2020 ANNUAL REPORT

CEN CENELEC

European Committee for Standardization • European Committee for Electrotechnical Standardization

CEN AND CENELEC ANNUAL REPORT | CEN ANNUAL REPORT | CENELEC ANNUAL REPORT

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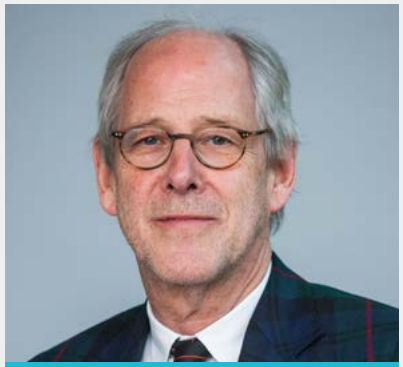
Vincent Laflèche



Dany Sturtewagen

Elena Santiago Cid

WELCOME LETTER

Welcome to the 2020 edition of the CEN-CENELEC Annual Report!

As for many around the world, 2020 has proven to be an unexpectedly challenging and transformative year for our organisations: the COVID-19 outbreak has forced us to change our long-established assumptions and methods of working while at the same time putting our European Standards in support of the European economic recovery in the spotlight. The effectiveness of our response during this emergency has been proof of the strength and agility of the European Standardization System (ESS), and of its ability to contribute to Europe's recovery.

Thanks to a well-established public-private partnership, based on trust, consensus, transparency and a single standard model, we were able to rapidly and proactively adapt to the "new normal", showing resilience and agility on the part of our whole community.

In the first months of the health crisis, CEN and CENELEC's European standards for medical devices, ventilators and personal protective equipment (PPE) were widely used across Europe in the fight against the pandemic, providing a rapid solution in times of pressing needs. Our efforts continued and doubled as Europe (and the world) moved from fighting the emergency to engineering the return to growth: through the ability of standards to enable market trust, facilitate technology transfer and support innovation, CEN and CENELEC provide sustainable solutions to power the much-needed European recovery.

While mitigating the damaging effects of the pandemic and contributing to recovery, we also undertook a collective effort oriented towards a forward-looking reflection. Our ambitions as European Standards Organisations, as well as the lessons learnt during the pandemic, were reflected in the process that led us to develop our Strategy 2030. This important joint strategic document, structured around five goals, will guide the work of CEN, CENELEC and all our national members over the next ten years, ensuring that our system is fit for a green and digital future.

2020 was also the year in which Brexit – sadly - became reality, with the UK and the EU agreeing to a new trade deal after months of frantic negotiations. Based on this changing situation, in 2020 we made a lot of efforts to ensure the robustness of the system and meet the needs of our industry, SMEs, and societal stakeholders.

All this was not undertaken in isolation. We continued to foster the strong relationships with our international partners, IEC for CENELEC and ISO for CEN: with them, we share the ambition of facilitating trade through an effective global standardization system based on the national delegation principle. Examples of this cooperation are CEN's involvement in the development of the ISO Strategy 2030 or the high rate (80%) of CENELEC standards identical to, or based on, IEC counterparts.

Secondly, we also enhanced our relationship with the European institutions: we worked closely with the European Commission to identify actionable solutions to provide manufacturers and health workers with the right standards at the right time. This cooperation has shown the real added-value standards can provide to the European economy: with this newly-gained shared understanding, we are willing to address outstanding issues and provide solutions to present and future challenges, ensuring a resilient, strong and sustainable European economy.

In particular, the European Standardization System provides a strategic lever to support the two digital and green transitions at the heart of the European Union's action.

First of all, CEN and CENELEC are on the frontline of contributing to the fight against climate change and to ensure the Green Deal is a success: in 2020 we created the CEN-CENELEC SABE, a joint body in charge of ensuring a more coherent climate-oriented approach to all our activities. Other relevant developments are CEN's engagement on adaptation to climate change and circular economy, and CENELEC's ongoing work on batteries, key for Europe's technological and green ambitions.

On digitalisation, CEN and CENELEC are engaged to the building of a functioning EU Digital Single Market, ensuring the safe and sustainable upkeep of new technologies. CEN and CENELEC's efforts on the area in 2020 are represented by our work on strategic issues such as Cybersecurity, Artificial Intelligence and Quantum technology. Furthermore, we progressed on our own digital transformation, to develop "standards for the future". On all this, we continued to cooperate with ISO and IEC to work on common standards that can be applied worldwide.

WELCOME LETTER

All these achievements – and the many others you will discover in the upcoming pages – show the strength, dedication and resilience of our community, even during challenging times. In a changing world, it is exactly this quality and resilience shown over the past year that allows us to look with optimism to the next ten years and embark on our Strategy 2030 to provide a well-functioning European standardization system for the benefit of the whole of Europe.

We wish you a very interesting read!

Vincent Laflèche,
CEN President

Dany Sturtewagen,
CENELEC President

Elena Santiago Cid,
CEN and CENELEC Director General

CEN AND CENELEC IN FIGURES

	European Standards	Workshop Agreements	Technical Specifications	Technical Reports	European Standards identical to International Standards (ISO and IEC)	European Standards in the process of being adopted worldwide at the end of 2020
IN 2020						
Deliverables published in 2020	1 436	53	72	66	915	7 287
Deliverables published in 2020	1 634					Adoptions of European Standards in total by 45 National Standardization Bodies outside the CEN & CENELEC membership
OVERALL AT 31 DECEMBER 2020						
Portfolio at the end of 2020	23 464	486	644	726	10 406	107 235
Portfolio at the end of 2020	25 464					

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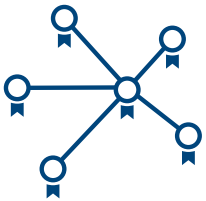
CEN AND CENELEC COMMUNITY



43
National Standardization Organisations (34 countries)

19
Companion Standardization Bodies

3
Affiliates

358
European Partners

2
Counsellors *(EC + EFTA)*

1
Associated bodies

17
Partner Organisations

312
Liaison Organisations

5
European Institutional Stakeholders

21
Other Partner Organisations

446
Technical Commitees (TCs)

21
Joint Technical Committees (CEN/CENELEC and CEN/CENELEC/ETSI)

1 841
Working Groups (of TCs & SCs)

90 000
Expert Roles in CEN and CENELEC

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MAIN HIGHLIGHTS

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CEN AND CENELEC RESPONSES TO THE COVID-19 PANDEMIC

The outbreak of the COVID-19 pandemic presented CEN and CENELEC with a variety of unprecedented challenges, requiring a quick and efficient reaction from both organisations, in close collaboration with ISO and IEC. In this context, CEN and CENELEC took a series of measures to help mitigate the impact of the COVID-19 pandemic:

- European standards useful in the fight against the COVID-19 pandemic were made available free-of-charge, covering key material such as medical devices, personal protective equipment, respiratory equipment and patient critical care ventilators. This exceptional decision was motivated by the need to tackle the severe shortage of medical devices and equipment. Providing **free access to the national adoptions** of those European standards facilitated the work of the many companies within the European Economic Area which reconverted their production lines to deliver products and equipment urgently needed by healthcare professionals and patients.
- In response to an urgent request from the European Commission, the CEN Workshop Agreement ⊖ CWA 17553:2020 ‘Community face coverings - Guide to minimum requirements, methods of testing and use' was developed and made available for free download from the CEN-CNEELEC website as well as from the websites from the CEN national Members. The CWA provides the minimum requirements for the design,

- production and performance assessment of **community face coverings** (barrier masks) intended for consumers, single or reusable.
- A **Crisis Management Network** was set up in April 2020, bringing together national representatives from each Member to facilitate a direct exchange of information between National Standards Bodies and National Committees.
- Acknowledging the need for more information and clarity towards stakeholders putting foreign PPE and medical devices on the EU market, CEN and CENELEC proposed on their website a set of **Frequently Asked Questions** (FAQs), where stakeholders can find, or be redirected towards, relevant information regarding the import of Chinese and other foreign PPE products and medical equipment.
- In order to **take stock of the lessons learned and best practices** identified throughout the crisis so far, CEN and CENELEC also produced the report 'Lessons learned during the COVID-19 Pandemic' to share their experiences during the pandemic. While the report offers many examples of opportunities emerging from the crisis, one silver lining clearly stands out: European Standards, while often invisible, proved to be a readily available and valuable resource for quick and reliable solutions, especially in times of crisis.

DIGITAL TRANSFORMATION

In 2020, CEN and CENELEC's Strategic Advisory Group on Digital and Information Technology (DITSAG) – established in 2019 – provided coordinated advice with a comprehensive and forward-looking approach on all aspects related to the digital and IT (DIT) implementation of the CEN and CENELEC Strategy. The focus of the strategic group includes the monitoring of all DIT projects and the identification of priorities, resources and budgetary implications to enable informed Administrative Boards decisions.

Through its composition and representation, DITSAG has the capacity to provide advice and guidance on technical and non-technical matters related to digital and IT applications.

In particular, in 2020 DITSAG made progress on the following three projects:

PROJECT 1: ONLINE STANDARDS DEVELOPMENT

Project 1 aims to support the modernisation and digital transformation of the standards development in CEN and CENELEC. In 2020, it essentially concentrated its efforts on the 'Online Collaborative Authoring' platform. This project, carried out jointly with ISO and IEC, offers a high-end and tailored authoring environment to CEN and CENELEC technical bodies, but also sets the foundations for developing 'standards of the future'. 2020 was dedicated to adapting the selected technology for our purposes and launching the first pilots. The pilots were initiated in late 2020 involving several Working Groups across CEN, CENELEC, ISO and IEC, and the first feedback is very positive and constructive. These first pilots only cover

the first stages of the standard-authoring process (authoring & internal commenting); pilots to be launched in 2021 will include the next stage (member commenting).

PROJECT 2: STANDARDS OF THE FUTURE

The objective of Project 2 'Standards of the Future' is to put CEN and CENELEC in a position to deliver machine-readable and interpretable standards content, secure the legal and physical protection of the standards and define the rules for a business model based on the exploitation of digital content.
Following completion of two pilot projects respectively on Construction and on Petroleum in 2019 which developed several alternative information models, two additional pilot projects were launched in 2020 to test the application of these alternatives in different situations: existing product standards and during the development of new work items.

PROJECT 4: EXPLORE OPEN SOURCE INNOVATION

Project 4 is developing approaches for establishing linkages between standardization and Open Source activities and for adopting a methodology to integrate Open Source activities and outputs into standardization.

In 2020, discussion on pre-requisite governance and legal topics, including the protection of intellectual property, was opened. These topics must be managed before the pilot project 'e-Invoicing' CEN/TC 434, which involves making open-source software (OSS) artefacts available in the CEN/CENELEC OSS Repository, can be launched. A workshop was held in late 2020 where open source experts provided input.

CA FOCUS GROUP ON SUSTAINABLE FINANCING MODELS

The CA Focus Group on Sustainable Financing Models (CAFG FiMo) was set up in 2019 to advise on the strategic evolution of the CEN and CENELEC Members' financing models in light of the challenges and opportunities brought by digitalisation, and to ensure the resilience and continued viability of the system. The purpose of the CAFG FiMo therefore is to facilitate an exchange of best practices and ideas between the CEN and CENELEC Members, to provide them with a good overview of the options for future-proof, sustainable financing models. This implies a close collaboration with DITSAG on digital transformation issues and the challenges and opportunities they raise from a financing and business model perspective. Ultimately, this exchange between Members aims to contribute to informed decision-making processes at national and international (ISO and IEC) level.
In 2020, the CAFG FiMo, in collaboration with DITSAG, established a dedicated Task Force (TF SDI) to explore different scenarios for a potential Shared Digital Infrastructure for CEN and CENELEC. After presenting the TF SDI's report and recommendations to the CEN/CA and CENELEC/CA of November 2020, the latter tasked the CAFG FiMo with the further development and analysis of a Mixed Scenario, offering both centralised and decentralised services, to prepare the implementation of a Shared Digital Infrastructure as part of the implementation of Goal 2 of the CEN and CENELEC Strategy 2030.

INNOVATION & RESEARCH

To enable CEN and CENELEC's strong wish to support research and innovation results to reach the market, an **Innovation Plan** was approved at the CEN and CENELEC General Assemblies in June 2018, and an Innovation Steering Committee was appointed until the end of 2020 with a mandate to oversee the implementation of the Plan. The results achieved in the implementation of the nine actions included in the Plan have been broadly successful thanks to the efforts of the network of CEN and CENELEC Members. Overall, the implementation of the Innovation Plan has raised awareness about CEN, CENELEC and Members within the R&I community and established stronger connections with innovation-focused groups and organisations.

The Innovation Plan Steering Committee submitted a set of recommendations to CEN and CENELEC CAs for the continued implementation of the CEN-CENELEC Innovation Plan beyond 2020. The objective of these recommendations is to keep innovation at the top of the agenda in CEN and CENELEC, including it in the Strategy 2030 Implementation Plan.

After the successful launch of **Standards+Innovation Awards** in 2019, the second edition took place in 2020 to recognise the contribution to standardization made by a European research project (H2020) and an individual researcher/innovator. The virtual award ceremony was presented in September 2020 and was promoted during the European Research & Innovation Days.

The revisions of CEN-CENELEC Guide 23 (Research Consortium Bridge) and Guide 29 (CWA - A rapid way to standardization), completed in 2020, give CEN and CENELEC the 'tools' to engage innovators and researchers and support them to achieve their main standardization needs.

The STAIR4Security project, financed under the EU's framework programme for research Horizon 2020 and coordinated by CEN with the involvement of AFNOR, ASI, DIN, SIS and CEN/TC 391, extended its lifetime until June 2021. The project aims at strengthening the uptake of EU security research projects as formal standardization deliverables.

To boost knowledge of standardization among the target community, specific training activities have been undertaken in 2020 targeting DG RTD project and policy officers, COST Academy and PhD students from KU Leuven.

In June 2020, the Technical Boards of CEN and CENELEC set up a **Focus Group on Quantum Technologies (QT)** that will ensure the interaction between relevant stakeholders interested in identifying standardization needs in the field of Quantum Technologies and recommend further actions to ensure that standards support the deployment of such technologies in industry. The Focus Group has been created building on the results of the workshop 'Making Quantum Technology ready for Industry', organised in 2019 together with the Joint Research Centre (JRC) of the European Commission as part of the 'Putting Science Into Standards' initiative, which aims at identifying emerging science and technology areas where standardization can support innovation and promote industrial competitiveness.

In response to the COVID-19 pandemic, CEN and CENELEC's Innovation department, in coordination with the **European Commission's Joint Research Centre (JRC),** developed a wide-ranging scoping exercise. The purpose of this scoping was to identify opportunities and standardization needs in relevant sectors (recognised through a consultation with different stakeholders) linked to COVID-19 and the management of future pandemics. The results of this scoping were published by the European Research Hub. More importantly, the standardization needs identified by JRC scientists have been evaluated, presented to the BTs and directed to suitable standardization activities.

A set of topics for next year's (2021) Putting Science Into Standards (PSIS) workshop were identified by JRC scientists and, after evaluation and ranking by JRC and CEN and CENELEC, the highest ranking topic 'Organ on Chip' was proposed to the BTs and was approved.

BLOCKCHAIN, CYBERSECURITY AND AI

One of the priority areas to reinforce and develop the Single Market, so that it can unleash Europe's growth potential, is digitalisation. New digital technologies, such as IoT and 5G, are dissolving the borders between sectors and pushing more and more business models to move from vertical to horizontal and collaborative approaches. CEN and CENELEC are committed to help Europe reap the benefit of digitalisation, by working to make the standardization system fit for the digital age. Examples of CEN and CENELEC's efforts regarding digitalisation and new technologies are its work on Blockchain and Distributed Ledger Technologies (CEN-CLC/JTC 19) and the ongoing work on Cybersecurity (CEN-CLC/JTC 13, CLC/TC 65X) and Artificial Intelligence (CEN-CLC Focus Group). Contributing to the uptake of digital technologies, the work on ICT skills and digital competencies (CEN/TC 428) supports the maturing of the ICT profession in all sectors, public and private.

In addition to these horizontal topics, CEN and CENELEC have been active in several sectors undergoing digital transformation, through their footprint in vertical industries: Intelligent transport systems (CEN/TC 278), eHealth (CEN/TC 251), Smart grids and Smart metering (among others CLC/TC 57, CLC/TC 13), Advanced manufacturing (CEN/TC 310, CEN/TC 438).

From a technical policy perspective, in 2020 CEN and CENELEC worked closely with the European Commission, notably in the context of the Multi-Stakeholder Platform on ICT standardization (MSP), to develop European standards and other European deliverables, ensuring the alignment of standardization with the European policy objectives.

Moreover, CEN and CENELEC continued to cooperate with ISO and IEC, in the frame of the Vienna and Frankfurt agreements, to work on common standards that can be applied worldwide, contributing to the removal of technical barriers to trade and to the competitiveness of European companies.

EUROPEAN STANDARDS FOR THE SINGLE MARKET

Engagement activities in 2020 were definitively redesigned to adapt to the challenges of the COVID-19 pandemic, increasing the need for more virtual tools for meetings and events, and challenging the overall understanding of how organisations and the European institutions could interact on a daily basis.

While these online platforms allowed for a higher degree of attendance for events and conferences beyond borders, it is also worth noting that they changed the dynamics of bilateral meetings and availability of officials to be able to connect with the standardization community for the better. With the help of an impressive amount of support from their Members, the National Standards Bodies and National Committees worked closely with CEN and CENELEC (including specifically the IAF, EPH and PR Round Table), to swiftly adapt to their new process of Engagement activities with policy makers during what should be considered an especially difficult and challenging time for outreach.

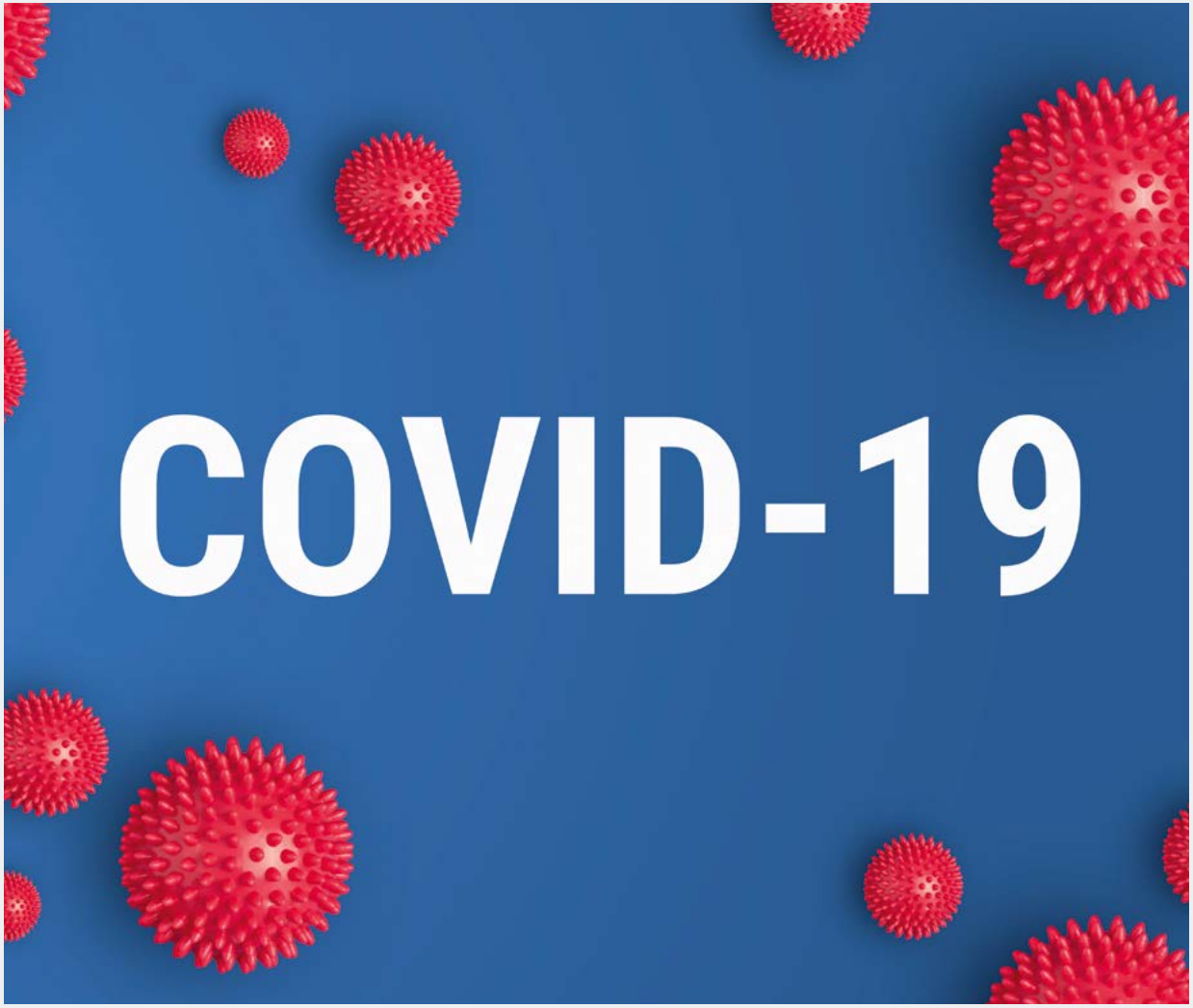
The beginning of the pandemic required a bit of a learning curve of how to safely navigate the online environment of meetings with officials from the European Institutions. Nevertheless, surprisingly enough, this adaptation only increased the number of online meetings with policy makers and high-level representatives. Examples include bilateral exchanges with the Members of Parliament from the IMCO, TRAN, ITRE and ENVI committees that were swiftly turned into Zoom meetings; meeting the new chair of the IMCO Committee (MEP Anna Cavazzini) early in her appointment; the ability to work closely with the European Council and German Presidency in an open dialogue for Construction Products Regulation; and working directly with Commissioner Thierry Breton to support in the necessary standards that could increase production of the much needed PPE and medical equipment during the early stages of the Pandemic.

AWARENESS-RAISING AND POLICY ENGAGEMENT ACTIVITIES

The COVID-19 Crisis Management Network

Recognising a need to coordinate quickly and efficiently, CEN and CENELEC established the COVID-19 Crisis Management Network. The role of the COVID-19 Crisis Management Network (COVID-19 CMN) was meant to: 1) identify in an agile and responsive manner the short-term needs and challenges encountered at the national level and their responses to the COVID-19 crisis, across the various levels of activities and areas of expertise; and 2) to share lessons learned, best practices and opportunities for future consideration at European level, effectively bridging short- to mid-term crisis-responses and recovery management to more forward-looking decision making by the relevant advisory and governing bodies.

This informal network was constructed from a diverse set of CEN and CENELEC Member representatives, who were acting as contact points for the COVID-19 related matters within their respective organisations. By the end of 2020, this cooperation resulted in a TEAMs channel with 8 topic specific work areas, a dedicated landing page on the homepage of www.cencenelec.eu, a report of lessons learned from four major themes, but most of all allowed an outlet of cooperation and collaboration during a time of crisis management and communication.



AWARENESS-RAISING AND POLICY ENGAGEMENT ACTIVITIES

EPH

In October 2018, CEN and CENELEC launched an informal European Policy Hub (EPH) to coordinate the policy efforts targeting the European institutions. Starting in 2020, the EPH has evolved to include the EPH-BA Arm (EPH-BA). This initiative aims at providing resources for Members of CEN and CENELEC to be located in Brussels and have a physical presence to pursue the outreach necessary with the European Institutions.

As a result of the COVID-19 sanitary crisis, the first pilot year of the EPH-BA had to change its initial purpose: the EPH-BA ceased gathering physically but kept on coordinating remotely, as a more "concentrated" team, particularly active in lobbying activities with EU officials and elected representatives from their countries of origin.

Following the recommendation of the Policy Groups and the CA's Decision on the extension of the EPH-BA pilot phase to an additional year, the team is currently coordinating remotely in order to follow up on political priorities and as necessary influence and lobby the European institutions.

The EPH provides an agile and dynamic platform to CEN and CENELEC Members, offering the opportunity to exchange best practices in approaching the European institutions and influencing at the political level (joining up with the efforts undertaken under JIS 4 'Improvement of standardization awareness in national public authorities').

The EPH oversees the policy 'engagement plan' and 'reactive engagement', with support on content from CCMC, and can also reach out to CEN and CENELEC's partners and/or other stakeholders to verify the sectorial input on standardization issues.

IMPROVING THE PROCESS OF CITATION OF HARMONISED STANDARDS IN THE OJEU

CEN and CENELEC have made huge efforts to increase the number of harmonised standards (hENs) offered for citation which are successfully cited.

There was a continuous effort to reduce a backlog of about 600 standards in early 2017, which were about 300 at the end of 2020. This was only possible thanks to the fruitful cooperation between technical experts, HAS Consultants, and all involved stakeholders. It should be noted that the current 'backlog' is mainly composed of new references, that are pending acceptance for citation, but for which the ESOs have made all efforts to have them in line with the European Commission's requirements. Standards offered in the framework of Ecodesign represent the most critical situation (about 150 references).

CEN and CENELEC have installed a monitoring system – as part of the KPIs agreed with the Commission - to ensure that draft standards, before being submitted to the HAS Consultant, are of good quality and timely processed.

Furthermore, in 2020, CEN and CENELEC have been monitoring the quality of documents provided for HAS assessment and the Technical Boards have been discussing recommendations to further enhance the process (preparation of supporting material and checklists). Currently, one of the main recommendations is for Technical Bodies to ensure that HAS Consultants are involved at the earliest possible stage of the standards development process to ensure that their drafts comply with the stringent requirements for future citation.

At the end of 2020, **90%** of the active CEN and CENELEC deliverables offered for citation was cited in the Official Journal (92% CEN, 89% CENELEC).

GLOBAL OUTREACH

The international cooperation activities of CEN and CENELEC aim to fully develop the role of standards in supporting European businesses boost their competitiveness on the global stage. To achieve this ambition, CEN and CENELEC's cooperation with international partners is focused on:

1. The increase of technical alignment and the reduction of barriers to trade for industry through the adoption of international and European standards, with more access to, and cooperation and sharing of approaches on, standards and standardization.
2. Promoting the European Standardization System (ESS) and ISO and IEC's standardization to increase understanding of their principles, strengths and benefits.
3. Cooperation on strategic objectives for Europe, such as the green transition, Digital Europe, circular and data economies, in coordination with ISO and IEC.

Companion Standardization Bodies

CODINORM, the Ivorian national standardization body, joined CEN and CENELEC's community this year, becoming the latest Companion Standardization Body (CSB) in both organisations. This privileged status, providing, amongst other advantages, direct access to CEN and CENELEC's standards depositories and the opportunity to send observers into the work of our technical committees, is a powerful lever to increase technical alignment, as well as allow CSBs to get closer to the European Standardization System. CEN has currently 17 CSBs, whilst CENELEC has 10 CSBs.

Global Outreach report

Twice a year CEN and CENELEC issue their Global Outreach Report that provides an overview of technical alignment achieved with non-European partners through the adoption of identical standards. It offers a dynamic perspective, showing the level of alignment with ISO and IEC by sector, where European homegrown standards are adopted, as well as the different cooperation frameworks CEN and CENELEC have with national and regional standardization bodies around the world.

The December 2020 edition includes adoptions of European deliverables made freely available in support of the fight against the COVID-19 outbreak.

GLOBAL OUTREACH

WORLDWIDE ADOPTION OF EUROPEAN STANDARDS IN 2020

European Standards in the process of being adopted worldwide at the end of 2020

7 287

European standards adopted in 45 countries outside the CEN and CENELEC membership and one regional body (GSO)

107 235

Adoption of CEN and CENELEC portfolio by the 3 Affiliates (DSP, ISBIH and ISME)

86%

111 adoptions of a series of 39 standards in the context of the fight against Covid-19

Champion CSB: INS (Moldova)

23 327 ENs adopted in total

5 Cooperation agreements with third countries' NSBs

12 MoUs with Regional Standardization Bodies

GLOBAL OUTREACH

PRIORITY INTERNATIONAL PARTNERSHIPS

Task Force China held 5 meetings in 2020, 4 of which were joined by SAC, the Standardization Administration of China.
Thanks to the close collaboration between CEN, CENELEC and SAC, stakeholders were able to better understand the differences between European and Chinese standards on some key PPE and MD products for fighting Covid-19, which were included in a set of Frequently Asked Questions on Covid-19.
A Joint Working Group on Postal Services was established between CEN/TC331 and SAC/TC 462. Furthermore, in December, a session training on Vienna and Frankfurt Agreements was delivered by the Seconded European Standardization Expert in China (SESEC) to 150 SAC participants.

Project Japan continued its tradition of technical cooperation with its partner, the Japanese Industrial Standards Council (JISC). Japanese experts have become observers in two more European technical committees and an additional one is under discussion.
Project Japan organised an EU-Japan Workshop on AI Standardization and R&D with breakout groups, which took place online in different steps over the course of summer and in the month of September. The European Commission and the Japanese Ministry of Economy, Trade and Industry (METI) hosted the workshop. Active and fruitful discussions amongst experts from both sides led to some important recommendations for policy makers.
An annual secretariat meeting between CEN-CENELEC and JISC took place in December, exchanging progresses made in the partnership.

Project India focussed on priority topics for India in close collaboration with the SESEI Project, including market access, services, electrical installation rules and railways. CEN and CENELEC participated in the 28th Indian Quality Infrastructure Summit, sharing the benefits of the use of international standards and acceptance of international conformity reports. CEN and CENELEC contributed to the Indian resource efficiency policy – through a presentation to the EU-Resource Efficiency Initiative policy dialogue on circular economy and resource efficiency.

Task Force Africa prioritised its efforts to collaborate and exchange on quality infrastructure. Task Force Africa includes 12 CEN and CENELEC members, European Accreditation, Euramet, five industry partners and the African standardization and quality infrastructure organisations – PAQI, AFSEC and ARSO. Task Force Africa is currently developing a Roadmap on quality infrastructure entitled ***Quality infrastructure – enabling Africa to be safe, sustainable, fair and to prosper.*** The Task Force was invited to speak at the EU Africa Business Summit, which was re-scheduled to Q3 2021, due to COVID-19. TF Africa aims to inform, enable and support the development of the quality infrastructure framework through:

1. Contributing to EU-Africa partnerships, through existing initiatives and to shape future projects
2. Enhancing cooperation on quality infrastructure and uptake of ENs, measurement guidelines and testing practises
3. Sharing best practices with partners on quality infrastructure

Task Force Gulf: On 17 and 18 February 2020, two workshops were held for European stakeholders on the Gulf technical regulations on toys for children and on electrical appliances and supporting standards, both transposed from the European Directives on toy safety and low voltage. The main objective of these events was to assess their implementation and their impact on European economic operators in the Gulf region.

In 2020, CEN and GSO (the Gulf Standardization Organisation) concluded three technical cooperation agreements on 'fire safety in buildings', on 'plastics and rubber machines', and on 'Heat pumps and air conditioning units'. These technical tools enable experts to exchange experiences, expertise and documents for adoption, with a view to achieving mutual understanding and common standards that are applicable in both regions. Since 2020, GSO has access to CEN and CENELEC's deliverables, for review or for adoption at regional level and subsequent adoption by GSO's members.

STAKEHOLDERS ENGAGEMENT

CEN and CENELEC are committed to closely cooperate with their stakeholders, key to the high quality of our deliverables and the legitimisation of our system.

The **Industry Advisory Forum (IAF),** set up at the end of 2018, offers a flexible mechanism for industry representatives to feed their views into CEN and CENELEC's standardization work. The aim of the Forum is to provide a platform for dialogue with industry to advise on key standardization strategic issues and ensure that standards provide an adequate response to market needs.

Since 2014, CEN and CENELEC have regularly organised a series of **Stakeholders' Engagement Workshops** to connect with industry and all relevant parties, hear their feedback and concerns, and identify together suitable standardization solutions at European or international level. In 2020, one Stakeholders' Engagement Workshop was organised, tackling technical and strategic issues, identifying standardization needs and policy gaps.

Alongside meeting the needs and interests of European industry and business, one of CEN and CENELEC's goals remains maintaining an inclusive and open European Standardization System, ensuring the due and effective participation of organisations representing the interests of society and of SMEs. In particular, CEN and CENELEC have an open and fruitful relationship with those organisations referred to as Annex III organisations in the EU Regulation 1025/2012 and that have signed a partnership agreement with CEN and/or CENELEC (ANEC, ECOS, ETUC, SBS).

STAKEHOLDER ENGAGEMENT WORKSHOPS

Artificial Intelligence in healthcare: paving the way with standardization

27 OCTOBER 2020

FOCUS

This online workshop focused on exploring the role standards can play in fostering the full deployment of Artificial Intelligence in the healthcare industry. It put together a variety of stakeholders coming from the industry, policy makers, research institutes, healthcare professionals, patient representatives, and the standardization community, to exchange views on the current challenges and future needs to establishing a thriving AI for healthcare in Europe.

OUTCOME

The presentations and various discussions provided a concrete overview of the current gaps and opportunities for standardization solutions in building trust and ensuring privacy, security, data quality and data management, which are key to boost the use of AI-enabled technologies for the European healthcare industry. These inputs served to feed the work of the relevant CEN and CENELEC technical bodies (e.g. CEN-CENELEC Sector Forum on Artificial Intelligence; CEN/TC 251 'Health Informatics'; CLC/TC 62 'Electrical equipment in medical practice').

ACTIVITIES SUPPORTING SOCIETAL STAKEHOLDERS AND SMEs

INDUSTRY ADVISORY FORUM (IAF)

CEN and CENELEC are committed to closely cooperate with their stakeholders, key to the high quality of our deliverables and the legitimisation of our system.
The Industry Advisory Forum (IAF), set up at the end of 2018, offers a flexible mechanism for industry representatives to feed their views into CEN and CENELEC's standardization work. The aim of the Forum is to provide a platform for dialogue with industry to advise on key standardization strategic issues and ensure that standards provide an adequate response to market needs.

Since 2014, CEN and CENELEC have regularly organised a series of Stakeholders' Engagement Workshops in order to connect with industry and all relevant parties, hear their feedback and concerns, and identify together suitable standardization solutions at European or international level. In 2020, one Stakeholders' Engagement Workshop was organised, tackling technical and strategic issues, identifying standardization needs and policy gaps.

Alongside meeting the needs and interests of European industry and business, one of CEN and CENELEC's goals remains maintaining an inclusive and open European Standardization System, ensuring the due and effective participation of organisations representing the interests of society and of SMEs. In particular, CEN and CENELEC have an open and fruitful relationship with those organisations referred to as Annex III organisations in the EU Regulation 1025/2012 and that have signed a partnership agreement with CEN and/or CENELEC (ANEC, ECOS, ETUC, SBS).

eLEARNING COURSE FOR SOCIETAL STAKEHOLDERS

ANEC, ECOS and ETUC have joined forces with CEN and CENELEC to further promote their successful joint eLearning course on standardization for social stakeholders Standards for all, which was launched in 2018.

This free online course provides clear and straightforward information about the standardization process in Europe, as well as at the national and international levels. Based on the supporting organisations' expertise, it contains several modules to help users learn about standards, their development and the key role they play in protecting consumers, workers and the environment.

In 2020, CEN and CENELEC organised a webinar, together with ECOS, to promote the eLearning course and further demonstrate the importance for civil society to engage in standardization in order to improve, strengthen and add legitimacy to the European Standardization System.

TRAININGS IN 2020

FOR STANDARDIZATION EXPERTS

In 2020, CEN and CENELEC ensured business continuity by organising many online webinars and trainings.

SECTORIAL TRAININGS

Different trainings were organised focused on specific sectorial standardization topics. Amongst others:

- Cybersecurity
- Sustainable Development Goals
- Biobased products
- Adaptation to climate change
- Material efficiency

IT TOOLS TRAININGS

In 2020, CEN and CENELEC organised two different webinars updating the IT managers of the different member organisations about the CEN and CENELEC IT projects plan.
Following the opening of the Projex-Online application to all CEN and CENELEC experts, a recorded webinar has been made freely available

WEBINARS FOR STANDARD DRAFTERS

The Webinars for Standard Drafters, aiming at achieving a common understanding of the drafting rules and the related procedures, focused on drafting standards for XML during the course of 2020.
We organised a total of seven trainings that welcomed almost 1000 participants. More info on the website:

https://www.cencenelec.eu/aboutus/ourservices/Training/webinarstddrafters/Pages/default.aspx

WEBINARS ON THE FLEXIBLE STANDARDIZATION PROCESS

Following the introduction of the possibility for a flexible standardization process for all new work item proposals accepted after 1 April 2020, CEN and CENELEC organised three webinars on this topic. A total of 400 attendees joined the webinars. More info on the website:

https://www.cencenelec.eu/aboutus/ourservices/Training/Pages/Training2020.aspx

YEARLY TRAINING FOR TECHNICAL BODY OFFICERS

The training for Technical Body Officers was held in 2020 as a fully digital event. A package of recorded sessions has been made available to all newly appointed Technical Body Officers.
In addition, we realised different live sessions for the CEN and CENELEC Technical Body Officers separately. Since the event was online, we accepted even Technical Body Officers that have been working for a longer time for a CEN and/or CENELEC committee. This was definitely a useful refreshment training for all. A total of 290 persons joined the live sessions.

