ILNAS

STANDARDS ANALYSIS

CONSTRUCTION

LUXEMBOURG

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ANEC

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ILNAS
Institut Luxembourgeois de la Normalisation, de l'Accréditation, de la Sécurité et qualité des produits et services

ANEC
Agence pour la Normalisation et l'Economie de la Connaissance

FOREWORD

Technical standardization and standards play an important role in the support of economic development. Nowadays, almost every professional sector relies on standards to increase the effectiveness of day-to-day business. For example, standards can provide good practices for service and product development, governance, quality assessment, safety, etc. Furthermore, technical standardization constitutes an incubator to foster innovation and the uptake of new services or products. It notably offers an access to technologies and knowledge that supports market entry, an opportunity to benefit from a network of thousands of experts and an aid in complying with regulation and certifications. Standards also create trust in innovative solutions and ensure their interoperability in order to facilitate their acceptance on the market. Standards are therefore considered as a source of benefits in all sectors of the economy.

At the national level, the "*Institut Luxembourgeois de la Normalisation, de l'Accréditation, de la Sécurité et qualité des produits et services*" (ILNAS), an administration under the supervision of the Minister of the Economy, is the national standards body. In this frame, ILNAS is a member of the European (CEN, CENELEC, ETSI) and international (ISO, IEC, ITU-T) standardization organizations and, among other missions, allows the participation of the national market in the development of standards within these entities.

In order to promote and develop technical standardization in Luxembourg, ILNAS leads the implementation of the "Luxembourg Standardization Strategy 2020-2030"[1], signed by the Minister of the Economy, which identifies the Construction sector as one of the most relevant for national economic growth, along with the Information and Communication Technologies and Aerospace sectors.

Directly linked to this strategy, ILNAS has drawn up the "Luxembourg's policy on technical standardization in the construction sector 2020-2025"[2], which it manages with the support of the Economic Interest Group "*Agence pour la Normalisation et l'Economie de la Connaissance*" (ANEC EIG – Standardization Department). This policy aims to promote and strengthen the use of technical standards by the national market, to reinforce the position of Luxembourg in the global construction standardization landscape - particularly through a stronger involvement of national stakeholders in the relevant standardization technical committees - and to pursue the development of research and education programs in standardization for the construction domain.

This Standards Analysis of the construction sector represents the national policy's first result. Its main objectives are, firstly, to inform national construction sector stakeholders of the different relevant standards-developing committees and their work programs and, secondly, to raise awareness of the potential benefits that come with following and participating in standardization.

ILNAS, with the support of ANEC EIG, remains at the service of national stakeholders in order to encourage and assist any initiative related to this topic.

Jean-Marie REIFF, Director
ILNAS

Jean-Philippe HUMBERT, Deputy Director
ILNAS

[1] https://portail-qualite.public.lu/dam-assets/publications/normalisation/2020/strategie-normative-luxembourgeoise-2020-2030.pdf
[2] https://portail-qualite.public.lu/dam-assets/publications/normalisation/2020/politique-pour-la-nornalisation-technique-du-secteur-de-la-construction-2020-2025.pdf

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1 INTRODUCTION

The construction sector encompasses all design and construction activity, whether it concerns public and private buildings, transport infrastructures, utility networks, etc. It is a keystone of the national economy with more than 4,500 companies[3] representing around 11% of the country's employment[4]. The construction sector faces many challenges notably to guarantee the uptake of new technologies while developing more sustainable practices. In this frame, and in order to maintain the competitiveness of the sector, strengthening skills remains essential.

Technical standardization is an efficient tool for construction professionals who want to reinforce their knowledge, preserve their know-how and anticipate future good practices. ILNAS contributes to its development at national level and actively promotes its use for the benefit of the market. The Institute undertakes several activities in order to develop a network of experts, support the transfer of knowledge to national stakeholders, and strengthen their participation in related technical committees.

Thus, the purpose of this Standards Analysis is to inform national stakeholders about the main standardization activities and technical committees related to the construction sector. It offers them guidance for a potential future involvement in the standards development process. It also provides support to the current and future development of standardization at the national level (i.e., in research and education), in relation with the "Luxembourg's policy on technical standardization in the construction sector 2020-2025"[5].

The Standards Analysis is organized as follows:

- Chapter 2 outlines the objectives of technical standardization and introduces its landscape at the national, European and international levels.
- Chapter 3 details the normative context of the construction sector in Luxembourg, the categorization used to present the technical committees active in the construction sector and the opportunities related to standardization for national stakeholders.
- Chapter 4 constitutes the heart of the Standards Analysis. It provides an overview of the standardization technical committees of the construction sector across the different related categories. The most relevant information is presented in tables in order to help national stakeholders to identify standardization activities which are relevant to their business.
- Chapter 5 provides a summary of this Standards Analysis and emphasizes the commitment of ILNAS to assist national entities with their involvement in technical standardization.
- Finally, the Appendix (Chapter 6) includes a list of acronyms and provides useful links for further information.

[3] Source: STATEC "*Répertoire des entreprises luxembourgeoises*" (19/02/2021)

[4] Source: STATEC "*Emploi salarié intérieur par branche d'activité - données désaisonnalisées 1995 – 2020*" (18/12/2020)

[5] https://portail-qualite.public.lu/dam-assets/publications/normalisation/2020/politique-pour-la-nornalisation-technique-du-secteur-de-la-construction-2020-2025.pdf

2 TECHNICAL STANDARDIZATION AND STANDARDS

Standardization corresponds to the definition of voluntary technical or quality specifications with which current or future products, production processes or services may comply.

Standardization is organized by and for the stakeholders concerned based on national representation (CEN, CENELEC, ISO and IEC) and direct participation (ETSI and ITU-T), and is founded on the principles recognized by the World Trade Organization (WTO)[6] in the field of standardization, namely coherence, transparency, openness, consensus, voluntary application, independence from special interests and efficiency.

In accordance with these founding principles, it is important that all relevant interested parties, including public authorities and small and medium-sized enterprises, are appropriately involved in the national, European and international standardization process[7].

Technical standards provide an effective economic tool for achieving various objectives, such as the attainment of a certain level of quality, mutual understanding, reduction of costs, elimination of waste, improvement of efficiency, achievement of compatibility between products and components or access to knowledge about technologies[8].

The application of the fundamental principles stated by the WTO throughout the development of technical standards, also guarantees the legitimacy of these documents. In addition, technical standards play an important role for innovation.

As pointed out by the European Commission (EC) in its communication Europe 2020 Flagship Initiative[9], "they enable the dissemination of knowledge, the interoperability between new products and services for a platform for further innovation". It is all the more relevant in the current context, in which the world tends to become digitalized and everything becomes connected.

2.1 Standardization Objectives and Principles

As stated in the Regulation (EU) N°1025/2012 on European standardization, and according to the World Trade Organization (WTO), standardization is based on founding principles, which are observed by the formal standards bodies for the development of international standards:

Transparency

All essential information regarding current work programs, as well as on proposals for standards, guides and recommendations under consideration and on the results should be made easily accessible to all interested parties.

Openness

Membership of an international standards body should be open on a non-discriminatory basis to relevant bodies.

[6] WTO, "Second triennial review of the operation and implementation of the agreement on technical barriers to trade – Annex," 2000 - http://docsonline.wto.org/imrd/directdoc.asp?DDFDocuments/t/G/TBT/9.doc

[7] Based on: Regulation (EU) N°1025/2012 of the Parliament and of the Council - http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:316:0012:0033:EN:PDF

[8] CEN-CENELEC, "Standards and your business," 2013 - https://www.cencenelec.eu/news/publications/Publications/Standards-and-your-business_2013-09.pdf

[9] European Commission, "Europe 2020 Flagship Initiative, Innovation Union, COM(2010) 546," 2010 - https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf

Impartiality and Consensus

All relevant bodies should be provided with meaningful opportunities to contribute to the elaboration of an international standard so that the standard development process will not give privilege to, or favor the interests of, a particular supplier, country or region. Consensus procedures should be established that seek to take into account the views of all parties concerned and to reconcile any conflicting arguments.

Effectiveness and Relevance

International standards need to be relevant and to effectively respond to regulatory and market needs, as well as scientific and technological developments in various countries. They should not distort the global market, have adverse effects on fair competition, or stifle innovation and technological development. In addition, they should not give preference to the characteristics or requirements of specific countries or regions when different needs or interests exist in other countries or regions. Whenever possible, international standards should be performance based rather than based on design or descriptive characteristics.

Coherence

In order to avoid the development of conflicting international standards, it is important that international standards bodies avoid duplication of, or overlap with, the work of other international standards bodies. In this respect, cooperation and coordination with other relevant international bodies is essential.

Development dimension

Constraints on developing countries, in particular, to effectively participate in standards development, should be taken into consideration in the standards development process. Tangible ways of facilitating developing countries participation in international standards development should be sought.

2.2 Global Standardization Landscape

In Europe, the three recognized European Standardization Organizations (ESO), as stated in Regulation (EU) No 1025/2012[10], are:

- The European Committee for Standardization (CEN);
- The European Committee for Electrotechnical Standardization (CENELEC);
- The European Telecommunications Standards Institute (ETSI).

At the international level, the three recognized standardization organizations are:

- The International Organization for Standardization (ISO);
- The International Electrotechnical Commission (IEC);
- The International Telecommunication Union's Telecommunication Standardization Sector (ITU-T).

This standardization frame allows cooperation between standardization organizations at the same level, or at different levels but on the same topics:

- CENELEC and IEC are specialized in electrotechnical standards;
- ETSI and ITU-T are focused on telecommunications standards;
- CEN and ISO are in charge of the standards in other sectors.

[10] Regulation (EU) N°1025/2012 of the Parliament and of the Council - http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:316:0012:0033:EN:PDF

European and International Standardization Bodies		Date of Creation	Number of Members	Number of publications
ISO	International Organization for Standardization	1946	165	23,574
IEC	International Electrotechnical Commission	1906	89	10,700
ITU-T	International Telecommunication Union's Telecommunication Standardization Sector	1865	271[11]	5,671
CEN	European Committee for Standardization	1961	34	17,309
CENELEC	European Committee for Electrotechnical Standardization	1973	34	7,590
ETSI	European Telecommunications Standards Institute	1988	933[11] (65 countries)	36,477

Table 1: Figures of European and International Standardization Organizations[12]

At the national level, one or several national standards bodies protect the interests of the country within each of the European and international standardization organizations (e.g.: in Germany, on the one hand DIN is the member of ISO and CEN, and on the other hand DKE is a member of IEC, CENELEC and ETSI).

In Luxembourg, ILNAS – the only official national standards body – is member of the European and international standardization organizations CEN, CENELEC, ETSI, ISO, IEC and ITU-T.

Several bridges exist between the national, European and international standardization organizations in order to facilitate the collaboration and coordination of standardization work in different fields (Figure 1).

[11] ITU-T and ETSI have a specific way of working compared to the other recognized organizations, as they work through the direct participation of industry stakeholders.

[12] Source: Websites of organizations

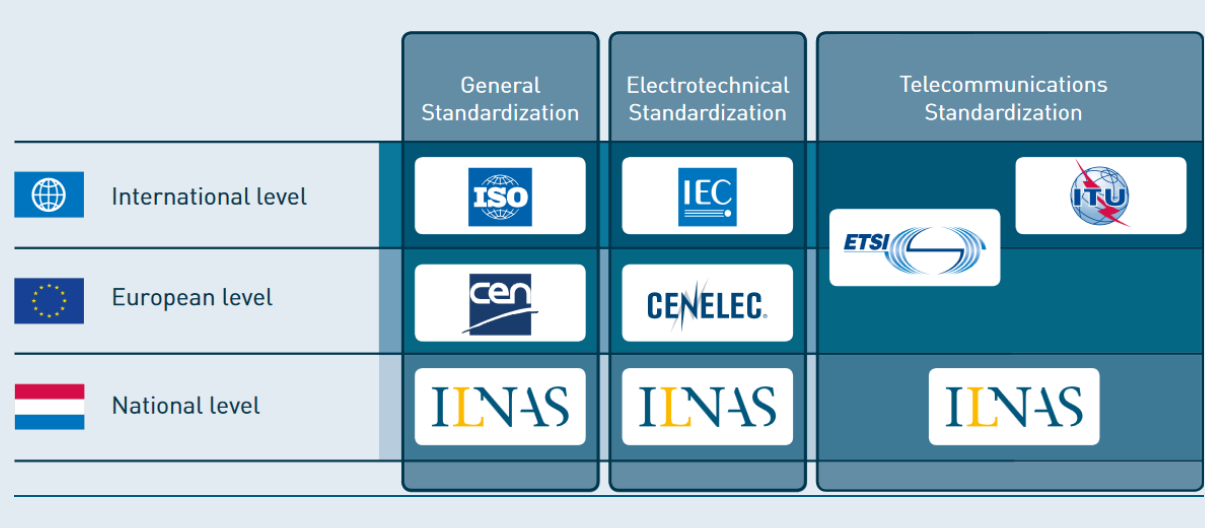


Figure 1: Interactions between the Standardization Organizations

Indeed, in order to ensure transparency and avoid the duplication of standards, agreements have been established between international and European standardization organizations.

In 1991, ISO and CEN signed the Vienna Agreement[13], which is based on the following guiding principles:

- Primacy of international standards and implementation of ISO standards at European level (EN ISO);
- Work at European level (CEN), if there is no interest at international level (ISO);
- When a given project undergoes parallel development, procedures are in place ensuring standardization documents of common interest are approved by both (ISO and CEN) organizations.

Similarly, IEC and CENELEC signed the Dresden Agreement in 1996 with the aim of developing intensive consultations in the electrotechnical field. This agreement has been replaced by the Frankfurt Agreement[14] in 2016 with the aim to simplify the parallel voting processes, and increase the traceability of international standards adopted in Europe thanks to a new referencing system. It is intended to achieve the following guiding principles:

- Development of all new standardization projects by IEC (as much as possible);
- Work at European level (CENELEC), if there is no interest at international level (IEC);
- When a given project undergoes parallel development, ballots for relevant standardization documents are organized simultaneously at both (IEC and CENELEC) organizations.

Under both agreements, 33% of all European standards ratified by CEN, as well as 74% of those ratified by CENELEC, are respectively identical to ISO or IEC standards[15]. In that respect, the European and international organizations do not duplicate work.

[13] Agreement on technical co-operation between ISO and CEN (Vienna Agreement) - http://isotc.iso.org/livelink/livelink/fetch/2000/2122/3146825/4229629/4230450/4230458/01__Agreement_on_Technical_Cooperation_between_ISO_and_CEN_%28Vienna_Agreement%29.pdf?nodeid=4230688&vernum=-2

[14] IEC-CENELEC Agreement on Common planning of new work and parallel voting (Frankfurt Agreement) - ftp://ftp.cencenelec.eu/CENELEC/Guides/CLC/13_CENELECGuide13.pdf

[15] CEN CENELEC in figures – 2020 Q4 - https://www.cencenelec.eu/stats/CEN_CENELEC_in_figures_quarter.htm

Similarly, ITU-T and ETSI have agreed on a Memorandum of Understanding (MoU) in 2000, last renewed in 2016[16], that paves the way for European regional standards, developed by ETSI, to be recognized internationally.

Agreements also exist between the standards organizations to facilitate their cooperation. For example, ISO and IEC have the possibility to sign conventions to create Joint Technical Committees (JTC) or Joint Project Committees (JPC) when an area of work overlaps the two organizations.

ISO, IEC and ITU have also established the World Standards Cooperation (WSC) in 2001, a high-level collaboration system intending to strengthen and advance the voluntary consensus-based international standards system and to resolve issues related to the technical cooperation between the three organizations[17].

Similarly, the cooperation between CEN and CENELEC aims to create a European standardization system that is open, flexible and dynamic.

2.3 Standards development

Developing a standard is characterized by four main steps:

- Proposal: following an identified need, a party proposes a preliminary draft;
- Study and preparation: a working group prepares the standard draft;
- Public enquiry and approval: the standard draft goes into public consultation and is subject to approval;
- Publication: the ratified standard is published by the standardization organization.

At each stage, a validation of all participating members of the standardization technical committee is required. This is done through a vote; however, whose rules vary between the European and international levels as outlined in Table 2 below.

Organization	Members	Method of adopting standards	Integration into the collections of national standards
International ISO and IEC	National bodies from countries members of ISO and IEC	1 country = 1 voice	Voluntary
European CEN and CENELEC	National bodies complying with membership requirements of CEN and CENELEC[18]	Weighted Vote	Required: countries must eliminate conflicting documents from their collections

Table 2: Voting rules at European and international levels

At the European level, the weighted vote is defined by the “CEN/CENELEC Internal Regulations - Part 2, Common rules for standardization work”[19], which fixes the distribution of the voices for the CEN/CENELEC national members.

[16] Renewed memorandum of understanding between ETSI and ITU - https://www.itu.int/en/ITU-T/extcoop/Documents/mou/MoU-ETSI-ITU-201605.pdf
[17] http://www.worldstandardscooperation.org/
[18] CEN-CENELEC Internal Regulations Part 1: Organization and Structure (Part 1D)
[19] Source: Internal regulation CEN/CENELEC – Part 2 – Annex D

Another particularity at the European level is that the approved European standards shall be implemented identically in both technical content and presentation, with no restrictions for application by each national member.

This implies enforcing the new standard through publication and withdrawing all conflicting standards already in place at national level, on average, in six months. The new European standard then takes the status of national standard.

In the Grand Duchy of Luxembourg, the list of new national standards is regularly published by ILNAS in the Official Journal of the Grand Duchy of Luxembourg[20].

❖ Participation in the standards development process

In Luxembourg, the registration in technical committees from ILNAS, ISO, IEC, CEN or CENELEC is free of charge[21] and becoming a national delegate in technical standardization offers a broad set of opportunities and benefits, such as:

- Giving your opinion during the standardization process (comments and positions of vote on the draft standards);
- Valuing your know-how and good practices;
- Accessing draft standards;
- Anticipating future evolutions of technical standards;
- Collaborating with strategic partners and international experts;
- Enhancing the visibility of your organization at national and international level;
- Identifying development opportunities;
- Making your organization competitive in the market.

Indeed, this registration allows national stakeholders to become members of a technical committee on national standards or of a national mirror committee of a European (CEN, CENELEC) or international (ISO, IEC) standardization committee, as illustrated in Figure 2.

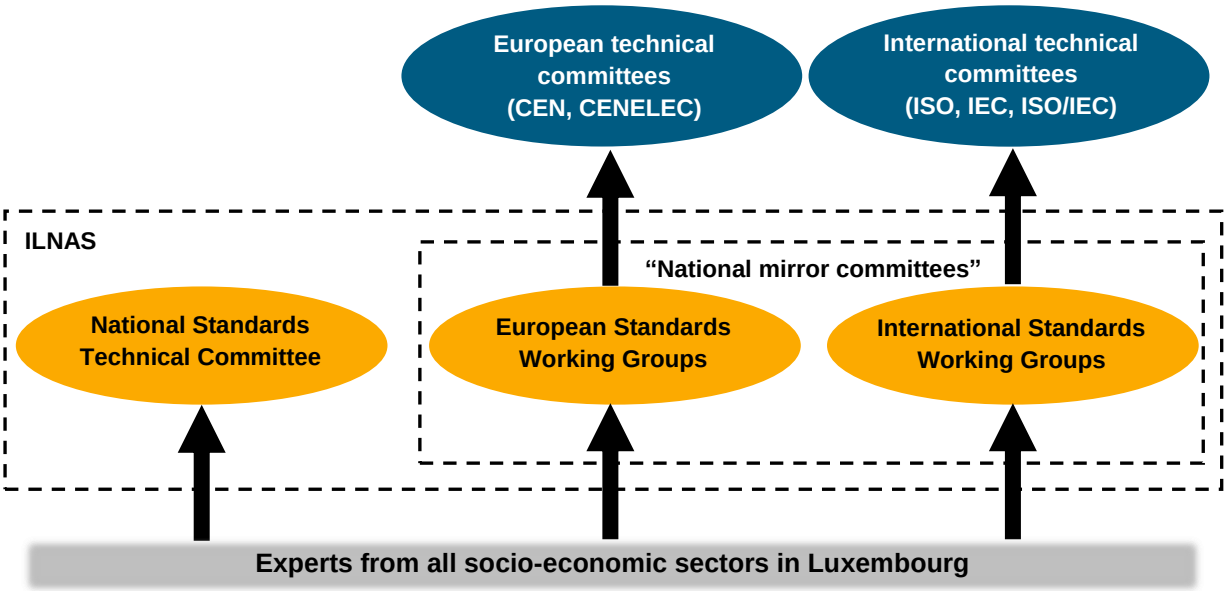


Figure 2: Organization of the participation of national delegates in technical standardization in Luxembourg

[20] http://legilux.public.lu/

[21] https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation/experts-normalisation.html

3 NATIONAL STANDARDS CONTEXT OF THE CONSTRUCTION SECTOR

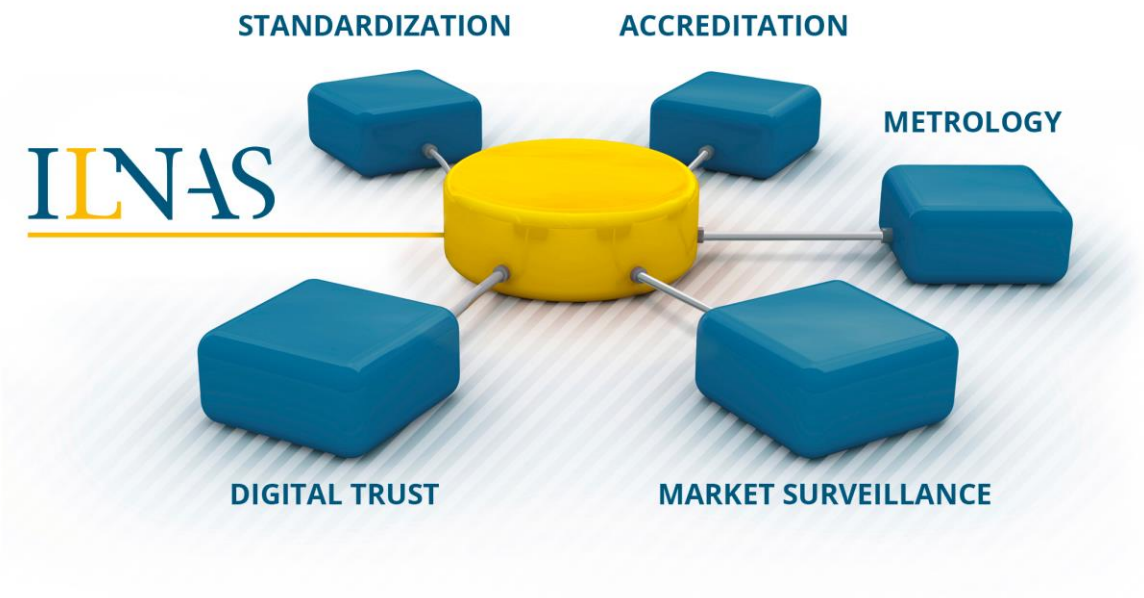
3.1 ILNAS – The National Standards Body

The Luxembourg institute for standardization, accreditation, safety and quality of products and services, ILNAS (*Institut Luxembourgeois de la Normalisation, de l'Accréditation, de la Sécurité et qualité des produits et services*), is a public administration under the supervision of the Minister of the Economy.

ILNAS began its activities on June 1st, 2008. Its attributions are set by the amended law of July 4th, 2014 on the reorganization of ILNAS and the law of February 17th, 2017 amending the law from 2014.

ILNAS represents a network of competencies relating to quality, safety and conformity of products and services, and its mission is to support national competitiveness.

It is composed of five main operational departments: the national standards body (OLN), the national accreditation body (OLAS), the metrology department, the market surveillance department and the digital trust department.



ILNAS as the national standards body is a member of European and international standards organizations (CEN, CENELEC, ETSI, ISO, IEC and ITU-T).

In this context and through the "Luxembourg Standardization Strategy 2020-2030"[22], ILNAS allows and encourages the participation of the national market in the process of technical standardization.

[22] https://portail-qualite.public.lu/fr/publications/normes-normalisation/avis-officiels/strategie-normative-luxembourgeoise-2020-2030.html

❖ The Luxembourg Standardization Strategy 2020-2030

The Luxembourg Standardization Strategy 2020-2030, was approved the Minister of the Economy on December 2, 2019, and guides the activities of the national standards body. It is based on four pillars:

I – To promote the use of relevant technical standards by economic agents in sectors identified as fundamental at the national level (via an ad hoc policy for each sector).

II – To encourage and support market involvement in the technical standardization process.

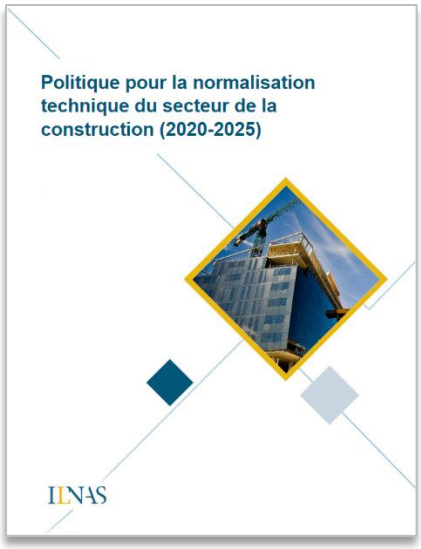
III – To ensure the active participation of the national standards body within European and international standardization organizations.

IV – To organize and participate in the development of technical standardization research and education axes with regards to economic sectors identified as fundamental at the national level.

Within the framework of the 2020-2030 standardization strategy, three sectors are identified as keystones to fostering growth:

- **Information and Communication Technologies;**
- **Construction;**
- **Aerospace.**

❖ The Luxembourg's policy on technical standardization in the construction sector 2020-2025



The national policy on technical standardization in the construction sector 2020-2025[23] aims at promoting and strengthening the involvement of national stakeholders in standards-setting work through three flagship projects:

I – To promote technical standardization in the construction sector.

II – To emphasize the value of technical standardization in the construction sector and enhance the involvement of the market in this process.

III – To support and strengthen standardization education and related research activities.

[23] https://portail-qualite.public.lu/fr/publications/normes-normalisation/avis-officiels/politique-luxembourgeoise-pour-la-normalisation-technique-du-secteur-de-la-construction-2020-2025.html

3.2 Supporting organizations

3.2.1 ANEC EIG

The Agency for standardization and the knowledge-based economy, ANEC (*Agence pour la Normalisation et l'Economie de la Connaissance*), is an economic interest group (EIG). It was created on October 4th, 2010 and brings together the State of the Grand Duchy of Luxembourg, *la Chambre de Commerce* and *la Chambre des Métiers*.

The role of ANEC EIG is to support ILNAS in the execution of its strategies and policies in the fields of standardization and metrology. Under the supervision of ILNAS, the standardization department is responsible for the development of standardization activities at national level, and promotes the benefits of participating in the standardization process.

The ANEC EIG's missions related to technical standardization are:

- Products and services:
  - Dissemination of normative information;
  - Continuous trainings in standardization;
  - Targeted standards watches.
- Education, research and innovation:
  - Support to ILNAS for the implementation of university trainings;
  - Support to ILNAS in the implementation of research;
  - Development of white papers and technical reports.

3.2.2 CRTI-B EIG

The CRTI-B, *Centre de Ressources des Technologies et de l'Innovation pour le Bâtiment*[24], is an EIG managed by representatives of the Luxembourg partner organizations listed below:

- Ministry of Mobility and Public Works;
- *Administration des Bâtiments Publics;*
- *Administration des Ponts et Chaussées;*
- *Ordre des Architectes et des Ingénieurs-Conseils;*
- *Chambre des Métiers;*
- *Groupement des Entrepreneurs du Bâtiment et des Travaux publics;*
- *Fédération des Artisans.*

The CRTI-B is a neutral and open platform for all stakeholders in the construction sector to improve their productivity and competitiveness. One of its objectives is to define, introduce, record and keep up to date standards documentation to manage tenders for governing construction project contracts.

The CRTI-B has the status of national standardization office for the construction sector since November 10th, 2015 and the signature of an agreement between ILNAS and the CRTI-B[25].

If a stakeholder identifies the need to develop a national standard in the construction or real estate sector, the CRTI-B, as a national standardization office, will propose to ILNAS the creation of a technical committee dedicated to this task. If the proposal is accepted, a technical committee is formed and gathers interested national stakeholders (the delegates) in order to prepare the national standard.

[24] http://www.crtib.lu/

[25] https://portail-qualite.public.lu/fr/normes-normalisation/secteurs/construction.html

3.3 National construction industry landscape

This section provides information related to the national construction industry and its participation in technical standardization. First, it proposes a breakdown of the major activities/domains of the construction sector in five main categories, which are used for the classification of technical committees active in the construction sector that are presented in Chapter 4. Then, it presents some figures about the construction sector in Luxembourg before concluding with an overview of the participation of the national market in technical standardization in the construction sector.

3.3.1 Breakdown by domain

In order to facilitate the reading of the Standards Analysis and the presentation of the technical standardization committees in Chapter 4, this document adopts a breakdown of the construction sector in five categories, which encompass most of the activities/domains of this sector:

- Study and Design -

- Architecture
- Engineering
- Technical consultancy
- Surveyors
- Technical testing and analysis
- …

- Building Construction & Civil Engineering -

- Residential and non-residential buildings
- Roads and motorways
- Railways and underground railways
- Bridges and tunnels
- Utilities (fluids, electricity and telecommunications)
- Demolition, site preparation, drilling and boring
- …

- Installation -

- Electricity
- Plumbing
- Heating
- Air conditioning
- …

- Completion & Finishing -

- Plastering
- Joinery
- Floor and wall covering
- Painting
- Glazing
- Roofing
- …

- Safety, Machinery & Equipment -

- Safety on construction sites
- Safety in use of equipment and machinery
- Design and use of materials and machinery
- …

3.3.2 The construction companies in Luxembourg

This section provides figures regarding the national companies active in the construction sector based on the "*Répertoire des Entreprises Luxembourgeoises 2020*" which reflects the situation in January 2020[26]. The companies are classified according to the NACELUX Rev. 2, which is the Luxembourg version of the NACE Rev. 2 (*Nomenclature statistique des Activités économiques dans la Communauté Européenne*). This coding system gives the reference nomenclature for the classification of companies by economic activity in the European Community. Table 3 and Figure 3 detail the number of companies in the construction sector. It has to be noted that the analysis of the data does not allow to consider the companies working in the "Study and Design" and "Safety, Machinery & Equipment" categories defined in Section 3.3.1.

