European Committee for Standardization ■ European Committee for Electrotechnical Standardization

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

TABLE OF CONTENTS

2 DIRECTOR GENERAL'S LETTER

5 CEN AND CENELEC IN FIGURES

7 MAIN HIGHLIGHTS

39 STANDARDIZATION ACTIVITIES IN 2018

96 OUR ORGANIZATIONS

DIRECTOR GENERAL'S LETTER

Welcome to the CEN-CENELEC Annual Report 2018!

The many highlights presented in the next pages testify to our extensive effort to make the European Standardization System fit to the evolving needs of the market and the industry.

European Standardization has continued to prove its value for the EU's economic and societal growth, bolstering Europe's ability to navigate the 4th Industrial Revolution as a leader in a particularly challenging global ecosystem. CEN and CENELEC have contributed directly to many of the priorities under the Europe 2020 strategy, amongst other related to jobs & growth, the Digital Single Market, the Internal Market, and the Energy Union and Climate. The size of our efforts is well represented by some numbers: in 2018, CEN and CENELEC published together a total of 1459 standards (1076 by CEN and 383 by CENELEC).

As transformations always begin at home, the CEN and CENELEC Management Centre (CCMC) completed its move to a new location. The new premises in the centre of Brussels are a physical representation of the principles of our work: innovation, collaboration and efficiency.

We have also started the reengineering of the standard development process as part of the implementation of our 'Strategic Plan for Digital Transformation' to produce standards fit for the digital age. Four pilot projects on online standards development, machine interpretable standards, strategic alliances and Open Source Innovations are in the pipeline.

Our efforts to facilitate international trade have continued by supporting the five Taskforces, led by CEN and CENELEC members, aiming to reinforce international partnerships and trade relations through standards with the five priority countries and regions identified: Africa, China, India, Gulf region and Japan. This exercise has been developed in parallel with a dialogue launched by the European Commission's DG TRADE and DG GROW for a more efficient and coordinated understanding and use of standardization and European standards in the EU negotiations for trade agreements.

Our collaboration with the EU institutions was mainly developed to address the timely citation of harmonised standards in the OJEU. The meeting with DG GROW's Director General Lowri Evans is a good example of the open ongoing dialogue with the European Commission, where the Action Plan to speed citation was reviewed and specific actions were agreed to reduce the already existing backlog.

CEN and CENELEC have still a different legal understanding regarding the interpretation of the James Elliot Case and its extension to the other areas covered under the New Legislative Framework. We have made every effort to understand the changing requirements proposed by the Commission and ensure the interaction with experts, dedicating many resources to the process. Therefore, we are somewhat disappointed by not seeing as much progress as expected, as the timely citation of hENs remains lacking, thus damaging the success of the European Standardization System and reducing the industry's trust in the smooth functioning of the Single Market.

In 2018 we have also progressed in establishing a closer partnership with the International Standardization Organizations, ISO and IEC. In particular, our efforts have focussed on ensuring the efficiency and effectiveness of the next generation of IT processes where the CEN and CENELEC ones are fully integrated respectively. As part of our international role, I am particularly proud of the decision of CEN and CENELEC's Boards to sign UNECE's Declaration for Gender Responsive Standards and Standards Development. We are committed to strengthening women's participation in our technical and governing bodies.

Finally, we have put a specific focus on the role of standards for cybersecurity and the integration of cybersecurity requirements in all relevant standards and sectors, creating awareness about the impact of the new Cybersecurity Act and making a strong connection with ISO and IEC. To do that, CEN and CENELEC have entered a cooperation with ECSO, the European Cybersecurity Organisation. Cybersecurity will also be at the heart of our Annual Meeting in June.

All these achievements, and many others, would have been impossible without the involvement and commitment of dedicated professionals from a range of diverse backgrounds. I would like to express my particular gratitude to the Presidents, Vice-Presidents and Board Members of CEN and CENELEC; Members and Affiliates; Partner and Liaison Organizations; all of the experts who participate in our Technical Bodies and the staff of the CEN-CENELEC Management Centre.

The strength of our family allows us to look with optimism at 2019, which is going to be a transition year: CEN and CENELEC will need to provide effective solutions to our customers, while at the same time evolve to European Standardization 4.0.

Elena Santiago Cid
Director General of CEN and CENELEC

CEN AND CENELEC IN FIGURES

	European Standards	Workshop Agreements	Technical Specifications	Technical Reports	Hamonized Standards	European Standards identical to International Standards (ISO and IEC)	European Standards adopted worldwide in 2018
IN 2018							
Deliverables published in 2018	1 459	20	62	53	315	809	9 740
	1 599						
OVERALL AT 31 DECEMBER 2018							
Portfolio at the end of 2018	22 390	467	616	649	3 960	10 850	99 429
	24 331						

Adoptions of European Standards in total by 36 National Standardization Bodies outside the CEN & CENELEC membership

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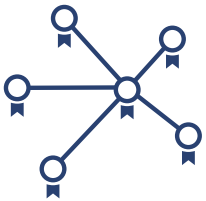
CEN AND CENELEC COMMUNITY



43
National Standardization Organizations and Committees
(34 countries)

19
Companion Standardization Bodies

3
Affiliates

328
European Partners

2
Counsellors
(EC + EFTA)

1
Associated Bodies

16
Partner Organizations

286
Liaison Organizations

5
European Institutional Stakeholders

18
Other Partner Organizations

453
Technical Commitees
(TCs)

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

1 902
Working Groups
(of TCs & SCs)

90 000
Expert Roles in CEN and CENELEC

MAIN HIGHLIGHTS

DIGITAL TRANSFORMATION

In 2018, CEN and CENELEC engaged in the implementation of the 'Strategic Plan for Digital Transformation' approved by their General Assemblies in 2017 in order to support the digitalisation of industry, through the launch of four supporting projects.

PROJECT 1: ONLINE STANDARDS DEVELOPMENT

The objective is to adapt the way standards are drafted to the digital world and the needs of industry. The priority is currently on providing an authoring tool fostering collaboration and focussing on the content of standards. CEN and CENELEC are collaborating closely with ISO and IEC in order to provide a coherent common solution, which will facilitate the work of the experts. A significant step forward in 2018 was the selection and testing of a common authoring tool by ISO and IEC.

CEN and CENELEC are also preparing for the cultural change required by the introduction of new collaborative ways of working.

PROJECT 2: STANDARDS OF THE FUTURE

Industry expects adequate standards content that can be integrated directly in their processes, i.e. 'machine-interpretable content'. Two pilot projects have been agreed in November 2018 in order to better understand and respond to existing needs. The pilot projects will start in 2019 and will involve the construction and the petroleum sectors.

PROJECT 3: ESTABLISH STRATEGIC ALLIANCES

To ensure an adequate standardization response to the needs of European industry facing the challenges of digital transformation, CEN and CENELEC have worked in 2018 on setting up a framework for the establishment of strategic alliances in order to benefit from the knowledge and expertise of partners outside the standardization world.

PROJECT 4: EXPLORE OPEN SOURCE INNOVATION

With progressing digitisation, software-based functionalities become important parts of increasingly more products. Open Source Software is gaining relevance in software development, be it related to research projects or to large scale application. The aim of this project is to develop an approach for linking standardization and Open Source activities. To better understand how standardization and Open Source communities can cooperate, the CEN and CENELEC CAs approved, in November 2018, a pilot project on eInvoicing that will start in 2019.

CEN and CENELEC base themselves on the national delegation principle, bringing together the national standardization organizations of 34 countries, which makes European Standardization activities more impactful. At national level, standardization activities were also undertaken to support the digital transformation of industry.

National activities

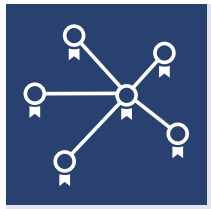
- **AFNOR (France)** in 2018 upgraded the profile of its initiative for the digitalisation of the Industry of the Future, transforming it into a coordination group.

- **BSI (United Kingdom)** is developing a series of fast-track standards to support the adoption of digital technologies in UK manufacturing sectors. This programme of work includes three PAS's on additive manufacturing, one PAS on digital readiness levels and one PAS on digital sensors. Furthermore, BSI published PAS 1085:2018 'Manufacturing - Establishing and implementing a security-minded approach' and PAS 280: 2018 on 'Through-life engineering services - Adding business value through a common framework'.

- **ILNAS (Luxembourg)** started in 2017, together with the University of Luxembourg, the research program "Normalisation technique pour une utilisation fiable dans le domaine « Smart ICT »", focusing on three technological areas (Cloud Computing, IoT and Big Data). For each area, a PhD student is working on the development of specific research topics and is following standardization developments (registered as national delegate) to take them into account in his project. Some results of the research program were presented during World Standards Day 2018, focusing on a White Paper "Data Protection and Privacy in Smart ICT" jointly published in October 2018.

  More information on the research program.

- **IPQ (Portugal)** developed a project about the digitalisation of the EN ISO 9001 process.



National activities

- **SIS (Sweden)** took a series of initiatives to support the digital transformation of the industry. First of all, it was deeply involved in the creation the new Digitalisation Authority of Sweden and has been part of the government's new standardization strategy. Secondly, it has also initiated projects with the industry for the digital content use of standards. Specific areas of focus have been e-Health, with the development of e-Health apps, platforms and terms for digital use; robotics and automation; and e-procurement.

- **SN (Norway)** has ongoing projects on machine-readable standards: in 2018 it conducted two successful pilot studies in the oil and gas and in the building and construction sectors. SN is also engaged in a joint project with Nordic NSBs, NEN (the Netherlands) and ASI (Austria) to convert CEN's back catalogue to XML.

- **UNE (Spain)** created a specific Technical Committee (TC) with the aim of developing a technical specification on management systems for industry digitalisation (GET 24). The document was published in September 2018. Furthermore, UNE continues participating in the Joint Working Group MSP/DEI and in the Spanish standardization group on Industry 4.0 within the framework of the Connected Industry 4.0 Initiative of the Ministry of Industry, Commerce and Tourism. Finally, it created the National Committee CTN 320 Cybersecurity and data protection.

- **UNMZ (Czech Republic)** launched a new portal for the BIM (Building Information Modelling) sector, where users can access already implemented BIM-related projects, a terminology database, and the possibility to sign in to training courses.

INNOVATION & RESEARCH

On 21 June 2018 at the CEN-CENELEC Annual Meeting in Bled, Slovenia, the General Assemblies adopted the Innovation Plan. By adopting this strategic plan, CEN and CENELEC aim at helping European researchers and innovators to succeed in market penetration and further integrating standardization and research, in order to keep Europe competitive in a global economy. Standardization can play an incentive role in helping innovative ideas to reach the market faster and, at the same time, contribute to a trustful and transparent innovation process.

The plan will work along three main action lines, each with their own target audience. Since the role of European standardization in facilitating market access for innovative ideas may not be evident to all researchers and inventors, the plan aims to introduce standardization to researchers as an asset in support of their career progression and a handy tool for successful market entry of their product or services.

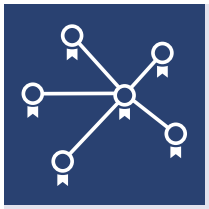
With this aim, CEN and CENELEC will work on involving research consortia in standardization and developing a fast-track process to transform first level consensus documents into full standards. Also national and European institutions will be approached in order to foster acknowledgement of standardization as an influential tool for market access, as well as to create an environment where the contributions of researchers to standardization support their scientific careers.

HORIZON 2020

European Standardization contributes extensively to create market impact for EU-sponsored research and innovation projects. In this context, the national members of CEN and CENELEC are involved in more than 70 research and innovation projects under Horizon 2020.

BRIDGIT2

The BRIDGIT2 'bridging the gap between research and standardization' project, involving 10 CEN and CENELEC Members and the CEN-CENELEC Management Centre, and co-financed by EC/EFTA, aims to further reach out to the research and innovation community so that they become fully engaged with standardization.



Some CEN and CENELEC members undertook initiatives to ensure that standardization is fit to the latest technological developments and to prepare standards to better capture innovation.

National activities

- **MSZT (Hungary)** undertook a standardization initiative through their mirror TC for a new autonomous driving track being developed.

- **NSAI (Ireland)** has established a number of national committees to engage in international activity in the areas of AI, Blockchain, Robotics and 3D printing. In 2019 NSAI will be hosting ISO/IEC meetings in Dublin on related topics, such as Robotics/AI and Blockchain.

BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGIES

Blockchain and Distributed Ledger Technologies (DLT) are promising new developments in ICT for sharing data and managing transactions in a controlled manner. They have a great potential in providing an infrastructure for trusted, decentralised and disintermediated services beyond the financial sector.

In order to follow the developments in the sector and map the emerging needs in the industry, CEN and CENELEC set up, in November 2017, a joint Focus Group on Blockchain and DLT. The primary objective of the Focus Group is to identify specific European needs and requirements for the implementation of blockchain and DLT in Europe, and to map these needs against the work items of ISO/TC 307 'Blockchain and distributed ledger technologies'. The identification of such specific requirements has been formalised in the White Paper 'Recommendations for successful adoption in Europe of emerging technical standards on Distributed Ledger/blockchain technologies', published in October 2018. The White Paper provides 26 technical recommendations for the successful European adoption of emerging technical standards on Distributed Ledger/Blockchain Technologies, addressing priority topics such as sustainable development, digital identity, privacy and data protection, and highlighting specific European use cases. The White Paper will be constantly updated by the Focus Group, according to the developments in technology and on global markets.

National activities

- **ILNAS (Luxembourg)** published, in collaboration with the Ministry of the Economy, two White Papers dedicated to Blockchain and IoT, notably from a technical standardization point of view, in 2018. These publications, promoted during some public events and largely distributed at national level, represent a good starting point to engage young digital experts in technical standardization.

  The White Paper on Blockchain

  The White paper on IoT

IPR & PATENTS

In 2018, CEN and CENELEC set up a dedicated ad-hoc group composed of members of the Legal Platform and the Joint Commercial Advisory Group (JCAG): the ad hoc group made specific proposals to ensure the protection of the IPR of the digital content of future CEN and CENELEC deliverables. These proposals will be used in order to make appropriate adjustments to the relevant copyright licensing aspects of standards, ensuring a flexible system that addressed the needs of the digital economy.

Furthermore, CEN and CENELEC initiated in 2018 the updating process of the CEN-CENELEC Guide 8 on the Common Patent Policy. The aim is to ensure that there is an appropriate framework in place to enable an open and transparent standard development process. As part of the revision, CEN and CENELEC also addressed relevant aspect raised by the European Commission in its November 2017 Communication on 'Setting out the EU approach to Standard Essential Patents (SEPs)'.

CEN and CENELEC position on IPR & Patents

EUROPEAN STANDARDS FOR THE SINGLE MARKET

The strong public-private partnership between the European Commission (EC), European Free Trade Association (EFTA) and CEN and CENELEC ensures that standardization can effectively and properly support the implementation of European regulations and policies.

During 2018, CEN and CENELEC have continued to reinforce their partnership with the EC and EFTA by supporting and contributing to European priorities such as a Deeper and Fairer Internal Market with a strengthened industrial base, a Resilient Energy Union with a forward-looking climate change policy, a New Industrial Policy Strategy and a Connected Digital Single Market. In 2018, we put a specific focus on raising awareness on the contributions of standards to the Single Market, on the occasion of the 25th Anniversary of the Single Market. The activities undertaken ranged from engagement and awareness-raising to active involvement in regulatory initiatives focusing on or linking with standardization.

The timely citation of harmonized European Standards (hENs) that support the implementation of specific regulations and policies in the Official Journal of the EU (OJEU) is key for the competitiveness of European business that operate in the Single Market. Therefore, CEN and CENELEC made every effort in 2018 to understand the changing requirements proposed by the EC and ensure a smooth interaction with experts, dedicating many resources to the processes of decreasing the backlog of non-cited standards.

AWARENESS-RAISING AND POLICY ENGAGEMENT ACTIVITIES

Joint Initiative on Standardization (JIS)

In 2019 the Joint Initiative on Standardization (JIS) will enter its final year. In view of this, the JIS Steering Group agreed to present the main achievements of the JIS Actions during a High Level Conference on European Standardization on 7 June 2019, organized in Bucharest under the umbrella of the Romanian Presidency of the Council of the EU.

Progress was made on the following actions: JIS Action 1 on the impact study of standardization on economy and society, Action 2 on Research and standardization, Action 4 on raising awareness on National Authorities, Action 11 on standards for public procurement with the publication of a guidance document on referencing standards in PP, Action 12 on implementing the strategy for service standards, and Action 13 for the redefinition of CEN and CENELEC's international strategy. Overall, the Joint Initiative exercise has proven to be successful in creating an informal platform where the standardization community exchanged with a variety of stakeholders in order to understand the different points of view. On the other hand, some actions with a direct link to legislations (e.g. CPR for JIS Action 5 and EU Regulation 1025/2012 for JIS Action 7 and 8) progressed slowly due to a limited room for manoeuvre.

European Policy Hub

In October 2018, CEN and CENELEC launched an informal European Policy Hub (EPH) that will coordinate the policy efforts targeting the European institutions. The aim of the EPH is to provide a common message on European legislative proposals and other policy topics of interest for European standardization. The EPH provides an agile and dynamic platform to the CEN and CENELEC Members, offering them an 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').

'Stakeholder Group' of the EC platform for better regulation (REFIT)

REFIT is part of the European Commission's better regulation agenda, making sure that EU legislation delivers its intended benefits for citizens, businesses and society while removing red tape and lowering costs. CEN and CENELEC contribute to the REFIT Stakeholder Group and where relevant, providing input on standardization to the opinions issued by REFIT. To highlight the work undertaken by REFIT and look ahead to 2020, Business Europe hosted at the beginning of December 2018 a 'Better Regulation – make it happen' roundtable discussion, which CEN and CENELEC participated to.

IMPROVING THE PROCESS OF CITATION OF HARMONISED STANDARDS IN THE OJEU

Efforts to improve the citation of standard are mainly framed in the Action Plan agreed with the European Commission (EC). They are supported by the 'Structural Dialogue between CEN, CENELEC and the EC', and an open line of discussion about the Harmonised Standards (HAS) consultants and the continuous support and training to Technical bodies.

At the beginning of 2017 the original backlog of non-citations consisted of about 600 references. CEN and CENELEC and the EC services are now looking at a figure of around 60 references. Most of the clarifications so far can be observed in the Construction Product regulation (CPR) and Medical Devices Regulations (MDRs).

In the meantime, CEN and CENELEC have aligned their process to the changes required by the introduction of the HAS Framework (in place since April 2018). Start-up issues have been mostly overcome, and CEN and CENELEC together with the EC are already working on relevant remaining improvements. The EC is drafting a new procedure related to a new decision-making process to approve the list of HAS to be cited in the OJEU, and CEN and CENELEC together with the European Commission's DG GROW are working on quality and consistency aspects to ensure accuracy in the data-exchange between the organizations.

At the end of 2018 the citation rate was 42%. This rate responds to two main reasons, the introduction of the HAS consultants assessment process and the delay between CEN and CENELEC offering and EC citation (typically 3-4 months). The ambition is to increase the rate to 70% in 2019.

GLOBAL OUTREACH

The international cooperation activities of CEN and CENELEC aim to exploit fully the role of standards in helping European businesses boost their global competitiveness and in supporting European trade objectives. To achieve this ambition, CEN and CENELEC give priority to support the development and adoption of international standards, as the collaboration with ISO and IEC through the Vienna (with ISO) and Frankfurt (with IEC) agreements shows. Moreover, CEN and CENELEC cooperate with other standardization bodies worldwide.

In 2018, CEN and CENELEC members identified specific priority countries and regions where standardization cooperation can reinforce trade relations with Europe. This exercise led to the creation of five dedicated Task Forces (composed of CEN and CENELEC members, representatives from European industry and from the European Commission and EFTA) to strengthen CEN and CENELEC's cooperation with their foreign partners in Africa (ARSO/AFSEC), China (SAC), the Gulf region (GSO), India (BIS) and Japan (JISC). The Task Forces have been created based on real market needs, with long-term objectives to be achieved through the implementation of annual Action Plans.

CEN and CENELEC, together with ETSI, EFTA and the European Commission, agreed to launch the fourth phase of the SESEC project (Seconded European Standardization Expert in China). Together with its equivalent in India (SESEI project), the SESEC project shares the success of the European Standardization model to provide intelligence on standards-related matters and facilitate bilateral cooperation, supporting European companies in accessing foreign markets.

GLOBAL OUTREACH

WORLDWIDE ADOPTION OF EUROPEAN STANDARDS IN 2018

European Standards adopted worldwide in 2018

9 740

European standards adopted in total by NSBs outside of CEN and CENELEC membership

99 429

Adoption of CEN and CENELEC portfolios

70%

Champion INS (Moldova)

710 ENs
adopted in 2018

2 NEW CEN CSBs

- AZSTAND (Azerbaijan)
- EOS (Egypt)

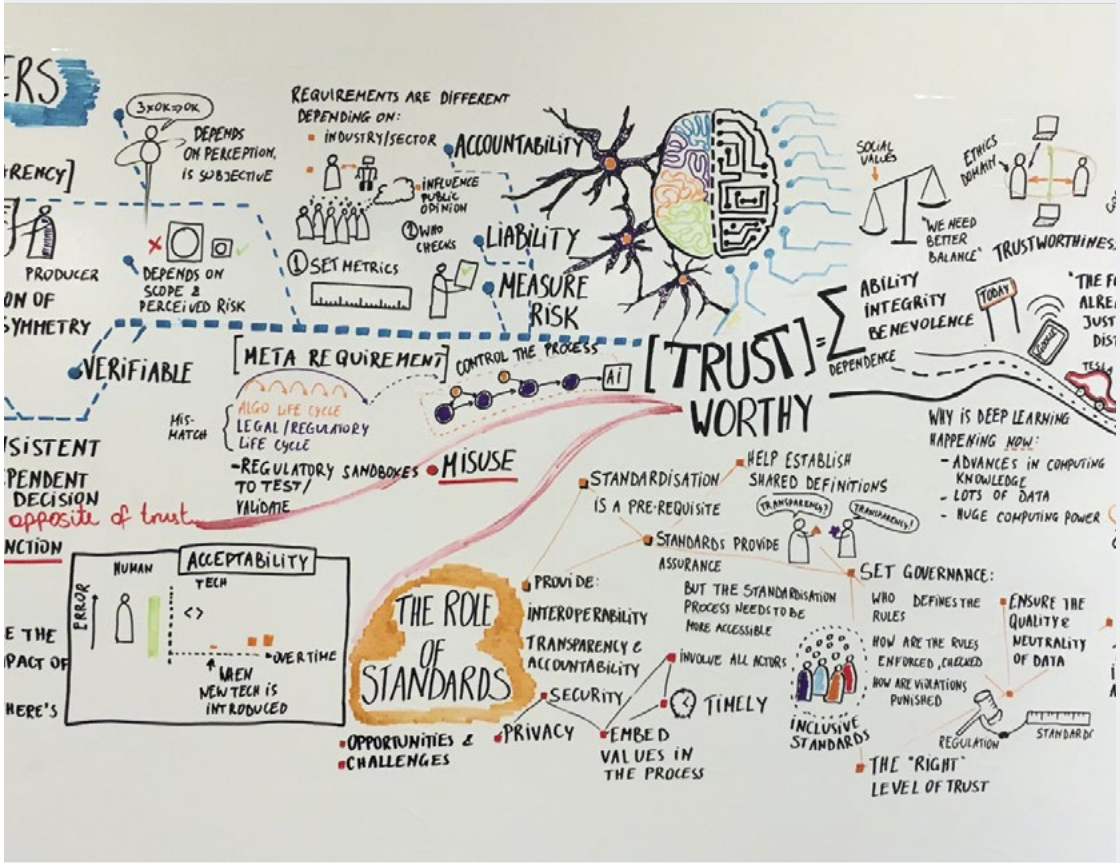
PRIORITY INTERNATIONAL PARTNERSHIPS

Creation of Five Task Forces in May and June 2018 with the mission to develop, implement and monitor long-term roadmaps and annual action plans in the context of cooperation with priority countries and regions: China; Africa, the Gulf region; India; and Japan. The Task Forces defined their first action Plans and long-term roadmaps to develop the partnerships.

VISIBILITY PROJECT

Launch of the 4th phase of the SESEC project (European standardization expert based in China). Focus: policy and regulatory developments in China impacting standardization, EU and EFTA trade issues, priority sectors, and horizontal issues including cybersecurity, data protection and intelligent manufacturing.

STAKEHOLDER ENGAGEMENT



CEN and CENELEC are committed to closely cooperate with their stakeholders.

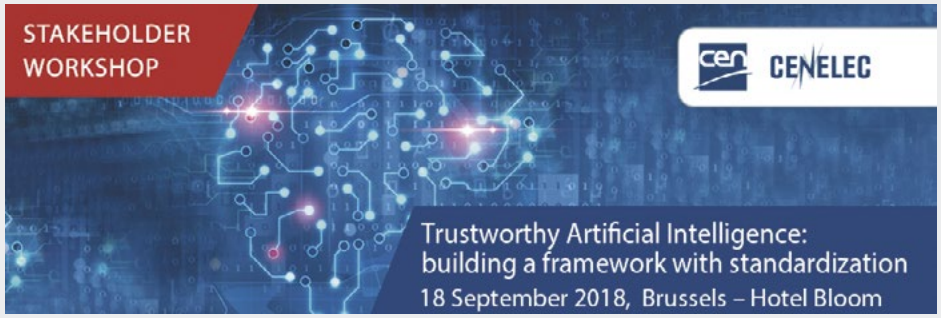
The Industry Advisory Forum (IAF), set up at the end of 2018, offers a flexible mechanism for industry representatives to feed their views into CEN and CENELEC's standardization work. The aim of the Forum is to provide a platform for dialogue with industry to advise on key standardization strategic issues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

Since 2014, CEN and CENELEC have regularly organized a series of Stakeholder Engagement Workshops in order to connect with industry, hear their feedback and concerns and identify together suitable standardization solutions at European or international level. In 2018, two Stakeholder Engagement Workshops were organized, tackling technical and strategic issues, identifying standardization gaps and policy issues.

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

STAKEHOLDER ENGAGEMENT WORKSHOPS: 2

Artificial Intelligence 18 SEPTEMBER 2018



111 participants *(stakeholders, policy makers, standardisers)*

FOCUS

- Define the different parameters that make an AI system trustworthy
- Explore key requirements for AI in the Consumer Smart Environment as well as for Industrial Manufacturing.
- Identify areas and ways in which standards can help implement trustworthiness of AI systems, as well as requirement frameworks, qualification criteria, benchmarks and baselines.

