representing workers' interests). Together with the members of CEN and CENELEC, these organisations have set up a Societal Stakeholders Group (SSG), which provides a high-level framework for ongoing cooperation and dialogue. Furthermore, similar to the toolbox for SMEs, dedicated tools for the different societal stakeholders are also 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 2021. 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.

Promoting Gender Responsive Standardization

CEN, CENELEC and their Members recognise the influential role of standards in our society

and believe that it is essential to include a gender-lens in the standards development process and the European system as a whole. Understanding and addressing the diversity of our society brings higher-quality standards that ensure safe and secure products and environments for all.

For this reason, CEN and CENELEC, together with more than 20 National Standardization Organizations, Members of CEN and CENELEC, signed the UNECE Declaration for Gender Responsive Standards, and pledged to create and implement a Gender Action Plan to support more gender-balanced and inclusive standards development processes, as well as to strengthen the gender responsiveness of standards themselves. The implementation of the Gender Action Plan was approved for a period of 3 years, starting on January 2020 with the creation of the CEN-CENELEC Informal Coordination Group on Gender Diversity & Inclusion.

In 2021, the dedicated Group will continue its efforts towards supporting gender equality in standardization.

European Affairs

CEN and CENELEC, in the overall context of their relationship with the European Institutions, are constantly engaging in policy outreach and in other support activities to the EU policy agenda.

In 2020, following the results of the 2019 European elections and the new policy guidelines adopted by the European Commission led by Ursula von der Leyen, CEN and CENELEC's policy outreach activities have been widely dedicated to match the Commission's **six new priorities** with the **five pillars of CEN and CENELEC's Declaration "Standards build Trust"**, published in 2019. Following the COVID-19 crisis, CEN and CENELEC's European Affairs team was very proactive in elaborating on the new set of priorities defined by the Commission and actively reached out to the National Members in order to shape together CEN and CENELEC's new both short and long-term goals.

CEN and CENELEC also met with several MEPs and Commission officials to explain the importance of Standards for the overall welfare of our economies and our societies and how they can play an instrumental role in successfully implementing the new commitments of the EU in terms of industrial efficiency and decarbonisation. Publications such as the policy paper "Standards in support of the European Green Deal Commitments" are specifically meant to clarify and illustrate the role standards currently play and will keep on playing in the future.

In 2021, one of CEN and CENELEC's main goals will be to re-establish a more direct and constant relationship with EU Institutions representatives, overcoming the set-back caused by the pandemic, by using more often and more efficiently the digital tools available.

Such engagement will also include the drafting and dissemination of new policy and position papers, dedicated to those topics at the centre of the European Commission's agenda for the upcoming years, such as Consumer protection, Construction Products Regulation (CPR) and the overall role of Harmonised standards, the Digitalisation of Industry, and many others.

CEN and CENELEC will also aim to keep on strengthening our relationship with National Members with regards to European Affairs activities. In the last three years, following a strong mandate from the Presidential Committee, the activities dedicated to European Affairs have become consistently more operational, involving even further Members' representatives.

In this sense, the creation of the **European Policy Hub** (EPH) in 2019, consisting of EU standardization policy/public affairs staff members of CEN and CENELEC Members, gathered in order to coordinate and create synergies to anticipate or act on current European policy issue, and of the **European Policy Hub-Brussels Arm** (EPH-BA, 2020) a team of volunteer staff from CEN and CENELEC members directly seconded to Brussels to join the European policy engagement activities, was decided with the objective to further enhance the position of standardization in European policy.

In 2021 CEN and CENELEC plan to keep on building an even stronger convergence with

National Members via the EPH and (should it be confirmed for next year as well) the EPH BA, by closely coordinating public affairs, lobbying and campaigning activities, both at European and at national level.

Strategy 2030 Implementation

With the current strategic framework 'Ambitions 2020' coming to a close, CEN and CENELEC Members started working on a new Strategy in July 2019 with a two-day CA workshop. The development process that followed included a first Members consultation on a skeleton draft (August-September 2019); an inclusive national, European and international stakeholder consultation (December 2019 – February 2020); a discussion and decision by the Common Boards of March 2020 (20/2020) on the impact of COVID-19 on the timeframe of the Strategy2030; and a second Members consultation on an advanced draft (July-August 2020).

Two dedicated workshops during the fourth quarter of 2020 further helped to clarify and consolidate an advanced draft of the new Strategy 2030: a Members Workshop (15 September) to address outstanding issues and validate a preliminary draft, and a Multi-Stakeholder Dialogue (19 October) which brought together high-level representatives from industry, societal stakeholders and the European institutions to gather final inputs and position the CEN and CENELEC Strategy2030 firmly in the debate on the socio-economic future of Europe.

Framed within a strategic context defined by the twin digital and green transition, Strategy 2030 puts forward the following vision- and mission-statements, and identifies five strategic goals for CEN and CENELEC to work towards over the next decade:

Vision

Building a safer, more sustainable and competitive Europe through European and International Standardization.