Edition 2020 of the complete educational package for new Technical Body Officers is freely available here:

https://www.cencenelec.eu/news/events/Pages/EV-2020-25.aspx

TRAINING ON ENHANCING THE INVOLVEMENT OF SOCIETAL STAKEHOLDERS AND SMES

In 2020, CEN and CENELEC, together with ETUC, provided an online training to their Technical Body Officers dedicated to enhancing the involvement of societal stakeholders and SMEs in the system and the rights and obligations of Annex III organisations in the CEN and CENELEC Technical Bodies.

TRAININGS IN 2020

FOR A WIDER AUDIENCE

STANDARDAYS

The 2020 edition of StandarDays was unfortunately cancelled because of the pandemic situation in Brussels. Since the actual COVID-19 situation still does not allow us to have a physical event in the CEN-CENELEC Meeting Centre in Brussels, the edition of 2021 will also not take place. Since we are convinced that the main asset of this event is the networking aspect between the participants, and also with the speakers, we are very much looking forward to meet again for StandarDays in 2022.

10-10 WEBINARS

Six different 10-10 webinars were organised on dedicated topics, meeting the needs and interests of the CEN and CENELEC Technical Body Officers, but also open to interested National Members, Partners and stakeholders. These trainings provide the attendees with information regarding the latest developments in standardization and on specific topics that could have a direct impact on technical work.

Total number of attendees: 771

In 2020, CEN and CENELEC organised two 10-10 webinars in cooperation with their stakeholders. The first one about the #TrustStandards campaign, focusing on 'Building trust in the Single Market and a Competitive Europe', was held in cooperation with liaison organization APPLiA, Home Appliance Europe. The webinar attracted around 100 attendees.

The second one attracted the same amount of persons for a webinar on the Participation of Small & Medium Sized Enterprises (SMEs) in standardization, organised in cooperation with SBS, Small Business Standards.

https://www.cencenelec.eu/aboutus/ourservices/Training/webinars1010/Pages/2020.aspx

RAISING AWARENESS AND VISIBILITY

In its communication work, CEN and CENELEC aims to reinforce the visibility of the European Standardization System among all relevant stakeholders and the general public. In our activities, we are regularly employing various communication channels – both online and offline - to increase knowledge and generate awareness of the value and benefits that standards bring, targeting businesses and industries (small and large), regulators and policymakers, researchers and scientists, the education and training sector and environmental, consumer and union organisations. Due to the changes brought by the pandemic, in 2020 CEN and CENELEC's communication activities shifted predominantly online, taking advantage of the latest technologies to continue promoting the latest developments in European standardization to a wide and varied audience.

PUBLICATIONS ISSUED IN 2020

Over the course of 2020, CEN and CENELEC published a series of both online and print publications that showcased their European standardization activities to a varied public. The intention is to gradually decrease all print publications and for CEN and CENELEC to 'go green' and only issue digital publications.
All publications are available online at www.cencenelec.eu/news/publications

CEN AND CENELEC WORK PROGRAMME 2021

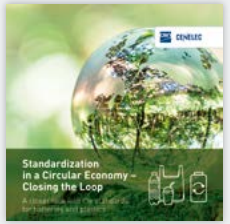
An overview of the most significant standardization activities for implementation by CEN and CENELEC in 2021.

STANDARDS FOR THE ENVIRONMENT

Brochure on how standards can be an effective tool to help the public sector fight against climate change.

STANDARDS FOR A CIRCULAR ECONOMY

This publication presents an overview of standards for batteries and plastics.



ANNUAL REPORTS OF CEN AND CENELEC FOR 2019

Information on CEN activities, CENELEC activities and joint activities.

STANDARDS FOR SECURITY

This brochure presents an overview of the activities of the recently established Sector Forum for Security and raises awareness on the importance of standards for security.

EUROPEAN STANDARDIZATION IN SUPPORT OF ECALL

This brochure was realised by CEN to showcase standardization for eCall, in support of road safety.

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

eNEWSLETTERS

'ON THE SPOT' CEN AND CENELEC eNEWSLETTER

In 2020 On the Spot, the widely disseminated newsletter of CEN and CENELEC, underwent a redesign and started being delivered on a regular, monthly basis *(9 issues in 2020).*

CEN AND CENELEC ACTIVITIES IN BRUSSELS

Monthly newsletter for update on CEN and CENELEC activities planned *(mainly in Brussels)* for next month.

BT NEWSLETTER

issued following the meetings of the CENELEC and CEN Technical Boards and reporting on the main outcomes of discussions *(3 issues in 2020).*

PRESS RELEASES AND BRIEF NEWS

Total: **77** news

11 PRESS RELEASES:
publicising agreements with stakeholders, important events or official positions, they are official communications and are circulated widely among journalists, members and other stakeholders

66 BRIEF NEWS:
communicating about a wide array of topics and activities undertaken by CEN and CENELEC

EVENTS

Events being a key pillar for promoting the standardisation work of CEN and CENELEC and for engaging with relevant stakeholders involved in this process, the Covid-19 pandemic also required both organisations to rethink their approach and find alternative ways to bring these meetings to interested participants.
Despite some events being postponed to 2021, the virtual format enabled us to minimise disruption, not only by allowing attendance irrespective of travel restrictions but also by helping us to reach an even wider audience than before.

In 2020, we organised **6 EVENTS**
engaging a total of **950 PARTICIPANTS.**

More info on events

eCOMMUNICATION

CEN AND CENELEC WEBSITES

5 876 151
visits
+ 33%

www.cen.eu	+ 26%
www.cenelec.eu	+ 57%
www.cencenelec.eu	+ 27%

SOCIAL MEDIA ENGAGEMENTS IN 2020

Facebook	3 790 followers	+ 9%
facebook.com/CENCENELEC		
Twitter	11 200 followers	+ 18%
twitter.com/Standards4EU		
LinkedIn	9 218 followers	+ 40%
linkedin.com/company/cen-and-cenelec		
YouTube	578 followers	+ 41%
youtube.com/CENCENELEC		

eCOMMUNICATION

SOCIAL MEDIA CAMPAIGNS

CAMPAIGN AROUND CEN AND CENELEC RESPONSES TO COVID-19

Following the coronavirus outbreak, CEN and CENELEC took several important decisions and actions, which were intensively shared on social media. More information is on the dedicated page:
https://www.cencenelec.eu/covid19/Pages/default.aspx

Topics included:

- Free availability of standards
- FAQ
- CWA community face masks

In addition to promoting the above, we have highlighted the importance of #standards4home during the pandemic period and beyond.

An overview:
https://twitter.com/search?q=%23standards4home&src=typed_query&f=live

60 YEARS OF CONTRIBUTING TO STANDARDIZATION

CEN and CENELEC celebrated in 2020 their 60 years of contributing to European standardization. It was an opportunity to look back at the successes achieved, and to reflect on the road that is still ahead. On the website and on social media we have posted several articles with 'Faces of Standardization', a series of regular, monthly interviews of persons that have been involved in different capacities in European standardization.

Dedicated hashtag: #FacesOfStandardization
https://www.cencenelec.eu/aboutus/60Years/Pages/default.aspx

In addition, we prepared a #TrustStandards Social Media Journey. Because of the pandemic situation in Europe, the hashtag #TrustStandards got launched a bit later than expected, but is now used on a regular basis on social media. We invite you to have a look on Twitter: https://twitter.com/search?q=%23TrustStandards&src=recent_search_click&f=live&pf=on

eCOMMUNICATION

SOCIAL MEDIA CAMPAIGNS

#WORLDSTANDARDSDAY

At the occasion of World Standards Day 2020 (14 October), dedicated to 'Protecting the planet with standards', we developed a video based on the winner of the yearly poster contest organized by ISO and IEC.

This video has been shared on social media and was running the whole day in five Brussels metro stations.

In addition, CEN and CENELEC have been putting in the spotlight standards that help protecting the planet.

Hashtag: #WorldStandardsDay2020

#SERVICES4STANDARDS

At the start of 2020, the Standards+Innovation initiative got its own website: https://www.standardsplusinnovation.eu/

It helps innovators and researchers to find relevant information and is presented in a clear and interactive way. With the dedicated hashtag #standardsplusinnovation, CEN and CENELEC organised an intensive campaign on all social media channels (Twitter, Facebook, LinkedIn and YouTube) during the months January and February 2020.

Later that year, CEN and CENELEC created a video telling the success story of Bitmovin, a start-up that managed to scale-up thanks to standardization. It was spread via social media with quote cards of the persons involved.

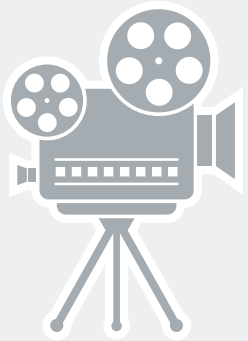
eCOMMUNICATION

SOCIAL MEDIA CAMPAIGNS

In the second half of 2020 CEN and CENELEC developed an Artificial Intelligence social media campaign attached to the Stakeholder Workshop for Artificial Intelligence and eHealth, “Artificial Intelligence in healthcare: paving the way with standardization” on 27 October 2020.

The Artificial Intelligence campaign used previously developed videos from the AI Focus Group, allowing for a background introduction to their new roadmap and working activities. More specifically the campaign included the interviews of the co-covenors, Sebastian Hallensleben and Patrick Bezombes; the interview of Wolfgang Niedziella, and the Digitalisation in Construction video from the previous year.

AUDIOVISUAL



Over the course of 2020, CEN and CENELEC produced and published on their websites and YouTube channel a series of videos, dedicated to exploring specific standardization areas and activities. Adding on to the topic of social media and the overall increase of followers and online discussions, it is worth noting that the audiovisual activities of CEN and CENELEC increased dramatically to meet the demands of the new online working environment. The beginning of the year was mostly devoted to responding to the COVID-19 pandemic specifically, but towards the end of the year, the production of podcasts, webinars and video-heavy campaigns became a regular activity for communications campaigns.

All videos can be accessed via the CEN-CENELEC website.

https://www.cencenelec.eu/news/videos/Pages/default.aspx

Some of the subjects covered by the videos include:

#TrustStandards: A harmonized Single Market
https://www.cencenelec.eu/news/videos/Pages/VIDEO-2020-02.aspx

A four-episodes podcast on Harmonized standards in the Rail sector
https://www.cencenelec.eu/news/videos/Pages/VIDEO-2020-35.aspx

A series of video interviews for the ‘Faces of Standardization’ project
https://www.cencenelec.eu/news/videos/Pages/VIDEO-2020-38.aspx

How to attract investors with standards: the success story of Bitmovin
https://www.cencenelec.eu/news/videos/Pages/VIDEO-2020-32.aspx

Interview with Wolfgang Niedziella: What makes European Standardization unique from the rest of the world?
https://www.cencenelec.eu/news/videos/Pages/VIDEO-2020-01.aspx

STANDARDIZATION ACTIVITIES IN 2020

STANDARDIZATION ACTIVITIES PER SECTOR

	Deliverables* at the end of 2020	Deliverables* in 2020	Technical Bodies at the end of 2020
Chemicals	1379	103	22
Construction	3296	183	82
Consumer	933	69	24
Defence and security	310	23	23
Digital Society	2555	168	43
Electrotechnology	3477	172	85
Energy and utilities	2140	179	79
Food and agriculture	718	42	19
Healthcare and health & safety	1781	18	41
Household appliances and HVAC	754	57	25
Mechanical and machinery	2393	177	81
Mining and metals	1013	46	22
Services	406	37	30
Transport and vehicles	4214	208	38

** excluding guides*

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NEW TECHNICAL COMMITTEES

In 2019, several Technical Bodies were set up to ensure the development of new standardization topics that fell outside the scope of existing Technical Bodies.

Digital Society

- Management and preservation of digital content (CEN/TC 468)
- Requirements and Guidelines for a complete end-to-end mobile forensic investigation chain (CEN/WS FORMOBILE)

Electrotechnology

- Mains communicating systems (CLC/TC 205A)

Energy & Utilities

- Modular and cross-cutting Power Take-Off units for wave energy converters. Recommendations and laboratory testing (CEN/CLC/WS SEA-TITAN)
- Reference model for distribution application for microgrids (CEN/CLC/WS WiseGRID)
- Mapping of the mandatory and voluntary Carbon Management framework in the EU (CEN/WS 108)

Food and agriculture

- Sustainable fisheries, acquaculture and fishing gear (CEN/TC 466)

Healthcare and Health & Safety

- Response to Covid 19 - Community face coverings (Masks) (CEN/WS CFCM)
- Integration process of new technologies of physical assistance such as exoskeletons (CEN/WS EXOSK)

STANDARDIZATION ACTIVITIES IN 2020

Mechanical and machinery

- Performance test method for lower limb wearable robots for walking on irregular terrains (CEN/WS 110)

Mining and metals

- Innovative testing in support of the sheet metal forming industry (CEN/WS FORMPLANET)
- OYSTER on Materials characterisation - Terminology, classification and metadata (CEN/WS OYS)

Services

- Guidelines for Micro-SMEs on GDPR Compliance (CEN/WS 111)

Transport and vehicles

- Hyperloop systems (CEN/CLC/JTC 20)
- Steps to measure and set targets for the, the levels of service to be provided by, and the resilience of, transport infrastructure
- Good practice recommendations for making management recommendations tailored for the EU fleet operating outside European waters (CEN/WS 109)
- Framework linking dismantled parts with new design components for the automotive industry in a circular economy model (CEN/WS 113)

Environment

- Climate change (CEN/TC 467)
- Mitigation of Urban Heat Island effects with cool materials (CEN/WS 107)

Smart Technologies

- Zero Defects in Digital Manufacturing Terminology (CEN/CLC/WS ZDMterm)

BUSINESS SECTORS

CHEMICALS

Sustainability, safety and circular value chains related to chemicals and chemical products are the heart of clean and green environment and ensuring better human health.

Standardization in the domain of chemicals and chemical products aims at creating a market for secondary raw materials and identifying sustainable solutions. It is also vital in helping to ensure that chemical products that access the European market are safe by increasing market transparency and by providing common reference methods and requirements. Many standardization activities in the chemicals sector are developed in response to European Commission requests and support the implementation of European legislation.

FERTILISERS

CEN/TC 223 'Soil improvers and growing media', CEN/TC 260 'Fertilizers and liming materials' and CEN/TC 455 'Plant biostimulants' have finalised the work programme for the Standardization Request on fertilising products (M/564), accepted in early 2020. The TCs have also started the technical work for the deliverables included in the Standardization Request (European Standards and Technical Specifications), which will provide product requirements or test methods to allow analysis and verification of compliance of fertilising products with the EU Regulation 2019/1009.

PLASTICS

CEN/TC 249 'Plastics' develops standards related to a variety of issues such as terminology, test methods, specifications, classifications and designation systems, environmental aspects, joining systems and techniques of plastics, plastic-based materials, semi-finished products and products.

In 2020, CEN/TC 249 adopted 19 EN ISO standards on designation systems, preparation of test specimens, determination of properties for diverse polymers, and published EN 13067:2020 'Plastics welding personnel - Qualification of welders - Thermoplastics welded assemblies'.

CEN/TC 249 and other related TCs provided their inputs and continued their exchange with the European Commission about the Standardization Request expected to be issued in the context of the Circular Plastics Alliance. The participation was organised via a dedicated body – the Standardization Request Ad-Hoc Group (SRAHG) on 'Plastics recycling and recycled plastics'.

A dedicated training on standardization was given by CEN and CENELEC to the working groups active in CPA (21 October 2020) and a conference on European Standards in support of circular plastics was organised in collaboration with the European Commission (11 December 2020).

EXPLOSIVES

CEN/TC 321 'Explosives for civil use' is responsible for the standardization of explosives substances and articles, including safety requirements, terminology, categorisation and test methods.

In 2020, CEN/TC 321 has produced the Enquiry drafts of around 50 standards under revision, included in the Standardization Request 'Explosives for civil use' (M/562). The standards correspond to the following series: EN 13763, EN 13631, EN 13630, EN 13938 and EN 13857. These standards will ensure full harmonisation of the European Single Market – granting manufactures access to CE marking.

PYROTECHNIC ARTICLES

CEN/TC 212 'Pyrotechnic articles' provided inputs and continued the exchange with the European Commission about the technical annexes of the Standardization Request in support of Directive 2013/29/EU relating to the making available on the market of pyrotechnic articles. The participation was organised via a dedicated body – the Standardization Request Ad-Hoc Group (SRAHG) on Pyrotechnic articles.

NANOTECHNOLOGIES

In 2020, CEN/TC 352 'Nanotechnologies' has published four deliverables under the Vienna Agreement:

- EN ISO 17200:2020 'Nanotechnology - Nanoparticles in powder form - Characteristics and measurements';
- CEN ISO/TR 18401:2020 'Nanotechnologies – Plain language explanation of selected terms from the ISO/IEC 80004 vocabulary series (ISO/TR 18401:2017)';
- CEN ISO/TS 80004-11:2020 'Nanotechnologies – Vocabulary – Part 11: Nanolayer, nanocoating, nanofilm, and related terms (ISO/TS 80004-11:2017)';
- CEN ISO/TS 80004-13:2020 'Nanotechnologies – Vocabulary – Part 13: Graphene and related two-dimensional (2D) materials (ISO/TS 80004-13:2017)';

CEN/TC 352/WG 2 'Commercial and other stakeholder aspects' set up a Study Group 'Labelling' to specifically work on B2C standards (e.g. revision of CEN ISO/TS 13830:2013 'Nanotechnologies - Guidance on voluntary labelling for consumer products containing manufactured nano-objects' and development of prCEN/TS 'Nanotechnologies - Challenges and capabilities to enhance the NOAA traceability in the B2B value chain for transparency and innovation purposes').

PLASTIC AND RUBBER MATERIAL

CEN/TC 462 ‘Regulated chemicals in products’ was created in 2020 to carry out the technical work under the Standardization Request on 'Polycyclic Aromatic Hydrocarbons (PAHs) in rubber and plastic components of articles placed on the market for supply to the general public' (M/556), according to the work programme developed

by CEN-CENELEC BTWG 13 'Polycyclic Aromatic Hydrocarbons' (now disbanded). CEN/TC 462/WG 1 prepared the method for the determination of content of 8 PAHs, which will be validated in 2021.

BIO-BASED PRODUCTS

CEN is developing European Standards and other deliverables (Technical Reports and Specifications) covering horizontal aspects of bio-based products as well as standards for specific bio-based product groups such as bio-based lubricants, polymers, surfactants and solvents. Recently, CEN also started to work on standards and other deliverables on algae and algae products.

CEN/TC 454 'Algae and algae products' was established in 2017 and its scopes covers the specification, classification, terminology and determination methods for algae (general) and algae-based products. In addition, guidance on the specific application of algae products as feedstock or intermediates for energy and non-energy products may be developed.

In 2020, CEN/TC 454 published EN 17399 'Algae and algae products – Terms and definitions'. This document was developed under M/547 (Algae), a Standardization Request by the European Commission on algae and their products. The document defines the terms related to functions, products, and properties of algae and algae products. By harmonising the terminology in this field, this document facilitates the further development of this category of bio-based products across the EU.

BUSINESS SECTORS

CONSTRUCTION

Construction contributes to our society by making our built environment a safe and pleasant place to live in. For this reason, European Standards (ENs) are developed to set out performance characteristics and assessment methods of construction products and materials and to provide the requisite testing and/or calculation methods for them.

Harmonised European Standards (hENs), developed by more than 90 Technical Committees, are an essential tool for the application of the Construction Products Regulation (CPR) - Regulation (EU) No 305/2011 - and for the fulfilment of national building regulations.

STANDARDS FOR THE CPR

In 2020, CEN and CENELEC published a position paper on the implementation and future of the Construction Products Regulation (CPR). In the Paper, CEN and CENELEC affirm their support of the current CPR framework and the important role of European harmonised standards, at the same time emphasising that, for the correct implementation of the CPR, the European Commission must provide a solid basis for the CPR system to work, i.e. the mandates must be revised through standardization requests. Furthermore, CEN and CENELEC also replied to the European Commission public consultation on the review of the CPR.

CEN and CENELEC developed two guidance documents to help Technical Committees to prepare harmonised standards (hENs) in support of the CPR:

- CEN-CENELEC Guide 36 'Guidance on the rules for drafting and presentation of candidate harmonised product standards'
- CEN-CENELEC guidance 'Core rules for drafting harmonised standards for construction products'

Additionally, in 2020, CEN, CENELEC, the European Commission and the Germany presidency held two meetings to discuss solutions to increase the citation in the OJEU of harmonised standards in support of the CPR and the participation of CEN and CENELEC in the CPR Technical Acquis.

STRUCTURAL EUROCODES

Eurocodes are a comprehensive set of standards that relate to the design of building and civil engineering works. In response to the European Commission's request M/515 'Mandate for amending existing Eurocodes and extending the scope of structural Eurocodes', CEN/TC 250 'Structural Eurocodes' established a series of project teams. In 2020, CEN/TC 250 finalised the following deliverables:

- EN 1993-1-4:2006/A2:2020 'Eurocode 3 - Design of steel structures - Part 1-4: General rules - Supplementary rules for stainless steels' which provides supplementary provisions for the design of buildings and civil engineering works to austenitic, austenitic-ferritic and ferritic stainless steels.
- CEN/TS 17440:2020 'Assessment and retrofitting of existing structures' which provides additional or amended provisions to EN 1990 for the assessment of existing structures and the retained parts of existing structures that are being modified, extended, strengthened or retrofitted.

SUSTAINABILITY OF CONSTRUCTION WORKS

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 response to Mandate M/350, CEN/TC 350 started the revision of two standards:

- 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.
- EN 15978-2 'Sustainability of construction works - Methodology for the assessment of buildings - Part 2: Social performance' for calculating the social performance of buildings.

In 2020, CEN/TC 350/SC 1 'Circular economy in the construction sector' was created. The purpose of this subcommittee is to develop standards enabling the transition from a linear to a circular economy of the construction sector to support a climate neutral and resource efficient sector.

RELEASE OF DANGEROUS SUBSTANCES

CEN/TC 351 'Construction Products – Assessment of release of dangerous substances' is responsible for developing harmonised test methods for the release of dangerous substances from construction products.

In 2020, the horizontal method for the determination of emissions into indoor air (EN 16516) was amended by adding the emissions from ammonium salts, resulting in the publication of EN 16516:2017/FprA1. The development of a European Standard on dose assessment of emitted gamma radiation (prEN 17637) has also started.

The results of the interlaboratory validation studies were incorporated in the enquiry drafts of the harmonised horizontal methods for leaching and percolation procedures (EN 16637 series), content and analysis (CEN/TSs 17195-17197, 17200, 17201,17331 and 17332). The validation reports are available here.

ARCHITECTURAL, CONSTRUCTION SERVICES, ENGINEERING AND INSPECTION SERVICES

In 2020, CEN/TC 346 'Conservation of Cultural Heritage' published the following standards:

- EN 17187:2020 'Conservation of Cultural Heritage - Characterization of mortars used in cultural heritage' which provides the methodology for the characterization of mortars and guidelines for the selection of methods to determine mineralogical, textural, physical, chemical and mechanical properties of mortars used in cultural heritage structures and objects.
- EN 17429:2020 'Conservation of cultural heritage - Procurement of conservation services and works' which outlines the principles, processes and best practice for procuring conservation services and works for cultural heritage.
- CEN/TS 17135:2020 'Conservation of cultural heritage - General terms for describing the alterations of objects' which defines terms used in the field of conservation of cultural heritage for the description of alteration of objects.

CONSTRUCTION PRODUCTS, STRUCTURES AND MATERIALS; AUXILIARY PRODUCTS TO CONSTRUCTION (EXCEPT ELECTRIC APPARATUS AND TANKS)

In 2020, CEN/TC 127 'Fire safety in buildings' published EN 1363-1 'Fire resistance tests - Part 1: General requirements' which establish the general principles for determining the fire resistance of various elements of construction when subjected to standard fire exposure conditions.

In 2020, CEN/TC 129 'Glass in building' published EN 15998 'Glass in building - Safety in case of fire, fire resistance - Glass testing methodology for the purpose of classification' which specifies the testing methodology to be used for glass products that are claiming fire resistance.

BUILDING INFORMATION MODELLING

In 2020, CEN/TC 442 'Building Information Modelling' developed the following standards that have been published by CEN:

- EN ISO 16739-1 'Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries - Part 1: Data schema (ISO 16739-1:2018)'
- EN ISO 12006-2 'Building construction - Organization of information about construction works - Part 2: Framework for classification (ISO 12006-2:2015)'
- 2 standards in the EN ISO 21957 series (information container for linked document delivery)
- 2 standards in the EN ISO 19650 series (organisation and digitization of information about buildings and civil engineering works, including BIM)

BUSINESS SECTORS

CONSUMER

In 2020, The European Commission proposed a New Consumer Agenda setting out the main consumer policy priorities in the EU for the years to come. The overall aim is to take stock of several trends affecting consumer markets and the related challenges. Incidents linked to Covid-19 have further highlighted some of these trends, for example the increasing use of online sales channels and the need to ensure safety for consumers in this context.

One of the main aims of the European Union, through its consumer safety legislation, is to ensure that only safe products are available on the European Single Market.

European standards (EN) have always had a huge role to play in fulfilling this ambition. This important role is highlighted in a Position Paper, drafted and published by CEN and CENELEC in response to a stakeholder's consultation launched by the European Commission for the revision of the General Product Safety Directive (2001/95/EC).

CONSUMER GENERAL

More than 20 CEN and CENELEC Technical Committees are carrying out standardization activities related to consumer products. They fall mainly in the area of the General Product Safety Directive (GPSD 2001/95/EC), but are also concerned by several other pieces of European legislation (Toys, Textile, PPE, 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.

In December 2020, five European Standards developed by CEN were cited in the European Union Official Journal (EUOJ) (full list) under GPSD 2001/95/EC, covering a broad range of very different products under M/425 Fire Safety, M/497 Childcare articles – risk in sleeping environment, M/464 Childcare articles- drowning risks, M/506 Stationary training equipment.

CEN also develops standards in parallel with his international counterpart (ISO); e.g. in footwear, sport equipment or textiles leading to the publication of European and international standards.

CONSUMER CLOTHING, FOOTWEAR AND ACCESSORIES

In 2020, CEN/TC 248 'Textiles' continued to support standardization activity in support of the European Commission's Request M/532 related to methods for quantitative analysis of textile products composed of certain binary and ternary textile fibre mixtures. Furthermore, it finalised various parts of the EN ISO 1833 series on 'Textiles - Quantitative chemical analysis'.

Further standard development was achieved in the areas of:

- Safety of children's clothing: EN 17394-2:2020 'Textiles and textile products - Part 2: Safety of children's clothing - Security of attachment of buttons - Test method'.
- Smart textiles: CEN ISO/TR 23383:2020 'Textiles and textile products - Smart (Intelligent) textiles - Definitions, categorisation, applications and standardization needs.'

CEN/TC 309 'Footwear' continued the technical cooperation with ISO and, amongst other, published:

- EN ISO 24267:2020 'Footwear - Determination of coefficient of friction for footwear and sole components - Test method.'
- EN ISO 24266:2020 'Footwear - Test methods for whole shoe - Flexing durability.'

FURNITURE, FURNISHINGS AND CLEANING PRODUCTS

European standardization work, in relation to furniture, furnishing products and cleaning products, focus primarily on defining safety requirements and developing associated test methods in order to ensure that products placed on the European market are safe and suitable for consumers.

CEN/TC 252 'Childcare articles' finalised the publication of four standards under Standardization Request M/264 related to the safety of childcare articles for children's harnesses, reins and backpacks (EN 13210-1:2020 and EN 13210-2:2020); baby walking frames (EN 1273:2020); drinking equipment (EN 14350:2020).

CEN/TC 207 'Furniture' published a revised version of European standard related to safety requirements for office furniture, this sees the introduction among other of a new test method on measurement and new chair type to cover a wider range of the population:

- EN 1335-1:2020 'Office furniture - Office work chair - Part 1: Dimensions - Determination of dimensions'.

GAMES AND TOYS

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

In 2020, CEN/TC 52 'Safety of Toys' revised major standards of the EN 71 series:

- EN 71-4:2020 'Safety of toys - Part 4: Experimental sets for chemistry and related activities'
- EN 71-2:2020 'Safety of toys - Part 2: Flammability'
- EN 71-7:2014+A3:2020 'Safety of toys - Part 7: Finger paints - Requirements and test methods'
- CEN/TR 15071:2020 'Safety of toys - National translations of warnings and instructions for use in the EN 71 series'

CEN/TC 52 also continued the preparation of the new Standardization Request to provide a legal basis for the harmonisation of any new editions of existing or new European Standards on safety of toys to replace the existing Standardization Request M/445 issued in 2009

SPORT GOODS

In 2020, CEN/TC 136 Sports, playground and other recreational facilities and equipment revised and developed new standards on various areas:

Paragliding and mountaineering equipment, specifically for harnesses and rope courses:

- EN 1651:2018+A1:2020 'Paragliding equipment - Harnesses - Safety requirements and strength tests'. The amendment introduces additions on static parachute extraction test for harnesses with integrated emergency parachute container.
- EN 17109:2020 'Mountaineering equipment - Individual safety systems for rope courses - Safety requirements and test methods'. This document specifies safety requirements and test methods for components of an individual safety system for protection against a fall

from height used in permanent and mobile rope courses as defined in EN 15567-1 on Ropes courses - Part 1: Construction and safety requirements. It falls under M/031 in support of legislation 2016/425 on Personal Protective Equipment.

Kite boarding: A new standard developed with ISO, EN ISO 21853:2020 'Kite boarding - Release system - Safety requirements and test methods', specifies the minimum safety requirement and test methods for a release system that reduces the pulling force of the kite and disconnects the user from the kite.

DEFENCE AND SECURITY

In a context of ever-deepening globalisation, the European security environment changed drastically over the last years. Societies are increasingly facing security threats and challenges that are growing in scale and sophistication. Citizens have become more concerned with security issues such as terrorism, cybersecurity, organised crime and border security, and there is growing demand to increase their security accordingly. Other growing concerns for citizens are related to their personal security, international crime, privacy and personal data protection.

CEN and CENELEC are committed to strengthening the industrial and technological base of the security sector and to empowering industry with the right tools to operate in a more open and competitive EU market.

CEN-CENELEC SECTOR FORUM SECURITY

The CEN and CENELEC Technical Boards established the CEN-CENELEC Sector Forum Security in April 2019.

The objectives of the Sector Forum Security are to create, implement and conduct a broad European network of security experts to consider matters of strategic importance to the security sector and to act as an advisory and coordinating body for standardization activities. It aims to be a reference point for CEN and CENELEC on political and strategic matters.

In November 2020, the Sector Forum Security published a dedicated brochure, which provides concrete examples of how standardization supports the security industry.

FIREFIGHTING EQUIPMENT

In 2020, CEN/TC 191 'Fixed firefighting systems' published:

- EN 12259-14:2020 'Fixed firefighting systems - Components for sprinkler and water spray systems - Part 14: Sprinklers for residential applications'. This standard specifies requirements for the construction and performance of residential sprinklers as well as test methods for their type approval.
- EN 16750:2017+A1:2020 'Fixed firefighting systems - Oxygen reduction systems - Design, installation, planning and maintenance'. This document specifies oxygen reduction systems that are used as fire prevention systems by creating an atmosphere in an area which is having a lower permanent oxygen concentration as in ambient conditions.
- EN 16925:2018/AC:2020 'Fixed firefighting systems - Automatic residential sprinkler systems - Design, installation and maintenance'. This document specifies oxygen reduction systems that are used as fire prevention systems.

In 2020, CEN/TC 192 'Fire and Rescue Service Equipment' published EN 17407:2020 'Portable equipment for projecting extinguishing agents supplied by firefighting pumps - Collecting heads and dividing breechings PN 16'. The document defines requirements and tests for collecting heads (with drawings) and dividing breechings.

In 2020, CEN/TC 79 'Respiratory protective devices' published:

- EN 13274-4:2020 'Respiratory protective devices - Methods of test - Part 4: Flame test'. This document specifies methods for flame tests to be applied to respiratory protective devices.
- EN ISO 16972:2020 'Respiratory protective devices - Vocabulary and graphical symbols'. This document defines terms and specifies units of measurement for respiratory protective devices (RPDs) and includes graphical symbols that can be required to instruct persons using the RPD as to its operation.

CEN/TC 419 'Forensic Science Processes' published the second part of its series on Forensic Sciences EN ISO 21043-2:2020 'Forensic sciences - Part 2: Recognition, recording, collecting, transport and storage of items' in March 2020. The standard specifies requirements for the forensic process, focusing on recognition, recording, collection, transport, and storage of items of potential forensic value. It includes requirements for the assessment and examination of scenes but is also applicable to activities that occur within a facility.

EMERGENCY, SECURITY AND RELATED SUPPORT EQUIPMENT

In parallel with ISO/TC 292 'Security and resilience', CEN/TC 391 'Societal and citizen security' published EN ISO 22313:2020 'Security and resilience - Business continuity management systems - Guidance on the use of ISO 22301'. The document gives guidance and recommendations for applying the requirements of the business continuity management system (BCMS) provided in ISO 22301. The guidance and recommendations are based on good international practice. Common understanding and communication are important in the implementation of an effective CBRNE (chemical, biological, radiological, nuclear, explosive) response and this communication will be most effective if there is common understanding of the terms used. In this context, CEN/TC 391 published EN 17173:2020 'European CBRNE glossary'. This document is dedicated to first responders, administrative staff, industry representatives and researchers.

BUSINESS SECTORS

DIGITAL SOCIETY

The European industry is rapidly transforming through the adoption of a wide range of innovative and digital technologies. Traditional sectors of the economy, including some which until recently were not exposed to new technologies, have digital transformation objectives that require standardization responses. Therefore, it is essential that products, systems and services are mutually compatible, secure and interoperable, so that information can be shared and people can communicate with each other. However, the digital transformation of businesses and societies does not come without costs and risks, and many of its applications have raised concerns related to transparency, privacy and security issues. European Standards support the uptake of digital technologies and are important tools to mitigate those risks.

CEN and CENELEC bring together representatives from a variety of backgrounds, such as industry, societal organisations, research, academia and policy makers, with the ambition to encourage innovation and technological development, ensure the protection of consumers, and facilitate cross-border trade. European Standards contribute to the EU Single Market and to an inclusive digital society. They represent one of the most critical issues for businesses approaching the global market.

DIGITAL SOCIETY GENERAL

CEN and CENELEC are committed to help Europe reap the benefit of digitalisation, by working to make the standardization system fit for the European digital society. Examples of CEN and CENELEC's efforts on digitalisation and new technologies are the work on Blockchain and Distributed Ledger Technologies (CEN-CLC/JTC 19) and the ongoing work on Cybersecurity (CEN-CLC/JTC 13, CLC/TC 65X), Artificial Intelligence (CEN-CLC Focus Group) and Quantum technologies (CEN-CLC Focus Group). Contributing to the uptake of digital technologies, the work on ICT skills and digital competencies (CEN/TC 428) supports the maturing of the ICT profession in all sectors, public and private.

Further to these horizontal topics, CEN and CENELEC are active in several digitally transforming sectors, through their footprint in vertical industries: intelligent transport systems (CEN/TC 278), eHealth (CEN/TC 251), Smart grids and Smart metering (amon others, CLC/TC 57 and CLC/TC 13) or Advanced manufacturing (CEN/TC 310, CEN/TC 438).

ICT PRODUCTS, SERVICES AND SYSTEMS

In a world increasingly relying on digital technologies and data, opportunities go hand in hand with potential risks. For this reason, cybersecurity is at the centre of international and European efforts to minimise dangers for critical infrastructure and personal data, thus ensuring that individuals and companies, in all sectors, can benefit from new technologies.

In this context, CEN-CLC/JTC 13 'Cybersecurity and Data Protection' released in 2020 several European Standards that provide a series of guidelines to assess the security level of IT systems, cryptographic modules and privacy, in close connection with ISO/IEC JTC 1 SC 27. CEN-CLC/JTC 13 has also further progressed with work on prEN 17640 'Fixed-time cybersecurity evaluation methodology for ICT products' and on a future EN on 'Managed Security services providers requirements'. It also continued its work on prEN 17529 'Data protection and privacy by design and by default' in the frame of the mandate M/530.