NACE Code		Type of activity	Number	Total
41.100	41.100	Development of building projects	1,361	1,361
41.200	41.200	Construction of residential and non-residential buildings	661	661
42.xxx	42.110 42.120 42.130 42.210 42.220 42.990	Construction of roads and motorways Construction of railways and underground railways Construction of bridges and tunnels Construction of utility network for fluids Construction of utility network for electricity and telecoms Construction of other civil engineering projects n.e.c.	45 2 2 16 8 1	74
43.1xx	43.110 43.120 43.130	Demolition Site preparation Drilling & boring	12 74 4	90
43.2xx	43.210 43.220 43.290	Electrical installation Plumbing, heat and air-conditioning installation Other installation work	519 301 121	941
43.3xx	43.310 43.320 43.331 43.332 43.333 43.341 43.342 43.390	Plastering Joinery installation Tiling Installation of marble and other natural stone coverings Installation of coverings made of other materials Painting Glazing Other building completion and finishing work	64 417 97 23 53 267 21 45	987
43.910	43.910	Roofing activities	200	200
43.990	43.990	Other specialized construction activities	283	283
TOTAL				4,597

Table 3: Number of companies in the construction sector in 2020 classified according to the NACELUX Rev. 2

[26] Source: STATEC "*Répertoire des entreprises luxembourgeoises*" (19/02/2021)

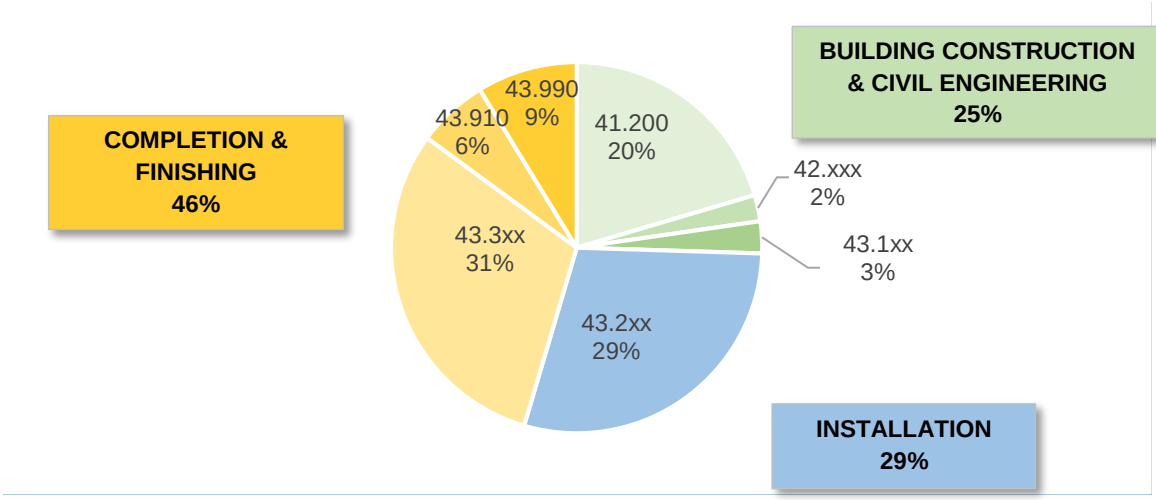


Figure 3: Repartition of the national construction companies by category (as defined in 3.1.1.)

3.3.3 National participation in construction standardization

Finally, this section proposes an overview of the participation of national companies of the construction sector in technical standardization.

Figure 4 shows the number of national delegates registered in standardization organizations having activities related to the construction sector.

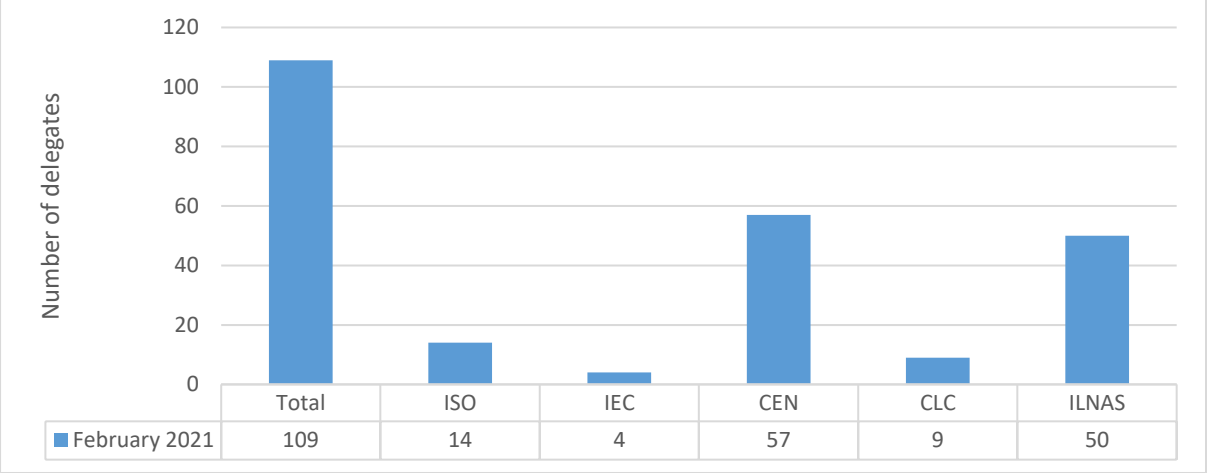


Figure 4: Number of national delegates registered in the standardization organizations[27]

The total number, 109 delegates, corresponds to national delegates who have registered for a technical committee, a subcommittee and/or a working group. Some of them are registered in several standardization organizations, explaining that the sum of the delegates in each organization does not equal the total number.

Figure 5 shows the number of registered companies per standardization organization.

[27] Source: ILNAS – National register of standardization delegates – February 2021

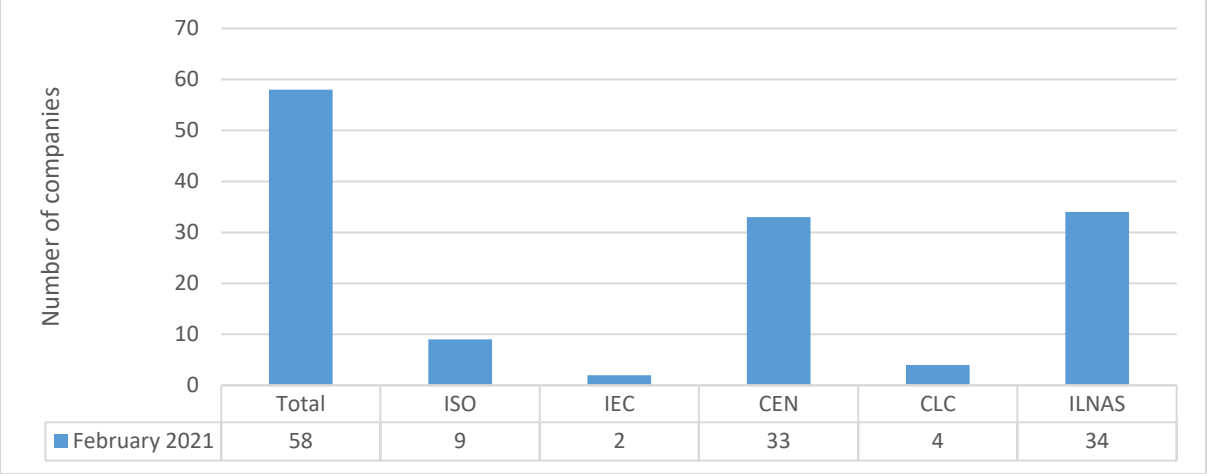


Figure 5: Number of national organizations involved in technical standardization per standardization organization[25]

At the time of writing, 58 national organizations were participating in technical standardization, some of which were registered in several standardization organizations. A more in-depth study reveals that 70% of the participating companies mainly focus on 4 topics:

- 9 organizations in “Eurocodes”: 9 in CEN;
- 11 organizations in “Concrete”: 3 in CEN and 8 in a national (ILNAS) TC;
- 14 organizations in “Acoustics”: 1 in ISO and 13 in a national (ILNAS) TC;
- 16 organizations in “Technical control missions”: 16 in a national (ILNAS) TC.

Figure 6 further details the number of technical committees (TC), sub-committees (SC) and working groups (WG) in which Luxembourg participates through its national delegates.

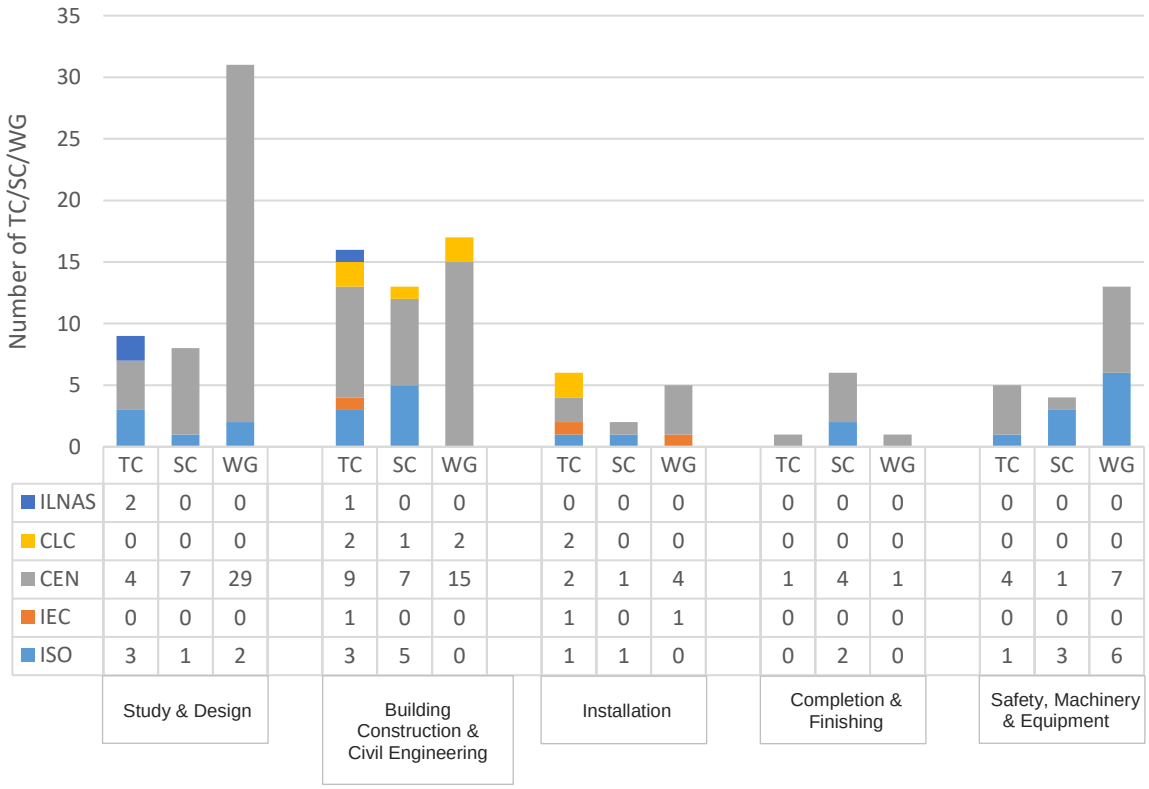


Figure 6: Details of the participation of national organizations in standardization organizations

For the construction sector, we can observe that Luxembourg is mainly participating in ISO and CEN technical committees. Most of the standardization work is performed at European level but several projects are conducted in national committees.

3.4 Opportunities for the national market

❖ Participation in construction standardization technical committees

As explained in section 2.3, registration as a national delegate in technical committees from ISO, IEC, CEN or CENELEC is free of charge[28] in Luxembourg. Participating in construction standardization technical committees offers a broad set of opportunities and benefits to national stakeholders, such as:

- Giving your opinion during the standardization process (comments and positions of vote on the draft standards);
- Valuing your know-how and good practices;
- Accessing draft standards;
- Anticipating future evolutions of technical standards;
- Collaborating with strategic partners and international experts;
- Enhancing the visibility of your organization at national and international levels;
- Identifying development opportunities;
- Making your organization competitive in the market.

❖ Propose new standards projects

National stakeholders can propose new standardization projects at international, European and national levels through ILNAS. This opportunity can allow national stakeholders to take a leading role in the standardization of a specific domain and to benefit from the definition of future market rules.

❖ Purchase of standards

The ILNAS e-Shop[29] is a catalog of more than 180,000 normative documents. It offers the possibility to purchase national (ILNAS and DIN), European (CEN, CENELEC and ETSI) and international (ISO and IEC) standards in electronic format at competitive prices. This catalog is available in three languages: German, English and French.

❖ Free consultation of standards

ILNAS offers the possibility to consult its entire standards' catalog free of charge through dedicated reading stations located in different places in Luxembourg[30].

This service allows, for example, interested organizations or individuals to consult a standard before its purchase on the ILNAS e-Shop.

❖ Comment standards under public enquiry

ILNAS proposes, through its e-Shop, the opportunity to submit comments on CEN and CENELEC standards under public enquiry. Every interested national stakeholder can propose changes to a draft

[28] https://portail-qualite.public.lu/fr/normes-normalisation/participer-normalisation/experts-normalisation.html
[29] https://ilnas.services-publics.lu/ecnor/home.action
[30] https://portail-qualite.public.lu/fr/normes-normalisation/achat-consultation-normes.html

standard, regardless of whether such stakeholders are officially registered in the technical committee responsible for the development of this standard.

❖ Standardization and education

Education about standardization is essential for training future generations in the challenges of standardization and thus strengthening the competitiveness of companies. Thus, ILNAS strives to support and develop standardization education activities. Standardization education aims to train pupils, students and professionals in this field, enabling them to acquire knowledge of standards and standardization, and to develop key skills to meet market needs.

In order to develop a normative culture at the national level, ILNAS works in collaboration with high schools, universities and research centers to develop courses and activities adapted to each level. In this context, ILNAS collaborates particularly closely with the University of Luxembourg.

❖ Standardization and research

Standardization is also a strategic tool for innovation. The integration of standardization into research projects indeed offers many advantages:

- The dissemination of research results in standards allows their wider reach and offers recognition of the latter in reference documents;
- Participation in standardization committees helps identify potential new scientific or commercial collaborations;
- Standardization of research strengthens the market and facilitates the adoption of new technologies, thereby fostering innovation.

ILNAS remains attentive to normative developments in connection with the field of research and actively collaborates with the University of Luxembourg within the framework of joint research programs.

In 2021, ILNAS and the University of Luxembourg, via its Interdisciplinary Center for Security, Reliability and Trust (SnT), launched a new partnership agreement for the implementation of the research program: “Technical Standardization for Trustworthy ICT, Aerospace, and Construction (2021-2024)”, which will allow the continuation of efforts initiated since 2017[31].

[31] https://portail-qualite.public.lu/fr/normes-normalisation/education-recherche/normalisation-recherche.html

4 TECHNICAL COMMITTEES OF CONSTRUCTION

This chapter presents the national, European and international technical committees, offering a complete picture of technical standardization in the construction sector. These technical committees are presented using tables that summarize the most relevant information related to their work (scope, subcommittees and working groups, number of projects and publications, etc.).

A particular focus is done on technical committees in which national delegates are registered. For these technical committees, information on the participation of national stakeholders is provided, as well as the detail of all the projects and publications of the committee.

In order to facilitate the identification of relevant technical committees, the committees are spread across five sections, corresponding to the five categories presented in Section 3.3:

4.1: Study & Design

4.2: Building Construction & Civil Engineering

4.3: Installation

4.4: Completion & Finishing

4.5: Safety, Machinery & Equipment

In Section 4.1, a specific presentation of the technical committee CEN/TC 250 “Structural Eurocodes” and its subcommittees is provided, due to the large number of national participants.

4.1
STUDY & DESIGN

ARCHITECTURE

ENGINEERING

TECHNICAL CONSULTANCY

SURVEYORS

TECHNICAL TESTING AND ANALYSIS

• • •

Table of contents

4.1.1	CEN/TC 250		Structural Eurocodes	
Creation	1989		MEMBERS	Europe - 34 States
Secretariat	United Kingdom (BSI)			
Secretary	Tracey WILKINS			Luxembourg delegates: 2
Chairperson	Steve DENTON			
Standards	136			
Projects	68			**ANEC EIG** Jean LANCRENON Ruddy ENGUEHARD
Structure	5	Working Groups		
	11	Subcommittees		
	62	WG in Subcommittees		

Scope

Standardization of structural and geotechnical design rules for building and civil engineering works taking into account the relationship between design rules and the assumptions to be made for materials, execution and control.

Subcommittees

SC 1	Eurocode 1: Actions on structures	SC 2	Eurocode 2: Design of concrete structures
SC 3	Eurocode 3: Design of steel structures	SC 4	Eurocode 4: Design of composite steel and concrete structures
SC 5	Eurocode 5: Design of timber structures	SC 6	Eurocode 6: Design of masonry structures
SC 7	Eurocode 7: Geotechnical design	SC 8	Eurocode 8: Earthquake resistance design of structures
SC 9	Eurocode 9: Design of aluminum structures		
SC 11	Structural Glass	SC 10	EN 1990 Basis of structural design

Working Groups

WG 1	Policy, procedures and links with other standards	WG 2	Assessment and Retrofitting of Existing Structure
WG 4	Fiber reinforced polymer structures		
WG 6	Robustness	WG 5	Membrane Structures

Publications	Projects	Subjects
3	0	Design of fastenings for use in concrete
1	0	Assessment and retrofitting of existing structures
1	0	Mechanical tests for post-tensioning systems
0	2	Design of Fiber-polymer composite (FPC) structures.
0	1	Design of tensile membrane structures
24	12	Eurocode 1: Actions on structures
10	2	Eurocode 2: Design of concrete structures
44	25	Eurocode 3: Design of steel structures
7	5	Eurocode 4: Design of composite steel and concrete structures
7	5	Eurocode 5: Design of timber structures
7	4	Eurocode 6: Design of masonry structures
5	3	Eurocode 7: Geotechnical design
12	0	Eurocode 8: Earthquake resistance design of structures
12	5	Eurocode 9: Design of aluminum structures
3	1	EN 1990 Basis of structural design
0	3	Structural Glass

4.1.2	CEN/TC 250/SC 1		Eurocode 1 – Actions on structures
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 6
Secretary	Jens BRUNNER		**Administration des Ponts et Chaussées**: Gilberto FERNANDES
Chairperson	Nikolaos MALAKATAS		**ArcelorMittal**: François HANUS, Marion CHARLIER
Standards	23		**Astron Buildings**: René OLY
Projects	0		**ANEC EIG:** Jean LANCRENON, Ruddy ENGUEHARD
Structure	7 Working Groups		

Working Groups			
WG 1	Climatic actions	WG 2	Atmospheric icing of structures
WG 3	Traffic loads on bridges	↳	*Gilberto FERNANDES – Ad. Ponts et Chaussées*
WG 4	Actions on structures exposed to fire	WG 6	Actions from waves and currents on coastal structures
↳	*François HANUS, Marion CHARLIER - ArcelorMittal*		
WG 5	Silos and tanks	WG 7	Evolution of EN 1991-1-1, EN 1991-1-6, EN 1991-1-7 and EN 1991-3

Publications	Projects	Subjects
2	0	General actions - Densities, self-weight, imposed loads for buildings
2	0	General actions - Actions on structures exposed to fire
3	0	General actions - Snow loads
3	0	General actions - Wind actions
2	0	General actions - Thermal
2	0	General actions - Actions during execution
3	0	General actions - Accidental actions
2	0	Traffic loads on bridges
2	0	Actions induced by cranes and machinery
2	0	Silos and tanks

4.1.3	CEN/TC 250/SC 2		Eurocode 2 – Design of concrete structures
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 3
Secretary	Damir ZORCEC		**ArcelorMittal**: Sébastien WOLF
Chairperson	Hans Rudolf GANZ		**ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Standards	10		
Projects	2		
Structure	2 Working Groups		

Working Groups			
WG 1	Coordination and Editorial Panel	WG 2	Design of fastenings for use in concrete
↳	*Sébastien WOLF – ArcelorMittal*		

Public.	Projects	Subjects	Public.	Projects	Subjects
1	0	Mechanical tests for post-tensioning systems	2	0	Concrete bridges - Design and detailing rules
3	1	General rules and rules for buildings	2	1	General rules - Structural fire design
1	0	Liquid retaining and containment structures	1	0	Design of fastenings for use in concrete

4.1.4	CEN/TC 250/SC 3		Eurocode 3 – Design of steel structures
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 14
Secretary	Susan KEMPA		**Astron Buildings**: Andrej BELICA, René OLY
Chairperson	Ulrike KUHLMANN		**ArcelorMittal**: Cécile PRÜM, Christine MOHLER, François HANUS, Louis-Guy CAJOT, Marion CHARLIER, Mike TIBOLT, Teodora BOGDAN, Heiko ZILLGEN
Standards	41		**University of Luxembourg**: Christoph ODENBREIT
Projects	8		**Lindab:** Péter MARAI
Structure	21 Working Groups		**ANEC EIG:** Jean LANCRENON, Ruddy ENGUEHARD

Working Groups			
WG 1	Evolution of EN 1993-1-1 - General rules for buildings	WG 2	Evolution of EN 1993-1-2 - Fire
	Louis-Guy CAJOT, Marion CHARLIER, Teodora BOGDAN - ArcelorMittal		*Louis-Guy CAJOT, Marion CHARLIER, François HANUS - ArcelorMittal*
		WG 3	Evolution of EN 1993-1-3 - Cold-formed members
WG 4	Evolution of EN 1993-1-4 - Stainless steel		*Andrej BELICA - Astron Buildings*
WG 5	Evolution of EN 1993-1-5 - Plated structures	WG 6	Evolution of EN 1993-1-6 - Shell structures
WG 7	Evolution of EN 1993-1-7 - Plated structures subject to out of plane loading	WG 8	Evolution of EN 1993-1-8 - Joints and connections
WG 9	Evolution of EN 1993-1-9 - Fatigue		*Péter MARAI - Lindab*
	Mike TIBOLT - ArcelorMittal		*René OLY - Astron Buildings*
WG 10	Evolution of EN 1993-1-10 - Material toughness and through-thickness properties	WG 11	Evolution of EN 1993-1-11 - Tension components
		WG 12	Evolution of EN 1993-1-12 - High strength steels
	Mike TIBOLT - ArcelorMittal		*Marion CHARLIER - ArcelorMittal*
WG 13	Evolution of EN 1993-2 - Bridges	WG 14	Evolution of EN 1993-3 - Towers, masts and chimneys
WG 15	Evolution of EN 1993-4-1 - Silos		
WG 16	Evolution of EN 1993-4-2 - Tanks	WG 18	Evolution of EN 1993-5 - Piling
WG 19	Evolution of EN 1993-6 - Crane supporting structures		*Cécile PRÜM, Christine MOHLER, Heiko ZILLGEN - ArcelorMittal*
		WG 20	EN 1993-1-13 - Beams with large web openings
WG 21	EN 1993-7 - Design of Sandwich Panels		*François HANUS - ArcelorMittal*
		WG 22	EN 1993-1-14 – Design assisted by FEM

Public.	Projects	Subjects	Public.	Projects	Subjects
3	0	General rules and rules for buildings	0	1	Design assisted by finite element analysis”
2	1	General rules - Structural fire design	0	1	Alternative interaction method for members in bending and compression
2	0	General rules - Supplementary rules for cold-formed members and sheeting	0	1	Elastic critical buckling of members
3	0	General rules - Supplementary rules for stainless steels	0	1	Hollow section joint design according to the component method
4	0	Plated structural elements	2	0	Steel Bridges
3	0	Strength and Stability of Shell Structures	2	0	Towers, masts and chimneys - Towers and masts
2	1	Plated structures subject to out of plane loading	1	0	Towers, masts and chimneys - Chimneys
2	0	Design of joints	3	0	Silos
2	0	Fatigue	3	0	Tanks
2	0	Material toughness and through-thickness properties	0	1	Design of penstocks
2	0	Design of structures with tension components	1	0	Piling
0	1	Rules for beams with large web openings	2	0	Crane supporting structures

4.1.5	CEN/TC 250/SC 4		Eurocode 4 – Design of composite steel and concrete structures
Creation	-	MEMBERS	Europe - 34 States
Secretariat	United Kingdom (BSI)		Luxembourg delegates: 9
Secretary	Tracey WILKINS		**University of Luxembourg**: Christoph ODENBREIT, Matthias BRAUN, Jie YANG **ArcelorMittal**: Dennis RADEMACHER, François HANUS, Louis-Guy CAJOT, Teodora BOGDAN **ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Chairperson	Graham COUCHMAN		
Standards	5		
Projects	5		
Structure	3 Working Groups		

Working Groups			
WG 1	Evolution of EN 1994-1-1- Part 1-1: General rules and rules for buildings	WG 2	Evolution of EN 1994-1-2- Part 1-2: General rules - Structural fire design
	Christoph ODENBREIT, Matthias BRAUN - University of Luxembourg *Teodora BOGDAN - ArcelorMittal*		*Matthias BRAUN - Université of Luxembourg* *François HANUS - ArcelorMittal*
		WG 3	Evolution of EN 1994-2 - Part 2: General rules and rules for bridges

Publications	Projects	Subjects
3	1	General rules - Structural fire design
2	1	General rules and rules for bridges
0	1	Design rules for steel- Concrete-steel construction
0	1	Design rules for composite columns comprising high performance materials
0	1	Design rules for the use of Composite Dowels

4.1.6	CEN/TC 250/SC 5		Eurocode 5 – Design of timber structures
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Sweden (SIS)		Luxembourg delegates: 3
Secretary	Annika STENMARK		**Prefalux**: Simon GRIFFATON **ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Chairperson	Stefan WINTER		
Standards	7		
Projects	4		
Structure	10 Working Groups		

Working Groups			
WG 1	Cross laminated timber	WG 2	Timber concrete composites
WG 3	Cluster Eurocode 5	WG 4	Structural fire design
WG 5	Connections and fasteners	WG 6	Timber bridges
WG 7	Reinforcement	WG 8	Seismic design
WG 9	Execution	WG 10	Basis of design and materials

Publications	Projects	Subjects
4	1	General - Common rules and rules for buildings
2	1	General - Structural fire design
1	1	Bridges
0	1	Bonded-in-rods in timber structures — Design and execution

4.1.7	CEN/TC 250/SC 6		Eurocode 6 – Design of masonry structures
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 2
Secretary	Nanjie HU		**ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Chairperson	Rob VAN DER PLUIJM		
Standards	7		
Projects	4		
Structure	4	Working Groups	

Working Groups			
WG 1	Evolution of EN 1996-1-1 General rules for reinforced and unreinforced masonry structures	WG 2	Simplified calculation methods
WG 3	Structural fire design	WG 4	Design considerations, selection of materials and execution of masonry

Publications	Projects	Subjects
1	1	General rules for reinforced and unreinforced masonry structures
2	1	General rules - Structural fire design
2	1	Design considerations, selection of materials and execution of masonry
2	1	Simplified calculation methods for unreinforced masonry structures

4.1.8	CEN/TC 250/SC 7		Eurocode 7 – Geotechnical design
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Netherlands (NEN)		Luxembourg delegates: 4
Secretary	Geert KRAIJEMA		**Eurasol**: Robert HEINTZ **Geopartner**: Volker EITNER **ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Chairperson	Adriaan VAN SETERS		
Standards	4		
Projects	3		
Structure	3	Working Groups	

Working Groups			
WG 1	General rules and coordination	WG 2	Ground investigation
↳	*Robert HEINTZ - Eurasol*	↳ ↳	*Robert HEINTZ - Eurasol* *Volker EITNER - Geopartner*
WG 3	Geotechnical constructions		
↳	*Robert HEINTZ - Eurasol*		

Publications	Projects	Subjects
2	1	General rules
2	1	Ground investigation and testing
0	1	Geotechnical structures

4.1.9	CEN/TC 250/SC 8		Eurocode 8 – Earthquake resistance design of structures
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Portugal (IPQ)		Luxembourg delegates: 4
Secretary	António CORREIA		**ArcelorMittal**: Cécile PRÜM, Teodora BOGDAN
Chairperson	Philippe BISCH		**ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Standards	12		
Projects	0		
Structure	6	Working Groups	

Scope

Design of structures for seismic resistance

Working Groups

WG 1	Masonry	WG 2	Steel and Composite Structures
WG 3	Timber	WG 4	Seismic action and site classification
WG 5	Concrete	↳	*Cécile PRÜM - ArcelorMittal*
WG 6	Bridges		

Publications	Projects	Subjects
3	0	General rules, seismic actions and rules for buildings
4	0	Bridges
2	0	Assessment and retrofitting of buildings
1	0	Silos, tanks and pipelines
1	0	Foundations, retaining structures and geotechnical aspects
1	0	Towers, masts and chimneys

4.1.10	CEN/TC 250/SC 9		Eurocode 9 – Design of aluminum structures
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Norway (SN)		Luxembourg delegates: 2
Secretary	Roald SAEGROV		**ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Chairperson	Federico MAZZOLANI		
Standards	7		
Projects	2		
Structure	3	Working Groups	

Working Groups

WG 1	Update and Simplification of all parts of EN 1999	WG 2	New types of Connections
WG 3	Long span structures		

Publications	Projects	Subjects
3	1	General structural rules
2	1	Structural fire design
1	0	Structures susceptible to fatigue
1	0	Cold-formed structural sheeting

4.1.11	CEN/TC 250/SC 10		EN 1990 Basis of structural design	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	Norway (SN)			Luxembourg delegates: 2
Secretary	Vivian MELØYSUND			**ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Chairperson	Paolo FORMICHI			
Standards	0			
Projects	1			
Structure	3	Working Groups		

Working Groups			
WG 1	Calibration of partial factors and limit states safety format	WG 2	Bridges
		WG 3	Safety formats for non-linear problems

Publications	Projects	Subjects
0	1	Eurocode - Basis of structural and geotechnical design

4.1.12	CEN/TC 250/SC 11		Structural Glass	
Creation	2002		MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)			Luxembourg delegates: 2
Secretary	Daniela SCHÖN			**ANEC EIG**: Jean LANCRENON, Ruddy ENGUEHARD
Chairperson	Markus FELDMANN			
Standards	0			
Projects	3			
Structure	0	Working Groups		

Publications	Projects	Subjects
0	1	Basis of design and materials
0	1	Out-of-plane loaded glass components
0	1	Design of in-plane loaded glass components and their mechanical joints

4.1.13	ISO/TC 43		Acoustics	
Creation	1947		MEMBERS	61 States
Secretariat	Germany (DIN)			28 participants / 33 observers
Manager	Agnes SAYER			Luxembourg delegates: 1
Chairperson	Douglas MANVELL			**Goodyear**: Albin POCHET
Standards	213			
Projects	48			
Structure	4	Working Groups		
	3	Subcommittees		
	32	WG in Subcommittees		

Scope

Standardization in the field of acoustics, including methods of measuring acoustical phenomena, their generation, transmission and reception, and all aspects of their effects on man and his environment.
Excluded: electro-acoustic and the implementation of specifications of the characteristics of measuring instruments for acoustic purposes.