OUTCOME

The output was taken up in a 'CEN-CENELEC roadmap for AI standardization' and was fed into the discussions to set up a CEN-CLC Focus Group on 'Artificial intelligence'.

Urban Autonomous Mobility 21 NOVEMBER 2018

102 participants *(stakeholders, policy makers, standardisers)*

FOCUS

- Understand the challenges of mixed autonomous and non-autonomous model systems to create a fully autonomous urban ecosystem.
- Discuss areas and ways in which standards can provide solutions for future intelligent and connected urban ecosystems
- Assess the gaps in standardization and policy, which need to be addressed to deliver a solid EU strategy for mobility of the future.

Activities supporting societal stakeholders and SMEs

INDUSTRY ADVISORY FORUM (IAF)

The purpose of the Industry Advisory Forum (IAF) is to provide a platform for industry representatives and CEN and CENELEC to have an open exchange on current standardization issues, identify and inform on standardization priority topics for the industry and express suggestions, expectations and concerns to identify common solutions.

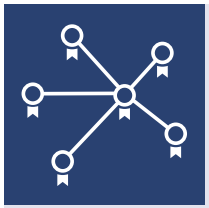
16 IAF members were nominated by the CEN and CENELEC Members and Industry Partners, on the basis of several criteria, such as high managerial level, relevant know-how, sectorial balance across CEN and CENELEC, and they represent both SMEs as well as large industries and ensure an adequate geographical and gender balance. The CEN and CENELEC Industry Advisory Forum (IAF) held its kick-off meeting on 16 October, under the leadership of the CEN and CENELEC Vice-Presidents Policy.

NEW E-LEARNING COURSE FOR SOCIETAL STAKEHOLDERS

ANEC, ECOS and ETUC have joined forces with CEN and CENELEC to develop Standards for all, a new free eLearning course on standardization for societal stakeholders that gives clear and straightforward information about the standardization process in Europe, as well as at the national and international levels.

The eLearning course aims to explain the complex world of standards in clear and simple terms, and is designed to be used by everyone, regardless of their level of knowledge or their background and according to their needs and interests. It was officially launched on the occasion of World Standards Day (12 October 2018).

Based on the supporting organizations' expertise, the course contains several modules to help users learn about standards, their development and the key role they play in protecting consumers, workers and the environment. It further demonstrates the importance for civil society to engage in standardization in order to improve, strengthen and add legitimacy to the European Standardization System.



CEN and CENELEC Members undertook specific stakeholder engagement activities in 2017 to reinforce the involvement of stakeholders already engaged in standardization activities (84,62%), to attract new stakeholders for these sectors where there is insufficient coverage (65,38%) and to attract stakeholders in new sectors that are not yet covered by standardization (61,54%).

National activities

- **AFNOR (France)** targeted a wide array of stakeholders. It provided support to the development of a serious game on standardization created by a consumers' association. It also set up an endowment fund to sponsor awareness-raising activities on standardization. Finally, it engaged SMEs and environmental NGOs by allowing them to participate free of charge in standardization activities.

- **BSI (United Kingdom)** ran events targeted at standards makers across all sectors as well as a number of specific events, including ones with a focus on: Materials, Automotive, Trade associations, Government, Fire safety.

- **DIN (Germany)** hosted its 'Connect Program', engaging young experts and start-ups, in November 2018. The event was dedicated to new and growing sectors, such as circular economy, Smart Technology & Services, Industry 4.0, Ageing Societies, Information Safety and Security and Innovative Materials. DIN also held a Conference on innovation and standardization related to autonomous systems in October 2018.

- **ILNAS (Luxembourg)** organized a series of events aiming at reinforcing the involvement of stakeholders already engaged in standardization activities and attracting new stakeholders in the ICT sector:
  - one breakfast meeting on Artificial Intelligence and technical standardization;
  - three breakfast meetings on Blockchain and technical standardization;
  - the ILNAS/ETSI workshop, which is a yearly event organized in collaboration with ETSI to inform national stakeholders about ETSI's standardization work and promote technical standardization activities of ILNAS. In 2018 the focus was on IoT, 5G and education about standardization.

- **NEN (the Netherlands)** targeted, through their stakeholder activities, mainly water, IT, energy transition, circular economy, and medical devices.

National activities

- **SIS (Sweden)** organizes an annual seminar to promote standardization work to a broad audience. In 2018, the focus was on global trade. SIS also holds annual conferences on machine safety and quality management. Furthermore, SIS holds breakfast seminars to promote participation in standardization.

- **UNE (Spain)** organized debate sessions to present new standardization initiatives in a variety of sectors, such as financial education of citizen, digital preservation of cinematographic works, cybersecurity and data protection, circular economy, and accessibility to heritage. It also participated to many sectoral technical conferences. UNE also invested in communication and awareness raising, by launching a specific magazine on its standardization activities, and reinforcing the dissemination of published standards through different means like social networks, UNE web page and also with the organization of specific presentation sessions.

- **UNMZ (Czech Republic)** mainly focussed their stakeholder activities on the construction sector, smart manufacturing, smart cities and artificial intelligence.

- **YOUNG DIGITAL EXPERTS**
  Various engagement activities were set up aiming especially at young/digital experts. Most of them led to concrete engagements.

  The following initiatives can be highlighted:

  - BSI in the UK organized the Standards Forum and held guest lectures at universities and support for master's programme;
  - CEI in Italy has established a National Young Professional Program;
  - DIN in Germany initiated its own youth network 'DIN Young Professionals', supporting DIN Connect Pitches for start-ups. Furthermore, it revised its webpage, social media, print media, and events to make them more youth-oriented;
  - Electrosuisse in Switzerland organized five events;
  - ILNAS in Luxembourg organized in total seven events, such as breakfasts, conferences, workshops and meetings
  - NEN in the Netherlands organized several events to engage the youth, such as World Standards' Day, Blockoctober, new experts campaign, and NEN awards.
  - MSZT in Hungary and ASI in Austria both organized four events.

TRAININGS IN 2018

FOR STANDARDIZATION EXPERTS

HARMONISED STANDARDS IN HEALTHCARE

When: 5 February 2018
Participation: 120 attendees
Aim: provide guidance for drafting of harmonised standards with focus on Annex ZA/ZZ and normative references. Examples of previously rejected standards for citation in the OJEU were presented to show common issues and suggest ways for avoiding them in future standards.

THE IMPLEMENTATION OF THE GDPR IN CEN AND CENELEC

When: 1 March 2018
Participation: 55 attendees
Aim: raise important aspects that can affect the CEN-CENELEC system and which need particular attention for further coordination.

WORKSHOP ON PREPARATION OF HARMONISED STANDARDS

When: 12 July 2018
Participation: 82 attendees
Aim: give an overview of the latest developments regarding the preparation of CEN and CENELEC Standards to be cited in the Official Journal, with main focus on how these changes impact the work of CEN and CENELEC technical bodies.

TRAINING FOR NEW TECHNICAL BODY OFFICERS

What: annual training session for newly appointed Technical Bodies Officers (Chair or Secretaries).
When: 13 December 2018
Participation: 55 Technical Body Chairs and Secretaries at location (+ 30 persons connected online)
Aim: provide a wide overview of the European Standardization System and in particular of the standards development process. Particular emphasis has been given to the new process for the assessment and citation of harmonised standards, the new features of the IT tools, how to address IPR issues in the standards development process and enhance the involvement of societal stakeholders and SMEs.
More info:

IT TOOLS TRAININGS

What: quarterly IT Tools Training Day
Content: Topics selected from input from CEN and CENELEC National Member Organizations focusing on specific CEN and/or CENELEC IT Tools, based on the needs and interests of Technical Body Officers and IT Tools administrators at national level.
Aim: support the Technical Body Officers and IT Tools administrators to become more efficient.
More info:

WEBINARS FOR STANDARDS DRAFTERS

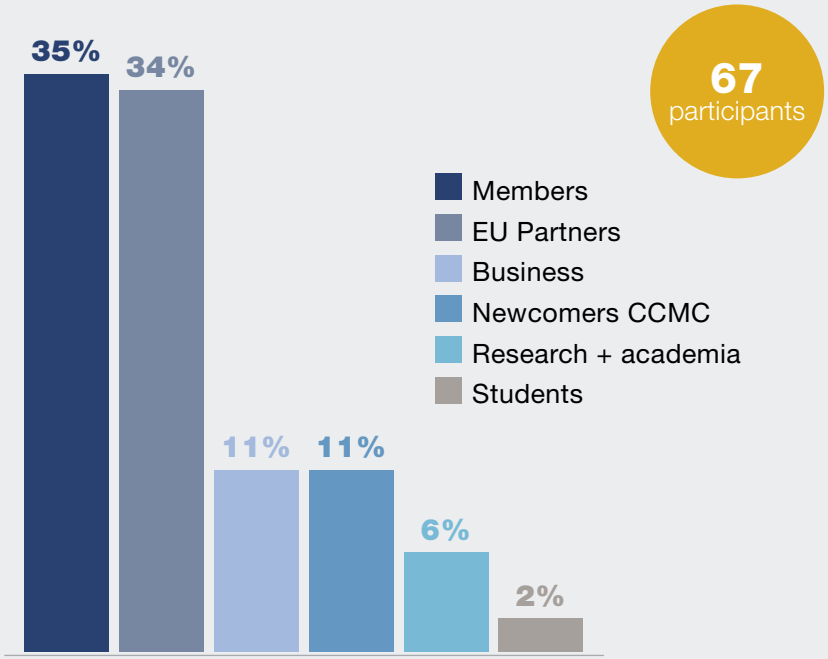
What: 2 Webinars held in 2018 (checklist for writers and editors of documents & conformity assessment)
Participation: 327 Technical Committee's secretaries and Working Group members
Aim: achieve a common understanding of the drafting rules and the related procedures, and strengthen working relationships between the CEN-CENELEC Management Centre and the Technical Bodies.
More info:

TRAININGS IN 2018

FOR A WIDER AUDIENCE

STANDARDAYS

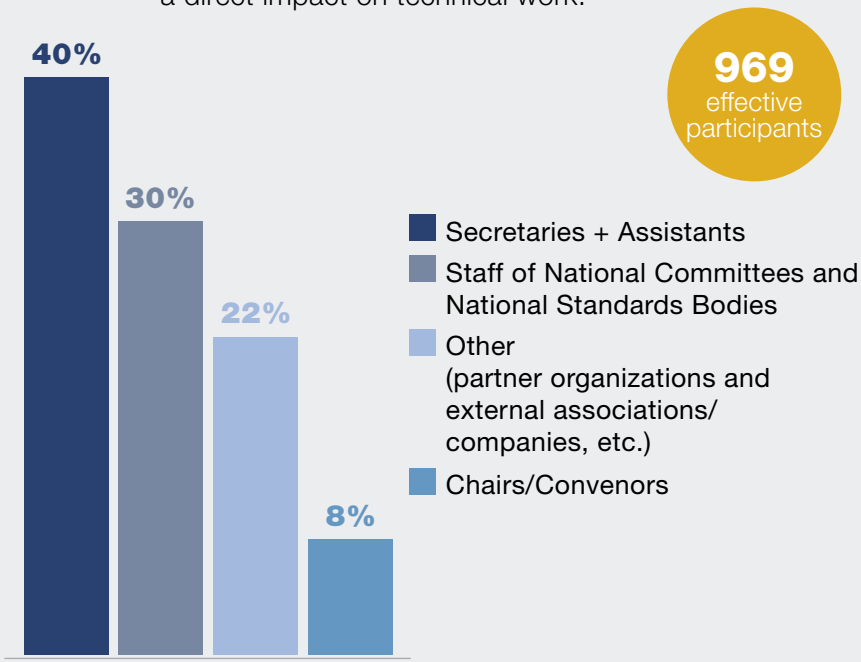
A two-day information session aimed at newcomers to European Standardization, as well as those who would like to understand the CEN and CENELEC system better (May 2018).

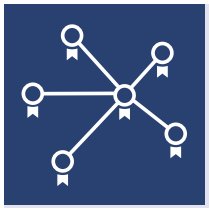


10-10 WEBINARS

Topics are focusing on the needs and interests of the CEN and CENELEC Technical Body Officers, but also open to interested National Members, Partners and stakeholders.

Aim: provide an update on the latest developments in standardization and on specific topics that could have a direct impact on technical work.





In 2018 most of CEN and CENELEC Members organized educational and training programmes about standardization targeting mainly standards users and developers (68%), academia (68%), regulators (56%) and other stakeholders (8%).

National activities

- **ASI (Austria)** held five trainings in 2018, attracting about 85 people from a wide range of stakeholders. It also published the text book 'Standards einfach mitgestalten - Wie sie entstehen - wer aller mitmacht - und warum' on how standards are created.
  Find out more information on the text book (in German)

- **BSI (UK)** offers trainings to their national Committee Members on a variety of technical and soft skills, which delegates can select on a voluntary basis based on their training needs. In 2018, they had 14 courses available and organized 40 events, reaching up to 435 delegates. There is no industry-specific content in this particular programme. BSI also produced leaflets and informational material, including a revised handbook for Government officials on Standards and accreditation as tools for better regulation, and a leaflet on the new online review standards.
  Find out more information about the trainings here

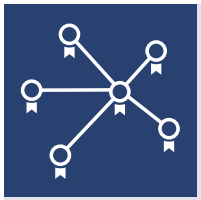
  BSI also held specific activities aimed at academia: first of all, it held guest lectures and talks for undergraduate and postgraduate audiences in universities and business schools, primarily in the areas of design, innovation, manufacturing, engineering and management. Another initiative on the field is the 'Student Research Programme', which provides support to postgraduates researching standards and/or standardization in their master's level dissertations.

- **CEI (Italy)** provided numerous specialised trainings in 2018. It held 10 institutional seminars and 77 dedicated seminars, covering all sectors of their standardization activities. CEI also organized a workshop for TCs Officers and dedicated training courses for new stakeholders. All together, these educational activities reached an estimated 20 000 people. In order to reach out to a wider audience, CEI also published the trainings' course material both in hard copy and in digital format, together with the notes from the lectures.

- **CYS (Cyprus)** held ten trainings, targeting mainly standards users, on management systems, ICT and the construction sector, reaching 105 people.

- **DIN (Germany)** organized 400 trainings, focussing on a variety of sectors, such as Building and civil engineering, Building services, Mechanical engineering, Materials, Quality, Management, Standardization, Technical principles, Metrology, Healthcare, Environmental protection and Energy. In total, DIN was able to reach out to 4 000 participants.

- **Electrosuisse (Switzerland)** organized a series of trainings to a variegate group of stakeholders, reaching out to 150 people: five were dedicated to academia, one to regulators and one to standard users and developers.



National activities

- **ILNAS (Luxembourg)** offers a wide selection of training courses and awareness sessions on technical standardization, which are accessible to all interested categories of stakeholders. In particular, in 2018 ILNAS provided three main categories of trainings to all interested stakeholders. The first category was dedicated to trainings on technical standardization in the ICT sector, and consisted of four trainings on 'Big Data and Digital Trust', 'Blockchain and Technical Standardization', 'Internet of Things (IoT) and Technical Standardization' and 'Cloud Computing and Digital Trust', which reached 23 people.

  A second category of trainings was focussed on more general aspects of technical standardization. It consisted of two trainings, on 'Standards and standardization' and 'How to carry out an effective standards watch', provided to seven people. Thirdly, three specific trainings were targeted at 27 national delegates in standardization, with the aim to explain them the organisation of the standardization work in Luxembourg, their role as national delegates and the tools at their disposal to participate in technical standardization.

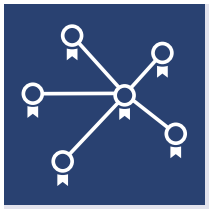
  In collaboration with the University of Luxembourg, ILNAS has also organized a new iteration of the University certificate 'Smart ICT for Business Innovation' in 2018. The purpose of this certificate is to people who want to develop Smart ICT skills. The certificate aims at enhancing the skills of ICT professionals and reinforcing the position of Luxembourg in the field of Smart ICT by offering its students a broad view of Smart ICT concepts and tools. 12 persons were reached through this educational program

- **IPQ (Portugal)** organized 49 trainings and seminars, for a total of 86 hours, targeting different groups of stakeholders: 11 events were dedicated to standards users and regulators, 10 to standards developers and 28 to the academia. In total, the trainings organized by IPQ reached 1 668 people in 2018.

- **ISS (Serbia)** organized specific trainings, varying depending on their target group. For university students, they held three seminars – on defense, security and privacy and QMS and EMS – reaching 50 students. For 350 standards users, trainings focussed on testing laboratories and electricity. Finally, specific trainings for standards developers reached up to 250 participants.

- **MSZT (Hungary)** held a series of trainings targeting different stakeholders and reaching around 50 people: two of them were dedicated to regulators, while four were dedicated to tertiary students, to raise awareness on standards among future standards users.

- **NSAI (Ireland)** organized more than 30 trainings, targeting a variety of stakeholders, on issues such as medical, IOT, manufacturing, construction/electrical, innovation management and standards development. In total, the trainings reached out to more than 1000 people. NSAI also developed a course for those using and developing medical device standards.



National activities

- **PKN (Poland)** provided 15 lectures to higher education technical schools, reaching 1 000 students all around the country. It also gave nine lectures to secondary vocational schools, reaching about 500 students.

  For standards developers, PKN established two e-learning courses dedicated to members and secretaries of Polish Technical Committees. Over the course of 2018, 153 people participated in those courses - 100% of representatives acting in the role of Technical Committees' secretaries.

- **SIS (Sweden)** organizes yearly open trainings for standard users and standard developers, covering several sectors such as QMS, EMS, working environment, machine safety, e-health, medicine, innovation. They arrange approximately 250 trainings and seminars each year, reaching 5 000 persons.

RAISING AWARENESS AND VISIBILITY

CEN and CENELEC work to reinforce the visibility of the European Standardization System with all relevant stakeholders. We are employing various communication channels 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 organizations.

PUBLICATIONS ISSUED IN 2018

CEN and CENELEC publications are available at www.cencenelec.eu/news/publications

CEN AND CENELEC WORK PROGRAMME 2019

An overview of the most significant standardization activities for implementation by CEN and CENELEC in 2019

CEN AND CENELEC GLOBAL OUTREACH REPORT 2017

Provides a report of CEN and CENELEC's global outreach at the end of 2017

THE ANNUAL REPORTS OF CEN AND CENELEC FOR 2017

Information on CEN activities, CENELEC activities and joint activities

SMART MOBILITY

Leaflet for the Stakeholders Workshop 'European standardization in support of urban intelligent transportation and mobility'

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

eNEWSLETTERS

'ON THE SPOT' CEN AND CENELEC eNEWSLETTER

4 issues in 2018

CEN AND CENELEC ACTIVITIES IN BRUSSELS

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

BT NEWSLETTER

Issued following the meetings of the CEN and CENELEC Technical Boards and reporting on the main outcomes of discussions.

PRESS RELEASES AND BRIEF NEWS

Total: **105** news

9 PRESS RELEASES:
publicising agreements or official positions with stakeholders they are usually published jointly

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

38 STANDARDS IN THE SPOTLIGHT:
promoting, once a week, a new standardization deliverable by CEN or CENELEC.

EVENTS

Picture taken at the Workshop 'Trustworthy Artificial Intelligence – building a framework with standardization', 18 September 2018

7 events
638 participants

More info on events

eCOMMUNICATION

CEN AND CENELEC WEBSITES

4 909 939
visits
+ 4,39%

www.cen.eu	2 136 463	– 2%
www.cenelec.eu	1 435 638	+ 14%
www.cencenelec.eu	1 337 838	+ 6,24%

SOCIAL MEDIA ENGAGEMENTS IN 2018

Facebook
2 961 likes
+ 12%
facebook.com/CENCENELEC

Twitter
7 606 followers
+ 26%
twitter.com/Standards4EU

LinkedIn
4 491 followers
+ 40%
linkedin.com/company/cen-and-cenelec

YouTube
301 followers
+ 27%
youtube.com/CENCENELEC

eCOMMUNICATION

SOCIAL MEDIA CAMPAIGNS

25TH ANNIVERSARY OF THE EUROPEAN SINGLE MARKET #SINGLEMARKET

To highlight the important contribution of European standardization to the Single Market, we ran from May to December 2018 a series of news articles to showcase concrete examples of standards' contribution to the European industry welfare and consumer's safety in a social media campaign entitled 'European Standardization & the EU Single Market'.

SUSTAINABLE ENERGY WEEK #EUSEW18

In June 2018, as part of the European Commission's #EUSEW18 initiative to encourage use of sustainable energy & renewables, CEN and CENELEC held a social media campaign to highlight the important role of the CEN-CENELEC Sector Forum on Energy Management (SFEM).

eCOMMUNICATION

SOCIAL MEDIA CAMPAIGNS

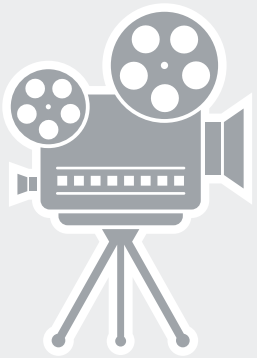
EUROPEAN STANDARDS IN FOOTBALL

On the occasion of the FIFA World Cup 2018, CEN & CENELEC promoted some standards in relation to football and football equipment. Later during the year, in November, CEN signed a liaison agreement with FIFA, who will participate in the standardization activities of CEN/TC 217 'Surfaces for sport areas'.

WORLD STANDARDS DAY TWEET CHAT #WSD2018

On Monday 15 October, CEN, CENELEC, ETSI and DG GROW at the European Commission organized a tweet chat on 'Standards meet the future' at the occasion of World Standard Day (14 October). Public authorities, industry, experts, societal stakeholders, standardization bodies were invited (on Twitter) to exchange views on how standards contribute to the European Single Market.

AUDIOVISUAL



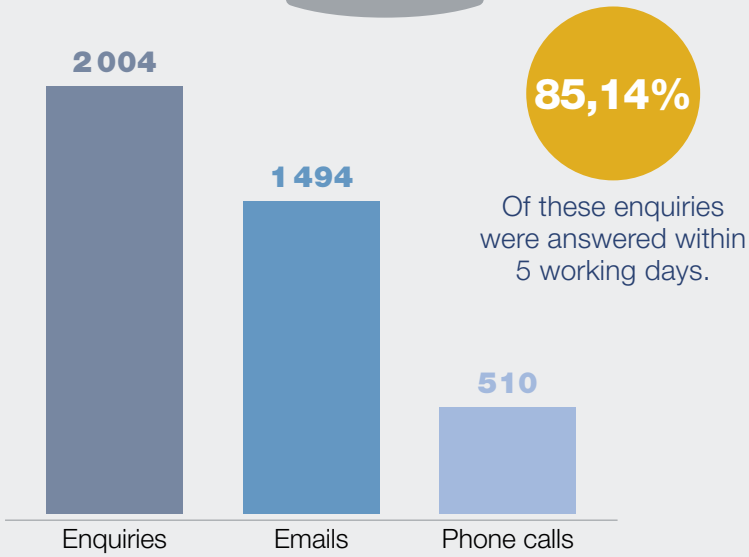
CEN and CENELEC produced and published on their websites and YouTube channel a series of videos. Most of them were dedicated to explore specific standardization areas in the framework of the 'European Single Market campaign', and featured interviews and testimonials from various stakeholders. All videos 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:

- European standardization in the field of energy
- Lifts, a standardization success story
- Trustworthy AI - building a framework with standardization
- Standards for toy safety
- Interview with Mr Wim De Kesel, winner of the 2018 Lord Kelvin Award

CEN-CENELEC INFODESK



CEN and CENELEC also provide specialised helpdesks for questions concerning environmental issues, research and innovation activities, and small and medium-sized enterprises (SMEs).

STANDARDIZATION ACTIVITIES IN 2018

STANDARDIZATION ACTIVITIES PER SECTOR

	Deliverables* at the end of 2018	Deliverables* in 2018	Technical Bodies at the end of 2018
Chemicals	1323	108	22
Construction	3223	247	77
Consumer	891	80	23
Defence and security	298	32	23
Digital Society	2438	111	44
Electrotechnology	3411	181	34
Energy and utilities	1976	121	77
Food and agriculture	675	21	14
Healthcare and health & safety	1708	122	39
Household appliances and HVAC	656	50	24
Mechanical and machinery	2262	161	74
Mining and metals	1006	4	10
Services	389	27	22
Transport and vehicles	3987	275	29

** excluding guides*

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NEW TECHNICAL COMMITTEES

In 2018, several Technical Bodies were set up to ensure the development of new standardization topics that fell outside the scope of existing Technical Bodies.

Electrotechnology	Recurrent Test of Electrical Equipment (CLC/BTTF 160-1)
Mechanical and machinery	Safety of measuring, control, and laboratory equipment (CLC/TC 66x) Electric welding (CLC/TC 26) Industrial Symbiosis (CEN/WS 093) Articulated industrial robots - Elastostatic compliance calibration (CEN/WS 97) Nanoindentation Test Data (CEN/WS NATEDA)
Defence and Security	Urban search and rescue (USaR) robotic platform technical and procedural interoperability (CEN/CLC/WS INACHUS)
Household appliances and HVAC	Fuel Cell Gas Appliances with Combined Heat and Power (CEN/CLC/JTC 17)
Digital Society	Description and Assessment of Good Practices for Smart City Solution (CEN/WS SCS)
Energy & Utilities	Sustainable Energy Retrofit Process Management for Multi-Occupancy Residential Buildings with Owner Communities (CEN/WS Energy Retrofit)

Food & Agriculture

- Food authenticity (CEN/TC 460)
- Mapping of future needs of standardisation in the paper and board sector (CEN/WS 096)

Services

- Journalism Trust Indicators (CEN/WS JTI)
- Analytics Insights and Scaling Policies for Microservices (UNICORN) (CEN/WS Unicorn)
- Workshop on European Quality framework for Students Internships (CEN/WS 095)

BUSINESS SECTORS

CHEMICALS

Chemical production in the EU accounts for about 13.5% of total chemical production all over the world. Given this number and the fact that chemicals are building blocks of several products, the EU chemicals sector is highly regulated.

In this context, standards play a crucial role in supporting a single market for chemical products. They are 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.

SUSTAINABLE CHEMICALS

In 2018, CEN-CENELEC BTWG 11 'Sustainable Chemicals' delivered its final report under EC Ancillary Action on 'Sustainable Chemicals from Primary and Secondary Raw Materials with the objective of identifying and prioritising needs'. Recommendations mentioned in this report were also verified with stakeholders in a dedicated workshop.