Mission

Through our stakeholder networks, we create consensus-based standards in order to generate trust, fulfil market requirements, enable market access and innovations for a better, safer and more sustainable Europe.

5 Strategic Goals

1. EU and EFTA recognize and use the strategic value of the European standardization system
2. Our customers and stakeholders benefit from state-of-the-art digital solutions
3. Increase the use and awareness of CEN and CENELEC deliverables
4. The CEN and CENELEC system to be the preferred choice for standardization in Europe
5. Strengthen our leadership and ambition at the international level

After the official adoption of the CEN-CENELEC Strategy 2030 by the CEN and CENELEC General Assemblies on 26 November 2020, 2021 will largely revolve around communicating and implementing the new Strategy.

First, a comprehensive communications campaign is to be rolled out during the first half of 2021 to promote and raise awareness about the new strategic direction CEN and CENELEC have carved out for themselves. This campaign will use a holistic, multi-platform approach, using a mix of tools - including digital communication channels, press releases and events - and take advantage of the wide network CEN and CENELEC has managed to create over the years. The campaign will target the CEN and CENELEC wider network, including but not limited to stakeholders of CEN and CENELEC – at the national, European, international level, European policy makers and the general public.

Second, a Strategy 2030 Implementation Plan is to be designed and developed for approval by the CEN and CENELEC General Assemblies (AGs) in June 2021. Content-wise, the new Implementation Plan will provide clear and comprehensive guidance on how to achieve the strategic goals identified in the Strategy2030 in a modular, incremental fashion. This includes establishing adequate tools and mechanisms for monitoring, evaluation and revision, to allow for a responsive adaptation to changing market and stakeholder needs.

As a framework of reference for the CEN and CENELEC community, the Implementation Plan will complement and be aligned with similar strategic exercises at both the national and international level, notably within ISO and IEC, and take into account the lessons learned from the implementation of the Ambitions 2020. The Implementation Plan will further ensure a close link with other planning tools and strategic reference materials such as the CEN and CENELEC Management Centre (CCMC) Business Plan and annual budgetary planning exercises, and foresee a clear division of resources and responsibilities between the CEN and CENELEC Members and CCMC. Finally, where relevant, the Implementation Plan for Strategy 2030 will seek to ensure a close alignment with the upcoming EU Standardization Strategy.

International Cooperation

In 2021, CEN and CENELEC will continue to develop cooperation with their regional and national standardization partners in the Gulf (GSO), India (BIS), Japan (JISC), China (SAC) and Africa (ARSO and AFSEC).

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:

- coordination with European stakeholders to support the launch of the African Continental Free Trade Area, 'Made in Africa' and 'Africa First' initiatives;
- identifying additional areas of common interest with JISC (such as Artificial Intelligence) and linking with European industry's priorities;
- building on the strategy dialogue with SAC for a better understanding of each other's standardization policies;
- identifying further technical collaboration activities with GSO (in addition to heat pumps and air conditioning).

In 2021, CEN and CENELEC will develop targeted information for the Partner Standardization Bodies, alongside actions to establish a more complete picture of European standards adopted at the national and regional level outside Europe.

European Standardization's 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 helping European companies to access those markets. SESEC and SESEI participate in Task Force China and Task Force India, respectively.

- **China:** the SESEC project will work with project partners and focus 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 2021, the fourth phase of the SESEI project will continue to build on previous phases to influence the alignment of key activities of common interest for India and Europe, including the railway and services sectors and standards for electrical installation rules. SESEI will continue to support the strengthening of the partnership with BIS, the Indian National Standardization Body. The organisation of a joint event is planned 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.

During 2021, CEN and CENELEC plan to organise a series of events, online and/or face to face, to meet direct stakeholder needs in the field. The preliminary list of events proposed for 2021 contains a variety of concepts, focussing on CEN and CENELEC's priorities for their way forward. Among them, it is worth highlighting the following:

- **Industry Stakeholders Engagement Workshops:** in 2021, the two workshops will be dedicated to the role of standards in Cybersecurity and the Radio Equipment Directive (February) and Standards to support the Industrial Data Infrastructure (second half of the year). The Cybersecurity workshop will be organised jointly by CEN, CENELEC and ETSI in the framework of the European Union Agency for Cybersecurity (ENISA) annual conference on the same topic which will take place online from 2 to 4 February.
- **The Twin Transition:** standards will be a cornerstone of the green and digital transformation of the EU economy. During 2021 CEN and CENELEC events will highlight the importance of a solid European Standardization System to achieve this so-called "twin transition", and for the recovery and resilience of Europe.
- **European Year of Rail:** 2021 is set to be the European Year of Rail, aiming at promoting rail transport in line with the European Green Deal objectives, including with regard to sustainable and smart mobility. CEN and CENELEC will support this initiative through the organisation of events that will promote the role of standards in the sector and explore opportunities offered by new transport technologies.

A complete overview of the events organised by CEN and CENELEC in 2021 will be made available on the website.