Subcommittees

SC 1	Noise	SC 2	Building acoustics
↳	*Albin POCHET - Goodyear*	SC 3	Underwater acoustics
↳WG 42	*Albin POCHET - Goodyear*		

Working Groups

AG 1	Advisory panel	WG 1	Threshold of hearing
WG 9	Method for calculating loudness level	WG 10	Hearing aid fitting management

Public.	Projects	Subjects	Public.	Projects	Subjects
1	0	Standard tuning frequency (Standard musical pitch)	3	1	Audiometric test methods
1	1	Normal equal-loudness-level contours	3	1	Determination of sound emission from sound sources placed close to the ear
1	0	Preferred frequencies	1	0	Loudness scaling by means of categories
9	1	Reference zero for the calibration of audiometric equipment	1	0	Hearing aid fitting management (HAFM)
2	1	Methods for calculating loudness	1	0	Statistical distribution of hearing thresholds of ontologically normal persons in the age range from 18 years to 25 years under free-field listening conditions
1	0	Preferred reference values for acoustical and vibratory levels	130	32	Noise
1	0	Estimation of noise-induced hearing loss	53	11	Building acoustics
1	0	Statistical distribution of hearing thresholds related to age and gender	4	0	Underwater acoustics

4.1.14	CEN/TC 211	Acoustics			
Creation	1990	Secretary	Agnes SAYER	Standards	85
Secretariat	Germany (DIN)	Chairperson	Douglas MANVELL	Projects	9

Scope

Standardization in the field of acoustics, including methods of measuring acoustical phenomena, the generation, transmission and reception of sound, all aspects of the effects of sound on man and his environment, and methods of noise reduction.
Excluded: acoustical performance requirements and measurement methods for building components and buildings; acoustical performance requirements for hearing protectors.

4.1.15	ILNAS/TC 103	Acoustics	
State	Luxembourg	Secretary	Mickaël PASCUAL / Catherine BRAND
Creation	2017	Chairperson	Georges RECKINGER

Scope

Acoustics in residential buildings
Setting of performance criteria for the different types of existing noise
Initiation of a process for supervising acoustics in residential buildings and more specifically concerning:
- Interior airborne noise (between premises, etc.);
- Exterior airborne noise (facade, roof, etc.);
- Impact noise;
- Noise from technical equipment;
- Reverberation

Depending on the rooms concerned (kitchen, bedroom, technical room, etc…) and for each type of noise, performance criteria will be identified and an acoustic performance value will be entered.
These values will define the requirements to be met in order to obtain acoustic comfort which can be classified into two categories, namely “normal acoustic comfort” or “superior acoustic comfort”.

14 National Committee Members

Arnaud	BLONDEL	Stugalux Construction
Catherine	Brand	CRTI-B EIG
Luc	BUTTEL	Administration de l'Environnement
Ruddy	ENGUEHARD	ANEC EIG
Laurent	HEINEN	OAI - INCA Ingénieurs Conseils Associes
Thécla	KIRSCH	Ökozenter Pafendall
Eva-Maria	LANG	Chambre des Métiers
Mickaël	PASCUAL	Neobuild
Georges	RECKINGER	Schroeder & Associés
Thibaut	RENAULT	Energie & Environnement
Annick	ROCK	Ministère du Logement
François	SCHWALL	Neobuild
David	STATUCKI	Betavi
Ines	THILLEN	MFPRA - Service national de la sécurité dans la fonction publique

Publications	Projects	Subjects
0	1	Acoustic performance criteria for residential buildings

4.1.16	CEN/TC 126	Acoustic properties of building elements and of buildings			
Creation	1987	Secretary	Sylvie PICHERIT	Standards	57
Secretariat	France (AFNOR)	Chairperson	Catherine GUIGOU-CARTER	Projects	16

Scope

Standardization in the field of acoustic properties of building elements and of buildings, including:
- laboratory methods, expression of results and accuracy;
- rating of acoustic properties of elements;
- field measurement methods, expression of results and accuracy;
- rating of acoustic properties of buildings;
- methods for determining the acoustic of buildings from the performance of its elements.

6 Working Groups

WG 1	Methods for measuring the sound insulation of building elements and the acoustic performances of buildings	WG 6	Laboratory and field measurement of flanking sound transmission
WG 2	Prediction of the acoustic performance of buildings from the performance of elements	WG 7	Laboratory measurement of airborne and structure borne sound from building equipment
WG 5	Coordination working group	WG 12	BIM Acoustics

4.1.17	ISO/TC 163	Thermal performance and energy use in the built environment			
Creation	1975	Manager	Emma RISÉN	Standards	138
Secretariat	Sweden (SIS)	Chairperson	Jesper ARFVIDSSON	Projects	39

Scope

Standardization in the field of building and civil engineering works:
- of thermal and hygrothermal performance of materials, products, components, elements and systems, including complete buildings, both new and existing, and their interaction with technical building systems;
- of thermal insulation materials, products and systems for building and industrial application, including insulation of installed equipment in buildings;
Standardization of the holistic assessment of the energy performance of new and existing buildings as well as building retrofits, in close collaboration with ISO/TC 205 by means of the ISO/TC163/WG4 Joint working group TC 163 & TC 205 Energy performance using holistic approach.

3 Subcommittees (with 18 Working Groups)

SC 1	Test and measurement methods	SC3	Thermal insulation products, components and systems
SC 2	Calculation methods		

2 Working Groups

WG 4	Joint ISO/TC 163 - ISO/TC 205 WG: Energy performance of buildings using holistic approach	WG 6	Vocabulary for thermal insulation

4.1.18	CEN/TC 89	Thermal performance of buildings and building components			
Creation	-	Secretary	Annika ALMQVIST	Standards	75
Secretariat	Sweden (SIS)	Chairperson	Kaisa SVENNBERG	Projects	19

Scope

Standardization in the field of energy performance of buildings, including particularly energy transfer through building components and thermal insulation of installed equipment in buildings, covering:
- rules for expressing relevant thermal properties and requirements;
- calculation and test methods; - input data, including climatic data; - effects of moisture.

7 Working Groups

WG 7	Thermal properties of doors and windows	WG 12	Reflective insulation products
WG 8	Thermal test methods	WG 13	In-situ thermal performance of construction products, building elements and structures
WG 10	Moisture	WG 14	Determination of thermal resistance at elevated temperatures using the guarded hot plate method
WG 15	Durability of adhesives for airtight layers		

4.1.19	ISO/TC 98	Bases for design of structures			
Creation	1960	Manager	Katarzyna MACIEJCZYK	Standards	23
Secretariat	Poland (PKN)	Chairperson	Szymon IMIELOWSKI	Projects	2

Scope

Standardization of the bases for design of structures irrespective of the material of construction including especially terminology and symbols, load, forces and other actions and limitations of deformations. Consideration and coordination of basic reliability requirements concerning the structures as a whole, including consideration of structures made of particular materials (steel, stone, concrete, wood, etc.) as far as is necessary for the preparation of a common approach to reliability in liaison with the relevant technical committees.

3 Subcommittees (with 3 Working Groups)

SC 1	Terminology and symbols	SC 3	Loads, forces and other actions
SC 2	Reliability of structures		

4.1.20	ISO/TC 205	Building environment design			
Creation	1992	Manager	Stephanie C. REINICHE	Standards	33
Secretariat	United States (ANSI)	Chairperson	Drake ERBE	Projects	16

Scope

Standardization in the design of new buildings and retrofit of existing buildings for acceptable indoor environment and practicable energy conservation and efficiency. Building environment design addresses the technical building systems and related architectural aspects, and includes the related design processes, design methods, design outcomes, and design-phase building commissioning. Indoor environment includes air quality, and thermal, acoustic, and visual factors.
Standardization of the holistic assessment of the energy performance of new and existing buildings as well as building retrofits, in close collaboration with ISO/TC 163 by means of the ISO/TC163/WG4 Joint working group TC 163 & TC 205 Energy performance using holistic approach.

10 Working Groups

AG 1	Joint advisory group TC 163 - TC 205 – Coordination of ISO 52000 family	WG 7	Indoor visual environment
WG 1	General principles	WG 8	Radiant heating and cooling systems
WG 2	Design of energy-efficient buildings	WG 9	Heating and cooling systems
WG 3	Building Automation and Control System (BACS) Design	WG 10	Commissioning
WG 5	Indoor thermal environment	WG 11	Joint ISO/TC 205 - ISO/TC 163 WG: Moisture damage

4.1.21	CEN/TC 371	Energy Performance of Buildings project group			
Creation	-	Secretary	Annet VAN DER HORN	Standards	5
Secretariat	Netherlands (NEN)	Chairperson	Jaap HOGELING	Projects	2

Scope

Energy Performance of Buildings project group.

4 Working Groups

WG 1	EPBD Standards group	WG 2	EPB CAG
WG 3	Development of EN 16798-1-1	WG 4	Development of EN 16798-1-2

4.1.22	CEN/TC 340	Anti-seismic devices			
Creation	1993	Secretary	Giacomo RICCIO	Standards	1
Secretariat	Italy (UNI)	Chairperson	Tobia ZORDAN	Projects	6

Scope

Standardization of the design, manufacture, testing, installation and maintenance of antiseismic devices for use in structures erected in seismic areas and designed in accordance with Eurocode 8.

1 Working Group

WG 5	Revision of EN 15129		

4.1.23	ISO/TC 182		Geotechnics	
Creation	1981		MEMBERS	55 States
Secretariat	United Kingdom (BSI)			23 participants / 32 observers
Manager	Stephen READ			Luxembourg delegates: 2
Chairperson	John POWELL			**Eurasol**: Robert HEINTZ
Standards	52			**Geopartner**: Volker EITNER
Projects	12			
Structure	10	Working Groups		

Scope

Standardization of geotechnical aspects in the field of building and civil engineering, including (related) properties of soil and rock.

Working Groups

WG 2	Monitoring in Geotechnical Engineering	WG 4	Drilling and sampling methods and groundwater measurements
WG 5	Geotechnical field vane test		
WG 6	Borehole dynamic probing	WG 7	Cone and piezocone penetration tests
WG 8	Borehole expansion tests	WG 9	Geotechnical aspects of geophysical methods
↳	*Robert HEINTZ- Eurasol*	WG 11	Static testing of geotechnical structures
WG 12	Standardization in geophysics	WG 13	Laboratory testing of soils

Public.	Projects	Subjects	Public.	Projects	Subjects
2	0	Identification and classification of soil	6	1	Geohydraulic testing
1	0	Identification, description and classification of rock	3	1	Sampling methods and groundwater measurements
1	0	Geothermal testing - Determination of thermal conductivity of soil and rock using a borehole heat exchanger	17	4	Field testing
			4	1	Testing of geotechnical structures
			0	3	Qualification criteria and assessment
12	1	Laboratory testing of soil	0	1	Microtremor measurement to estimate shear wave velocity structure of the ground
6	0	Geotechnical monitoring by field instrumentation			

4.1.24	CEN/TC 288		Execution of special geotechnical works	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	France (AFNOR)			Luxembourg delegates: 3
Secretary	Aurélie THIÉBAUD			**Geopartner**: Volker EITNER
Chairperson	Christian GILBERT			**ArcelorMittal**: Darius MACIJAUSKAS, Ernst WEBER
Standards	10			
Projects	4			
Structure	3	Working Groups		

Scope

Standardization of the execution procedures for special geotechnical works (including the testing and control methods of the procedures) and of the required material properties

Working Groups

WG 18	Grouting	WG 19	Sheet-pile walls
WG 20	Ground freezing	↳	*Darius MACIJAUSKAS, Ernst WEBER - ArcelorMittal*

Public.	Projects	Subjects	Public.	Projects	Subjects
1	0	Bored piles	1	0	Grouting
2	1	Deep mixing	1	0	Jet grouting
1	0	Diaphragm walls	1	0	Micropiles
1	0	Displacement piles	2	0	Reinforced fill
1	0	Ground anchors	1	1	Sheet-pile walls
0	1	Ground freezing	1	0	Soil nailing
1	1	Ground treatment by deep vibration	1	0	Vertical drainage

4.1.25	CEN/TC 341		Geotechnical Investigation and Testing
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	United Kingdom (BSI)		Luxembourg delegates: 2
Secretary	Stephen READ		**Geopartner**: Volker EITNER
Chairperson	John POWELL		**Eurasol**: Robert HEINTZ
Standards	52		
Projects	11		
Structure	3	Working Groups	

Scope

Standardization in the field of geotechnical investigation and testing pertaining to equipment and methods used for drilling, sampling and field and laboratory testing.

Working Groups

WG 4	Static testing of geotechnical structures	WG 7	Non-static tests on geotechnical structures
WG 6	Laboratory tests on soils	↳	*Volker EITNER - Geopartner*

Publications	Projects	Subjects
17	4	Field testing
6	1	Geohydraulic testing
6	0	Geotechnical monitoring by field instrumentation
1	0	Geothermal testing
2	0	Identification and classification of soil
1	0	Identification, description and classification of rock (ISO 14689:2017)
12	1	Laboratory testing of soil
0	3	Qualification criteria and assessment
3	1	Sampling methods and groundwater measurements
4	1	Testing of geotechnical structures

4.1.26	IEC/SyC Smart Energy	Smart Energy			
Creation	2014	Secretary	Stephen DUTNALL	Standards	12
Secretariat	IEC Central Office	Chairperson	Richard SCHOMBERG	Projects	2

Scope

Standardization in the field of Smart Energy in order to provide systems level standardization, coordination and guidance in the areas of Smart Grid and Smart Energy, including interaction in the areas of Heat and Gas.
To widely consult within the IEC community and the broader stakeholder community to provide overall systems level value, support and guidance to the TCs and other standard development groups, both inside and outside the IEC.
To liaise and cooperate with the SEG Smart Cities and future SEGs, as well as the future Systems Resource Group.

7 Working Groups

WG 2	IEC Smart Energy Development Plan	WG 5	Methodology and Tools
WG 6	Generic Smart Grid Requirements	AG 1	Technical Committees Forum
AG 4	Advisory group on Forums of SDOs & Regional Coordination Organizations	JWG 3	IEC Smart Energy Roadmap linked to ISO/IEC JTC 1/SC 41
CAG 7	Chairman's Advisory Group		

4.1.27	ISO/TC 268		Sustainable cities and communities
Creation	2012	MEMBERS	72 States 46 participants / 26 observers
Secretariat	France (AFNOR)		
Manager	Etienne CAILLEAU		Luxembourg delegates: 1
Chairperson	Bernard GINDROZ		**Ministry of the Environment, Climate and Sustainable Development**: Kim SCHUMACHER
Publications	26		
Projects	20		
Structure	7 Working Groups		
	1 Subcommittees		
	8 WG in Subcommittees		

Scope

Standardization in the field of Sustainable Cities and Communities will include the development of requirements, frameworks, guidance and supporting techniques and tools related to the achievement of sustainable development considering smartness and resilience, to help all Cities and Communities and their interested parties in both rural and urban areas become more sustainable. Note: TC 268 will contribute to the UN Sustainable Development Goals through its standardization work. The proposed series of International Standards will encourage the development and implementation of holistic and integrated approaches to sustainable development and sustainability.

Subcommittees

SC 1	Smart community infrastructures

Working Groups

CAG 1	Chairman Advisory Group	TG 1	Awareness-raising, communication and promotion
TG 2	Collection of cities good practices and needs	TG 3	Supporting the strategic positioning of ISO/TC 268
WG 1	Management System Standards	WG 4	Smart processes and operating models for sustainable communities
WG 2	City indicators		

Public.	Projects	Subjects	Public.	Projects	Subjects
1	0	Best practice guidelines for transportation	3	0	Indicators for city services and quality of life, for resilient cities, for smart cities
0	1	Business districts — Guidance for practical local implementation of ISO 37101	2	0	Maturity model for smart sustainable communities, for assessment and improvement
1	0	Common framework for development and operation	0	1	Management guidelines of open data for smart cities and communities
0	1	Data exchange and sharing for community infrastructures based on geo-information	1	0	Principles and requirements for performance metrics
0	1	Data framework of infrastructure governance base on digital technology	1	0	Report of pilot testing on the application of ISO smart community infrastructures standards
1	0	Descriptive framework for cities and communities	1	0	Review of existing activities relevant to metrics
0	1	Development Guidelines for Information-based Systems of Smart Buildings	1	0	Transforming our cities — Guidance for practical local implementation of ISO 37101
0	1	Disaster risk reduction – Common framework for global harmonization	1	0	Inventory of existing guidelines and approaches on sustainable development and resilience in cities
1	0	Electric power infrastructure	1	0	Management system for sustainable development - Requirements with guidance for use
1	1	Framework for integration and operation of smart community infrastructures	0	1	Practical guidance for project developers - Meeting ISO 37101 framework principles
1	1	Guidance on establishing smart city operating models for sustainable communities	5	5	Smart transportation
0	1	Guidance on the use of ISO 37120 series of standards for cities ISO 37120, 37122 and 37123	0	1	Urban data integration framework for smart city planning (SCP)
2	4	Guidance on smart transportation	1	0	Vocabulary
1	0	Guidelines on data exchange and sharing for smart community infrastructures			

4.1.28	CEN/TC 465	Sustainable and Smart Cities and Communities			
Creation	-	Secretary	Etienne CAILLEAU	Standards	0
Secretariat	France (AFNOR)	Chairperson	Holger ROBRECHT	Projects	0

Scope

Standardization in the field of Sustainable Cities and Communities, covering the development of requirements, frameworks, guidance and supporting tools and techniques. The proposed standardization plan will be developed to assist cities and community decision making, and support their implementation of sustainability and sustainable development. Standardization will focus on the development of a holistic and integrated approach in response to the needs of European Cities and Communities in both rural and urban areas. It is proposed that the standardization activities focus on:

• the purposes of urban sustainable development as defined by ISO 37101 related to Sustainable Cities and Communities, namely resilience, attractiveness, well-being, social cohesion, preservation and improvement of environment, responsible resource use, aligned with the main pillars of sustainable development (economic, environmental and social),

• all innovative approaches to solution and service delivery, designed for use by all Cities and Communities, Citizens and their interested parties as a means of achieving the sustainability of urban and rural development, with the aim of continuously improving solutions and services, and rural development, with the aim of continuously improving solutions and services.

4.1.29	CEN/WS Smart-CE-Marking	Smart CE marking for the construction industry			
Creation	-	Secretary	-	Standards	1
Secretariat	Norway (SN)	Chairperson	-	Projects	0

Scope

The agreement on a common digital format to provide the information within a Declaration of Performance (DoP) in a standardized way, including the provision of guidance to develop the product specific parts of a DoP.

4.1.30	IEC/SyC Smart Cities	Electrotechnical aspects of Smart Cities			
Creation	2013	Secretary	Gennaro RUGGIERO	Standards	1
Secretariat	IEC Central Office	Chairperson	Michael John MULQUIN	Projects	14

Scope

To foster the development of standards in the field of electrotechnology to help with the integration, interoperability and effectiveness of city systems. Note 1: This will be done:

- by promoting the collaboration and systems thinking between IEC/TCs, the SyC and other SDOs in relation to City systems standards,
- by undertaking systems analysis to understand the needs for standards and assess new work item proposals (NWIPs) related to city systems,
- by developing systems standards where needed and by providing recommendations to existing SyCs, TCs/SCs and other SDOs.

Note 2: overall, common city goals include, for example, sustainable development, efficiency, resilience, safety and support for citizens' engagement and participation. However, an individual city will follow its own approach.

Note 3: “Cities” refers to any geographically located population.

9 Working Groups

WG 1	Terminology	WG 2	Market Relationship
WG 3	Reference Architecture	ahG 4	City Services Continuity
JAHG 5	Interdependencies between ICT and Electrotechnology in Smart Cities linked to ISO/IEC JTC 1	PT 63152	Smart Cities - City Service Continuity against disasters the role of the electrical supply
JPT 3	IEV part on terminology relating to systems, smart and digital Managed by TC 1	OF 1	Open Forum 1 - Smart Cities Events
		CAG 1	Chair's Advisory Group

4.1.31	CEN/TC 350		Sustainability of construction works	
Creation	2013		MEMBERS	Europe - 34 States
Secretariat	France (AFNOR)			Luxembourg delegates: 2
Secretary	Karine DARI			**ArcelorMittal**: Jan BOLLEN **Luxembourg Institute for Building and Technology**: Markus TRESSER
Chairperson	Ari ILOMAKI			
Standards	12			
Projects	9			
Structure	6	Working Groups		
	1	Subcommittees		
	0	WG in Subcommittees		

Scope

The committee is responsible for the development of horizontal standardized methods for the assessment of the sustainability aspects of new and existing construction works (buildings and civil engineering works) in the context of the UN Sustainable Development Goals and of the circular economy.
The methodological basis will be developed in the context of current needs, European strategies, such as mitigation, adaptation and resilience to climate change, and life cycle thinking. The standards describe coherent methodologies for the assessment of sustainability of construction works covering the assessment of environmental, social and economic performance (aspect and impacts) of buildings and civil engineering works, and the provision of construction product environmental information (EPD). This covers:
- Environmental performance assessment; circularity principles (the circular economy in the construction sector), energy efficiency and decarbonization, sustainable use of resources (resource efficiency, waste minimization), protection of the environment and biodiversity;
- Social performance assessment; health and comfort, safety and security, adaptability and accessibility in response to user needs, resilience against external events such impact of climate change, sourcing of materials;
- Economic performance assessment; life cycle cost, whole life costs and impact on economic value, 'green finance' initiatives (taxonomy)
- The implementation of the standards in response to trends in digitalization (e,g. BIM, CAD).
Note: The committee is also entrusted with an advisory function to CEN committees to ensure the effective implementation of horizontal core rules regarding the development a specific Product Category Rules based on EN 15804.

Subcommittees

SC 1	Circular Economy in the Construction Sector
	Markus TRESSER - Luxembourg Institute for Building and Technology

Working Groups

WG 1	Environmental performance of buildings	WG 3	Products Level
	Jan BOLLEN - ArcelorMittal		*Jan BOLLEN – ArcelorMittal*
WG 5	Social performance assessment of building		*Markus TRESSER - Luxembourg Institute for Building and Technology*
WG 6	Civil Engineering works		
WG 7	Framework and Coordination	WG 8	Sustainable refurbishment

Publications	Projects	Subjects
1	0	Additional environmental impact categories and indicators
3	0	Assessment of buildings
1	0	Assessment of economic performance of buildings - Calculation methods
1	0	Assessment of environmental performance of buildings - Calculation method
1	0	Assessment of social performance of buildings - Calculation methodology
0	1	Data quality for environmental assessment of products and construction
0	1	Data templates for the use of EPDs for construction products in BIM
3	2	Environmental product declarations
0	1	Evaluation of the potential for sustainable refurbishment of buildings
0	1	Framework for assessment of buildings and civil engineering works
1	0	Guidance for the implementation of EN 15804
0	2	Methodology for the assessment of performance of buildings
2	1	Sustainability assessment of buildings / civil engineering works

4.1.32	CEN/TC 442		Building Information Modelling (BIM)	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	Norway (SN)			Luxembourg delegates: 3
Secretary	Lisbet LANDFALD			
Chairperson	Oivind ROOTH			**CRTI-B EIG**: Viola MORENO **BIM Consult**: Daniel ZIGNALE **ArcelorMittal**: Marion CHARLIER
Standards	17			
Projects	14			
Structure	7	Working Groups		

Scope

Standardization in the field of structured semantic life-cycle information for the built environment. The committee will develop a structured set of standards, specifications and reports, which specify methodologies to define, describe, exchange, monitor, record and securely handle asset data, semantics and processes with links to geospatial and other external data.

Working Groups

WG 1	Terminology	WG 2	Exchange information
	Viola MORENO - CRTI-B EIG		*Daniel ZIGNALE- BIM Consult*
WG 3	Information Delivery Specification		*Viola MORENO - CRTI-B EIG*
	Viola MORENO - CRTI-B EIG	WG 4	Support Data Dictionaries
WG 5	Chairperson's Advisory Group		*Viola MORENO - CRTI-B EIG*
WG 6	Infrastructure	WG 7	Horizontal role

Publications	Projects	Subjects
0	1	BIM in infrastructure – standardization need and recommendations
2	1	Building construction - Organization of information about construction works
1	0	Building information modelling and other digital processes used in construction
2	1	Building information models - Information delivery manual
0	1	Common Data Environments (CDE) for BIM projects
2	0	Data structures for electronic product catalogues for building services
1	1	Data templates for construction objects used in the life cycle of built assets
0	1	Exchange structure for product data templates and product data sheets based on ISO 16739-1
0	1	Framework and Implementation of Common Data Environment Solutions, in accordance with EN ISO 19650
0	1	Guideline for the implementation of BIM Execution Plans (BEP) and Exchange Information Requirements (EIR) on European level based on EN ISO 19650-1 & -2
1	1	Guideline on how to understand and utilize EN/ISO 29481 Building information models
1	0	Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries
2	0	Information container for linked document delivery - Exchange specification
0	1	Information structure based on EN ISO 16739 1:2018 to exchange data templates and data sheets for construction objects
1	2	Level of Information Need
4	1	Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM)
0	1	Semantic Modelling and Linking Standard (SMLS) for data integration in the built environment

4.1.33	CEN/SS F01				
Creation	-	Secretary	-	Standards	64
Secretariat	CCMC	Chairperson	-	Projects	3

Scope

Technical drawings

4.1.34	IEC/TC 3	Documentation, graphical symbols and representations of technical information			
Creation	-	Secretary	Thomas BORGLIN	Standards	40
Secretariat	Sweden (SEK)	Chairperson	Eirik SELVIK	Projects	13

Scope

Standardization in the field of documentation, graphical symbols and representations of technical information, covering:
1) Rules, principles and methods focusing on machine sensible representation of information.
2) Rules, principles and methods focusing on human sensible representation of the information.
3) Rules, principles and methods for general and safety related marking, identification and arrangement of information in electrical installations, equipment and man-machine interfaces.

2 Subcommittees (with 22 Working Groups)

SC 3C	Graphical symbols for use on equipment	SC 3D	Classes, Properties and Identification of products - Common Data Dictionary (CDD)

20 Working Groups

JWG 16	Maintenance of IEC 82079 series	JWG 18	Revision of IEC 81355-1 (former IEC 61355-1) to replace the existing MT 61355 linked to ISO/TC 10/SC 10
JWG 17	Documentation of communication in power utility automation linked to TC 57		
MT 21	Maintenance team of IEC 62027 and IEC 61082	MT 22	Maintenance team of IEC 60445 and IEC 60447
		MT 60073	Maintenance of IEC 60073
MT 23	Maintenance team of IEC 60152, IEC 60757 and IEC 61293	MT 60848	Maintenance of IEC 60848
		MT 61666	Maintenance of IEC 61666
MT 60617	Maintenance of IEC 60617DB	MT 62491	Maintenance of IEC 62491
MT 61175	Maintenance of IEC 61175	MT 62744	Maintenance of IEC 62744
MT 62023	Maintenance of IEC 62023	MT 81714	Maintenance of the IEC 81714 series
MT 62507	Maintenance of IEC 62507	VT60617	Validation team for IEC 60617 - Graphical symbols for diagrams
MT 81346	Maintenance of the IEC 81346 series		
MT 82045	Maintenance of IEC 82045	AG CAG	Chair Advisory Group

4.1.35	CLC/SR 3	Information structures, documentation and graphical symbols			
Creation	-	Secretary	Martha LEVIN	Standards	28
Secretariat	Sweden (SEK)	Chairperson	-	Projects	5

4.1.36	CLC/SR 3C	Graphical symbols for use on equipment			
Creation	-	Secretary	Arto SIRVIÖ	Standards	4
Secretariat	Finland (SESKO)	Chairperson	-	Projects	0

4.1.37	CLC/SR 3D	Product properties and classes and their identification			
Creation	-	Secretary	Ms BLANK	Standards	7
Secretariat	Germany (DKE)	Chairperson	-	Projects	0

4.1.38	ISO/TC 211	Geographic information/Geomatics			
Creation	1994	Manager	Mats ÅHLIN	Standards	82
Secretariat	Sweden (SIS)	Chairperson	Agneta ENGBERG	Projects	25

Scope

Standardization in the field of digital geographic information.
Note: This work aims to establish a structured set of standards for information concerning objects or phenomena that are directly or indirectly associated with a location relative to the Earth.
These standards may specify, for geographic information, methods, tools and services for data management (including definition and description), acquiring, processing, analyzing, accessing, presenting and transferring such data in digital / electronic form between different users, systems and locations.
The work shall link to appropriate standards for information technology and data where possible, and provide a framework for the development of sector-specific applications using geographic data.