CHEMICAL PRODUCTS

CEN/TC 352 'Nanotechnologies' developed four technical specifications in 2018 under the standardization request M/461 on Nanotechnologies and Nanomaterials.

A workshop was jointly organized by CEN/TC 137 ' Assessment of workplace exposure to chemical and biological agents' and CEN/TC 195 'Air filters for general air cleaning' to understand standardization needs and the expectations of societal stakeholders, research and the industry.

PLASTIC AND RUBBER MATERIAL

In 2018, CEN-CENELEC BTWG 13 'PAHs' worked towards their scoping study and work programme in response to standardization request M/556 on compliance with maximum content criteria of Polycyclic Aromatic Hydrocarbons in rubber and plastic components of articles placed on the market for supply to the general public, in support of REACH legislation (Regulation (EC) No. 1907/2006).

TOBACCO, TOBACCO GOODS AND SUPPLIES

CEN/TC 437 'Electronic cigarettes and e-liquids' published CEN Technical Report 'Electronic cigarettes and e-liquids - Constituents to be measured in the aerosol of vaping products' (CEN/TR 17236:2018). The document gives a list of constituents proposed for measurement in aerosols, for the purpose of regulatory submission under the Directive 2014/40/EU, for

- prefilled products such as disposable e-cigarettes and refill cartridges,
- e-liquids sold in refill containers,
- the following categories of hardware: coils or other heater elements of the vaping product, atomisers, rebuildable atomisers and all open tank or dripper products with inbuilt atomisers.

BUSINESS SECTORS

CONSTRUCTION

Europeans spend about 80% of their time indoors. For this reason, EU standards 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, 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.

STRUCTURAL EUROCODES

Eurocodes are a set of European standards for the structural 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', the Technical Committee 'Structural Eurocodes' (CEN/TC 250) established a series of project teams. The first phase of the work programme was completed in 2018 and the TC is currently continuing with the last two phases.

STANDARDS ISSUED:

EN 1992-4 'Design of concrete structures – Part 4: Design of fastenings for use in concrete'. The publication aims to provide requirements on the design of fastenings for use in concrete to replace the existing series of Technical Specifications, with four supporting Technical Specifications which were published concurrently.

DANGEROUS SUBSTANCES

CEN/TC 351 'Construction products – Assessment of release of dangerous substances' developed five Technical Specifications addressing the release of inorganic substances under the European Commission standardization request M/366. They address the development of horizontal standardised assessment methods for harmonised approaches relating to dangerous substances under the CPR.

CONSTRUCTION WORKS

CEN/TC 350 'Sustainability of construction works' continued with the revision on a set of European Standards providing a standardised approach to the delivery of environmental information on construction products, the assessment of the environmental, social and economic performance of buildings and civil engineering works, and more generally the sustainability performance of construction works. Part of the work was carried out in response to the amendment to M/350. The main focus in 2018 was the finalisation of the amendment to EN 15804 'Environmental product declarations – Product category rules'.

CONSTRUCTION PRODUCTS, STRUCTURES AND MATERIALS; AUXILIARY PRODUCTS TO CONSTRUCTION

CEN developed a CEN Workshop Agreement (CWA) on smart CE marking. The CWA is expected to be a reference document and serve as a basis for the implementation of the smart CE marking concept in Harmonised Standards under the CPR.

BUSINESS SECTORS

CONSUMER

Consumer products are defined as items intended for consumers or likely to be used by consumers, even if not intended for them.

More than 19 CEN Technical Committees are carrying out standardization activities on consumer products. Standardization work in the field is carried out to support EU legislation, in particular the General Product Safety Directive (2001/95/EC), the Toy Safety Directive (2009/48/EC) and Regulation 1007/2011 on textile fibre names and related labelling and marking of the fibre composition of textile products.

CEN also develops standards in parallel with his international counterpart ISO on footwear, sport equipment or textiles, leading to the publication of European and international standards. CEN also collaborates closely in its standardization work with ANEC': standardization work with ANEC, which represents consumer interests in standardization.

In order to ensure that products placed on the European market are safe, CEN standards are continuously evolving, with the ambition to be proactive and mitigate foreseeable risks in existing and new types of products, thus meeting the real needs of the modern society.

CONSUMER CLOTHING, FOOTWEAR AND ACCESSORIES

CEN/TC 248 'Textiles' continued working on standardization activities in support of the following Standardization Requests from the European Commission: M/461 'Nanotechnologies'; M/532 'Methods for quantitative analysis of textile products composed of certain binary and ternary textile fibre mixtures'; and M/553 'Advanced garments'.

Furthermore, CEN/TC 248 worked together with ISO on the finalisation of a series dedicated to the quantitative chemical analysis of textiles (EN ISO 1833 series).

FURNITURE, FURNISHINGS AND CLEANING PRODUCTS

CEN's portfolio of standards on furniture continued to grow to meet the industry's and consumers' demands for functionality, comfort and design together with the safety requirements set out in the General Product Safety Directive (GPSD - 2001/95/EC). As a rule, the European standards on furniture set out dimensions for the height, the width, the depth and the space to integrate appliances in kitchen units, offices, outdoor or domestic furniture.

CEN/TC 207 'Furniture' published a new suite of European standards related to coordinating sizes for kitchen furniture and kitchen appliances, strength and loading capacity of wall attachment devices and safety requirements for office furniture.

STANDARDS ISSUED:

- EN 1116:2018 'Furniture - Kitchen furniture - Coordinating sizes for kitchen furniture and kitchen appliances'
- EN 15939:2018 ' Hardware for furniture - Strength and loading capacity of wall attachment devices'EN 1335-2:2018 'Office furniture - Office work chair - Part 2: Safety requirements'

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 2018, CEN/TC 52 'Safety of Toys' published major revisions of standards providing presumption of conformity with the essential requirements under the Toys safety Directive.

STANDARDS ISSUED:

- EN 71-1:2014+A1:2018 'Mechanical and physical properties'
- EN 71-3:2013+A2:2017 'Safety of toys - Part 3: Migration of certain elements'
- EN 71-7:2017+A2:2018 'Safety of toys - Part 7: Finger paints - Requirements and test methods'
- EN 71-8:2018 'Safety of toys - Part 8: Activity toys for domestic use'
- EN 71-14:2014+A1:2017 'Safety of toys - Part 14: Trampolines for domestic use'

In support of the implementation of the EU Directive on General Product Safety (2001/95/EC), CEN and CENELEC finalised the publication of two standards on childcare articles for bathing aids and bath tubes for children (prEN 17022 and prEN 17072) under the standardization request M/464 dedicated to 'Childcare articles – drowning risks'.

CHILDCARE

CEN/TC 248 'Textiles' published a number of new standards in support of the implementation of the EU Directive on General Product Safety (GPSD - 2001/95/EC) and Mandate M/497 'Childcare articles – risks in sleeping environment'. The aim of these standards, related to the safety requirements and test methods of textile child care articles for children's cot bumpers, cot duvets and sleep bags, is to minimize the main risks posed by products in the sleep environment of babies and young children, such as internal asphyxiation (choking); hyperthermia (overheating); injuries due to ingestion of small parts; injuries due to chemicals, etc.

STANDARDS ISSUED:

- EN 16779-1:2018 'Textile child care articles - Safety requirements and test methods for children's cot duvets - Part 1: Duvet (excluding duvet covers)';
- EN 16780:2018 'Textile child care articles - Safety requirements and test methods for children's cot bumpers';
- EN 16781:2018 'Textile child care articles - Safety requirements and test methods for children's sleep bags for use in a cot'

LIGHTERS, ARTICLES OF COMBUSTIBLE MATERIALS, PYROTECHNICS, MATCHES AND LIQUID OR LIQUEFIED GAS FUELS

In support of European Commission's Directive 2013/29/EU on pyrotechnic articles, CEN/TC 212 'Pyrotechnic articles' started the revision of the EN 15847 series that defines various terms relating to the design, construction, primary packaging and testing of fireworks of categories F1, F2 and F3.

SPORT GOODS

CEN/TC 136 'Sports, playground and other recreational facilities and equipment' undertook the revision of the standards for mountaineering equipment, specifically for rock anchors and harnesses . The standards specify the safety requirements and test methods for use in mountaineering including climbing.

STANDARDS ISSUED:

- EN 959:2018 'Mountaineering equipment - Rock anchors - Safety requirements and test methods'
- EN 12277:2015 + A1:2018 'Mountaineering equipment - Harnesses - Safety requirements and test methods'
- EN 17164:2018 'Climbing/bouldering walls for use in the water area of swimming pools of public use - Safety and operational requirements'

Two European Standards on playing field equipment, covering functional and safety requirements and test methods for portable and fixed goalposts and football goalposts were also published.

STANDARDS ISSUED:

- EN 16579:2018 'Playing field equipment - Portable and permanent socketed goals - Functional, safety requirements and test methods'
- EN 748:2013+A1:2018 'Playing field equipment - Football goals - Functional and safety requirements, test methods'

BUSINESS SECTORS

DEFENCE AND SECURITY

In recent years, subjects like security threats, privacy and personal data protection have become common in the public sphere but also on the standardization agenda. Key to tackling the latest societal challenges (civil protection, migration, terrorism, natural disasters) was our work to keep pushing the security standardization forward.

In October 2018, CEN and CENELEC established the CEN – CENELEC Sector Forum Security (SF-SEC) which gathers experts from law enforcement authorities and businesses such as fire and security, protective equipment, smart appliances, energy, transport, healthcare. The SF-SEC will coordinate on-going European standardization activities concerning security topics in multiple sectors (e.g construction, transport, ICT, energy, healthcare, food). It will also identify business trends, best practices and technologies that should be embedded into standards deliverables to increase performance of security products, systems and services in order to boost societal resilience and build up capabilities of public authorities to protect public spaces.

EMERGENCY, SECURITY AND RELATED SUPPORT EQUIPMENT

In 2018 CEN's portfolio of standards for the security sector continued to grow to meet the industry's demands for functionality, safety, crisis management together with privacy management.

CEN/TC 325 'Crime prevention through building, facility and area design' resumed its activities in 2018, with new standardization projects on the protection of public spaces, buildings and facilities through planning, design and management. The upcoming work will entail the revision of terminology, principles and prevention of crime in schools through urban planning and the design of buildings

CEN/TC 391 'Societal and citizen security' published two technical specifications.

CEN/TS 17159:2018 'Societal and citizen security - Guidance for the security of hazardous materials (CBRNE) in healthcare facilities' sets out guidance principles for all stakeholders that are responsible for each step in a lifecycle of CBRNE materials within healthcare facilities such as administrator staff, facility management staff, logistics and transport staff, medical staff, waste management staff, domestic staff and security staff as well as visitors and contractors working on the HCF premises.

CEN/TS 17091: 2018 'Crisis management - Guidance for developing a strategic capability' provides strategic decision makers with guidance on good practices for establishing, implementing and improving crisis management capabilities and help the highly experienced decision makers of any organization to plan, implement, establish, operate, monitor, review, maintain and continually improve a crisis management capability.

BUSINESS SECTORS

DIGITAL SOCIETY

Information and communication technologies have become increasingly important in our daily lives and for all kinds of businesses. In the ICT sector, it is especially important that products and services are mutually compatible and interoperable, so that information can be shared and people can communicate with each other using different devices. CEN and CENELEC bring a major contribution to ICT standardization through their broad footprint in vertical sectors and in hardware layers (manufacturing, energy, electrotechnology, datacentres, transport, healthcare, machinery, construction, etc.). Relevant standards help to ensure that products such as computer peripherals and other electronic devices made by different companies are able to work together seamlessly.

European Standards are key contributors to the EU Digital Single Market, contributing to an inclusive digital society. Moreover, CEN and CENELEC, through their partnerships with ISO and IEC, strongly support international standardization, especially in the ICT sector, which makes Europe the region that has the greatest level of alignment between regional and international standards.

ADVANCED MANUFACTURING TECHNOLOGIES

In 2018, CEN/TC 438 'Additive Manufacturing' continued its activities to adopt international standards for additive manufacturing technologies. This includes several test methods, specifications and a technical report prCEN/ISO/ASTM TR 52912 for the Design of Functionally Graded Additive Manufactured Parts.

CEN/TC 310 'Advanced automation technologies and their applications', in cooperation with its corresponding ISO/TC, continued its work on the revisions of two standards under the Machinery Directive. The TC mainly focused on the following project: prEN ISO 10218-1 'Robots and robotic devices - Safety requirements for industrial robots - Part 1: Robots' and prEN ISO 10218-2 'Robots and robotic devices - Safety requirements for industrial robots - Part 2: Robot systems and integration'.

RADIO, TELEVISION, COMMUNICATION, TELECOMMUNICATION AND RELATED EQUIPMENT

CLC/TC 215 'Electrotechnical aspects of telecommunication equipment' published the 50173 series on 'Information Technology – Generic cabling systems (for office spaces, industrial spaces, homes, data centres, distributed building services)'. Moreover, the TC published two Technical Reports on Data Center facilities and infrastructures.

CLC/TC 100X 'Audio, video and multimedia systems and equipment and related sub-systems' published EN IEC 61938 'Multimedia systems – Guide to the recommended characteristics of analogue interfaces to achieve interoperability' and EN IEC 62731 'Text-to-speech for television – general requirements'.

STANDARDS ISSUED:

- CLC/TR 50600-99-1 'Information technology - Data centre facilities and infrastructures - Part 99-1: Recommended practices for energy management'
- CLC/TR 50600-99-2 'Information technology - Data centre facilities and infrastructures - Part 99-2: Recommended practices for environmental sustainability'
- EN IEC 61938 'Multimedia systems – Guide to the recommended characteristics of analogue interfaces to achieve interoperability'
- EN IEC 62731 'Text-to-speech for television – general requirements'

ICT SKILLS

Digital, Information and Communication Technologies (ICT) are critical components to ensure the continued progress of the European economy and society. In an increasingly digital economy, the challenge for Europe is to support its citizens in developing sufficient and appropriate ICT skills and competences. CEN/TC 428 'ICT Professionalism and Digital competences' has worked intensively in 2018 on the revised version of EN 16234-1:2016 'e-Competence Framework (e-CF) - A common European Framework for ICT Professionals in all industry sectors - Part 1: Framework'. This European Standard will be designed to meet the needs of companies of all sizes and solve the lack of e-skills across Europe.

CYBERSECURITY

Cybersecurity has been identified as one of the main standardization priorities, since cyber threats impact a multitude of sectors. CEN and CENELEC have published as European Standards the revised version of EN ISO/IEC 27000 on information security management systems, under the responsibility of CEN-CLC/JTC 13 'Cybersecurity and data protection'. In the automated manufacturing sector, CLC/TC 65X 'Industrial-process measurement, control and automation' has developed EN IEC 62443-4-1 'Security for industrial automation and control systems – secure product development lifecycle requirements'.

Moreover, CEN/TC 224 'Personal identification and related personal devices with secure element, systems, operations and privacy in a multi sectorial environment' has published specifications related to personal identification and robustness against biometric presentation attacks (CEN/TS 17262), and biometric authentication for critical infrastructure access control (CEN/TS 17261).

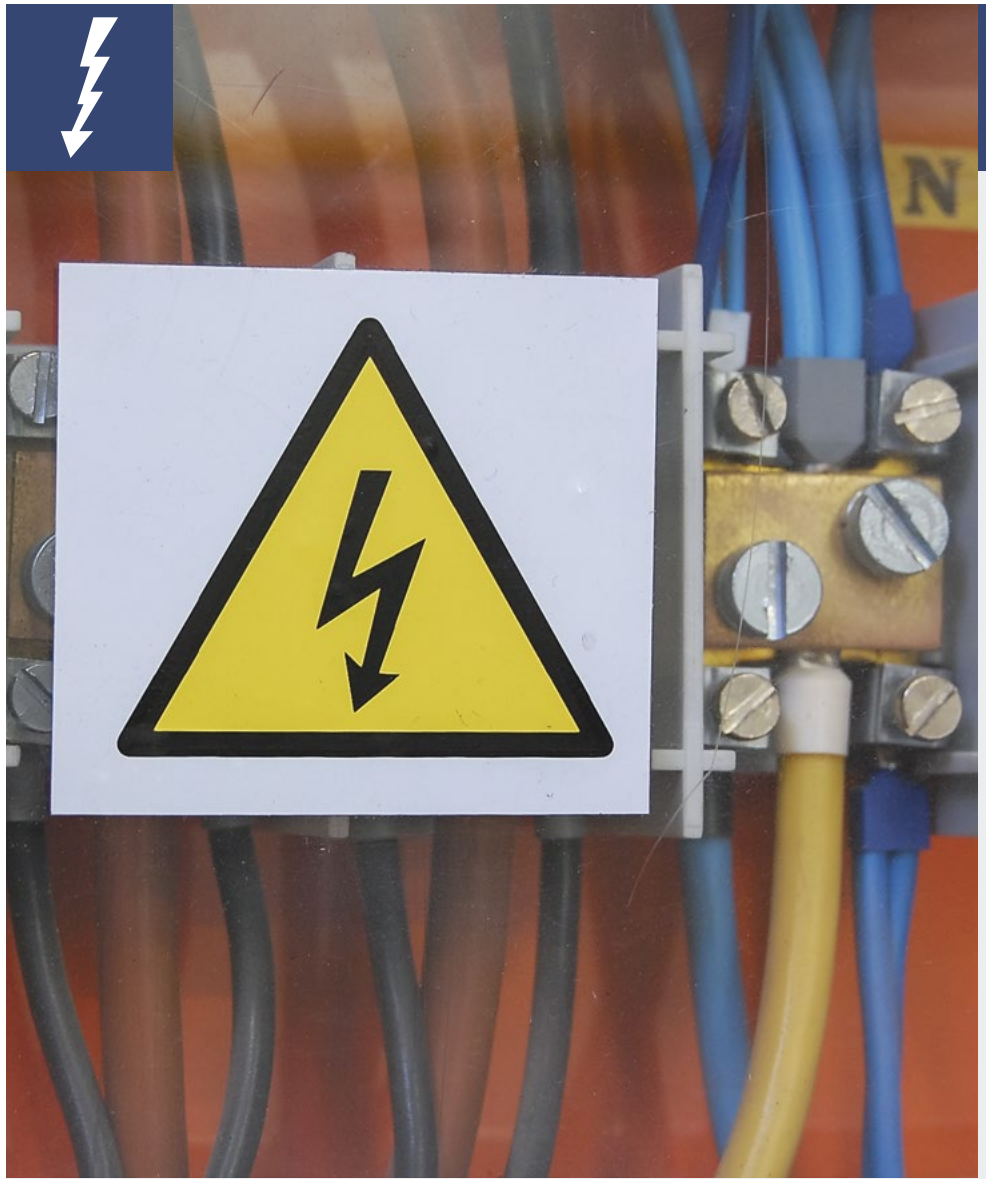
STANDARDS ISSUED:

- EN ISO/IEC 27000 'Information security management systems'
- EN IEC 62443-4-1 'Security for industrial automation and control systems – secure product development lifecycle requirements'

ARTIFICIAL INTELLIGENCE

Following the creation of ISO/IEC JTC 1 SC 42 on Artificial Intelligence (AI) in 2018, the first international Technical Committee looking at the entire AI ecosystem, CEN and CENELEC have organized the Stakeholder Workshop 'Trustworthy Artificial Intelligence – building a framework with standardization'. This workshop identified areas and ways in which standards can help implement trustworthiness in AI systems through requirement frameworks, qualifications criteria, benchmarks and baselines. It has contributed to the definition of the CEN-CENELEC Roadmap on Artificial Intelligence and the creation of the CEN-CENELEC Focus Group on AI.

BUSINESS SECTORS



ELECTROTECHNOLOGY

CENELEC is the leading European Standardization Organization in the sector of electrotechnology. 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 energy. CENELEC values close cooperation with its international counterpart, the International Electrotechnical Commission (IEC), to facilitate a consensus-based process between European and international standard development activities. Nearly 80% of the total 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.

ACCUMULATORS, PRIMARY CELLS AND PRIMARY BATTERIES

CENELEC has published 3 parts of the EN IEC 62485 series as developed by CLC/TC 21X 'Secondary cells and batteries', focussed on new requirements and safety aspects of secondary batteries and battery installations. These standards were originally based on European 'homegrown' standards and have now become international standards.

CENELEC also published two amendments to EN 50342-1 and -6 on Lead-acid starter batteries.

INSULATED WIRE AND CABLE

In an increasingly wirelessly connected world, it is sometimes overlooked that the backbone of power and communication networks is cabled. In fact, cable and wires are essential components in all electrotechnical applications. They require a high level of safety, reliability, performance and precision in their use. They can be copper, aluminium or fibre, combined with a broad variation of protection and insulation materials.

CLC/TC 46X 'Communication cables' finalised EN 62153-4-7/A1 on 'Metallic communication cable test methods for electromagnetic compatibility'.

CLC/TC 86A 'Optical fibres and optical fibre cables' has completed several parts of the EN IEC 60793-1 series, notably for measurement methods and test procedures for macrobending loss and gamma irradiation.

Finally, CLC/TC 20 'Electric cables' published several parts of the EN IEC 60332-3 series, on the tests on electric and optical fibre cables under fire conditions.

STANDARDS ISSUED:

- EN 62153-4-7/A1:2018 'Metallic communication cable test methods for electromagnetic compatibility'

ELECTRONIC, ELECTROMECHANICAL AND ELECTROTECHNICAL SUPPLIES

CENELEC has published in 2018 two 'Technical Specifications' on HDVC Grid systems and connected converter stations, developed by CLC/TC 8X 'System aspects of electrical energy supply'. These guidelines describe the specific functional requirements for HVDC Grid systems, which are characterised by having one single connection between two converter stations.

STANDARDS ISSUED:

- CLC/TS 50654-1:2018 'HVDC Grid Systems and connected Converter Stations - Guideline and Parameter Lists for Functional Specifications - Part 1: Guidelines'
- CLC/TS 50654-2:2018 'HVDC Grid Systems and connected Converter Stations - Guideline and Parameter Lists for Functional Specifications - Part 2: Parameter Lists'

LOW VOLTAGE ELECTRICAL INSTALLATIONS MATERIAL

CLC/TC 64 ‘Electrical installations and protection against electric shock’ has developed HD 60364-7-722 ‘Low-voltage electrical installations – Requirements for special installations or locations – supplies for electric vehicles’.

CLC/TC 64 also published HD 60364-8-2 ‘Low-voltage electrical installations – Prosumer’s low-voltage electrical installations’, which provides requirements, measures and recommendations for design, erection and verification of all types of low-voltage electrical installations, including local production and/or storage of energy in order to ensure compatibility with existing and future ways to deliver energy.

BUSINESS SECTORS

ENERGY AND UTILITIES

Standardization in the energy sector contributes to better 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.

CEN and CENELEC are working with the European Commission and other stakeholders to develop and adopt European Standards to support European legislation, the successful integration of the European energy market and the implementation of the EU's climate and energy targets. European Standards not only play a critical role in supporting the creation of a Single Market for energy, as they enable the reduction of energy costs and the further deployment of new technologies, but they also facilitate the energy transition. European Standards provide a basis for the integration of technologies into complex systems, and facilitate interoperability and data exchange.

ELECTRICITY DISTRIBUTION AND EQUIPMENT

CLC/TC 8X 'System aspects of electrical energy supply' published two Technical Specifications describing specific functional requirements for HVDC Grid Systems characterised by having exactly one single connection between two converter stations.

HVDC Grid Systems are a new field of technology. There are very few systems with a small number of converter stations in operation; some more are in execution or in detailed planning. Reflecting the early stage of technology, these above Technical Specifications give comprehensive explanations and background information to the standard reader.

STANDARDS ISSUED:

- CLC/TS 50654-1:2018 'HVDC Grid Systems and connected Converter Stations - Guideline and Parameter Lists for Functional Specifications - Part 1: Guidelines'
- CLC/TS 50654-2:2018 'HVDC Grid Systems and connected Converter Stations - Guideline and Parameter Lists for Functional Specifications - Part 2: Parameter Lists

CEN-CENELEC SECTOR FORUM ON ENERGY MANAGEMENT

The CEN-CENELEC Sector Forum on Energy Management (SFEM) is in charge of advising and coordinating the strategic matters of energy management and efficiency. In 2018 SFEM put big emphasis on identifying the standardization needs for the energy transition and the financing tools for the energy efficiency, and worked on a mapping exercise of standardization needs regarding energy storage. The 2018 edition of SFEM's yearly seminar focused on supporting energy efficiency in SMEs.

FUELS (SOLID AND GASEOUS FUELS, PETROLEUM AND DISTILLATES)

In October 2018 the new standardised fuel labels, defined in EN 16942:2016 'Fuels - Identification of vehicle compatibility - Graphical expression for consumer information', were introduced across the EU to clearly indicate the different typologies of fuel for motor vehicles. These new labels, developed by CEN/TC 441 'Fuel labelling', help the implementation of EU Directive 2014/94/EU on the deployment of alternative fuels infrastructure and aim to harmonise the way information on fuels is provided across the Single Market.CEN continued to work on the development engine tests with new types of biofuels and on removing the technical barriers to uses of biomethane in gas networks. Both projects will end in 2019.

CEN/TC 19 'Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin' published four EN ISO standards on petroleum and related products and diesel fuel and ten home-grown standards related to automotive fuels (EN 17057, EN 589 and EN 15293) and liquid petroleum products (EN 13016: Part 1 and 3 and EN 17155:2018).

STANDARDS ISSUED:

- EN 17057 'Automotive fuels and fat and oil derivates - Determination of saturated monoglycerides content in Fatty Acid Methyl Esters (FAME) - Method by GC-FID'
- EN 589 'Automotive fuels - LPG - Requirements and test methods'
- EN 15293 'Automotive fuels - Automotive ethanol (E85) fuel - Requirements and test methods'
- EN 13016-1 'Liquid petroleum products - Vapour pressure - Part 1: Determination of air saturated vapour pressure (ASVP) and calculated dry vapour pressure equivalent (DVPE)'
- EN 13016-3 'Liquid petroleum products - Vapour pressure - Part 3: Determination of vapour pressure and calculated dry vapour pressure equivalent (DVPE) (Triple Expansion Method)'
- EN 17155 'Liquid petroleum products - Determination of indicated cetane number (ICN) of middle distillate fuels - Primary reference fuels calibration method using a constant volume combustion chamber'

GAS DISTRIBUTION AND RELATED SERVICES

The composition of natural gas varies from one country to another. As a result, gas with different qualities is used around EU Member States. Quality standards are important for the safe and secure delivery and use of gas around Europe.