CEN-CLC/JTC 13 has also been an important contributor to ENISA's activities, in the frame of the development of European Cybersecurity certification schemes – notably through the participation of relevant experts in the Stakeholder Cybersecurity Certification Group (SCCG).

CLC/TC 65X 'Industrial-process measurement, control and automation' has also been an important contributor to cybersecurity standardization solutions, in close connection with IEC TC 65. Three working groups are active in CLC/TC 65X, contributing in the domains of 'Industrial Requirements for Wireless Communication (IRWC)', 'Smart Manufacturing', and 'Cybersecurity'. In 2020, CLC/TC 65X finalised several parts of the EN IEC 62541 series 'OPC Unified Architecture'. Furthermore, CENELEC also made available EN IEC 62832-1 'Industrial-process measurement, control and automation – digital factory framework – Part 1, general principles', which will trigger the development of multiple standards in this series. The TC is also responsible for development and maintenance of the EN IEC 62443 series 'Security for industrial automation and control systems', which is reviewed on a regular basis.

The CEN-CLC Focus Group on Artificial Intelligence has established an overall framework for AI standardization, by developing a high-level vision for AI standardization in Europe. This vision is applicable for the whole AI ecosystem and aims at supporting the European AI industry and mitigate risks for European citizens. The Focus Group created an extensive analysis on existing standardization activities (at international

and European levels), thereby laying the groundwork for a new Joint Technical Committee on Artificial Intelligence, the creation of which was proposed towards the end of 2020. In 2020, the Focus Group made available the CEN-CENELEC Roadmap on Artificial Intelligence and the CEN-CENELEC response to the European Commission's white paper on AI. Both documents are available on the CEN andCENELEC website.

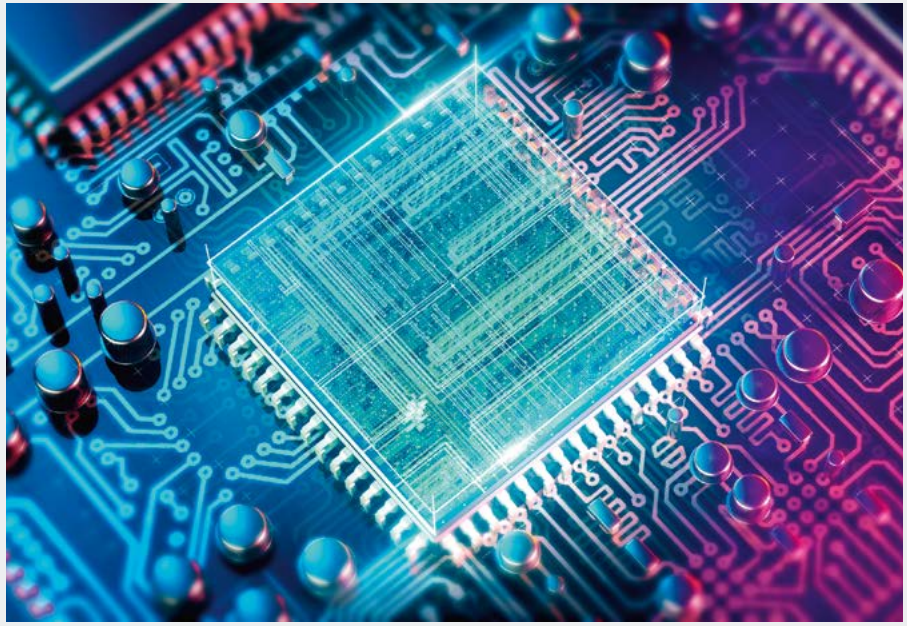
CLC/TC 205 'Home and Building Electronic Systems (HBES)' is responsible for the development of the EN 50491 series 'General requirements for Home and Building Electronic Systems (HBES) and Building Automation and Control Systems (BACS)', and notably EN 50491-11 'Smart Metering- Application Specifications- Simple External Consumer Display', from which a new amendment was published by CENELEC in 2020.

As part of the EN 50090-5 series, CLC/TC 205 developed 2 standards in 2020: 'Media and media dependent layers - Power line for HBES Class 1 Media' and 'Media dependent layers - Network based on HBES Class 1, Twisted Pair'. The TC has also launched a new work item on IoT Semantic Ontology Model Description (prEN 50090-6-2).

In 2020, CEN was also active in the frame of financial services, notably through the publication of a series of CWAs for 'extensions for financial services interface specifications' (CWA 16926 series) by the CEN Workshop 'eXtensions for financial services'.

EMERGING TECHNOLOGIES

In April 2020, the Technical Boards of CEN and CENELEC set up the CEN-CENELEC Focus Group on Quantum Technologies. Since many quantum technology areas are advancing on the Technology Readiness Level scale, it was considered important to prepare the field for standardization activities, to facilitate and accelerate the market uptake of quantum technology. The group has set the basis for an active dialogue and cooperation between the communities of researchers and standardizers. One of the tasks of the Focus Group has been to analyse the existing activities and needs for standardization, leading to the preparation and elaboration of new standardization activities. Consequently, the preparation of a roadmap started in 2020 and a temporary Working Group has been set up to draft a first structure for such a roadmap.



SOFTWARE PACKAGE, INFORMATION SYSTEMS AND IDENTIFICATION

CEN/TC 224 'Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment' developed in 2020 EN 1332-3 'Identification card systems – user interface – key pads' and continued working on the development of TS 17631 'Personal identification – biometric group access control'.

CEN/TC 225 'AIDC Technologies' developed EN 17099 to enhance the quality and availability of traceability data in the fishing sector and support the interoperability between information technology systems to the benefit of consumers and seafood companies alike. This standard contributes to several of the UN Sustainable Development Goals.

CEN/TC 468 'Management and preservation of digital content' was established at the end of 2020. Digital preservation allows organisations to be in control of their contents as they determine the appropriate level of confidentiality and the corresponding conditions of preservation - and to keep knowledge on where these contents are physically.

COMPUTING MACHINERY, EQUIPMENT AND SUPPLIES

The work of CLC/TC 108X 'Safety of electronic equipment within the fields of Audio/Video, Information Technology and Communication Technology' is driven by the ever-increasing merging of the functions of IT products with those of the consumer and professional entertainment products. This creates a growing need to consider the harmonisation of these products' safety requirements.

In 2020, CLC/TC 108X published:

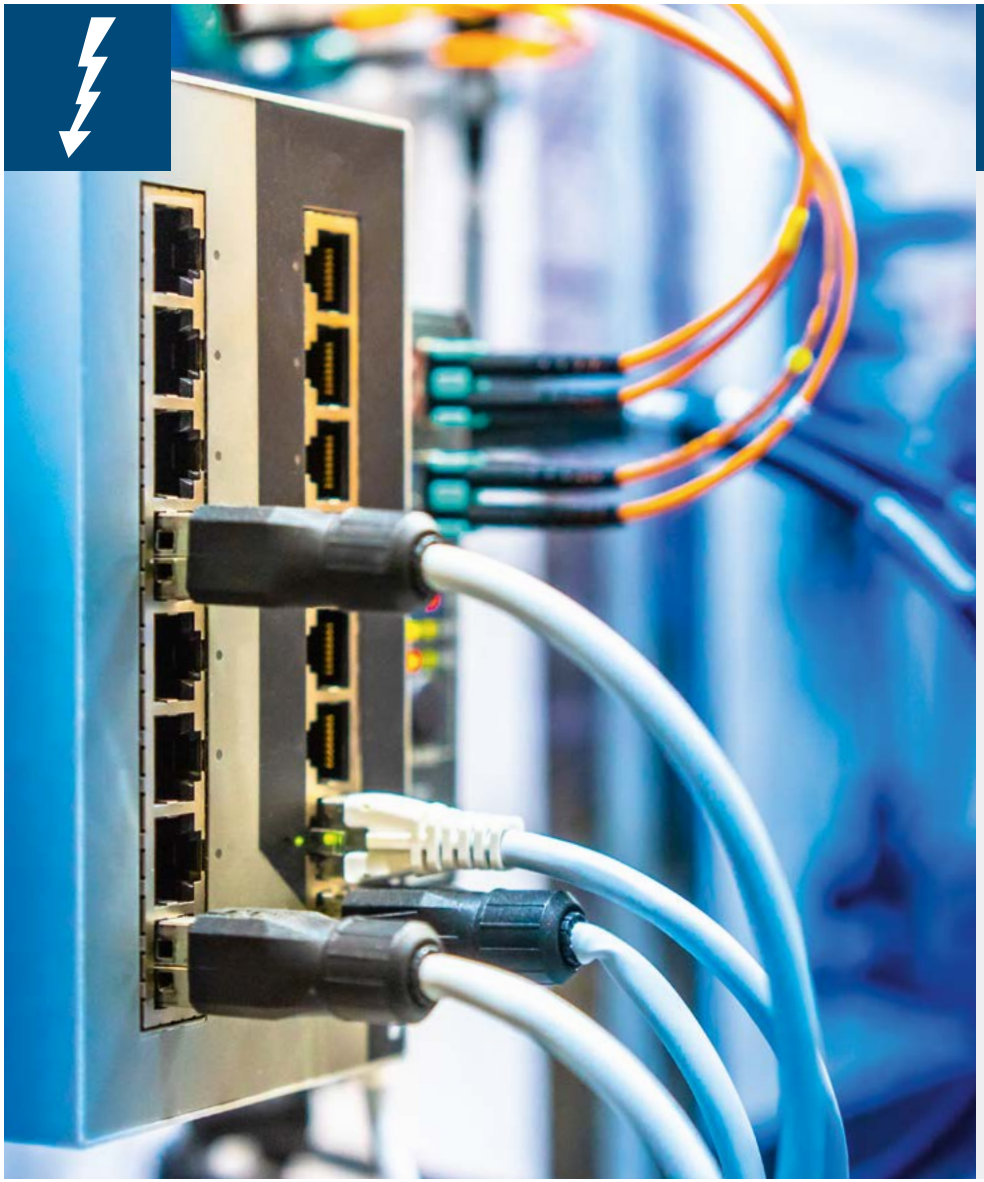
EN IEC 62368-1:2020 'Audio/video, information and communication technology equipment - Part 1: Safety requirements', a new hazard-based product-safety standard for ICT and AV equipment;

EN IEC 62368-3:2020 'Audio/video, information and communication technology equipment - Part 3: Safety aspects for DC power transfer through communication cables and ports'.

CLC/TC 209 'Cable networks for television signals, sound signals and interactive services' in 2020 worked on the development, in parallel with the IEC, of prEN IEC 60728-11 'Cable networks for television signals, sounds signals and interactive services – part 11: safety' and prEN IEC 60728-115 'In-building optical systems for broadcast signal transmission.

Furthermore, CLC/TC 215 'Electrotechnical aspects of telecommunication equipment' finalised in 2020 the development of several standards for data centre facilities and infrastructures, such as EN 50600-4-6 (energy reuse factor). The TC has also continued working on EN 50600-2-5 on the security systems of data centres.

BUSINESS SECTORS



ELECTROTECHNOLOGY

CENELEC, the European Standardization Organization in the electrotechnical engineering field, develops voluntary standards in support of the European Single Market for electrical and electronic goods and services, hence removing barriers to trade, creating new markets and cutting compliance costs. CENELEC's objective is to agree on common specifications to respond to the needs of the industry, meet consumer expectations and contribute to the welfare of society.

A wide range of CENELEC Technical Committees, Task Forces and Working Groups deal with different topics and types of products. Their work is marked by a strong commitment to ensure the highest possible level of safety and performance and the most efficient use of resources.

Efficient use of resources is also reflected through the close cooperation between CENELEC and its international counterpart, the International Electrotechnical Commission (IEC). Over 80% of CENELEC standards are identical to, or based on, international standards adopted by the IEC. The high level of alignment between European and International standards means that companies active in the sector can benefit from access to markets around the world, with lower compliance costs and integrated supply chains.

ELECTROMAGNETIC COMPATIBILITY (EMC)

In the electrotechnology field, 'Electromagnetic Compatibility (EMC)' is the horizontal topic. EMC is part of our daily life: it covers all products and most sectors and is one of the great successes of electrotechnical standardization.

At the heart of this activity is CLC/TC 210 'EMC', which in 2020 had a very positive and productive year,regardless of the obvious restrictions related to the pandemic.

It published 16 high-profile standards. Having worked closely and collaboratively with the European Commission for several months, CLC/TC 210 made a tremendous progress on citations in the Official Journal of the EU for some key EMC standards. What this means is that CLC/TC 210 seems to have found a way to overcome the long-standing stumbling block called '80/80 rule' in 2020. This achievement includes the OJEU citation in November 2020 of the following standards:

- EN 55011:2016 and its A11:2020 'Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement';
- EN 55014-1:2017 and its A11:2020 'Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission';
- EN IEC 55015:2019 and its A11:2020 'Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment';
- EN 55032:2015 and its A11:2020 'Electromagnetic compatibility of multimedia equipment - Emission Requirements'.

From the technical point of view, this activity not only clears the way for further CLC/TC 210 blocked standards, but it also allows to be eligible for citation for standards falling under other CLC/TCs, who usually refer to CLC/TC 210 standards as their normative references.

Moreover, just before the end of 2020, CLC/TC 210 received the green light from the European Commission to cite EN 61000-3-3:2013 and its A1:2019 'Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <= 16 A per phase and not subject to conditional connection' under EMCD and RED in the OJ in the near future.

The new standards published under CLC/TC 210 umbrella in 2020 are:

- EN 55011:2016/A11:2020 'Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement';
- EN 55014-1:2017/A11:2020 'Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission';
- EN IEC 55015:2019/A11:2020 'Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment';
- EN 55016-1-3:2006/A2:2020 'Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-3: Radio disturbance and immunity measuring apparatus - Ancillary equipment - Disturbance power';

- EN IEC 55016-1-4:2019/A1:2020 'Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4: Radio disturbance and immunity measuring apparatus - Antennas and test sites for radiated disturbance measurements';
- EN 55016-1-5:2015/AC:2020-09 'Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-5: Radio disturbance and immunity measuring apparatus - Antenna calibration sites and reference test sites for 5 MHz to 18 GHz';
- EN 55016-2-1:2014/AC:2020-09 'Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-1: Methods of measurement of disturbances and immunity - Conducted disturbance measurements';
- EN 55032:2015/A1:2020 'Electromagnetic compatibility of multimedia equipment - Emission requirements';
- EN 55032:2015/A11:2020 'Electromagnetic compatibility of multimedia equipment - Emission Requirements';
- EN 55035:2017/A11:2020 'Electromagnetic compatibility of multimedia equipment - Immunity requirements';
- EN IEC 55036:2020 'Electric and hybrid electric road vehicles - Radio disturbance characteristics - Limits and methods of measurement for the protection of off-board receivers below 30 MHz';
- EN IEC 61000-4-3:2020 'Electromagnetic compatibility (EMC) - Part 4-3 : Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test';
- EN IEC 61000-4-11:2020 'Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase';
- EN IEC 61000-4-11:2020/AC:2020-06 'Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase';
- EN 61000-4-25:2002/A2:2020 'Electromagnetic compatibility (EMC) - Part 4-25: Testing and measurement techniques - HEMP immunity test methods for equipment and systems';
- EN IEC 61000-6-8:2020 'Electromagnetic compatibility (EMC) - Part 6-8: Generic standards - Emission standard for professional equipment in commercial and light-industrial locations'.

ELECTRICAL INSTALLATIONS

EN 50110 'Operation of electrical installations' sets out requirements for the safe operation of and work activity on, with, or near electrical installations operating at voltage levels from and including extra-low voltage up to and including high voltage. The standard consists of 2 parts: Part 1 contains minimum requirements valid for all CENELEC countries and some additional informative annexes dealing with safe working on, with, or near electrical installations.

In 2020, CLC/BTTF 62-3 successfully finalised the voting process for an updated version of Part 2, which consists of a set of national annexes (one per country) which either specify the present safety requirements or give the national supplements to these minimum requirements. This is now ready for publishing.

BATTERIES

CLC/SR 35 ‘Primary cells and batteries’ made available two main European standards in 2020: EN IEC 60086-4:2019/AC:2020-05 ‘Primary batteries - Part 4: Safety of lithium batteries’ and EN IEC 60086-6:2020 ‘Primary batteries - Part 6: Guidance on environmental aspects’.

CLC/TC 21X ‘Secondary cells and batteries’ made available EN 50342-4:2020 ‘Lead-acid starter batteries - Part 4: Dimensions of batteries for heavy vehicles’. In parallel with IEC/TC 21 ‘Secondary cells and batteries’, CLC/TC 21X also developed, among others, 10 standards addressing different aspects of general performance, safety and test methods of secondary batteries used in multiple applications:

‘Flow battery energy systems for stationary’, ‘High-temperature secondary batteries’, ‘Sealed nickel-metal hydride cells and batteries for use in industrial applications’, ‘Secondary lithium cells and batteries for portable applications’, ‘For use in electrical energy storage systems’, ‘For use in road vehicles not for the propulsion’.

INSULATED WIRE AND CABLE

In today’s world, wireless is key. However, power and communication networks are still overwhelmingly cabled. What is more, cables require a high level of safety, reliability, performance, and precision in their use.

In order to meet these needs, CLC/TC 20 'Electric Cables' develops (harmonised) European Standards in the field of insulated conductors, cables and flexible cords and their accessories, for both low and high voltage, with the exception of telecommunication wires and cables.

In 2020, CLC/TC 20 published:

- EN 50305:2020 ‘Railway applications - Railway rolling stock cables having special fire performance - Test methods’;
- EN 50397-1:2020 ‘Covered conductors for overhead lines and the related accessories for rated voltages above 1 kV AC and not exceeding 36 kV AC - Part 1: Covered conductors’;
- EN 60754-2:2014/A1:2020 ‘Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity’;
- HD 361 S4:2020 ‘System for cable designation’.

CLC/TC 86A 'Optical fibres and optical fibre cables' completed, in 2020, many parts of the EN 60794 series, notably for product specifications, measurement methods and test procedures for cables.

ELECTRICAL EQUIPMENT AND APPARATUS

In 2020, CLC/TC 106X 'Electromagnetic fields in the human environment' adopted EN IEC 62311:2020 'Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz to 300 GHz)'. This standard applies to electronic and electrical equipment for which no dedicated product standard or product family standard regarding human exposure to electromagnetic fields applies. It covers equipment with intentional or non-intentional radiators, as well as a combination thereof, and provides assessment methods and criteria to evaluate equipment against limits on exposure of people related to electric, magnetic and electromagnetic fields.

ELECTRIC MOTORS AND TRANSFORMERS

In 2020, CLC/TC 14 'Power transformers' finalised three European Standards which are parts of the EN 50708 series on Power transformers: part 1-1 for general requirements, part 2-1 for medium power transformers and part 3-1 on large power transformers.

LIGHTING EQUIPMENT AND ELECTRIC LAMPS

CLC/TC 34 'Lighting' published in 2020 a part of the EN IEC 62386 series on 'Digital addressable lighting interface': Part 105 'Particular requirements for control gear and control devices - Firmware Transfer'.

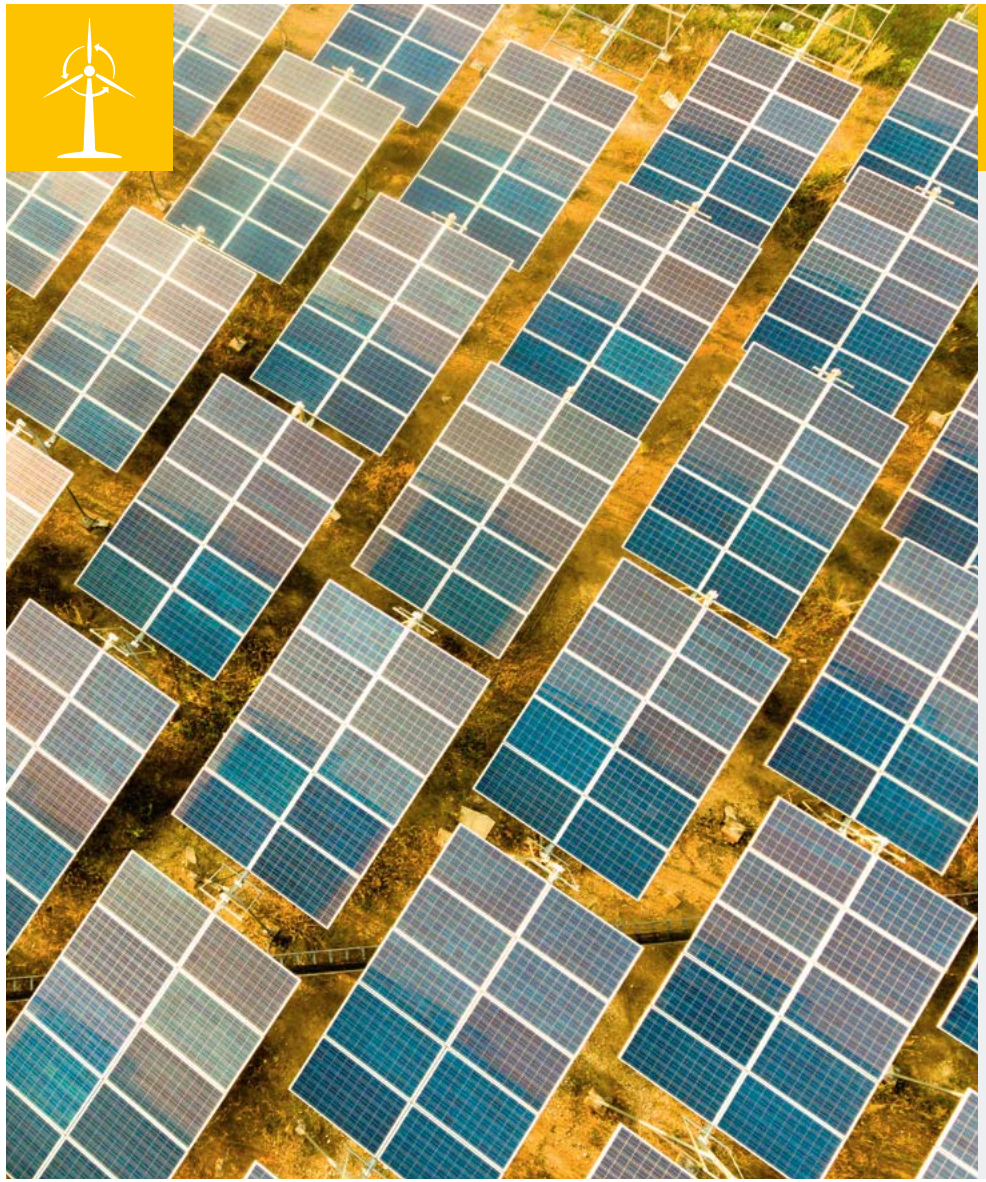
EN IEC 62031:2020 'LED modules for general lighting - Safety specifications' and EN IEC 61228:2020 'Fluorescent ultraviolet lamps used for tanning - Measurement and specification method' were also published by CENELEC in 2020.

LOW VOLTAGE ELECTRICAL INSTALLATIONS MATERIAL

CLC/TC 121A 'Low-voltage switchgear and controlgear' developed in 2020 a European Standard in the EN 60947 series on 'Low voltage switchgear and controlgear': part 5-2 on 'Control circuit devices and switching elements - Proximity switches', as well as an amendment on EN 60947-2 on circuit-breakers. CLC/TC 121A worked in parallel with its IEC counterpart, and focused on the harmonisation of the ENs for LVD and EMCD.

CLC/TC 64 'Electrical installations and protection against electric shock' has started the development of prHD IEC 60364-7-702 'Low-voltage electrical installations - Part 7-702: Requirements for special installations or locations - Swimming pools and fountains'.

BUSINESS SECTORS



ENERGY AND UTILITIES

The further modernisation of the European 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. The European Commission has set a series of ambitious goals, through the Green Deal published in December 2019, to transition towards a fully green economy and reach the global climate target of net zero by 2050.

Standardization in the energy sector contributes to improving energy management by supporting the spread of best practices and providing energy users with the necessary tools to analyse and adapt their energy consumption patterns. European Standards (ENs) are a flexible tool to improve safety and performances, raise levels of energy efficiency and protect consumers, workers and the environment. CEN and CENELEC are working with the European Commission and other stakeholders to develop and adopt European Standards to support European legislation, with a particular focus on the successful integration of the European energy market and the implementation of the EU's climate and energy targets. European Standards provide a basis for the integration of technologies into complex systems and facilitate interoperability and data exchange.

SECTOR FORUM ON ENERGY MANAGEMENT AND ENERGY TRANSITION (SFEM)

CEN and CENELEC's Sector Forum on Energy Management and Energy Transition (SFEM) provides strategic advice to the Technical Boards for ensuring a coordinated approach of energy related standardization within CEN and CENELEC.

In 2020, SFEM re-aligned its activities to follow the priorities of the European energy policy, set out in the European Green Deal. While still keeping an eye on the fields of energy management and energy efficiency, it places more emphasis on the identification of standardization needs and development of a strategy related to energy transition technologies, taxonomy, and the financing tools for the funding of energy-related investments.

A considerable amount of SFEM's work in 2020 was dedicated to extending its network with a view to the shifted focus of the subject matters to be pursued. SFEM has also made substantial progress in its ongoing activities. While the activities of the Working Group (WG) on Behaviour Change are still ongoing, a new Working Group on Blockchain and DLT has been established, starting its work in 2021. In addition, the results of the WG on Financial Tools had been analysed and they will be addressed by a focused activity expected to be launched soon.

CEN-CLC/JTC 14 'Energy management and energy efficiency in the framework of energy transition' continued the revision of EN 16325 on 'Guarantee of Origin of energy' for the inclusion of hydrogen, hydrocarbon gas, heating and cooling. This activity has been launched following the adoption of the Directive 2018/2001 on the promotion of the use of energy from renewable sources that requires Member States to put in place appropriate mechanisms to ensure that guarantees of origin are issued, transferred and cancelled electronically and are accurate, reliable and fraud-resistant and the requirements comply with EN 16325.

CEN/TC 371 'Energy Performance of Buildings project group' published in 2020 EN 17423:2020 that provides a transparent framework for reporting on the choices related to the procedure to determine primary energy factors (PEFs) and CO_2 emission coefficients for energy delivered to and exported from the buildings as described in EN ISO 52000-1.

ELECTRICITY DISTRIBUTION AND EQUIPMENT

CLC/TC 8X 'System aspects of electrical energy supply' develops standards that aim at facilitating the functioning of electricity supply systems in open markets.

In 2020, CLC/TC 8X published the following Technical Specifications, which describe technical guidelines and specifications for HVDC Grid Systems that are characterised by having exactly one single connection between two converter stations, often referred to as radial systems:

- CLC/TS 50654-1:2020 'HVDC Grid Systems and connected Converter Stations - Guideline and Parameter Lists for Functional Specifications - Part 1: Guidelines';
- CLC/TS 50654-2:2020 'HVDC Grid Systems and connected Converter Stations - Guideline and Parameter Lists for Functional Specifications - Part 2: Parameter Lists'.

FUELS (SOLID AND GASEOUS FUELS, PETROLEUM AND DISTILLATES)

In 2020 CEN continued to work intensively to prepare for the increasing need for alternative fuels, supported also by the European Green Deal.

CEN/TC 19 'Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin' finalised CEN/TR 17548 'Automotive fuels - Diesel fuel market issues - Abrasive particles investigation report' in 2020.

The report describes the European-wide investigation carried out by the TC on how the fuel market addressed the issues related to the import of less-controlled diesel, identifying all precautions European fuel suppliers should take.

The outcomes of the report resulted on the establishment of a new WG on abrasive particle testing, tasked to find a solution that can be adopted in CEN's fuel quality specification standards.

CEN/TC 335 'Solid biofuels' continued the adoption of a series of ISO standards as ENs, particularly on fuel specifications and classes. In 2020 three important EN ISO standards were adopted: EN ISO 21945 on a simplified sampling method for small scale applications; EN ISO 20024 on the safe handling and storage of solid biofuel pellets in commercial and industrial applications; and part 1 of EN ISO 20049 on the determination of self-heating of pelletised biofuels - isothermal calorimetry.

The second phase of the project 'Removing the technical barriers to using of biomethane in gas networks and gas appliances' was initiated at the end of 2020. CEN/TC 408 'Natural gas and biomethane for use in transport and biomethane for injection in the natural gas grid' kicked-off the project with the Supervisory Board and GERG in December 2020. This phase will last two years and will be followed by a last phase, starting at the end of 2021 and lasting two years, as well. This pre-normative research will allow the revision of EN 16723-1 on biomethane for injection and EN 16723-2 on biomethane as fuel.

GAS DISTRIBUTION AND RELATED SERVICES

CEN/TC 234 'Gas infrastructure', taking into account the Commission's objective to reduce methane emissions in the EU, in 2020 established a new working group that expects to publish in 2021 a Technical Report on the assessment of methane emissions in the gas transmission and distribution network.

Moreover, CEN/TC 234 started to work on a Technical Report to provide guidance on the impact of the injection of hydrogen into the gas infrastructure, from the input of gas into the onshore transmission network up to the inlet connection of gas appliances. In addition, work on the development of a series of standards containing specific requirements regarding hydrogen and biogas, as well as the plants, for the preparation of combustible gas mixtures of plants for the injection of renewable gasses into natural gas networks, has continued in 2020.

In 2020, CEN/TC 282 'Installation and equipment for LNG' published EN 1474-2:2020. This new standard provides general guidelines for the design, material selection, qualification, certification, and testing details for Liquefied Natural Gas (LNG) transfer hoses for offshore transfer or on coastal weather-exposed facilities for aerial, floating and submerged configurations or a combination of these.

In addition, work on the future EN 1473, which 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), also progressed in 2020.

ELECTRIC GENERATION (INCLUDING TURBINES)

Renewable energy sources such as wind or solar energy will play a key role in delivering on the ambition of the European Green Deal to make Europe the world's first climate-neutral continent by 2050.

In the field of solar energy, CLC/TC 82 'Solar photovoltaic energy systems', involved in all topics of solar photovoltaic energy systems,, issued, among others, EN IEC 62446-2:2020, that describes basic preventive, corrective, and performance-related maintenance requirements and recommendations for grid-connected PV systems.

CENELEC/TC 88 'Wind turbines' continued developing standards for wind turbines, together with its international counterpart IEC/TC 88, under the framework of the Frankfurt Agreement.

In 2020, among others, it developed two relevant standards: EN IEC 61400-27-1:2020, that defines standard electrical simulation models for wind turbines and wind power plants, and EN IEC 61400-27-2:2020, specifying procedures for the validation of electrical simulation models for wind turbines and wind power plants, intended to be used in power system and grid stability analyses. These standards are part of the EN IEC 61400 series 'Wind energy generation systems'.

NUCLEAR ENERGY AND RELATED EQUIPMENT

The core principle and responsibility of the nuclear industry is to guarantee its safety. In this context, CEN and CENELEC, in close collaboration with ISO and IEC, work on the development and publication of standards that ensure the safety, environmental and technical requirements of the European nuclear energy industry.

In CENELEC in particular there are two committees dealing with nuclear energy: CLC/TC 45AX, dealing with instrumentation, control and electrical power systems of nuclear facilities, and CLC/TC 45B, working on radiation protection instrumentation.

CLC/TC 45AX adopted in 2020 a total of four standards. Among others, it is worth mentioning EN IEC 62645:2020 'Nuclear power plants - Instrumentation, control and electrical power systems - Cybersecurity requirements'. This standard focuses on the issue of preventing and/or minimising the impact of attacks against computer-based systems and programmable logic devices on nuclear safety and plant performance. As EN IEC 62645:2020 is based on well-established international cybersecurity principles and policies, it provides the relevant actors of the nuclear sector a dependable basis to develop their plant-specific cybersecurity programs.

CLC/TC 45B 'Radiation protection instrumentation' adopts IEC standards, with or without common modifications, that address instrumentation used for a variety of activities: the measurement of ionising radiation in the workplace, to the public, and in the environment for radiation protection purposes; illicit trafficking detection and identification of radionuclides; ionising radiation-based security screening; industrial and commercial uses of ionising radiation nuclear technology.

In 2020, CLC/TC 45B progressed with the adoption of three IEC standards. Among them, it is worth mentioning the future EN IEC 62244 that defines the performance requirements of installed monitors used for the detection of gamma and neutron radiation emitters.

CEN/TC 430 'Nuclear energy, nuclear technologies, and radiological protection' aims at converting into European Standards those international standards developed by its international counterpart, ISO/TC 85. In 2020, nine standards were adopted at European level, among which is EN ISO 20785-1:2020 'Dosimetry for exposures to cosmic radiation in civilian aircraft - Part 1: Conceptual basis for measurements'.

ECODESIGN

In the European Union, energy-related products are regulated by the Ecodesign Framework Directive (2009/125/EC), which aims to ban the placing on the market of products with the highest environmental impact, and the Energy Labelling Framework Regulation (EU) 2017/1369, that enables consumers to make a better and more rational use of energy by informing them about the energy efficiency of products.

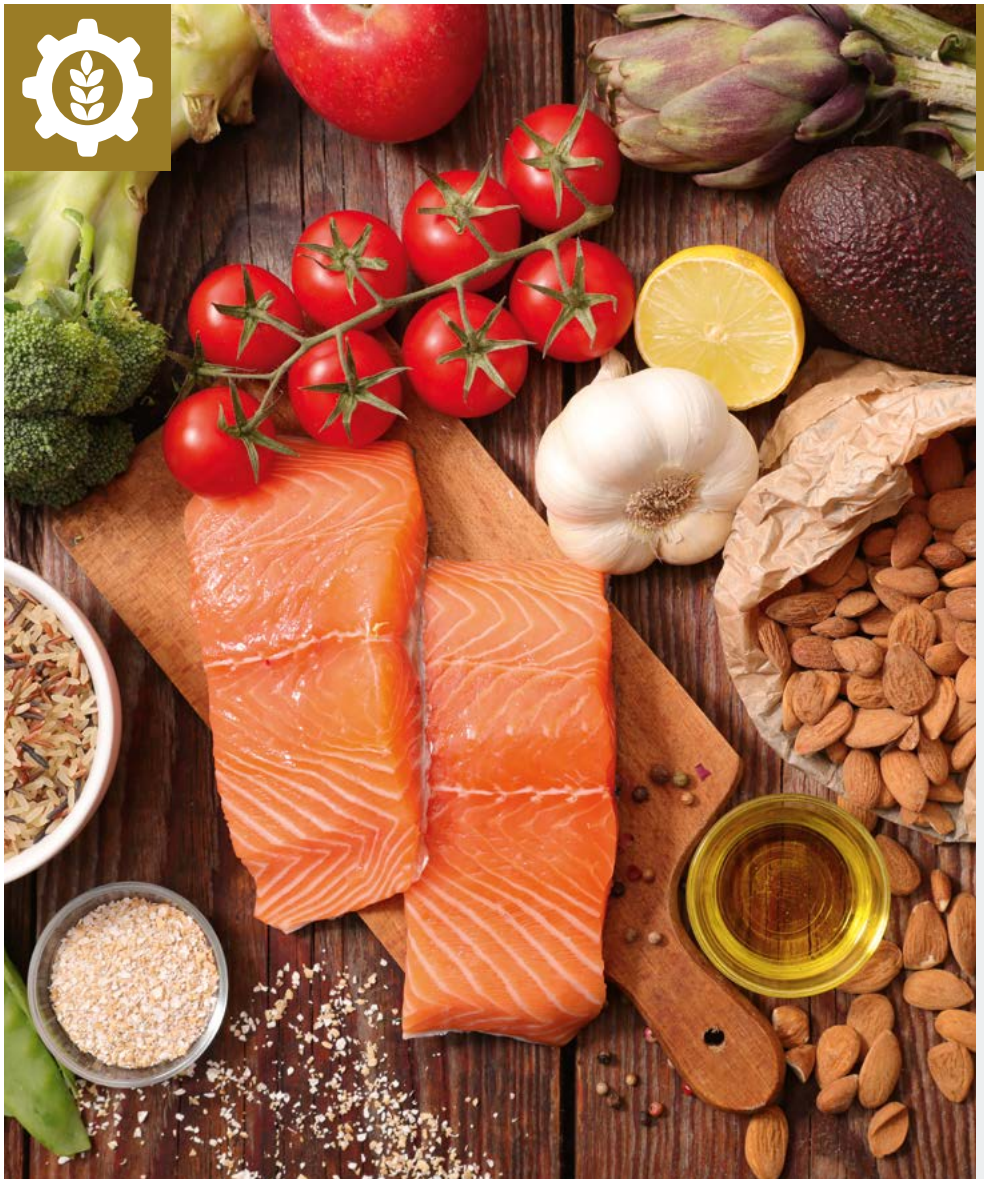
European Standards are essential complementing tools to EU legislation, supporting, among others, the Ecodesign and the Energy Labelling Regulations in providing methods to measure and assess whether products comply with regulatory requirements.