21 Working Groups

AG 1	Outreach advisory group	AHG 3	Non-relational database technologies
AG 2	Advisory group on strategy	AHG 5	Automated documentation
AG 3	Programme maintenance group (PMG)	AHG 6	Digital transformation of public administration
AG 4	Joint advisory group (JAG) ISO/TC 211 – OGC	CAG 1	Chair's advisory group
AG 5	Harmonized model maintenance group (HMMG)	JWG 11	Joint ISO/TC 211 - ISO/TC 204 WG: GIS-ITS
AG 6	Group for Ontology Maintenance (GOM)	WG 1	Framework and reference model
AG 7	Terminology maintenance group (TMG)	WG 4	Geospatial services
AG 10	XML maintenance group (XMG)	WG 6	Imagery
AG 11	Advisory group to support UN-GGIM and other related UN activities	WG 7	Information communities
		WG 9	Information management
AG 12	Control body for the ISO geodetic register	WG 10	Ubiquitous public access

4.1.39	CEN/TC 287	Geographic Information			
Creation	-	Secretary	Jacky DUNCAN	Standards	49
Secretariat	United Kingdom (BSI)	Chairperson	Robert WALKER	Projects	15

Scope

Standardization in the field of digital geographic information for Europe: The committee will produce a structured framework of standards and guidelines, which specify a methodology to define, describe and transfer geographic data and services. This work will be carried out in close co-operation with ISO/TC 211 in order to avoid duplication of work. The standards will support the consistent use of geographic information throughout Europe in a manner that is compatible with international usage. They will support a spatial data infrastructure at all levels in Europe.

4.1.40	CEN/CLC/JTC 11	Accessibility in the built environment			
Creation	-	Secretary	Fernando MACHICADO	Standards	1
Secretariat	Spain (UNE)	Chairperson	Jesus HERNÁNDEZ-GALÁN	Projects	2

Scope

Development of the standardization deliverables as requested by Mandate/420 Phase II :
- A European Standard (EN) on functional European accessibility requirements;
- A Technical Report (TR1) on technical performance criteria;
- A Technical Report (TR2) on conformity assessment

4.1.41	IEC/TC 25	Quantities and units			
Creation	-	Secretary	Luca P.M. MARI	Standards	26
Secretariat	Italy (CEI)	Chairperson	Michael Paul KRYSTEK	Projects	5

Scope

To prepare international standards on quantities and units to be used in electrical technology. Such standards may relate to their definitions, names, letter symbols and use; to the relations in which they appear; and to the signs and symbols used with them.

3 Working Groups

AG 1	Advisory Group	MT 8	Revision of IEC 60375, IEC 60027-2,-4,-6 and -7, and IEC 62428
JWG 2	Revision and amendment of IEC-related parts of ISO/IEC 80000 series linked to ISO/TC 12		

4.1.42	CLC/SR 25	Quantities and units			
Creation	-	Secretary	Ivano VISINTAINER	Standards	13
Secretariat	Italy (CEI)	Chairperson	-	Projects	2

4.1.43	CEN/TC 315	Spectator facilities			
Creation	-	Secretary	Gian LUCA SALERIO	Standards	6
Secretariat	Italy (UNI)	Chairperson	Marco DUCCI	Projects	0

Scope

General: Standards for architectural design and performance requirements for spectator facilities for sports and multipurpose venues (indoor and outdoor), in order to ensure safety, comfort of and visibility for the spectators. Permanent indoor venues such as theatres, cinemas, opera houses, lecture halls, etc. are excluded.
Specific:
a) Standards for layout criteria including spacing, access and egress, sight lines, positioning of separation fences and barriers;
b) Standards for products by performance requirements for permanent, demountable, movable and telescopic stands.

2 Working Groups

WG 1	Layout criteria	WG 2	Products

4.1.44	CEN/TC 325	Crime prevention through building, facility and area design			
Creation	-	Secretary	Stefan KREBS	Standards	7
Secretariat	Czech Republic (UNMZ)	Chairperson	Alena SIMKOVA	Projects	3

Scope

Development of European standards for the prevention of crime at industrial facilities, educational institutions, hospitals, residential building areas, department stores, squares and public meeting places through building, facility and area design. The standards will include their area of application, the corresponding strategy, security levels, building and area layout, application of construction elements, roads and pavements. The standards may be applied to new and significantly refurbished buildings, facilities and areas. The standards will not deal with building products and security systems components.

3 Working Groups

WG 1	Terminology	WG 2	Urban planning
WG 3	Building design		

4.1.45	CEN/TC 346	Conservation of Cultural Heritage			
Creation	-	Secretary	Fabrizio TACCA	Standards	32
Secretariat	Italy (UNI)	Chairperson	Antonio SANSONETTI	Projects	11

Scope

Characterization of materials, the processes, practice, methodologies and documentation of conservation of tangible cultural heritage to support its preservation, protection and maintenance and to enhance its significance.
It includes characterization of deterioration processes and environmental conditions for cultural heritage and the products and technologies used for the planning and implementation of their conservation, restoration, repair and maintenance.

10 Working Groups

WG 1	General methodologies and terminology	WG 13	Investigation of architectural finishes - Procedure, methodology and documentation of results
WG 3	Porous inorganic materials constituting cultural heritage		
WG 7	Specifying and measuring Indoor/outdoor climate	WG 14	Monitoring of cultural deposit
WG 9	Waterlogged wood	WG 15	Exhibition lighting of cultural heritage
WG 11	Conservation process	WG 16	Specification for the management of moveable cultural heritage
WG 12	Showcases		

4.1.46	CEN/TC 351	Construction Products - Assessment of release of dangerous substances			
Creation	-	Secretary	Annemieke VENEMANS	Standards	26
Secretariat	Netherlands (NEN)	Chairperson	Jeroen BARTELS	Projects	18

Scope

The development of horizontal standardized assessment methods for harmonized approaches relating to the release (and/or the content when this is practicable or legally required solution) of regulated dangerous substances under the Construction Products Directive (CPD) taking into account the intended conditions of use of the product. It addresses emission to indoor air, and release to soil, surface water and ground water.

5 Working Groups

WG 1	Release from construction products into soil, ground water and surface water	WG 3	Radiation from construction products
		WG 4	Terminology
WG 2	Emissions from construction products into indoor air	WG 5	Content and eluate analysis in construction products

4.1.47	ISO/TC 267	Facility management			
Creation	2011	Manager	Bernd BORCHERT	Standards	5
Secretariat	United Kingdom (BSI)	Chairperson	Duncan WADDELL	Projects	6

Scope

Standardization in the field of facility management

9 Working Groups

AG 1	Roadmap	WG 5	Human experience
AG 2	Communication	WG 6	Technology in facility management
CAG 1	Chairman's Advisory Group	WG 7	Emergency management
WG 4	Strategy and policy	WG8	Performance measurement and improvement
WG 1	Concepts and context		

4.1.48	ILNAS/TC 105	Technical control missions	
State	Luxembourg	Secretary	Xavier NOËL / Catherine BRAND
Creation	2018	Chairperson	Erwin BRUCH

Scope

Technical control missions :
1- Development of a standardized list defining the scope of the terms "minor works" and "major works".
2- Precise definition of the standardized missions of the technical controller within the framework of the standardization of risks with a view to the subscription of a ten-year insurance, as well as the technical qualifications required in order to be accredited by insurers.
3- Precise definition of the missions of the technical controller as part of the verification of the stability of built structures, as well as the technical and other qualifications required in order to be able to exercise the profession of technical controller

28 National Committee Members

René	ARNOLDY	Foyer Assurances
Jean-Bernard	BALL	Pass Ingénierie & Expertise
Marc	BARTHELME	Administration des bâtiments publics
Jean-Marie	BERTHOME	Organisation Gestion et Contrôle
Stéphane	BORRES	AlliA Insurance Brokers
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Yves	COLOMBIER	Socotec Luxembourg
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Steve	SCHANTZEN	Administration des bâtiments publics
Geoffroy	VERHAMME	Secolux
Romain	WEYDERT	RW Consult
Eric	ZDJELAR	Organisation Gestion et Contrôle

Publications	Projects	Subjects
0	1	Technical control missions

4.1.49	IEC/TC 42	High-voltage and high-current test techniques			
Creation	1955	Secretary	Howard G. SEDDING	Standards	15
Secretariat	Canada (SCC)	Chairperson	Heribert SCHORN	Projects	8

Scope

To deal with high-voltage and high current test techniques and to prepare international standards for different types of tests belonging thereto such as high-voltage AC, DC and impulse tests and high-current tests.

14 Working Groups

WG 14	EC 62478 - High-voltage test techniques: Measurement of partial discharge by electromagnetic and acoustic methods	WG 19	Adaptation of TC 42 standards to UHV test requirements
WG 20	IEC 61083-4: Instruments and software used for measurements in high-voltage and high-current tests - Part 4: Requirements for software for tests with alternating and direct currents and voltages	WG 21	IEC 61083-3: Instruments and software used for measurements in high-voltage and high-current tests - Part 3: Requirements for instruments for tests with alternating and direct currents and voltages
JWG 22	Atmospheric and altitude correction linked to TC 37, SC 22F, TC 99, TC 115, SC 17A, SC 17C, TC 36, SC 121A	MT 03	IEC 60060-2, High voltage test techniques - Part 2: Measuring systems
MT 4	IEC 60060-1, High voltage test techniques - Part 1: General definitions and test requirements	MT 7	IEC 61083-2, Instruments and software used for measurements in high-voltage tests - Part 2: Requirements for software
MT 12	IEC 62475, High current test techniques: Definitions and requirements for high current measurements	MT 13	IEC 60060-3 - High-voltage test techniques - Part 3: Definitions and requirements for on-site testing
MT 15	Revision of IEC 60052: Recommendations for voltage measurement by means of sphere-gaps	MT 16	Revision of IEC 61083-1: Instruments and software used for measurement in high-voltage impulse tests - Part 1: Requirements for instruments
MT 18	Revision and update of IEC 61180-1: High-voltage test techniques for low voltage equipment - Part 1: Definitions, test and procedure requirements and IEC 61180-2: High-voltage test techniques for low-voltage equipment - Part 2: Test equipment	MT 23	Maintenance of IEC 60270: High-voltage test techniques: Partial discharge measurements

4.1.50	CLC/SR 42	High-voltage and high-current test techniques			
Creation	-	Secretary	Matthias WIECHERT	Standards	12
Secretariat	Germany (DKE)	Chairperson	-	Projects	1

4.1.51	CEN/TC 243	Cleanroom technology			
Creation	-	Secretary	Jacky DUNCAN	Standards	14
Secretariat	United Kingdom (BSI)	Chairperson	Mr. FARQUHARSON	Projects	5

Scope

Standardization and classification of controlled environment spaces and fixing of criteria for controlling contamination in such spaces. Guidance on the design, taking into account sources of contamination; air, liquid, materials, equipment and personnel as well as their interactions. Guidance on biocontamination control is included, as are provisions for the control of molecular contamination. Methods of aseptic processing are excluded, as are methods of cleaning and disinfection except with particular reference to inert surfaces in cleanrooms.
The field of competence of the committee embraces all aspects of cleanroom technology, including the classification of controlled environments, the achievement of contamination control in such environments and the design, construction and operation of cleanroom technology.

1 Working Group

WG 5	Bio contamination control

4.2
BUILDING CONSTRUCTION & CIVIL ENGINEERING

RESIDENTIAL AND NON-RESIDENTIAL BUILDINGS

ROADS AND MOTORWAYS

RAILWAYS AND UNDERGROUND RAILWAYS

BRIDGES AND TUNNELS

UTILITIES (FLUIDS, ELECTRICITY AND TELECOMMUNICATION)

DEMOLITION, SITE PREPARATION, DRILLING AND BORING

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Table of contents

4.2.1	ISO/TC 17		Steel	
Creation	1947		MEMBERS	68 States 29 participants / 39 observers
Secretariat	Japan (JISC)			Luxembourg delegates: 1
Manager	Atsushi ISHIKAWA			
Chairperson	Takayoshi YAGI			**ArcelorMittal**: Mahmoud SAIED
Standards	319			
Projects	27			
Structure	4	Working Groups		
	13	Subcommittees		
	26	WG in Subcommittees		

Scope

Standardization in the field of cast, wrought and cold-formed steel, including technical delivery conditions for steel tubes for pressure purposes.
Excluded: - steel tubes within the scope of ISO / TC 5; - line pipe, casing, tubing and drill pipe within the scope of ISO / TC 67; - methods of mechanical testing of metals within the scope of ISO / TC 164.

Subcommittees

SC 1	Methods of determination of chemical composition	SC 3	Steels for structural purposes
SC 4	Heat treatable and alloy steels	↳	*Mahmoud SAIED - ArcelorMittal*
SC 7	Methods of testing (other than mechanical tests and chemical analysis)	SC 9	Tinplate and blackplate
		SC 10	Steel for pressure purposes
SC 11	Steel castings	SC 12	Continuous mill flat rolled products
SC 15	Railway rails, rails fasteners, wheels and wheelsets	SC 16	Steels for the reinforcement and prestressing of concrete
SC 17	Steel wire rod and wire products	SC 20	General technical delivery conditions, sampling and mechanical testing methods
SC 19	Technical delivery conditions for steel tubes for pressure purposes	↳	*Mahmoud SAIED - ArcelorMittal*

Working Groups

AG 0	Advisory group	SG 1	Definition of micro-alloy, low-alloy and high-alloy
WG 25	Classification of steel	WG 26	Guidance for using ISO 14404 family

Publications	Projects	Subjects
10	0	Steels - Root
58	5	Methods of determination of chemical composition
33	7	Steels for structural purposes
28	1	Heat treatable and alloy steels
16	3	Methods of testing (other than mechanical tests and chemical analysis)
3	0	Tinplate and blackplate
17	0	Steel for pressure purposes
21	1	Steel castings
32	4	Continuous mill flat rolled products
15	0	Railway rails, rails fasteners, wheels and wheelsets
25	0	Steels for the reinforcement and prestressing of concrete
20	4	Steel wire rod and wire products
35	0	Technical delivery conditions for steel tubes for pressure purposes
6	2	General technical delivery conditions, sampling and mechanical testing methods

4.2.2	CEN/TC 459		ECISS : European Committee for Iron and Steel Standardization
Creation	-	MEMBERS	Europe - 34 States
Secretariat	France (AFNOR)		Luxembourg delegates: 5
Secretary	Marie SAJOT		
Chairperson	David VALENTI		**ArcelorMittal**: Mahmoud SAIED, João MARTINS, Justine MILLET, Christine MOHLER, Cécile PRÜM.
Standards	392		
Projects	72		
Structure	0	Working Groups	
	12	Subcommittees	
	43	WG in Subcommittees	

Scope

Standardization on the definition, classification, testing, chemical analysis and technical delivery requirements for iron and steel products

Subcommittees

SC 1	Test methods for steel (other than chemical analysis)	SC 2	Methods of chemical analysis for iron and steel
		SC 4	Concrete reinforcing and prestressing steels
SC 3	Structural steels other than reinforcements	↳	*Mahmoud SAIED - ArcelorMittal*
↳WG 1	*João MARTINS, Justine MILLET, Christine MOHLER & Cécile PRÜM - ArcelorMittal*	SC 5	Steels for heat treatment, alloy steels, free-cutting steels and stainless steels
↳WG 9	*Mahmoud SAIED - ArcelorMittal*	SC 6	Wire rod and wires
SC 8	Steel sheet and strip for electrical applications	SC 7	Steels for pressure purposes
SC 9	Coated and uncoated flat products to be used for cold forming	SC 12	General issues
↳	*Mahmoud SAIED - ArcelorMittal*	↳	*Mahmoud SAIED - ArcelorMittal*
SC 10	Steel tubes, and iron and steel fittings	SC 11	Steel castings and forgings

Publications	Projects	Subjects
62	10	Test methods for steel (other than chemical analysis)
55	9	Methods of chemical analysis for iron and steel
45	5	Structural steels other than reinforcements
5	7	Concrete reinforcing and prestressing steels
32	6	Steels for heat treatment, alloy steels, free-cutting steels and stainless steels
35	1	Wire rod and wires
13	0	Steels for pressure purposes
4	2	Steel sheet and strip for electrical applications
14	4	Coated and uncoated flat products to be used for cold forming
96	21	Steel tubes, and iron and steel fittings
22	6	Steel castings and forgings
9	1	General issues

4.2.3	ISO/TC 167	Steel and aluminum structures			
Creation	1977	Manager	Roald SÆGROV	Standards	2
Secretariat	Norway (SN)	Chairperson	Kjetil MYHRE	Projects	6

Scope

Standardization in the field of structural use of steel and alloys of aluminum as applied in building, civil engineering and related structures.
The standards shall comprise the requirements for the design, fabrication and erection of steel and aluminum structures, together with materials, structural components and connections.

3 Subcommittees

SC 1	Steel: Material and design	SC 3	Aluminum structures
SC 2	Steel: Fabrication and erection		

1 Working Group

WG 3	Execution of steel structures

4.2.4	CEN/TC 135		Execution of steel structures and aluminum structures
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	Norway (SN)		Luxembourg delegates: 4
Secretary	Roald SAEGROV		**ArcelorMittal**: Mike TIBOLT, Jan BOLLEN
Chairperson	Kjetil MYHRE		**Luxembourg Institute of Science and Technology**: Mélanie GUITON
Standards	6		**Astron Buildings**: René OLY
Projects	2		
Structure	5 Working Groups		

Scope

Standardization of rules for execution of steel and aluminum structures for building and civil engineering works including rules for inspection and control.

WG 2	Technical requirements for the execution of steel structures	WG 14	Execution of aluminum structures and steel structures with cold formed structural sheeting
	René OLY - Astron Buildings		*René OLY - Astron Buildings*
	Mike TIBOLT - ArcelorMittal	WG 17	Product category rules complementary to EN 15804 for Steel and Aluminum structural products for use in construction works
WG 15	EN 1090-1, Requirements for conformity assessment of structural components		*Jan BOLLEN- ArcelorMittal*
			Mélanie GUITON - Luxembourg Institute of Science and Technology
WG 16	Revision of EN 1090-3		

Publications	Projects	Subjects
1	0	Requirements for conformity assessment of structural components
1	0	Technical requirements for steel structures
1	0	Technical requirements for aluminum structures
1	0	Technical requirements for cold-formed structural steel elements and cold-formed structures for roof, ceiling, floor and wall applications
1	0	Technical requirements for cold-formed structural aluminum elements and cold-formed structures for roof, ceiling, floor and wall applications
1	0	Guidelines on implementing EN 1090-1:2009+A1:2011 - Part 1: Requirements for conformity assessment of structural components
0	1	Assessment and verification of constancy of performance of steel components and aluminum components for structural use
0	1	Environmental Product Declarations - Product category rules complementary to EN 15804 for Steel, Iron and Aluminum structural products for use in construction works.

4.2.5	CEN/TC 262	Metallic and other inorganic coatings			
Creation	-	Secretary	David MICHAEL	Standards	151
Secretariat	United Kingdom (BSI)	Chairperson	William SMITH	Projects	16

Scope

including for corrosion protection and corrosion testing of metals and alloys
Standardization in the field of metallic and other inorganic coatings, for corrosion protection of metals and for decorative and engineering purposes.

5 Working Groups

WG 2	Hot dip galvanized coatings	WG 5	Vitreous enamel coatings
WG 12	Maintenance and ISO co-ordination	WG 14	Guidelines and specifications for electrodeposited coatings of zinc or cadmium (including supplementary treatments) on iron or steel
WG 13	Coating qualification tests		

4.2.6	ISO/TC 59	Buildings and civil engineering works			
Creation	1947	Manager	Kari Synnøve BORGOS	Standards	123
Secretariat	Norway (SN)	Chairperson	Øyvind SKARHOLT	Projects	33

Scope

Standardization in the field of buildings and civil engineering works, of:
- general terminology;
- organization of information in the processes of design, manufacture and construction;
- general geometric requirements for buildings, building elements and components including modular coordination and its basic principles, general rules for joints, tolerances and fits, performance and test standards for sealants;
- general rules for other performance requirements, including functional and user requirements related to service life, sustainability, accessibility and usability;
- general rules and guidelines for addressing the economic, environmental and social impacts and aspects related to sustainable development;
- geometric and performance requirements for components that are not in the scope of separate ISO technical committees; - procurement processes, methods and procedures.

Excluded: standardization and coordination of technical product documentation (ISO/TC 10); acoustic requirements (ISO / TC 43); bases for design of concrete structures (ISO/TC 71/SC 4); fire tests and fire safety engineering related to building materials, components and structures (ISO/TC 92); bases for design of structures (ISO / TC 98); construction machinery (ISO/TC 127 and ISO/TC 195); performance requirements for glass in buildings (ISO/TC 160); performance requirements for doors, doorsets and windows (ISO/TC 162); calculation of thermal properties (ISO / TC 163); bases for design of timber structures (ISO/TC 165); bases for design of steel and aluminium structures (ISO/TC 167); geotechnical aspects and soil quality (ISO/TC 182 and ISO/TC 190); standardization in the design and retrofit buildings regarding acceptable indoor environment and practicable energy use (ISO/TC 205).

8 Subcommittees (with 30 Working Groups)

SC 2	Terminology and harmonization of languages	SC 15	Framework for the description of housing performance
SC 8	Sealants		
SC 13	Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM)	SC 16	Accessibility and usability of the built environment
		SC 17	Sustainability in buildings and civil engineering works
SC 14	Design life	SC 18	Construction procurement

4 Working Groups

AG 1	Advisory Group	WG 4	Resilience of buildings and civil engineering works
WG 3	Modular coordination	WG 5	Security in the built environment

4.2.7	ISO/TC 71	Concrete, reinforced concrete and pre-stressed concrete			
Creation	1949	Manager	Hiroshi YOKOTA	Standards	63
Secretariat	United States (ANSI)	Chairperson	James K. WIGHT	Projects	22

Scope

Standardization of the technology of concrete, of the design and construction of concrete, reinforced concrete and pre-stressed concrete structures, so as to ensure progressive development both in quality and in price reduction; and of definitions and terms, as well as testing procedures, to facilitate international exchange of research work.

7 Subcommittees (with 17 Working Groups)

SC 1	Test methods for concrete	SC 6	Non-traditional reinforcing materials for concrete structures
SC 3	Concrete production and execution of concrete structures	SC 7	Maintenance and repair of concrete structures
SC 4	Performance requirements for structural concrete	SC 8	Environmental management for concrete and concrete structures
SC 5	Simplified design standard for concrete structures		

2 Working Groups

CAG	Chair Advisory Group	WG 1	Life-cycle management of concrete structures

4.2.8	ILNAS/TC 102	Concrete	
State	Luxembourg	Secretary	Christian RECH
Creation	2017	Chairperson	Georges BLASEN

Scope

Creation of the following national normative documents:

- National application document for standard EN 206 – Concrete - Specification, performance, production and conformity - National annex of standard EN 13670 - Execution of concrete structures
- National annex of standard EN 13369 - Precast concrete products

Creation of additional national annexes in the field of concrete for the following European standards:

- EN 1338 - Concrete pavers - Requirements and test methods
- EN 1339 - Concrete slabs - Requirements and test methods
- EN 1340 - Elements for concrete curbs - Requirements and test methods
- EN 1433 - Hydraulic channels for traffic areas used by pedestrians and vehicles - Classification, requirements, principles of construction and testing, marking and assessment of conformity

10 National Committee Members

Georges	BLASEN	Administration des Ponts et Chaussées
Marcel	DERAVET	IFSB
Jean-Marie	LEQUEUX	EQIOM Bétons
Michel	NEY	Bétons Feidt
Christian	RECH	Cimalux
Claude	SIMON	Cimalux
Claude	STEICHEN	Administration des Ponts et Chaussées
Danièle	WALDMANN-DIEDERICH	Université du Luxembourg
Romain	WEYDERT	RW Consult
Thomas	WOLTER	Chaux de Contern

Public.	Projects	Subjects	Public.	Projects	Subjects
0	1	Concrete - Specification, performance, production and conformity	0	1	Elements for concrete curbs - Requirements and test methods
0	1	Execution of concrete structures	0	1	Hydraulic channels for traffic areas used by pedestrians and vehicles - Classification, requirements, principles of construction and testing, marking and assessment of conformity
0	1	Precast concrete products			
0	1	Concrete pavers - Requirements and test methods			
0	1	Concrete slabs - Requirements and test methods			

4.2.9	CEN/TC 104		Concrete and related products
Creation	1978	MEMBERS	Europe - 34 States
Secretariat	Norway (SN)		Luxembourg delegates: 3
Secretary	Anna SOLNØRDAL		
Chairperson	-		**Administration des Ponts et Chaussées**: Georges BLASEN **Cimalux**: Christian RECH **In-Situ**: Léon THYES
Standards	118		
Projects	48		
Structure	8	Working Groups	
	4	Subcommittees	
	8	WG in Subcommittees	

Scope

CEN/TC 104 deals with the standardization of provisions for concrete and related products, in particular with respect to properties and requirements for:
- fresh and hardened concrete; - production and delivery of fresh concrete; - constituent materials of concrete, e.g. mixing water, additions and admixtures; - sheaths for prestressing tendons; - grout for prestressing tendons; - fibers for use in concrete; - execution of concrete structures; - production and execution of sprayed concrete; - products for the protection and repair of concrete structures.
Additionally relevant test methods and provisions for the assessment of conformity for the products and procedures mentioned above are standardized.
Not covered by the scope of TC 104 are: - the constituent materials; aggregate (see CEN/TC 154), Pigments (see CEN/TC 298) and Cement (see CEN/TC 51); - the design of concrete structures and components (see CEN/TC 250/SC 2); - precast concrete products (see CEN/TC 229); - prefabricated autoclave aerated and no-fines light weight concrete components (see CEN/TC 177)

Subcommittees

SC 1	Concrete - Specification, performance, production and conformity	SC 2	Execution of concrete structures
↳	*Christian RECH - Cimalux*	↳	*Christian RECH – Cimalux*
SC 3	Admixtures for concrete	SC 8	Protection and repairs of concrete structures
		↳	*Léon THYES - In-Situ*

Working Groups

WG 4	Fly ash for concrete	WG 9	Silica fume for concrete
WG 10	Sprayed concrete	WG 11	Fibers for concrete
WG 14	Concrete: Health, Hygiene and Environment	WG 15	Ground granulated blast furnace slag
WG 17	Curing compounds	WG 18	Specification of ground calcium carbonate as an addition for concrete

Public.	Projects	Subjects	Public.	Projects	Subjects
43	12	Concrete - Specification, performance, production and conformity	5	0	Execution of concrete structures
			19	0	Admixtures for concrete
10	3	Protection and repairs of concrete structures	7	0	Fly ash for concrete
			3	0	Silica fume for concrete
2	0	Ground granulated blast furnace slag	9	9	Sprayed concrete
0	1	Specification of ground calcium carbonate as an addition for concrete	4	2	Fibers for concrete
			64	20	Products and systems for the protection and repair of concrete structure
6	0	Steel strip sheaths for prestressing tendons - Test methods			
1	0	Framework for a specification on the avoidance of a damaging Alkali-Silica Reaction (ASR) in concrete	1	0	Assessment of in-situ compressive strength in structures and precast concrete components
0	1	Installation of post-tensioned kits for prestressing of structures	1	0	Principles of the equivalent durability procedure

4.2.10	CEN/TC 229		Precast concrete products
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	France (AFNOR)		Luxembourg delegates: 2
Secretary	Yann ROUILLÉ		**Administration des Ponts et Chaussées**: Georges BLASEN, Claude STEICHEN
Chairperson	Marc LEBRUN		
Standards	49		
Projects	37		
Structure	4	Working Groups	

Scope

Standardization of precast concrete products (plain, prestressed, or reinforced or composite steel/concrete) covering terminology, performance criteria, preferred shapes and dimensions, tolerances, relevant physical properties special test methods, special features due to transport, erection and connections, not duplicating the work of other TCs, referring however, to concrete material properties covered by TC 104, properties for reinforcing steel covered by ECISS/TC 19, all general design and structural aspects covered by the Eurocodes, particularly Eurocode 2, and excluding products covered by other technical committees (including TC 125, 128, 164, 165, 177, 178...)

Working Groups

WG 1	Products for which the stability requirements is predominant	WG 3	Products for which the stability requirements is not dominant
WG 4	Products which do not warrant a specific standard and which could be referred to in specific standards	WG 5	Sustainability of concrete products and structural concrete cast in situ

Publications	Projects	Subjects
5	4	Beam-and-block floor systems
1	1	Box culverts
1	1	Bridge elements
1	0	Classification of glassfibre reinforced concrete performance
3	2	Common rules and General rules for factory production control
2	1	Concrete finishes and Concrete with wood-chips as aggregate
1	0	Design and use of inserts for lifting and handling of precast concrete elements
1	1	Elements for fences
2	2	Floor plates and Floor slats
3	2	Foundation elements and Foundation piles
1	1	Hollow core slabs
1	1	Linear structural elements
1	1	Masts and poles
1	1	Normal weight and lightweight concrete shuttering blocks
5	1	Precast concrete and Resin bound concrete
3	5	Retaining wall elements, Ribbed floor elements and Special roof elements
1	0	Specification of glassfibres for reinforcement of mortars and concretes
1	1	Stairs
1	1	Street furniture and garden products
1	1	Sustainability of construction works - Environmental product declarations
4	2	Terrazzo tiles
11	8	Test method

4.2.11	CEN/TC 125		Masonry	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	United Kingdom (BSI)			Luxembourg delegates: 1
Secretary	Shanti CONN			
Chairperson	Andrew SMITH			**Folco Tomasini**: Folco TOMASINI
Standards	67			
Projects	10			
Structure	9	Working Groups		

Scope

Standardization in the field of masonry units of clay, calcium silicate, dense aggregate concrete, lightweight aggregate concrete, autoclaved aerated concrete, natural stone, manufactured stone, mortar for masonry, ancillary components for masonry and associated test methods.