As a follow-up of the publication in 2015 of EN 16726 'Gas infrastructure - Quality of gas - Group H' (developed under M/400 on Gas Quality by CEN/TC 234 'Gas infrastructure'), the CEN Sector Forum Gas pursued its investigation. The goal of this exercise is to provide evidence and recommendations to CEN/TC 234 'Gas infrastructure' for the revision of EN 16726 in the coming years.

In addition, CEN/TC 234 finalised EN 15399:2018, which provides guidance on the establishment, implementation and maintenance of a safety management system. The purpose of the standard is to establish an efficient gas distribution infrastructure for the safe and secure distribution of gas (specifically, infrastructure operating at pressures up to and including 16 bar).

STANDARDS ISSUED:

- EN 15399 'Gas infrastructure - Safety Management System for Gas Networks with maximum operting pressure up to and including 16 bar'

ELECTRIC GENERATION (INCLUDING TURBINES)

Recent years have seen a very strong uptake of renewable energy sources in Europe, being wind energy one of the most used sources.

In this field, CLC/TC 88 'Wind turbines' continued developing standards together with its international counterpart IEC/TC 88. In 2018, EN 61400-11:2013/A1:2018 'Wind turbines - Part 11: Acoustic noise measurement techniques' was published. This standard provides a uniform methodology that will ensure consistency and accuracy in the measurement and analysis of acoustic emissions by wind turbine generator systems.

Another source of renewable energy that has seen a very strong uptake is the solar photovoltaic energy systems. CLC/TC 82 'Solar photovoltaic energy systems' is involved in all topics of solar photovoltaic energy systems, from the conversion of light to the public grid.

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

STANDARDS ISSUED:

- EN 61400-11:2013/A1:2018 'Wind turbines - Part 11: Acoustic noise measurement techniques'
- EN IEC 61730-1:2018 'Photovoltaic (PV) module safety qualification - Part 1: Requirements for construction';
- EN IEC 61730-2:2018 'Photovoltaic (PV) module safety qualification - Part 2: Requirements for testing';
- EN IEC 62688:2018 'Concentrator photovoltaic (CPV) modules and assemblies - Safety qualification';
- EN IEC 61853-3:2018 'Photovoltaic (PV) module performance testing and energy rating - Part 3: Energy rating of PV modules';
- EN IEC 61853-4:2018 'Photovoltaic (PV) module performance testing and energy rating - Part 4: Standard reference climatic profiles'.

NUCLEAR ENERGY AND RELATED EQUIPMENT

Nuclear Energy, mainly use to produce electricity, generate around a third of the electricity consumed in the European Union. The core principle and responsibility of the nuclear industry is guarantee its safety. For this reason, 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.

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 2018, it adopted EN ISO 28057:2018 'Dosimetry with solid thermoluminescence detectors for photon and electron radiations in radiotherapy', which describes rules for the procedures, applications, and systems of thermoluminescence dosimetry (TLD) according to the probe method.

In CENELEC, there are two Committees involved in nuclear energy and related equipment: CLC/TC 45AX, dealing with instrumentation,

control and electrical power systems of nuclear facilities, and CLC/TC 45B dealing with radiation protection instrumentation. In 2018, CLC/TC 45B published EN 60846-2:2018 'Radiation protection instrumentation - Ambient and/or directional dose equivalent (rate) meters and/or monitors for beta, X and gamma radiation - Part 2: High range beta and photon dose and dose rate portable instruments for emergency radiation protection purposes'.

ECODESIGN

In the context of Ecodesign and Energy Labelling, CEN and CENELEC produce European Standards that provide methods for measuring the energy performance of various energy-related products against the compulsory values and thresholds laid down in the Ecodesign Regulations adopted by the European Commission. CEN and CENELEC developed 22 Harmonised Standards in support of Ecodesign and/or Energy Labelling Regulations.

- Space and water heaters (EN 12977-1, EN 12977-2, EN 12977-3, EN 12977-4, EN 13203-2, EN 13203-5, EN 13203-6);
- Air conditioners (EN 14511-1, EN 14511-2, EN 14511-3, EN 14511-4);
- Networked standby (EN 50643);
- Fluorescent lamps, high-intensity discharge lamps, and ballasts and luminaires able to operate such lamps (EN 13032-5, EN 61167);
- Blast chillers and freezers cabinets for professional use (EN 17032).

In addition, work on 40 standards was launched or continued in 2018.

CEN and CENELEC also progressed with the work related to the horizontal standardization request M/543 on Material efficiency aspects. The eight standards developed under M/543 by CEN-CENELEC/JTC 10 'Energy-related products – Material Efficiency Aspects for Ecodesign' were submitted to enquiry procedure in the course of 2018.

BUSINESS SECTORS

FOOD AND AGRICULTURE

CEN's activities in relation to food safety are in line with the European Union's objective to achieve the highest possible level of health protection for the consumers of Europe's food.

Food authenticity has been identified as a new area of interest for most of the CEN Technical Committees working in the food and feed safety field. CEN established a Food Authenticity Coordination Group (CEN FACG) including representatives of various committees involved, in order to map existing methods, determine their degree of validation and identify European standardization needs. In 2018, the CEN FACG finalised the mapping of existing methods and initiated discussion on possible ways to validate some of the existing analytical methods. The upcoming Technical Committee on Food authenticity will take the existing mapping and the identification of the European standardization needs on food authenticity forward.

AGRICULTURAL, FARMING, FISHING, FORESTRY AND RELATED PRODUCTS

CEN/TC 327 'Animal feeding stuffs – Test methods' continued working on a range of test methods for animal feed, in response to standardization requests M/521 and M/522 on animal nutrition.

The deliverables published in 2018 will enable regulatory authorities to determine if animal feeds on the market comply with the legal requirements laid down in Regulation (EC) 882/2004 relating to 'official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules'.

CEN/TC 455 'Plant biostimulants' continued its collaboration and preparatory work regarding the forthcoming standardization request on fertilising products in support to the a EU regulation with CEN/TC 223 'Soil improvers and growing media', CEN/TC 260 'Fertilizers and liming materials', CEN/TC 444 'Test methods for environmental characterization of solid matrices' and ISO/TC 134 'Fertilizers and soil conditioners'.

STANDARDS ISSUED:

- CEN/TS 17174:2018 'Animal feeding stuffs: Methods of sampling and analysis - Performance criteria for single laboratory validated and ring-trial validated methods of analysis for the determination of heavy metals';
- EN 17049:2018 'Animal feeding stuffs: Methods of sampling and analysis - Identification of tylosin, spiramycin, virginiamycin, carbadox and olaquindox at sub-additive levels in compound feed - Confirmatory analysis by LC-MS';
- EN 17053:2018 'Animal feeding stuffs: Methods of sampling and analysis - Determination of trace elements, heavy metals and other elements in feed by ICP-MS (multi-method)'

FOOD, BEVERAGES AND RELATED PRODUCTS

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

CEN/TC 275 'Food analysis – Horizontal methods' continued developing European Standards for the detection and determination of mycotoxins in food in response to standardization request M/520.

CEN/TC 172 'Pulp, paper and board' published a series of standards that specify tests methods for paper and board intended to come into contact with foodstuffs.

- EN 17203:2018 'Foodstuffs - Determination of citrinin in food by liquid chromatography tandem mass spectrometry (LC-MS/MS)';
- EN 648:2018 'Paper and board intended to come into contact with foodstuffs - Determination of the fastness of fluorescent whitened paper and board ';
- 12498:2018 'Paper and board - Paper and board intended to come into contact with foodstuffs - Determination of cadmium, chromium and lead in an aqueous extract';
- EN 646:2018 'Paper and board intended to come into contact with foodstuffs - Determination of colour fastness of dyed paper and board';
- EN 1104:2018 'Paper and board intended to come into contact with foodstuffs - Determination of the transfer of antimicrobial constituents'.

BUSINESS SECTORS

HEALTHCARE AND HEALTH & SAFETY

European Standards in this sector ensure safe access to healthcare for patients by setting safety, quality and performance requirements for medical devices in line with the existing European Directives.

Moreover, European Standards focusing on eHealth contribute to the general digitalisation of society by transforming the delivery of healthcare and the methods used by individuals to access and manage their health records.

Standards developed by CEN and CENELEC also contribute to ensuring health and safety at work, during sport or other recreational activities. The standardization of individual protective products, such as helmets, ropes used to prevent falls from heights or footwear resistant to chemicals, is handled by Technical Committees (TCs) participating to the CEN-CENELEC Sector Forum on Personal Protective Equipment.

HEALTH AND SOCIAL WORK SERVICES

Existing standards on healthcare services contribute to safety, quality and continuity of care services, help improve communication to patients enhance quality and performance of healthcare professionals, and foster thedissemination of good practices.

In 2018, CEN Technical Committees continued developing standards to ensure quality care for elderly people in ordinary or residential care facilities as well as patient involvement in person-centred care.

CEN and CENELEC are actively engaged in successful discussion with the European Commission and other stakeholders, emphasising the need of a Medical Device standardization request in order to guarantee safety of medical device product before the end of the transition to the new Medical Devices Regulations (i.e. 2017/745/EU and 2017/746/EU).

MEDICAL EQUIPMENT, PHARMACEUTICALS AND PERSONAL CARE PRODUCTS

CEN and CENELEC have published over 150 standards in the area of medical equipment and healthcare, the majority of which were developed in parallel with ISO and IEC or adopted from the international level. Manufacturers can make use of these standards to claim that their products meet the essential requirements of all relevant European Medical Device Directives.

The EN IEC 60601-series of standards is a major contribution to the safety and essential performance of electrical equipment in medical practice. It is rapidly approaching 100 individual standards, and has served more than 500 million European citizens over the past decades by helping to ensure safe and reliable medical equipment.

CENELEC TC 62 'Electrical equipment in medical practice' contributes directly to Patients' safety in the EU and published two standards related to particular requirements for the basic safety and essential performance of high frequency surgical equipment, accessories and X-ray equipment.

CEN TC 251 'Health informatics' adopted EN ISO 11238:2018 'Health informatics Identification of medicinal products - Data elements and structures for the unique identification and exchange of regulated information on substances' and EN ISO 11073-10427:2018 related to 'Health informatics - Personal health device communication - Part 10427: Device specialization - Power status monitor of personal health devices'.

ISSUED STANDARDS:

- EN IEC 60601-2-2:2018 'Medical electrical equipment - Part 2-2: Particular requirements for the basic safety and essential performance of high frequency surgical equipment and high frequency surgical accessories'
- EN 60601-2-43:2010/A1:2018 'Medical electrical equipment - Part 2-43: Particular requirements for the basic safety and essential performance of X-ray equipment for interventional procedures'
- EN ISO 11238:2018 'Health informatics Identification of medicinal products - Data elements and structures for the unique identification and exchange of regulated information on substances'
- EN ISO 11073-10427:2018 'Health informatics - Personal health device communication - Part 10427: Device specialization - Power status monitor of personal health devices'.

OCCUPATIONAL CLOTHING, SPECIAL WORKWEAR AND ACCESSORIES

In the field of personal protective equipment (PPE) and occupational health and safety (OH&S) CEN and CENELEC seek to prevent injuries at the workplace, home or during leisure activities. One of the main focus of Technical Committees active in the field in 2018 was to pursue the alignment of existing standards with the new PPE Regulation 2016/425/EU. This ensured a smooth citation of CEN and CENELEC standards in the Official Journal of the European Union (OJEU), allowing manufacturers using these standards to benefit from a presumption of conformity to the essential requirements of the Regulation.

CEN/TC 162 'Protective clothing including hand and arm protection and lifejackets' developed over 14 standards, among which 7 of them are candidates for citation on the Official Journal of the European Union.

CEN TC 160 'Protection against falls from height including working belts' released two standards to ensure protection from and prevention of falls in a professional setting.

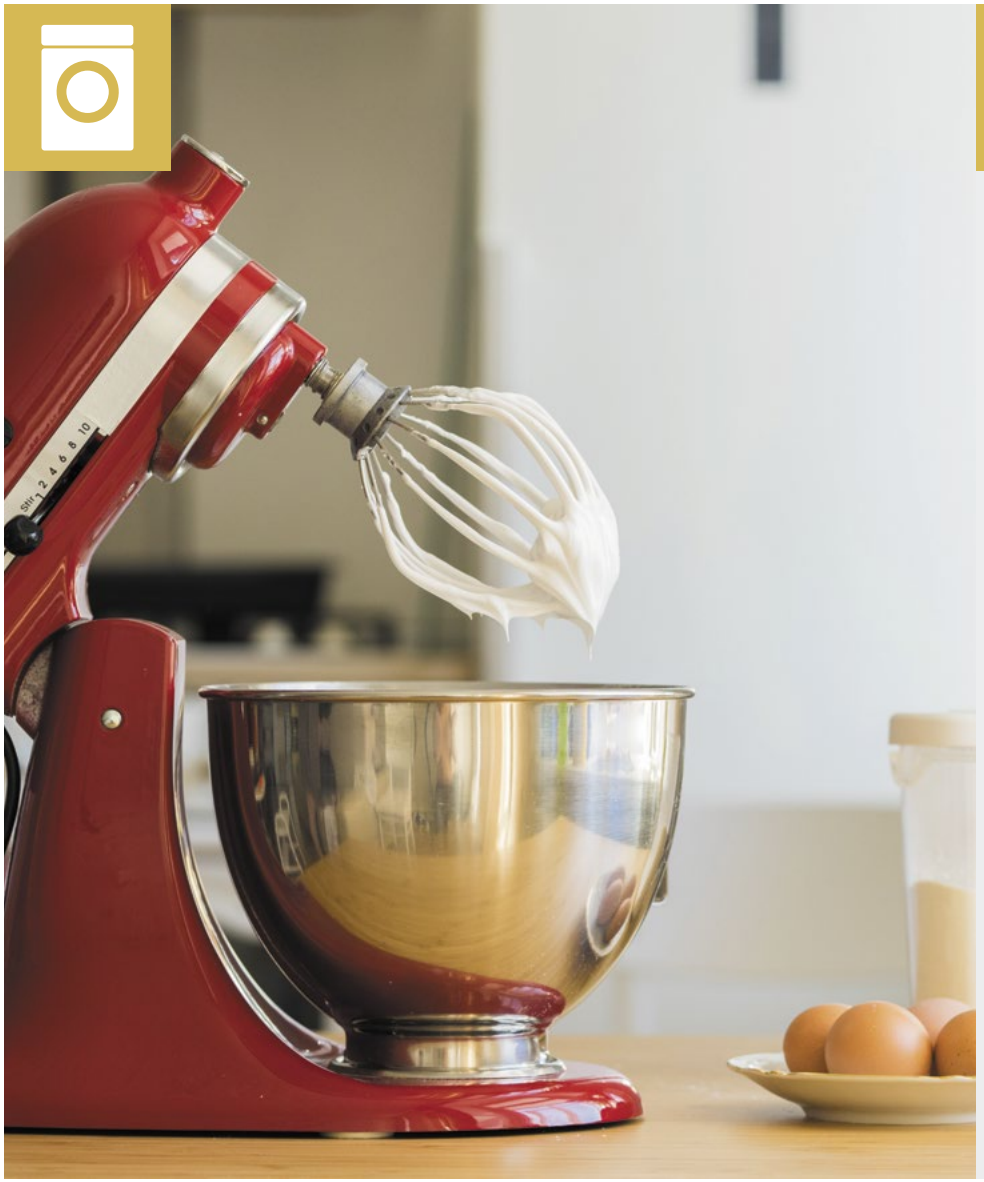
STANDARDS ISSUED:

- EN ISO 11393-1:2018 'Protective clothing for users of hand-held chainsaws - Part 1: Test rig for testing resistance to cutting by a chainsaw (ISO 11393-1:2018)
- EN ISO 11393-3:2018 'Protective clothing for users of hand-held chainsaws - Part 3: Test methods for footwear (ISO 11393-3:2018)'.
- EN 358:2018 'Personal protective equipment for work positioning and prevention of falls from a height - Belts and lanyards for work positioning or restraint'
- EN 363:2018 'Personal fall protection equipment - Personal fall protection systems'.

SMART GARMENT

CEN progressed on the development on European Standards in support of the Standardization Request M/553 on 'Advanced garments and ensembles of garments that provide protection against heat and flame with integrated smart textiles and non-textile elements'.

Several work items (e.g. on terms and definition) were initiated within CEN/TC 162 'Protective clothing including hand and arm protection and lifejackets'.



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.

The standardization work in this field is very broad and covers a wide range of activities. From the kitchen toaster to washing machines and central heating boilers, more than 20 CEN and CENELEC Technical Committees are developing European Standards ensuring a high level of performance and safety of these products to their user, 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'. This group works closely with its international counterpart, namely IEC/TC 61. Industry actively supports the activities of CENELEC in this area through 'Home Appliance Europe' (APPLiA) that is 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 the 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 2018, CLC/TC 61 continued to adjust its standards to the requirements of European Directives, including those addressing Low Voltage (2014/35/EU), and Machinery (2006/42/ EC) and published 19 new references covering products like insect killers, tumble driers, food waste disposers and sewing machines.

The main role of CLC/TC 116 'Safety of motor-operated electric tools' is to adapt the standards of the corresponding IEC/TC 116 to the requirements of the Machinery Directive (2006/42/EC). Its most important project is the EN 62841 series.

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

In 2018, CLC/TC 59X published a standard which defines methods for the measurement of energy consumption of vending machines, as well as several standards concerning methods for measuring performance of appliances.

Moreover, a Technical Report, CLC/TR 50674:2018 'Guidelines for the verification of household appliances under energy labelling and eco design', which serves as a tool for test institutes and market surveillance authorities when making verification tests was made available in 2018.

STANDARDS ISSUED:

- EN 50597:2018 'Energy consumption of vending machines';
- EN 50640:2018 'Household and similar electric appliances - Methods for measuring the performance of clothes washing machines intended for commercial useand tumble dryers';
- EN 50594:2018 'Household and similar electric appliances - Methods for measuring the performance of tumble dryers intended for commercial use';
- EN IEC 62885-5:2018 Surface cleaning appliances - Part 5: High pressure cleaners and steam cleaners for household and commercial use - Methods for measuring performance;

HEATING, COOLING AND VENTILATION EQUIPMENT (HVAC EQUIPMENT)

The HVAC sector includes applications ranging from appliances burning gas or oil and solid fuels through refrigeration, heat pumps and heat exchanger for ventilation. A series of Technical Committees are active in the sector, covering different specific aspects: among them, CEN/TC 44 'Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption'; CEN/TC 195 'Air filters for general air cleaning'; and CEN/TC 295 'Residential solid fuel burning appliances' have published a wide array of standards in 2018.

STANDARDS ISSUED:

- EN 16855-2:2018 'Walk-in cold rooms - Definition, thermal insulation performance and test methods - Part 2: Customized cold rooms'
- EN ISO 21083-1:2018 'Test method to measure the efficiency of air filtration media against spherical nanomaterials - Part 1: Size range from 20 nm to 500 nm (ISO 21083-1:2018)' provides a test method to measure the efficiency of air filtration media against spherical nanomaterials.
- EN ISO 29463 series on 'High-efficiency filters and filter media for removing particles in air';
- EN 16510-1:2018 'Residential solid fuel burning appliances - Part 1: General requirements and test methods' defines general requirements and test methods for residential solid fuel burning appliances.

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 and mainly because of this status, they are widely used by the industry, market surveillance or conformity assessments bodies.

SAFETY OF MACHINERY – HORIZONTAL ASPECTS

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

STANDARDS ISSUED:

- EN ISO 14118 'Safety of machinery - Prevention of unexpected start-up'. This revision is based on the CEN standard EN 1037 and deals with the design of safety-related parts of a control system.

LABORATORY, OPTICAL AND PRECISION EQUIPMENT (EXCL. GLASSES)

The activities on measuring instruments, laboratory and lasers equipment are partially undertaken to support Directive 2014/32/EU on Measuring Instruments (MID). In 2018, CEN and CENELEC revised or amended ten standards in response to M/541: CEN/TC 176 'Thermal energy meters' finalised amendments to the Part 1,2 and 4 of the EN 1434 series on Thermal energy meters to take into account the MID requirement on non-exploitation of the Maximal Permitted Errors (MPEs) accomplished by CEN/TC 176 'Thermal energy meters'.

CEN/TC 237 'Gas meters' pursued revisions of EN 12480, EN 12261, EN 12405-1 and EN 14236 on gas meters to ensure the correct measurement of gas, information of a customer about the consumption and accurate charging.

CEN/TC 318 'Hydrometry' published an important Technical Specification giving recommendations for the management of observed hydrometric data as well as for statistics with the particular focus on measurements of precipitation, water level, volume and discharge in open channels.

Finally, Reporting Secretariat CLC/SR 66 was converted into CLC/TC 66x 'Safety of measuring, control, and laboratory equipment' to address the requirements of the EU Directives on Low Voltage, Machinery, In Vitro and Medical Devices.

STANDARDS ISSUED:

- EN IEC 61010-2-120 'Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-120: Particular safety requirements for machinery aspects of equipment' provides the state of the art guidance for the application of machinery aspects to the products in the scope of EN 61010-1.
- CEN/TS 17171 'Management of observed hydrometric data – Guidance'.

AGRICULTURAL MACHINERY & MOTOR-OPERATED ELECTRIC TOOLS

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.

CLC/TC 116 'Safety of motor-operated electric tools' main role is to adapt the standards of the corresponding IEC/TC 116 to the requirements of the Machinery Directive (2006/42/EC).

STANDARDS ISSUED:

- EN 16952 ' Agricultural machinery - Rough-terrain Work Platforms for Orchard's operations (WPO) – Safety' specifies safety requirements and measures for platforms designed to work on unimproved natural or disturbed terrain in an orchard for fruit picking, thinning out or pruning;
- Part 1, Part 3 and Part 4 of EN ISO 25119 series 'Tractors and machinery for agriculture and forestry - Safety-related parts of control systems'. The series takes into account new technologies which are used in machines contributing among others to better anticipation of risks for operators
- EN ISO 18497 'Agricultural machinery and tractors - Safety of highly automated agricultural machines - Principles for design' provides safety requirements, means of verification and information for use by addressing the enabling technologies and increasing at the same time comfort of an operator and productivity.
- EN 62841-2-1 'Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 2-1: Particular requirements for hand-held drills and impact drills'. This revision adapts the document to the new standard series EN 62841 and in particular improves definitions and measurement methods.

INDUSTRIAL MACHINERY

In 2018, this subsector produced forty-two standards. Among them, CEN/TC 10 'Lifts, escalators and moving walks' continued its work in support of the Lifts Directive 2014/33/EU. CEN/TC 12 'Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries' developed the first three Parts of the EN ISO 10855 series on 'Offshore containers and associated lifting sets'. This series achieve the aim of creating a level playing field for offshore container owners and users by combining the previous regional requirements in unique global standards.

CEN/TC 433 'Entertainment Technology - Machinery, equipment and installations' developed, with EN 17115, the very first European standard in the field of entertainment technology, providing a minimum level of quality for the design and manufacture of aluminium and steel trusses.

Finally, CEN/TC 271 'Surface treatment equipment – Safety' developed an important standard on safety requirements for spray booths for organic coating materials.

STANDARDS ISSUED:

- EN 81-28 'Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods - Part 28: Remote alarm on passenger and goods passenger lifts' supports the Lifts Directive 2014/33/EU. This revision improves reliability of a voice communication device which is used by a trapped passenger to summon help.
- EN 17115 'Entertainment technology - Specifications for design and manufacture of aluminium and steel trusses'. This very first European standard in the field of entertainment technology provides a minimum level of quality for the design and manufacture of aluminium and steel trusses.
- EN 16985 'Spray booths for organic coating material – Safety requirements' improves among others the safety concepts for protection against exposure to hazardous substances, fire and explosion and at the same time merges the three previous standards into one document.

PLASTIC AND RUBBER MACHINES

In 2018, CEN/TC 145 'Plastics and rubber machines' continued the update of the 20 standards in support of the Machinery Directive (2006/42/EC).

STANDARDS ISSUED:

- EN 12012-1 'Plastics and rubber machines - Size reduction machines - Part 1: Safety requirements for blade granulators and shredders' merges two previous standards into one document to reflect the technical and commercial evolution regarding these products and their applications.
- EN 12013 'Plastics and rubber machines - Internal mixers - Safety requirements'. The aim of this revision is to complete the scope, the safety requirements and measures of the original standards by taking into consideration both the mixers of small size as well as the combination of two internal mixers (called: tandem mixers).

MACHINERY FOR MINING, QUARRYING, CONSTRUCTION EQUIPMENT

In 2018, CEN/TC 151 'Construction equipment and building material machines – Safety' focussed on the revision and update, in cooperation with ISO, of two parts of the EN ISO series 13766 on 'Earth-moving and building construction machinery'. It also published two parts of the EN ISO 19014 series on Functional Safety for earth-moving machinery.

An important achievement for CEN/TC 196 'Mining machinery and equipment – Safety' was the publication of EN ISO 19296, defining global safety requirements to address the safety risks for mobile underground mining machines.

STANDARDS ISSUED:

- EN ISO 13766-1 on 'Earth-moving and building construction machinery - Electromagnetic compatibility (EMC) of machines with internal electrical power supply' improve and align the requirements of the previous standards and introduce the ones dealing with functional safety. The documents give direction for manufacturers on how to effectively combine component and machine level testing;
- EN ISO 19014-1 'Earth-moving machinery - Functional safety - Part 1: Methodology to determine safety-related parts of the control system and performance requirements' specifies how to determine the required performance levels on the basis of the aspects of earth-moving machines. It leads to more accurate and repeatable performance level analysis than previous standards;

- EN ISO 19014-3 on 'Earth-moving machinery - Functional safety - Part 3: Environmental performance and test requirements of electronic and electrical components used in safety-related parts of the control system' updates environmental testing requirements for safety related parts of control systems to ensure they are suitable for the earthmoving application;
- EN 474-1:2006+A5 'Earth-moving machinery - Safety - Part 1: General requirements'. This amendment brings improvements regarding a field of view of an operator as well as access systems.

TANKS, RESERVOIRS, CONTAINERS AND PRESSURE VESSELS

CEN carries on ongoing standardization activities in relation to pressure equipment, including the regular revision and maintenance of more than 200 harmonized European Standards that support the implementation of the EU Pressure Equipment Directive (2014/68/EU) and the Simple Pressure Vessels Directive (2014/29/EU).