In 2020, CEN and CENELEC developed several harmonised standards in support of Ecodesign and/or Energy Labelling Regulations.

In the frame of the Standardization Request M/550 on Ecodesign and energy labelling of local space heaters, CLC/TC 59X 'Performance of household and similar electrical appliances' completed its work by

publishing EN 60675:1995/A11:2019 'Household electric direct-acting room heaters - methods of measuring performance', EN 60531:2000/A11:2019 'Household electric thermal storage heaters - methods of measuring performance' and EN 50559:2013/A1:2020 'Electric room heating, underfloor heating, characteristics of performance – Definitions, method of testing, sizing and formula symbols'.

Moreover, CEN-CENELEC Joint Technical Committee 10 ‘Energy-related products - Material Efficiency Aspects for Ecodesign’ finalised its work in response to Standardization Request M/543 on material efficiency aspects of energy-related products. In particular, it published a Technical Report giving generic principles to consider when addressing material efficiency of products, such as extending product lifetime, the ability to reuse components or recycle materials from products at end-of-life and the use of reused components and/or recycled materials in products. The aim in this area is to produce horizontal standards, applicable to any product covered by Directive 2009/125/EC.



FOOD AND AGRICULTURE

European standardization in the field of food and feed contributes to improving levels of food safety and protecting the health of consumers. CEN provides validated test methods that are used by the food industry as a whole: by the competent public authorities for official control purposes, and by food and feed producing companies for internal checks.

Many of the standards adopted by CEN are developed in response to formal requests from the European Commission, and these standards play a valuable role in supporting the implementation of relevant European legislation.

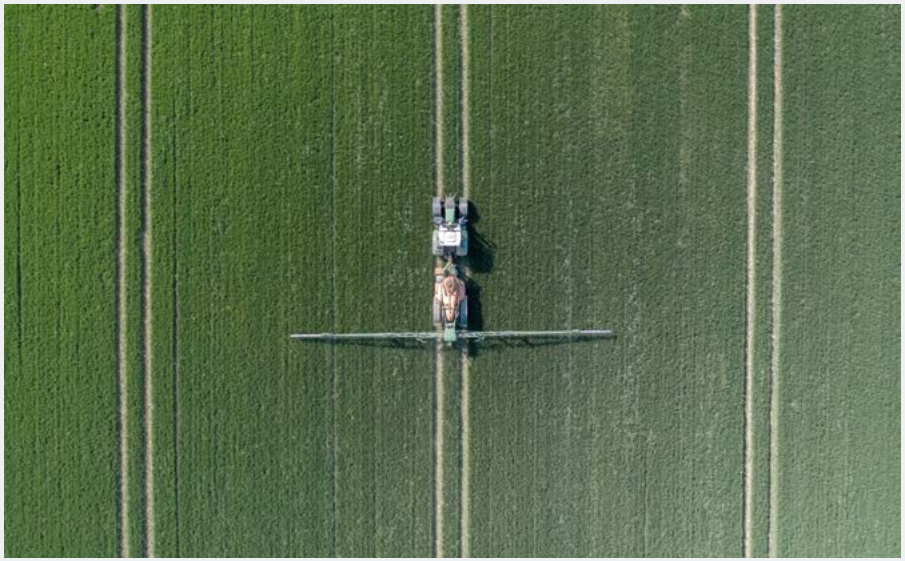
The majority of European Standards in this field (around 70%) are identical to international standards, as a result of the close and continuous cooperation between CEN and ISO. Having test methods that are recognised internationally is especially important for food companies that want to sell their products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

AGRICULTURAL, FARMING, FISHING, FORESTRY AND RELATED PRODUCTS

In 2020, CEN/TC 172 'Pulp, paper and board' published EN ISO 536:2020 'Paper and board - Determination of grammage', together with ISO/TC 6 'Paper, board and pulps'. The document specifies a method for determining the grammage of paper and board. In addition, CEN/TC 172 published CEN/TS 17497:2020 'Pulp, paper and paperboard - Determination of bisphenol A in extracts from paper and paperboard', which specifies an analytical test method for the determination of bisphenol A in solvent extracts of paper and board materials and articles intended to come into contact with foodstuffs. The method presented in the standard uses a high performance liquid chromatograph coupled to a fluorescence detector (HPLC-FLD).

AGRICULTURAL, FORESTRY, HORTICULTURAL, AQUACULTURAL AND APICULTURAL SERVICES

A new CEN/TC 466 'Sustainable fisheries, aquaculture and fishing gear' was established in 2020. This new CEN/TC was established in coincidence with a new Standardization Request to CEN in the area of fishing gear being in preparation in 2020, in support of Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment. The standard(s) for circular design of fishing gear which will be developed by CEN/TC 466 should provide the level playing field for the industry to develop a higher quality and environmentally friendly fishing gear that is easily reused or recycled at the end of life. Therefore, they will provide the industry the opportunity to act sustainably for a healthier planet.



FOOD, BEVERAGES AND RELATED PRODUCTS

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

Among the many Techincal Bodies involved in the field, CEN/TC 194 'Utensils in contact with food' works on standardization in the field of kitchen, table and household utensils, used in the preparation, cooking, serving and consumption of food and beverage, domestically and in catering establishments. In 2020, it published EN 13834:2020 'Cookware - Ovenware for use in traditional domestic ovens', which specifies safety and performance requirements for items of ovenware for use in domestic ovens.

CEN/TC 302, which deals with milk and milk products and develops methods of sampling and analysis, worked on several projects on the determination of contaminants in dairy. This work, carried out in parallel with ISO/TC 34 'Food products', is important to ensure dairy products' nutritiousness and food security more generally. In 2020, CEN/TC 302 developed the following standards:

- EN ISO 16297:2020 'Milk - Bacterial count - Protocol for the evaluation of alternative methods';
- EN ISO 15151:2020 'Milk, milk products, infant formula and adult nutritionals - Determination of minerals and trace elements - Inductively coupled plasma atomic emission spectrometry (ICP-AES) method';
- EN ISO 20647:2020 'Infant formula and adult nutritionals -Determination of total iodine - Inductively coupled plasma mass spectrometry (ICP-MS)';
- EN ISO 16958:2020 'Milk, milk products, infant formula and adult nutritionals - Determination of fatty acids composition - Capillary gas chromatographic method';
- EN ISO 21424:2020 'Milk, milk products, infant formula and adult nutritionals - Determination of minerals and trace elements - Inductively coupled plasma mass spectrometry (ICP-MS) method'.

Another TC, CEN/TC 307 'Oilseeds, vegetable and animal fats and oils and their by-products - Methods of sampling and analysis' published in 2020, amongst others, three European standards:

- EN 14103:2020 'Fat and oil derivatives - Fatty Acid Methyl Esters (FAME) - Determination of ester and linolenic acid methyl ester contents'. The purpose of this document is to describe a procedure for the determination of the ester content in fatty acid methyl esters (FAME) intended for incorporation into diesel oil;
- EN 14105:2020 'Fat and oil derivatives - Fatty Acid Methyl Esters (FAME) - Determination of free and total glycerol and mono-, di-, triglyceride contents'. This document specifies a method to determine the free glycerol and residual mono-, di- and triglyceride contents in fatty acid methyl esters (FAME);
- EN 14112:2020 'Fat and oil derivatives - Fatty Acid Methyl Esters (FAME) - Determination of oxidation stability (accelerated oxidation test)'. This document specifies a method for the determination of the oxidation stability of fatty acid methyl esters (FAME) at 110 °C, by means of measuring the induction period up to 48 h.

Furthermore, CEN/TC 275 'Food analysis – Horizontal methods' published in 2020 four Standards providing methods for the analysis of mycotoxins in food that have a potential deleterious effect on human health. This work is supported by the European Commission (under Standardization Request M/520 'Methods of analysis for mycotoxins in food'):

- EN 17424:2020 'Foodstuffs - Determination of aflatoxins in spices other than paprika by IAC clean-up and HPLC-FLD with post-column derivatization';
- EN 17250:2020 'Foodstuffs - Determination of ochratoxin A in spices, liquorice, cocoa and cocoa products by IAC clean-up and HPLC-FLD';
- EN 17251:2020 'Foodstuffs - Determination of ochratoxin A in pork meat and derived products by IAC clean-up and HPLC-FLD';
- EN 17252:2020 'Foodstuffs - Determination of phomopsin A in lupin seeds and lupin derived products by HPLC-MS/MS'.

CEN/TC 327 'Animal feeding stuffs – Test methods' continued working on a range of test methods for animal feed, in response to the standardization requests M/522 and M/523 on animal nutrition, as well as M/382 on animal feeding stuffs. It published the following deliverables in 2020:

- EN 15741:2020 'Animal feeding stuffs: Methods of sampling and analysis - Determination of OCPs and PCBs by GC-MS';
- EN 15742:2020 'Animal feeding stuffs: Methods of sampling and analysis - Determination of OCPs by GC-ECD';
- EN 16215:2020 'Animal feeding stuffs: Methods of sampling and analysis - Determination of dioxins and dioxin-like PCBs and of indicator PCBs by GC/HRMS';
- EN 17374:2020 'Animal feeding stuffs: Methods of sampling and analysis - Determination of inorganic arsenic in animal feed by anion-exchange HPLC-ICP-MS';
- EN 17362:2020 'Animal feeding stuffs: Methods of sampling and analysis - Determination of pentachlorophenol (PCP) in feed materials and compound feed by LC-MS/MS".

These new standards enable regulatory authorities to determine if animal feeds on the market comply with the legal requirements laid down in Regulation (EC) 882/2004, relating to 'official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules'.

Another technical body, CEN/TC 338 'Cereal and cereal products' in 2020 published, amongst others, EN 15948:2020 'Cereals - Determination of moisture and protein - Method using Near-Infrared Spectroscopy in whole kernels'. This document defines a routine method for the determination of moisture and protein contents in whole kernels of wheat and barley using near infrared spectroscopy in the constituent ranges.

Finally, CEN/TC 463 'Microbiology of the food chain', in parallel with ISO/TC 34 'Food products', published three new standards:

- EN ISO 6887-5:2020 'Microbiology of the food chain - Preparation of test samples, initial suspension and decimal dilutions for microbiological examination - Part 5: Specific rules for the preparation of milk and milk products';
- EN ISO 16140-5:2020 'Microbiology of the food chain - Method validation - Part 5: Protocol for factorial interlaboratory validation for non-proprietary methods';
- EN ISO 16140-4:2020 'Microbiology of the food chain - Method validation - Part 4: Protocol for method validation in a single laboratory'.

BUSINESS SECTORS

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 as well as 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) coordinates and advises CEN and CENELEC on possible new standardization areas in the medical field. In 2020, the ABHS continued its focus on guiding relevant Technical Committees (TCs) in the transition to the new landscape under the Medical Devices Regulation (2017/745/EU) and the In Vitro Medical Devices Regulation (2017/746/EU).

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

The CEN Strategic Advisory Board for Occupational Health and Safety (SAB OH&S) coordinates European standardization activities related to various kinds of hazards in the workplace and health-related issues such as noise, vibration, ergonomics and exposure to hazardous substances. In 2020, SAB OH&S concentrated on better identifying the standardization projects that concern the prevention of occupational risks, health and safety protection, and the elimination of risk and accident factors by developing an early information system.

Many standards in this sector are produced 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.

HEALTH INFORMATICS

CEN/TC 251 'Health informatics' managed the International Patient Summary (IPS) project, funded by the European Commission. The project supports European players in their contribution to, and participation in, the creation of an International Patient Summary specification at a global level, thus turning this European knowledge into a European Standard.

Under the IPS project, CEN/TC 251 published in 2020 a European specification 'CEN/TS 17288:2020 Health informatics - The International Patient Summary - Guideline for European Implementation'. This Technical Specification (TS) provides implementation guidance for the use of the International Patient Summary dataset in a European context. This document takes into consideration European specific jurisdictional requirements, needs and contexts that Europe requires to be satisfied for effective implementation.

In order to respond to specific needs, CEN/TC 251 published a revision of EN 1064 'Health informatics - Standard communication protocol - Computer-assisted electrocardiography' and with its participation as partner in eHealth Action (eHDSI) activities.

HEALTH AND SOCIAL WORK SERVICES

CEN/TC 122 'Ergonomics' initiated a project on 'Ergonomics Personal Protective Equipment (PPE) ensembles'. The proposal for a European Standard within this project has been prepared to enable PPE ensembles (such as those worn by police, firefighters and other emergency services, as well as some industrial users) to be evaluated and objectively assessed for ergonomic performance as complete ensembles, rather than in their component parts. As such, it will provide a valuable tool to aid PPE manufacturers and purchasers to make informed objective decisions in designing and selecting PPE as ensembles and creating awareness on interaction issues between PPE items.

In addition, CEN/TC 122 expect that the revision of EN ISO 10075-2 'Ergonomic principles related to mental workload - Part 2: Design principles (ISO 10075-2:1996)' will start in 2021. The work is, however, carried out on ISO level (Vienna agreement with ISO lead). Additional work related to the EU Machinery Directive, such as the revision of EN 614 ' Safety of machinery - Ergonomic design principles' series', is also foreseen.

MEDICAL EQUIPMENT, PHARMACEUTICALS AND PERSONAL CARE PRODUCTS

Depending on the new Standardization Request for European Medical Devices, CEN-CENELEC/JTC3 'Quality management and corresponding general aspects for medical devices' will identify the activities where new revision needs to be initiated for current existing harmonised standards. In 2020, CEN-CENELEC/JTC3 published CEN-ISO/TR 20416 on 'Medical devices – Post-market surveillance for manufacturers' and will continue developing the rest of its work programme under the Vienna agreement with an ISO lead. The following activities were completed in 2020 in order to respond to specific market needs:

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

Standardization activities to come under the responsibility of CEN/TC 216 'Chemical disinfectants and antiseptics' include:

- The revision of EN 14885 'Chemical disinfectants and antiseptics - Application of European Standards for chemical disinfectants and antiseptics' (EN 14885 is mentioned in the draft standardization request for MDR 745/2017). More generally, having harmonised standards for testing efficacy of medical disinfectants is essential to ensure the safety of medical devices. CEN/TC 216 will have a key role to play in the coming years to produce such standards taking fully into account EU Medical Device Regulation 745/2017.
- Wipes/Mops standards: CEN/TC 216 has been working since several years to develop testing method standards to evaluate the biocidal efficacy of a biocidal product combine with a mechanical action. A new standard is also in preparation for applications in food, industrial, domestic and institutional areas.

CEN/TC 216 also finalised the first standard to address biocidal efficacy of product use for teat disinfection in the veterinary area prEN 17422 'Chemical disinfectants and antiseptics - Quantitative surface test for the evaluation of teat disinfectants used in the veterinary area - Test method and requirements (phase 2 step 2)'.

CEN/TC 392 'Cosmetics' published EN ISO 24444:2020 'Cosmetics - Sun protection test methods - In vivo determination of the sun protection factor (SPF)'. This standard was developed under M/389 'Sunscreen

products', a Standardization Request by the European Commission to CEN, concerning methods for testing efficacy of sunscreen products.

CLC/SR 29 'Electroacoustics' published two standards linked to the Medical Devices Directive (93/42/EEC (MDD_93)). Both standards have been offered for citation in the Official Journal of the EU (OJEU):

– EN IEC 60118-13:2020 'Electroacoustics - Hearing aids - Part 13: Requirements and methods of measurement for electromagnetic immunity to mobile digital wireless devices';
– EN IEC 60601-2-66:2020 'Medical electrical equipment - Part 2-66: Particular requirements for the basic safety and essential performance of hearing aids and hearing aid systems'.

OCCUPATIONAL CLOTHING, SPECIAL WORKWEAR AND ACCESSORIES

CEN/TC 231 'Mechanical vibration and shock' will continue developing European Standards in cooperation with its counterparts at the international level (ISO/TC 108 and, for the vibration emission of pneumatic tools and machines, ISO/TC 118/SC 3).

In 2020 the Committee published CEN/TR 15350:2020 'Mechanical vibration - Guideline for the assessment of exposure to hand-transmitted vibration using available information including that provided by manufacturers of machinery'. This Technical Report enables employers to use existing information provided by a tool manufacturer in a technical description for a risk analysis of the exposure of workers using this tool, without the need to carry out additional measurements.

CEN/TR 15350:2020 also provide employers with a tool facilitating risk assessment for working places with vibration exposure. The new document on databases for human vibration will help employers and persons in charge of buying new equipment to estimate the quality of tools, machines and vehicles with respect to vibration emission.

The committee also published CEN/TR 17506:2020 'Guidance on databases for human vibration' with the aim of providing a common structure and conditions for taking measurements and for the maintenance of this kind of databases. These deliverables aim to improve occupational safety and health. Employers and workers in industrial settings will take benefit from these activities.

CEN/TC 159 'Hearing protectors' anticipates further discussions on standardization activities to include new requirements for hearing protection products and possibly on hearing protection for children.

In addition, The Committee published in 2020 the EN 352 series 'Hearing protectors' and prEN 13819-1 'Hearing protector' which include respectively new requirements for hearing protection products and new test methods for hearing protection products.

Finally, CEN/TC 162 'Protective clothing including hand and arm protection and lifejackets' published CEN/TR 17512:2020 'Personal protective equipment - Smart garments - Terms and definitions'. This Technical Report lists terms and definitions related to core terms in the field of smart garments providing protection against heat and flame (i.e. advanced garments and ensembles of garments as mentioned in the Introduction). It is intended to facilitate communications, for example, between organisations and individuals in industry and those who interact with them.

GARMENTS FOR PROTECTION AGAINST HEATH AND FLAME

On 14th October 2019, the CEN-CENELEC Personal Protective Equipment (PPE) Sector forum organised a second workshop on smart garment in the framework of Standardization Request 'M/553'.

This Standardization Request relates to advanced garments and ensembles of garments that provide protection against heat and flame, with integrated smart textiles and non-textile elements for enhanced health, safety and survival capabilities, in support of Regulations (EU) No 1007/2011 and (EU) 2016/425 of the European Parliament and of the Council.

A first workshop was held 7th September 2017 with the aim to discuss the possibilities of cooperation between CEN and CENELEC technical bodies on the implementation of M/553 with the link with IEC/TC 124 'Wearable electronic devices and technologies' as well as to provide information on the way forward to CEN and CENELEC. Two years later, progress was made, which led to the second workshop on 14th October 2019.

Under this mandate, CEN and CENELEC are invited to develop three deliverables, on which work is being carried out through the collaboration between different technical bodies: CEN/TC 162 ‘Protective clothing including hand and arm protection and lifejackets’, CEN/TC 248 ‘Textiles and textile products’, CEN/TC 122 ‘Ergonomics’ and CLC/SR 124 ‘Wearable Electronic Devices and Technologies’. The aim of this collaboration is to ensure the development of a standard on declaration and measurement of properties and overall performance of such advanced garments. The deliverables will provide terms and definitions, guidance for selection, use, care and maintenance of protective clothing including smart garments against heat and flame and requirements, but also test methods for garments offering protection against heat and flame with integrated smart textiles and non-textile elements.

BUSINESS SECTORS

HOUSEHOLD APPLIANCES AND HVAC

Household appliances and HVAC are one of the most obvious areas where the application of standards is perceptible 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 develop European Standards ensuring a high level of performance and safety of these products, bearing in mind the diversity of the users' profile (professionals, youngsters, elderly people, disabled people, etc.).

HOUSEHOLD AND OTHER APPLIANCES

European standardization activities for the electrical safety of household and similar electrical appliances are developed by CLC/TC 61 'Safety of household and similar electrical appliances'. The industry actively supports the activities of CENELEC in this area through 'Home Appliance Europe' (APPLiA), active in CLC/TC 61 and its various Working Groups.

In the frame of the Frankfurt Agreement between IEC and CENELEC, CLC/TC 61 monitors the work of its international counterpart IEC/TC 61 in view of keeping as much as possible European Standards aligned to the international ones. The standards on the safety of household and similar electrical appliances (embodied by the EN 60335 multi-part series) are continuously adapted to the latest technological changes.

In 2020, CLC/TC 61 continued to adjust its standards to the requirements of the Low Voltage (2014/35/EU) and published 21 new references covering products like outdoor barbecues, clothes dryers, refrigerating appliances, ice cream appliances and ice-makers.

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

In 2020, CLC/TC 59X published 28 new references, most of them in support of Ecodesign and energy labelling regulations, covering product like refrigerating appliances or cooking fume extractors. Among others, under M/566 on Ecodesign and energy labelling requirements for household dishwashers, household washing machines and household washer-dryers, CLC/TC 59X published 5 documents based on the new regulatory requirements, which include, among others, new and simplified labelling system (A-G rating), and the introduction of a mandatory "eco 40-60" programme for washing machines and washer-dryers.

Still in 2020, CEN/TC 44 'Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption' published EN ISO 22043:2020 to define the classification for horizontal closed ice-cream freezers and to specify their requirements and test methods.

HEATING, COOLING AND VENTILATION EQUIPMENT (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 and revising harmonised 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 Ecodesign and Energy labelling Regulations adopted by the European Commission.

The work is being carried out by various CEN and CENELEC technical committees in the framework of different Standardization Requests relating to Ecodesign, notably M/534 (Water heaters), M/535 (Space heaters), M/551 (Solid fuel boilers) and M/560 (Air heating and cooling products).

Particularly in the framework of M/551 on Ecodesign and energy labelling of solid fuel boilers, CEN/TC 57 'Central heating boilers' completed in 2020 the work on the future EN 303-5 'Heating boilers - Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW - Terminology, requirements, testing and marking', to be published in 2021.

In 2020, CEN/TC 113 'Heat pumps and air conditioning units' continued their work on the revision of the EN 14511 series as regards air conditioners, liquid chilling packages and heat pumps for space heating and cooling and process chillers with electrically driven compressors.

Moreover, CEN/TC 107 ‘Prefabricated district heating and district cooling pipe system’ published last year the EN 17414 series 'District cooling pipes - Factory made flexible pipe systems'.

In 2020, CEN/TC 295 'Residential solid fuel burning appliances' worked on the revision of the EN 16510 series, covering appliances such as room heaters or cookers.

BUSINESS SECTORS

MECHANICAL AND MACHINERY

This sector brings together about 80 technical bodies from CEN and CENELEC dealing with different types of machinery and pressure equipment as well as with laboratory, optical and precision equipment. These standards are often identical to international standards, which is particularly important since the markets for these products tend to be wider than national or European markets. A considerable proportion of the deliverables are harmonised standards that give presumption of conformity to the safety requirements of the EU Directives: as such, they are widely used by the industry, market surveillance or conformity assessments bodies. The CEN-CENELEC-ETSI Coordination Group on Smart Manufacturing advises and coordinates the standardization activities relating to new technologies in the field of manufacturing.

SAFETY OF MACHINERY

CEN/TC 114 ‘Safety of machinery’ develops standards and other documents on general principles for the safety of machinery, including terminology and methodology. Its work is mostly carried on in parallel with ISO/TC 199 and in support the Machinery Directive (2006/42/EC).

A brand new CEN ISO/TR 22100-4:2020 'Safety of machinery - Relationship with ISO 12100 - Part 4: Guidance to machinery manufacturers for consideration of related IT-security (cyber security) aspects (ISO/TR 22100-4:2018)' will provide machine manufacturers with practical assistance regarding the impact of cybersecurity attacks on machine safety.

LABORATORY, OPTICAL AND PRECISION EQUIPMENT (EXCL. GLASSES)

In 2020, CEN/TC 123 ‘Lasers and photonics’ published EN ISO 11553-1 ‘Safety of machinery - Laser processing machines - Part 1: Laser safety requirements’ together with the European Amendment EN ISO 11553-1:2020/A11 in support of the Machinery Directive (2006/42/EC). The standard describes laser radiation hazards arising in laser processing machines.

AGRICULTURAL MACHINERY

CEN/TC 144 ‘Tractors and machinery for agriculture and forestry’ is responsible for tractors and machines used in agriculture and forestry as well as gardening, landscaping, irrigation and other related areas in which such equipment is used. 65% of the publications are developed in cooperation with the corresponding ISO/TC 23. Most of these standards are prepared in support of the Machinery Directive (2006/42/EC) and Pesticides Directive (2009/128/EC) and therefore are a good example of bringing together European requirements with an internationally accepted approach.

In 2020, the TC revised among others the following two important standards in support of the Machinery Directive (2006/42/EC) to improve the safety of an operator and prevent related accidents:

- EN 13525 'Forestry machinery - Wood chippers – Safety' which improves safety at the infeed chute level of these machines;
- EN ISO 4254-6 ‘Agricultural machinery - Safety - Part 6: Sprayers and liquid fertilizer distributors’ (ISO 4254-6:2020) which introduces new requirements addressing hazards in case of leakage and adds a means for separated storage of used and unused Personal Protection Equipment.

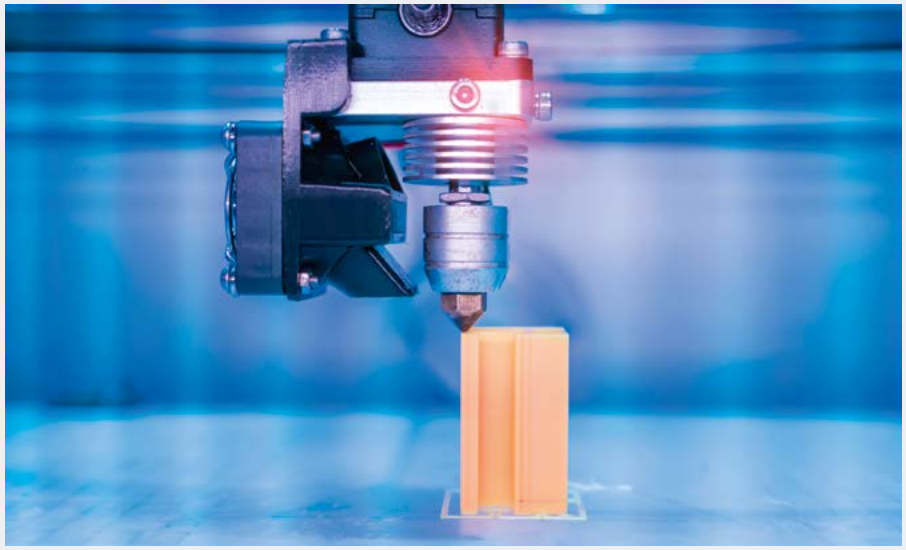
In addition, CEN/TC 144 developed a brand new EN 17344 'Agricultural machinery - Self-propelled agricultural and forestry vehicles - Requirements for braking' specifying performance requirements and the means for verification of braking systems on self-propelled agricultural machines on road, for speed not exceeding 60 km/h.

Moreover, CEN/TC 144 created a new WG 9 ‘Compact tool carriers for agriculture and forestry'.

The role of CLC/TC 116 ‘Safety and environmental aspects of motor-operated electric tools' is to adapt the standards of corresponding IEC/TC 116 to the requirements of the Machinery Directive (2006/42/EC). In 2020, the TC published four standards, among whom the most important are the following revisions in support of the Machinery Directive (2006/42/EC):

- EN 62841-4-1 'Electric Motor-Operated Hand-Held Tools, Transportable Tools and Lawn and Garden Machinery - Safety - Part 4-1: Particular requirements for chain saw' which brings several improvements and clarifications;
- EN 50636-2-107:2015/A2:2020 'Safety of household and similar appliances - Part 2-107: Particular requirements for robotic battery powered electrical lawnmowers' which added a foot probe test for a kneeling child, thus improving the safety of children having incidental contact with such mowers.

Furthermore, the new WG 6 was created on environmental aspects of motor-operated electric tools.



INDUSTRIAL MACHINERY EXCLUDING MACHINERY FOR THE PRODUCTION AND USE OF MECHANICAL POWER

In 2020, CEN/TC 10 'Lifts, escalators and moving walks' developed the following two important standards in support of the Lifts Directive (2014/33/EU):

- EN 81-72 'Safety rules for the construction and installation of lifts - Particular applications for passenger and goods passenger lifts - Part 72: Firefighters lifts' specifies requirements for lifts, which can be used for firefighting and evacuation purposes under firefighters control;
- EN 81-73 'Safety rules for the construction and installation of lifts - Particular applications for passenger and goods passenger lifts - Part 73: Behaviour of lifts in the event of fire' specifies the special provisions and safety rules describing the behaviour of lifts in the event of fire in a building.

Moreover, CEN/TC 10 revised one standard in support of the Machinery Directive (2006/42/EC):

- EN 81-40v 'Safety rules for the construction and installation of lifts - Special lifts for the transport of persons and goods - Part 40: Stairlifts and inclined lifting platforms intended for persons with impaired mobility' introduces new verification tests, building interface and lighting protection requirements.

CEN/TC 12 ‘Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries’ published in 2020 two standards to enhance the safety of hoisting equipment and with that prevent incidents that can also harm persons and the environment:

- EN 16808 ‘Petroleum, petrochemical and natural gas industries - Safety of machineries - Manual elevators’;

- EN ISO 20321 'Petroleum, petrochemical and natural gas industries - Safety of machineries - Powered elevators'.

CEN/TC 142 'Woodworking machines – Safety' published the following three standards in 2020 in support of the Machinery Directive (2006/42/EC):

- EN ISO 19085-9 'Woodworking machines - Safety - Part 9: Circular saw benches (with and without sliding table) (ISO 19085-9:2019)';
- EN ISO 19085-11 'Woodworking machines - Safety - Part 11: Combined machines (ISO 19085-11:2020)';
- EN ISO 19085-13 'Woodworking machines - Safety - Part 13: Multi-blade rip sawing machines with manual loading and/or unloading (ISO 19085-13:2020)'.

They are the first EN ISO standards on those products, which are among the most dangerous machines of the sector.

CEN/TC 145 'Plastics and rubber machines', together with ISO/TC 270, published EN ISO 20430 'Plastics and rubber machines - Injection moulding machines - Safety requirements (ISO 20430:2020)' which allows a unique and uniform evaluation of the risks and a sole training and informative activity of the injection moulding machines operators.

CEN/TC 150 'Industrial Trucks – Safety' published the following important two standards in support of the Machinery Directive (2006/42/EC):

- EN 1175 'Safety of industrial trucks. Electrical/electronic requirements' introduces requirements for battery electric trucks using lithium-ion technology, provides design specifications for safety-related parts and control systems and defines the required performance levels for safety functions of the control system;
- EN 1459-4 'Rough-terrain trucks. Safety requirements and verification. Additional requirements for variable-reach trucks handling freely suspended loads' specifies the safety requirements and means of verification to enable manufacturers to define safe operational limits and provide adequate information to users.

CEN/TC 150 also published two non-harmonised standards:

- EN ISO 3691-4 'Industrial trucks - Safety requirements and verification - Part 4: Driverless industrial trucks and their systems (ISO 3691-4:2020)', a new EN ISO standard covering driverless trucks, Automated Guided Vehicles and autonomous mobile robots;
- EN 17314 'Industrial trucks - Specifications and test methods - Operator restraint systems other than lap-type seat belts', providing a verification of restraint systems such as door bars, which can provide an alternative to seat belts as protection against lateral ejection of the operator from an industrial truck.

Furthermore, still in 2020, CEN/TC 153 'Machinery intended for use with foodstuffs and feed' carried out two thorough revisions:

- EN 1974 'Food processing machinery – Slicing machines – Safety and hygiene requirements' provides requirements in support of the Machinery Directive (2006/42/EC) for slicing machines which are frequently used in shops, restaurants, supermarkets and canteens to slice foodstuffs;
- EN 1672-2 'Food processing machinery – Basic concepts – Part 2: Hygiene and cleanability requirements' lays down the concepts to fulfil basic hygiene and cleanability requirements for food processing machinery and thus serves as a common source of knowledge for all types of food machinery standards.

CEN/TC 433 'Entertainment Technology - Machinery, equipment and installations' publishedbrand new EN 17206 'Entertainment technology - Machinery for stages and other production areas - Safety requirements and inspections', providing common safety requirements for the use of machinery within the entertainment industry.

CEN/TC 438 'Additive Manufacturing' together with ISO/TC 261 finalised the following standards providing requirements for operators using laser powder bed melting in the aerospace field:

- EN ISO/ASTM 52941 'Additive manufacturing - System performance and reliability - Acceptance tests for laser metal powder-bed fusion machines for metallic materials for aerospace application';
- EN ISO/ASTM 52942 'Additive manufacturing - Qualification principles - Qualifying machine operators of laser metal powder bed fusion machines and equipment used in aerospace applications'.

MACHINERY FOR MINING, QUARRYING, CONSTRUCTION EQUIPMENT

In 2020, CEN/TC 151 'Construction equipment and building material machines – Safety' finalised the following standards:

- EN ISO 7096:2020 'Earth-moving machinery - Laboratory evaluation of operator seat vibration (ISO 7096:2020)'
- EN 15571:2020 'Machines and plants for mining and tooling of natural stone - Safety - Requirements for surface-finishing machines'
- EN 16564:2020 'Machines and plants for mining and tooling of natural stone - Safety - Requirements for bridge type sawing/milling machines, included numerical control (NC/CNC) versions'
- EN ISO 19014-4:2020 'Earth-moving machinery - Functional safety - Part 4: Design and evaluation of software and data transmission for safety-related parts of the control system (ISO 19014-4:2020)'
- EN ISO 19432-1:2020 'Building construction machinery and equipment - Portable, hand-held, internal combustion engine-driven abrasive cutting machines - Part 1: Safety requirements for cut-off machines for centre-mounted rotating abrasive wheels (ISO 19432-1:2020)'.

CEN/TC 196 'Mining machinery and equipment – Safety' revised the EN 1804 series:

- EN 1804-1:2020 'Machines for underground mines - Safety requirements for hydraulic powered roof supports - Part 1: Support units and general requirements';
- EN 1804-2:2020 'Machines for underground mines - Safety requirements for hydraulic powered roof supports - Part 2: Power set legs and rams';
- EN 1804-3:2020 'Machines for underground mines - Safety requirements for hydraulic powered roof supports - Part 3: Hydraulic and electro hydraulic control systems'.

These standards ensure the increase of safety for coal mines supported by the vast experience and know-how of European mining industry and certification bodies.

TANKS, RESERVOIRS, CONTAINERS AND PRESSURE VESSELS

In 2020, standardization work in the Pressure Equipment sector was focused on the maintenance of the existing standards portfolio. This includes for instance the publication of:

- EN 12542:2020 and EN 13175:2020 on LPG equipment and accessories;
- The EN 14276 series 'Pressure equipment for refrigerating systems and heat pumps', drafting general requirement for Vessels (Part 1) and Piping (Part 2);
- EN 17127:2020 'Outdoor hydrogen refuelling points dispensing gaseous hydrogen and incorporating filling protocols'.

The year was also marked by two important developments. First of all, CEN, in cooperation with AFNOR, the French Standardization Organization, and UNM, the French Union for Mechanical Standardization, organised the 2020 European Workshop on Pressure Equipment Standardization in November. The event gathered close to 200 pressure equipment experts, manufacturers and other interested parties in order to learn, discuss and exchange on various pressure equipment standardization hot topics. Secondly, CEN finalised the upcoming EN 13445:2021 series, for which the formal dedicated BT approval is now ongoing. In this context, the different actors involved have also been working on a defining an improved methodology.

In November, the European Commission also informed CEN that new Standardization Requests in support of the Pressure Equipment Directive (PED) and the Simple Pressure Vessels Directive (SPVD) would be issued in 2021. All technical committees were therefore consulted in order for CEN to advise the European Commission on the deliverables to include in the draft Standardization Requests.

WELDING

Welding standards are handled by CEN/TC 121 'Welding and allied processes' though which various EN ISO were published in 2020. This includes the following subfields:

- Friction Stir Welding: EN ISO 25239 parts 1 to 5 'Friction stir aluminium';
- Health and Safety: EN ISO 21904 Parts 1, 2 & 4 'Health and safety in welding and allied processes - Equipment for capture and separation of welding fume'
- Welding Consumables:
  - EN ISO 15792:2020 part 1 & 2 ''Welding consumables - Test methods';
  - EN ISO 24034:2020, EN ISO 14341:2020, and EN ISO 2560:2020, which provide various classifications of different sets of consumables
- Flux:
  - EN ISO 9455:2020 parts 3, 5 & 9 'Soft soldering fluxes - Test methods';
  - EN ISO 9454-2:2020 'Soft soldering fluxes - Classification and requirements'.

An agreement with the European Commission was finalised on how to address incompatible requirements of the PED with the CEN neutrality principle (the PED states that, in regard to the qualification of welders, the examiner/examining bodies shall be a competent third-party organisation).