Trainings and seminars

In 2021, CEN and CENELEC will organise the following recurrent trainings:

- **10-10 webinars:** as it is now an established tradition, during the year CEN and CENELEC will hold 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 creating 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.
- **StandarDays 2021**: the 2021 edition of StandarDays is cancelled due to current COVID-19 restrictions. Since the main asset of this event is the educational and networking aspect between the participants and speakers, we will instead create educational material for our stakeholders that will be made available publicly during the course of 2021.
- **Technical Body officers training** (December 2021): this training helps especially newly appointed Technical Body Officers to become more acquainted with the standards development process and the European standardization system.

Other one-time trainings and seminars are in preparation and expected to take place in the course of 2021. One of them will be a webinar on "Connecting European Sustainable Finance to standardization".

The complete list will be updated and completed in the course of the year. The overall training page 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
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

Republic of North Macedonia
ISRSM - Институт за стандардизација на Република Северна 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
www1.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

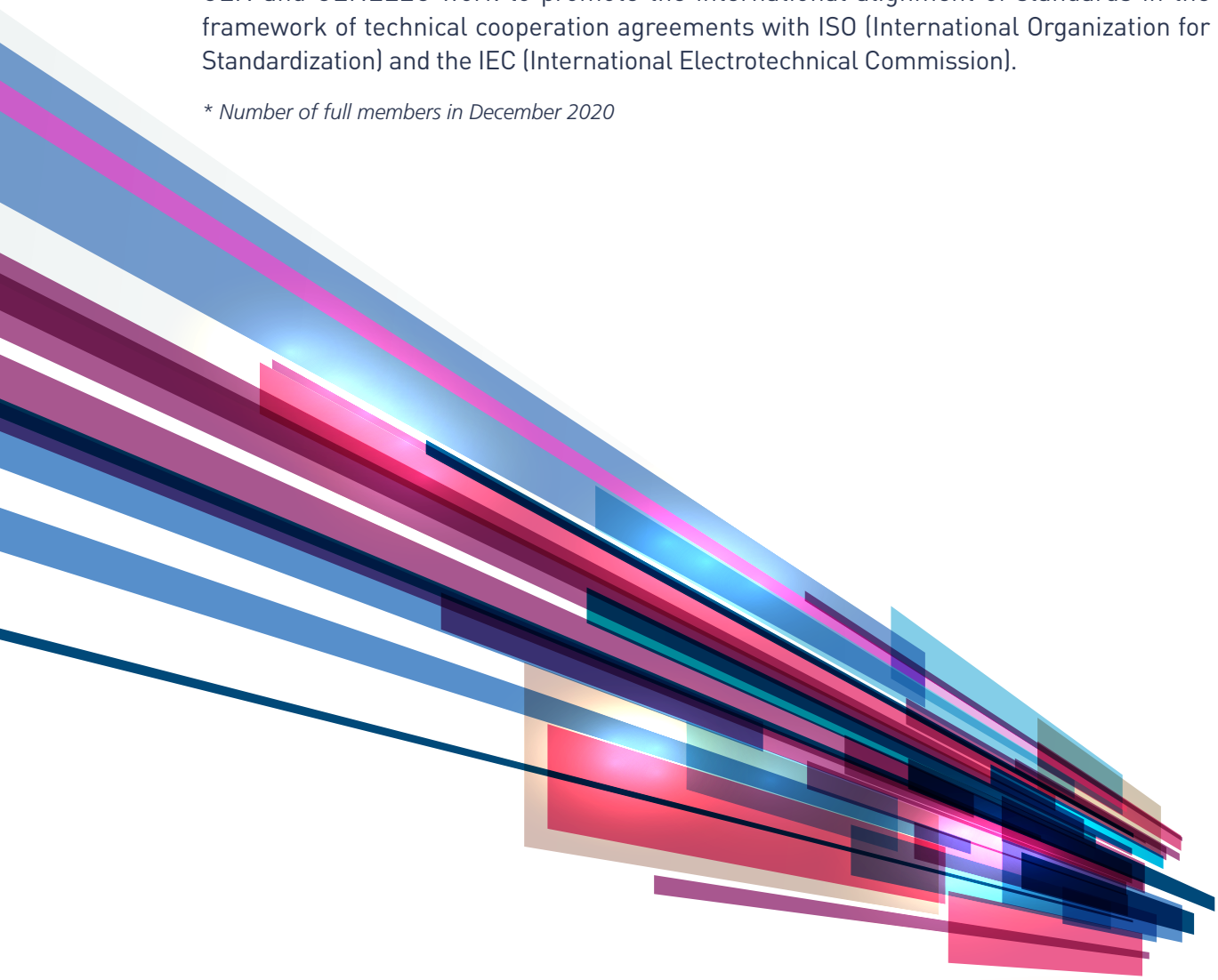
CEN (European Committee for Standardization) and **CENELEC** (European Committee for Electrotechnical Standardization) are recognized by the European Union (EU) and the European Free Trade Association (EFTA) as European Standardization Organizations responsible for developing standards at European level. 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 2020*



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