STANDARDS ISSUED:

- EN ISO 15494:2018 'Plastics piping systems for industrial applications - Polybutene (PB), polyethylene (PE), polyethylene of raised temperature resistance (PE-RT), crosslinked polyethylene (PE-X), polypropylene (PP) - Metric series for specifications for components and the system'
- EN 13136:2013+A1:2018 'Refrigerating systems and heat pumps - Pressure relief devices and their associated piping - Methods for calculation'
- EN 12953-4:2018 'Shell boilers - Part 4: Workmanship and construction of pressure parts of the boiler'

WELDING

Welding and the application of allied processes are widely used for joining of metallic materials. A significant proportion of all metallic finished products and structures include at least one weld. However, the materials properties of finished welded joints cannot be determined solely by non-destructive testing. Assuring the quality of welds relies, for that reason, heavily on validation, verification, documentation and control of the welding processes.

STANDARDS ISSUED:

- EN ISO 15612:2018 'Specification and qualification of welding procedures for metallic materials - Qualification by adoption of a standard welding procedure specification'
- EN ISO 17633:2018 'Welding consumables - Tubular cored electrodes and rods for gas shielded and non-gas shielded metal arc welding of stainless and heat-resisting steels – Classification'
- EN ISO 20601:2018 'Non-destructive testing of welds - Ultrasonic testing - Use of automated phased array technology for thin-walled steel components'

BUSINESS SECTORS

MINING AND METALS

Standards in the mining and metal sectors predominantly deal with the definition, classification, testing, analysis and technical delivery requirements of the products of the metal industry. In 2018, twelve Technical Committees of the European Committee for Iron and Steel Standardization (ECISS) formerly coordinated by its Coordinating Commission (COCOR) were brought under the governing structure of CEN as sub-committees of CEN/TC 459 'European Committee for Iron and Steel Standardization'.

MINING, BASIC METALS AND RELATED PRODUCTS

In 2018, CEN/TC 133 'Copper and copper alloys' published a revision of EN 12861 'Copper and copper alloys – Scrap'. This European Standard specifies the requirements for characteristics, condition, moisture, composition, metal content, metal yield and test procedures of metallic raw materials for direct melting (melting grades) in the form of copper and copper alloy scrap. This is among the projects that will be listed in the Circular Economy Action Plan.

BUSINESS SECTORS

SERVICES

The market share and the employment generated by services will continue to increase as the emergence of the collaborative economy and of new business models provide an opportunity of further growth for EU service businesses. The EU Directive on Services (2006/123/EC) highlights the need for European Standards to facilitate compatibility between services, enhance the quality of service delivery and ensure the provision of relevant information to service users.

European Standards have a role to play in the integration and performance of the market for services. In fact, the use of standards can contribute to foster cross-border trade; create new quality jobs; enhance safety quality & performance; and support the protection of consumers, workers and the environment. Standards can also boost public and private procurement processes.

CEN STRATEGIC ADVISORY GROUP ON SERVICES (CEN CA SAGS)

In line with 'Joint Initiative on Standardization (JIS)' Action 12 on Service standards, CEN carried on with the implementation of the Action Plan related to the 'CEN Strategic Plan on Services Standardization'. The main goal of the Plan is to unleash the benefits of services standards for all business sectors and identify priority sectors to start dialogue on with the main stakeholders at national and European level.

Four main service sectors were identified for future engagement: retail trade; waste collection, treatment and disposal activities; wholesale and repair of motor vehicles and motorcycles; and motion picture, video and television programme production and music publishing activities.

To make progress on the sector engagement, the CEN-CENELEC Management Centre prepared a set of communication materials on services standardization whose objective is to convey the main benefits of using standards. The communication material also highlights the industry experience with the implementation of standards. The material will be part of a services dedicated campaign to be launched in 2019.

The number of European Standards in this area is still small but has increased in the last years with the publication, in 2018, of a suite of six new standards and/or specifications on postal services (e.g. TS 17217 'Postal services - Reverse envelope - Design and printing requirements') and facility management (e.g. EN ISO 41011 'Facility management – Vocabulary').

HORIZONTAL SERVICE STANDARDS

CEN/TC 447 'Horizontal standards for the provision of services' experts worked intensively to finalise three standards of the EN 17371 series on 'Provision of services'. These standards give guidance for the design and structure of service contracts, for the measurement of the performance of service providers performance and for the assessment of the capacity of service providers and evaluation of service proposals.

The upcoming standards are developed in response to the Standardization Request M/517 'Horizontal service standards'.

ADMINISTRATION, COMMUNITY AND SOCIAL SECURITY SERVICES

CEN/TC 456 'Reporting in support of data supervision' based its work programme on the implementation of standardization request M/558 related to the reporting data in support of supervision of online gambling services by the gambling regulatory authorities. The Committee worked on the development of a standard identifying and describing a set of data in regards to the core elements to be reported ("dataset").

EDUCATION AND TRAINING SERVICES

In 2018, CEN launched the new workshop CEN WS 95 'European Quality Framework for Students Internships', with the objective to provide more transparency on the internship programmes that lead to better skilled young professionals.

The focus of CEN WS 95 is the analysis of existing good practices to ensure the quality of internships in EU countries. The results will take the shape of a quality framework for student internships by mapping and comparing legislations related to internships in the EU member states.

POST AND COURIER SERVICES

The Postal Services Directive (97/67/EC and its amendments) sets out the benefits of standards in completing the internal market for postal services and in ensuring that efficient, reliable and good-quality postal services are available throughout the EU to all consumers at affordable prices.

CEN continued the preparation of new standards in response to the Standardization Request from the European Commission in the area of postal services (M/548). The topics covered by the request include the measurement of the quality of postal services, the interoperability of postal operations, digital postal services and labelling, and the exchange of data.

The upcoming standards under development within CEN/TC 331 'Postal services' will support the EC roadmap for completing the Single Market for parcel delivery (COM (2013)886) and the creation of a Digital Single Market for the European Union.

REPAIR AND MAINTENANCE SERVICES

CEN/ TC 319 'Maintenance' published a new standard (EN 16991:2018) on risk-based inspection framework, which provides effective guidance for the optimisation of operations and maintenance as well as asset integrity management. The document is a useful tool for managers and engineers establishing the risk-based inspection and maintenance policies in the process, power, steel and other relevant industries.

FINANCIAL AND INSURANCE SERVICES

CEN/BT WG 220 'Fintech' released the report 'Standardization mapping for Fintech encompassing the standards landscape relevant to the financial technologies (FinTech) industry, namely technology-enabled financial services and related industries'.

This mapping exercise emphasises a number of gaps where formal, private or industry standards could be developed to support specific FinTech initiatives.

Cross-sector issues for FinTech such as identity management and data protection in the existing the regulatory environment were also identified as being potential areas where standards might provide assurance to customers and clients. It was equally considered that there was a gap for a standard set of definitions and terminologies for FinTech.

HOTEL, RESTAURANT AND TRAVEL

CEN WS 95 'Competences of Hotel General Managers' released a specification setting out requirements for hotel managers working in the accommodation and hospitality industry in terms of competences, skills and knowledge. The publication, CWA 17327:2018, targets top managers in charge of the overall management of any hotel, regardless of its size or facilities.

BUSINESS SECTORS

TRANSPORT AND VEHICLES

The mobility sector represents a crucial part of the European economy. Major European manufacturers of transport systems and vehicles are world leaders.

CEN and CENELEC develop standards for various transport modes - road, rail and maritime - as well as for horizontal topics such as interoperability, intermodal transport, intelligent transport systems (ITS) and the transport of dangerous goods.

AIRCRAFT AND SPACECRAFT, AND RELATED EQUIPMENT

The CEN Associated Body ASD-STAN published over 125 standards in 2018. New activities in the field of Unmanned Aircraft Systems (UAS) were initiated in preparation of a draft Standardization Request that was transmitted to the ESOs at the end of the year. 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).

STANDARDS ISSUED:

- EN 16603-10:2018 'Space engineering - System engineering general requirements'
- EN 17030:2018 'Space - Earth observation - Image processing levels'
- EN 16602-40:2018 'Space product assurance – Safety'
- EN 16602-80:2018 'Space product assurance – Software product assurance'

SUPPORTING AND AUXILIARY TRANSPORT SERVICES (EXCLUDING TRAVEL AGENCIES SERVICES)

Intelligent Transport Systems (ITS) can contribute to a cleaner, safer and more efficient transport system. They use information and communication technologies (ICT) in order to control traffic flow, collect road tolls (electronic fee collection), provide timely traffic and safety information, notify accidents ('e-Call') and give priority to emergency vehicles.

The European Commission has laid down the legal framework in order to accelerate the deployment of ITS across Europe (Directive 2010/40/EU) and has requested the European Standardization Organizations to develop and adopt European Standards in support of this framework.

CEN/TC 278 'Intelligent Transport Systems' is developing standards related to a variety of aspects including: Travel and Traffic Information, Route Guidance and Navigation, Public Transport, Emergency Vehicles and Electronic Fee Collection. CEN and CENELEC cooperate closely with ETSI and ISO in order to ensure a coherent approach to standardization in this field.

In 2018, an Industry Stakeholders workshop was organized on the topic of 'Urban Autonomous Mobility: What role for standards?'

STANDARDS ISSUED:

- EN ISO 17427-1:2018 'Intelligent transport systems - Cooperative ITS - Part 1: Roles and responsibilities in the context of co-operative ITS architecture(s)'
- EN 16157-3:2018 'Intelligent transport systems - DATEX II data exchange specifications for traffic management and information - Part 3: Situation Publication'
- CEN/TS 17182:2018 'Intelligent transport systems - eSafety - eCall via an ITS-station'
- CEN/TR 17249-1:2018 'Intelligent transport systems - eSafety - Part 1: Extending eCall to other categories of vehicle'
- CEN/TS 17249-2:2018 'Intelligent transport systems - eSafety - Part 2: eCall for HGVs and other commercial vehicles'
- CEN/TS 17249-3:2018 'Intelligent transport systems - eSafety - Part 3: eCall for Coaches and buses'

SHIPS, BOATS AND RELATED EQUIPMENT

CEN/TC 15 'Inland navigation vessels' addresses standardization in the field of shipbuilding for inland waterway vessels and inland waterway navigation.

CEN and CENELEC have progressed on the standards needed to address the Standardization Request in the field of Marine Equipment (M/557).

STANDARDS ISSUED:

- EN ISO 8385:2018 'Ships and marine technology - Dredgers – Classification'
- EN 1306:2018 'Inland navigation vessels - Connections for the discharge of waste water'
- EN ISO 8099-1:2018 'Small craft - Waste systems - Part 1: Waste water retention'
- EN ISO 16147:2018 'Small craft - Inboard diesel engines - Engine-mounted fuel, oil and electrical components'

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

The automotive industry develops standards mainly at the global level. European activities are carried out by CEN/TC 301 'Road vehicles' that is developing standards in response to various EC mandates including M/502 and M/533. CEN/TC 301 also develops standards on access to automotive repair and maintenance information (RMI), in response to M/421.

In CENELEC, CLC/TC 69X focuses on electrical systems for electric road vehicles.

STANDARDS ISSUED:

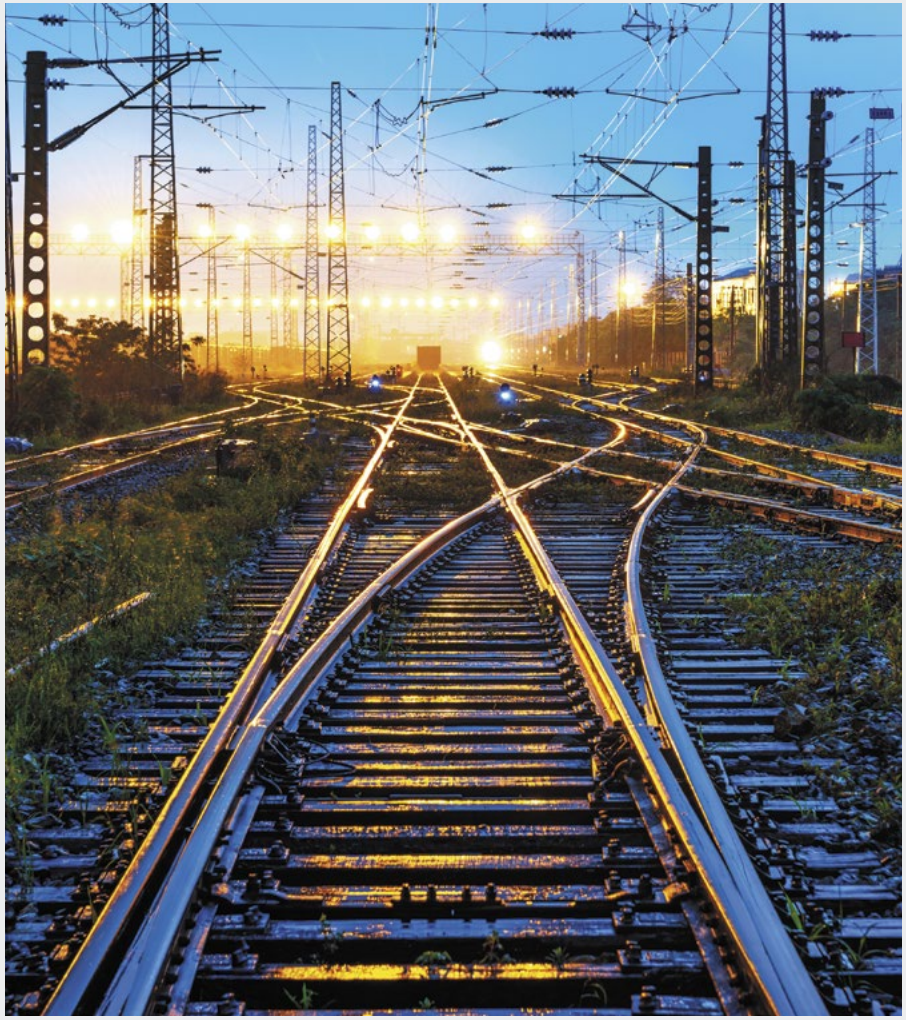
- EN ISO 18541-5:2018 'Road vehicles - Standardized access to automotive repair and maintenance information (RMI) - Part 5: Heavy duty specific provision'
- EN ISO 18541-6:2018 'Road vehicles - Standardized access to automotive repair and maintenance information (RMI) - Part 6: L-Category vehicle specific RMI use cases and requirements'
- EN ISO 16380:2018 'Road vehicles - Blended fuels refuelling connector'
- EN IEC 62576:2018 'Electric double-layer capacitors for use in hybrid electric vehicles - Test methods for electrical characteristics'

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 Directive on cableway installations designed to carry passengers (2000/9/EC). Negotiations on a new Standardization Request to support the implementation of the European Regulation on cableway installations (2016/424/EU) also progressed.

STANDARD ISSUED:

- EN 17064:2018 'Safety requirements for cableway installations designed to carry persons - Prevention and fight against fire'



RAILWAY AND TRAMWAY LOCOMOTIVES AND ROLLING STOCK AND ASSOCIATED PARTS

In the railways sector, CEN and CENELEC, together with ETSI, have established the Sector Forum Rail (also known as JPC Rail), bringing together representatives from the railway industry (supply industry and networks) and relevant European and international organizations (such as UIC, UNIFE, UITP). Most European Standards for the rail transport sector are developed in the CEN Technical Committee 'Railway Applications' (CEN/TC 256) and in the CENELEC Technical Committee 'Electrical and electronic applications for railways' (CLC/TC 9X). These Technical Committees collaborate with the European Union Agency for Railways, which replaced the European Railway Agency. The coordination with the Agency continues to ensure that European Standards are compatible with the latest Technical Specifications for Interoperability. The negotiations on a revised Agreement with the Agency closed at the end of the year.

In 2018 CEN published 24 new, revised and amended European Standards that were developed by CEN/TC 256; CENELEC published 9 new, revised and amended European Standards that were developed by CLC/TC 9X based on Standardization Requests from the European Commission (M/483 and M/486).

STANDARDS ISSUED:

- EN 17065:2018 'Railway applications - Braking - Passenger coach test procedure'
- EN 13231-5:2018 'Railway applications - Track - Acceptance of works - Part 5: Procedures for rail reprofiling in plain line, switches, crossings and expansion devices'

- EN 16910-1:2018 'Railway applications - Rolling stock - Requirements for non-destructive testing on running gear in railway maintenance - Part 1: Wheelsets'
- EN 16989:2018 'Railway applications - Fire protection on railway vehicles - Fire behaviour test for a complete seat'
- EN 16729-3:201'Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 3: Requirements for identifying internal and surface rail defects'
- EN 16729-4:2018 'Railway applications - Infrastructure - Non-destructive testing on rails in track - Part 4: Qualification of personnel for non-destructive testing on rails'
- EN 50129:2018 'Railway applications - Communication, signalling and processing systems - Safety related electronic systems for signalling'
- EN 50318:2018 'Railway applications - Current collection systems - Validation of simulation of the dynamic interaction between pantograph and overhead contact line'
- EN 50239:2018 'Railway applications - Radio remote control system of traction vehicle for shunting application'

ROAD EQUIPMENT AND MISCELLANEOUS TRANSPORT EQUIPMENT

CEN/TC 226 'Road equipment' established a Working Group to identify and understand the interactions between road equipment (e.g. traffic control, road signs, passive safety of support structures for road equipment, etc.) and autonomous vehicles.

STANDARDS ISSUED:

- EN 1436:2018 'Road marking materials - Road marking performance for road users and test methods'
- EN 1793-6:2018 'Road traffic noise reducing devices - Test method for determining the acoustic performance - Part 6: Intrinsic characteristics - In situ values of airborne sound insulation under direct sound field conditions'

ACCESSIBILITY

CEN and CENELEC are developing European Standards and other deliverables that promote accessibility of products, services and the built environment for the widest range of users, including people with disabilities and older people.

This work much relates to standardization requests of the European Commission (M/473, M/420 and M/376) and the activity of CEN/BT/WG 213 (Strategic Advisory Group on Accessibility, SAGA) which coordinates policy and strategic matters related to accessibility and advises the CEN and CENELEC Technical Boards.

Several European and national organizations representing interests of persons with disabilities and older people, together with the industry and service providers, contribute to the standardization achievements in this sector.

DESIGN FOR ALL

CEN continued working on standardization request M/473 'Design for All'. The objective of this work is to include accessibility following 'Design for all' principles in mainstream standards and make further use of the mechanism to address accessibility integrating 'Design for All' from the early stage of standard development in new business sectors.

The CEN-CLC Joint Technical Committee 12 'Design for All' finalised the first European standard addressing how to implement a 'Design for All' approach into the design, development and production processes of manufactured goods and service provisions (EN 17161 'Design for All - Accessibility following a Design for All approach in products, goods and services - Extending the range of users').

Additional actions took place in 2018 to further promote the protocol integrating 'Design for All' from the early stage of standard development, such as a CEN-CENELEC webinar (12 October 2018), social media promotion and internal communication to engage all stakeholders.

CEN/TC 452 'Assistance Dogs' identified, in 2018, its priorities for further standards work on dog lifetime welfare, competencies of assistance dog professionals, training and assessment of professionals, client services and accessibility.

E-ACCESSIBILITY

CEN-CLC-ETSI JWG eAccessibility published EN 301549:2018 'Accessibility requirements for ICT products and services', which has been cited in the Official Journal of the European Union under the Accessibility Directive (2016/2102/EU)

BUSINESS TOPICS

ENVIRONMENT

European Standards contribute to achieving sustainable growth in Europe and help businesses in making the transition towards a more circular and climate-resilient economy.

Environmental business sector representatives provide the necessary tools to support the work of standard writers in all sectors by addressing all environmental and climate change-related aspects in standards.

The CEN Strategic Advisory Body (SABE) and CENELEC/TC 111X 'Environment' worked closely together on finding the best ways to respond to the latest challenges of environmental policy, business and societal needs.

The need for a more cross-sectorial approach was also acknowledged.

In 2018 SABE initiated a project, supported by the EC and EFTA, aiming to help the newer CEN members and the related national environmental organizations in engaging in the CEN strategic activities to make standards more environmentally friendly. The project will last 3.5 years but it proved to be very successful already in the first year.

ADAPTATION TO CLIMATE CHANGE

The work related to the second phase of the Standardization Request (M/526) in support of the implementation of the EU Strategy on Adaptation to Climate Change continued in 2018. CEN an CENELEC pursued the revision and development of standards in the three priority sectors, (i.e. 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 (TCs) concerned and is involved in the delivery of the tools needed by the Technical Committees (TCs).

CEN and CENELEC closely follow the activities of ISO in this field 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 European legislation and in close cooperation with the European Commission.

The discussions on new standardization needs supporting the Directive 2010/75/EC on industrial emissions (IED) and Directive 2008/50/EC on ambient air continued. The next set of standards supporting the IED will be standards for the monitoring emissions of Polychlorinated dibenzodioxins (PCDDs)/ Polychlorinated dibenzofurans (PCDFs) and polychlorinated biphenyls (PCBs), total gaseous mercury and formaldehyde. The specifications to be included in the Standardization Request on measurement methods to monitor volatile organic compounds (ozone precursors) in ambient air were concluded.

The development and validation of standardized test methods for the determination of diffuse and fugitive emissions of volatile organic compounds (VOC) from oil and gas facilities was completed in 2018 (Mandate M/514). The development of the relevant standard will start in 2019.

The validation of the standardized automated Hydrogen Chloride (HCl) emission method was also finalised in 2018 (Mandate M/513). The finalisation and approval of the standard will start in 2019.

SOIL, SLUDGE AND WASTE (INCL. ELECTRONIC WASTE)

The work of the TCs in the fields of characterisation of waste (CEN/TC 292), characterisation of soils (CEN/TC 345) and test methods for environmental characterization of solid matrices (CEN/TC 444) is closely linked.

In 2018 TC 345 and TC 444 published twelve EN ISO standards on soil quality and TC 444 finalised also three standards related to soil, treated biowaste and sludge.

CEN/TC 366 dealing with materials obtained from End-of-Life Tyres published two technical reports in 2018.

CLC/TC 111X finalised a Technical Report in support of the WEEE Directive (2012/19/EU) under M/518, CLC/TR 50625-6 on the collection, logistics & treatment requirements for WEEE - Part 6: Report on the alignment between Directive 2012/19/EU and EN 50625 series standards and EN 50614.

STANDARDS ISSUED:

- EN 16190 'Soil, treated biowaste and sludge - Determination of dioxins and furans and dioxin-like polychlorinated biphenyls by gas chromatography with high resolution mass selective detection (HR GC-MS)';
- EN 16181 'Soil, treated biowaste and sludge - Determination of polycyclic aromatic hydrocarbons (PAH) by gas chromatography (GC) and high performance liquid chromatography (HPLC)';
- EN 16167:2018+AC:2019 'Soil, treated biowaste and sludge - Determination of polychlorinated biphenyls (PCB) by gas chromatography with mass selective detection (GC-MS) and gas chromatography with electron-capture detection (GC-ECD)';
- CEN/TS 17188 'Materials obtained from end of life tyres (ELT) - Sampling method for granulates and powders stored in big-bags';
- CEN/TS 17189 'Materials obtained from end of life tyres (ELT) - Determination of the true density of granulates - Method based on water pycnometry';
- EN IEC 63000:2018 'Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances'.

WATER QUALITY, DRINKING WATER AND WATER UTILITIES

CEN/TC 230 'Water analysis' published nine EN ISO standards and two home grown standards related to water quality. The two ENs provide general requirements and performance test procedures for water related measuring devices and a guidance on determining the degree of modification of the hydromorphological features of transitional and coastal waters.

CEN/TC 164 'Water supply' finalised two standards, one related to devices to prevent pollution by backflow of potable water and another one on a series of chemicals used for treatment of water intended for human consumption ().

CEN/TC 165 'Waste water engineering' published five standards in 2018. Three standards on pumping systems related to drain and sewer systems outside buildings (EN 16932, Part 1,2 and 3), EN 16941-1, the first one in the series for on-site non-potable water systems and EN 15885 on the classification and characteristics of techniques for renovation, repair and replacement of drains and sewers.

STANDARDS ISSUED:

- EN 17075:2018 'Water quality - General requirements and performance test procedures for water monitoring equipment - Measuring devices';
- EN 17123 'Guidance on determining the degree of modification of the hydromorphological features of transitional and coastal waters';
- EN 13077 'devices to prevent pollution by backflow of potable water';
- EN EN 17034 'series of chemicals used for treatment of water intended for human consumption'

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, databases and sensors. Fostering the automation and data exchange in manufacturing technologies is one of the key priorities of CEN and CENELEC.

CEN and CENELEC are engaged in multiple technical sectors such as Smart Grids, Cybersecurity, Advanced Manufacturing, and Distributed Ledger Technologies. In this context, CEN and CENELEC cooperate extensively with ISO and IEC to develop standards that can be applied worldwide.

INTELLIGENT TRANSPORT SYSTEMS

CEN/TC 278 'Intelligent transport systems' develops European Standards and Technical Specifications as part of relevant Standardization Requests from the European Commission (such as M/270, M/338 and M/453).

These standards cover aspects that include cooperative systems, travel and traffic information, route guidance and navigation, public transport, emergency vehicles and electronic fee collection. CEN and CENELEC cooperate closely with ETSI and ISO to ensure a coherent approach to Standardization.

In 2018, CEN/TC 278 has developed several standards and technical specifications, focussing on data exchange for traffic management.

STANDARDS ISSUED:

- EN 16157-1 'Data exchange specifications for traffic management and information';
- TS 17268 'ITS spatial data and data exchanges on changes in road attributes';
- TS 17184 'eCall high-level application protocols'

HOME AND BUILDING ELECTRONIC SYSTEMS

CLC/TC 205 finalised in 2018 the EN 50941-12-1, which relates to the General requirements for Home and Building Electronic Systems and Building automation and Control systems, for Smart Grid application specification.

SMART GRIDS AND SMART METERING

Smart grids and smart meters mark a new development on the path towards greater consumer empowerment, the integration of renewable energy sources into the grid and higher energy efficiency, while making a considerable contribution to reducing greenhouse emissions.

The CEN-CENELEC-ETSI Coordination Groups on Smart Energy Grids (CG-SEG) and Smart Meters (CG-SM) continued advising on European requirements relating to smart energy standardization. The two Coordination Groups identified and prioritised 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 (as well as smart appliances, smart home systems, buildings, etc.).

In particular, the CG-SEG prepared a report that intends to address both the key legal propositions of the Clean Energy Package, which are considered as most relevant for standardization, as well as propose an initial assessment of priority topics.

Furthermore, the 'Privacy & Security' working group of the CG-SM developed a Protection Profile for Smart Meter Minimum Security requirements that can serve as a basis for specific requirement of individual EU Member States, based on a risk analysis that has assessed the specific assets and actors applicable to their scheme.

Moreover, given the increasing importance of interoperability to ensure the deployment of smart technologies, the CG-SEG and CG-SM, together with the CEN and CENELEC Management Centre, organized a CEN-CENELEC Mapping Ontologies Workshop. The aim of the event was to map the existing data models and work towards their alignment with the ultimate goal of ensuring interoperability.