Working Groups

WG 1	Masonry units	WG 2	Mortar
WG 3	Ancillary components	WG 4	Test methods
WG 5	Application of external rendering and internal plastering	WG 6	Thermal properties for masonry
↳	*Folco TOMASINI - Folco Tomasini*	WG 7	Dangerous substances
WG 8	Environmental product declaration	WG 9	Clay flooring blocks

Publications	Projects	Subjects
0	1	Clay blocks for concrete ribbed floor systems
2	0	Design, preparation and application of external rendering and internal plastering
1	0	Design, preparation and application of internal cement and/or lime plastering systems
1	0	Design, preparation and application of internal gypsum plastering systems
1	0	Design, preparation and application of internal polymer plastering systems
0	1	Environmental product declarations
1	0	Guidance on Factory Production Control for the CE Marking of designed masonry mortars
1	0	Guidance on the application of statistical methods for determining the properties of masonry products
1	0	Masonry and masonry products - Methods for determining thermal properties
14	0	Methods of test for ancillary components for masonry
7	0	Methods of test for masonry
23	1	Methods of test for masonry units
23	0	Methods of test for mortar for masonry
3	0	Specification for ancillary components for masonry
6	6	Specification for masonry units
2	1	Specification for mortar for masonry
1	0	Specifications for external renders and internal plasters based on organic binders

4.2.12	ISO/TC 77		Products in fibre reinforced cement		
Creation	1952	Manager	Filip Van RICKSTAL	Standards	4
Secretariat	Belgium (NBN)	Chairperson	Kees BOTH	Projects	0

Scope

Standardization in the field of products in fibre reinforced cement and calcium silicate containing essentially inorganic hydraulic binders, asbestos and other fibres; to include specifications, dimensions, test methods and specific values for acceptance and application requirements.
Standardization of test methods for asbestos and other fibres appropriate to their use in the manufacture of fibre reinforced cement products.
Excluded: products in concrete covered by ISO / TC 71 and products in gypsum covered by ISO / TC 152.

4.2.13	ISO/TC 74	Cement and lime			
Creation	1950	Manager	Filip VAN RICKSTAL	Standards	7
Secretariat	Belgium (NBN)	Chairperson	Laurent IZORET	Projects	0

Scope

Standardization - including definitions, methods of test and specifications - of various kinds of cement, and lime used in building construction and engineering, either for binding together the construction materials or as a constituent part of all kinds of paste, mortar and concrete.

4.2.14	CEN/TC 51		Cement and building limes	
Creation	1973	MEMBERS 	Europe - 34 States	
Secretariat	Belgium (NBN)		Luxembourg delegates: 1	
Secretary	Filip VAN RICKSTAL		**Cimalux**: Claude SIMON	
Chairperson	Laurent IZORET			
Standards	33			
Projects	6			
Structure	7	Working Groups		

Scope

Standardization in the field of definitions and terminology, specifications and methods of test for cements and limes used in building and civil engineering.

Working Groups

WG 6	Definitions and terminology of cement	WG 10	Masonry cement
WG 11	Building lime	WG 12	Special performance criteria
WG 13	Assessment of conformity	WG 14	Hydraulic binders for road bases
WG 15	Revision of methods of testing cement		

Public.	Projects	Subjects	Public.	Projects	Subjects
3	2	Building lime	3	0	Hydraulic road binders
2	0	Calcium aluminate cement - Composition, specifications and conformity criteria	1	0	Isothermal Conduction Calorimetry (ICC) for the determination of heat of hydration of cement: State of Art Report and Recommendations
5	1	Cement			
1	1	Cement and building lime - Environmental product declarations	3	0	Masonry cement
2	0	Concrete	1	0	Measurement of the carbonation depth of hardened concrete
1	0	Determination of total organic carbon in limestone	1	0	Method for the determination of C3A in the clinker from cement analysis
1	0	Guidelines for a procedure to support the European standardization of cements	11	2	Methods of testing cement
1	0	Hydraulic binder for non-structural applications	1	0	Supersulfated cement - Composition, specifications and conformity criteria
1	0	Testing hardened concrete	1	0	Testing the freeze-thaw resistance of concrete - Internal structural damage

4.2.15	CEN/TC 177	Prefabricated reinforced components of autoclaved aerated concrete or light-weight aggregate concrete with open structure			
Creation	-	Secretary	Gerrit LAND	Standards	25
Secretariat	Germany (DIN)	Chairperson	Karl-Christian THIENEL	Projects	0

Scope

Standards for prefabricated reinforced components of autoclaved aerated concrete or lightweight aggregate concrete with open structure (expanded clay, pumice, etc.).

2 Working Groups

WG 1	Prefabricated Reinforced Components of AAC	WG 3	Test methods

4.2.16	CEN/TC 187	Refractory products and materials			
Creation	-	Secretary	Tim BELLAMY	Standards	68
Secretariat	United Kingdom (BSI)	Chairperson	Olaf KRAUSE	Projects	2

Scope

Classification, methods of test and sampling for refractory products and materials, including shaped and unshaped products and ceramic fibers.

3 Working Groups

WG 1	Dense shaped refractory products	WG 3	Insulating materials and high temperature insulation wools
WG 4	Chemical analysis		

4.2.17	ISO/TC 221		Geosynthetics	
Creation	2000	MEMBERS	45 States	
Secretariat	United Kingdom (BSI)		30 participants / 15 observers	
Manager	David HYDE		Luxembourg delegates: 2	
Chairperson	Peter ATCHISON		**DuPont de Nemours Luxembourg**: Anne-Laure BACKES, Romain DIEDERICH	
Standards	41			
Projects	14			
Structure	5	Working Groups		

Scope

Standardization of all geosynthetic products including geotextiles, geomembranes, geocomposite clay liners and other geosynthetic related products.

Working Groups

WG 2	Terminology, identification and sampling	WG 3	Mechanical properties
WG 4	Hydraulic properties	WG 5	Durability
WG 6	Design using geosynthetics		

Public.	Projects	Subjects	Public.	Projects	Subjects
1	0	Abrasion damage simulation (sliding block test)	1	0	Index test procedure for the evaluation of mechanical damage under repeated loading
2	0	Clay geosynthetic barriers			
1	9	Design using geosynthetics	1	0	Installing and retrieving samples in the field for durability assessment
2	1	Determination of compression behavior			
2	0	Determination of friction characteristics	1	0	Procedure for simulating damage under interlocking-concrete-block pavement by the roller compactor method
0	0	Determination of long term flow of geosynthetic drains			
1	0	Determination of the protection efficiency of a geosynthetic against impact damage	1	0	Sampling and preparation of test specimens
2	0	Determination of thickness at specified pressures	1	0	Screening test method for determining the resistance of geotextiles and geotextile-related products to oxidation
1	0	Dynamic perforation test (cone drop test)			
10	0	Geotextiles and geotextile-related products	1	0	Static puncture test (CBR test)
			2	0	Symbols and pictograms
1	0	Guidelines for the assessment of durability	1	0	Tensile test for joints/seams by wide-width strip method
0	1	Guidelines for the determination of long-term flow of geosynthetic drains	2	0	Terms and definitions
2	1	Guidelines for the determination of the long-term strength of geosynthetics for soil reinforcement	3	2	Test method
1	0	Identification on site	1	0	Wide-width tensile test

4.2.18	CEN/TC 189		Geosynthetics	
Creation	1989		MEMBERS 	Europe - 34 States
Secretariat	Belgium (NBN)			Luxembourg delegates: 3
Secretary	Karin EUFINGER			**DuPont de Nemours Luxembourg**: Anne-Laure BACKES, Romain DIEDERICH, Andreas BUGIEL
Chairperson	Daniele CAZZUFFI			
Standards	74			
Projects	12			
Structure	6	Working Groups		

Scope

Standardization related to geosynthetics.
Terminology, sampling before testing, identification and marking rules, test methods, requirements related to the intended used.

Working Groups

WG 1	Geotextiles and geotextile-related products - General and specific requirements	WG 2	Terminology, identification, sampling and classification
↳	*Romain DIEDERICH, Andreas BUGIEL - DuPont de Nemours Luxembourg*	↳	*Romain DIEDERICH, Andreas BUGIEL - DuPont de Nemours Luxembourg*
WG 3	Mechanical testing	WG 4	Hydraulic testing
↳	*Andreas BUGIEL - DuPont de Nemours Luxembourg*	↳	*Romain DIEDERICH, Andreas BUGIEL - DuPont de Nemours Luxembourg*
WG 5	Durability	WG 6	Geosynthetic barriers - General and specific requirements
↳	*Romain DIEDERICH, Andreas BUGIEL - DuPont de Nemours Luxembourg*		

Publications	Projects	Subjects
13	0	Geotextiles and geotextile-related products
8	2	Terminology, identification, sampling and classification
18	2	Mechanical testing
9	3	Hydraulic testing
12	5	Durability
8	0	Geosynthetic barriers - General and specific requirements
3	0	Clay geosynthetic barriers
1	0	Abrasion damage simulation
1	0	Identification on site
1	0	Index test procedure for the evaluation of mechanical damage under repeated loading
1	0	Test method for determining the resistance of polymeric geosynthetic barriers to environmental stress cracking
1	0	Test methods for measuring mass per unit area of clay geosynthetic barriers
1	0	Wide-width tensile test
1	0	Test method for the determination of the filtration behaviour of geotextiles under turbulent water flow conditions

4.2.19	CEN/TC 254		Flexible sheets for waterproofing
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Netherlands (NEN)		Luxembourg delegates: 1
Secretary	Annemarie MEWE		
Chairperson	Martin LONDSCHIEN		**DuPont de Nemours Luxembourg**: Elke DAVID-CLOS
Standards	58		
Projects	6		
Structure	6	Working Groups	
	2	Subcommittees	
	0	WG in Subcommittees	

Scope

Preparation of European Standards on factory made flexible sheets for waterproofing for use in building construction and civil engineering.

Subcommittees

SC 1	Bitumen sheeting	SC 2	Synthetic sheets

Working Groups

WG 1	Coordination	WG 3	Material properties relevant to wind uplift resistance
WG 6	Bridge deck waterproofing		
WG 10	Ageing	WG 9	Underlays for discontinuous roof coverings
WG 15	PCR	↳	*Elke DAVID-CLOS - DuPont de Nemours Lux.*

Publications	Projects	Subjects
1	0	Bitumen damp proof courses
2	0	Bitumen damp proof sheets including bitumen basement tanking sheets
10	0	Bitumen sheets for roof waterproofing
2	0	Bitumen water vapor control layers
11	0	Bitumen, plastic and rubber sheets for roof waterproofing
2	0	Definitions and characteristics of underlays
1	0	Determination of dimensional stability
1	0	Determination of emissivity
1	0	Determination of foldability at low temperature
2	0	Determination of length, width and straightness
1	0	Determination of peel resistance of joints
4	1	Determination of resistance
1	0	Determination of tensile properties
2	0	Determination of thickness and mass per unit area
2	0	Determination of visible defects
1	0	Plastic and rubber
1	0	Plastic and rubber damp proof sheets
3	1	Plastic and rubber sheets for roof waterproofing
1	1	Plastic and rubber vapor control layers
2	1	Reinforced bitumen sheets
1	0	Solar Reflectance Index
1	0	Statistical definition of manufacturer's limiting value and declared value
1	0	Underlays for discontinuous roofing and walls
9	0	Waterproofing of concrete bridge decks and other concrete surfaces trafficable by vehicles
0	2	Environmental product declaration

4.2.20	CEN/TC 154	Aggregates			
Creation	-	Secretary	Jean STRIDE	Standards	58
Secretariat	United Kingdom (BSI)	Chairperson	Jonathan SIMM	Projects	27

Scope
Standardization in the field of natural, recycled and manufactured aggregates, by specifying aggregate performance characteristics, sampling and methods of test

6 Subcommittees (with 3 Working Groups)			
SC 1	Aggregates for mortars	SC 4	Hydraulic bound and unbound aggregates
SC 2	Aggregates for concrete, including those for use in roads and pavements	SC 5	Lightweight aggregates
SC 3	Bituminous bound aggregates	SC 6	Test methods

4 Working Groups			
WG 10	Armourstone	WG 12	Aggregates from secondary source
WG 11	Railway ballast	WG 13	Dangerous substances

4.2.21	CEN/TC 178	Paving units and kerbs			
Creation	-	Secretary	Jacky DUNCAN	Standards	11
Secretariat	United Kingdom (BSI)	Chairperson	Robert DUDGEON	Projects	1

Scope
Standardization of the performance requirements and their associated methods of test of paving units, kerbs and accessories manufactured from clay, concrete, natural stone or other materials used for the surfacing of footways, roads and other paved areas (dock, industrial, parking) considering their application.

5 Working Groups			
WG 1	Precast concrete products	WG 4	Test methods for simulation of ageing of pavers by polishing
WG 2	Natural stone products		
WG 3	Clay products	WG 5	Tactile Paving

4.2.22	CEN/TC 246	Natural stones			
Creation	-	Secretary	Clara MIRAMONTI	Standards	37
Secretariat	Italy (UNI)	Chairperson	Paola BLASI	Projects	6

Scope
Definitions, requirements and test methods for natural stones relating to rough blocks, slabs, semi-finished and finished products intended for use in building and for monuments with the exception of items in the field of work covered by other Technical Committees. The WG 4 (JWG 229/246) covers the agglomerated stones for floor coverings, wall coverings and ancillary uses, for interior and exterior use, with resin or cement binders or a combination of the two and does not cover pressed tiles such as terrazzo tiles which are the territory of CEN/TC 229, or natural stone which is the territory of CEN/TC 246. Note: Reference should be made as far as possible to existing test methods. Submission of WG 4 documents for the formal vote must be decided by resolutions of the two CEN/TCs.

4 Working Groups			
WG 1	Terminology, classification and characteristics	WG 3	Product specifications
WG 2	Test methods	WG 4	Agglomerated stones (JWG 229/246)

4.2.23	CEN/TC 226	Road equipment			
Creation	-	Secretary	Yoann DERVIN	Standards	51
Secretariat	France (AFNOR)	Chairperson	Dominique MONDE	Projects	31

Scope

To prepare specifications for safety, traffic control and other road equipment in the following fields:
- Safety fences and barriers, including guard rails, safety fences, crash barriers, crash absorbers and bridge parapets;
- Horizontal signs including road studs and road markings;
- Vertical signs including signs, cones and marker posts;
- Traffic lights including signals, traffic control and danger lamps;
- Street lighting, performance requirements only;
- Other equipment including bollards, anti-glare screens and noise protection devices.

9 Working Groups

WG 1	Crash barriers, safety fences, guard rails and bridge parapets	WG 9	Clockwork parking meters and automatic car park ticket dispensers
WG 2	Horizontal road signs	WG 10	Passive safety of support structures for road equipment
WG 3	Vertical signs		
WG 4	Traffic control	WG 11	Variable message signs
WG 6	Noise reducing devices	WG 12	Road interaction - ADAS / Autonomous vehicles

4.2.24	CEN/TC 227		Road materials	
Creation	2001	MEMBERS	Europe - 34 States	
Secretariat	United Kingdom (BSI)		Luxembourg delegates: 1	
Secretary	Jacky DUNCAN		**Administration des Ponts et Chaussées**: Georges BLASEN	
Chairperson	Arash KHOJINIAN			
Standards	136			
Projects	30			
Structure	7	Working Groups		

Scope

To prepare specifications, test methods, compliance criteria for materials for construction and maintenance of roads, airfields and other trafficked areas.

Working Groups

WG 1	Bituminous mixtures	WG 2	Surface Dressing, Sprays and Slurry Surfacing (incorporating Micro surfacing)
	Georges BLASEN - Administration des Ponts et Chaussées	WG 4	Hydraulic bound and unbound mixtures (including byproducts and waste materials)
WG 3	Materials for concrete roads including joint fillers and sealants	WG 5	Surface characteristics
WG 6	Sustainability	WG 7	Chairman's Advisory Group

Public.	Projects	Subjects	Public.	Projects	Subjects
2	1	Acoustics - Measurement of the influence of road surfaces on traffic noise	6	0	Hydraulically bound mixtures - Specifications
13	0	Bituminous mixtures - Material specifications	5	1	Joint fillers and sealants
54	10	Bituminous mixtures - Test methods	3	0	Primers for cold and hot applied joint sealants
2	0	Characterization of pavement texture by use of surface profiles	23	1	Road and airfield surface characteristics
			9	2	Slurry surfacing
9	0	Cold applied joint sealants - Test methods	4	7	Surface dressing
7	4	Concrete pavements	22	4	Unbound and hydraulically bound mixtures
13	0	Hot applied joint sealants	1	0	Unbound mixtures - Specifications

4.2.25	CEN/TC 336	Bituminous binders			
Creation	-	Secretary	Bernard SCHAFFNER	Standards	58
Secretariat	France (AFNOR)	Chairperson	Olivier MOGLIA	Projects	19
Scope					
Terminology, methods of sampling, standardization of test methods, classification and specifications for bituminous binders. Group of products covered by standardization: petroleum refined bitumens, modified bitumens, bituminous emulsions, fluxed and cutback bitumens - Used for paving and industrial applications.					
2 Working Groups					
WG 1	Bituminous binders for paving	WG 2	Fluxed bitumen and bituminous emulsions		

4.2.26	CEN/TC 396	Earthworks			
Creation	-	Secretary	Benoît SMERECKI	Standards	7
Secretariat	France (AFNOR)	Chairperson	Patrick BOISSON	Projects	10
Scope					
Terminology for earthworks (terms and definition); Test methods (characterization for earthworks of natural soils and rocks) in laboratory and in situ- including improved soils treated with binders, lime, or other "additives" used in earthworks; Classification systems of soils and rocks suitable for use in embankment construction, possibly leading to a unified classification system or principles/rules for classifying soils and rocks for earthworks purposes; Characterization of extraction ability ("excavatability"); Design of earthworks; Quality control of works and monitoring.					
8 Working Groups					
WG 1	General matters	WG 2	Soil and rock classification for Earthworks		
WG 3	Construction procedures	WG 4	Quality control		
WG 5	Hydraulic fill	WG 6	Hydraulic placement of mineral waste		
WG 7	Use of alternative materials in earthworks	WG 8	Test methods		

4.2.27	CEN/TC 321	Explosives for civil uses			
Creation	1994	Secretary	Steffen JENKEL	Standards	59
Secretariat	Spain (UNE)	Chairperson	Jose Angel SANCHIDRIAN	Projects	59
Scope					
Standardization of explosives substances and articles, including safety requirements, terminology, categorization and test methods. Pyrotechnic articles and ammunition are excluded and explosives intended for use by the armed forces to the police are also excluded					
2 Working Groups					
WG 4	Detonators and relays	WG 6	Explosives and propellants		

4.2.28	CLC/BTTF 69-3	Road traffic signal systems			
Creation	2008	Secretary	Jurgen WEINGART	Standards	4
Secretariat	Spain (UNE)	Convenor	Dave MARTIN	Projects	0
Scope					
To prepare a standard, as described in BT (DE/NOT) 141 (Road traffic signal systems).					
1 Working Group					
WG 02	Road traffic signal systems				

4.2.29	ISO/TC 282	Water reuse			
Creation	2013	Manager	Xia ZHU	Standards	23
Secretariat	China (SAC)	Chairperson	Naty BARAK	Projects	16

Scope

Standardization of water reuse of any kind and for any purpose. It covers both centralized and decentralized or on-site water reclamation, and direct and indirect reuse applications, taking into consideration the potential for unintentional exposure or ingestion. It includes technical, economic, environmental and societal aspects of water reuse. Water reuse comprises a sequence of the stages and operations involved in collection, conveyance, processing, storage, distribution, consumption, drainage and other handling of wastewater, and treated effluent, including water that is reused in repeated, cascaded and recycled ways. The scope of ISO/PC 253 (Treated wastewater reuse for irrigation) is merged therein.

4 Subcommittees (with 14 Working Groups)

SC 1	Treated wastewater reuse for irrigation	SC 3	Risk and performance evaluation of water reuse systems
SC 2	Water reuse in urban areas	SC 4	Industrial water reuse

4 Working Groups

CAG	Chair Advisory Group	WG 2	Terminology
CTG 1	Communications Task Group	WG 3	Water systems for biopharma industries

4.2.30	CEN/TC 107	Prefabricated district heating and district cooling pipe system			
Creation	-	Secretary	Henryk STAWICKI	Standards	18
Secretariat	Denmark (DS)	Chairperson	Karsten RANDRUP	Projects	19

Scope

Standardization of: - prefabricated insulated district heating and district cooling pipe systems including pipes, joints, fittings, valves, expansion cushions and surveillance systems, and - design and installation of prefabricated insulated pipe systems for district heating and district cooling

10 Working Groups

WG 2	Basic consideration	WG 10	Flexible pipe systems for district heating
WG 3	PUR-foam properties	WG 11	Surveillance systems
WG 4	Joint casing systems	WG 12	Polymer Service Pipes
WG 5	Fitting, Valves and Twin Pipes	WG 13	Preinsulated district heating pipe systems
WG 9	PE Casings	WG 14	District cooling

4.2.31	CEN/TC 164	Water supply			
Creation	1990	Secretary	Antoine GAUSSORGUES	Standards	201
Secretariat	France (AFNOR)	Chairperson	Phillipe PIED	Projects	104

Scope

To establish standards for the installation and performance requirements of systems, constructions of components used for the water supply from the production facility, including the treatment of the water, to the taps attached or unattached to a sanitary appliance with the view of maintaining the quality of water as stated in Directive 80/778.

11 Working Groups

WG 1	External systems and components	WG 2	Internal systems and components
WG 3	Effects of materials in contact with drinking water	WG 8	Sanitary tapware
WG 9	Chemicals and filtering media for water treatment	WG 10	Hot water and cold water storage within dwelling
WG 12	Flexible hoses assemblies	WG 14	Valves and fitting for buildings and devices to prevent pollution by backflow
WG 13	Water conditioning equipment inside buildings		
WG 15	Security of drinking water supply	WG 16	In-situ generating and dosing of biocides for water treatment

4.2.32	CEN/TC 165		Waste water engineering	
Creation	2013	MEMBERS 	Europe - 34 States	
Secretariat	Germany (DIN)		Luxembourg delegates: 1	
Secretary	Erik HELDT		**Chaux de Contern**: Thomas WOLTER	
Chairperson	Werner KRISTELLER			
Standards	105			
Projects	47			
Structure	16	Working Groups		

Scope

Functional standards, standards for performance and installation in the field of wastewater engineering for systems and components. Where there is no existing material related TC, product standards for all components of discharge pipes, drain and sewer pipes, pipelines, separators etc. according to the resolutions of BT (for the organization of work in the field of metallic tubes see resolution BT 160/1989).
Standards for design, calculation, construction, commissioning, operation and maintenance in the field of wastewater engineering, from the point of origin (with the exception of the product standards for sanitary appliances) up to the point of disposal, including treatment plants and use of treated wastewater for purposes other than agricultural irrigation) flushing cisterns, urinals, kitchen sinks, basins bidets, baths, (including whirlpool baths) and shower trays.

Working Groups

WG 1	General requirements for pipes	WG 2	Vitrified clay pipes
WG 4	Manhole tops, gully tops, drainage channels and other ancillary components for use outside buildings	WG 7	Steel pipes
		WG 8	Separators
		WG 9	Concrete pipes
WG 10	Installation of buried pipes for gravity drain and sewer systems	↳	*Thomas WOLTER - Chaux de Contern*
WG 12	Structural design of buried pipelines	WG 11	Gratings, covers and other ancillary components for use inside buildings
WG 13	Renovation and repair of drains and sewers	WG 21	Drainage systems inside buildings
WG 22	Drain and sewer systems outside buildings	WG 30	Terminology in the field of wastewater engineering
WG 40	Wastewater treatment plants > 50 PT		
WG 41	Small type sewage treatment plants (< 50 inhabitants)	WG 50	Use of treated wastewater

Publications	Projects	Subjects
7	3	General requirements for pipes
8	1	Vitrified clay pipes
9	5	Manhole tops, gully tops, drainage channels and other ancillary components for use outside buildings
9	3	Steel pipes
5	0	Separators
2	2	Concrete pipes
3	1	Installation of buried pipes for gravity drain and sewer systems
12	5	Gratings, covers and other ancillary components for use inside buildings
4	0	Structural design of buried pipelines
2	5	Renovation and repair of drains and sewers
10	0	Drainage systems inside buildings
11	1	Drain and sewer systems outside buildings
1	0	Terminology in the field of wastewater engineering
16	16	Wastewater treatment plants > 50 PT
7	5	Small type sewage treatment plants (< 50 inhabitants)
2	0	Use of treated wastewater

4.2.33	CEN/TC 92	Water meters			
Creation	1994	Secretary	Marcel SCHULZE	Standards	6
Secretariat	Switzerland (SNV)	Chairperson	Wilhelm STAUDT	Projects	1

Scope

Standardization for meters to measure volume flow of cold potable water and heated water enclosed in full conduits, irrespective of technology applied

1 Working Group

WG 2	General requirements

4.2.34	CEN/TC 203	Cast iron pipes, fittings and their joints			
Creation	-	Secretary	Anna BARANSKI	Standards	18
Secretariat	France (AFNOR)	Chairperson	Pascal ALEXANDRE	Projects	8

Scope

Standardization of cast iron pipes, fittings, accessories, and their joints for water supply, drainage and sewerage, gas supply and other application.
Valves, pumps and malleable iron parts are excluded.

6 Working Groups

WG 1	Water pipelines under pressure	WG 8	Coatings for pipes, fittings and accessories
WG 3	Soil pipelines	WG 9	Revision of EN 545, EN 598 and EN 969
WG 7	Influence of non-metallic materials used by ductile iron pipelines on potable water	WG 10	Life cycle costs (LCC) and Life cycle assessment (LCA) for ductile iron pipe systems

4.2.35	CEN/TC 451		Water wells and borehole heat exchangers
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	France (AFNOR)		Luxembourg delegates: 1
Secretary	Lucas COLOMBO		
Chairperson	Pascal MONNOT		**Geopartner**: Volker EITNER
Standards	0		
Projects	2		
Structure	2	Working Groups	

Scope

Standardization in the field of design, environmental aspects, drilling, construction, completion, operation, monitoring, maintenance, rehabilitation and dismantling of wells and borehole heat exchangers for uses of groundwater and geothermal energy.
Oil, gas and other mining activities in these fields are excluded from the scope.

Working Groups

WG 1	Water wells	WG 2	Borehole heat exchangers

Publications	Projects	Subjects
0	1	Design and construction of borehole heat exchangers
0	1	Water wells

4.2.36	CEN/TC 234	Gas infrastructure			
Creation	1990	Secretary	Hiltrud SCHÜLKEN	Standards	22
Secretariat	Germany (DIN)	Chairperson	Martin WINKELER	Projects	12

Scope

I) Standardization of functional requirements in the field of gas infrastructure* from the input of gas into the on-shore transmission network up to the inlet connection of gas appliances;
II) Determination and coordination of the gas infrastructure aspects in the technical work dealt with by other CEN/TCs and any other bodies, whether or not reporting to the Sector Forum Gas Infrastructure;
III) To act as a focus for standardization issues in the field of gas infrastructure.
*including transmission, distribution, storage, compression, regulation and metering, installation, injection of non-conventional gases, gas quality issues and others.

13 Working Groups

WG 1	Gas installations	WG 2	Gas supply systems up to and including 16 bar and pressure testing
WG 3	Gas Transportation		
WG 4	Gas underground storage	WG 5	Gas measuring
WG 6	Gas pressure regulation	WG 7	Gas compression
WG 8	Industrial piping	WG 10	Service Lines
WG 11	Gas Quality	WG 12	Safety and Integrity management
WG 13	PNR H2NG/H2 in NG systems	WG 14	Methane emissions

4.2.37	CEN/TC 235	Gas pressure regulators and associated safety devices for use in gas transmission and distribution			
Creation	-	Secretary	Emanuela PISANI	Standards	2
Secretariat	Italy (UNI)	Chairperson	Luigi SCOPESI	Projects	0

Scope

Standardization of the requirements for the construction, performance, testing and marking of gas pressure regulators and associated safety devices for use in gas transmission and distribution for pressures up to 100 bar.

1 Working Group

WG 1	Safety shut-off devices, safety relief devices and small regulators with or without safety devices used in gas transmission and/or distribution.

4.2.38	CEN/TC 237	Gas meters			
Creation	-	Secretary	Danny PEACOCK	Standards	8
Secretariat	United Kingdom (BSI)	Chairperson	Jim SIBLEY	Projects	4

Scope

Standardization of the requirements for the construction, performance and safety of gas meters, including diaphragm, rotary displacement and turbine and electronic gas meters, and all associated conversion devices.