BUSINESS SECTORS

MINING AND METALS

CEN/TC 459 'ECISS - European Committee for Iron and Steel Standardization' is responsible for the standardization of definition, classification, testing, chemical analysis and technical delivery requirements for iron and steel products and it is organised in eleven specialised subcommittees (SCs). In 2020, CEN/TC 459 followed closely the developments of the discussion around CPR and has collected inputs for the draft Standardization Request 'Reinforcing and pre-stressing steel' (M/115 rev).

CEN/TC 459/SC 1 'Test methods for steel (other than chemical analysis)' published five documents under the Vienna Agreement:

- EN ISO 10113:2020 'Metallic materials - Sheet and strip - Determination of plastic strain ratio (ISO 10113:2020, Corrected version 2020-11)';
- EN ISO 7438:2020 'Metallic materials - Bend test (ISO 7438:2020)';
- EN ISO 643:2020 'Steels - Micrographic determination of the apparent grain size (ISO 643:2019, Corrected version 2020-03)';
- EN ISO 12004-1:2020 'Metallic materials - Determination of forming-limit curves for sheet and strip - Part 1: Measurement and application of forming-limit diagrams in the press shop (ISO 12004-1:2020)';
- EN ISO 10275:2020 'Metallic materials - Sheet and strip - Determination of tensile strain hardening exponent (ISO 10275:2020)'.

In 2020, CEN/TC 459/SC 1 started working on six EN ISO standards (two for steel and four for metallic materials).

CEN/TC 459/SC 2 'Methods of chemical analysis for iron and steel' published CEN/TR 10317:2020 'European certified reference materials (EURONORM-CRMs) for the determination of the chemical composition of iron and steel products' and EN ISO 4947:2020 'Steel and cast iron - Determination of vanadium content – Potentiometric titration method'.

CEN/TC 459/SC 6 'Wire rod and wires' published EN ISO 6931-1:2020 'Stainless steels for springs - Part 1: Wire (ISO 6931-1:2016)', which revises its precedent version from 2016.

CEN/TC 459/SC 9 'Coated and uncoated flat products to be used for cold forming' has published two standards:

- EN 10372:2020 'Quality tracking system for flat steel products using barcode - Printing, reading and information processing';
- EN 10139:2016+A1:2020 'Cold rolled uncoated low carbon steel narrow strip for cold forming - Technical delivery conditions'.

BUSINESS SECTORS

SERVICES

Services represent two thirds of the EU economy and are a vital sector for boosting the growth of European businesses. The market share and the employment generated by services is expected to continue increasing, as the emergence of the collaborative economy, digitisation and servitisation of the manufacturing industry provide further growth opportunities for EU service businesses.

Driven by evolving consumer needs and digitisation, the services-manufacturing interaction is growing across industries and more and more manufacturing businesses become service providers.

The Services Directive (2006/123/EU) sets out policy objectives to achieve the full potential of services markets in Europe, by removing technical and administrative barriers to the freedom of establishment. The Directive encourages the development of European standards to facilitate the cross-border provision of services and as a way to measure the quality of service providers in Europe.

Standards have indeed a role to play in the integration and performance of the Single Market for services. Businesses can use standards as a tool for measuring and improving the quality and performance of the services they are providing or purchasing. Standards are also a means of giving assurance to consumers, as they can help identify which suppliers are providing a high-quality service. This boosts consumer confidence and facilitates fair competition between service providers on the basis of quality as well as price.

ADMINISTRATION, COMMUNITY AND SOCIAL SECURITY SERVICES

CEN/TC 431 'Service Chain for Social Care Alarms' is responsible for standardization of the service chain processes for technology-enabled care. The focus is on users, to ensure them an improved level of quality of life by enabling them to stay longer in their own homes, remain independent and be able to participate actively in society. In 2020, CEN/TC 431 completed its work by publishing CEN/TS 17470:2020 'Service model for social care alarms'. The document provides a framework and recommendations for the roles and responsibilities of the different actors in the social care alarm service chain.

BUSINESS SERVICES: LAW, MARKETING, CONSULTING, RECRUITMENT, PRINTING

CEN/TC 348 'Facility management' is responsible for the preparation of European standards for Facility Management (FM) covering operational, tactical, and strategic levels to support primary processes.

In 2020, CEN/TC 348 published EN ISO 41014:2020 'Facility management - Development of facility management strategy'. This document gives guidelines for the development of a strategy for facility management (FM) when the FM organisation:

a) intends to ensure alignment between FM requirements and the objectives, needs and constraints of the demand organisation's core business;

b) wants to improve the usefulness and benefits provided by the facilities for the betterment of the demand organisation and its core business;

c) aims to meet the needs of stakeholders and applicable provisions consistently;

d) aims to be sustainable in a globally competitive environment.

CEN/TC 447 'Horizontal standards for the provision of services' published EN 17371-3:2020 'Provision of services - Part 3: Management of Performance Measurement - Guidance on the mechanism to measure performance as part of service contracts'. The document provides guidance on setting up the mechanism for Performance Measurement management as part of an entire service contract.

POST AND COURIER SERVICES

In 2020, CEN/TC 331 'Postal services' published, amongst others, the following standardization deliverables:

- EN 13850:2020 'Postal services - Quality of services - Measurement of the transit time of end-to-end services for single piece priority mail and first-class mail'. This document specifies methods for measuring the end-to-end transit time of domestic and cross-border Single Piece Priority Mail (SPPM), collected, processed and delivered by postal service operators.
- CEN/TS 17073:2020 'Postal services - Interfaces for cross border parcels'. This document specifies the interface between the e-merchant (any commercial customer sending parcels) and the first logistic operator, including both public and private carriers.

The two documents support Directive 97/67/EC (Postal) 'Common rules for the development of the internal market of Community postal services and the improvement of quality of service'.

- CEN/TS 17457:2020 'Postal services - Digital, optional online connected, opening and closing systems for parcel receptacles for home use with free access for the delivery and collection operators and consumers'. It defines the framework for secure, trustworthy and user-friendly opening systems for parcel boxes for home use. Particular attention is given to facilitating secure electronic authentication of the delivery operator.

This document exists under Standardization Request M/548 from the European Commission and it aims to solve the lack of operability between parcel box manufacturers and delivery operators.

OTHER COMMUNITY, SOCIAL AND PERSONAL SERVICES

In 2020, CEN/TC 435 'Tattooing services' completed their work with the publication of EN 17169:2020 'Tattooing - Safe and hygienic practice'. The document specifies hygiene requirements before and during tattooing and for aftercare. It gives guidelines for tattooists and their routine interactions with clients and public authorities. It also provides guidelines for the correct procedures to be used to ensure optimum protection of the client, the tattooist and others in the tattoo work area.

FINANCIAL AND INSURANCE SERVICES

In 2020, CEN/TC 445 'Digital Information Interchange in the Insurance Industry' published EN 17419-1:2020 'Digital Information Interchange in the Insurance Industry - Transfer of electronic documents - Part 1: Process and Data Model'. This document defines the process and the structure of the transfer of electronic documents and facilitates the transfer of electronic documents between stakeholders in the insurance industry.

BUSINESS SECTORS

TRANSPORT AND VEHICLES

The mobility sector represents a crucial part of the European economy, with many major European manufacturers of transport systems and vehicles being world leaders. In this scenario, CEN and CENELEC develop standards for a variety of sectors and activities, such as different transport modes - road, rail and maritime - and horizontal topics such as interoperability, intermodal transport, intelligent transport systems (ITS) and the transport of dangerous goods. Furthermore, in 2020 the sector witnessed the creation of a new Joint CEN-CENELEC TC on Hyperloop.

AIRCRAFT AND SPACECRAFT, AND RELATED EQUIPMENT

The CEN Associated Body ASD-STAN published over 40 standards in 2020. New activities in the field of Unmanned Aircraft Systems (UAS) were initiated which led to the submission of three draft standards to Enquiry in support of M/567. In addition to components and systems standards for the aeronautic industry, work is also carried out to support the space industry (CEN/CENELEC/JTC 5), and in particular the applications for the deployment of Global Navigation Satellite Systems (GNSS).

SUPPORTING AND AUXILIARY TRANSPORT SERVICES (EXCLUDING TRAVEL AGENCIES SERVICES)

Intelligent Transport Systems: Intelligent Transport Systems (ITS) can significantly contribute to a cleaner, safer and more efficient transport system. This can, for instance, be done by collecting, storing and providing real-time traffic information or by applying advanced electronics, information and telecommunication technologies into roads, automobiles and goods.

2020 was yet again a very productive year for the Technical Body responsible for standardization in the field, CEN/TC278 'Intelligent Transport System'. Highlights includes:

Public Transport:

- The CEN/TS 16614 series 'Network and Timetable Exchange (NeTEx)' has been revised and extended through Part 4: 'Passenger Information European Profile'. Among others, NeTEX supports the exchange of relevant information for passengers about public transport services including train, bus, coach, metro, tramway, ferry, and their sub-modes;
- CEN/TS 13149 'Road vehicle scheduling and control systems' has been extended through the publication of parts 7, 9, 10, 11. This series of products concerns on-board data communication systems on public transport vehicles. This series provides guidance for data services that allow for open and managed sharing of relevant information.

Urban ITS: through the European Commission's Standardization Request M/546, TC278/WG17 addresses standardization needs in support of the deployment of Intelligent Transport Systems in urban areas. In 2020, the remaining seven deliverables were published. Among others, these documents address issues like vendor lock-in (CEN/TS 17400:2020) or the integration of new modes of transport into urban multimodal travel services (CEN/TS 17413:2020)

In both these fields, 2020 also saw the kick-off of two projects funded by the European Commission, 'European ITS communications and information protocols' (SA 2019-03) and 'ITS Public Transport Alternative modes of Transport' (SA 2019-06).

The progress of TC278 in 2020 is far from limited to the above. Another example is the various standards supporting the EU regulations on Electronic Fee Collection revised by WG1. Additionally, the evaluation of the draft standardization request 'Automatic Number Plate Recognition' was conducted and the related feedback provided to Commission in December 2020.

SHIPS , BOATS AND RELATED EQUIPMENT

The Technical Committee CEN/TC464 'Small Craft' was created in January 2020 in order to replace BT/WG69 (CEN/SS T01). The existing related work programme in support of M/542 was transferred to CEN/TC464. Multiples standards were finalised or published this year, including:

- EN ISO 16147:2021 ‘Small craft - Inboard diesel engines - Engine-mounted fuel, oil and electrical components’;
- EN ISO 9093:2021 ’Small craft - Seacocks and through-hull fittings’;
- EN ISO 8666:2020 ‘Small craft - Principal data’.

In Inland Navigation, CEN/TC15 published two new standards:

- EN 17360:2020 ‘Inland navigation vessels - Stanchions and holders for tiltable and detachable railings’;
- EN 17361:2020 ‘Inland navigation vessels - Outboard ladders’;

and one standard was revised:

- EN 1502:2020 ‘Inland navigation vessels - Boarding stairs’.

Finally, the existing SRAHG ‘Marine Equipment’ was re-constituted in order to address a draft amendment to M/557 (in support of Directive 2014/90/EU on marine equipment) sent by the European Commission. The highlight of the proposed amendment is the inclusion of ‘European standards on jet fire and pool fire tests for dry chemical powder used in fixed fire-extinguishing systems for ships carrying liquefied gases in bulk and ships using gas as fuel’.

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

CEN/TC 301 ‘Road vehicles’ developed standards in response to various Standardization Requests from the European Commission, including M/421 and M/533.

In relation to alternative fuels vehicles, CENELEC approved EN 50696, developed by CLC/TC 23H, on ‘Contact Interface for Automated Connection Device’, one of the key standards needed for the deployment of electric buses.

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

CABLE-SUPPORTED TRANSPORT SYSTEMS WITH CABINS

CEN/TC 242 ‘Safety requirements for passenger transportation by rope’ developed standards intended to support the implementation of the European Regulation on Cableway installations (2016/424/EU). Two Amendments aiming to harmonise two parts of the EN 13796 series on ‘Safety requirements for cableway installations designed to carry persons – Carriers’ were finalised.

MOTORCYCLES, BICYCLES AND SIDECARS AND RELATED EQUIPMENT

CEN/TC 354 'Light motorised vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use' finalised two important standards:

- EN 16990:2020 'Light motorised vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use - Side by Side Vehicles - Safety requirements and test methods’;
- EN 17128:2020 'Light motorised vehicles for the transportation of persons and goods and related facilities and not subject to type-approval for on-road use - Personal light electric vehicles (PLEV) - Requirements and test methods'.

RAILWAY AND TRAMWAY LOCOMOTIVES AND ROLLING STOCK AND ASSOCIATED PARTS

In the railways sector, CEN/TC 256 ‘Railway applications’ and in CLC/SC 9X ‘Electrical and electronic applications for railways’ intensively collaborated throughout 2020 with the European Railway Agency (ERA) with the aim to ensure that standards developed were compatible with the latest Technical Specifications for Interoperability (TSI). The main task accomplished in 2020 was the update of numerous existing standards to take into account the needs of the industry or changes in the TSIs. Nevertheless, the two technical bodies also finalised or published some brand-new standards such as:

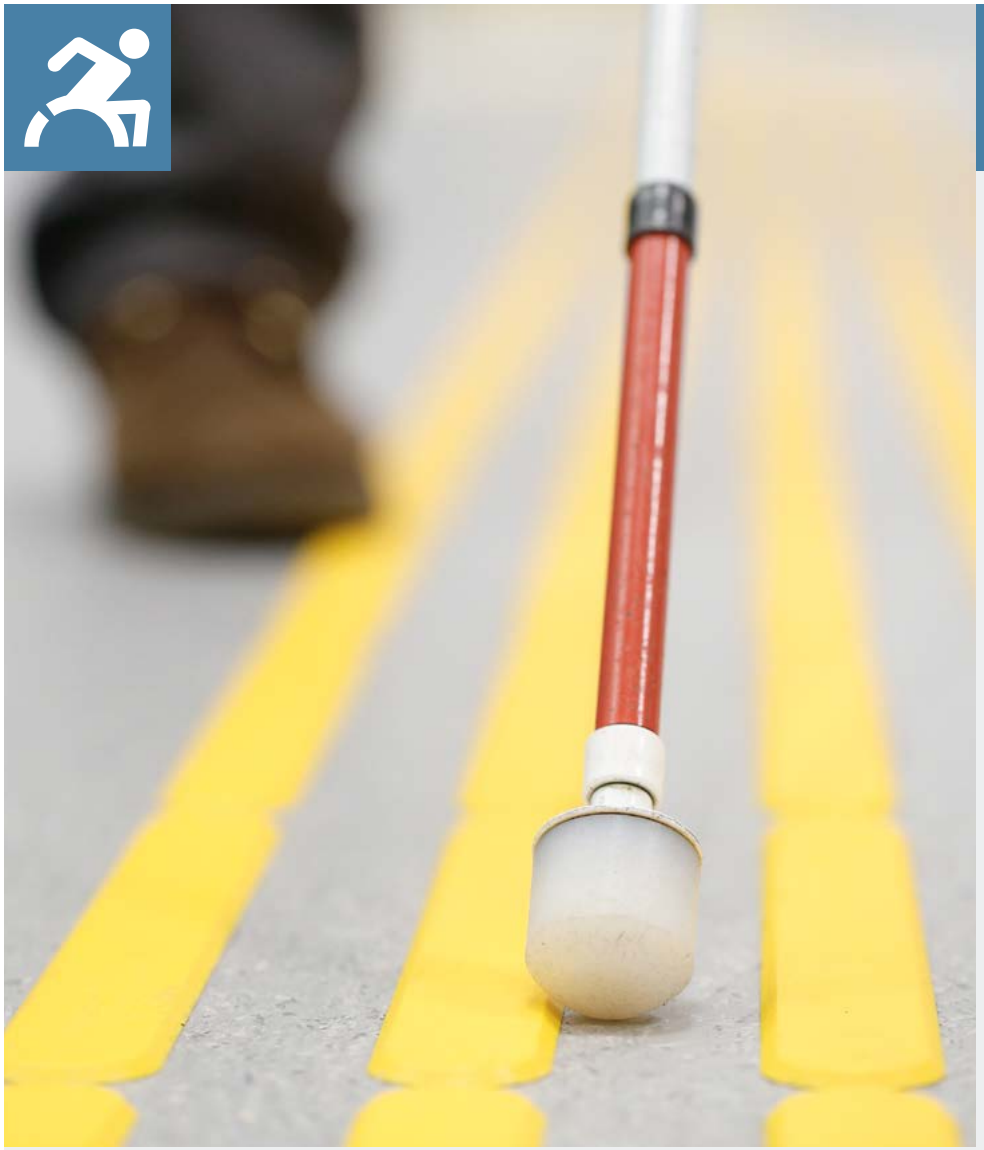
- EN 50641:2020 ‘Railway applications - Fixed installations - Requirements for the validation of simulation tools used for the design of traction power supply systems’;
- EN 50546:2020 ‘Railway applications - Rolling Stock - Three phase shore (external) supply system for rail vehicles and its connectors’;
- CEN/TR 17469:2020 ‘Railway applications - Axle design method’;
- EN 17285 ‘Railway applications - Acoustics - Measuring of door audible warnings’.

ROAD EQUIPMENT AND MISCELLANEOUS TRANSPORT EQUIPMENT

CEN/TC 226 'Road equipment' published a couple of revisions of existing standards:

- EN 1824:2020 'Road marking materials - Road trials';
- EN 1871:2020 'Road marking materials - Paint, thermoplastic and cold plastic materials - Physical properties'.

BUSINESS TOPICS



ACCESSIBILITY

The adoption of the 'European Accessibility Act' (Directive EU 2019/882) in 2019 was 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.

STRATEGIC ADVISORY GROUP ON ACCESSIBILITY

The CEN/BT/WG 213 Strategic Advisory Group on Accessibility (SAGA) continued acting as the key coordinating group for CEN and CENELEC related to accessibility and Design For All. SAGA namely keeps supporting the work of the CEN and CENELEC technical bodies by providing recommendations on how to approach the deliverables in relation to Accessibility, and by encouraging training and education.

eACCESSIBILITY

CEN-CLC-ETSI JWG 'eAccessibility' continued the revision of EN 301549:2019 'Accessibility requirements for ICT products and services'. The new standard is a revision of a previous version, published in 2018, and will be offered for citation in the OJEU under Directive (EU) 2016/2102. Once the standard is cited in the OJEU, compliance with the normative clauses confers a presumption of conformity with the corresponding essential requirements of the Directive. EN 301549:2019 provides further alignment with related standardization developments, notably in W3C, with references to the new Web Content Accessibility Guidelines (WCAG).

ACCESSIBILITY IN THE BUILT ENVIRONMENT

In 2020, CEN/CLC/JTC 11 'Accessibility in the built environment' prepared the final draft of FprEN 17210 'Accessibility and usability of the built environment - Functional requirements' in response to mandate M/420 of the European Commission.

The standard is intended to describe basic, common minimum functional requirements and recommendations, applicable across the full spectrum of the built environment, for an accessible and usable built environment, following the Design for All/Universal Design principles which will facilitate equitable and safe use for a wide range of users, including persons with disabilities. The functional accessibility and usability requirements and recommendations described in this standard are relevant to the design, construction, refurbishment or adaptation, and maintenance of built environments, including outdoor pedestrian and urban areas.

Additionally, JTC 11 worked on prCEN/TR 17621 covering technical performance criteria and specifications and prCEN/TR 17622 on conformity assessment related to the accessibility and usability of the built environment. Those deliverables will complement EN 17210 and are expected to be published in 2021.

BUSINESS TOPICS

ENVIRONMENT

By using European Standards, businesses contribute to the transition towards a modern circular, resource-efficient and climate resilient economy and as such to sustainable growth in Europe. Standards help tackle climate change, ensure the conservation of our natural environment, and implement the sustainable use of resources and energy. They are key tools that complement national and European (environmental) policies.

Standard writers are provided with the necessary tools and services to support the work of addressing the environmental protection and climate change-related aspects in standards. The revision of these tools and services started in 2020 in order to align them with the latest strategic priorities of CEN and CENELEC.

In 2020, the CEN and CENELEC Technical Boards (BT) decided to convert the CEN Advisory Body on the Environment (SABE) into a joint body, CEN-CENELEC SABE. The creation of this joint body was the response to the latest challenges of the environmental policies, business, and societal needs.

The new environmental advisory body is in charge of ensuring that a more coherent cross-sectorial approach will be applied for all environmental and climate-related activities.

The structure of the group already took into consideration the main objectives formulated by the European Green Deal initiative. The new SABE Topic Group 'Circular Economy', in charge of coordinating the circular economy-related initiatives, started its activities with a membership exceeding one hundred already in 2020.

The ongoing project of SABE (ENgage), aiming to help the newer CEN members and the related national environmental organisations in engaging in the CEN strategic activities to make standards better for the environment, continued with online meetings. An extension of the project was granted in 2020 as the project partners considered that the national stakeholder engagement workshops would not have been sufficiently effective if held online.

COMMUNICATION ACTIVITIES

To reach out and better inform the standardization community on the main activities carried out, CEN-CENELEC SABE decided to issue a newsletter. The first newsletter was drafted in 2020 and circulated in early 2021.

SABE also published a new environmental brochure 'Standards for the Environment' for the public sector and policy makers. The brochure aims at providing an overview of how standards can support the implementation of policies and consequently the reduction of the environmental impact.

SABE supported the elaboration of the CEN and CENELEC position paper on how standards support the European Green Deal.

SUSTAINABILITY

CEN and CENELEC are already developing European Standards in support of the UN Sustainable Development Goals (SDGs) 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 and to develop and apply an approach that enables the standardization community to demonstrate whether a specific European standard is supporting one or several SDGs. The related project was elaborated in 2020 and will be kicked-off in 2021.

ADAPTATION TO CLIMATE CHANGE

The importance of tackling climate change is becoming more and more acknowledged as society faces the adverse impacts of climate change, such as heat waves, droughts, and extreme rainfall.

In 2020, CEN and CENELEC continued the revision and development of standards in the three priority sectors - transport, energy and construction - with a view to enhance the resilience of European infrastructure to climate change and extreme weather events. The work was coordinated by the CEN-CENELEC Adaptation to Climate Change Co-ordination Group (ACC-CG). The ACC-CG provides a good platform of exchange for the technical committees concerned and is involved in the delivery of the tools needed by the TCs.

At the end of 2020, ACC-CG organised an online workshop bringing together stakeholders involved in standards for the infrastructure sectors with experts on climate adaptation, climate change scientists and experts on the management of climate risks. The outcome of the workshop has been fed into the ongoing standardization work.

Activities related to linking standards for infrastructures to future climatic conditions, the drafting of a Technical Report providing guidance for the systematic use of climate-related information and the activity related to identifying where European standards can help the market uptake of the

adaptation measures also started in 2020.

In 2020 a new TC, CEN/TC 467 'Climate change' was set up with the objective to better support the European and international climate objectives by the development and adoption of standards both for climate mitigation and adaptation.

CEN and CENELEC work closely with ISO in this field, particularly with the new ISO/TMBG Climate Change Coordination Committee (CCCC) with the aim to avoid overlaps and to build on the experience gained at international level.

AIR QUALITY

Many standards in the field of air quality are developed in support of the European legislation and in close cooperation with the European Commission.

The discussions on the content of new standardization needs supporting the Directive 2010/75/EC on industrial emissions (IED) and Directive 2008/50/EC on ambient air continued but have not been concluded.

The standard EN 16429 for automated Hydrogen Chloride (HCl) emission developed under Mandate M/513 was finalised by CEN/TC 264 'Air quality' in 2020.

There is growing awareness of the significance of aerosol particles (< 1 µm) for human health as well as for their climatic impact. CEN/TS 17434 published in 2020 deals with the determination of number concentrations within a limited number of size ranges.

WATER QUALITY AND DRINKING WATER

CEN/TC 230 'Water analysis' initiated a new work on the determination of the perfluorinated substances (PFAS) in drinking water. The work was initiated because of a formal request from the European Commission. The standard will support the new Chemicals Strategy for Sustainability and its PFAS Action Plan, as well as the new European Drinking Water Directive.

CEN/TC 164 'Water supply' concluded the revision of two interlinked standards concerning devices to prevent pollution by backflow of potable water: EN 15096 on Hose Union anti-vacuum valves and EN 14451 on In-line anti-vacuum valves.

An amendment for EN 12897 was issued in 2020 which affects only its Annexes ZA and ZB.

A new WG (WG 16) 'In-situ generating and dosing of biocides for water treatment' of the TC started its activities in 2020.

SOIL, SLUDGE AND WASTE (INCLUDING ELECTRONIC WASTE)

In 2020 three CEN/TCs working in the field of soil, sludge and waste have been merged (former CEN/TC 292 'Characterisation of waste', CEN/TC 345 'Characterisation of soils' and CEN/TC 444 'Test methods for environmental characterisation of solid matrices') as their work programmes were closely linked. Following the disbandment of CEN/TC 292 and CEN/TC 345, CEN/TC 444 changed its title and scope to take over the work programme and remaining work items from the two disbanded TCs. CEN/TC 444 'Environmental characterisation of solid matrices' initiated the establishment of two new working groups WG 7 'Sampling' and WG 8 'Assessment'.

CEN/TC 444 started to merge existing standards with the same scope, which were previously developed at matrix level, and to extend the scope of standards to be applicable for a much wider range of matrices. In 2020 the following multi-matrix standards were published:

- EN 17322 'Environmental Solid Matrices – Determination of polychlorinated biphenyls (PCB) by gas chromatography – mass selective detection (GC-MS) or electron-capture detection (GC-ECD)' (merged EN 16167:2018 and EN 15308:2016);
- CEN/TS 16800 'Guideline for the validation of physico-chemical analytical methods' (existing water standard made applicable for more matrices).

CEN/TC 366, which deals with materials obtained from End-of-Life Tyres, published two TSs and two TRs in 2020. The CEN/TS 17510 is on the determination of the specific surface area of powders and CEN/TS 17045 on quality criteria for the selection of whole tyres, for recovery and recycling processes. CEN/TR 17511 deals with the odour of ELT granulates and CEN/TR 17509 on 'Determination of textile fiber content of the granulated rubber'.

In 2020, CEN/TC 183 'Waste management' published the revised versions of one of their key standard series: EN 840-1 to -6 on 'Mobile waste and recycling containers'. This standard series not only specifies dimensions and design of containers, but also includes test methods and health requirements for the safe handling and use of such containers by operators.

CLC/TC 111X 'Environment' published EN 50614 'Requirements for the preparing for re-use of waste electrical and electronic equipment', which is part of the WEEE standard series developed in support of the

Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). The TC also started the coordination of the delivery of the European Commission's Ancillary Action on 'Material efficient recycling and preparation for re-use of CRMs'.

BUSINESS TOPICS

SMART TECHNOLOGIES

In the Industry 4.0 context, technologies are becoming smarter every day and capable of adopting and modifying their behaviour to fit the environment through wireless access, database and sensors. Fostering automation and data exchange in manufacturing technologies is one the key priorities of CEN and CENELEC: for this reason, they are engaged in multiple technical sectors such as Smart Grids, Cybersecurity, Advanced Manufacturing and Distributed Ledger Technologies (DLT). In their activities, CEN and CENELEC cooperate extensively with ISO and IEC to develop standards that can be applied worldwide.

SMART GRIDS, SMART METERS AND ONTOLOGIES

The CEN-CENELEC-ETSI Coordination Groups on Smart Energy Grids and Smart Meters continued advising on European requirements relating to smart energy standardization, identifying and prioritising gaps that could prevent the deployment of smart grids and smart meters in Europe, addressing cybersecurity, data protection and privacy aspects and ensuring interoperability within smart metering and smart grids systems.

The CEN-CENELEC-ETSI Coordination Group on Smart Energy Grids (CG-SEG) continued advising on European requirements relating to Smart Energy Grids standardization, especially in respect to the set of requirements resulting from the European Commission's proposal for new rules for consumer-centred clean energy transition, known as the Clean Energy Package. In this context, in 2020, the Working Group 'Clean Energy Package' (CEP) published a report that intends to address both the key legal propositions of the CEP which are considered as most relevant for standardization as well as an initial assessment of priority topics with possible implications on CG-SEG deliverables and work programme.

In the field of smart meters, the CEN-CENELEC-ETSI Coordination Group on Smart Meters (CG-SM) continued advising on European requirements relating to smart metering standardization. It also continued to monitor, coordinate, and provide input to the development of new standards, and the maintenance of existing ones, for advanced metering infrastructures and promote further identification of standards supporting the roll-out of smart meters in Europe.

In 2020, the CG-SM decided to transfer the report 'Protection Profile for Smart Meter Minimum Security requirements' to CEN-CLC/JTC 13 'Cybersecurity and Data Protection' to potentially upgrade it into a Technical Specification or a Technical Report.

Moreover, both Coordination Groups continued working to ensure interoperability within smart metering and smart grids systems (as well as smart appliances, smart home systems, buildings, etc.). Considering 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, wto reach interoperability. In this context, and as a follow-up from the CEN-CENELEC Mapping Ontologies Workshop held in November 2018, CEN and CENELEC's work on ontologies is being developed in the Ad-Hoc Group 'Energy management ontology', which was created under the umbrella of CLC/TC 205 'Home and Building Electronic Systems (HBES)'. In 2020, this ad-hoc group continued its work with the aim of developing a common standard ontology starting from existing data models available (CEN, CENELEC, ISO and IEC).

THE CEN-CENELEC PRESIDENTIAL COMMITTEE (PC)

The CEN-CENELEC Presidential Committee (PC) is composed of the Presidents and Vice-Presidents of CEN and CENELEC (and, when applicable, their Presidents-Elect) as well as the Director General of CEN and CENELEC.

The PC is mandated by the Administrative Boards (CAs) of both organisations to address policy and strategic issues of common concern to CEN and CENELEC (not including sector-specific issues).

The PC deals with a wide range of issues: membership (applications from potential new members, affiliates), relations with the European institutions, relations with societal stakeholder organisations, international cooperation activities, common communication and visibility activities, linking standardization with research and innovation and the optimization of resources.

In those areas where CEN and CENELEC have decided to develop joint activities, the PC may set up joint advisory bodies or working groups. These include the CEN-CENELEC Small and Medium-sized Enterprises Working Group (SME WG) and the CEN-CENELEC Societal Stakeholders Group (SSG).

More information about the roles and responsibilities of the PC.

THE PRESIDENTS

Mr Vincent Laflèche
CEN

Dany Sturtewagen
CENELEC

THE PRESIDENTS-ELECT

Mr Stefano Calzolari
CEN

Wolfgang Niedziella
CENELEC

SECRETARY

Elena Santiago Cid
CEN and CENELEC Director General

THE VICE-PRESIDENTS

Mr Jacob Mehus
Finance CEN

Mr Ivano Visintainer
Finance CENELEC

Mr Christoph Winterhalter
Policy CEN

Mrs Geraldine Larkin
Policy CENELEC

Mr Ruggero Lensi
Technical CEN

Mr Frederic Vaillant
Technical CENELEC

STRATEGY 2030

As the previous strategic framework 'Ambitions 2020' came to a close at the end of 2020, CEN and CENELEC adopted their new Strategy 2030 during the General Assemblies of November 2020. The adoption of the Strategy 2030 concluded a process that started with a high-level two-day CA workshop in July 2019 and involved multiple, extensive stakeholder and Member consultations from December 2019 to October 2020.

Finally, two workshops – one with all CEN and CENELEC Members and one with our key stakeholders, including the European Commission - helped fine-tune our vision for the decade to come. Rooted in a comprehensive understanding of a strategic context defined by the Twin Green and Digital Transition, the CEN and CENELEC Strategy 2030 identifies **five strategic goals** to work towards throughout the decade to come:

1. EU and EFTA recognise 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

In order to deliver upon these strategic goals, an **Implementation Plan** is currently being developed for adoption by the CEN/CA and CENELEC/CA in June 2021. To safeguard the agility of the CEN and CENELEC system, and allowing us to adapt to rapidly changing market needs and an at times volatile socio-economic and political environment, an incremental, project-based approach is taken towards achieving the goals and priorities defined in the Strategy 2030. Moreover, as a framework of reference for the CEN and CENELEC community, the Strategy 2030's Implementation Plan will be sequenced and aligned with similar strategic exercises at both the national and international level, notably within ISO and IEC. It will also ensure close alignment and complementarity with relevant long-term EU policy initiatives such as the Green Deal, the EU Industrial Strategy update and the EU Standardization Strategy.

IMPROVING SUPPORT TO THE TECHNICAL WORK

In April 2020, the new standards development process, the so-called 'Flexible process', was launched launched to increase flexibility for TCs and optimise the development time of standards.

The Flexible process applies to:

- any homegrown CEN and CENELEC work, including CEN-CLC/JTCs;
- CEN work items under the Vienna Agreement with CEN lead.

With this new process, the Technical Committees are made fully responsible for the timely and effective delivery of standards by being enabled to autonomously plan and organise their work – per each work item - within a specified maximum timeframe. It implies in return a full commitment by each TC to its actual timely implementation.

The planning by TCs is *de facto* made by allocating the necessary amount of time to the two process stages that are devoted to TC work:

1. Drafting of prEN - from the NWI approval to the submission to enquiry;
2. Handling of comments after enquiry and for the drafting of FprEN (if any) - from the end of the enquiry to either the dispatch of FprEN or the delivery to editing, if the FV is skipped.

At the moment of closing this report, more than 400 WIs had been launched under this new process, the effects of which will be monitored in the coming months.

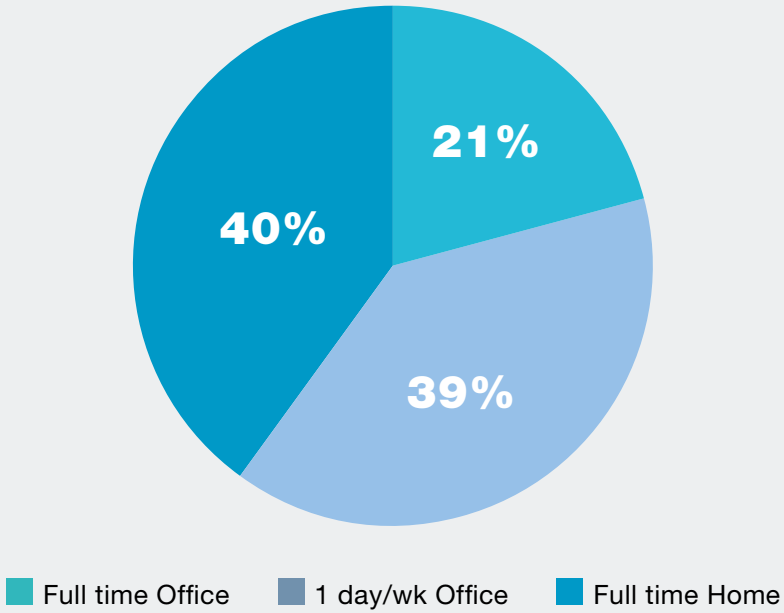
A RESILIENT CEN-CENELEC MANAGEMENT CENTRE

In January 2021, 87 people were working at the CEN-CENELEC Management Centre (CCMC), which represents a 16% increase compared to January 2020.

Unprecedented circumstances linked to the sanitary crisis have put our resilience capacity to the test: the workplace has shifted, human interactions have adapted, relevant technology has made it all possible and leadership has guided the way forward.