OUR ORGANIZATIONS

THE CEN-CENELEC PRESIDENTIAL COMMITTEE (PC)

Back–left to right: Bernhard Thies (CENELEC Vice-President Policy), Ruggero Lensi (CEN Vice-President Technical), Javier García Díaz (CENELEC Vice-President Technical), Kimmo Saarinen (CENELEC Vice-President Finance), Christoph Winterhalter (CEN Vice-President Policy), Thomas Idermark (CEN Vice-President Finance).
Front–left to right: Dany Sturtewagen (CENELEC President), Elena Santiago Cid (CEN and CENELEC Director General), Vincent Laflèche (CEN President)

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 organizations 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 organizations, 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 ⊖

IMPROVING SUPPORT TO THE TECHNICAL WORK

STREAMLINED RULES AND PROCESSES

In 2018, the CEN and CENELEC BOSS websites – Business Operation Support System – were kept updated to ensure all information was available.

A new edition of CEN/CENELEC Internal Regulations Part 2 'Common rules for standardization work' was published. The main changes, compared to the previous edition, concern the creation of joint CEN-CENELEC Technical Committees as well as a clearer and rigorous process for the 'Appeal Mechanism'.

The CEN procedure on 'Claim of Defective Standard' was revised to better identify the actors involved, the criteria for the admissibility of claims, the timescales foreseen for each step and the required steps for the treatment of the claim.

The following guidance documents were uploaded as well:

- Code of Conduct for experts participating in CEN & CENELEC technical work
- Best practices for improving effectiveness of CEN and CENELEC WG meetings
- Matrix on Qualified support required to support development of CEN European standards to be offered for OJEU citation (CEN only)

In 2018, CENELEC implemented the EN IEC referencing system for standards developed under the Frankfurt Agreement and launched an initiative for ensuring maintenance of Harmonisation Documents (HD).

INFORMATION AND TRAININGS

The BT Newsletter was published in June to communicate about the outcomes of the BT (Technical Board) meetings. In the second semester it was redefined to include the most relevant BT decisions taken both at the meeting and in the following correspondence.

On 14 September 2018, an interactive Workshop on Reporting Secretariats (SR) for all CENELEC Members was organized by DKE with CCMC support. The Members staff holding a Reporting Secretariat debated on their (growing) tasks and responsibilities, especially in the frame of the HAS system and of the new Day-to-Day Management of the Frankfurt Agreement.

Throughout 2018 CEN and CENELEC broadcasted a number of recurrent webinars – the '10-10 webinars'. The webinars addressed the needs and interests of the CEN and CENELEC Technical Body Officers, but were also open to interested National Members, Partners and stakeholders. Their aim was to provide an update on the latest developments in standardization and on specific topics that could have a direct impact on technical work. The webinars proved popular, with around 1000 participants registered over the year.

Additionally, two webinars specifically dedicated to standards drafters were broadcasted with the purpose to achieve a common understanding of the drafting rules and related procedures.

TECHNOLOGICAL IMPROVEMENTS

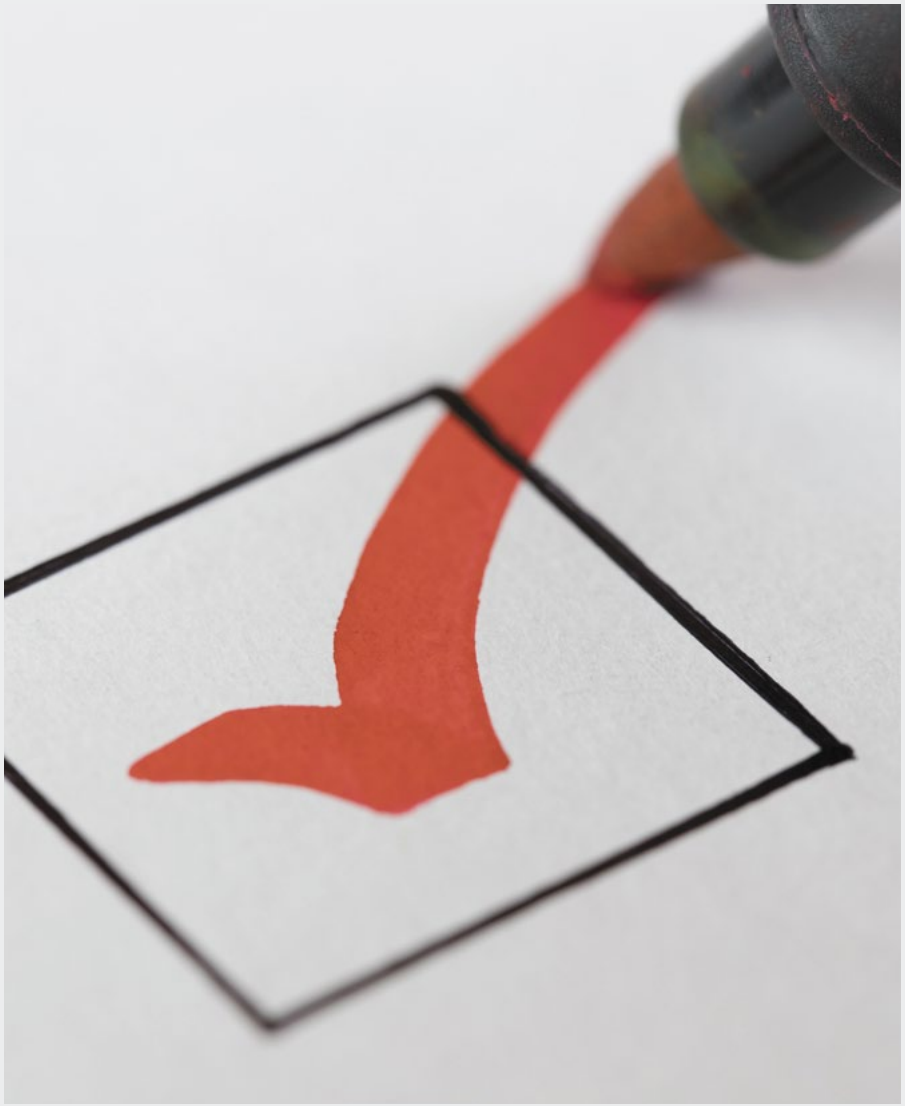
A new CEN Meeting registration system was deployed in 2018 to allow for the online registration of national delegations and experts in Technical Body meetings. This tool facilitates the tasks of the Technical Body Secretaries and allows for more transparency in the registration process of National Members.

CENELEC implemented a 'Committee Internal Voting (CIB) tool' to facilitate and streamline the organization of Technical Body internal consultations and voting.

MEMBERSHIP CRITERIA TO IMPROVE THE SYSTEM

The CEN and CENELEC members are committed to offer a high quality and coherent standardization system to their stakeholders. To that effect, they all commit to and demonstrate their compliance to a set of membership criteria. This mechanism of continuous improvement and of sharing of best practices fosters coherence throughout the European Standardization System, making the best use of its diversity. It also ensures that the services and tools offered by the National Standards Bodies and National Electrotechnical Committees continue to improve and evolve.

A revised set of membership criteria, including an improved framework for the peer assessments of members, was established in 2017 following the work of the dedicated CEN-CENELEC Working Group 'Revision of membership criteria'. The criteria for membership are now listed in the Internal Regulations Part 1D.



EVOLVING CEN-CENELEC MANAGEMENT CENTRE

CEN-CENELEC MANAGEMENT CENTRE, A TRANSFORMING ORGANIZATION

In 2018, an integrated programme was implemented to accompany the successful deployment of the new CEN-CENELEC MANAGEMENT CENTRE Structure, with the clear understanding for the need to focus on raising customer centric awareness:

- redesign of individual job profiles;
- identification of a set of key competences for the various types of functions across the organization;
- team coaching to develop responsive and responsible individuals, embedded in an agile and connected organization;
- targeted CCMC Business Plan with 'SMART' indicators supporting defined projects, and related individual contributions for each employee;
- Quality Management (EN ISO 9001:2015) put in practice through an internal audit roadmap combined with performing tasks and activities related to each process.

HUMAN CAPITAL

In January 2019, **75 people** were working at the CEN-CENELEC Management Centre in Brussels, 3 were planned to join by April 2019.

The Human Capital has raised to the challenge of managing change during a complex transformation process, whilst maintaining business priorities.

Organization chart

THE CEN-CENELEC MEETING CENTRE

The CEN - CENELEC Meeting Centre offers high quality meeting facilities, with 9 meeting rooms, designed taking into account current trends, as well as the habits of our visitors. In a situation of constantly evolving technology and increasing needs of flexibility and interaction, the CEN-CENELEC Meeting Centre is proud to offer a wide range of possibilities such as meetings with presentations, exchange of documents and active participation from remote.

In 2018 we reached the symbolic number of 1000 meetings and over 13 720 visitors experienced our new technological tools. Together with this, there has been a sensible increase in web conferencing throughout the whole of last year.

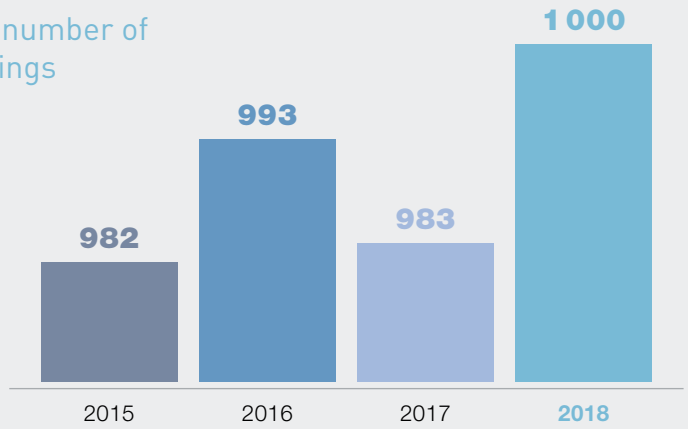
Due to the great success of the two flexible rooms available (Tesla 1 and 2), the Meeting Centre has decided to offer the same flexibility to our visitors in the two larger rooms (Magellan 1 and 2) as from 2019. Finally, CEN and CENELEC suppressed all plastic items related to catering in the Meeting Centre.

More information on the meeting centre is available on CEN-CENELEC website.

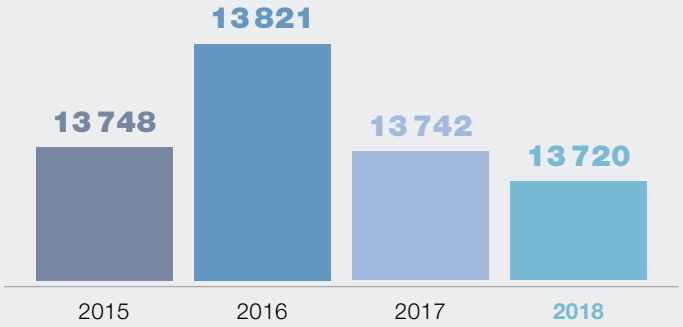
THE CEN-CENELEC MEETING CENTRE

CEN-CENELEC MEETING CENTRE - OCCUPANCY

Total number of meetings

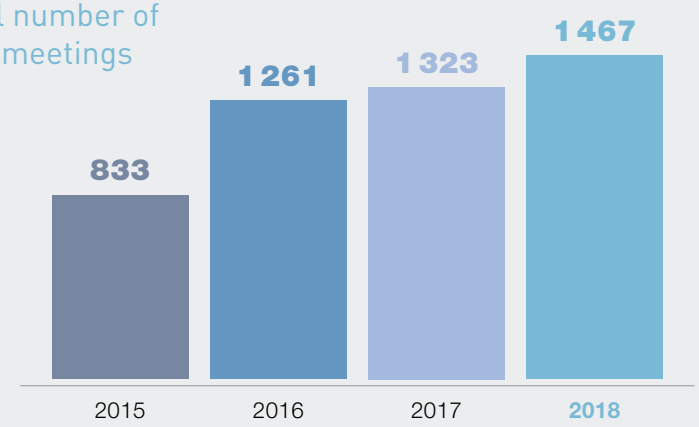


Total number of persons participating

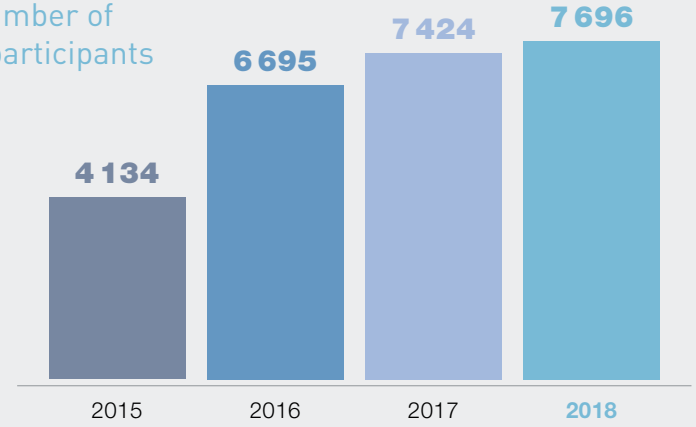


CEN-CENELEC MEETING CENTRE - WEB MEETINGS

Total number of web meetings



Total number of online participants



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CREATED BY:
Losfeld Communication
Rue de la Couronne, 76
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PUBLISHER:
Andreea Gulacsi
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Rue de la Science, 23
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www.cencenelec.eu

2018 ANNUAL REPORT

European Committee for Standardization

TABLE OF CONTENTS

02 LETTER FROM THE PRESIDENT

04 CEN ADMINISTRATIVE BOARD

12 CEN AT A GLANCE

14 CEN DEVELOPMENTS IN 2018

21 ANNUAL ACCOUNTS

23 THE CEN NETWORK

LETTER FROM THE PRESIDENT

2018 has been another year of important milestones for CEN. We have embarked on new activities to respond to the rapidly evolving technological and societal changes, with the aim to support our industry partners to timely respond to changing market needs and improve their chances of success in the global economy.

To achieve this, CEN has focussed its efforts on three elements identified as most impactful for European standardization: servitisation, digital transformation and innovation. As Innovation Ambassador, I am particularly proud to have led the development of our strategic Innovation Plan, adopted last June in the beautiful town of Bled together with CENELEC. The aim of the plan is to recognise the contribution of researchers to standardization and further integrate innovation and research into standardization work. This will lead to a more efficient transfer of research into the market and enhance the competitiveness of the EU economy. The implementation of the plan is a collective effort, as CEN and CENELEC are demanding a significant effort from their members, by fully sharing responsibilities and actions to measure progress and achieve the objectives.

Closely connected to this, Artificial Intelligence (AI) has landed in the European sphere as a promising new sector widely affecting industry and society, where standardization could offer a full range of solutions to fill a current gap and help to make sure society benefits from innovation, as recognised by the European Commission itself. Among many other activities centred on AI, CEN and CENELEC organized a very successful Stakeholder Workshop on Trustworthy Artificial Intelligence, setting the scene for AI standardization in the coming years. I am eager to see developments in this wide and cross-sectoral field of activity.

On a related note, CEN together with CENELEC have intensified their work on cybersecurity, entering into a cooperation agreement with ECSO, the European Cybersecurity Organisation. This has been a good preparation for 2019, when cybersecurity is a clear priority topic leading up to the General Assembly in Bucharest, where it will hold centre stage.

LETTER FROM THE PRESIDENT

2018 has also been impacted by the lengthy and complex Brexit negotiations. The uncertainty unleashed by the unprecedented process has already had a deep impact on European and British business. For this reason, in order to ensure the continuity of the European standardization system and to provide legal certainty, CEN and CENELEC agreed to apply a transition period until 31 December 2020, during which BSI, the British national standardization body, will remain a full member. This transition period will also allow us to closely follow future developments and reflect on the actions to take to ensure legal certainty and a sustainable European standardization system.

CEN has also made significant efforts to cooperate with the European Commission, to enable a speedy and correct citation of Harmonised Standards (hENs), within the New Legislative Framework. There is enough evidence that standardization is fundamental in ensuring the correct functioning of the EU Single Market, thanks to the annual development and publication of Harmonised Standards adopted identically in 34 countries and enabling free circulation of goods and services, while reducing administrative burden. Nevertheless, the recent interpretation of the 'New Legislative Framework Approach' taken by the Commission, together with the remaining criticalities in the citation of hENs, have raised some concerns among the CEN community. We are confident that we will able to see some positive evolutions in 2019.

Finally, we continued and developed our longstanding cooperation with ISO: in 2018, more than one third of our standards was identical or based on ISO standards. Our aim, as expressed in our 'Ambitions 2020', is to ensure that there is no duplication of work giving primacy to international standards, thus contributing to the removal of technical barriers to trade and market access worldwide.

The success of our activities would not have been possible without the passionate involvement of all members of the CEN community. Therefore, on behalf of the CEN Administrative Board, I would like to warmly thank our National Members and Affiliates, our Partners and Liaison Organizations and all the individual experts who make the work of our Technical Committees and Working Groups shine. I am looking forward to achieving our objectives together in the years to come!

Vincent Laflèche
CEN President

CEN ADMINISTRATIVE BOARD

CEN Administrative Board 2019

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, 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.

PRESIDENT AND VICE-PRESIDENTS 2019

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.

Vice-President Finance: Mr Thomas Idermark

Mr Thomas Idermark has been the CEO and President of the Swedish Standards Institute (SIS) since 2015, when he was also elected to the CEN Administrative Board. Between 2008 and 2014, he served as President and CEO of SKL Kommentus AB, a commercial organization that provides consulting services to local and regional public authorities in Sweden. Mr Idermark has completed studies in Economics, Rural Management and Business Management. During his career he held CEO positions in business and in the banking sector. Mr Thomas Idermark has been elected Vice-President Finance with a term of office from 6 September 2017 to 31 December 2019.

PRESIDENT AND VICE-PRESIDENTS 2019

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 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.

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 is currently Chair of CEN-CENELEC Digital Transformation Steering Committee. Mr Lensi holds a degree in Civil Engineering from the Polytechnic University in Milan.

BOARD MEMBERS 2019

Mrs Tatjana Bojanic - ISS, Serbia

Mrs Tatjana Bojanic is the Director General of the Institute of Standardization of Serbia (ISS) since December 2018. Before that, she was Acting Director at ISS since December 2015, and Head of Department for Legal, Human Resource and Common Affairs since October 2010. 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 Law of standardization and other regulation in the field of standardization. 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 was elected as CEN's Board Member in June 2018 and officially started her mandate in January 2019.

Mr Peter Maas - NEN, The Netherlands

Mr Peter Maas has been a member of the Management Team at the Netherlands Standardization Institute (NEN) since 2000. Since joining NEN in 1993, he has held numerous senior management positions covering both standards development and standards publishing. He is currently responsible for Business Development, Communication and Marketing, Strategic Account management, Public Affairs and International Affairs. Prior to joining NEN, he held various positions in Research and Marketing & Sales at a Dutch truck manufacturer. Mr Maas is a mechanical engineer graduate from the University of Technology in Eindhoven. He holds Post-Graduate degrees in Business Administration and Marketing Management.

BOARD MEMBERS 2019

Mr Enda McDonnell - NSAI, Ireland

Mr Enda McDonnell is Director of Standards & Metrology 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. Mr McDonnell 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 Jacob Mehus - SN, Norway

Mr Jacob Mehus is Managing Director of Standards Norway (SN). He has previously held positions as Marketing Manager and Marketing Director within the organisation, 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. Jacob Mehus holds a Master of Science degree from Iowa State University and has followed post-graduate courses in economics and management from Stanford University, USA.

BOARD MEMBERS 2019

Mr Olivier Peyrat - AFNOR, France

Mr Olivier Peyrat has been Director General of the French Association for Standardization (AFNOR) since 2003. As a former senior civil servant, he is an Ingénieur en Chef au Corps des Mines (Hon). He completed studies at the Ecole Polytechnique, Télécoms Paris Tech, Ecole des Hautes Etudes Commerciales (Executive MBA), INSEAD Business School and IHEDN (Institute of Advanced Studies in National Defence).

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 is a member of the 'Foreign advisers of China's standardization' committee. He has been appointed Vice-President (Finance) of ISO from 2013 to 2016. He is Chevalier de la Légion d'Honneur.

DDr Elisabeth Stampfl-Blaha - ASI, Austria

DDr Elisabeth Stampfl-Blaha has been the CEO of Austrian Standards since 2013. At Austrian Standards, where she has been for over 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 (Membership Relations and Monitoring Committee). Mrs Stampfl-Blaha holds Doctors degrees both in Law and in Economics and Business Administration from the University of Vienna. She was elected as CEN's Board Member in June 2018.

BOARD MEMBERS 2019

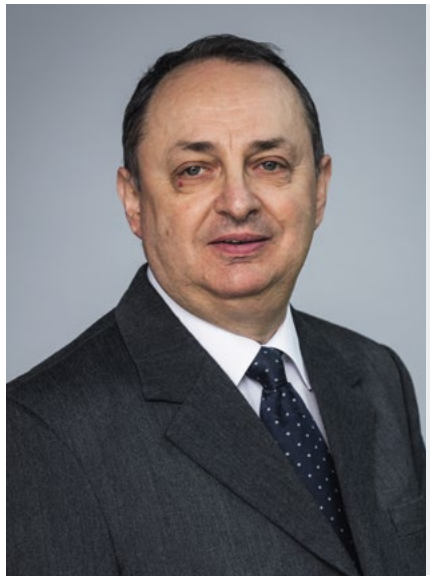
Dr Scott Steedman - BSI, UK

Dr Scott Steedman is Director of Standards at BSI, the National Standards Body of the United Kingdom, and an Executive Director on the BSI Group Board. His early career as an academic at Cambridge University was followed by over 20 years in industry working for large and small companies in the built environment and construction sector. He joined BSI in 2012 and was CEN Vice-President Policy from 2013 to 2017. Dr Steedman is currently serving as Vice-President Policy for ISO and as the Secretary of the UK National Committee of the IEC. He was elected President of the European Council for Construction Research, Development and Innovation (ECCREDI) in 1997, a position he held for 11 years. He has been a Vice-President of both the Institution of Civil Engineers and the Royal Academy of Engineering and in 2010 was awarded the national honour of CBE for services to engineering.

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 has been elected CEN Board Member with a term of office starting in January 2018.

BOARD MEMBERS 2019



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 while 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.

CEN ADMINISTRATIVE BOARD IN 2018

PRESIDENTS AND VICE-PRESIDENTS

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

BOARD MEMBERS 2018

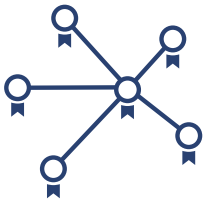
Mr Javier García Díaz (UNE, Spain)
Mr Pekka Järvinen (SFS, Finland)
Mr Priit Kikas (EVS, Estonia)
Mr Peter Maas (NEN, The Netherlands)
Mr Enda Mc Donnell (NSAI, Ireland)
Mr Jacob Mehus (SN, Norway)
Mr Olivier Peyrat (AFNOR, France)
Dr Scott Steedman (BSI, United Kingdom)
Dr Bogdan Topič (SIST, Slovenia)

CEN AT A GLANCE

	European Standards	Workshop Agreements	Technical Specifications	Technical Reports	European Standards identical to International Standards (ISO)
IN 2018	1 076	18	58	44	511
Deliverables published in 2018	1 198				
OVERALL ON 31 DECEMBER 2018	15 305	461	526	531	5 576
Portfolio at the end of 2018	16 979				

www.cen.eu

CEN COMMUNITY



34
National Standardization Organizations
(34 countries)

17
Companion Standardization Bodies

3
Affiliates

291
European Partners

2
Counsellors *(EC + EFTA)*

1
Associated Body

9
Partner Organizations

260
Liaison Organizations
(23 new liaisons in 2018)

5
European Institutional Stakeholders

14
Other Partner Organizations

375
Technical Commitees
(TCs)

64
Joint Technical Committees
(CEN-CENELEC and CEN-CENELEC-ETSI)

1 576
Working Groups
(of TCs & SCs)

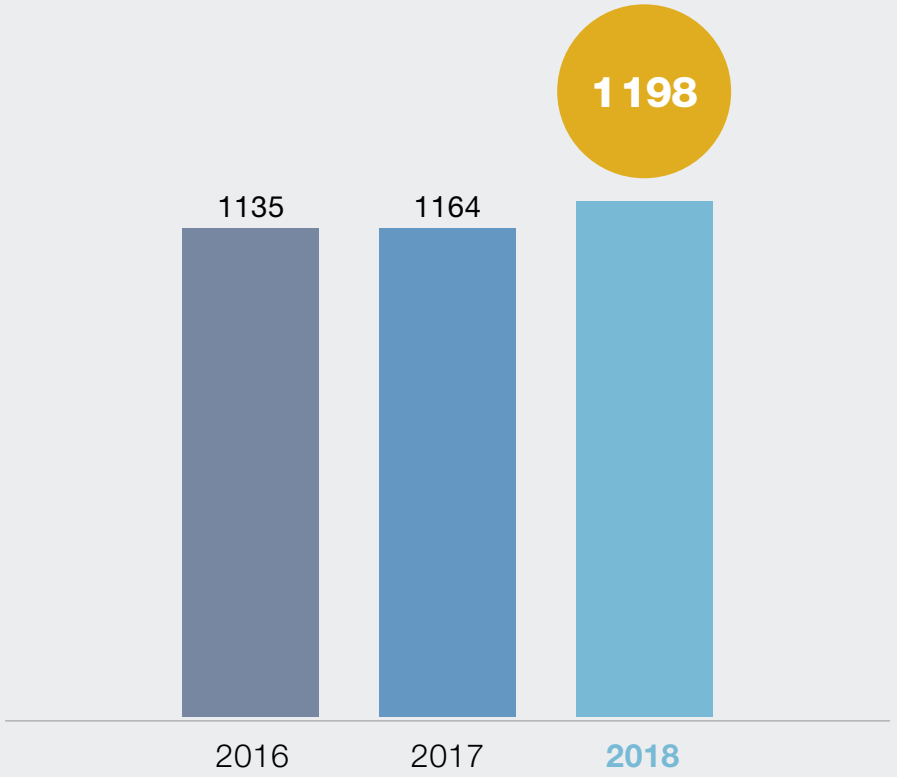
www.cen.eu

CEN DEVELOPMENTS IN 2018

www.cen.eu

CEN DEVELOPMENTS IN 2018

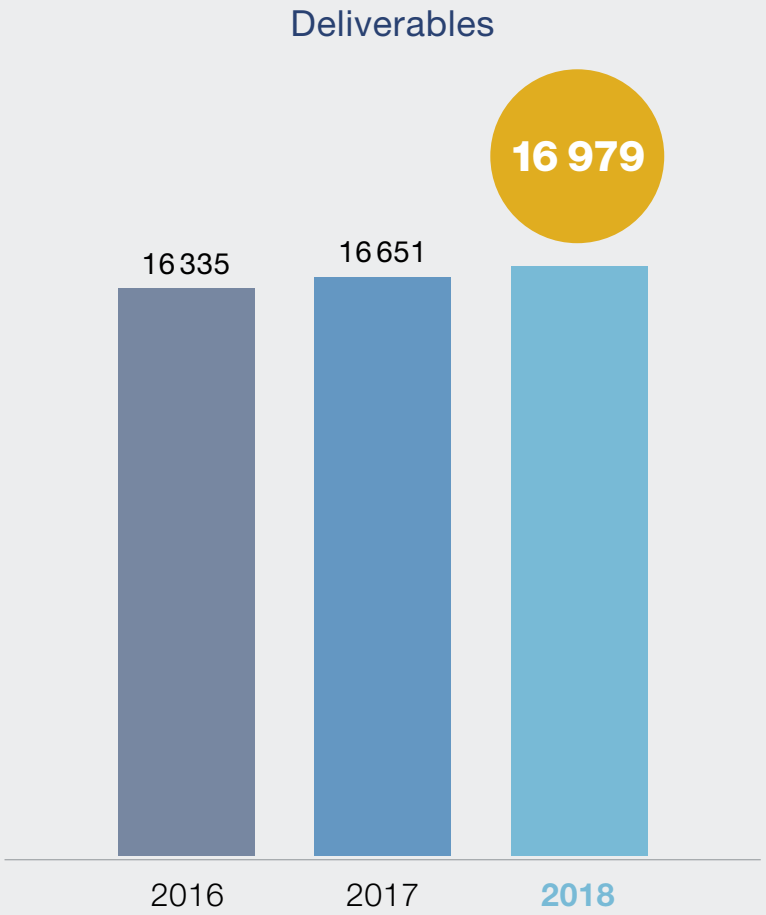
European Standards	1 076
Technical Specifications	58
Technical Reports	44
CEN Workshop Agreements	18
CEN Guides	2