7 Working Groups

WG 2	Rotary displacement gas meters	WG 3	Turbine meters
WG 4	Associated conversion devices	WG 5	General requirements
WG 8	Diaphragm meters	WG 9	Ultrasonic gas meters
WG 10	Thermal-mass flow-meter based gas meters		

4.2.39	CEN/TC 238	Test gases, test pressures, appliance categories and gas appliance types			
Creation	-	Secretary	Eric BALCAEN	Standards	60
Secretariat	France (AFNOR)	Chairperson	Nourreddine MOSTEFAOUI	Projects	8
Scope					
Standardization of test gases, test pressures, appliance categories and gas appliance types as a reference standard to serve as the basis for the elaboration of standards for gas appliances, including mirroring the activity work of ISO/TC193 'Natural gas'.					
3 Working Groups					
WG 1	EN 437	WG 3	CEN/TR 1749 conversion into EN		
WG 2	Emission measurements				

4.2.40	CEN/TC 282	Installation and equipment for LNG			
Creation	-	Secretary	Eric BALCAEN	Standards	12
Secretariat	France (AFNOR)	Chairperson	Hervé JOURDE	Projects	4
Scope					
Developing and maintaining standards in the field of installations, equipment and procedures used for production, transportation, transfer, storage, regasification and use of LNG, taking into account the program of work of other CEN technical committees dealing with LNG. Standardization covers the supply chain from the inlet to the outlet of the relevant natural gas/LNG facilities, and comprises both onshore and offshore siting options for them. Standardization involves contribution to and adoption of ISO standards (under Vienna Agreement) as well of development of homegrown European standards. CEN/TC 282 further coordinates questions concerning LNG in the technical work of technical committees dealing with cryogenic equipment					
1 Working Group					
WG 5	Design of onshore installations				

4.2.41	CEN/TC 166	Chimneys			
Creation	-	Secretary	Javier Emilio VALENCIA	Standards	28
Secretariat	Austria (ASI)	Chairperson	Michael VERDERBER	Projects	7
Scope					
Standardization in the field of chimneys and vents used for conveying the products of combustion from appliances to outside atmosphere and the connecting pieces and ancillaries needed for their construction and operation. Structurally independent chimneys are excluded.					
1 Subcommittee (with 5 Working Groups)					
SC 2	Chimneys and their components with inner linings of metal				
4 Working Groups					
WG 1	General requirements	WG 2	Thermal and fluid dynamic calculation methods for chimneys		
WG 4	Chimneys and their components with inner linings of plastic	WG 6	Clay/Ceramic and Concrete chimneys and components		

4.2.42	ISO/TC 269		Railway applications	
Creation	2012		MEMBERS 	37 States 26 participants / 11 observers
Secretariat	Germany (DIN)			
Manager	Elena KAMPS			Luxembourg delegates: 3
Chairperson	Hiroshi TANAKA			**CFL** **Société nationale des chemins de fer luxembourgeois**: Carsten HILGERS, Ralph MUELLER, Thierry JUNG
Publications	12			
Projects	27			
Structure	5	Working Groups		
	3	Subcommittees		
	22	WG in Subcommittees		

Scope

Standardization of all systems, products and services specifically related to the railway sector, including design, manufacture, construction, operation, and maintenance of parts and equipment, methods and technology, interfaces between infrastructure, vehicles and the environment, excluding those electro-technical and electronic products and services for railways which are within the scope of IEC/TC 9.

Subcommittees

SC 1	Infrastructure	SC 2	Rolling stock
↳	*Carsten HILGERS - CFL*	↳	*Carsten HILGERS, Ralph MUELLER - CFL*
SC 3	Operations and services		
↳	*Carsten HILGERS - CFL*		

Working Groups

AG 7	Migration strategy	AG 17	Strategic liaison group
AG 18	Conformity assessment for railway quality management system	CAG 1	Chairman's Advisory Group
		WG 5	Railway quality management system

Publications	Projects	Subjects
1	0	Railway project planning process — Guidance on railway project planning
1	1	Quality management system
1	0	Plastic railway sleepers for railway applications (railroad ties)
1	7	Rail fastening systems
2	1	Heating, ventilation and air conditioning systems for rolling stock
2	2	Calculation of braking performance (stopping, slowing and stationary braking)
1	0	Recyclability and recoverability calculation method for rolling stock
1	3	Braking system
1	0	Concepts and basic requirements for the planning of railway operation in the event of earthquakes
1	2	Polymeric composite sleepers, bearers and transoms
0	2	Concrete sleepers and bearers for track
0	1	Track geometry quality
0	1	Rail Welding
0	2	Suspension components
0	1	Bodyside windows for rolling stock
0	1	Passenger seats for heavy rail rolling stock
0	1	Derailment detection systems
0	1	Driving simulator for drivers' training
0	1	Running time calculation for timetabling — Requirements

4.2.43	CEN/TC 256		Railway applications	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)			Luxembourg delegates: 4
Secretary	Klaus-Dieter LAUE			**CFL** **Société nationale des chemins de fer luxembourgeois**: Carsten HILGERS, Ralph MUELLER, Thierry JUNG, Marc KOLODKA
Chairperson	Cliff CORK			
Standards	268			
Projects	151			
Structure	11	Working Groups		
	3	Subcommittees		
	31	WG in Subcommittees		

Scope

Standardization of all applications (except electrical and electronic subjects), in the field of railways, including urban transport, specifically intended for vehicles and fixed installations.

Subcommittees

SC 1	Infrastructure	SC 2	Rolling stock products
SC 3	Rolling Stock Systems		

Working Groups

WG 1	Fire Protection	WG 3	Acoustics
WG 6	Aerodynamics	WG 7	Ride comfort
WG 10	Vehicle/Track Interaction	WG 19	Classification systems and documentation
WG 32	Gauge	↳	*Ralph MUELLER - CFL*
↳	*Marc KOLODKA – CFL*	WG 43	Ground based services
WG 44	Persons of Reduced Mobility (PRM)	WG 48	Rolling Stock Maintenance
WG 51	Advisory Group Labour Health and Safety		

Publications	Projects	Subjects
104	39	Infrastructure
53	37	Rolling stock products
54	29	Rolling Stock Systems
11	7	Fire Protection
8	4	Acoustics
5	4	Aerodynamics
1	1	Ride comfort
9	6	Vehicle/Track Interaction
11	5	Classification systems and documentation
4	5	Gauge
3	3	Ground based services
9	9	Persons of Reduced Mobility (PRM)
3	1	Rolling Stock Maintenance
25	1	Railway applications

4.2.44	CLC/TC 9X		Electrical and electronic applications for railways	
Creation	-		MEMBERS 	Europe - 34 States
Secretariat	France (AFNOR)			Luxembourg delegates: 3
Secretary	Denis MIGLIANICO			**CFL** **Société nationale des chemins de fer luxembourgeois**: Carsten HILGERS, Ralph MUELLER, Thierry JUNG
Chairperson	Pietro MARMO			
Standards	215			
Projects	35			
Structure	17	Working Groups		
	3	Subcommittees		
	26	WG in Subcommittee		

Scope

Standardization of electrical and electronic systems, equipment and associated software for use in all railway applications, whether on vehicles or fixed installations, including urban transport.

Subcommittees

SC 9XA	Communication, signaling and processing systems	SC 9XB	Electrical, electronic and electromechanical material on board rolling stock, including associated software
↳	*Carsten HILGERS – CFL*		
SC 9XC	Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations)		

Working Groups TC 9X

WG 12	Communication means between safety equipment and man machine interface	WG 15	Liaison between CEN/TC278/WG3 and IEC/TC9/WG43&46 and Modtrain FIS
WG 15-02	Workshop on railway ICT 2012	WG 15-06	ICT for Railways - 6th edition
WG 16	Survey group 16 for assessment of Modtrain functional interface specifications	WG 17	Survey group 17 for preparation of transfer of EN 50155 to SC9XB
WG 18	Railway application -- Electromagnetic compatibility (EMC)	WG 19	Alignment of prEN 50153, prEN 50388 and EN 50122
WG 21	Revision of EN 50126-1 & -2	WG 26	IT-Security / Cybersecurity in the railway sector
WG 27	Survey group Current collectors on commercial road vehicles in overhead contact line operation	WG 29	Survey Group on a "Guide to the use of EN 45545-2 and EN 45545-5 for electronic equipment on board of rolling stock".
WG 28	Survey Group on a cross functional standard on software	WG 30	Current collectors for ground-level feeding system on road vehicles in operation
WG 31	Survey Group on NiCd batteries on board of rolling stock	WG 32	Survey Group on Simulation
		WG 33	Survey group on Climate change adaptation

Publications	Projects	Subjects
67	17	CLC/TC 9X - Electrical and electronic applications for railways
29	5	CLC/SC 9XA - Communication, signaling and processing systems
52	4	CLC/SC 9XB - Electrical, electronic and electromechanical material on board rolling stock, including associated software
67	9	CLC/SC 9XC - Electric supply and earthing systems for public transport equipment and ancillary apparatus (Fixed installations)

4.2.45	IEC/TC 9		Electrical equipment and systems for railways	
Creation	1924		MEMBERS	42 States 29 participants / 13 observers
Secretariat	France (AFNOR)			Luxembourg delegates: 3
Secretary	Denis MIGLIANICO			**CFL** **Société nationale des chemins de fer luxembourgeois**: Carsten HILGERS, Ralph MUELLER, Thierry JUNG
Chairperson	Gianosvaldo PIANA FADIN			
Standards	155			
Projects	11			
Structure	38	Working Groups		

Scope

To prepare international standards for the railways field which includes rolling stock, fixed installations, management systems (including communication, signaling and processing systems) for railway operation, their interfaces and their ecological environment.
These standards cover railway networks, metropolitan transport networks (including metros, tramways, trolleybuses and fully automated transport systems) and magnetic levitated transport systems. These standards relate to systems, components and software, and they will deal with electrical, electronic and mechanical aspects, the latter being limited to items depending on electrical factors. These standards deal with electromechanical and electronic aspects of power components as well as with electronic hardware and software components

Working Groups

WG 40	Railway applications - Urban Guided Transport Management and Command/Control Systems	WG 43	Railway applications - Train communication network (TCN)
WG 46	Onboard multimedia systems for railways	WG 48	ODIS - On board Driving Information System
WG 50	Railway applications – Fixed installations – Electronic power converter	PT 62973-2	Railway applications - Batteries for auxiliary power supply systems - Part 2: Nickel Cadmium (NiCd) batteries
PT 62590-3-1	Railway applications – Fixed installations – Electronic power converters for substations – Part 3-1: AC traction applications – Electronic power compensators	PT 62973-4	Railway applications - Rolling stock - Batteries for auxiliary power supply systems - Part 4: Secondary sealed nickel-metal hydride batteries
PT 62973-3	Railway applications – Rolling stock – Batteries for auxiliary power supply systems – Part 3: Lead acid batteries	PT 63076	Railway applications – Rolling stock – Electric equipment in trolley buses – Safety requirements and current collection systems
PT 62973-5	Railway applications - Rolling stock - Batteries for auxiliary power supply systems - Part 5: Lithium-ion batteries	PT 63190	Railway applications – Fixed installations – Electric traction – Copper and copper alloy messenger wires for overhead contact line systems
PT 63341	Railway applications – Rolling stock – Fuel cell systems for propulsion - Part 1: Fuel Cell System		
MT 60349	Electric traction - Rotating electrical machines for rail and road vehicles	MT 62427	Railway applications – Compatibility between rolling stock and train detection systems
MT 62499	Railway applications - Current collection systems - Pantographs, testing methods for carbon contact strips	MT 62425	Railway applications – Communication, signalling and processing systems – Safety related electronic systems for signalling
MT 61373	Railway applications - Rolling stock equipment - Shock and vibration tests	MT 60913	Railway applications – Fixed installations – Electric traction overhead contact lines
MT 62888	Railway applications – Energy measurement on board trains	MT 62973-1	Railway applications – Rolling stock – Batteries for auxiliary power supply systems – Part 1: General requirements
MT 62486	Railway applications – Current collection systems – Technical criteria for the interaction between pantograph and overhead line (to achieve free access)	MT 62278	Railway applications – Specification and demonstration of reliability, availability, maintainability and safety (RAMS)
MT 60310	Railway applications - Traction transformers and inductors on board rolling stock	ahG 20	Study ACSEC Guide 120 in view of implications on the work of TC 9
ahG 17	Transducers for rolling stock	ahG 23	Protection against corrosion by stray current from direct current
ahG 19	Studying and reporting on ACEE Guides		
ahG 24	Durability	ahG 26	Railway applications – Coordination requirements and energy-saving performance evaluation for Energy Feedback Systems in DC Traction Power Systems
ahG 27	Technical criteria for the co-ordinations in neutral-section passing system for train		
ahG 28	Safe transmission protocol		
ahG 29	Interoperability and safety of dynamic wireless power transfer (WPT) for railways	AG SLG SG Multimedia	IEC UIC SLG Subgroup Multimedia
AG CAG	Chairman's Advisory Group	AG SLG	IEC UIC SLG (Strategic Liaison Group)
AG SLG SG OCL	IEC UIC SLG Subgroup Overhead Contact Lines	AG SLG SG Trainet	IEC UIC SLG Subgroup Trainet

Publications	Projects	Subjects
1	0	Criteria for assessing and coding of the commutation of rotating electrical machines for traction
4	0	Electric traction - Rotating electrical machines for rail and road vehicles
3	0	Electronic railway equipment - On board driving data recording system
2	0	Electronic railway equipment - On-board multimedia and telematics subsystems for railways
14	2	Electronic railway equipment - Train communication network (TCN)
1	0	Magnetic field levels generated by electronic and electrical apparatus in the railway environment with respect to human exposure - Measurement procedures
1	0	Power convertors installed on board railway rolling stock - Part 2: Additional technical information
2	0	Railway applications - Automated urban guided transport (AUGT) - Safety requirements
3	0	Railway applications - Communication, signaling and processing systems
1	0	Railway applications - Compatibility between rolling stock and train detection systems
3	1	Railway applications - Current collection systems
2	0	Railway applications - DC surge arresters and voltage limiting devices
2	0	Railway applications - Direct current signaling monostable relays
11	0	Railway applications - Electric equipment for rolling stock
1	0	Railway applications - Electric traction - Short-primary type linear induction motors (LIM) fed by power converters
12	0	Railway applications - Electromagnetic compatibility
1	0	Railway applications - Electronic equipment used on rolling stock
6	0	Railway applications - Energy measurement on board trains
6	0	Railway applications - Environmental conditions for equipment
20	0	Railway applications - Fixed installations - DC switchgear
4	1	Railway applications - Fixed installations - Electric traction
3	0	Railway applications - Fixed installations - Electrical safety, earthing and the return circuit
2	4	Railway applications - Fixed installations - Electronic power converters for substations
1	0	Railway applications - Fixed installations - Harmonization of the rated values for converter groups and tests on converter groups
5	0	Railway applications - Fixed installations - Particular requirements for AC switchgear
1	0	Railway applications - Fixed installations - Stationary energy storage system for DC traction systems
1	0	Railway applications - Fixed installations - Traction transformers
4	0	Railway applications - Insulation coordination
1	0	Railway applications - Power converters installed on board rolling stock - Part 1: Characteristics and test methods
1	0	Railway applications - Power supply and rolling stock - Technical criteria for the coordination between power supply (substation) and rolling stock
1	0	Railway applications - Procedure to determine the performance requirements for radio systems applied to radio-based train control systems
1	0	Railway applications - Radio remote control system of traction vehicles for shunting application
17	3	Railway applications - Rolling stock
7	0	Railway applications - Rolling stock equipment - Capacitors for power electronics - Part 1: Paper/plastic film capacitors
3	0	Railway applications - Specification and demonstration of reliability, availability, maintainability and safety (RAMS)
1	0	Railway applications - Supply voltages of traction systems
2	0	Railway applications - Traction transformers and inductors on board rolling stock
4	0	Railway applications - Urban guided transport management and command/control systems

4.2.46	CEN/TC 50	Lighting columns and spigots			
Creation	1969	Secretary	Frédérique RIGAH	Standards	10
Secretariat	France (AFNOR)	Chairperson	-	Projects	4

Scope

Harmonization of existing standards in the field of lighting poles up to 20 m for pedestrian, roads and open space applications. In addition to luminaries, lighting columns could support minor attachments like cameras, flowers boxes, small signs etc. Flags and cables are excluded.

3 Working Groups

WG 4	Revision of standards on design and verification	WG 6	Installation, operation and maintenance of lighting columns and spigots
WG 5	Revision of product standards		

4.2.47	IEC/TC 7	Overhead electrical conductors			
Creation	1928	Secretary	Qiu ZHENG	Standards	21
Secretariat	China (SAC)	Chairperson	Giovanni PIROVANO	Projects	5

Scope

To prepare International Standards and Specifications for fabrication and utilization of overhead electrical conductors, including:
- All types of overhead ground wires; - All shapes of round and non-round wires; - Conductors made of various metals such as aluminum, steel, copper, or composite material supporting core etc. and their combinations; - Test methods for assessment of overhead electrical conductor performance in operation; - Have the cooperation with TC11 on hardware and accessories directly connected to conductor for the purpose of maintaining electrical/mechanical continuity; - Have the cooperation with SC86A on aerial optical cables used either for phase conductors or for ground wires, such as the publication of the original OPGW standard now named IEC 60794-4.

7 Working Groups

PT 61597	Maintenance of IEC 61597/TR	MT 1	Aluminum and aluminum alloy with and without steel or alternative reinforcement stranded conductors
PT 62641	To prepare IEC 62641 Ed. 1.0		
PT 62818	IEC 62818		
PT 63089	Development of IEC 63089/Ed1	JWG 13	IEC 61284 - Requirements and tests for fittings Managed by TC 11
PT 63248	To prepare and develop IEC 63248		

4.2.48	CLC/TC 7X	Overhead electrical conductors			
Creation	-	Secretary	Andreas FUCHS	Standards	16
Secretariat	Germany (DKE)	Chairperson	Stéphane MORICE	Projects	6

Scope

Preparation and maintenance of European standards regarding fabrication, test methods and utilization of:
- all kinds of overhead electrical conductors including ground wires made of various materials (aluminum, steel, copper, composite); - all shapes of round and non-round wires for conductors and cores; - hardware directly connected to conductors.

1 Working Group

WG 01	Conductors for Overhead Lines - Characteristics of Greases (Revision of EN 50326)

4.2.49	CLC/BTTF 129-1	Thermal resistant aluminum alloy wire for overhead line conductor			
Creation	2006	Convenor	Peter FIERS	Standards	1
Secretariat	Austria (OVE)			Projects	0

Scope

To revise prEN 62004:2006 "Thermal resistant aluminium alloy wire for overhead line conductor"

4.2.50	CLC/BTTF 132-1	Aluminum conductors steel supported (ACSS type) for overhead electrical lines			
Creation	2008	Convenor	-	Standards	1
Secretariat	Spain (UNE)			Projects	0

Scope

To handle the VILAMOURA notification BT/ES0023/NOT under Spanish convenorship with participation of AT, BE, DE, FR and IT NCs

4.2.51	IEC/TC 11	Overhead lines			
Creation	-	Secretary	John DLAMINI	Standards	13
Secretariat	South Africa (SABS)	Chairperson	Giovanni PIROVANO	Projects	2

Scope

To prepare International Standards for Overhead Lines above 1 kV AC and 1.5 kV DC Nominal Voltage, excluding railway traction supports and line materials. These Standards will provide design criteria that may serve as a guide to national regulations differing from each other only in the local conditions and in the assumed safety level. These Standards will deal with mechanical loadings and strength of the line, with clearances and with tests on supports, fittings and foundations. Including design requirements for supports and foundations to be able withstand the required mechanical loadings. Excluding recommendations dealing with tests on conductors and insulators established respectively by Technical Committees Nos 7 and 36.

3 Working Groups

MT 1	Maintenance of TC 11 documents	MT 2	Maintenance of IEV 466 Parts
JWG 13	IEC 61284 - Requirements and tests for fittings linked to TC 7		

4.2.52	CLC/TC 11		Overhead electrical lines exceeding 1 kV AC (1,5 k VDC)
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	France (AFNOR)		Luxembourg delegates: 1
Secretary	Patrice MONTPELLIER		**ArcelorMittal**: Christine MOHLER
Chairperson	Hervé DUCLOUX		
Standards	29		
Projects	1		
Structure	7	Working Groups	

Scope

To prepare harmonized standard for overhead electrical lines. The standard(s) will specify the general requirements that should be met by the design and construction of an overhead line to ensure that the line is suitable for its purpose with regard to safety of persons, maintenance, operation and environmental consideration. CENELEC, CEN, IEC publications and other relevant documents have to be considered.

Working Groups

WG 08	Maintenance of CLC/TC 11 Standards	WG 08-01	Maintenance of CLC/TC 11 Standards
WG 08-02	Maintenance of CLC/TC 11 Standards	WG 08-03	Maintenance of CLC/TC 11 Standards
WG 09	Restructuring EN 50341	WG 10	Final Review EN 50341-1
↳	*Christine MOHLER - ArcelorMittal*	WG ED	Editing Committee of TC 11

Publications	Projects	Subjects
1	1	Loading tests on overhead line structures
1	0	General requirements - Common specifications
21	0	National Normative Aspects
6	0	Overhead lines

4.2.53	IEC/TC 13	Electrical energy measurement and control			
Creation	-	Secretary	Bela BODI	Standards	73
Secretariat	Hungary (MSZT)	Chairperson	Peter JENSEN	Projects	12

Scope

Standardization in the field of AC and DC electrical energy measurement and control, for smart metering equipment and systems forming part of smart grids, used in power stations, along the network, and at energy users and producers, as well as to prepare international standards for meter test equipment and methods.
Excluded: Standardization for the interface of metering equipment for interconnection lines and industrial consumers and producers (covered by TC 57).

12 Working Groups

WG 11	Electricity metering equipment	WG 14	Data exchange for meter reading, tariff and load control
WG 15	Smart Metering Functions and Processes		
JWG 16	Mapping between the common information model CIM and DLMS/COSEM data models and message profiles linked to TC 57	MT 62056-3-1	Electricity metering data exchange - The DLMS/COSEM
		PT 62056-7-5	Electricity metering - Data exchange for meter reading, tariff and load control - part 21
PT 62053-41	62053-41	PT 62056-8-20	Electricity metering data exchange - The DLMS/COSEM Suite - Part 8-80
PT 62056-8-6	Electricity metering data exchange - The DLMS/COSEM SUITE - Part 8-6	PT 62057	Test equipment, techniques and procedures for electrical energy meters
PT 62056-9-1	Electricity metering data exchange - The DLMS/COSEM SUITE - Part 9-1	PT 62057-3	Test equipment, techniques and procedures for electrical energy meters - Part 3

4.2.54	CLC/TC 13	Electrical energy measurement and control			
Creation	1988	Secretary	Joseph FRUHAUF	Standards	70
Secretariat	France (AFNOR)	Chairperson	John COWBURN	Projects	10

Scope

Standardization in the field for metering equipment and systems (using whenever possible IEC standards), including smart metering systems, for electrical energy measurement, tariff- and load control, customer information and payment, for use in power stations, along the network and at energy end users, as well as to prepare international standards for meter test equipment and methods.
Excluded: Standardization for the interface of metering equipment for interconnection lines and industrial consumers and producers requiring energy management type interfaces to the control system, covered by IEC/TC 57

1 Working Group

WG 01	Electricity meters for active energy of class a, b and c

4.2.55	IEC/TC 122	UHV AC transmission systems			
Creation	-	Secretary	Eiichi ZAIMA	Standards	4
Secretariat	Japan (JISC)	Chairperson	Bo LI	Projects	4

Scope

Standardization in the field of AC transmission technology for highest voltage of the system exceeding 800 kV, particularly the preparation of systems-oriented specifications such as those for planning, design, technical requirements, construction, commissioning, reliability, availability, operation and maintenance. Development of processes for specifying requirements and demonstrating whether the required performance of UHV systems is assured. Responsibility for equipment standards remains with product TCs, except for specific equipment which is not within the scope of an existing TC but is nevertheless essential for the UHV transmission system. The UHV AC Transmission TC will consult and coordinate with the product TCs in all systems-related aspects of equipment standards.

3 Working Groups

WG 1	System design	WG 3	Commissioning
WG 2	Substation and Transmission Line Design		

4.2.56	IEC/TC 36	Insulators			
Creation	1949	Secretary	Dan WINDMAR	Standards	50
Secretariat	Sweden (SEK)	Chairperson	Jens Martin SEIFERT	Projects	15

Scope
Standardization of insulators for high voltage systems and equipment including bushings, insulators for overhead lines and substations and their couplings.

1 Subcommittee (with 3 Working Groups)	
SC 36A	Insulated bushings

13 Working Groups			
WG 11	Revision of IEC 60815, Edition 1: Guide for the selection of insulators in respect of polluted conditions	JWG 22	Atmospheric and altitude correction Managed by TC 42
		PT 63264	Fiber optical bushings for AC voltage greater than 1000V and DC voltage greater than 1500V
MT 14	Revision of Chapter 471 of IEC 60050	MT 15	Review of IEC 61245 Ed.1.0
MT 16	Review of IEC/TS 62073	MT 17	Revision of IEC 60305 and 60433
MT 18	Revision of IEC 61109, 61466-1,-2 & IEC 62609 and IEC 61952-2	MT 19	Revision of IEC 62217
		MT 21	Revision of IEC 60120, IEC 60372 and IEC 60471
MT 20	Revision of IEC 60383-1		
MT23	Revision of IEC 60437	MT 24	Revision of IEC 62772 and IEC 61462

4.2.57	CLC/SR 36	Insulators			
Creation	1985	Secretary	Ivano VISINTAINER	Standards	37
Secretariat	Italy (CEI)	Chairperson	-	Projects	7

4.2.58	CLC/TC 36A	Insulated bushings			
Creation	1985	Secretary	Rob CARDIGAN	Standards	17
Secretariat	Belgium (CEB-BEC)	Chairperson	Volker SITTE	Projects	3

Scope
To prepare harmonized standards for bushings for use in electrical apparatus, transformers and installations.

3 Working Groups			
WG 01	Open type bushings for liquid filled transformers	WG 03	Revision of EN 50366 and EN 50386
WG 02	Plug-in type bushings for liquid filled transformers and apparatus		

4.2.59	CLC/TC 8X	System aspects of electrical energy supply			
Creation	1984	Secretary	Christian NOCE	Standards	29
Secretariat	Italy (CEI)	Chairperson	Hervé ROCHEREAU	Projects	7

Scope
To prepare the necessary standards framework and coordinate the development, in cooperation with other TC/SCs, of CENELEC standards needed to facilitate the functioning of electricity supply systems in open markets.

5 Working Groups			
WG 01	Physical characteristics of electrical energy (former BTTF 68-6)	WG 03	Requirements for connection of generators to distribution networks
WG 05	Smart grid requirements	WG AHG	Assessment of Standards for Network Code Compliance
WG 06	System aspects for HVDC grid		

4.3
INSTALLATION

ELECTRICITY

PLUMBING

HEATING

AIR CONDITIONING

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4.3.1	ISO/TC 5	Ferrous metal pipes and metallic fittings			
Creation	1947	Manager	Jie HOU	Standards	59
Secretariat	China (SAC)	Chairperson	Chao FENG	Projects	6

Scope

Standardization in the field of steel tubes, cast iron pipes, flexible metallic tubes and metallic fittings, flanges, pipe supports, pipe threads and gauges, metallic and organic coatings and protections.
Excluded: steel for tubes (ISO / TC 17); aircraft pipes (ISO / TC 20); tubes and equipment (other than flanges) pipe threads and gauging within the field of work of the petroleum and natural gas industries (ISO / TC 67); connections for fluid power systems (ISO / TC 131).

5 Subcommittees (with 8 Working Groups)

SC 1	Steel tubes	SC 5	Threaded fittings, solder fittings, welding fittings, pipe threads, thread gauges
SC 2	Cast iron pipes, fittings and their joints		
SC 10	Metallic flanges and their joints	SC 11	Metal hoses and expansion joints

1 Working Group

AG 1	Strategic Business Plan evaluation

4.3.2	CEN/TC 342	Metal hoses, hose assemblies, bellows and expansion joints			
Creation	-	Secretary	Ruth SCHNEIDER	Standards	12
Secretariat	Switzerland (SNV)	Chairperson	Rolf JANSSEN	Projects	4

Scope

Standardization in the field of metal hoses, hose assemblies, bellows and expansion joints for general applications and for specific applications as required by the market, but avoiding overlap conflict with other functional CEN/TC's.

3 Working Groups

WG 1	Hose assemblies and fittings	WG 2	Expansion joints
WG 3	Hose assemblies for gas applications		

4.3.3	ISO/TC 138	Plastics pipes, fittings and valves for the transport of fluids			
Creation	1970	Manager	Hiroshi KAMATA	Standards	330
Secretariat	Japan (JISC)	Chairperson	Toru KURITA	Projects	63

Scope

Standardization of pipes, fittings, valves and auxiliary equipment intended for the transport of fluids and made from all types of plastic materials, including all types of reinforced plastics. Metal fittings used with plastics pipes are also included. Includes - for pipes, flanges, fittings, valves and auxiliary equipment - dimensions and their tolerances; requirements for chemical, mechanical and physical properties and appropriate test methods; requirements and test methods for other properties relevant to particular applications; temperature and pressure ratings.

8 Subcommittees (with 30 Working Groups)

SC 1	Plastics pipes and fittings for soil, waste and drainage (including land drainage)	SC 2	Plastics pipes and fittings for water supplies
SC 3	Plastics pipes and fittings for industrial applications	SC 4	Plastics pipes and fittings for the supply of gaseous fuels
SC 5	General properties of pipes, fittings and valves of plastic materials and their accessories -- Test methods and basic specifications	SC 6	Reinforced plastics pipes and fittings for all applications
SC 8	Rehabilitation of pipeline systems	SC 7	Valves and auxiliary equipment of plastics materials

1 Working Group

AG 0	Advisory group

4.3.4	CEN/TC 155	Plastics piping systems and ducting systems			
Creation	1989	Secretary	Edward ZOMERS	Standards	225
Secretariat	Netherlands (NEN)	Chairperson	Monica DE LA CRUZ	Projects	56

Scope

Standardization of requirements and test methods for geometrical, chemical, physical and other characteristics of components, joints and systems;
- where "Function TC's" exist, standardization of the plastics related requirements and test methods for fitness for purpose of complete systems related to the application shall be done in liaison with these "Function TC's"; in such cases are excluded from the work of CEN/TC 155 those general requirements for fitness for purpose that are independent of the plastics materials;
- where "Function TC's" exist, standardization of the plastics related aspects of Codes of Practice and commissioning rules for specified applications shall be done in liaison with these "Function TC's"... (see resolution BT 155/1989).