For almost 80% of the time in 2020, the staff worked principally from home (see graph below):

The Working Place in 2020

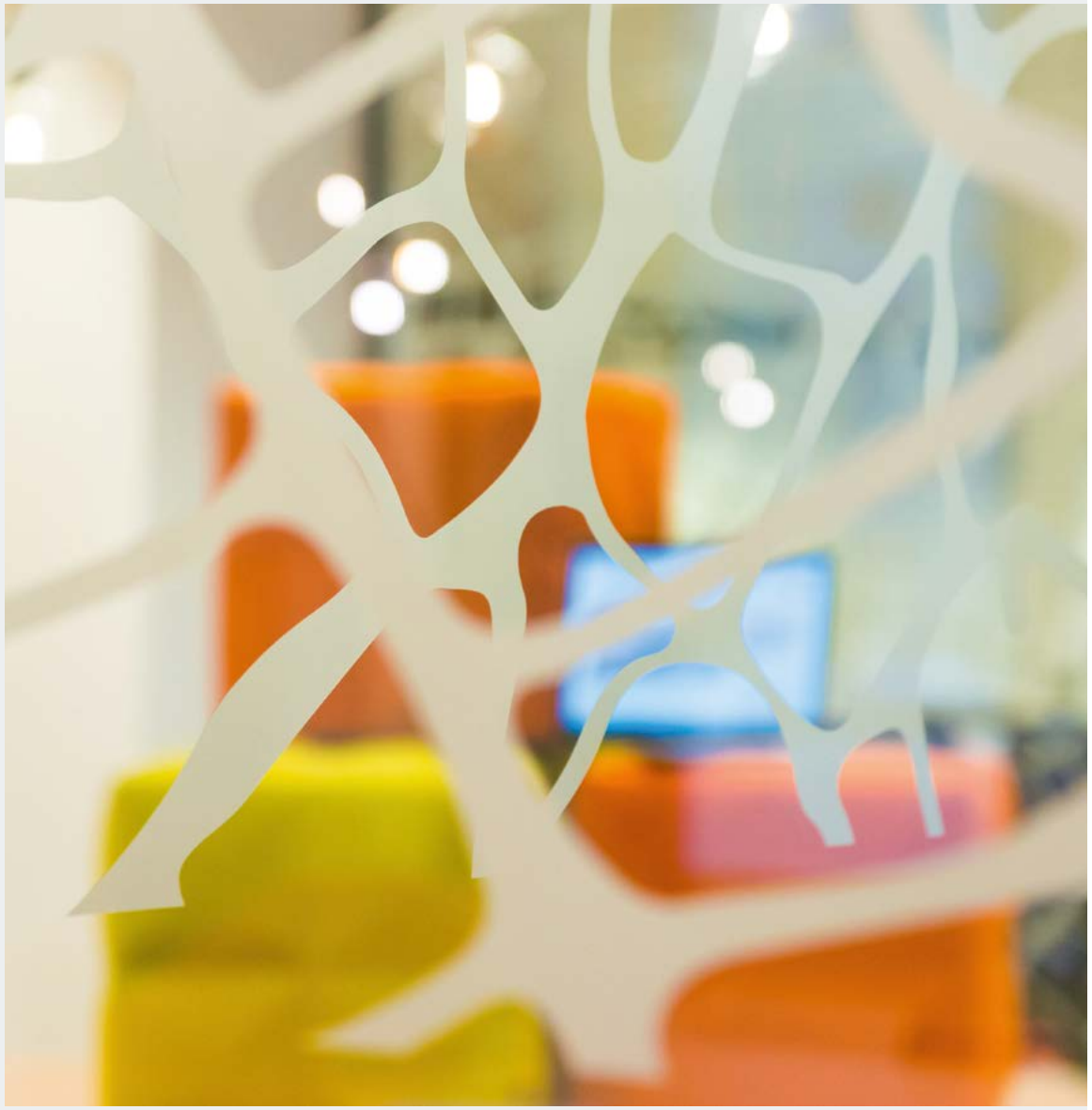


- producing one of the highest achievement rates since 2015, as targeted in the CCMC Business Plan, with a 76,32% completion;
- onboarding 16 newcomers with adapted and dynamic recruitment and induction programmes;
- Support to remote working with the accelerated deployment of TEAMS as main communication (telephony and web-conferencing) and collaboration tool (for internal projects/activities), as well as ZOOM for external web-conferencing, and use of YAMMER to keep staff connected through the exchange of informal news and experiences (e.g. music challenges, photo challenges) ;
- with employees' safety and wellbeing remaining a top priority, office layout has been adapted for reduced occupancy and implementation of all relevant sanitary measures. Furthermore, ergonomic materials (computer monitors and chairs) have been provided to 70% of employees at home (upon request);
- maintaining the certification against EN ISO 9001:2015, with the commitment to strengthen a consistent and proactive approach towards efficient and effective communication, especially in the frame of the New Way of Working.

A pulse survey conducted amongst employees in the summer, with a 94% participation rate, highlighted that:

- it took a fortnight to adapt to working remotely;
- productivity is perceived as at least identical and, in some cases, higher than when working full-time at the office;
- the quality of informal and personal interactions is perceived as at least identical or lower than when meeting at the office;
- the organisation is expected to address the implications of this way of working remotely when assessing individual and team performance;
- effective sharing of ideas and resources across the organisation represents a challenge.

Lessons are to be learned from the past months and built upon to design the outlook of a future-proof organisation. Different ways of working will need to fit together in a coherent and sustainable approach, whilst meeting employees' expectations.



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2020 ANNUAL REPORT

European Committee for Standardization

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CEN ADMINISTRATIVE BOARD

The CEN Administrative Board (CEN/CA) manages and administers CEN's business, directing the work and coordinating the actions of all CEN bodies with the aim of executing the decisions taken by the General Assembly (AG). The CEN/CA also takes all steps that it considers necessary to achieve CEN's corporate goals in its dealings with various partners and interlocutors, including national, European or international authorities and other organizations.

The CEN/CA, which normally meets three times per year, comprises the CEN President, the CEN President-Elect, three Vice-Presidents (Finance, Policy and Technical) and up to nine ordinary Board Members, all of whom are appointed by the whole CEN membership. The Director General of CEN and CENELEC also participates in CEN/CA meetings and acts as Secretary.

THE PRESIDENT

Mr Vincent Laflèche
CEN President

THE PRESIDENT-ELECT

Mr Stefano Calzolari
CEN President-Elect

THE VICE-PRESIDENTS

Mr Ruggero Lensi
Technical

Mr Christoph Winterhalter
Policy

Mr Jacob Mehus
Finance

BOARD MEMBERS

Mrs Annika Andreasen
SIS, Sweden

Mrs Tatjana Bojanic
ISS, Serbia

Mr Olivier Peyrat
AFNOR, France

Mr Enda McDonnell
NSAI, Ireland

Dr Elisabeth Stampfl-Blaha
ASI, Austria

Dr Scott Steedman
BSI, UK

Dr Bogdan Topič
SIST, Slovenia

Mr Gheorghe Tucu
ASRO, Romania

Mr Rik van Terwisga
NEN, the Netherlands

PRESIDENT AND VICE-PRESIDENTS 2021

President: Mr Vincent Laflèche

Mr Vincent Laflèche is Director of the 'École des Mines' in Paris. From 2013 to 2016, he acted as chairman and CEO of the French Geological Survey (BRGM). In 2003, he became the Assistant General Manager of INERIS, the French public research institute on environment and industrial risk prevention, subsequently acting as CEO from 2007 to 2013. Previously, he held a variety of positions in insurance and engineering companies. He also had a number of commitments within the French Standardization Organization (AFNOR), including Chairmanship of the Strategic Committee 'Environment and Societal Responsibility'. Mr Laflèche studied at the École Polytechnique and began his career at the French Ministry of Environment. He was named as CEN President Elect in June 2015 and has held the role of CEN President since 1 January 2017.

President-elect: Mr Stefano Calzolari

A civil engineer and entrepreneur, Stefano Calzolari is the founder and General Manager of SCLIngegneria Strutturale, an SME with a team of 22 professionals operating in the field of structural design. He was the President of Milan's Order of Engineers from 2009 and 2016, and has been a Member of the Board of the "National Council of Engineers" since then, where he is in charge of standardization and certification of technical competences. Furthermore, he has gained an extensive experience in standardization, both at technical level, as the Italian expert in CEN/TC 53 'Temporary Works Equipment' and Chairman of CEN/TC 344 'Steel Static Storage System', and at governance level: since 2017 he is UNI's Vice-President. To these skills, he adds a professional background as an expert of qualifications, especially in the field of competences: he founded and chaired the Italian Agency for Voluntary Competences Certification, CERT'ING. In June 2020, Stefano Calzolari was elected as the next President of CEN for a three-year mandate starting in 2022-2024. He is serving as President-Elect since January 2021.

PRESIDENT AND VICE-PRESIDENTS 2021

Vice-President Finance: Mr Jacob Mehus

Mr Jacob Mehus is Managing Director of Standards Norway (SN). He has previously held positions as Marketing Manager and Marketing Director within the organization, and he headed the sales company Standard Online for a while. Before joining Standards Norway, his work experience included research at the Norwegian Institute of Building Research. Mr Mehus has extensive domestic and international experience in management, project management, marketing and sales. Among other things, he has worked extensively with IT development as a prerequisite for business development and rationalisation, and he is concerned with standardization as a force for innovation. Mr Jacob Mehus holds a Master of Science degree from Iowa State University and has post-graduate courses in economics and management from Stanford University, USA. He has been elected as CEN Vice-President Finance for the period from 1 January 2020 to 31 December 2021.

Vice-President Policy: Mr Christoph Winterhalter

Mr Christoph Winterhalter is the Chairman of the Executive Board of DIN, the German national standardization body. Before joining DIN he spent more than 20 years in industry working for the ABB group. He initially worked in various engineering, R&D and product management functions in Germany, Norway and the USA before he became responsible business unit manager for ABB's robot automation and robotics products business in Germany. In 2010 he changed to ABB Corporate research as director of the German Research Centre until he was promoted head of ABB's global Machinery Controls and Automation business at the end of 2013. Since July 2016 he joined DIN as Chairman of the Executive Board driving customer orientation and digital transformation within the standardization system by encouraging all internal and external stakeholders to be open minded and open for change in order to shape the future with standardization. Mr. Winterhalter was elected member of the CEN Administrative board and the ISO Council in 2017. He has been elected as CEN Vice-President Policy for the period from 1 January 2018 to 31 December 2019 and re-elected to the same position until the end of 2021.

PRESIDENT AND VICE-PRESIDENTS 2021

Vice-President Technical: Mr Ruggero Lensi

Mr Ruggero Lensi has been the Director General of the Italian Standardization Organization (UNI) since February 2017. He joined UNI in 1995, holding the positions of Head of the Standardization Department between 2000 and 2003, Technical Director until 2010 and Director of External Relations, New Business and Innovation until February 2017. Mr Lensi represented UNI for ten years on the CEN Technical Board (BT), where he served as Convenor of several Working Groups and also chaired the CEN/BT Technical Committee Management Group between 2004 and 2007. He holds a degree in Civil Engineering from the Polytechnic University in Milan. He has been elected as CEN Vice-President Technical from 1 January 2018.

BOARD MEMBERS 2021

Mrs Annika Andreasen - SIS, Sweden

Mrs Annika Andreasen is the CEO of the Swedish Institute for Standards, SIS. At SIS she previously held the position of Head of Standardization. Before SIS, she built a career in the private sector, working in a variety of leadership positions for two of Sweden's most important multinational companies, Saab AB (2008-2017) and Ericsson AB (1992-2008). A software engineer by training, Mrs Andreasen started her career as a business consultant. She holds a degree in Electronics and Data from Blekinge University and studied Marketing and Business Economics at Uppsala University. She was elected as CEN's Board Member in June 2019 for a two-year mandate starting in January 2020.

Mrs Tatjana Bojanic - ISS, Serbia

Mrs Tatjana Bojanic is the Director of the Institute of Standardization of Serbia (ISS), a role she has covered since December 2018. Before that, she was Acting director, since 2015, of ISS' Head of Department for Legal, Human Resource and Common Affairs for five years. A lawyer by training, Mrs Bojanic had previously worked as Chief Inspector at the Serbian Ministry of Interior (2006-2010), Legal Adviser for a private company and journalist for the radio television of Serbia (1995-2006). She is a member of ISO DEVCO CAG and has worked with the Serbian Ministry of the Economy and Finance on the drafting of the Law on Amendments to the Law on Standardization and the Regulation on Amending the Regulation on the application procedure and manner of information relating to technical regulations, standards and conformity assessment. Mrs Bojanic holds a degree in Law from the Pristina University and is currently enrolled in a Master's degree in Finance and Accounting. She started her mandate as CEN's Board Member in January 2019.

BOARD MEMBERS 2021

Mr Enda McDonnell - NSAI, Ireland

Mr Enda McDonnell is Head of Standards at NSAI, the National Standards Authority of Ireland, taking on this role from January 2016. He previously served on the CEN Administrative Board, representing NSAI between the years 2000 and 2011. During that time he also served on the ISO Council in 2003 and 2004. From 2012 to 2015, Enda helped to build up the Standardization Services arm of QCC, the Abu Dhabi Quality and Conformity Council. Prior to the year 2000, Enda was involved in standardization as a technical expert, chairman of a national mirror committee, secretary of a national trade association and delegate in an international working group. This was mainly on the Electrotechnical side, as he previously worked in the electrical cable manufacturing industry. Enda now serves as the Secretary of the Irish National Committee for IEC. He has two Masters Degrees (MBA – Masters in Business Administration and MIE – Masters in Industrial Engineering) and a primary Engineering degree. Enda McDonnell is a Fellow of Engineers Ireland.

Mr Olivier Peyrat - AFNOR, France

Mr Olivier Peyrat has been Director General of the French Association for Standardization (AFNOR) since 2003. He has completed studies at the Ecole Polytechnique, the École nationale supérieure des télécommunications (ENST), Ecole des Hautes Etudes Commerciales (Executive MBA) and INSEAD Business School. Mr Peyrat has long-standing professional experience in the fields of certification and standardization and has chaired numerous standardization committees and groups at national, European and international levels. He became Vice-President (Finance) of ISO in January 2013. He is an Ingénieur en Chef au Corps des Mines (Hon) and Chevalier de la Légion d'Honneur.

BOARD MEMBERS 2021

Dr Elisabeth Stampfl-Blaha - ASI, Austria

Dr Elisabeth Stampfl-Blaha has been the CEO of Austrian Standards since 2013. At Austrian Standards, where she has been for around 30 years, she was first Manager of International, Legal and Organisational Affairs, and then Vice-Director, starting in 1998. Before that, she worked as a lawyer and an Assistant Professor at the University of Vienna. She has covered a variety of roles at the international and European level: at ISO she was Vice-President and Chair of the Technical Management Board from 2012 to 2016, Member of the Council and of the Technical Board. She has also been a member of CEN's Technical Board and Administrative Board. Currently, she is a member of the CEN/CENELEC MRMC. Mrs Stampfl-Blaha holds a degree in Law and a Doctor's Degree in Economics and Business Administration from the University of Vienna. She was elected as CEN's Board Member in June 2018.

Dr Scott Steedman - BSI, UK

Dr Scott Steedman is Director of Standards at BSI, the National Standards Body of the United Kingdom. Formerly an academic at Cambridge University, Dr Steedman spent 20 years in industry working for major consulting and contracting companies in the construction sector. He is an Executive Director on the Group Board of BSI and a non-executive Director of the Port of London Authority. He was elected President of the European Council for Construction Research, Development and Innovation in 1997, a position he held for 11 years. Dr Steedman has been a Vice-President of both the Institution of Civil Engineers and the Royal Academy of Engineering. In 2010, he was awarded a CBE for his services to engineering. In 2012, Dr Steedman served as CEN Vice-President Policy from 2013 to March 2017.

BOARD MEMBERS 2021

Dr Bogdan Topič - SIST, Slovenia

Dr Bogdan Topič is President of the Slovenian Institute for Standardization (SIST), and represents SIST in the framework of CEN, CENELEC, ETSI, ISO, IEC, and ITU-T. He has a PhD from the University of Ljubljana and an MBA from Bled Business School. Dr Topič has extensive experience of standardization, metrology and accreditation, and also spent many years serving in top management (CEO) positions in various companies. He was a CENELEC Board Member until 2015. He started his term of office as CEN's Board Member in January 2018.

Mr Gheorghe Tucu - ASRO, Romania

Mr Gheorghe Tucu is Managing Partner and founder of Valeg Creative Solutions. He has been the President of ASRO, Romanian Standards Association, since 2003. Since 2012 he has been a Board Member of the Romanian Accreditation Association (RENAR). Mr Tucu has also developed an extensive experience at the European level: he was a Board Member of CEN from 2006 to 2013 and of CENELEC from 2009 to 2012. Finally, from 2009 to 2010 he has also been a Member of the EXPRESS Panel of the European Commission on the review of the European Standardization System. An electrical engineer by education, he has built a career in the automation and energy sectors. After being the CEO and President of the Board of the Research Institute for Automation, IPA S.A, he worked as Country Manager for Honeywell Romania, Kelag Warme Romania and AB Energy Romania being, in the meantime, a Board Member at the Romanian Energy Efficiency Fund. He was elected as CEN's Board Member in June 2018 and officially started his mandate in January 2019.

BOARD MEMBERS 2021

Mr Rik van Terwisga - NEN, the Netherlands

Since 2018, Rik van Terwisga is the CEO of NEN, the Netherlands' Standardization Body. He started his career as Health Care and Real Estate management consultant and later Partner and Managing Director at Twynstra Gudde, a leading Dutch independent management consultancy firm with 500 consultants. He became CEO at Vitens in 2008, Netherlands' largest drinking water company with 1.700 employees. In that period he was supervisor at Wetsus, the European Centre of Excellence for Sustainable Water Technology. Mr Van Terwisga also held the chair of the Supervisory Board of the Martini Hospital in Groningen until 2020. He is a member of the Advisory Panel of the Dutch Council for Accreditation and also Chairman of the Endowed Chair Standardisation at RSM/EUR University, Rotterdam. Mr Van Terwisga is educated as Civil engineer at Delft University of Technology and lives in Hilversum, The Netherlands. He was elected as CEN Board Member, starting in January 2021.

CEN ADMINISTRATIVE BOARD IN 2020

PRESIDENTS AND VICE-PRESIDENTS

President: Mr Vincent Laflèche (École des Mines, France)
Vice-President Finance: Mr Jacob Mehus (SIS, Sweden)
Vice-President Policy: Mr Christoph Winterhalter (DIN, Germany)
Vice-President Technical: Mr Ruggero Lensi (UNI, Italy)

BOARD MEMBERS 2020

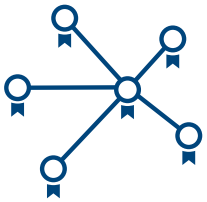
Mrs Annika Andreasen (SIS, Sweden)
Mrs Tatjana Bojanic (ISS, Serbia)
Mr Peter Maas (NEN, the Netherlands)
Mr Enda Mc Donnell (NSAI, Ireland)
Mr Olivier Peyrat (AFNOR, France)
Dr Elisabeth Stampfl-Blaha (ASI, Austria)
Dr Scott Steedman (BSI, United Kingdom)
Dr Bogdan Topič (SIST, Slovenia)
Mr Gheorghe Tucu (ASRO, Romania)

CEN AT A GLANCE

	European Standards	Workshop Agreements	Technical Specifications	Technical Reports	European Standards identical to International Standards (ISO)
IN 2020	982	51	63	51	562
Deliverables published in 2020	1 150				
OVERALL ON 31 DECEMBER 2020	15 971	476	553	581	5 695
Portfolio at the end of 2020	17 672				

www.cen.eu

CEN COMMUNITY



34
National Standardization Organisations
(34 countries)

17
Companion Standardization Bodies

3
Affiliates

319
European Partners

2
Counsellors *(EC + EFTA)*

1
Associated Body

10
Partner Organisations

284
Liaison Organisations
(15 new liaisons in 2020)

5
European Institutional Stakeholders

17
Other Partner Organisations

377
Technical Committees
(TCs)

21
Joint Technical Committees
(CEN-CENELEC and CEN-CENELEC-ETSI)

1 527
Working Groups
(of TCs & SCs)

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CEN DEVELOPMENTS IN 2020

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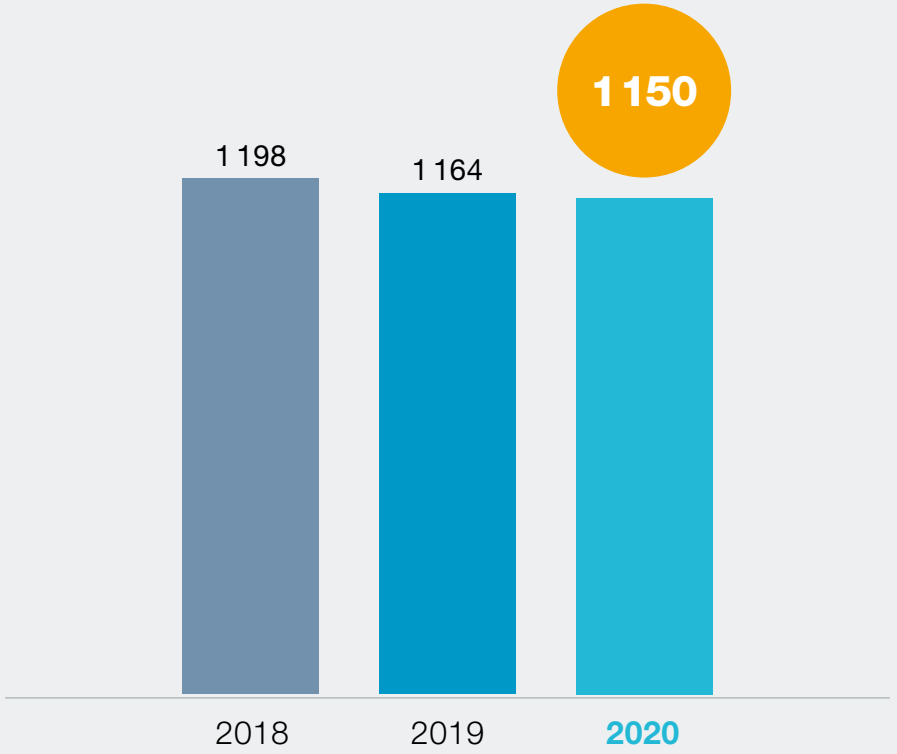
CEN DEVELOPMENTS IN 2020

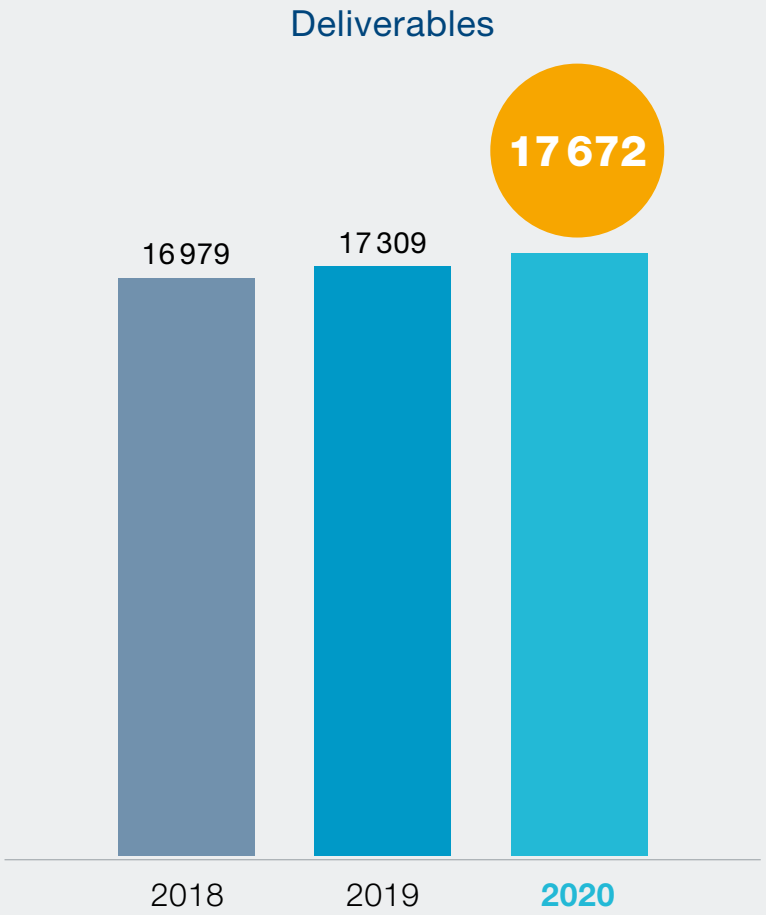
European Standards	982
Technical Specifications	63
Technical Reports	51
CEN Workshop Agreements	51
CEN Guides	3



DELIVERABLES*	2018	2019	2020
European Standards (ENs**)	1 076	1 071	982
Technical Specifications (TSs)	58	50	63
Technical Reports (TRs)	44	26	51
CEN Workshop Agreements (CWAs)	18	15	51
CEN Guides (CGs)	2	2	3
TOTAL	**1 198**	**1 164**	**1 150**

** Including deliverables of CEN and joint work of CEN-CENELEC and CEN-CENELEC-ETSI*
*** Excluding corrigenda*

CEN OVERALL AT THE END OF 2020



CEN TECHNICAL BODIES	2018	2019	2020
Active CEN Technical Committees (CEN/TCs)	330	321	319
Active CEN TC/Sub-Committees (CEN/TC/SCs)	45	57	58
CEN TC/SC Working Groups	1 576	1 535	1 488
Active Workshops	35	51	63
ASD-STAN, ECISS Technical Bodies	55	60	60
TOTAL	**2 041**	**2 024**	**1 988**

JOINT TECHNICAL BODIES*	2018	2019	2020
TOTAL	**64**	**65**	**72**

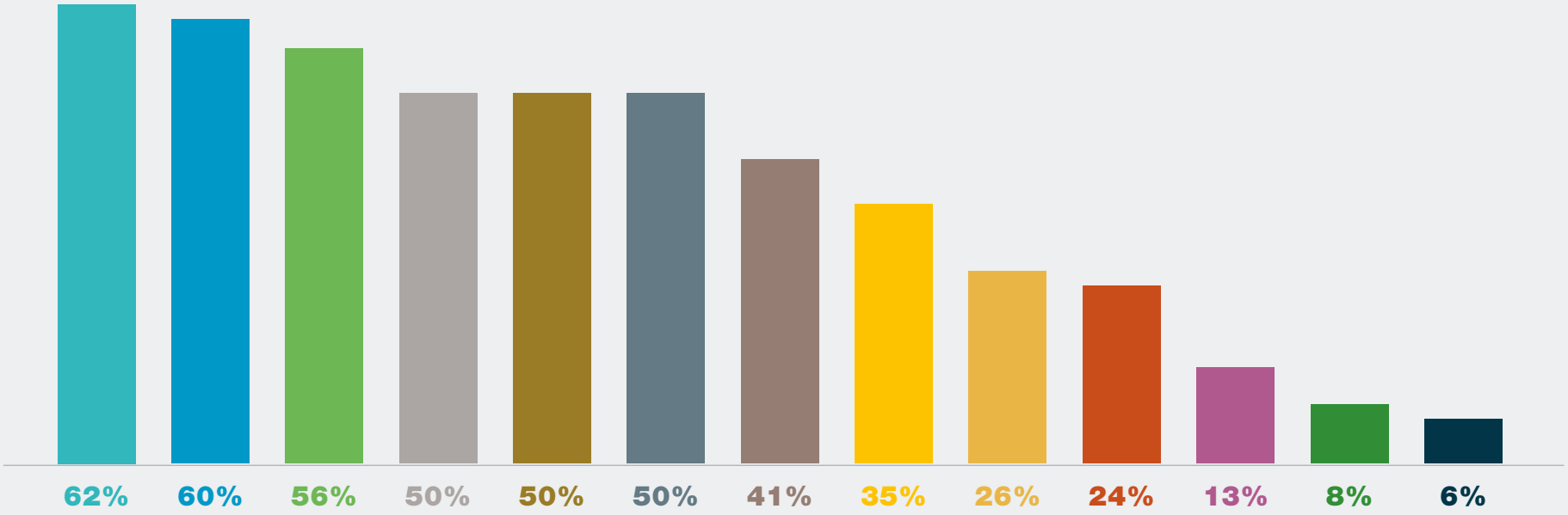
**CEN-CENELEC and CEN-CENELEC-ETSI*

DELIVERABLES*	2018	2019	2020
Standards (ENs)**	14 871	15 148	15 472
EN Amendments	434	457	499
Workshop Agreements (CWAs)	461	476	476
Technical Specifications (TSs)	526	534	553
Technical Reports (TRs)	531	546	581
Guides (CGs)	40	40	41
Pre-Standards (ENVs)	29	26	10
Reports (CRs)	87	82	40
TOTAL	**16 979**	**17 309**	**17 672**

**Including deliverables of CEN and of CEN-CENELEC-ETSI*
*** Excluding corrigenda*

INTERNATIONAL RELATIONS

CEN Portfolio - Percentage of deliverables per business domain identical to ISO publications



CEN Portfolio
Relation to ISO - at the end of 2020

DELIVERABLES*	Number	Percentage
Identical to ISO publications	5695	33,24%
Based on ISO publications	33	0,19%
Homegrown	11404	66,57%
TOTAL	**17132**	100%

**Excluding Corrigenda and Guides*

- Healthcare & Health and Safety
- Services
- Chemicals
- Mechanical & Machinery
- Food and agriculture
- Consumer
- Mining and Metals
- Energy and utilities
- Household appliances and HVAC
- Construction
- Digital society
- Transport and vehicles
- Defence and security

RELATION TO EUROPEAN UNION LEGISLATION

Total number of harmonised standards and other deliverables cited or intended for citation in the Official Journal of the European Union (OJEU) (including Amendments)

SECTORS	DIRECTIVE/REGULATION REFERENCE	IN 2020	END 2020
Accreditation and Market Surveillance	765/2008	35	**36**
Active implantable medical devices	90/385/EEC	33	**32**
Cableways	2016/424	12	**12**
Construction Products	305/2011	391	**386**
Cosmetic Products	1223/2009	1	**1**
Ecodesign of energy using products	2015/1095	3	**4**
Ecodesign of energy using products	206/2012	7	**3**
Ecodesign of energy using products	641/2009	3	**3**
Ecodesign of energy using products	66/2014	2	**1**
Ecodesign of energy using products	813/2013	1	**5**
Ecodesign of energy using products	814/2013	2	**3**
Ecodesign of energy using products	244/2009	1	**1**
Ecodesign of energy using products	245/2009	1	**1**
Ecodesign of energy using products	1194/2012	1	**1**
Ecodesign of energy using products	2016/2281	13	**1**
Electromagnetic compatibility	2014/30/EU	1	**12**
Energy Labelling	874/2012	1	**1**
Energy Labelling	811/2013	2	**3**
Energy Labelling	812/2013	2	**3**
Energy Labelling	626/2011	1	**2**
Explosive atmospheres	2014/34/EU	60	**60**
Explosives for civil use	2014/28/EU	57	**57**

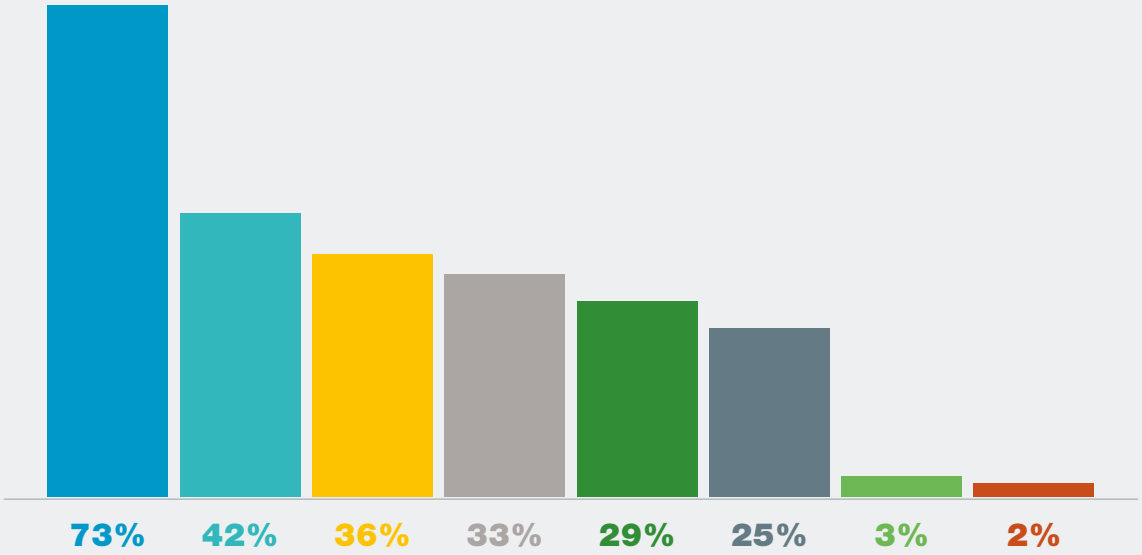
RELATION TO EUROPEAN UNION LEGISLATION (CONTINUED)

SECTORS	DIRECTIVE/REGULATION REFERENCE	IN 2020	END 2020
Gas appliances	2016/426	1	**1**
General product safety	2001/95/EC	75	**70**
In vitro diagnostic medical devices	98/79/EC	35	**36**
Lifts	2014/33/EU	10	**9**
Low Voltage	2014/35/EU	1	**1**
Machinery	2006/42/EC	725	**720**
Measuring instruments	2014/32/EU	13	**13**
Medical devices	93/42/EEC	134	**121**
Non-automatic weighing instruments	2014/31/EU	1	**1**
Packaging	94/62/EC	6	**6**
Personal protective equipment	2016/425	201	**196**
Postal Services	97/67/EC	5	**8**
Pressure equipment	2014/68/EU	221	**219**
Pyrotechnic articles	2013/29/EU	25	**25**
Railways	2008/57/EC	137	**105**
REACH	1907/2006	3	**2**
Recreational craft	2013/53/EU	61	**56**
Safety of Toys	2009/48/EC	9	**8**
Simple pressure vessels	2014/29/EU	3	**3**
Sustainable use of Pesticides	2009/128/EC	4	**4**
	GRAND TOTAL	**2300**	**2232**

RELATION TO EUROPEAN UNION LEGISLATION

At the end of 2020, the CEN catalogue counted 17 672 deliverables of which 2 139 (12,1%) were in support of EU legislation. Among this last total, 572 were identical or based on ISO publications.