DELIVERABLES*	2016	2017	2018
European Standards (ENs**)	907	1 052	1 076
Technical Specifications (TSs)	43	34	58
Technical Reports (TRs)	39	68	44
CEN Workshop Agreements (CWAs)	141	6	18
CEN Guides (CGs)	5	4	2
TOTAL	**1 135**	**1 164**	**1 198**

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

CEN OVERALL AT THE END OF 2018



CEN TECHNICAL BODIES	2016	2017	2018
Active CEN Technical Committees (CEN/TCs)	314	330	330
Active CEN TC/Sub-Committees (CEN/TC/SCs)	45	45	45
CEN TC/SC Working Groups	1 497	1 529	1 576
Active Workshops	39	36	35
ASD-STAN, ECISS Technical Bodies		104	55
TOTAL	**1 895**	**2 044**	**2 041**

JOINT TECHNICAL BODIES*	2016	2017	2018
TOTAL	**36**	**59**	**64**

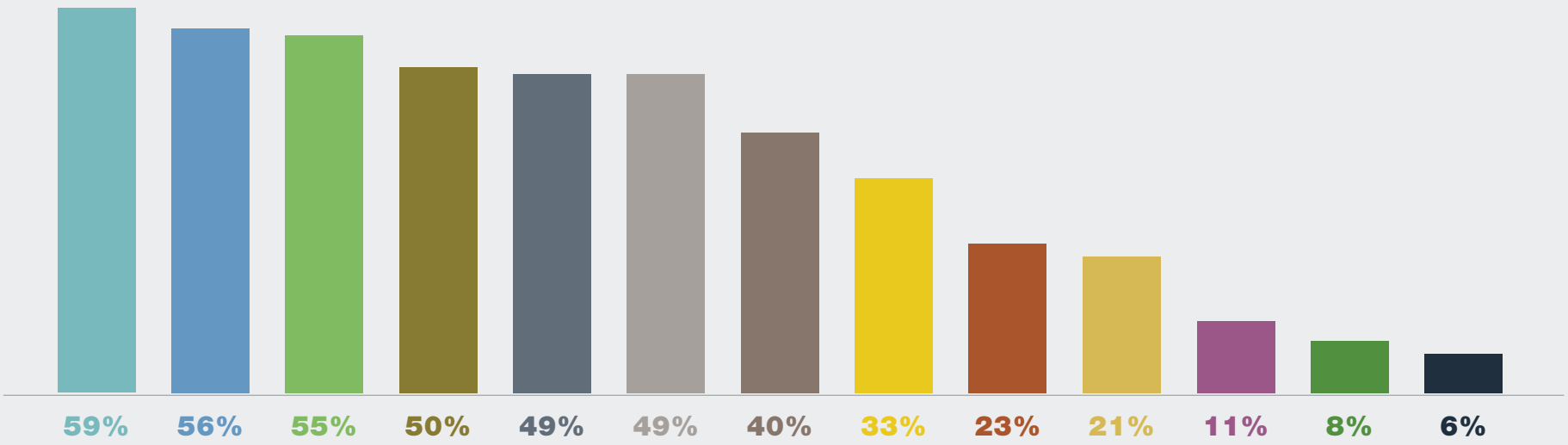
**CEN-CENELEC and CEN-CENELEC-ETSI*

DELIVERABLES*	2016	2017	2018
Standards (ENs)**	14 302	14 591	14 871
EN Amendments	437	430	434
Workshop Agreements (CWAs)	475	450	461
Technical Specifications (TSs)	513	517	526
Technical Reports (TRs)	448	505	531
Guides (CGs)	38	40	40
Pre-Standards (ENVs)	34	31	29
Reports (CRs)	88	87	87
TOTAL	**16 335**	**16 651**	**16 979**

**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 2018

DELIVERABLES*	Number	Percentage
Identical to ISO publications	5 576	32,92%
Based on ISO publications	22	0,13%
Homegrown	11 341	66,95%
TOTAL	**16 939**	100,00%

**Excluding Corrigenda and Guides*

- Healthcare & Health and safety
- Services
- Chemicals
- Food and agriculture
- Consumer
- Mechanical & machinery
- Mining and metals
- Energy and utilities
- Construction
- Household appliances and HVAC
- 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 2018	END 2018
Accreditation and Market Surveillance	765/2008	3	35
Active implantable medical devices	90/385/EEC	3	34
Cableways	2016/424	1	21
Construction Products	305/2011	31	431
Cosmetic Products	1223/2009		1
Ecodesign of energy using products	2015/1095	3	5
Ecodesign of energy using products	206/2012	4	7
Ecodesign of energy using products	641/2009		3
Ecodesign of energy using products	66/2014		2
Ecodesign of energy using products	813/2013	5	22
Ecodesign of energy using products	814/2013	7	16
Ecodesign of energy using products	245/2009	1	1
eInvoicing	2014/55/EU		1
Electromagnetic compatibility	2014/30/EU	1	13
Energy Labelling	2015/1094	1	2
Energy Labelling	811/2013	8	28
Energy Labelling	812/2013	6	14
Energy Labelling	626/2011	1	2
Energy Labelling	65/2014		1
Explosive atmospheres	2014/34/EU	3	59
Explosives for civil use	2014/28/EU		57

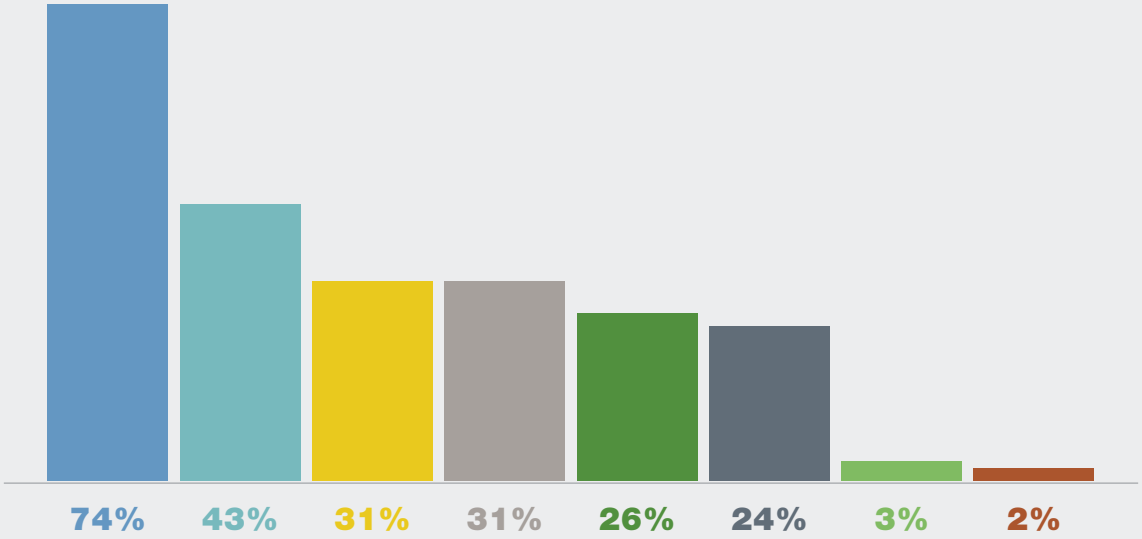
RELATION TO EUROPEAN UNION LEGISLATION (CONTINUED)

SECTORS	DIRECTIVE/REGULATION REFERENCE	IN 2018	END 2018
General product safety	2001/95/EC	8	77
In vitro diagnostic medical devices	98/79/EC	1	36
Lifts	2014/33/EU	6	16
Low Voltage	2014/35/EU		1
Machinery	2006/42/EC	41	739
Measuring instruments	2014/32/EU	7	11
Medical devices	93/42/EEC	13	149
Non-automatic weighing instruments	2014/31/EU		1
Packaging	94/62/EC		6
Personal protective equipment	2016/425	12	194
Postal Services	97/67/EC		6
Pressure equipment	2014/68/EU	21	215
Pyrotechnic articles	2013/29/EU		25
Railways	2008/57/EC	17	135
REACH	1907/2006		3
Recreational craft	2013/53/EU	34	61
Safety of Toys	2009/48/EC	5	9
Simple pressure vessels	2014/29/EU		3
Sustainable use of Pesticides	2009/128/EC		4
Textile fibres	1007/211		3
Web Accessibility	2016/2102/EU	1	1
	GRAND TOTAL	**244**	**2 450**

RELATION TO EUROPEAN UNION LEGISLATION

At the end of 2018, the CEN catalogue counted 16 979 deliverables of which 2 302 (13,6%) were in support of EU legislation. Among this last total, 582 were identical or based on ISO publications.

Percentage of harmonized deliverables identical to ISO per sector



Portfolio of harmonized deliverables – at the end of 2018

DELIVERABLES*	Number	Percentage
Identical to ISO	579	25,15%
Based on ISO	3	0,13%
Homegrown	1 720	74,72%
TOTAL	**2 302**	100,00%

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

ANNUAL ACCOUNTS

ASSETS (€ x 1000)*	**2016**	**2017**	**2018**
Fixed Assets	191	1 093	1 020
Current Assets	3 238	4 299	3 843
Liquid Assets	11 985	9 532	8 384
Prepaid Expenses and Accrued Income	406	159	153
TOTAL	**15 820**	**15 083**	13 400

LIABILITIES (€ x 1000)*	**2016**	**2017**	**2018**
Reserves	3 742	3 475	3 309
Provisions for liabilities and charges	1 371	972	1 909
Payable	3 299	3 731	3 060
Accrued expenses & deferred income	7 408	6 905	5 122
TOTAL	**15 820**	**15 083**	13 400

EXPENDITURE (€ x 1000)*	**2016**	**2017**	**2018**
Staff costs	6 828	7 359	6 480
Other operating costs	2 224	2 233	2 192
Contractual expenses	7 731	14 828	12 706
Digital Transformation/Provision	-	-	921
Office move project costs	-	284	166
Office move project/Use of provision	-	-284	-1
Reserve for investment	140	-	-
TOTAL	**16 923**	**24 420**	22 464

INCOME (€ x 1000)*	**2016**	**2017**	**2018**
Contributions	6 278	6 808	7 066
Interest	18	3	3
Contractual income	10 454	17 153	15 069
Miscellaneous	173	189	161
Loss of the year / Use of Reserves	-	267	165
TOTAL	**16 923**	**24 420**	22 464

FINANCING OF THE CEN-CENELEC MANAGEMENT CENTRE (CEN Part)	**2016**	**2017**	**2018**
Membership fees	69%	71%	74%
EC/EFTA support to standardization	29%	24%	20%
Other support	2%	5%	6%
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 - Estonian Centre for Standardisation
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
www.din.de

www.cen.eu

Greece	
EAOT	**NQIS/ELOT** - National Quality Infrastructure System www.elot.gr
Hungary	
MSZT	**MSZT** - Hungarian Standards Institution www.mszt.hu
Iceland	
IST	**IST** - Icelandic Standards www.stadlar.is
Ireland	
NSAI	**NSAI** - National Standards Authority of Ireland www.nsai.ie
Italy	
UNI	**UNI** - Ente Nazionale Italiano di Unificazione www.uni.com
Latvia	
LVS LATVIJAS STANDARTS	**LVS** - Latvian Standard Ltd. www.lvs.lv
Lithuania	
LST	**LST** - Lithuanian Standards Board www.lsd.lt
Luxembourg	
ILNAS	**ILNAS** - Organisme Luxembourgeois de Normalisation www.portail-qualite.lu
Malta	
MCCAA MALTA COMPETITION AND CONSUMER AFFAIRS AUTHORITY	**MCCAA** - The Malta Competition and Consumer Affairs Authority www.mccaa.org.mt
Netherlands	
NEN	**NEN** - Nederlands Normalisatie-instituut www.nen.nl
Norway	
standard norge	**SN** - Standards Norway www.standard.no/
Poland	
PKN	**PKN** - Polish Committee for Standardization www.pkn.pl
Portugal	
IPQ	**IPQ** - Instituto Português da Qualidade www.ipq.pt
Republic of North Macedonia	
ИСРС ISRS M	**ISRSM** - Standardization Institute of the Republic of North Macedonia www.isrm.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 Standards Institute
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

BAS - Institute for Standardisation of Bosnia and Herzegovina (BAS)
www.bas.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

NEW in 2018 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
www.memst.kz

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 ORGANIZATIONS

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

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

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
www.aimglobal.org/page/AIM_Europe

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

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

BBMRI-ERIC - Biobanking and Biomolecular Resources Research Infrastructure - European Research Infrastructure Consortium
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

BridgeSpec Project - COST Action TU 1406 - BridgeSpec Project - COST Action TU 1406 the Quality Specifications for Roadway Bridges, Standardisation at a European Level
www.cost.eu/COST_Actions/tud/TU1406

NEW in 2018 **CANCER** - Cancer treatment and monitoring through identification of circulating tumor cells and tumor related nucleic acids in blood
www.cancer-id.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 Organizations
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

CITyFiED Project - RepliCable and InnovaTive Future Efficient Districts and cities
www.cityfied.eu

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

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

CONCAWE - Environmental Science for the European refining Industry
www.concawe.org

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

NEW in 2018 **ComMUnion Project** - Joining of 3D tipometal multimaterial components
www.communionproject.eu

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

DLMS UA - DLMS User Association
www.dlms.com

NEW in 2018 **DRIVER+ Project** - Driving Innovation 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

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

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

NEW in 2018 **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
www.eurocopper.org

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
www.eco-platform.org/

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

ECP - European Concrete Platform
www.europeanconcrete.eu

NEW in 2018 **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

EDE - European Association for Directors and Providers of Long-Term Care Services for the Elderly
www.ede-eu.org

NEW in 2018 **EDF** - European Disability Forum
www.edf-feph.org

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

NEW in 2018 **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

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

NEW in 2018 **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

NEW in 2018 **EFSI** - European Federation for Services to Individuals
http://efsi-europe.eu/home/

EFSN - European Fire Sprinklers Network
www.eurosprinkler.org

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

NEW in 2018 **EGBA** - European Gaming and Betting Association
https://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 Organizations 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

NEW in 2018 **EL** - European Lotteries Association
https://www.european-lotteries.org

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

ELCA - European Lift & Lift Components Association
www.elca-eu.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

NEW in 2018 **ERA** - The European Rental Association
www.erarental.org

ERF - European Union Road Federation
www.irfnet.eu

ERF - European Racking Federation
www.erfed.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

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

NEW in 2018 **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

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

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

NEW in 2018 **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

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

NEW in 2018 **FEVE** - The European Container Glass Federation
www.feve.org

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

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

NEW in 2018 **FIFA** - Fédération Internationale de Football Association
www.fifa.com

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

NEW in 2018 **FluoroCouncil Europe** - FluoroCouncil Europe
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

NEW in 2018 **GSA Europe** - The Gaming Standards Association Europe
www.gamingstandards.com

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

GlobalPlatform - GlobalPlatform
www.globalplatform.org

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

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

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 - 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

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

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

ITF - International Tennis Federation
www.itftennis.com

IWMA - International Water Mist Association
www.iwma.net

NEW in 2018 **IZA-Europe** - International Zinc Association-Europe
www.zinc.org

KRAKEN Project - Hybrid automation machine integrating concurrent manufacturing processes, increasing the production volume of functional on-demand using high multi-ma
krakenproject.eu

LEADing Practice
www.leadingpractice.com

LightingEurope
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

NEW in 2018 **NanoReg2 Project** - «Development and implementation of Grouping and Safe-by-Design approaches within regulatory frameworks»
www.nanoreg2.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
www.peppol.eu

NEW in 2018 **PMA** - Paraglider Manufacturers Association
www.p-m-a.info

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

PRE - Plastics Recyclers Europe
www.plasticsrecyclers.eu

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

Paraddise Project - A productive, Affordable and Reliable solution for large scale manufacturing of metallic components by combining laser-based ADDitive and subtractive
www.paraddise.eu

PlasticsEurope - PlasticsEurope AISBL
wwww.plasticseurope.org

SBA - Sterile Barrier Association Limited
www.sterilebarrier.org

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

ShiELD Project - The European Security in Health Data Exchange
www.project-shield.eu

NEW in 2018 **Star-Probio Project** - Sustainability Transition Assessment and Research of Bio-based Products
www.star-probio.eu

Starch Europe - Starch Europe
www.starch.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.or

NEW in 2018 **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
www.asd-stand.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

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 ORGANIZATIONS

CIE - International Commission on Illumination
www.cie.co.at

EA - European co-operation for Accreditation
www.european-accreditation.org

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

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

UPU - Universal Postal Union
www.upu.int

ZigBee Alliance - ZigBee Alliance, Inc.
www.zigbee.org

ABOUT CEN

CEN (European Committee for Standardization) is recognized 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 recognized in all of these countries.

European Standards contribute to enhancing safety, improving quality, facilitating cross-border trade and strengthening the European Single Market. They are developed through a process of collaboration 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 2019*

For more information, please visit: www.cen.eu

CREATED:
Losfeld Communication
Rue de la Couronne, 76
B-7730 Estaimpuis, Belgium
www.losfeld.be

PUBLISHER:
Andreea Gulacsi
CEN-CENELEC Management Centre
Rue de la Science, 23
B - 1040 Brussels, Belgium
© CEN 2019
ISBN 978-92-9097-268-6

2018 ANNUAL REPORT

CENELEC

EUROPEAN COMMITTEE
FOR ELECTROTECHNICAL STANDARDIZATION

TABLE OF CONTENTS

2 LETTER FROM THE PRESIDENT

4 CENELEC ADMINISTRATIVE BOARD

12 CENELEC AT A GLANCE

14 CENELEC DEVELOPMENTS IN 2018

22 ANNUAL ACCOUNTS

24 THE CENELEC COMMUNITY

LETTER FROM THE PRESIDENT

In 2018, CENELEC has continued on its transformation path. Our focus continues to be being an agile and customer-centric organisation, as well as identifying and establishing new ways for our system, our processes and our services to support European industries' competitiveness in the digital global economy.

First of all, as digital champion I was involved in engaging the CENELEC community on the implementation of the CEN-CENELEC Strategic Plan for Digital Transformation, adopted in June 2017. The plan, which aims at reinforcing standardization as a catalyst in the digital economy, has two key focuses: to ensure that standardization can meet the needs of industry sectors in their digital transformation, and to make our system more agile and adaptable to market and technology innovations. In order to address the priorities identified in the plan, four main projects were launched in 2018: 'Online Standardization', to provide a modern and efficient standardization platform; 'Standards of the future', to provide machine readable and interpretable standards; 'Strategic alliances', establishing alliances with identified priority partners; and finally, 'Open Source Innovation', maximising access to market and co-creation.

As part of our effort to build standards fit for the future, we have also identified Autonomous Mobility as a strategic sector where standardization can fill current gaps and help reap the benefits of innovation. In order to explore opportunities for this important topic, in November, together with CEN, we organized a very successful Stakeholder Workshop on urban autonomous mobility, which has contributed to our ongoing work for a European standardization framework aligned with international development.

In order to be able to capture the potential of innovation, CENELEC has also long been aware of the challenges related to digitalisation in the globalised economy. In this context, we have moved forward our work on cybersecurity promoting the IEC Conformity Assessment schemes as a reliable option to support the European Cybersecurity Act and signing together with CEN a cooperation agreement with ECSO, the European Cybersecurity Organization. The reflection on cybersecurity will continue at our General Assembly in Bucharest in June 2019.

The potential impact of Brexit on CENELEC has also been a point of attention. Indeed, the lengthy and difficult negotiations with the UK have created deep uncertainty among the European and British business communities. Therefore, in order to ensure the continuity of the European standardization system and to provide legal certainty, CEN and CENELEC agreed to apply a transition period until 31 December 2020, during which BSI, the British national standardization body, will remain a full member. This transition period will also allow us to closely follow future developments and reflect on the actions to take to ensure legal certainty and a sustainable European standardization system.

In occasion of the 25th Anniversary of the Single Market, CENELEC has also confirmed the contribution of standardization to its essential functioning, thanks to the development and publication of Harmonised Standards adopted identical in 34 countries, enabling the free circulation of goods and services while reducing the administrative burden. Nevertheless, the recent interpretation of the 'New Legislative Framework' taken by the Commission, together with the remaining criticalities in the citation of Harmonised Standards (hENs), have raised some concerns among the CENELEC community. We are confident that in a shared spirit of cooperation we will able to see some positive evolutions in 2019.

Today's challenges do not stop at borders, and a collective effort for global solutions is needed. For this reason, I am especially proud of CENELEC's privileged cooperation with IEC, which has allowed us to efficiently support the needs of the European electrotechnical industry in the world. In particular, CENELEC continued to collaborate with IEC, with the aim of adopting international standards in Europe: currently, 78 % of all CENELEC publications are identical to, or based on, IEC standards.

Finally, on behalf of the CENELEC Administrative Board and General Assembly, I would like to express our appreciation and gratitude to our Members and Affiliates, our European partners and all the experts active in the technical work for the many results achieved together during my mandate as CENELEC's president. I am happy to wish my successor Dany Sturtewagen, a long-term friend of CENELEC, a lot of success in the years to come.

Bernhard Thies
President of CENELEC

CENELEC ADMINISTRATIVE BOARD

The CENELEC Administrative Board 2019

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, 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.

CENELEC OFFICERS IN 2019

President: Mr Dany Sturtewagen

Mr 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 its 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.

Vice-President Finance: Mr Kimmo Saarinen

Mr Kimmo Saarinen holds an M.Sc degree in physics from the University of Helsinki, where he also worked as a researcher. Since 1978, he worked mainly in managing R&D, Quality and Technology at the Finnish capacitor manufacturing company Evox (later Evox Rifa, finally part of American company KEMET Electronics Co). When retiring in mid-2013, he was Vice-President of Technical Marketing with KEMET Electronics Co and Managing Director of the Finnish arm of KEMET. Currently, Mr Saarinen acts as a Senior Adviser to the Finnish Electrotechnical Standardization Organization, SESKO. Kimmo Saarinen has been active in standardization for 40 years. At national level, Mr Saarinen was Chairman of the Board of SESKO, and President of the National Committee, for 18 years (1996 – 2013). He was also Chairman of the Board of Finnish Standardization Association, SFS, for 12 years (2001 – 2012). Mr Saarinen was elected CENELEC Vice-President Finance in June 2016 and started office in January 2017. He was elected for a second term in 2018, which started in January 2019.

CENELEC OFFICERS IN 2019

Vice-President Policy: Dr Bernhard Thies

Dr Bernhard Thies has been appointed Vice-President Policy of CENELEC in June 2018 for a two-year period. Before that, he was CENELEC's President from 2016.

Dr Thies was Chairman of the Board of Directors of DKE (German Commission for Electrical, Electronic & Information Technologies of DIN and VDE) from 2007 to 2017. Since 2012 he is the Vice-Chairman of the EEBus Initiative, a network of leading companies, associations and stakeholders in the German and international energy, telecommunications and electrical industry, which aims to open up new markets in smart connectivity. Dr Thies is also Vice-President of the IRIEA - International Robotics and Intelligent Equipment Industry Alliance. An engineer by training, Dr Thies is Associate Professor and has given lectures for a number of years at the Rheinisch-Westfälische Technische Hochschule Aachen (RWTH Aachen), where he obtained his doctorate. Before joining DKE in 1999, he was CEO of ABB Traffo-BB GmbH, a company specializing in power distribution transformers.

Vice-President Technical: Mr Javier García Díaz

Mr Javier García Díaz is the General Director of UNE, the Spanish Association for Standardization, since 2017. He is member of the Administrative Board of CENELEC since 2016 and of the Council of the International Organization for Standardization, ISO, since 2018. He served as a member of the IEC Standardization Management Board from 2012 to 2017 and previously to this, he was Pre-Accession Advisor of the European Commission to Bulgaria in the field of Free Movement of Goods and member of the CEN and the CENELEC Technical Boards (BT). Mr García Díaz is a graduate in chemical engineering from the Complutense University in Madrid, holds postgraduate qualifications in Business Administration and Marketing Management. He followed Diplomatic Studies at the Ministry of Foreign Affairs. Mr García Díaz was elected CENELEC Board Member in June 2015.

BOARD MEMBERS 2019

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.

Ing. Francis P. Farrugia - MCCAA, Malta

Ing. Francis P. Farrugia is Director General at the Standards and Metrology Institute (SMI) of the Malta Competition and Consumer Affairs Authority (MCCAA). Previously, he was Director Standardization at the Malta Standards Authority, which became part of the SMI when the MCCAA was established in 2011. Ing. Farrugia studied electrical engineering at the University of Malta and is a member of the Maltese Chamber of Engineers. He has an MBA from Henley Business School and was elected to the CENELEC Administrative Board in June 2015.