20 Working Groups

WG 1	Installation outside building structures of flexible piping systems and rainwater infiltration and storage/attenuation systems	WG 6	PVC piping systems for non-pressure soil and waste discharge non-pressure rainwater discharge and solid wall non-pressure underground drainage and sewerage.
WG 8	Systems for water supply and pressure drainage and sewerage - PVC (solid wall)	WG 10	Systems of polyolefin material for soil & waste discharge and non-pressure drainage and sewerage
WG 12	Pressure systems of polyolefin material for gas supply, water supply and drainage and sewerage	WG 13	Systems with structured-wall pipes for non-pressure drainage and sewerage - PE, PP, PVC-U
WG 14	Systems of glass-reinforced thermosetting plastics for all applications - Polyester, epoxy and polyester resin based concrete	WG 16	Systems for hot and cold water applications
		WG 20	Thermoplastics ancillaries for soil and waste discharge and gravity buried drainage and sewerage systems
WG 17	Rehabilitation of pipeline systems		
WG 21	Internal CEN/TC 155 Guidance documents and templates for standards development	WG 23	Thermoplastics systems for industrial applications
WG 25	Recycling of PVC-U, PE and PP materials	WG 26	Systems for storm water handling
WG 27	Environmental aspects	WG 28	Material assessment related to long term performance of non-pressure plastic piping systems
WG 29	Non pressure hENs		
WG 30	Pressure hENs		
WG 31	CPR-water issues	WG 32	Valves

4.3.5	CEN/TC 208	Elastomeric seals for joints in pipework and pipelines			
Creation	1996	Secretary	Jacky DUNCAN	Standards	14
Secretariat	United Kingdom (BSI)	Chairperson	Julian WEST	Projects	2

Scope

Standardization of material requirements and test methods for elastomeric seals for joints and diaphragms used in systems for the conveyance of fluids, for example, cold and hot water, wastewater, gas, hydrocarbons and other fluids.

3 Working Groups

WG 1	Elastomeric seals for hot and cold water and waste water	WG 2	Elastomeric seals for gas, hydrocarbons and other fluids
WG 4	Seals and diaphragms for gas appliances and gas equipment.		

4.3.6	CEN/TC 218	Rubber and plastics hoses and hose assemblies			
Creation	-	Secretary	Mike LEGGETT	Standards	72
Secretariat	United Kingdom (BSI)	Chairperson	Melvyn VANCE	Projects	14

Scope

Preparation of European standards for rubber and plastics hoses and hose assemblies for all applications, including methods of test, taking account of work already carried out by ISO, European trade associations and national standard bodies (with the exception of firefighting hoses).

4 Working Groups

WG 1	Rubber and plastics hoses and hose assemblies for industrial, chemical and petrochemical applications	WG 2	Rubber and plastics hoses and hose assemblies for hydraulic applications
WG 5	Couplings and hose fittings	WG 4	Basic specifications and test methods for rubber and plastics hoses, hose assemblies and tubing

4.3.7	CEN/TC 74	Flanges and their joints			
Creation	1990	Secretary	Daniel PÉREZ KAISER	Standards	37
Secretariat	Germany (DIN)	Chairperson	Manfred SCHAAF	Projects	17

Scope

Standardization of flanges and their joints in pipelines and piping systems, for all applications excluding hydraulic and pneumatic load transmission. Definition of "nominal pressure" and "nominal size"; - flanges: dimensions and tolerances, selection of materials, technical conditions of delivery; - bolts, screws and nuts: selection of required bolts, screws and nuts, dimensions, technical conditions of delivery, materials; - gaskets: dimensions and tolerances, materials, technical conditions of delivery; - calculation method for flanges design; - determination of P/T ratings.

5 Working Groups

WG 2	Steel flanges	WG 9	Bolting
WG 3	Cast iron flanges	WG 10	Calculation methods
WG 8	Gaskets		

4.3.8	CEN/TC 267	Industrial piping and pipelines			
Creation	-	Secretary	Patrick AMESLON	Standards	17
Secretariat	France (AFNOR)	Chairperson	Patrick FORTERRE	Projects	14

Scope

Standardization of rules constituting a design and manufacturing code comprising the choice of materials, design, fabrication, installation, inspection and testing of industrial piping and pipeline, including the choice of safety systems. The meaning of "industrial piping" is the following: Pipes or pipe networks located on the premises of an industrial site. The meaning of "pipelines" is the following: Pipes or pipe networks located outside premises of an industrial site. The following are excluded from the scope of CEN/TC 267: - Pipelines for waste water, and piping for waste water, the latter being directly evacuated via the sewer system outside of industrial premises and/or in the environment (dealt within CEN/TC 165); - Pipelines for gaseous fuels (that is to say any fuel that is in gaseous state at a temperature of 15 °C and at a pressure of 1 bar (dealt with in CEN/TC 234); - Piping and pipelines for water for human consumption (dealt with in CEN/TC 164). Pipelines for petroleum and natural gas industries (dealt with in CEN/TC 12)

7 Working Groups

WG 1	General	WG 2	Metallic materials
WG 3	Design and calculation	WG 4	Manufacturing and installation
WG 5	Inspection and testing	WG 8	Maintenance of EN 13480 series
WG 9	Aluminum and aluminum alloy piping		

4.3.9	ISO/IIW	International Institute of Welding			
Creation	1992	Manager	Andrew DAVIS	Standards	29
Secretariat	Italy (UNI)	Chairperson	-	Projects	0

Scope

The technical field of the IIW encompasses the joining, cutting and surface treatment of metallic and non-metallic materials by such processes as welding, brazing, soldering, thermal cutting, thermal spraying, adhesive bonding, microjoining and embraces allied fields including quality assurance, non-destructive testing, standardization, inspection, health and safety, education, training, qualification, design and fabrication.

4.3.10	ISO/TC 44		Welding and allied processes	
Creation	1947	MEMBERS	66 States	
Secretariat	France (AFNOR)		29 participants / 37 observers	
Manager	Laurie JARDEL		Luxembourg delegates: 1	
Chairperson	Patrick VERRIER		**ArcelorMittal**: Mahmoud SAIED	
Publications	324			
Projects	47			
Structure	1	Working Groups		
	12	Subcommittees		
	23	WG in Subcommittees		

Scope

Standardization of welding, by all processes, as well as allied processes; these standards include terminology, definitions and the symbolic representation of welds on drawings, apparatus and equipment for welding, raw materials (gas, parent and filler metals) welding processes and rules, methods of test and control, calculations and design of welded assemblies, welders' qualifications, as well as safety and health.
Excluded: electrical safety matters related to welding which are the responsibility of IEC / TC 26.

Subcommittees

SC 3	Welding consumables	SC 5	Testing and inspection of welds
SC 6	Resistance welding and allied mechanical joining	SC 7	Representation and terms
SC 8	Equipment for gas welding, cutting and allied processes	SC 9	Health and safety
		SC 10	Quality management in the field of welding
SC 11	Qualification requirements for welding and allied processes personnel	↳	*Mahmoud SAIED- ArcelorMittal*
SC 12	Soldering materials	SC 13	Brazing materials and processes
SC 14	Welding and brazing in aerospace	SC 15	Underwater welding

Working Groups

JAG — IIW – ISO/TC 44 – CEN/TC 121 Coordination Committee

Publicat.	Projects	Subjects	Publicat.	Projects	Subjects
35	3	Welding consumables	77	19	Quality management in the field of welding
38	9	Testing and inspection of welds	12	3	Qualification requirements for welding and allied processes personnel
66	7	Resistance welding and allied mechanical joining	19	0	Soldering materials
16	2	Representation and terms	6	1	Brazing materials and processes
28	1	Equipment for gas welding, cutting and allied processes	8	2	Welding and brazing in aerospace
			2	0	Underwater welding
16	0	Health and safety	1	0	Numerical welding simulation — Execution and documentation

4.3.11	CEN/TC 121		Welding and allied processes	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)			
Secretary	Holger ZERNITZ			Luxembourg delegates: 1
Chairperson	Jochen MUSSMANN			**ArcelorMittal**: Mahmoud SAIED
Standards	336			
Projects	55			
Structure	4	Working Groups		
	1	Subcommittees		

Scope

Standardization of welding by all processes, as well as allied processes; these standards include terminology, definitions and the symbolic representation of welds on drawings, apparatus and equipment for welding, raw materials (gas, parent and filler metals) welding processes and rules, methods of test and control, design of welded joints, qualification and/or education of welding personnel, as well as safety and health.
Excluded: electrical arc welding equipment and electrical safety matters related to welding which are the responsibility of CENELEC/TC 26.

Subcommittees

SC 4	Quality management in the field of welding → *Mahmoud SAIED - ArcelorMittal*

Working Groups

WG 3	Welding consumables	WG 20	Brazing
WG 19	Equipment for gas welding, cutting and allied processes	WG 21	Testing of welds

Public.	Projects	Subjects	Public.	Projects	Subjects
7	0	Acceptance tests	1	0	Metallic materials - Method of test for the determination of quasistatic fracture toughness of welds
3	0	Approval testing of welders - Fusion welding			
1	0	Arc welding and cutting - Nonconsumable tungsten electrodes	20	4	Non-destructive testing
10	2	Brazing	1	0	Numerical welding simulation
17	5	Destructive tests on welds in metallic materials	1	0	Pneumatic cylinders for mechanized multiple spot welding
1	0	Dimensions of seam welding wheel blanks (ISO 693:1982)	1	0	Projections for resistance welding (8167:1989)
1	0	Electrode taper fits for spot welding equipment	4	1	Qualification testing of welders
1	1	Electron and laser-beam welded joints	8	6	Quality requirements for fusion welding of metallic materials
1	0	Filler metal for soldering and brazing	9	0	Resistance spot welding
1	0	Flux cored solder wire	28	3	Resistance welding
5	0	Friction stir spot welding - Aluminium	6	2	Resistance welding equipment
5	0	Friction stir welding - Aluminium	1	0	Safety of thermal cutting machines
1	0	Gas tightness of equipment for gas welding and allied processes	1	0	Ships and marine technology
25	5	Gas welding equipment	1	0	Slots in plates for projection welding machines
1	0	Graphical symbols for thermal cutting equipment	1	0	Soft solder
			16	0	Soft soldering fluxes
14	0	Health and safety in welding and allied processes	2	0	Solder wire, solid and flux cored
1	0	Insulation caps and bushes for resistance welding equipment	27	10	Specification and qualification of welding procedures for metallic materials
			2	0	Spot welding & Spot welding equipment
1	0	Mechanical joining - Destructive testing of joints	1	0	Straight resistance spot welding electrodes

4.3.12	IEC/TC 26	Electric welding			
Creation	-	Secretary	Josef FEICHTINGER	Standards	25
Secretariat	Austria (OVE)	Chairperson	David A WERBA	Projects	6
Scope					
To prepare standards for electrical safety, EMC and EMF matters related to the construction, installation and use of equipment for electric welding and allied processes in both normal and adverse welding environments, taking into account all safety aspects for protection against electrical and mechanical hazards for professional and non-professional use and all aspects to protect the environment. All electric welding processes are covered except electromagnetic processing.					
2 Working Groups					
WG 1	Safety requirements for electric welding equipment	WG 5	EMC and EMF requirements for electric welding equipment		

4.3.13	CLC/TC 26	Electric welding			
Creation	-	Secretary	Josef FEICHTINGER	Standards	31
Secretariat	Austria (OVE)	Chairperson	Geoff MELTON	Projects	6
Scope					
To prepare standards for electrical safety, EMC and EMF matters related to the construction, installation and use of equipment for electric welding and allied processes in both normal and adverse welding environments, taking into account all safety aspects for protection against electrical and mechanical hazards for professional and non-professional use and all aspects to protect the environment. All electric welding processes are covered except electromagnetic processing					
2 Working Groups					
WG 1	Safety requirements for electric welding equipment	WG 5	EMC and EMF requirements for electric welding equipment		

4.3.14	ISO/TC 153	Valves			
Creation	1971	Manager	Hélène CROS	Standards	28
Secretariat	France (AFNOR)	Chairperson	Jacques PETERSCHMITT	Projects	8
Scope					
Standardization in the field of industrial valves, valve actuators including their attachments, and steam traps. The standardization to include parameters covering interchangeability, valve mating details for actuator mounting, testing, marking, quality requirements, terminology and other relevant parameters. Excluded : safety and relief valves and other pressure relief devices which are the responsibility of ISO/TC 185; production valves for wellhead equipment and valves for cross country pipelines for the petroleum and natural gas industries which are the responsibility of ISO/TC 67; valves forming the final control element used for industrial process control systems which are the responsibility of IEC/TC 65; valves having an envelope predominantly made of plastics which are the responsibility of ISO/TC 138; valves for sanitary use; solenoids.					
10 Working Groups					
WG 1	Valve actuators and valve actuators attachments	WG 5	Fugitive emissions		
WG 9	Face-to-face and centre-to-face dimensions	WG 10	Industrial valves - Type-testing of valves		
WG 11	Butterfly valves	WG 12	Isolating valves for low-temperature applications		
WG 13	Steel gate valves	WG 14	Fire-type testing		
WG 15	Automatic steam traps	WG 16	Valve actuation		

4.3.15	CEN/TC 69		Industrial valves
Creation	-	MEMBERS	Europe - 34 States
Secretariat	France (AFNOR)		Luxembourg delegates: 1
Secretary	Helene CROS		
Chairperson	Pascal VINZIO		**Sisto Armaturen**: Robert BRITZ
Standards	81		
Projects	18		
Structure	5	Working Groups	

Scope

The standardization of valves for all industrial applications and for all types of fluids, including:
- steam traps; - valve actuator interface; - safety devices against excessive pressure (safety valves and bursting disks); - control valves (excluding the actuator element and their interface).
But excluding sanitary valves (as defined by CEN/TC 164/WG 8).

Working Groups

WG 1	Basic standards	WG 4	Butterfly valves
↳	*Robert BRITZ - Sisto Armaturen*	WG 10	Safety devices against excessive pressure
WG 12	Valves for the process industry	WG 15	Diaphragm valves
		↳	*Robert BRITZ - Sisto Armaturen*

Public.	Projects	Subjects
5	1	Automatic steam traps
1	0	Bolted bonnet steel gate valves for the petroleum, petrochemical and allied industries
0	1	Electric actuators for industrial valves
1	0	Industrial process control valves
4	3	Actuators
2	0	Ball valves of thermoplastics materials
1	0	Butt welding ends for steel valves
2	0	Butterfly valves of thermoplastics materials
2	0	Cast iron gate valves
2	0	Check valves of thermoplastics materials
2	0	Copper alloy ball valves
3	0	Diaphragm valves
2	0	End-to-end and centre-to-end dimensions
1	1	Face-to-face and centre-to-face dimensions of metal valves
0	1	Functional safety of safety-related valves and actuators
2	0	Gate valves of thermoplastics materials
1	0	Gearbox for valves
2	0	Globe valves of thermoplastics materials
2	1	Isolating valves for low-temperature applications
1	1	Marking of metallic valves
3	0	Measurement, test and qualification procedures for fugitive emissions
0	1	Metallic ball valves
1	1	Metallic butterfly valves for general purposes
1	0	Metallic check valves
0	1	Metallic diaphragm valves

Public.	Projects	Subjects
1	0	Method for sizing the operating element
1	0	Mounting kits for part-turn valve actuator attachment
1	0	Multi-turn valve actuator attachments
1	0	Part-turn actuator attachments
1	0	Performance characteristics of thermoplastic valves used as construction products
1	0	Protective caps for valves with flanged connections
1	1	Requirements and testing for metallic valves as pressure accessories
5	1	Shell design strength
1	0	Socket welding ends for steel valves
1	0	Steel ball valves
1	0	Steel gate valves
1	0	Steel globe and globe stop and check valves
1	0	Test of flow resistance using water as test fluid
2	0	Testing of metallic valves
1	0	Metal ball valves for petroleum, petrochemical and allied industries
11	2	Safety devices for protection against excessive pressure
1	1	Testing of valves - Fire type-testing requirements
2	1	Thermoplastics valves
3	0	Valves - Terminology
1	0	Valves for gas distribution systems with maximum operating pressure less than or equal to 16 bar
1	0	Valves for natural gas transportation in pipelines
7	0	Valves for water supply

4.3.16	CEN/TC 197	Pumps			
Creation	-	Secretary	Sandra Eveline BRITO	Standards	42
Secretariat	France (AFNOR)	Chairperson	Guillaume PINTRAND	Projects	6

Scope
Standardization in the field of safety and all other aspects of pumps and pumping machinery for liquids including machines using pumps for their principal mode of action.

5 Working Groups			
WG 1	Water pumps efficiency	WG 2	Circulation pumps
WG 5	High-pressure water jet machines - Safety requirements	WG 6	Vehicle cleaning appliances safety standard
		WG 7	Pumps and pump units for liquids

4.3.17	ISO/TC 86	Refrigeration and air-conditioning			
Creation	1957	Manager	Ryan SHANLEY	Standards	41
Secretariat	United States (ANSI)	Chairperson	Drake ERBE	Projects	20

Scope
Standardization in the fields of refrigeration and air-conditioning, including terminology, mechanical safety, methods of testing and rating equipment, measurement of sound levels, refrigerant and refrigeration lubricant chemistry, with consideration given to environmental protection. The scope includes factory-assembled air-conditioners (cooling), heat pumps, dehumidifiers, refrigerants, and refrigerant reclaiming and recycling equipment as well as other devices. Components and equipment such as humidifiers, ventilation equipment and automatic controls used in air-conditioning and refrigeration systems that are not covered by other ISO technical committees.

5 Subcommittees (with 15 Working Groups)			
SC 1	Safety and environmental requirements for refrigerating systems	SC 7	Testing and rating of commercial refrigerated display cabinets
SC 4	Testing and rating of refrigerant compressors	SC 6	Testing and rating of air-conditioners and heat pumps
SC 8	Refrigerants and refrigeration lubricants		

4.3.18	CEN/TC 44	Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption			
Creation	1993	Secretary	Paola VISINTIN	Standards	13
Secretariat	Italy (UNI)	Chairperson	Davide ZANNESE	Projects	5

Scope
Standardization of Appliances and Systems for refrigeration for preparation, catering retail and wholesale of food and beverage related products such as: - refrigerated & frozen food display cabinets with or without incorporate condensing unit; - refrigerators & frozen food storage cabinets, Walk In Cold Room, ice maker and ice cream machines; - refrigeration systems composed of remote elements with respect to performance requirements and related test methods, requirements and test methods for determination of energy consumption; Industrial scale production plants are excluded. Condensing Units and Chillers appliances are excluded. Safety and Environmental matters are excluded.

6 Working Groups			
WG 1	Commercial refrigerated display cabinets	WG 5	Refrigerated display cabinets for artisan and self-made gelato
WG 2	Service refrigerated cabinets and counters for use in commercial kitchens	WG 6	Commercial beverage coolers and ice cream freezers
WG 4	Walk-in cold rooms	WG 7	Walk-in cold rooms packaged Refrigerating Units

4.3.19	CEN/TC 182	Refrigerating systems, safety and environmental requirements			
Creation	-	Secretary	Kim IHLOW	Standards	16
Secretariat	Germany (DIN)	Chairperson	Bernhard SCHREMPF	Projects	12

Scope

Standardization of requirements in the field of safety and environment for the design, construction, installation, testing, operation, maintenance, repair and disposal of refrigerating systems used for cooling and/or heating.
Performance of Appliances and Systems for refrigeration for preparation, catering retail and wholesale of food and beverage related products are excluded.
Standardization of requirements in the field of safety and environment for the design, construction, installation, testing, operation, maintenance, repair and disposal of refrigerating systems used for cooling and/or heating.

7 Working Groups

WG 2	Design and testing	WG 4	Competence
WG 6	Revision of EN 378	WG 7	JWG CEN/TC 182/CEN/TC 54 Pressure vessels for refrigerating systems
WG 9	Tightness of components		
WG 11	Revision of EN 14624	WG 12	Flammable Refrigerants Standardization Request M/555

4.3.20	CEN/TC 232	Compressors, vacuum pumps and their systems			
Creation	-	Secretary	Sara BERGGREN	Standards	5
Secretariat	Sweden (SIS)	Chairperson	-	Projects	1

Scope

Standardization in the field of compressors and vacuum pumps, portable and stationary, for all compressible gases, and their systems.
This work does not apply to sealed motor compressors used in refrigerating and heat pump systems in which the refrigerant is evaporated and condensed in a closed circuit. (Covered by CEN/TC 182).

4.3.21	CEN/TC 113	Heat pumps and air conditioning units			
Creation	-	Secretary	Rafael POSTIGO	Standards	17
Secretariat	Spain (UNE)	Chairperson	Federico MUNOZ SANCHEZ	Projects	12

Scope

Standardization of testing and requirements for the performance of factory assembled heat pumps, air conditioning units (ducted and non-ducted), hydronic room fan coil units, and liquid chilling packages whether vapor compression or sorption, regardless of energy used, for domestic or commercial purposes excluding industrial processes and also excluding the rational use of gas energy which is within the scope of CEN/TC 299.
Also the standardization of rating conditions, performance testing and the presentation of data of refrigerant compressors and condensing units.

8 Working Groups

WG 6	Refrigerant compressors - Presentation of performance data	WG 7	Heat Pumps, air conditioners and chilling liquid packages - testing and rating at part load conditions
WG 8	Rating and testing for performance	WG 9	Sound rating of heat pumps, air conditioners and liquid chilling packages
WG 10	Heat pumps for domestic hot water production and revision of EN 16147	WG 11	Direct expansion-to-water units
WG 14	Hydronic fan coil units	WG 15	Roof-top units

4.3.22	CEN/TC 228	Heating systems and water based cooling systems in buildings			
Creation	2004	Secretary	Igor ERDLE	Standards	43
Secretariat	Germany (DIN)	Chairperson	Bert OSCHATZ	Projects	15

Scope

Standardization of functional requirements for all types of heating systems, including domestic hot water production, water based cooling emission and distribution systems in buildings and power generation systems in the direct environment of the building.

Furthermore standardization in relation to energy performance of buildings. The work includes:

- General performance requirements for heating systems; - General requirements for design of heating systems, water based cooling systems and power generation systems; - Requirements for installation and commissioning, including system tests on the heating and water based cooling system as a whole; - Requirements for preparation of instructions for operation, maintenance and use of heating and water based cooling systems; - Requirements for inspection of heating systems; - Methods for calculation of design heat loads, as basis for sizing of heating equipment; - Methods for calculation of energy use of heating systems, water based cooling systems and power generation systems in the direct environment of the building (e.g. wind power, thermo solar and photovoltaic), including energy economy and environmental impact, as basis for supporting energy performance criteria and/or energy certification of heating systems, water based cooling systems and power generation systems on building or building unit level; - Assessment of energy performance of district heating and cooling systems; - Co-operation with other CEN/TCs (such as CEN/TC 156) responsible for related systems and products in order to establish a common terminology and a common set of technical parameters that can be used for both product declaration and design information.

The wind turbines handled by CEN/TC 228 are small plants as they may occur in domestic production and use of electricity in connection with buildings. The same applies to photovoltaic; CEN/TC 228 describes a process by which electrical energy, which is produced by building integrated or additive photovoltaic systems in the direct environment of the building, is determined.

Not covered are: - requirements on products such as heating and cooling units, wind power units and photovoltaic units which are in the responsibility of dedicated Technical Committees; - cooling generation systems (covered by CEN/TC 156); - calculation of cooling load (covered by CEN/TC 156).

2 Working Groups

WG 1	General performance requirements of heating systems and sub-systems in buildings	WG 4	Calculation methods and system performance and evaluation

4.3.23	CEN/TC 156	Ventilation for buildings			
Creation	-	Secretary	Nyomee HLA-SHWE TUN	Standards	76
Secretariat	United Kingdom (BSI)	Chairperson	Alan GREEN	Projects	27

Scope

Standardization of terminology, testing and rating methods, dimensioning and fitness for purpose of natural and mechanical ventilation systems and components for buildings subject to human occupancy.

16 Working Groups

WG 1	Terminology	WG 3	Ductwork
WG 2	Natural and mechanical powered residential ventilation	WG 4	Air terminal devices
WG 5	Air handling units	WG 8	Installation
WG 9	Fire precautions for air distribution systems in buildings	WG 17	Fans
WG 14	Ventilation of commercial kitchens	WG 18	Ventilation in hospitals
WG 16	Joint Working Group between CEN/TC 156 and CEN/TC 113 - Multifunctional balanced ventilation units for single family dwellings, including heat pumps	WG 19	Joint Working Group between CEN/TC 156, CEN/TC 169 and CEN/TC 371 - Revision of EN 15251:2007
WG 20	Ventilation and Room-Conditioning Systems in non-Residential Buildings	WG 21	Energy performance calculation of ventilation and cooling systems
WG 23	Ventilation for Buildings - Inspection and checking	WG 24	Chairman Advisory Group

4.3.24	CEN/TC 247	Building Automation, Controls and Building Management			
Creation	-	Secretary	Barbara MULLIS	Standards	33
Secretariat	Switzerland (SNV)	Chairperson	Tor HOEL	Projects	14

Scope

Standardization of building automation, controls and building management systems and services for residential and non-residential buildings. These standards include the definitions, requirements, functionality and test methods of building automation products and systems for automatic control of building services installations. The primary integration measures include application interfaces, systems and services to ensure an efficient technical building management in cooperation with commercial and infrastructural building management.
Excluded from this scope are areas of building automation, which are under the responsibility of other CEN/CENELEC TC's.

2 Working Groups

WG 4	Open System Data Transmission	WG 6	Electronic control equipment for HVAC applications, integrated room automation, controls and management systems

4.3.25	CEN/TC 57	Central heating boilers			
Creation	-	Secretary	Maximilian MÜLLER	Standards	12
Secretariat	Germany (DIN)	Chairperson	Wolfgang HORMEL	Projects	5

Scope

To establish European Standards with regard to constructional and performance requirements as well as efficiency tests for liquid and solid fuel-fired central heating boilers as well as boiler bodies of gas-fired central heating boilers to be equipped with a forced draught burner, oil fired air-heaters, heat storage units and hot water performance requirements (regarding efficiency) of storage tanks as part of a hot water storage system.

9 Working Groups

WG 1	Central heating boilers for solid fuels	WG 5	Heating boilers for fuel oil
WG 2	Requirements for efficiency and emission and test methods for central heating boilers	WG 6	Airborne noise emissions
		WG 7	Pellet burners
WG 3	Oil-fired air heaters	WG 8	Energy efficiency requirements for warm water storage tanks
WG 4	Low pressure boilers	WG 9	Electrical power consumption for heat generators

4.3.26	CEN/TC 109	Central heating boilers using gaseous fuels			
Creation	-	Secretary	Edward ZOMERS	Standards	14
Secretariat	Netherlands (NEN)	Chairperson	Mindert VAN RIJ	Projects	8

Scope

All the gas-fired central heating boilers, including the boilers of the condensing type, with or without integrated domestic hot water production, of all types and all nominal inputs, i.e.:
- the boilers fitted with atmospheric burners or premixed burners (fan-assisted or not); - the units composed of a boiler body and its fan-assisted burner, constituting an indissociable entity; - the assembling of a boiler body (according to the requirements prescribed by the CEN/TC 57) and a fan-assisted burner (according to the requirements prescribed by the CEN/TC 131), but only for the specific characteristics suited to the utilization of gaseous fuels.

5 Working Groups

WG 1	Domestic central heating boilers using gaseous fuels	WG 3	Assembly of boiler bodies and forced draught burners
WG 4	Hot water production of central heating boilers for domestic use	WG 5	Steering Group ECOTEST
		WG 6	Material efficiency

4.3.27	CEN/TC 180	Decentralized gas heating			
Creation	-	Secretary	Nicolas MARCQ	Standards	5
Secretariat	France (AFNOR)	Chairperson	Edgar REROLLE	Projects	0

Scope
To prepare standards for: a) non-domestic, overhead, gas-fired radiant tube heaters; b) non-domestic, overhead, gas-fired radiant luminous heaters; c) domestic and non-domestic gas-fired air heaters intended for installation with or without air distribution ducts.

3 Working Groups			
WG 1	Non-domestic gas-fired overhead radiant tube and luminous heaters - Safety and Efficiency.	WG 3	Non-domestic gas fired overhead radiant strips and continuous radiant tube heaters - Safety and Efficiency
WG 2	Gas fired air heaters - Safety and Efficiency		

4.3.28	CEN/TC 58	Safety and control devices for burners and appliances burning gaseous or liquid fuels			
Creation	1991	Secretary	Neil YOUNG	Standards	15
Secretariat	United Kingdom (BSI)	Chairperson	Johan HEPPING	Projects	18

Scope
Safety and control devices for equipment burning gaseous or liquid fuels, ranging from small domestic appliances to large industrial burners. Excluded: mechanical controls other than gas controls and devices for transmission and distribution equipment.

4 Working Groups			
WG 11	Generics	WG 13	Mechanics
WG 12	Electronics	WG 14	Sensors

4.3.29	CEN/TC 62	Independent gas-fired space heaters			
Creation	-	Secretary	Danny PEACOCK	Standards	10
Secretariat	United Kingdom (BSI)	Chairperson	Steven SUTTON	Projects	3

Scope
Preparation of standards for independent gas-fired space heaters and decorative fuel effect appliances. Excluded: dedicated LPG appliances.

1 Working Group	
WG 3	Chairman's Advisory Group

4.3.30	CEN/TC 48	Domestic gas-fired water heaters			
Creation	-	Secretary	Sylvie FERNANDEZ	Standards	2
Secretariat	France (AFNOR)	Chairperson	-	Projects	2

Scope
Preparation of European standards for domestic gas-fired water heaters, i.e. instantaneous water heaters and storage water heaters Excluded: central heating boilers derived from these appliances and appliances combining these two preceding types.