Percentage of harmonised deliverables identical to ISO per sector



Portfolio of harmonised deliverables – at the end of 2020

DELIVERABLES*	Number	Percentage
Identical to ISO	572	26,74%
Based on ISO	3	0,15%
Homegrown	1 564	73,11%
TOTAL	**2 139**	**100%**

All deliverables (excluding Corrigenda and Guides)

- Services
- Healthcare & Health and safety
- Energy and utilities
- Mechanical and machinery
- Transport and vehicles
- Consumer
- Chemicals
- Construction

ANNUAL ACCOUNTS

www.cen.eu

ANNUAL ACCOUNTS

ASSETS (€ x 1000)*	**2018**	**2019**	**2020**
Fixed Assets	1 020	970	1 191
Current Assets	3 843	3 510	3 529
Liquid Assets	8 384	10 507	8 807
Prepaid Expenses and Accrued Income	153	144	205
TOTAL	**13 400**	**15 131**	**13 732**

LIABILITIES (€ x 1000)*	**2018**	**2019**	**2020**
Reserves	3 309	3 124	3 136
Provisions for liabilities and charges	1 909	1 835	1 744
Payable	3 060	7 016	4 393
Accrued expenses & deferred income	5 122	3 156	4 459
TOTAL	**13 400**	**15 131**	**13 732**

EXPENDITURE (€ x 1000)*	**2018**	**2019**	**2020**
Staff costs	6 480	6 784	7 204
Other operating costs	2 192	2 660	2 234
Contractual expenses	12 706	14 323	7 656
Digital Transformation costs	921	31	91
Digital Transformation / Use of provision	-	-31	-91
Office move project costs	166	166	79
Office move project / Use of provision	-1	-	-
TOTAL	**22 464**	**23 933**	**17 173**

INCOME (€ x 1000)*	**2018**	**2019**	**2020**
Contributions	7 066	7 224	7 322
Interest	3	2	1
Contractual income	15 069	16 303	9 574
Miscellaneous	161	219	197
Loss of the year / Use of Reserves	165	166	79
Loss of the year	-	19	-
TOTAL	**22 464**	**23 933**	**17 173**

FINANCING OF THE CEN-CENELEC MANAGEMENT CENTRE (CEN Part)	**2018**	**2019**	**2020**
Membership fees	74%	76%	78%
EC/EFTA support to standardization	20%	21%	20%
Other support	6%	3%	2%
TOTAL	**100%**	**100%**	**100%**

** Figures are given in thousands of euro.*

THE CEN NETWORK

NATIONAL MEMBERS

Austria

ASI - Austrian Standards International
Standardization and Innovation
www.austrian-standards.at

Belgium

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

Bulgaria

BDS - Bulgarian Institute for Standardization
www.bds-bg.org

Croatia

HZN - Croatian Standards Institute
www.hzn.hr

Cyprus

CYS - Cyprus Organization for Standardisation
www.cys.org.cy

Czech Republic

UNMZ - Czech Office for Standards,
Metrology and Testing
www.unmz.cz

Denmark

DS - Dansk Standard
www.ds.dk

Estonia

EVS - Non-profit Association Estonian Centre
for Standardisation and Accreditation
www.evs.ee

Finland

SFS - Suomen Standardisoimisliitto r.y.
www.sfs.fi

France

AFNOR - Association Française de
Normalisation
www.afnor.org

Germany

DIN - Deutsches Institut für Normung
https://www.din.de/de

www.cen.eu

Greece

NQIS/ELOT - National Quality Infrastructure System
www.elot.gr

Hungary

MSZT - Hungarian Standards Institution
www.mszt.hu

Iceland

IST - Icelandic Standards
www.stadlar.is

Ireland

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

Italy

UNI - Ente Italiano di Normazione
www.uni.com

Latvia

LVS - Latvian Standard Ltd.
www.lvs.lv

Lithuania

LST - Lithuanian Standards Board
www.lsd.lt

Luxembourg

ILNAS - Organisme Luxembourgeois de Normalisation
www.portail-qualite.lu

Malta

MCCAA - The Malta Competition and Consumer Affairs Authority
https://mccaa.org.mt

Netherlands

NEN - Nederlands Normalisatie-instituut
www.nen.nl

Norway

SN - Standards Norway
www.standard.no/

Poland

PKN - Polish Committee for Standardization
www.pkn.pl

Portugal

IPQ - Instituto Português da Qualidade
http://www1.ipq.pt/PT/Pages/Homepage.aspx

Republic of North Macedonia

ISRSM - Standardization Institute of the Republic of North Macedonia
http://www.isrsm.gov.mk/

Romania

ASRO - Romanian Standards Association
www.asro.ro

Serbia

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

Slovakia

UNMS SR - Slovak Office of Standards Metrology and Testing
www.unms.sk

Slovenia

SIST - Slovenian Institute for Standardization
www.sist.si

Spain

UNE - Asociación Española de Normalización
www.une.org

Sweden

SIS - Swedish Institute for Standards
www.sis.se

Switzerland

SNV - Schweizerische Normen-Vereinigung
www.snv.ch

Turkey

TSE - Turkish Standards Institution
www.tse.org.tr

United Kingdom

BSI - British Standards Institution
www.bsigroup.com

AFFILIATES

Albania

DPS - General Directorate of Standardization-Albania
www.dps.gov.al

Bosnia and Herzegovina

ISBIH - Institute for Standardisation of Bosnia and Herzegovina (ISBIH)
www.isbih.gov.ba

Montenegro

ISME - Institute for Standardization of Montenegro
www.isme.me

COMPANION STANDARDIZATION BODIES

Armenia

SARM - National Institute of Standards CJSC
www.sarm.am

Australia

SA - Standards Australia Limited
www.standards.org.au

Azerbaijan

AZSTAND - State Committee for Standardization of the Republic of Belarus
www.standard.gov.az

Belarus

BELST - State Committee for Standardization of the Republic of Belarus
www.gosstandart.gov.by

Cameroon

ANOR - Agence des Normes et de la Qualité
www.anorcameroun.info

Canada

SCC - National Standards of Canada
www.scc.ca

Egypt

EOS - Egyptian Organization for Standardization and Quality (EOS)
www.eos.org.eg

Georgia

GEOSTM - Georgian National Agency for Standards and Metrology
www.geostm.ge

Israel

SII - Standards Institution of Israel
www.sii.org.il

Jordan

JSMO - Jordan Standards and Metrology Organization
www.jsmo.gov.jo

Kazakhstan

KAZMEMST - Committee for Standardization, Metrology and Certification
https://memst.kz/en/

Lebanon

LIBNOR - Lebanese Standards Institution
http://www.libnor.gov.lb/

Moldova, Republic of

ISM - Institute for Standardization of Moldova
www.standard.md

Mongolia

MASM - Mongolian Agency for Standardization and Metrology
www.masm.gov.mn

Morocco

IMANOR - Institut Marocain de Normalisation
www.imanor.ma

New Zealand

SNZ - Standards New Zealand, Ministry of Business, Innovation & Employment
www.standards.govt.nz

Tunisia

INNORPI - National Institute for Standardization and Industrial Property (INNORPI)
www.innorpi.tn

Ukraine

DSTU - Ukrainian scientific-research and training center of issues of standardization, certification and quality
www.ukrndnc.org.ua

EUROPEAN PARTNERS

PARTNER ORGANISATIONS

ANEC - The European Association for the Co-ordination of Consumer Representation in Standardisation
www.anec.eu

E.DSO - The European Distribution System Operators
www.edsoforsmartgrids.eu

ECOS - European Environmental Citizens Organisation for Standardisation
www.ecostandard.org

ETUC - the European Trade Union Confederation
www.etuc.org

ETUI - European Trade Union Institute
www.etui.org

EURALARM - Association of the European Fire and Security Industry
www.euralarm.org

FIEC - European Construction Industry Federation
www.fiec.eu

MedTech Europe - Alliance of European medical technology industry associations
www.medtecheurope.org

ORGALIM - Europe's Technology Industries
www.orgalim.eu

SBS - Small Business Standards
www.sbs-sme.eu

LIAISON ORGANISATIONS

ACE - Alliance for Beverages Cartons and Environment
www.beveragecarton.eu

ACE-CAE - Architects' Council of Europe
www.ace-cae.eu

ACEA - European Automobile Manufacturers' Association
www.acea.be

ACEM - Association des Constructeurs Européens de Motocycles
www.acem.eu

ACLEU - Association of Charity Lotteries in Europe
www.acleu.eu

AECC - Association for Emissions Control by Catalyst AISBL
www.aecc.eu

AFECOR - European Control Manufacturers Association
www.afecor.org

AGE - AGE Platform Europe
www.age-platform.eu

AIB - Association of Issuing Bodies
www.aib-net.org

AIMEU - Advancing Identification Matters Europe
https://www.aimglobal.org/

AISE - International Association for Soap, Detergents and Maintenance Products
www.aise.eu

APEAL - Association of European Producers of Steel for Packaging
www.apeal.org

APPLiA - Home Appliance Europe
www.applia-europe.eu

AQUA - Association Européenne des Fabricants de Compteurs d'Eau et de Compteurs d'Energie Thermique
www.aqua-metering.org

AQUA Europa - AQUA Europa
www.aqua-europa.eu

ARGE - The European Federation of Associations of Lock & Builders Hardware Manufacturers
www.arge.org

ASD - AeroSpace and Defence Industries Association in Europe
www.asd-europe.org

ASERCOM - Association of European Refrigeration Compressor Manufacturers
www.asercom.org

ASIS International - ASIS International
www.asisonline.eu

ATC - Technical Committee of Petroleum Additive Manufacturers in Europe AISBL
www.atc-europe.org

ATVEA - All Terrain Vehicles Industry European Association
www.atvea.org

BBMRI-ERIC - Biobanking and Biomolecular Resources Research Infrastructure - European Research Infrastructure Consortium
https://www.bbmri-eric.eu/

BCIA - Baby Carrier Industry Alliance
www.babycarrierindustryalliance.org

BIBM - International Bureau for Precast Concrete
www.bibm.eu

BIPAR - European Federation of Insurance Intermediaries
www.bipar.eu

CAOBISCO - Association of the Chocolate, Biscuit and Confectionery Industries of Europe
www.caobisco.eu

CECE - Committee for European Construction Equipment
www.cece.eu

CECOD - Committee of European Manufacturers of petroleum Measuring and distributing Equipment
www.cecod.eu

CED - Council of European Dentists
www.cedentists.eu

CEFIC - European Chemical Industry Council
www.cefic.org

CEFS - European Committee for Sugar Manufacturers
www.comitesucre.org

CEI-Bois - European Confederation of Woodworking Industries
www.cei-bois.org

CEIR - Comité Européen de l'Industrie de la Robinetterie
www.ceir-online.org

CEMA - European Committee of Associations of Manufacturers of Agricultural Machinery
www.cema-agri.org

CEMBUREAU - The European Cement Association
www.cembureau.be

CEOC International - Confederation of Inspection and Certification Organisations
www.ceoc.com

CEPE - European Confederation of Paint, Printing Ink and Artists' Colours Industry
www.cepe.org

CEPI - Confederation of European Paper Industries
www.cepi.org

CEPIS - Council of European Professional Informatics Societies
www.cepis.org

CERAME-UNIE - The European Ceramic Industry Association
www.cerameunie.eu

CICIND - International Committee on Industrial Chimneys
www.cicind.org

CIRFS - European Man-made Fibres Association
www.cirfs.org

CLECAT - European association for forwarding, transport, logistic and customs services
www.clecat.org

CLEPA - European Association of Automotive Suppliers
www.clepa.com

CONCAWE - the Environmental Science for the European refining Industry
https://www.concawe.eu/

CONFIAD - Pan-European Confederation of Customs Brokers and Custom Representatives
www.confiad.org

CORESTA - Centre de Coopération pour les Recherches Scientifiques Relatives au Tabac
www.coresta.org

CPE - Construction Products Europe
www.construction-products.eu

CoESS - Confederation of European Security Services
www.coess.eu

ComMUnion Project
www.communionproject.eu

Cosmetics Europe - The Personal Care Association
www.cosmeticseurope.eu

DLMS UA - Device Language Message Specification User Association
www.dlms.com

DRIVER+ Project - Driving Innnovation in Crisis Management for European Resilience
www.driver-project.eu

DTCE - Digital Trust and Compliance Europe
www.dtce.eu

DigitalEurope - The Voice of the European Digital Technology Industry
www.digitaleurope.org

E.A.N - European Ageing Network
www.ean.care

EAACA - European Autoclaved Aerated Concrete Association
www.eaaca.org

EAE - European Association for External Thermal Insulation Composite Systems
www.ea-etics.com

EAPA - European Asphalt Pavement Association
www.eapa.org

EAPFP - European Association for Passive Fire Protection
www.eapfp.com

EASEE-gas - European Association for the Streamlining of Energy Exchange-gas
www.easee-gas.eu

EBA - European Biogas Association
www.european-biogas.eu

EBB - European Biodiesel Board
www.ebb-eu.org

EBI - European Boating Industry
www.europeanboatingindustry.eu

EBIC - European Biostimulans Industry Council
www.biostimulants.eu

EBPC - European Balloon & Party Council
www.ebpcouncil.eu

ECA - European Chimneys Association
www.eca-europe.org

ECA - European Cocoa Association aisbl
www.eurococoa.com

ECA - European Cockpit Association
www.eurocockpit.be

ECA - The European Casino Association
www.europeancasinoassociation.org

ECAP - European Consortium of Anchors Producers
www.ecap-sme.org

ECCA - European Coil Coating Association
www.prepaintedmetal.eu

ECCS - European Convention of Constructional Steelwork Associations
www.steelconstruct.com

ECF - European Cyclists' Federation
www.ecf.com

ECI - European Copper Institute
https://copperalliance.eu/

ECIA - European Cellulose Insulation Association
www.ecia.eu.com

ECMA - European Cylinder Makers Association
www.ecma.info

ECN e.V. - European Compost Network ECN e.V.
www.compostnetwork.info

ECO-Platform AISBL - ECO-Platform AISBL
www.eco-platform.org/

ECOBA - European Coal Combustion Products Association e.V.
www.ecoba.org

ECP - European Concrete Platform
www.europeanconcrete.eu

ECRC - the European Cool Roofs Council
coolroofcouncil.eu

ECSPA - European Calcium Silicate Producers Association
www.ecspa.org

EDANA - International Association Serving the Nonwovens and Related Industries
www.edana.org

EDF - European Disability Forum
www.edf-feph.org

EDIFICE - The Global Network for B2B Integration in High Tech Industries
www.edifice.org

EDSF - European Door and Shutter Federation e.V.
www.edsf.com

EENA - European Emergency Number Association
www.eena.org

EESPA - European e-Invoicing Service Providers Association
www.eespa.eu

EFBA - European Fertiliser Blenders Association
www.european-blenders.org

EFCA - European Federation of Engineering Consultancy Associations
www.efcanet.org

EFCA - European Federation of Concrete Admixtures Associations Limited
www.efca.info

EFCC - European Federation for Construction Chemicals
www.efcc.eu

EFCO&HPA - European Federation of Campingsite Organisations & Holiday Park Associations
www.efcohpa.eu

EFESME - European Federation for Elevator Small and Medium-sized Enterprises
www.efesme.org

EFFAT - European Federation of Food, Agriculture and Tourism Trade Unions
www.effat.org

EFFS - European Federation of Funeral Services
www.effs.eu

EFLM - European Federation of Clinical Chemistry and Laboratory Medicine
www.efcclm.eu

EFNDT - European Federation for Non-Destructive Testing
www.efndt.org

EFSI - European Federation for Services to Individuals
www.efsi-europe.eu

EFSN - European Fire Sprinklers Network
www.eurosprinkler.org

EFfCI - The European Federation for Cosmetic Ingredients
www.effci.com

EGBA - The European Gaming and Betting Association
www.egba.eu

EGEA - European Garage Equipment Association
www.egea-association.eu

EGGA - European General Galvanizers Association
www.egga.com

EGMF - European Garden Machinery Industry Federation
www.egmf.org

EGOLF - European Group of Organisations for Fire Testing, Inspection and Certification
www.egolf.org.uk

EHI - European Heating Industry
www.ehi.eu

EHP - Euroheat & Power
www.euroheat.org

EIGA - European Industrial Gases Association
www.eiga.eu

EL - The European Lotteries Association
www.european-lotteries.org

ELA - European Lift Association
www.ela-aisbl.org

EMFEMA - European Manufacturers of Feed Minerals Association
www.emfema.org

EMO - European Mortar Industry Organisation
www.euromortar.com

EN13606 - Vereniging EN 13606 Consortium
www.en13606.org

ENAT - European Network for Accessible Tourism
www.accessibletourism.org

ENFSI - European Network of Forensic Science Institutes
www.enfsi.eu

ENPC - European Nursery Products Confederation
www.enpc.eu

EOQ - European Organization for Quality
www.eoq.org

EPBS - European Association for Professions in Biomedical Science
epbs.net

EPEE - European Partnership for Energy and the Environment
www.epeeglobal.org

EPFA - European Phenolic Foam Association
www.epfa.org

EPPA - European Perimeter Protection Association
www.eppa.com

ERA - The European Rental Association
www.erarental.org

ERF - European Union Road Federation
www.irfnet.eu

ERF - European Racking Federation
www.erfed.org

ERGaR - European Renewable gas Registry
www.ergar.org

ERMCO - European Ready-Mixed Concrete Organisation
www.ermco.eu

ERPA - European Recovered Paper Association
www.erpa.info

ESA - European Sealing Association
europeansealing.com

ESAM - European Society of Aerospace Medicine
www.esam.aero

ESP - European Society of Pathology
www.esp-pathology.org

ESSA - European Security Systems Association
www.ecb-s.com

ESSNA - The European Specialist Sports Nutrition Alliance
www.essna.com

ESTIF - European Solar Thermal Industry Federation
www.estif.org

ESTO - The European Synthetic Turf Organisation
www.theesto.com

ESTP - European Society of Tattoo and Pigment Research
www.estpresearch.org

ESWA - European Single ply Waterproof Association
www.eswa.be

ETF - European Transport Workers' Federation
www.etf-europe.org

ETRMA - European Tyre & Rubber Manufacturers' Association
www.etrma.org

ETSA - European Textile Services Association
www.etsa-europe.org

EUBA - European Bentonite Association
www.ima-europe.eu/about-ima-europe/associations/eu

EUMABOIS - European Committee of Woodworking Machine Manufacturers
www.eumabois.com

EUMEPS - European Manufacturers of Expanded Polystyrene
www.eumeps.org

EURATEX - European Apparel and Textile Organization
www.euratex.org

EURIMA - European Insulation Manufacturers Association
www.eurima.org

EURO-AIR - European Association of Air Heater Manufacturers
www.euro-air.com

EUROBITUME - European Bitumen Association
www.eurobitume.eu

EUROFER AISBL - The European Steel Association AISBL
www.eurofer.eu

EUROFEU - European Committee of the Manufacturers of Fire Engines and Apparatus
www.eurofeu.org

EUROGYPSUM - Association of European Gypsum Industries
www.eurogypsum.org

EUROLUX - European Group for Rooflights and Smoke Ventilation
www.eurolux-sv.de

EUROMAT - The European Gaming and Amusement Federation
www.euromat.org

EUROMINES - European Association of Mining Industries, Metal Ores & Industrial Minerals
www.euromines.org

EUROMOT - The European Association of Internal Combustion Engine Manufacturers
www.euromot.org

EUROPABio - European Association for BioIndustries
www.europabio.org

EUROPEN - European Organization for Packaging and the Environment aisbl
www.europen-packaging.eu

EUROPUMP - European Committee of Pump Manufacturers
www.europump.org

EUROSLAG - The European Slag Association
www.euroslag.org

EUROVENT - Europe's Industry Association for Indoor Climate, Process Cooling, and Food Cold Chain Technologies
www.eurovent-association.eu

EUSA - European Union for Swimming Pool and Spa Associations
www.eusaswim.eu

EVA - European Vending Association
www.vending-europe.eu

EVIA - European Ventilation Industry Association
www.evia.eu

EWA - European Water Association
www.ewaonline.de

EWA Europe - European Waterproofing Association AISBL
www.ewa-europe.com

EWF - European Federation for Welding, Joining and Cutting
www.ewf.be

EWIMA - European Writing Instruments Manufacturer's Association
www.ewima.org

EWPM - European Wood Preservative Manufacturers Group
www.ewpm.org

EWTA - European Water Treatment Association
www.ewta.eu

EXCA - European Expanded Clay Association
www.exca.eu

EXPRA - Extended Producer Responsibility Alliance AISBL
www.expra.eu

EeSA - The European eSkills Association
www.eskillsassociation.eu

EuCIA - European Composites Industry Association
www.eucia.org

EuLA - European Lime Association AISBL
www.eula.eu

EuPC - European Plastics Converters
www.plasticsconverters.eu

EuSalt - European Salt Producers' Association
www.eusalt.com

EurECCA - European Cabin Crew Association
www.eurecca.aero

EuroWindoor AISBL - European window, door and curtain wall manufacturers
www.eurowindoor.eu

Eurogroup for animals - Eurogroup for animals
www.eurogroupforanimals.org

EuropeActive - EuropeActive
www.europeactive.eu

European Aluminium (former EAA) - European Aluminium
www.european-aluminium.eu

European Bioplastics - European Bioplastics
www.european-bioplastics.org

FAECF - Federation of European Window and Curtain Wall Manufacturers' Association
www.faecf.eu

FARECOGAZ - Association of European manufacturers of Gas Meters, Gas Pressure Regulators and associated Safety Devices and Stations
www.farecogaz.eu

FEA - European Federation of Aerosol
www.aerosol.org

FEAD - European Federation of Waste Management and Environmental Services
www.fead.be

FEDIAF - Fédération Européenne de l'Industrie des Aliments pour Animaux Familiers
www.fediaf.org

FEFANA - EU Association of Specialty Feed Ingredients and their Mixtures
www.fefana.org

FEG - European Federation of Tourist Guide Associations
www.feg-touristguides.com

FEICA - The Association of the European adhesive and sealant industry
www.feica.eu

FEM - European Federation of Materials Handling and Storage Equipment
www.fem-eur.com

FEPE - European Envelope Manufacturers' Association
www.fepe.org

FEVE - The European Container Glass Federation
www.feve.org

FICT - Fédération internationale des Cadres des Transports
www.fict.in

FIDE - European Dental Industry
www.fide-online.org

FIFA - Fédération Internationale de Football Association
www.fifa.com

FIGIEFA - International Federation of Automotive Aftermarket Distributors
www.figiefa.eu

FIM - Fédération Internationale de Motocyclisme
www.fim-live.com

FluoroCouncil Europe - Global Industry Council for FluoroTechnology
www.fluorocouncil.com

FoodDrinkEurope - Confederation of the Food and Drink Industries in the EU
www.fooddrinkeurope.eu

GCAQE - Global Cabin Air Quality Executive
gcaqe.org

GERG - European Gas Research Group
www.gerg.eu

GIE - Gas Infrastructure Europe
www.gie.eu

GS1 - GS1
www.gs1.org

GS1 in Europe - GS1 in Europe
www.gs1.eu

GSA Europe - The Gaming Standards Association Europe
www.gamingstandards.com

Glass for Europe - Glass for Europe
www.glassforeurope.com

GlobalPlatform - GlobalPlatform
www.globalplatform.org

HE - Hydrogen Europe
www.hydrogeneurope.eu

HL7 International Foundation - Health Level Seven International Foundation
www.hl7.eu

HOTREC - Hotels, Restaurants & Cafés in Europe
www.hotrec.eu

IATP - International Association of Trampoline Parks
www.indoortrampolineparks.org

ICOMIA - International Council of Marine Industry Associations
www.icomia.org

ICOMOS - International Council on Monuments and Sites
www.icomos.org

IDF - International Dairy Federation
www.fil-idf.org

IFCC - International Federation of Clinical Chemistry and Laboratory Medicine
www.ifcc.org

IFRA - the International Fragrance Association
www.ifraorg.org

IGDF - The International Guide Dog Federation
www.igdf.org.uk

IGI - The Global Wallcoverings Association
www.igiwallcoverings.org

ILSE - International Life Saving Federation of Europe
europe.ilsf.org

IMA-Europe - Industrial Minerals Association - Europe
www.ima-europe.eu/about-ima-europe/associations/eu

IOGP - International Association of Oil & Gas Producers
www.iogp.org.uk

ISA - International Sauna Association
www.saunainternational.net

ISCC - International Sustainability and Carbon Certification
www.iscc-system.org

ISHRS - International Society of Hair Restoration Surgery
www.ishrs.org

ITA/AITES - International Tunnelling and Underground Space Association
www.ita-aites.org

ITF - International Tennis Federation
www.itftennis.com

IWMA - International Water Mist Association
www.iwma.net

IZA-Europe - International Zinc Association-Europe
www.zinc.org

LEADing Practice - LEADing Practice
www.leadingpractice.com

LightingEurope - LightingEurope AISBL
www.lightingeurope.org

Liquid Gas Europe - the European LPG Association
www.liquidgaseurope.eu

MARCOGAZ - Technical Association of the European Natural Gas Industry
www.marcogaz.org

MI - Methanol Institute
www.methanol.org

Metals for Buildings - Metals for Buildings asbl
www.metalsforbuildings.eu

NATRUE - International Natural and Organic Cosmetics Association
www.natrue.org

NFC Forum - Near Field Communication Forum
nfc-forum.org

NGVA Europe - Natural & bio Gas Vehicle Association
www.ngva.eu

NI - Nickel Institute
www.nickelinstitute.org

NIA - Nanotechnology Industries Association
www.nanotechia.org

OpenPEPPOL - OpenPEPPOL AISBL
www.peppol.eu

PMA - Paraglider Manufacturers Association
www.p-m-a.info

PPA Europe - European Association for Panels and Profiles
www.ppa-europe.eu

PRE - PRE Plastics Recyclers Europe
www.plasticsrecyclers.eu

PU Europe - Federation of EuropeanPolyurethane Rigid Foam Associations
www.pu-europe.eu

PlasticsEurope - PlasticsEurope AISBL
www.plasticseurope.org

SBA - Sterile Barrier Association Limited
www.sterilebarrier.org

SME Safety - SME Safety a.i.s.b.l.
www.sme-safety.eu

Star-Probio Project - Sustainability Transition Assessment and Research of Bio-based Products
www.star-probio.eu

TEPPFA - The European Plastic Pipes and Fittings Association
www.teppfa.eu

TIE - Toy Industries of Europe
www.tietoy.org

UECBV - European Livestock and Meat Trading Union
www.uecbv.eu

UEPG - European Aggregates Association
www.uepg.eu

UIP - International Union of Wagon Keepers a.i.s.b.l.
www.uiprail.org

UITP - International Association of Public Transport
www.uitp.org

UNIFE - The European Rail Industry
www.unife.org

UPEI - Union of European Petroleum Independents
www.upei.org

VGB - VGB PowerTech
www.vgb.org

VIPA International - Vacuum Insulation Panel Association
vipa-international.com

VISA EUROPE - Visa Europe Services INC
www.visa.com

VTCT - Vocational Training Charitable Trust
www.vtct.org.uk

WBT - World association of manufacturers of bottles and teats
www.thewbt.org

WEI-IEO - European Institute for Wood Preservation
www.wei-ieo.org

WFSGI - World Federation of the Sporting Goods Industry
www.wfsgi.org

WIZE - Wize Alliance
www.wize-alliance.com

World Rugby - World Rugby Limited
www.worldrugby.org

bSI - BuildingSMART International Ltd
www.buildingsmart.org

ePURE - European Producers Union of Renewable Ethanol
www.epure.org

spiritsEUROPE - European Spirits Organisation
www.spirits.eu

ASSOCIATED BODIES

ASD-STAN - The Standardization association of the European Associations of Aerospace Industries
https://www.asd-europe.org/aerospace-and-defence-industries-association-of-europe

EUROPEAN COUNSELLORS

EC - European Commission
www.ec.europa.eu

EFTA - European Free Trade Association
www.efta.int

EUROPEAN INSTITUTIONAL STAKEHOLDERS

EC - JRC - European Commission - Joint Research Centre
ec.europa.eu/jrc

EDA - European Defence Agency
http://www.eda.europa.eu/

ENISA - European Union Agency for Network and Information Security
www.enisa.europa.eu

ERA - European Railway Agency
www.era.europa.eu

FRONTEX - FRONTEX
www.frontex.europa.eu

OTHER PARTNER ORGANISATIONS

CIE - International Commission on Illumination
www.cie.co.at

EA - European co-operation for Accreditation
www.european-accreditation.org

ECSO - European cyber security organisation ASBL
www.ecs-org.eu/about

ECSS - European Cooperation for Space Standardization
www.ecss.nl

ENTSO-E - European Network of Transmission System Operators for Electricity
www.entsoe.eu

ENTSOG - European Network of Transmission System Operators for Gas
www.entsog.eu

EPO - The European Patent Organisation (EPO)
www.epo.org

EURAMET - European Association of National Metrology Institutes
www.euramet.org

EUROCAE - European Organisation for Civil Aviation Equipment
www.eurocae.net

FIB - The International Federation for Structural Concrete
www.fib-international.org

IFAN - International Federation of Standards Users
www.ifan.org

ITU - International Telecommunication Union
www.itu.int

NSO - NATO Standardization Office
nso.nato.int

OIML - International Organization of Legal Metrology
www.oiml.org

UIC - International Union of Railways
www.uic.org

UPU - Universal Postal Union
www.upu.int

ZigBee Alliance - ZigBee Alliance, Inc.
www.zigbee.org

ABOUT CEN

CEN (European Committee for Standardization) is recognised by the EU and EFTA as the European Standardization Organization responsible for developing standards at European level. These standards set out specifications and procedures for a wide range of materials, processes, products and services.

The members of CEN are the National Standardization Bodies of 34* European countries. European Standards (ENs) and other standardization deliverables adopted by CEN are accepted and recognised in all 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 between experts nominated by business and industry, research institutes, consumer and environmental organizations and other stakeholders. CEN works to promote the international alignment of standards in the framework of the technical cooperation agreement with ISO (International Organization for Standardization).

** number of full members in January 2021*

For more information, please visit: www.cen.eu

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Rue de la Couronne, 76
B-7730 Estaimpuis, Belgium
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2020 ANNUAL REPORT

CENELEC

EUROPEAN COMMITTEE
FOR ELECTROTECHNICAL STANDARDIZATION

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CENELEC ADMINISTRATIVE BOARD

The CENELEC Administrative Board (CENELEC/CA) manages and administers CENELEC's business, directing the work and coordinating the actions of all CENELEC bodies with the aim of executing the decisions taken by the General Assembly (AG). The CENELEC/CA also takes all steps that it considers necessary to achieve CENELEC's corporate goals in its dealings with various partners and interlocutors including national, European or international authorities and other organizations.

The CENELEC/CA normally meets three times per year and comprises the CENELEC Officers: the President, the President-Elect, three Vice-Presidents (Finance, Policy and Technical) and up to nine ordinary Board members, all of whom are appointed by the whole CENELEC membership (AG). The Director General of CEN and CENELEC also participate in CA meetings and acts as secretary.

THE PRESIDENT

Mr Dany Sturtewagen
CENELEC President

THE PRESIDENT-ELECT

Mr Wolfgang Niedziella
CENELEC President Elect

THE VICE-PRESIDENTS

Mrs Geraldine Larkin
Policy

Mr Frédéric Vaillant
Technical

Mr Ivano Visintainer
Finance

BOARD MEMBERS

Mr David Bell
BSI, United Kingdom

Mr Ivelin Burov
BDS, Bulgaria

Mrs Iuliana Chilea
ARSO, Romania

Mr Pambos Kammas
CYS, Cyprus

Mr Wojciech Konecki
APPLiA Polska

Mrs Kristin Helen
Energy Norway AS

Mr Karl-Heinz Mayer
OVE, Austria

Mr Ingars Pilmanis
LVS, Latvia

CENELEC OFFICERS IN 2021

President: Mr Dany Sturtewagen

Dany Sturtewagen works for the Belgian family-owned company Niko, first as Strategy Director and now as Director Corporate Affairs. At Niko he is also the chairman of the Works Council. Before that, he held several responsibilities within General Electric. He started his career at the Belgian Building Research Institute as Advisor and contributed with several publications in professional industrial magazines on building site organisation and cost-efficiency in building sites. He has been since 2007 a member of the Board and is now President of the Belgian Electrotechnical Committee (CEB-BEC). Furthermore, he is board member of Cecapi (European Committee of Electrical Installation Manufacturers) and has been President since 2015. Within Agoria (the Association of the Belgian Technology Industry) he is member of the Building Technology Committee and the Smart Building Committee and is President of the Business Group Home Automation & Electrical Equipment. From 2006 until 2016, he was appointed Judge in the Labour Court of Ghent (Belgium). Dany Sturtewagen has a Master of Science Degree in Civil Engineering Technology. He has started his mandate as CENELEC's President in January 2019.

President-Elect: Mr Wolfgang Niedziella

A trained Engineer, Wolfgang Niedziella has been Head of Digital Safety Centre of Competence at VDE, the German Association for Electrical Electronic & Information Technologies since its establishment in 2019 and Chair of IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE) since 2016. Mr Niedziella began his career in 1987 at the VDE Testing and Certification Institute GmbH in Offenbach. From 1991 to 2001, he was a manager for standardization projects in the field of electrical components at the DKE and from 2001 to 2003 at Commerzbank AG as a change manager in the transaction banking division. In 2003 he returned to the VDE Testing and Certification Institute as head of the Components, Household, Trade and Industry Department. From 2011 to 2019 he was Managing Director of VDE Testing and Certification Institute and from 2012 to 2015 he also took over in parallel the management of the subsidiary VDE Global Services GmbH with its eight Asian companies. He was also the Chair of IECEE/CTL (IECEE Committee of Testing Laboratories) from 2010 to 2015. In June 2020, Mr Niedziella was elected as the next President of CENELEC (2022-2024). His mandate as President-Elect is starting in January 2021.

CENELEC OFFICERS IN 2021

Vice-President Finance: Ivano Visintainer

Mr Ivano Visintainer is the Technical Director of CEI, the Italian Electrotechnical Committee, since 2018. He is member of CENELEC's WG Policy since 2018, and represents Italy at IEC as a member of its SMB (Standardization Management Committee) and FINCOM (Finance Committee). Mr Visintainer has an extensive career in the electrotechnical sector: before his current role, he was General Manager in an electrical utility company for energy distribution and covered various positions of responsibility in IMQ (the Italian Institute of Quality Marking) from 2000 to 2008. Previously to this, he worked for CESI, the Italian Experimental Electrotechnical Centre, from 1991 to 1998. He has also been the President of the National Institute for the Qualification of Electrical Installation Enterprises, and acting as Chairman for a variety of CEI Technical Committees. Mr Visintainer is a Member of CENELEC's Administrative Board since March 2019. He was elected as Vice-President Finance for a mandate starting in January 2021.

Vice-President Policy: Mrs Geraldine Larkin

Mrs Geraldine Larkin is CENELEC's Vice-President Policy since January 2021. She has been Chief Executive at NSAI, the National Standards Authority of Ireland, since March 2017. Before being appointed at the head of NSAI, Geraldine was the Irish regulator in diverse industries, including the private security sector. As the first regulator of the private security industry, Mrs Larkin drew heavily on Irish and European standards including in the areas of security guarding, electronic security and cash conveyancing in order to regulate the developing industry. She subsequently oversaw the development of further mandatory standards for specialist aspects of private security services. Previously, as a career civil servant she held a diverse portfolio of policy responsibilities including in the areas of policing, crime, anti-drug trafficking, criminal law, human rights and European law. She represented Ireland in various EU and international committees in these subject matter areas. Mrs Larkin holds a Master's Degree in Business Administration (MBA – Technology Management) from the Open University. Mrs Larkin served as a member of the CENELEC Administrative Board since November 2017.

CENELEC OFFICERS IN 2021

Vice-President Technical: Frédéric Vaillant

Mr Frédéric Vaillant is Vice President for Energy Management Standardization at Schneider Electric. In this position for 6 years, he has been actively involved in national, European and international electrotechnical standardization. He also manages a standardization team involved in various positions in IEC, CENELEC and several national standardization bodies, himself being engaged on electrical installation rules. Over the course of his career, Mr Vaillant has built a strong experience in the management of engineering, technical, upstream marketing and innovation teams first at Saint Gobain, Merlin Gering and then at Schneider Electric. He was also a member of the board of the Physics Department at the Joseph Fourier University in Grenoble and chaired the strategic orientation council of the Carnot Institute “Energy of the Future”, a lab association gathering 1400 public researchers. To his managerial career Mr Vaillant adds his multiannual activity as a part-time teacher at the continuing education centre for adults, at the Grenoble electronic engineering school and at the Grenoble university. Mr Vaillant holds a degree from the Ecole Polytechnique in Paris and a PhD in Physics from the Grenoble University. Mr Vaillant was elected CENELEC’s Vice-President Technical for a mandate beginning in January 2021.

BOARD MEMBERS 2021

Mr David Bell - BSI, United Kingdom

Mr David Bell has been the Director of Standards Policy at the British Standards Institution (BSI) since 2015. An economist by training, Mr Bell has been at BSI for over 20 years, overseeing a number of European and International standards issues and took over BSI's policy team in 2009. An advisor on technical assistance projects around the world, he has been a member of the Council of ISO since 2017. At European level, Mr Bell has been a member of CENELEC's Policy Working Group and CEN and CENELEC's finance committees since 2012 and chaired the CEN/CENELEC SME Working Group Task Force on Communications. Furthermore, Mr Bell was a member of CEN's Administrative Board from 2006 to 2013 and its Policy Committee from 2006 to 2010. Mr Bell is a member of the UK's Electrotechnical Standardization Strategic Advisory Council and was elected as a CENELEC Board Member in June 2018, taking up his role in January 2019.

Mr Ivelin Burov - BDS, Bulgaria

Mr Ivelin Burov has an extensive experience in standardization. An engineer by training, with 40 years of professional experience, he has worked for 23 years at BDS, the Bulgarian Standardization Body.

He has been Chairman of BDS Governing Board since 2006. Previous to that, he was BDS' President from 2002 to 2006. He was Vice-President of the Committee for Standardization and Metrology (CSM) and State Agency for Standardization and Metrology (SASM), the Bulgarian standardization organisations before BDS, between 1997 and 2001 and President of SASM from 2001 to 2002. He also served for 6 years as member of the National Accreditation Council to the Bulgarian Accreditation Body – Executive Agency "Bulgarian Accreditation Service (BAS)" and was the Bulgarian representative in international (ISO/IEC) and European (CEN/CENELEC) standardization management bodies. Mr Burov is also Chairman of TÜV Rheinland Bulgaria's Committees of impartiality to the Product Certification Body and Management Systems Certification Body. He was elected as CENELEC Board Member for a two-year mandate beginning in January 2021.

BOARD MEMBERS 2021

Mrs Iuliana Chilea - ARSO, Romania

Mrs Iuliana Chilea has been the Director General of ASRO, the Romanian Standards Association, since 2017. Before that, she was the Director of ASRO's standardization division from 2010 to 2017. In this role she oversaw the management of national standardization activities and represented ASRO in the CEN and CENELEC's Technical Boards and in the European Commission's Committee on Standards. A lawyer by training, Mrs Chilea started her career in standardization in 2003 as Copyright Administrator and Legal Adviser at ASRO, before becoming Head of Production. She further developed her knowledge on copyright and intellectual property by working from 2006 to 2010 as an IPR attorney for a private consulting company and through post-graduate studies on EU Law and executive trainings provided by ISO, the OECD and the WTO. Mrs Chilea was elected as a CENELEC Board Member in June 2019 and took up her role in January 2020.