BOARD MEMBERS 2019

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, the 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.

Mr Wojciech Konecki - APPLiA Polska

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.

BOARD MEMBERS 2019

Ms Geraldine Larkin - NSAI, Ireland

Ms Geraldine Larkin 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 Masters Degree in Business Administration (MBA – Technology Management) from the Open University. She was elected as a member of the CENELEC Administrative Board in November 2017.

Mr Jacques Levet - FIEEC, France

Mr Jacques Levet has been Technical Director of FIEEC, the French association for electrical, electronic and communication industries, since January 2014. He is a member of the French Electrotechnical Committee, and he was from 2014 to 2016 the French Representative (alternate) at IEC/SMB. After graduating from 'Ecole Polytechnique', he had a 30-years career as a military engineer in the French Ministry of Defence and in NATO (Brussels), where he mainly dealt with land weapons and missiles. In his final mission with the French MoD, he was, as Major-General, senior adviser for standardization and Board member of AFNOR, the French Standardization Body. Mr Levet was elected as a CENELEC Board Member in June 2016.

BOARD MEMBERS 2019

Mrs Kristin Helen Lind - Energy Norway AS

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.

Mr Anders Richert - Elsakerhetsverket, Sweden

Mr Anders Richert is Technical Director and deputy General Director at the Swedish National Electrical Safety Board (Elsäkerhetsverket). After graduating from Chalmers University of Technology in Gothenburg, Mr Richert held numerous positions in Vattenfall. In early 1990s, he was seconded to Unipede (EURELECTRIC) in Paris, dealing with electricity supply and standardization issues on a European level (cooperation with CENELEC). In the early 2000s he was a consultant in the Middle East working with transmission projects. Mr Richert was a Board Member of SEK Svensk Elstandard, representing the electricity industry, before joining the Safety Board and is now a member of the SEK Electrotechnical Committee and TK8. Mr Richert was elected as a member of the CENELEC Administrative Board in June 2016.

BOARD MEMBERS 2019

Mr Ivano Visintainer - CEI, Italy

Mr Ivano Visintainer is the Technical Director of CEI, the Italian Electrotechnical Committee, since 2018. He is member of CENELEC's WG POL 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 joining CEI in 2010, he was General Manager in an electrical utility 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, together with acting as Chairman for a variety of CEI Technical Committees. Mr Visintainer is a Member of CENELEC's Administrative Board since March 2019.

CENELEC ADMINISTRATIVE BOARD IN 2018

PRESIDENTS AND VICE-PRESIDENTS

President: Dr Bernhard Thies (DKE, Germany)
President Elect: Mr Dany Sturtewagen (NIKO, Belgium)
Vice-President Finance: Mr Kimmo Saarinen (SESKO, Finland)
Vice-President Policy: Mr Wim De Kesel (Legrand Group, Belgium)
Vice-President Technical: Mr Javier García Díaz (UNE, Spain)

BOARD MEMBERS

Mr Ljupco Davchev (ISRM, FYROM)
Mr David Dossett (BSI, United Kingdom)
Ing. Francis P. Farrugia (MCCAA, Malta)
Mr Wojciech Konecki (CECED Polska, Poland)
Mr Jacques Levet (FIEEC, France)
Ms Geraldine Larkin (NSAI, Ireland)
Mrs Kristin Helen Lind (Energy Norway AS, Norway)
Mr Anders Richert (Elsakerhetsverket, Sweden)
Mrs Cristina Timò (CEI, Italy)

CENELEC AT A GLANCE

	European Standards	Workshop Agreements	Technical Specifications	Technical Reports	European Standards identical to International Standards (IEC)
IN 2018	383	2	4	9	298
Deliverables published in 2018	400				
OVERALL ON 31 DECEMBER 2018	7 085	6	90	118	5 274
Portfolio at the end of 2018	7 352				

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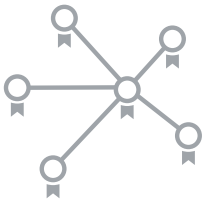
CENELEC COMMUNITY



34
National Standardization Organizations
(34 countries)

10
Companion Standardization Bodies

3
Affiliates

60
European Partners

2
Counsellors *(EC + EFTA)*

13
Partner Organizations

26
Liaison Organizations
(*1 new liaison in 2018)*

4
European Institutional Stakeholders

15
Other Organizations

78
Technical Commitees
(TCs)

65
Joint Technical Committees
(CEN-CENELEC and CEN-CENELEC-ETSI)

288
Working Groups
(of TCs & SCs)

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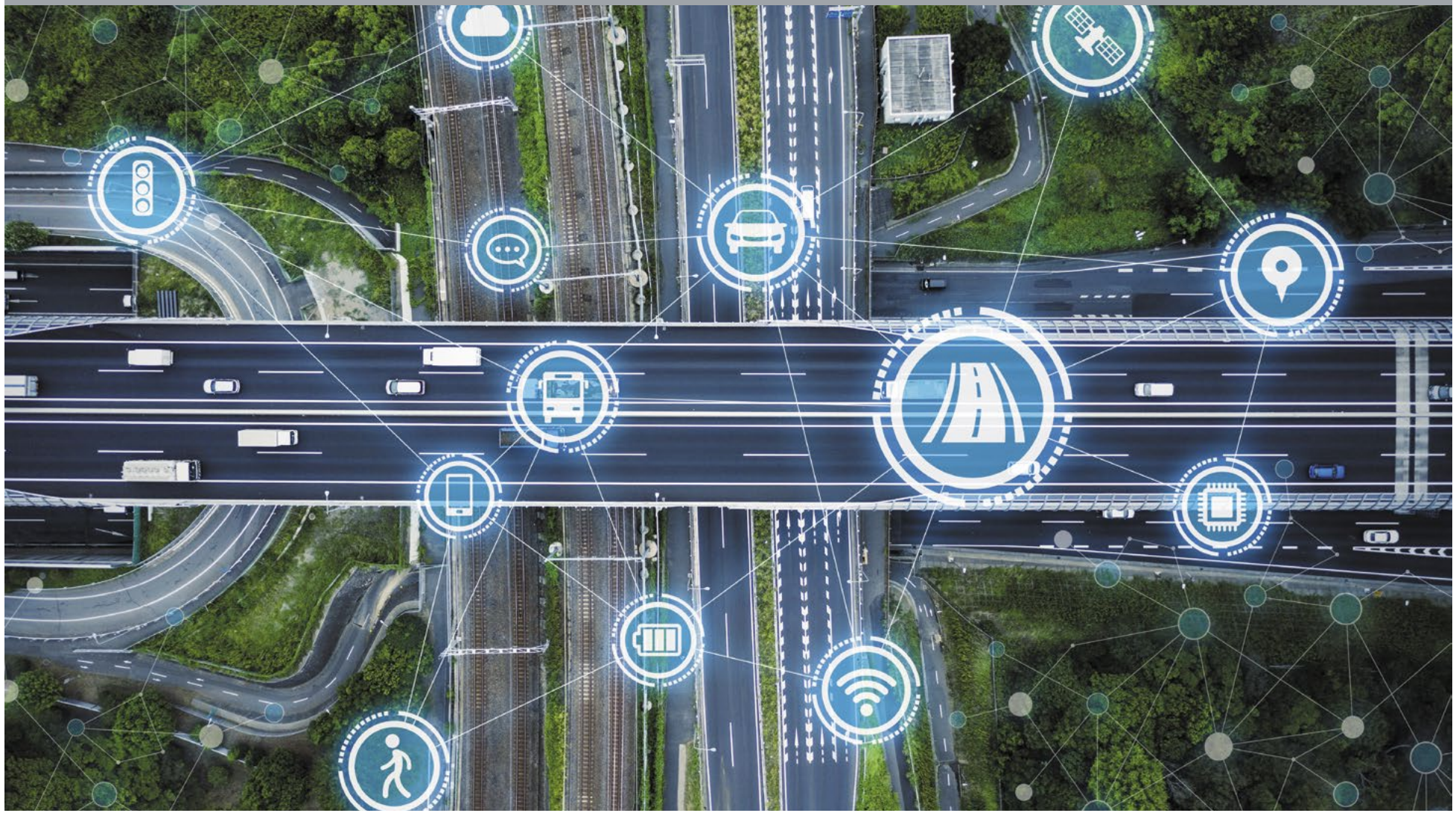
CENELEC DEVELOPMENTS IN 2018



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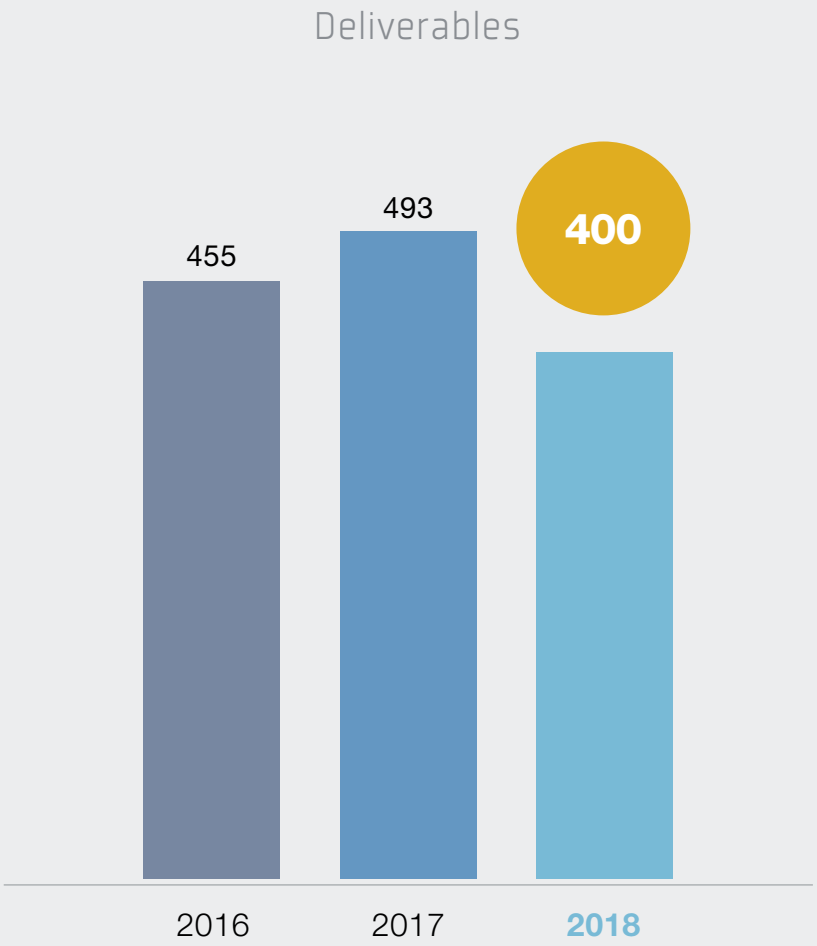
CENELEC IN 2018

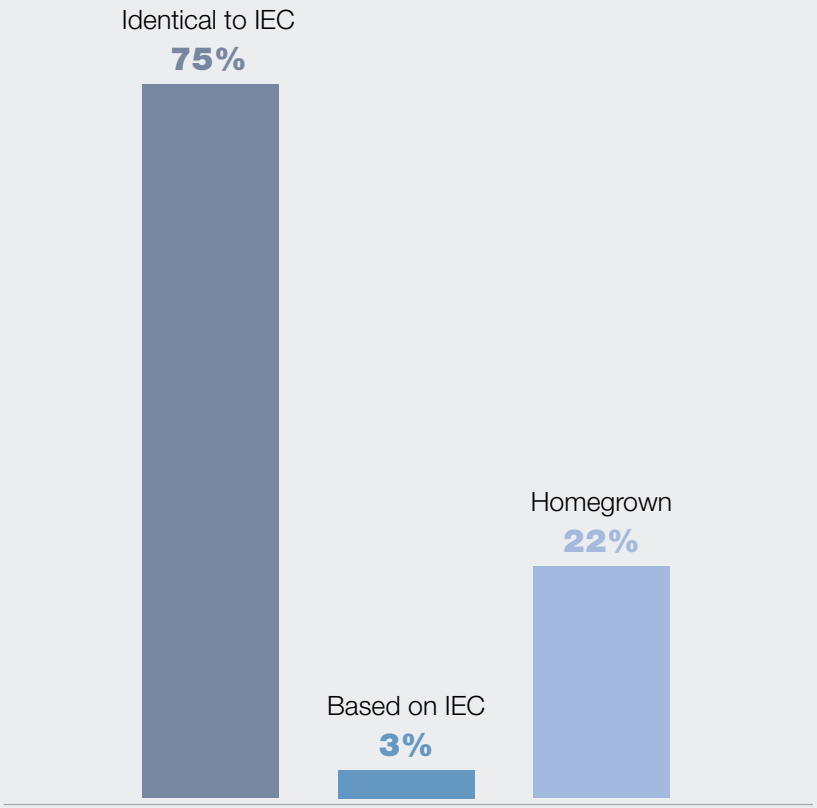


STANDARDS	2016	2017	2018
European Standards (ENs)*	418	449	379
Harmonization Documents (HDs)	11	25	4
TOTAL	**429**	**474**	**383**

DELIVERABLES	2016	2017	2018
Standards (ENs + HDs)*	429	474	383
CENELEC Technical Reports (TRs)	6	3	9
CEN-CENELEC Technical Reports	0	0	0
CENELEC-ETSI Technical Reports	1	0	0
CENELEC Technical Specifications (TSs)	8	13	4
CEN-CENELEC Technical Specifications (TSs)	2	0	0
CENELEC Workshop Agreements (CWAs)	0	1	2
CENELEC Guides (CGs)	4	0	0
CEN-CENELEC Guides	5	2	2
TOTAL	**455**	**493**	**400**

**Excluding Corrigenda*

CENELEC Deliverables published in 2018
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 2018*	Number	Percentage
Identical to IEC	298	75%
Based on IEC	12	3%
Homegrown	89	22%
TOTAL	**399**	**100%**

**Excluding Corrigenda and Guides*

CENELEC TECHNICAL BODY MEETINGS	2016	2017	2018
Technical Meetings not in Brussels	34	34	41
Technical Meetings in Brussels	32	23	31
TOTAL	**66**	**57**	**72**

Most of these meetings also made use of web-conferencing facilities enabling experts to participate in discussions over the internet.

CENELEC OVERALL AT THE END OF 2018

TECHNICAL BODIES	2016	2017	2018
Technical Committees/Subcommittees	79	78	78
TS/SC Working Groups	292	292	288
BT Task Forces/BT Working Groups	16	17	17
Workshops	3	3	3
TOTAL	**390**	**390**	**386**

JOINT TECHNICAL BODIES*	2016	2017	2018
TOTAL	**38**	**61**	**65**

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

STANDARDS	2016	2017	2018
European Standards (EN)*	6 630	6 787	6 850
Harmonization Documents (HD)	227	239	235
TOTAL number of active standards	**6 857**	**7 026**	**7 085**

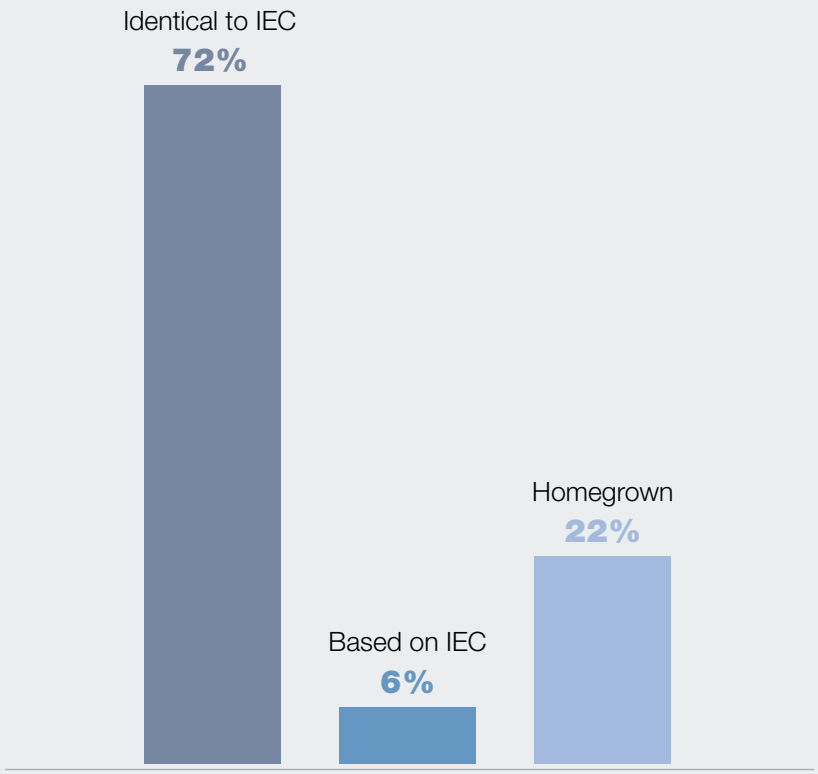
** These figures include amendments and IS*

PORTFOLIO	2016	2017	2018
Standards (ENs + HDs)*	5 690	5 783	5 846
Amendments/Interpretation Sheets (ISs)	1 167	1 243	1 239
CENELEC Technical Reports (TR)	107	108	108
CEN-CENELEC Technical Reports	4	3	3
CEN-CENELEC-ETSI Technical Reports	4	4	4
CENELEC-ETSI Technical Reports	1	1	1
CENELEC Technical Specifications (TRs)	80	90	90
CEN-CENELEC Technical Specifications (TRs)	2	2	0
CENELEC Workshop Agreements (CWAs)	4	4	6
CENELEC Guides	14	14	14
CEN-CENELEC Guides	33	34	34
Pre-Standards (CWAs)	3	3	3
Reports	2	2	2
TOTAL number of active deliverables	**7 111**	**7 291**	**7 350**
Number of Harmonized deliverables	1 711	1 565	1 510
Number of Harmonized deliverables as % of total	24,06%	21,46%	20,54%

**Excluding Corrigenda*

INTERNATIONAL RELATIONS

CENELEC portfolio – relation to IEC – at the end of 2018



Deliverables*	Number	Percentage
Identical to IEC	5 274	72%
Based on IEC	401	6%
Homegrown	1 620	22%
TOTAL	**7 304**	**100%**

**Excluding Corrigenda and Guides*

RELATION TO EUROPEAN UNION LEGISLATION

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

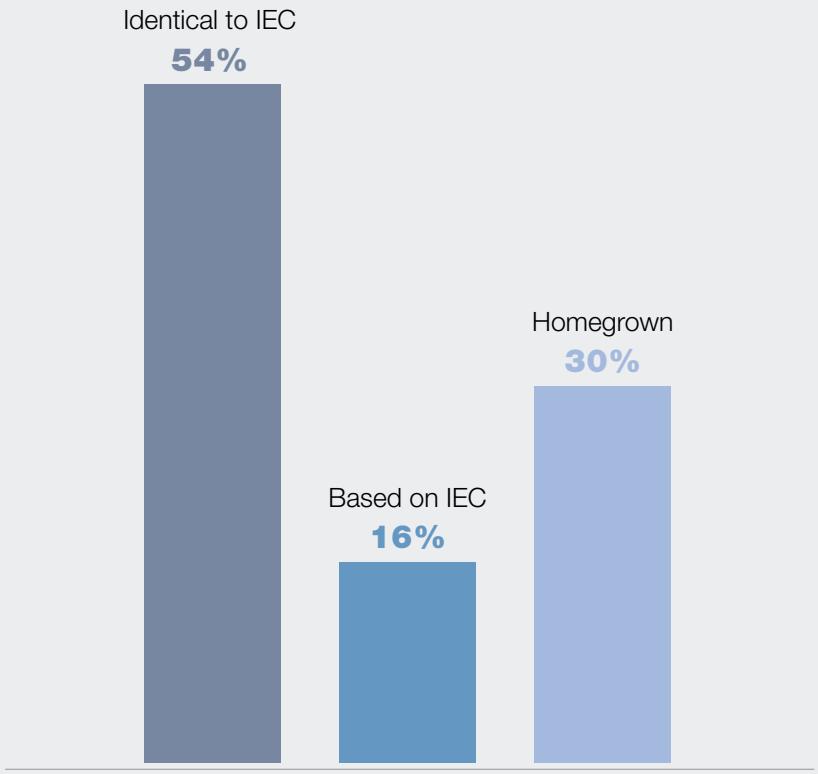
SECTORS	DIRECTIVE/REGULATION REFERENCE	IN 2018	END 2018
Accessibility of the websites and mobile applications of public sector bodies	2016/2012/EU	1	1
Active implantable medical devices	90/385/EEC		12
Deployment of alternative fuels infrastructure	2014/94/EU	2	2
Ecodesign requirements for computers and computer servers	617/2013		1
Ecodesign requirements for directional lamps, light emitting diode lamps and related equipment	1194/2012	3	15
Ecodesign requirements for domestic ovens, hobs and range hoods	66/2014	1	11
Ecodesign requirements for electric motors	640/2009		3
Ecodesign requirements for fluorescent lamps	245/2009	3	23
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		1
Ecodesign requirements for household washing machines	1015/2010		2
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	1	10
Ecodesign requirements for simple set-top boxes	107/2009		1
Ecodesign requirements for space heaters and combination heaters	813/2013		1
Ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment	1275/2008	1	8
Ecodesign requirements for televisions	642/2009		1
Ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment and for television	801/2013	1	1
Ecodesign requirements for vacuum cleaners	666/2013		7
Ecodesign requirements for water heaters and hot water storage tanks	814/2013		3
Electrical equipment designed for use within certain voltage limits	2014/35/EU	30	1 047

RELATION TO EUROPEAN UNION LEGISLATION (continued)

SECTORS	DIRECTIVE/REGULATION REFERENCE	IN 2018	END 2018
Electromagnetic compatibility	2014/30/EU	3	155
Energy labelling of domestic ovens and range hoods	65/2014		8
Energy labelling of electrical lamps and luminaires	874/2012	4	28
Energy labelling of household combined washer-driers	96/60/EC		1
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		2
Energy labelling of household washing machines	1061/2010		1
Energy labelling of vacuum cleaners	665/2013		4
Energy labelling of water heaters, hot water storage tanks and packages of water heater and solar device	812/2013		4
Equipment and protective systems intended for use in potentially explosive atmospheres	2014/34/EU	3	39
General product safety	2001/95/EC		9
Harmonised conditions for the marketing of construction products	305/2011		2
In vitro diagnostic medical devices	98/79/EC		6
Machinery	2006/42/EC	7	160
Measuring instruments	2014/32/EU	3	3
Medical devices	93/42/EEC		49
Non-automatic weighing instruments	2014/31/EU		1
Power transformation (small, medium, large)	548/2014	1	7
Radio equipment	2014/53/EU	1	9
Railways	2008/57/EC	4	68
Recreational craft and personal watercraft	2013/53/EU		1
Requirements for accreditation and market surveillance relating to the marketing of products	765/2008		13
Restriction of hazardous substances	2011/65/EU	1	2
Safety of toys	2009/48/EC		4
	TOTAL	**70**	**1 734**

PORTFOLIO OF HARMONIZED DELIVERABLES – INTERNATIONAL RELATIONS AT THE END OF 2018

At the end of 2018, the CENELEC catalogue counted 7 350 deliverables of which 1 510 (20,54%) were in support of EU legislation. Among this last total 1 055 (809 + 246) were identical or based on IEC.



Deliverables*	Number	Percentage
Identical to IEC	809	54%
Based on IEC	246	16%
Homegrown	455	30%
TOTAL	**1 510**	**100%**

**Excluding Corrigenda and Guides*

ANNUAL ACCOUNTS

www.cenelec.eu

ASSETS (€ x 1000)*	2016	2017	2018
Fixed Assets	51	532	476
Current Assets	920	1 327	1 031
Liquid Assets	3 949	3 194	2 691
Prepaid Expenses and accrued income	236	78	71
TOTAL	**5 156**	**5 131**	**4 269**

LIABILITIES (€ x 1000)*	2016	2017	2018
Reserves	2 506	2 440	2 414
Provisions for liabilities and charges	390	131	445
Payable	1 197	1 877	1 150
Accrued expenses & deferred income	1 063	683	260
TOTAL	**5 156**	**5 131**	**4 269**

EXPENDITURE (€ x 1000)*	2016	2017	2018
Staff costs	2 836	2 920	2 864
Other operating costs	1 016	1 033	930
Contractual expenses	276	640	187
Digital transformation / Provision	-	-	373
Office move project costs	-	166	91
Office move project / Use of provision	-	- 166	- 91
Reserve for investment	25	-	-
TOTAL	**4 153**	**4 593**	**4 354**

** Figures are given in thousands of euro*

INCOME (€ x 1000)*	2016	2017	2018
Contributions	3 184	3 216	3 217
Interest	10	3	2
Contractual income	871	1 262	1 068
Miscellaneous	88	46	41
Loss of the year / Use of Reserves	-	66	26
TOTAL	**4 153**	**4 593**	**4 354**

FINANCING OF THE CEN-CENELEC MANAGEMENT CENTRE (CENELEC Part)	2016	2017	2018
Membership fees	83%	81%	77%
EC/EFTA support to standardization	15%	16%	17%
Other support	2%	3%	6%
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 - Estonian Centre for Standardisation
www.evs.ee

Finland

SESKO - Finnish Electrotechnical Standards Association
www.sesko.fi

France

AFNOR-FrSS-UTE - AFNOR-French Standardization System-UTE
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
www.ipq.pt

Republic of North Macedonia

ISRSM - Standardization Institute of the Republic of North Macedonia
www.isrm.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

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

BAS - Institute for Standardisation of Bosnia and Herzegovina (BAS)
www.bas.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
www.memst.kz

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 ORGANIZATIONS

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

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 ORGANIZATIONS

NEW in 2018 **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 ORGANIZATIONS

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

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

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

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

European Standards contribute to enhancing safety, improving quality, facilitating cross-border trade and strengthening the European Single Market. They are developed through a process of collaboration between experts nominated by business and industry, research institutes, consumer and environmental organizations 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 2019*

For more information, please visit: www.cenelec.eu

CREATED:
Losfeld Communication
Rue de la Couronne, 76
B-7730 Estaimpuis, Belgium
www.losfeld.be

PUBLISHER:
Andreea Gulacsi
CEN-CENELEC Management Centre
Rue de la Science, 23
B - 1040 Brussels, Belgium
© CENELEC 2019
ISBN 978-2-930604-04-6