Mr Pambos Kammas - CYS, Cyprus

Mr Pambos Kammas has been the Director of Standardization for the Cyprus Organisation for Standardization (CYS) since 2006. In this position, he has represented CYS in the CEN and CENELEC General Assembly since 2007. He is also the Director of CYS' Vocational Training Centre. Before this, from 2004 to 2006 Mr Kammas was Director for Certification at the Cyprus Certification Company, where he started working after more than a decade at OEB, Cyprus' Employers and Industrialists Federation. At the European level, he has covered a series of roles: among others, Mr Kammas was an elected member of CEN's Administrative Council (CA) for 2 consequent 2-year terms (2014-2017), and Chair of CEN's Certification Board from 2015 to 2017 and member of CENELEC's CA on 2011-12. Furthermore, he was a member of the CENELEC Technical Board (BT) from 2006 and 2008 and of CEN BT from 2007 to 2014. Mr Kammas holds a BBA in Management from Cyprus College, in Nicosia, and an MBA in Marketing from the University of New Haven in the USA. He was elected for a 2-year term as CENELEC's Board Member in June 2018 and has officially started in this capacity in January 2019.

BOARD MEMBERS 2021

Mr Wojciech Konecki - APPLiA Polska, Poland

Mr Wojciech Konecki graduated from the Warsaw School of Economics in 1991 with a master's degree in economics. He has worked in the household appliance manufacturing industry sector for the past 20 years. He has held both managerial and executive level positions in international companies Whirlpool and Electrolux. Since 2004 he has been the Director General, Member of the Board of the Association of Employers, APPLiA Polska, which represents the industry's interests towards the government, parliament and media, as well as market research and economic analysis activities. Since 2005, he has been working as Councillor and Vice-Chairman of the Polish National Chamber of Commerce (KIG). He is also Chairman of the Committee of Electrical Consumer Goods in the Polish Committee for Standardization (PKN) and holds the chairmanship of the supervisory board of the waste producer EEE collection system ElektroEko SA. Wojciech Konecki has published many articles on the subjects of Circular Economy, EEE recycling, energy efficiency and market trends. He is married and has two daughters. Wojciech Konecki was elected to the CENELEC Administrative Board in November 2017.

Mrs Kristin Helen Lind - Energy Norway AS, Norway

Mrs Kristin H. Lind is the Executive Director of Energy Norway AS, a subsidiary company of the Norwegian association for energy companies, working with R&D, education, standardization and politics in these areas. As from 1st of January 2018 she is also Director of Energy Norway's Department for Distribution Grid Companies. She has been a member of the Board of Directors of the Norwegian Electrotechnical Committee since January 2017, and has been a member of the Technical Committee NK8 in the Norwegian Electrotechnical Committee (NEK). NK8 prepares for necessary standards framework, coordinates the development of NEK standards needed to facilitate the functioning of electricity supply systems in open markets, and corresponds to IEC TC 8 and CENELEC TC 8X. Mrs Kristin Helen Lind was elected as a member of the CENELEC Administrative Board in November 2017.

BOARD MEMBERS 2021

Mr Karl-Heinz Mayer - OVE, Austria

Mr Karl-Heinz Mayer is Director Innovation, Codes and Standards & Program Management in Eaton's Industries EMEA Power Distribution Division (PDD) and member of the extended Management Board. In this position since 2009, he has been actively involved in national, European and international electrotechnical standardization. He also manages the standardization team of PDD which contributes to various national and international technical standardization committees. Over the course of his career, Mr Mayer has built a strong experience in the management of Research & Development, Innovation, Program Management, Quality and Standardization teams starting at Felten & Guilleaume AG, continuing at Moeller Gebäudeautomation GmbH and followed then by Eaton Industries (Austria) GmbH. He is board member of the private foundation ESF. Mr Mayer holds a degree in industrial engineering and is certified as manager for quality. He was elected as CENELEC Board Member for a two-year mandate beginning in January 2021.

Mr Ingars Pilmanis - LVS, Latvia

Mr Ingars Pilmanis has been the Head of Latvian Standard (LVS) since 2008, first as Director and now Board Member. Mr Ingars Pilmanis holds a Master's degree in Business Administration and Information Systems from the University of Latvia, and has given lectures for a number of years in the Riga Technical University on quality infrastructure and assurance. Before moving to LVS, he held numerous responsibilities in the Ministry of Economics of the Republic of Latvia. At different times, as Director of the Department he was in charge of policy in the field of standardization, accreditation metrology as well as construction worked with approximation of national legislation with the EU in field of free movement of goods. He was also the President of the Latvian Quality Association. He was elected as CENELEC Board Member for a two-year mandate beginning in January 2021.

CENELEC ADMINISTRATIVE BOARD IN 2020

PRESIDENTS AND VICE-PRESIDENTS

President: Mr Dany Sturtewagen (NIKO, Belgium)
Vice-President Finance: Mr Kimmo Saarinen (SESKO, Finland)
Vice-President Policy: Mr Bernhard Thies (DKE, Germany)
Vice-President Technical: Mr Javier Garcia Diaz (UNE, Spain)

BOARD MEMBERS

Mr David Bell (BSI, United Kingdom)
Mrs Iuliana Chilea (ASRO, Romania)
Mr Pambos Kammas (CYS, Cyprus)
Mr Wojciech Konecki (CECED Polska, Poland)
Mrs Geraldine Larkin (NSAI, Ireland)
Mrs Kristin Helen Lind (Energy Norway AS, Norway)
Mr Anders Richert (Elsakerhetsverket, Sweden)
Mr Frédéric Vaillant (AFNOR, France)
Mr Ivano Visintainer (CEI, Italy)

CENELEC AT A GLANCE

	European Standards	Workshop Agreements	Technical Specifications	Technical Reports	European Standards identical to International Standards (IEC)
IN 2020	452	2	9	15	353
Deliverables published in 2020	484				
OVERALL ON 31 DECEMBER 2020	6 105	10	91	146	4 711
Portfolio at the end of 2020	7 792				

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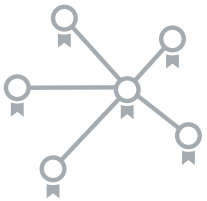
CENELEC COMMUNITY



34
National Standardization Organisations
(34 countries)

11
Companion Standardization Bodies

3
Affiliates

65
European Partners

2
Counsellors *(EC + EFTA)*

13
Partner Organisations

28
Liaison Organisations
(*1 new liaison in 2018)*

4
European Institutional Stakeholders

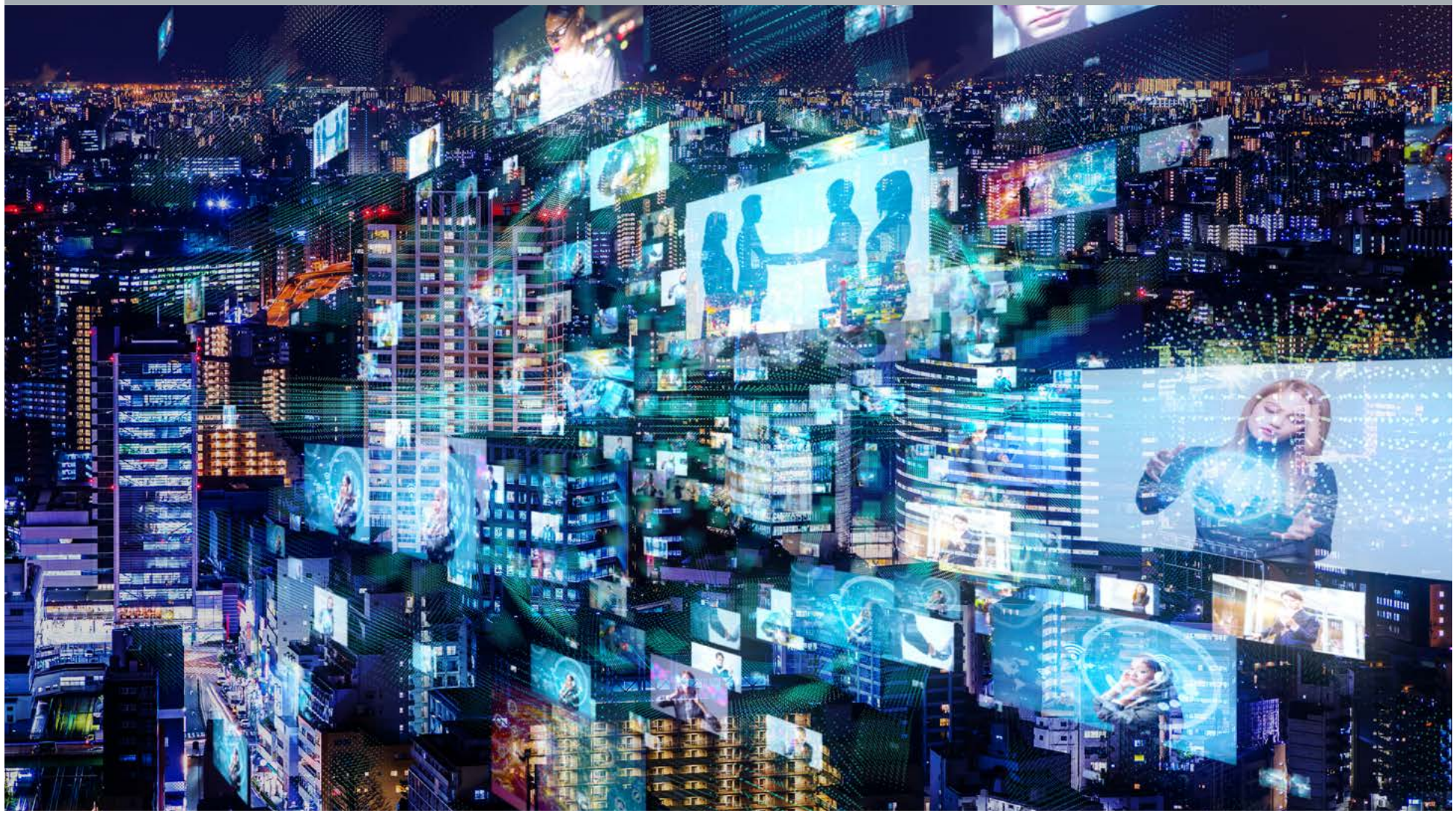
18
Other Organisations

69
Technical Committees
(TCs)

21
Joint Technical Committees
(CEN-CENELEC and CEN-CENELEC-ETSI)

314
Working Groups
(of TCs & SCs)

CENELEC DEVELOPMENTS IN 2020



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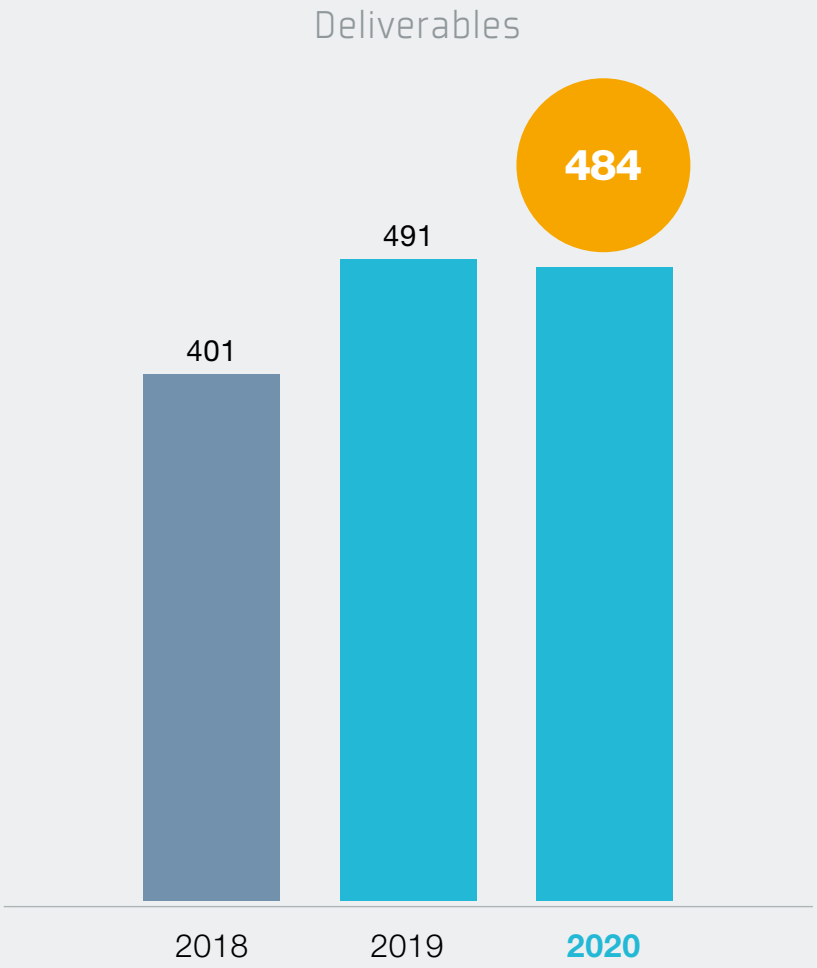
CENELEC IN 2020

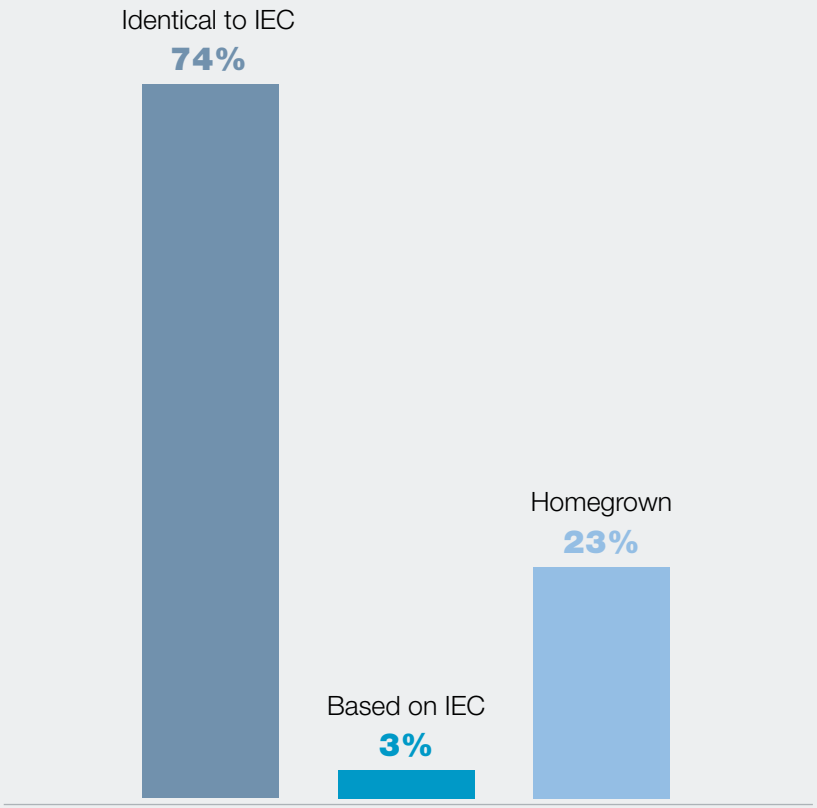


STANDARDS	2018	2019	2020
European Standards (ENs)*	379	456	452
harmonisation Documents (HDs)	4	7	2
TOTAL	**383**	**463**	**454**

DELIVERABLES	2018	2019	2020
Standards (ENs + HDs)*	383	463	454
CENELEC Technical Reports (TRs)	9	20	8
CENELEC Technical Specifications (TSs)	4	4	9
CEN-CENELEC Technical Specifications (TSs)	0	1	0
CENELEC Workshop Agreements (CWAs)	2	2	2
CENELEC Guides (CGs)	0	0	1
CEN-CENELEC Guides	2	1	3
TOTAL	**401**	**491**	**484**

**Excluding Corrigenda*

CENELEC Deliverables published in 2020
Relation to IEC



Relations between European Standards and other deliverables published by CENELEC and documents published by the International Electrotechnical Commission (IEC)

Deliverables published in 2020*	Number	Percentage
Identical to IEC	353	74%
Based on IEC	13	3%
Homegrown	104	23%
TOTAL	**480**	**100%**

**Excluding Corrigenda and Guides*

CENELEC TECHNICAL BODY MEETINGS	2018	2019	2020
Technical Meetings not in Brussels	41	43	8
Technical Meetings in Brussels	31	39	6
Technical Meetings (web meeting/conference):	-	1	58
TOTAL	**72**	**83**	**72**

CENELEC OVERALL AT THE END OF 2020

TECHNICAL BODIES	2018	2019	2020
Technical Committees/Subcommittees	78	70	69
TS/SC Working Groups	288	300	314
BT Task Forces/BT Working Groups	17	15	15
Workshops	3	3	3
TOTAL	**386**	**388**	**401**

JOINT TECHNICAL BODIES*	2018	2019	2020
TOTAL	**65**	**66**	**73**

**CEN-CENELEC and CEN-CENELEC-ETSI*

STANDARDS	2018	2019	2020
European Standards (EN)*	6 850	7 072	7 278
Harmonisation Documents (HD)	235	233	215
TOTAL number of active standards	**7 085**	**7 305**	**7 493**

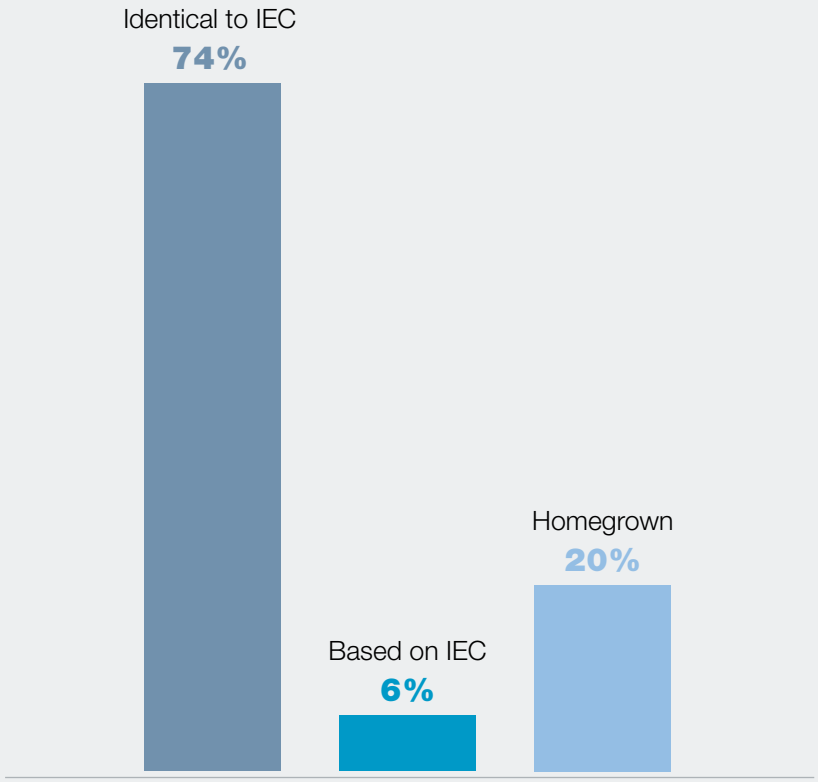
** These figures include amendments and IS*

PORTFOLIO	2018	2019	2020
Standards (ENs + HDs)*	5 846	5 985	6 105
Amendments/Interpretation Sheets (ISs)	1 239	1 320	1 388
CENELEC Technical Reports (TR)	108	124	129
CEN-CENELEC Technical Reports	3	3	3
CEN-CENELEC-ETSI Technical Reports	4	4	4
CENELEC-ETSI Technical Reports	1	1	1
CENELEC Technical Specifications (TRs)	90	91	91
CEN-CENELEC Technical Specifications (TRs)	0	0	0
CENELEC Workshop Agreements (CWAs)	6	8	10
CENELEC Guides	14	14	14
CEN-CENELEC Guides	34	33	34
Pre-Standards (CWAs)	3	3	3
Reports	2	2	1
TOTAL number of active deliverables	**7 350**	**7 590**	**7 792**
Number of Harmonised deliverables	1 510	1 258	1 295
Number of Harmonised deliverables as % of total	20,54%	16,57%	16,61%

**Excluding Corrigenda*

INTERNATIONAL RELATIONS

CENELEC portfolio – relation to IEC – at the end of 2020



Deliverables*	Number	Percentage
Identical to IEC	4 711	74%
Based on IEC	404	6%
Homegrown	1 239	20%
TOTAL	**6 354**	**100%**

**Standards only*

RELATION TO EUROPEAN UNION LEGISLATION

Total number of harmonised standards and other deliverables cited or intended for citation in the Official Journal of the European Union (OJEU) (including Amendments)

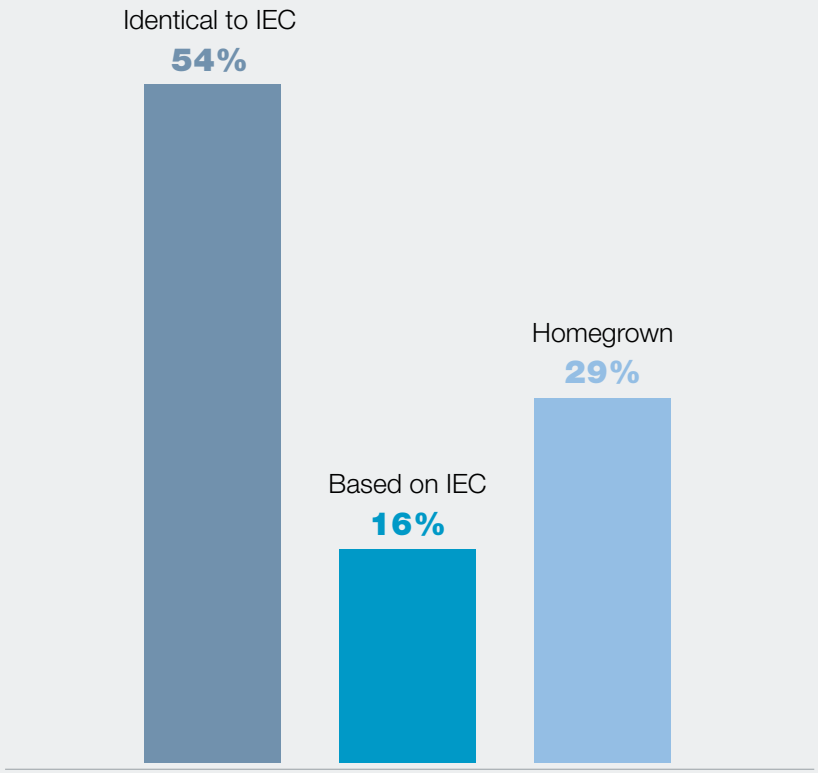
SECTORS	DIRECTIVE/REGULATION REFERENCE	END 2020
Active implantable medical devices	90/385/EEC	11
Ecodesign requirements for computers and computer servers	617/2013	1
Ecodesign requirements for directional lamps, light emitting diode lamps and related equipment	1194/2012	11
Ecodesign requirements for domestic ovens, hobs and range hoods	66/2014	9
Ecodesign requirements for electric motors	640/2009	2
Ecodesign requirements for fluorescent lamps	245/2009	19
Ecodesign requirements for household dishwashers	1016/2010	1
Ecodesign requirements for household refrigerating appliances	643/2009	1
Ecodesign requirements for household tumble driers	932/2012	2
Ecodesign requirements for household washing machines	1015/2010	2
Ecodesign requirements for local space heaters	2015/1188	6
Ecodesign requirements for no-load condition electric power consumption and average active efficiency of external power supplies	278/2009	2
Ecodesign requirements for non-directional household lamps	244/2009	5
Ecodesign requirements for space heaters	813/2013	2
Ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment	1275/2008	8
Ecodesign requirements for televisions	642/2009	2
Ecodesign requirements for vacuum cleaners	666/2013	6
Ecodesign requirements for water heaters and hot water storage tanks	814/2013	8
Electrical equipment designed for use within certain voltage limits	2014/35/EU	960
Electromagnetic compatibility	2014/30/EU	147
Energy labelling of domestic ovens and range hoods	65/2014	6
Energy labelling of electrical lamps and luminaires	874/2012	24
Energy labelling of household combined washer-driers	96/60/EC	1

RELATION TO EUROPEAN UNION LEGISLATION (continued)

SECTORS	DIRECTIVE/REGULATION REFERENCE	END 2020
Energy labelling of household dishwashers	1059/2010	1
Energy labelling of household refrigerating appliances	1060/2010	3
Energy labelling of household tumble driers	392/2012	3
Energy labelling of household washing machines	1061/2010	1
Energy labelling of space heaters	811/2013	2
Energy labelling of water heaters	812/2013	8
Equipment and protective systems intended for use in potentially explosive atmospheres	2014/34/EU	36
Harmonised conditions for the marketing of construction products	305/2011	2
In vitro diagnostic medical devices	98/79/EC	4
Machinery	2006/42/EC	156
Measuring instruments	2014/32/EU	6
Medical devices	93/42/EEC	51
Non-automatic weighing instruments	2014/31/EU	1
Personal protective equipment	2016/425	2
Power transformation (small, medium, large)	548/2014	5
Radio equipment	2014/53/EU	6
Railways	2008/57/EC	50
Recreational craft and personal watercraft	2013/53/EU	1
Requirements for accreditation and market surveillance relating to the marketing of products	765/2008	15
Restriction of hazardous substances	2011/65/EU	2
Safety of toys	2009/48/EC	6
	TOTAL	1 595

PORTFOLIO OF HARMONISED DELIVERABLES INTERNATIONAL RELATIONS AT THE END OF 2020

At the end of 2020, the CENELEC catalogue counted 7 792 deliverables of which 1 595 (20,5%) were in support of EU legislation. Among this last total 990 (756+234) were identical or based on IEC.



Deliverables*	Number	Percentage
Identical to IEC	756	54%
Based on IEC	234	17%
Homegrown	414	29%
TOTAL	**1 404**	**100%**

**Excluding Corrigenda and Guides*

ANNUAL ACCOUNTS

www.cenelec.eu

ASSETS (€ x 1000)*	2018	2019	2020
Fixed Assets	476	420	526
Current Assets	1 031	1 137	1.863
Liquid Assets	2 691	3 184	3.378
Prepaid Expenses and accrued income	71	71	103
TOTAL	**4 269**	**4 812**	**5.870**

LIABILITIES (€ x 1000)*	2018	2019	2020
Reserves	2 414	2 515	2 500
Provisions for liabilities and charges	445	363	321
Payable	1 150	1 421	1 942
Accrued expenses & deferred income	260	513	1 107
TOTAL	**4 269**	**4 812**	**5 870**

EXPENDITURE (€ x 1000)*	2018	2019	2020
Staff costs	2 864	2 670	2 887
Other operating costs	930	1 238	1 000
Contractual expenses	187	634	120
Digital transformation costs	373	10	42
Digital transformation / Use of provision	-	-10	-42
Office move project costs	91	91	45
Office move project / Use of provision	- 91	-32	-
TOTAL	**4 354**	**4 601**	**4 052**

** Figures are given in thousands of euro*

INCOME (€ x 1000)*	2018	2019	2020
Contributions	3 217	3 206	3 268
Interest	2	1	0
Contractual income	1 068	1 304	727
Miscellaneous	41	31	12
Loss of the year / Use of reserves	26	59	45
TOTAL	**4 354**	**4 601**	**4 052**

FINANCING OF THE CEN-CENELEC MANAGEMENT CENTRE (CENELEC Part)	2018	2019	2020
Membership fees	83%	82%	84%
EC/EFTA support to standardization	15%	17%	16%
Other support	2%	1%	0%
TOTAL	**100%**	**100%**	**100%**

THE CENELEC COMMUNITY

MEMBERS

Austria

OVE - Austrian Electrotechnical Association
www.ove.at

Belgium

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

Bulgaria

BDS - Bulgarian Institute for Standardization
www.bds-bg.org

Croatia

HZN - Croatian Standards Institute
www.hzn.hr

Cyprus

CYS - Cyprus Organization for Standardisation
www.cys.org.cy

Czech Republic

UNMZ - Czech Office for Standards, Metrology and Testing
www.unmz.cz

Denmark

DS - Dansk Standard
www.ds.dk

Estonia

EVS - Non-profit Association Estonian Centre for Standardisation and Accreditation
www.evs.ee

Finland

SESKO - Finnish Electrotechnical Standards Association
www.sesko.fi

France

AFNOR-CEF - AFNOR-Comité Electronique Français
www.afnor.org

Germany

DKE - German Commission for Electrical, Electronic and Information Technologies of DIN and VDE
www.dke.de

www.cenelec.eu

Greece

NQIS/ELOT - National Quality Infrastructure System
www.elot.gr

Hungary

MSZT - Hungarian Standards Institution
www.mszt.hu

Iceland

IST - Icelandic Standards
www.stadlar.is

Ireland

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

Italy

CEI - Comitato Elettrotecnico Italiano
www.ceiweb.it

Latvia

LVS - Latvian Standard Ltd.
www.lvs.lv

Lithuania

LST - Lithuanian Standards Board
www.lsd.lt

Luxembourg

ILNAS - Organisme Luxembourgeois de Normalisation
www.portail-qualite.lu

Malta

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

Netherlands

NEC - Nederlands Electrotechnisch Comité
www.nen.nl

Norway

NEK - Norsk Elektroteknisk Komite
www.nek.no

Poland

PKN - Polish Committee for Standardization
www.pkn.pl

Portugal

IPQ - Instituto Português da Qualidade
www1.ipq.pt/PT/Pages/Homepage.aspx

Republic of North Macedonia

ISRSM - Standardization Institute of the Republic of North Macedonia
http://www.isrsm.gov.mk/en

Romania

ASRO - Romanian Standards Association
www.asro.ro

Serbia

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

Slovakia

UNMS SR - Slovak Office of Standards Metrology and Testing
www.unms.sk

Slovenia

SIST - Slovenian Institute for Standardization
www.sist.si

Spain

UNE - Asociación Española de Normalización
www.une.org

Sweden

SEK - Svensk Elstandard
www.elstandard.se

Switzerland

Electrosuisse - Association for Electrical Engineering, Power and Information Technologies
www.electrosuisse.ch

Turkey

TSE - Turkish Standards Institution
www.tse.org.tr

United Kingdom

BSI - British Standards Institution
www.bsigroup.com

AFFILIATES

Albania

DPS - General Directorate of Standardization-Albania
www.dps.gov.al

Bosnia and Herzegovina

ISBIH - Institute for Standardisation of Bosnia and Herzegovina (ISBIH)
www.isbih.gov.ba

Montenegro

ISME - Institute for Standardization of Montenegro
www.isme.me

COMPANION STANDARDIZATION BODIES

Belarus

BELST - State Committee for Standardization of the Republic of Belarus
www.gosstandart.gov.by

Egypt

IEC NC of Egypt - Ministry of Electricity & Energy
www.moee.gov.eg

Georgia

GEOSTM - Georgian National Agency for Standards and Metrology
www.geostm.ge

Israel

SII - Standards Institution of Israel
www.sii.org.il

Jordan

JSMO - Jordan Standards and Metrology Organization
www.jsmo.gov.jo

Kazakhstan

KAZMEMST - Committee for Standardization, Metrology and Certification
https://memst.kz/en/

Moldova, Republic of

ISM - Institute for Standardization of Moldova
www.standard.md

Morocco

COMELEC - Moroccan Committee for Electrotechnical Standardization
www.imanor.gov.ma

Tunisia

INNORPI - National Institute for Standardization and Industrial Property (INNORPI)
www.innorpi.tn

Ukraine

DSTU - Ukrainian scientific-research and training center of issues of standardization, certification and quality
www.ukrndnc.org.ua

EUROPEAN PARTNERS

PARTNER ORGANISATIONS

ANEC - The European Association for the Co-ordination of Consumer Representation in Standardisation
www.anec.eu

APPLiA - Home Appliance Europe
www.applia-europe.eu

CAPIEL - Coordinating Committee for the Associations of Manufacturers of Switchgear and Controlgear
www.capiel.eu

CECAPI - European Committee of Electrical Installation Equipment Manufacturers
www.cecapi.org

Cable Europe - European Cable Communications Association
www.cable-europe.eu

E.DSO - The European Distribution System Operators
www.edsoforsmartgrids.eu

ECOS - European Environmental Citizens Organisation for Standardisation
www.ecostandard.org

ETUI - European Trade Union Institute
www.etui.org

EURELECTRIC - Union of the Electricity Industry
www.eurelectric.org

EUROPACABLE - European Confederation of Associations of Manufacturers of Insulated Wires and Cables
www.europacable.eu

KNX - KNX Association
www.knx.org

ORGALIM - Europe's Technology Industries
www.orgalim.eu

SBS - Small Business Standards
www.sbs-sme.eu

T&D Europe - European Association of the Electricity Transmission and Distribution Equipment and Services Industry
www.tdeurope.eu

LIAISON ORGANISATIONS

CEMEP - the European Committee of Manufacturers of Electrical Machines and Power Electronics
http://cemep.eu

CoESS - Confederation of European Security Services
www.coess.eu

DERlab - European Distributed Energy Resources Laboratories e.V.
www.der-lab.net

DLMS UA - DLMS User Association
www.dlms.com

DigitalEurope - The Voice of the European Digital Technology Industry
www.digitaleurope.org

EERA - European Electronics Recyclers Association
www.eera-recyclers.com

EFCO&HPA - European Federation of Campingsite Organizations & Holiday Park Associations
www.efcohpa.eu

EHI - European Heating Industry
www.ehi.eu

EPEE - European Partnership for Energy and the Environment
www.epeeglobal.org

EPIA - EPIA: SolarPower Europe AISBL
www.epia.org

EPSMA - European Power Supply Manufacturers' Association EEIG
www.epsma.org

ERP - European Recycling Platform
erp-recycling.org

ESNA - Energy Services Network Association
www.esna.org

ETICS - European testing inspection and certification system
www.etics.org

EUCOLIGHT - European Compliance Organisation for Lamps
www.eucolight.org

EUGINE - European Engine Power Plant
www.eugine.eu

EURALARM - Association of the European Fire and Security Industry
www.euralarm.org

EUROBAT - Association of European Automotive and Industrial Battery Manufacturers
www.eurobat.org

EUROMETREC - The European Metal Trade and Recycling Federation
www.eurometrec.org

EUturbines - The European gas and steam turbine manufacturers
www.euturbines.eu

EVA - European Vending Association
www.vending-europe.eu

IARU - International Amateur Radio Union (IARU)
www.iaru.org

Meters and More - Meters and More
www.metersandmore.com

UITP - International Association of Public Transport
www.uitp.org

UNIFE - The European Rail Industry
www.unife.org

WEEE - Forum - European association of electrical and electronic waste take back systems
www.weee-forum.org

EUROPEAN COUNSELLORS

EC - European Commission
www.ec.europa.eu

EFTA - European Free Trade Association
www.efta.int

EUROPEAN INSTITUTIONAL STAKEHOLDERS

EC - JRC - European Commission - Joint Research Centre
ec.europa.eu/jrc

ENISA - European Union Agency for Network and Information Security
www.enisa.europa.eu

ERA - European Railway Agency
www.era.europa.eu

FRONTEX - European Border and Coast Guard Agency
www.frontex.europa.eu

OTHER ORGANISATIONS

CEER - The Council of European energy regulators
www.ceer.eu

CEPT-ECC - The European Conference of Postal and Telecommunications Administrations - Electronic Communications Committee
www.cept.org/ecc

EA - European co-operation for Accreditation
www.european-accreditation.org

ECSO - European cyber security organisation ASBL
www.ecs-org.eu/

ECSS - European Cooperation for Space Standardization
www.ecss.nl

ENTSO-E - European Network of Transmission System Operators for Electricity
www.entsoe.eu

ENTSOG - European Network of Transmission System Operators for Gas
www.entsog.eu

EPO - The European Patent Organisation (EPO)
www.epo.org

EURAMET - European Association of National Metrology Institutes
www.euramet.org

EUROCAE - European Organisation for Civil Aviation Equipment
www.eurocae.net

FISUEL - International Federation for the Safety of Electricity Users
www.fisuel.org

IFAN - International Federation of Standards Users
www.ifan.org

ITU - International Telecommunication Union
www.itu.int

NSO - NATO Standardization Office
nso.nato.int

OIML - International Organization of Legal Metrology
www.oiml.org

UIC - International Union of Railways
www.uic.org

USB IF - Universal Serial Bus Implementers Forum
www.usb.org

ZigBee Alliance - ZigBee Alliance, Inc.
www.zigbee.org

ABOUT CENELEC

CENELEC (European Committee for Electrotechnical Standardization) is recognised by the EU and EFTA as the European Standardization Organisation responsible for developing standards at European level. These standards set out specifications and procedures for a wide range of materials, processes, products and services.

The members of CENELEC are the National Electrotechnical Committees of 34* European countries. European Standards (ENs) and other standardization deliverables adopted by CENELEC are accepted and recognised in all 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 between experts nominated by business and industry, research institutes, consumer and environmental organisations and other stakeholders. CENELEC works to promote the international alignment of standards in the framework of the technical cooperation agreement with IEC (International Electrotechnical Commission).

** number of full members in January 2021*

For more information, please visit: www.cenelec.eu

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