1 Working Group	
WG 1	Revision of EN 26 and EN 89

4.3.31	CEN/TC 269	Shell and water-tube boilers			
Creation	-	Secretary	Daniel Pérez KAISER	Standards	28
Secretariat	Germany (DIN)	Chairperson	-	Projects	23
Scope					
Standardization of rules for the design, manufacture, materials, equipment and testing of shell boilers and water-tube boilers.					
2 Working Groups					
WG 1	Water-tube boilers	WG 2	Shell boilers		

4.3.32	CEN/TC 295	Residential solid fuel burning appliances			
Creation	-	Secretary	Mick MAGHAR	Standards	23
Secretariat	United Kingdom (BSI)	Chairperson	-	Projects	12
Scope					
Standardization in the field of residential heating and cooking appliances burning solid fuels: to include solid mineral fuel burning appliances, wood- burning appliances and multi-fuel appliances. The standardization to cover appliance construction, performance, (e.g. efficiency and emissions), safety and commissioning requirements, together with their associated test methods and installation and operating instructions. The standardization of test fuels and test methods for the assessment of the suitability of fuels for the various appliance types.					
6 Working Groups					
WG 1	Appliances fired by solid fuels	WG 2	Appliances fired by pellets		
WG 3	Heat storage stoves (SHRA) and sauna stoves	WG 4	Tiled Stoves		
WG 5	Measurement methods	WG 6	CPR and Mandates		

4.3.33	CEN/TC 176	Thermal energy meters			
Creation	-	Secretary	Lisa ALMKVIST	Standards	8
Secretariat	Sweden (SIS)	Chairperson	Michael NIELSEN	Projects	5
Scope					
Standardization in the field of heat meters, including requirements for accuracy, construction and testing. The scope includes recommendations for installation, commissioning and operation. All types, sizes and working principles are included.					
1 Working Group					
WG 2	Thermal energy meters - Requirements, test methods and technical editing				

4.3.34	CEN/TC 46	Fireplaces for liquid fuels			
Creation	-	Secretary	Veronique MÜLLER	Standards	2
Secretariat	Germany (DIN)	Chairperson	Volker SCHMATLOCH	Projects	0
Scope					
Standardization in the field of fireplaces for liquid fuels, this includes oil stoves (oil stoves with vaporizing burners) and appliances operated with ethanol (liquid or gel). The standardization covers appliance construction, performance, (e.g. efficiency and emissions), safety and commissioning requirements, together with their associated test methods and installation and operating instructions.					
2 Working Groups					
WG 1	Oil stoves with vaporizing burners	WG 2	Fireplaces for Ethanol/Gel		

4.3.35	CEN/TC 297	Free-standing industrial chimneys			
Creation	-	Secretary	Svitlana GRAND-CHAVIN	Standards	9
Secretariat	France (AFNOR)	Chairperson	Jean-Jacques ADAM	Projects	5

Scope

Standardization in the field of free-standing chimneys for industrial and utility applications including terminology, performance requirements, safety aspects, design as far as not covered by the Eurocodes, construction and maintenance of the shell, lining and accessories. A chimney may also be considered as freestanding, if it is guyed or supported or if it stands on another structure. All flue gas ducts to the chimney are outside the scope.
Note: "Utility applications" can include schools, hospitals, assembly rooms, theatres, swimming pools, prisons etc.

4.3.36	CEN/TC 236	Non industrial manually operated shut-off valves for gas and particular combinations valves-other products			
Creation	-	Secretary	Emanuela PISANI	Standards	2
Secretariat	Italy (UNI)	Chairperson	Renato BROCCHETTA	Projects	0

Scope

Standardization of the requirements for fitness for purpose (for design, performance, testing, marking, packing, instructions for installation and use) of manually operated shut-off valves for domestic and commercial not directly buried installations inside or outside of buildings, and other particular types of valves strictly combined to particular products or component considered as a whole (e.g. safety flexible metallic hose assemblies and connection valves for domestic gas appliances).

1 Working Group

WG 1	Revision of existing standards

4.3.37	IEC/TC 82	Solar photovoltaic energy systems			
Creation	-	Secretary	George KELLY	Standards	155
Secretariat	United States (ANSI)	Chairperson	Michio KONDO	Projects	73

Scope

To prepare international standards for systems of photovoltaic conversion of solar energy into electrical energy and for all the elements in the entire photovoltaic energy system.
In this context, the concept "photovoltaic energy system" includes the entire field from light input to a photovoltaic cell to and including the interface with the electrical system(s) to which energy is supplied.
NOTE: It is recognized that there is some common interest between TC 47 and TC 82, therefore these two Committees shall maintain liaison.

14 Working Groups

WG 1	Glossary	WG 2	Modules, non-concentrating
WG 3	Systems	WG 6	Balance-of-system components
WG 7	Concentrator modules	WG 8	Photovoltaic (PV) cells
WG 9	BOS Components – Support Structures	JWG 1	Photovoltaic off grid systems, including decentralized rural electrification and hybrid systems linked to TC 88
JWG 4	Grid code compliance assessment for grid connection of wind and PV power plants Managed by SC 8A	JWG 10	Distributed energy resources connection with the grid Managed by TC 8
JWG 5	System issues regarding integration of wind and PV generation into bulk electrical grid Managed by SC 8A	JWG 32	Electrical safety of PV system installations Managed by TC 64
PT 63092	Building Integrated Photovoltaics (BIPV)		

4.3.38	CLC/TC 82	Solar photovoltaic energy systems			
Creation	-	Secretary	Giovanni MANZINI	Standards	106
Secretariat	Italy (CEI)	Chairperson	Francesco GROPPI	Projects	27

Scope

To prepare European Standards for systems of and components for photovoltaic conversion of solar energy into electrical energy and for all elements in the entire photovoltaic energy system.
The standards will deal with EMC, Machine, CPD and LVD directives. The CLC/TC 82 will especially develop standards in areas where there are special European concerns.
The CLC/TC 82 will cooperate closely with IEC TC 82 and the National Committees. The aim will be to support the accelerated market introduction by harmonization of standards.

2 Working Groups

WG 1	Wafers, cells and modules	WG 2	Bos components and systems

4.3.39	ISO/TC 180	Solar energy			
Creation	1980	Manager	Erandi CHANDRASEKARE	Standards	19
Secretariat	Australia (SA)	Chairperson	Korbinian KRAMER	Projects	6

Scope

Standardization in the field of solar energy utilization in space and water heating, cooling, industrial process heating and air conditioning.

2 Subcommittees (with 2 Working Groups)

SC 1	Climate - Measurement and data	SC 4	Systems - Thermal performance, reliability and durability

3 Working Groups

WG 1	Nomenclature	WG 3	Collector components and materials
WG 4	Solar collectors		

4.3.40	CEN/TC 312	Thermal solar systems and components			
Creation	-	Secretary	Vassiliki DROSOU	Standards	13
Secretariat	Greece (NQIS/ELOT)	Chairperson	Harry MICHALOPOULOS	Projects	4

Scope

Preparation of European Standards to cover terminology, general requirements, characteristics, test methods, conformity evaluation and labelling of thermal solar systems and components.

3 Working Groups

WG 1	Solar collectors	WG 3	Thermal solar systems and components; Custom built systems
WG 2	Factory made systems		

4.3.41	IEC/TC 117	Solar thermal electric plants			
Creation	-	Secretary	Lourdes GONZÁLEZ MARTÍNEZ	Standards	5
Secretariat	Spain (UNE)	Chairperson	Werner PLATZER	Projects	6

Scope

To prepare international standards for systems of Solar Thermal Electric (STE) plants for the conversion of solar thermal energy into electrical energy and for all the elements (including all sub-systems and components) in the entire STE energy system. The standards would cover all of the current different types of systems in the STE field, as follows: - Parabolic trough; - Solar tower; - Linear Fresnel; - Dish; - Thermal storage.
The standards would define terminology, design and installation requirements, performance measurement techniques and test methods, safety requirements, "power quality" issues for each of the above systems.
The standards would also address issues of connectivity and interoperability with the power grid related to connections, bi-directional communicates and centralized control (Smart Grid) and environmental aspects.

8 Working Groups

PT 62862-1-1	Project Teams	PT 62862-1-4	Solar thermal electric plants - Part 1-4: Thermal insulation for solar thermal electric plants
PT 62862-2-1	Solar thermal electric plants - Part 2-1: Thermal energy storage systems - General characterization	PT 62862-3-1	Solar thermal electric plants - Part 3-1: General requirements for the design of parabolic trough solar thermal electric plants
PT 62862-3-3	Solar thermal electric plants - Part 3-3: Systems and components - General requirements and test methods for solar receivers	PT 62862-3-4	Solar thermal electric plants - Part 3-4: Code of solar field performance test for parabolic trough solar thermal power plant
PT 62862-4-1	Solar thermal electric plants - Part 4-1: General requirements for the design of solar tower plants	PT 62862-5-2	Solar thermal electric plants - Part 5-2: Linear Fresnel systems - General requirements and test methods for linear Fresnel collectors

4.3.42	CLC/SR 117	Solar thermal electric plants			
Creation	-	Secretary	Carmen Martin	Standards	1
Secretariat	Spain (UNE)	Chairperson	-	Projects	0

4.3.43	ISO/TC 274	Light and lighting			
Creation	2012	Manager	Juliane GOMILLE	Standards	8
Secretariat	Germany (DIN)	Chairperson	Ad DE VISSER	Projects	4

Scope

Standardization in the field of application of lighting in specific cases complementary to the work items of the International Commission on Illumination (CIE) and the coordination of drafts from the CIE, in accordance with the Council Resolution 42/1999 and Council Resolution 10/1989 concerning vision, photometry and colorimetry, involving natural and man-made radiation over the UV, the visible and the IR regions of the spectrum, and application subjects covering all usage of light, indoors and outdoors, energy performance, including environmental, non-visual biological and health effects and lighting related information modelling systems.

6 Working Groups

CAG	Chair advisory group	WG 2	Commissioning process of lighting systems
JAG	Joint Advisory Group (ISO/TC274 – CIE)	JWG 4	Integrative lighting (joint working group with CIE-JTC 14)
JWG 1	Energy performance of lighting in buildings (joint working group with CIE-JTC 6)	JWG 5	Lighting for work places (joint working group with CIE-JTC 15)

4.3.44	CEN/TC 169	Light and lighting			
Creation	1989	Secretary	Juliane GOMILLE	Standards	22
Secretariat	Germany (DIN)	Chairperson	Soheil MOGHTADER	Projects	6

Scope

CEN/TC 169 is responsible for standards in the field of vision, photometry and colorimetry, involving natural and man-made optical radiation over the UV, the visible and the IR regions of the spectrum, and application subjects covering all usages of light, indoors and outdoors, including environmental, energy and sustainability requirements and aesthetic and non-image forming biological aspects.

11 Working Groups

WG 1	Basic terms and criteria	WG 2	Lighting of work places
WG 3	Emergency lighting in buildings	WG 4	Sports lighting
WG 6	Tunnel lighting	WG 7	Photometry
WG 8	Photobiology	WG 9	Energy performance of buildings
WG 11	Daylight	WG 12	Joint Working Group with CEN/TC 226 - Road lighting
WG 13	Non-visual effects of light on human beings		

4.3.45	CLC/SR 97	Electrical installations for lighting and beaconing of aerodromes			
Creation	-	Secretary	-	Standards	11
Secretariat	Spain (UNE)	Chairperson	-	Projects	1

4.3.46	IEC/TC 97	Electrical installations for lighting and beaconing of aerodromes			
Creation	-	Secretary	Marcos RODRÍGUEZ VARA	Standards	8
Secretariat	Spain (UNE)	Chairperson	Sébastien MIROUZE	Projects	4

Scope

To prepare international standards for design, installation, verification and maintenance of aeronautical ground lighting of aerodromes. The activity covers requirements which apply to the whole system from the incoming power to the aerodrome up to and including the luminaires used in aeronautical ground lighting.

The activity will not cover:

- electrical installations already standardized by TC 64;
- luminaires not used as aeronautical ground lights standardized by TC 34;
- special cables for the constant current series circuit standardized by TC 20.

Note. - Operational requirements for aeronautical ground lights are specified in Annex 14 to the Convention on International Civil Aviation.

6 Working Groups

PT 61820	Electrical installation for the lighting and beaconing of aerodromes- Constant current series circuits for aeronautical ground lighting- System design and installation requirements	MT 1	Maintenance of IEC 61822: Electrical installations for lighting and beaconing of aerodromes - Constant current regulators
PT 63067	Electrical installations for lighting and beaconing of aerodromes - Connecting devices - General requirements and tests	MT 2	Maintenance of IEC 61823: Electrical installations for lighting and beaconing of aerodromes - AGL series transformers
PT 61820-9-2	Electrical installation for lighting and beaconing of aerodromes – Mobile photometric in-field measurement of precision approach and runway light fixtures	MT 3	Maintenance of IEC 62870: Electrical installations for lighting and beaconing of aerodromes - Safety secondary circuits in series circuits - General safety requirements

4.3.47	IEC/TC 34	Lighting			
Creation	-	Secretary	Petar LUZAJIC	Standards	581
Secretariat	United Kingdom (BSI)	Chairperson	Andreas SCHOLTZ	Projects	76

Scope

To map and maintain the standardization structure and to prepare, review and maintain international standards and related IEC deliverables regarding safety, performance and compatibility specifications for:
a) Electric lamps and electric light sources - b) Caps and holders
c) Control gear and control devices for electric lamps, electric light sources, and electronic lighting equipment - d) Luminaires - e) Lighting systems - f) Miscellaneous equipment related to items a), b), c), d) and e)
A lighting system is a combination of light sources, luminaires and related equipment interacting together to satisfy lighting application requirements such as human comfort, safety, the surrounding environment, and energy consumption. The lighting system may serve for visual function, or non-visual function. The lighting system can include physical components, communication between components, user interfaces, software and networks to provide central control and monitoring functions. A definition of the term "lighting system" is under development in WG 14. Compatibility specifications may include requirements necessary for coexistence, interoperability and interchangeability between components in a lighting system. It is recognized that the border of TC 34 product responsibility, the interfaces and protocols to other products, and committees internal and external to IEC may need to be specified. For lighting systems within building premises, TC 34 is responsible for light sources, luminaires, control gear, dedicated protocols, and certain aspects of dedicated networks.

4 Subcommittees (with 13 Working Groups)

SC 34A	Electric light sources	SC 34C	Auxiliaries for lamps
SC 34B	Lamp caps and holders	SC 34D	Luminaires

15 Working Groups

WG 5	EMX	WG 7	Insulation Co-ordination
WG 11	Control Interface	WG 14	Lighting Systems
WG 19	Horticultural lighting	PT 63116	Lighting systems - General requirements
PT 63117	General requirements for lighting systems - Safety	JWG 21	Photobiological safety of light sources and luminaires emitting visible light linked to TC 76
MT 2	Terminology	AG 1	Chair's Advisory Group
AG 4	Lighting Systems	AG 13	IEC adoption of Zhaga publications
AG 17	UV-C radiation for disinfection and germicidal purposes	AG 20	Environmental Aspects
		ahG 18	Maintenance of IEC 60061 series

4.3.48	CLC/TC 34	Lamps and related equipment			
Creation	-	Secretary	Anita ATTRA	Standards	474
Secretariat	United Kingdom (BSI)	Chairperson	Eike FRIEDRICHS	Projects	84

Scope

To prepare European standards based on concluded International Standards in the field of - electrical light sources including lamps. - lamp caps and holders - lamp control gear - luminaires
To ensure that any deviation from the IEC standards, such as common modifications, special national conditions and A-deviations, is only in response to a clear and justifiable European need, such as European mandates and European and national legislative needs.
To coordinate the work with other standardization organizations at European level, taking responsibility for applicable mandates from the European Commission and developing European standards only when necessary.
To coordinate with IEC/TC 34 and its subcommittees to encourage the inclusion of European requirements in IEC standards within the responsibility of IEC/TC 34 and its subcommittees in order to avoid Common Modifications when adopted by CENELEC

1 Working Group

WG 01	to revise EN 50172:2004

4.3.49	ISO/CIE	International Commission on Illumination			
Creation	1992	Manager	Kathryn NIELD	Standards	13
Secretariat	Austria (ASI)	Chairperson	-	Projects	2

Scope

The International Commission on Illumination (abbreviated as CIE from its French title) is an organization devoted to international cooperation and exchange of information among its member countries on all matters relating to the science and art of lighting.
The objectives of the CIE are
to provide an international forum for the discussion of all matters relating to science, technology and art in the fields of light and lighting and for the interchange of information in these fields between countries;
to develop basic standards and procedures of metrology in the fields of light and lighting;
to provide guidance on the application of principles and procedures in the development of international and national standards in the fields of light and lighting;
to prepare and publish standards, reports and other publications concerned with all matters relating to science, technology and art in the fields of light and lighting;
to maintain liaison and technical interaction with other international organizations concerned with matters related to science, technology, standardization and art in the fields of light and lighting.
Within these objectives, light and lighting embrace such fundamental subjects as vision, photometry and colorimetry, involving natura1 and man-made radiations in the ultraviolet, visible and infrared regions of the spectrum, and also applications covering all uses of light, indoors and out, including environmental and aesthetic effects, as well as means for the production and control of light and radiation.
Standards produced by the CIE are a concise documentation of data defining aspects of light and lighting for which international harmony requires a unique definition. CIE Standards are therefore a primaty source of internationally accepted and agreed data, which can be taken, essentially unaltered, into universal standard systems.
For the development of some standards in the field of light and lighting, ISO has established a working relationship with the International Commission on Illumination, which has been recognized by the ISO Council as an international standardizing body.

4.3.50	ISO/TC 21	Equipment for fire protection and fire fighting			
Creation	1947	Manager	Yong-Hwan PARK	Standards	101
Secretariat	Korea, Republic of (KATS)	Chairperson	Keith SHINN	Projects	18

Scope

Standardization in the field of all fire protection and fire fighting apparatus and equipment including extinguishing media as well as the personal equipment of the fire fighter, and related work on terminology, classification and symbols. Approval of advisory documents relating to the general principles and application of equipment and apparatus for fire protection and fire fighting. Excluded: protective clothing dealt with by ISO / TC 94.

6 Subcommittees (with 19 Working Groups)

SC 2	Manually transportable fire extinguishers	SC 3	Fire detection and alarm systems
SC 5	Fixed firefighting systems using water	SC 6	Foam and powder media and firefighting systems using foam and powder
SC 8	Gaseous media and firefighting systems using gas	SC 11	Smoke and heat control systems and components

4.3.51	ISO/TC 92	Fire safety			
Creation	1958	Manager	Federica VITALI	Standards	145
Secretariat	United Kingdom (BSI)	Chairperson	Patrick VAN HEES	Projects	39

Scope

Standardization of the methods of assessing (fire hazards and fire risk to life and to property; the contribution of design, materials, building materials, products and components to fire safety) and methods of mitigating the fire hazards and fire risks by determining the performance and behavior of these materials, products and components, as well as of buildings and structures.
Excluded: materials and equipment already covered by other technical committees; fields covered by other ISO and IEC committees.

4 Subcommittees (with 27 Working Groups)

SC 1	Fire initiation and growth	SC 2	Fire containment
SC 3	Fire threat to people and environment	SC 4	Fire safety engineering

6 Working Groups

CAG 1	Technical program management group (TPMG)	TG 2	Fire fighters
WG 8	Fire terms and definitions	WG 13	Fire safety – Statistical data collection
WG 14	Large outdoor fires and the built environment	WG 15	Fire safety for tunnels

4.3.52	CEN/TC 72	Fire detection and fire alarm systems			
Creation	-	Secretary	Mike LEGGETT	Standards	41
Secretariat	United Kingdom (BSI)	Chairperson	Peter MASSINGBERD-MUNDY	Projects	21

Scope

To prepare standards, harmonized where necessary to meet the essential requirement 'Safety in case of fire' of the Construction Products Directive, in the field of fire detection and fire alarm systems in and around buildings, covering test methods, requirements and recommendations for:
- components;
- the combination of components into systems;
- the planning, design and installation of systems for use in and around buildings;
- usage, maintenance and servicing;
- the connections to and control of other fire protection systems;
- the combination with other systems to form integrated systems;
- the combination with fixed firefighting systems;
- the contribution of fire detection and fire alarm systems to fire safety engineering.

20 Working Groups

WG 3	Fire alarm devices	WG 14	Smoke Alarm devices
WG 4	Flame detectors	WG 15	Routing devices
WG 5	Point heat and smoke detectors and short-circuit isolators	WG 16	Aspirating smoke detectors
WG 6	Manual call points	WG 17	Input/output devices
WG 7	Control and indicating equipment	WG 18	Line-type heat detectors
WG 8	Power supply equipment	WG 19	Components using Radio links
WG 9	System requirements	WG 20	CO detectors
WG 10	Optical beam smoke detectors	WG 21	Duct smoke detectors
WG 11	Guidelines for planning, design and installation	WG 22	Revision of EN 54-1
WG 12	Multi-sensor detectors	WG 23	Voice alarm components and installation

4.3.53	CEN/TC 127	Fire safety in buildings			
Creation	-	Secretary	David HYDE	Standards	82
Secretariat	United Kingdom (BSI)	Chairperson	Debbie SMITH	Projects	46

Scope

1) To develop standards utilizing relevant existing work where available e.g. in ISO, IEC, CENELEC, CEC and EFTA assessing the fire behavior of building products, components and elements of construction,
2) To develop standards for classification of products, components and elements of construction, appropriate to the fire risks related to their application,
3) To develop standards for assessing fire hazard and for providing fire safety in buildings.

8 Working Groups

WG 1	Structural and separating elements	WG 5	Roofs
WG 2	Services	WG 7	Classification
WG 3	Fire Doors	WG 8	Fire Safety Engineering
WG 4	Reaction to fire	WG 9	Fire protective products

4.3.54	CEN/TC 191	Fixed firefighting systems			
Creation	-	Secretary	Mike LEGGETT	Standards	67
Secretariat	United Kingdom (BSI)	Chairperson	Robert THILTHORPE	Projects	34

Scope

Standardization in the field of:
- components for fixed firefighting systems;
- the design, construction and maintenance of fixed firefighting systems primarily for installation in buildings and other construction works with recommendations for other possible applications;
- components for fixed smoke and heat ventilation systems;
- the design, construction and maintenance of fixed smoke and heat ventilation systems for installation in buildings;
- fire extinguishing media for use in fixed systems and other firefighting equipment.

1 Subcommittee (with 8 Working Groups)

SC 1	Smoke and heat control systems and components

7 Working Groups

WG 2	Foam extinguishing systems	WG 3	Fire extinguishing media - Foam
WG 4	Powder extinguishing systems	WG 5	Sprinkler systems
WG 6	Gas extinguishing Systems and components	WG 10	Water mist systems
WG 12	Mandate		

4.3.55	CEN/TC 402	Domestic Pools and Spas			
Creation	-	Secretary	Malvina JUCQUOIS	Standards	3
Secretariat	France (AFNOR)	Chairperson	Marc MAUPAS	Projects	3

Scope

Standardization in the field of domestic swimming pools, spas and other types of pools and their related materials, equipment and accessories, used for domestic/private purposes

5 Working Groups

WG 1	Pool structure - design, product and installation	WG 2	Pool water circulation, filtration and treatment
WG 3	Mini pools	WG 4	Domestic spas and hot tubs
WG 5	Domestic pools - Environmental impacts		

4.3.56	CEN/TC 426	Domestic appliances used for water treatment not connected to water supply			
Creation	-	Secretary	Paola VISINTIN	Standards	1
Secretariat	Italy (UNI)	Chairperson	Alessandro MAGGIONI	Projects	1

Scope

Standardization of requirements for safety, performance and labelling of water treatment like filtration, sparkling etc. appliances used in domestic and similar environment for which the intended use is the treatment of drinking water only.

This Project Committee covers safety requirements and test methods for water treatment devices that are not connected to water supply in buildings and provides requirements and recommendations for instruction manuals, so that these appliances can be used and maintained properly.

Appliances with heating water systems are excluded from the scope of this Project Committee

4.3.57	ISO/TC 178		Lifts, escalators and moving walks
Creation	1979	MEMBERS	57 States 29 participants / 28 observers
Secretariat	France (AFNOR)		
Manager	Eva CONTIVAL		Luxembourg delegates: 1
Chairperson	Gero GSCHWENDTNER		**OTIS Luxembourg**: Jean-Claude BASTIEN
Standards	41		
Projects	16		
Structure	9 Working Groups		

Scope

Standardization of all aspects, including safety, of lifts, service lifts, escalators, passenger conveyors and similar apparatus. Excluded: continuous mechanical handling equipment and lifts in mines.

Working Groups

AHG 1	New technologies	WG 2	Guide rails
WG 4	Safety requirements and risk assessment	WG 5	Escalators and moving walks
WG 6	Lift installation	WG 8	Electrical requirements
WG 10	Energy efficiency	WG 11	Methodology for the improvement of safety of existing passenger and goods passenger lifts
WG 12	Cybersecurity		

Publications	Projects	Subjects
2	2	Comparison of worldwide escalator and moving walk safety standards
2	0	Comparison of worldwide lift safety standards
2	0	Comparison of worldwide safety standards on lifts for firefighters
2	2	Electrical requirements for lifts, escalators and moving walks
1	0	Electromagnetic compatibility — Product family standard for lifts, escalators and moving walks — Immunity
3	0	Energy performance of lifts, escalators and moving walks
1	0	Escalators — Building dimensions
1	1	Escalators and moving walks
0	1	Fire safety on lifts
4	0	Lift (elevators) – installation, requirements and study
1	1	Lifts and escalators subject to seismic conditions — Compilation report
7	7	Lifts for the transport of persons and goods
1	0	Lifts on ships — Specific requirements
1	0	Lifts, escalators and passenger conveyors
2	0	Measurement of ride quality
1	0	Passenger lift installations
1	0	Passenger lifts and service lifts — Guide rails for lift cars and counterweights
2	0	Power-operated lifting platforms for persons with impaired mobility — Rules for safety, dimensions and functional operation
2	0	Programmable electronic systems in safety related applications
1	2	Risk assessment and reduction methodology
4	0	Safety requirements for escalators and moving walks

4.3.58	CEN/TC 10		Lifts, escalators and moving walks	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	France (AFNOR)			Luxembourg delegates: 2
Secretary	Eva CONTIVAL			
Chairperson	Esfandiar GHARIBAAN			**AirFlowControl**: Guy STAMET
Standards	38			**OTIS Luxembourg**: Jean-Claude BASTIEN
Projects	19			
Structure	11	Working Groups		
	1	Subcommittees		
	4	WG in Subcommittee		

Scope

Establishment of safety rules for the construction and installation: - of lifts and service lifts; - of escalators and passenger conveyors.

Subcommittees

SC 1	Building hoists

Working Groups

WG 1	Lifts and service lifts	WG 2	Escalators and moving walks
↳	*Guy STAMET - AirFlowControl*	WG 4	Data logging and remote control
WG 6	Fire related issues	WG 7	Accessibility to lifts for persons including persons with disability
↳	*Guy STAMET - AirFlowControl*		
WG 8	Stair lifts and vertical platforms for the disabled	WG 9	Inclined lifts
WG 10	Improvement of safety of existing lifts	WG 11	Lifting appliances for wind turbines
WG 12	Lifting tables	WG 13	Vertical lifting appliance with enclosed carrier

Publications	Projects	Subjects
2	1	Builders' hoists for goods
1	1	Builders hoists for persons and materials with vertically guided cages
2	1	Electromagnetic compatibility - Product family standard for lifts, escalators and moving walks
3	0	Energy performance of lifts, escalators and moving walks
1	1	Risk assessment and reduction methodology
1	0	Maintenance for lifts and escalators - Rules for maintenance instructions
4	1	Safety of escalators and moving walks
1	0	Safety requirements for lifting tables
24	13	Safety rules for the construction and installation of lifts
1	0	Specification for data logging and monitoring of lifts, escalators and passenger conveyors
1	1	Transport platforms

4.3.59	IEC/TC 14	Power transformers			
Creation	1939	Secretary	Mick MAGHAR	Standards	49
Secretariat	United Kingdom (BSI)	Chairperson	Christoph PLOETNER	Projects	4

Scope

Standardization in the field of power transformers, tap-changers and reactors for use in power generation, transmission and distribution.
Generally, these transformers have power ratings above 1 kVA single phase and 5 kVA polyphase with a higher voltage winding of 1000 V or more, however the scope includes lower voltage transformers and regulators used in power delivery applications.
Excluded:
- Instrument transformers;
- Testing transformers;
- Traction transformers mounted on rolling stock;
- Welding transformers;
- Transformers for applications covered by TC 96.

26 Working Groups

WG 32	Power transformers and reactor fittings	WG 34	Voltage Regulating Distribution Transformers (VRDT)
WG 33	Suppression devices of DC magnetic bias of electric power transformers	JAHG 7	Transformer Bushing dimensional standardization Managed by SC 36A
ahG 35	The functional classification of power transformers	JMT 5	Maintenance Team for revision of IEC 62199 Bushings for DC application and IEC 60137 Bushings above 1kV. Managed by SC 36A
PT 60076-20	Energy efficiency		
PT 60076-25	Power transformers - Part 25: Neutral grounding resistors - General design requirements and test procedures	PT 60076-57-1202	Liquid Immersed Phase Shifting Transformers
MT 60076-1	Power transformers - Part 1: General	MT 60076-2	Temperature rise for liquid-immersed transformers
MT 60076-3	Power transformers - Part 3: Insulation levels, dielectric tests and external clearances in air	MT 60076-4	Power transformers - Part 4: Guide to the lightning impulse and switching impulse testing - Power transformers and reactors
MT 60076-5	Ability to withstand short circuit	MT 60076-6	Reactors
MT 60076-7	Loading guide for oil-immersed power transformers	MT 60076-10	Power transformers - Part 10: Determination of sound levels
MT 60076-11	Power transformers - Part 11: Dry-type transformers	MT 60076-14	Liquid-immersed power transformers using high-temperature insulation materials
MT 60076-15	Power transformers - Gas-filled power transformer	MT 60076-16	Transformers for wind turbine applications
MT 60076-19	Power transformers - Part 19: Rules for the determination of uncertainties in the measurement of losses in power transformers and reactors	MT 60076-21	Power transformers - Part 21: Standard requirements, terminology, and test code for step-voltage regulators
		MT 60214	Tap changers
MT 60076-57-129	Power transformers - Part 57-129: HVDC converter transformers	MT 61378-3	Converter transformers - Part 3: Application guide

4.3.60	CLC/TC 14	Power transformers			
Creation	-	Secretary	Gianluca BUSTREO	Standards	63
Secretariat	Italy (CEI)	Chairperson	Angelo BAGGINI	Projects	14

Scope

Standardization in the field of power transformers, tap-changers and reactors for use in power generation, transmission and distribution. Generally these transformers have power ratings above 1 kVA single phase and 5 kVA polyphase with a higher voltage winding of 1 000 V or more, however the scope includes lower voltage transformers and regulators used in power delivery applications.
Excluded: - Instrument transformers - Testing transformers - Traction transformers mounted on rolling stock - Welding transformers - Transformers for applications covered by TC 96

4 Working Groups

WG 21	Maintenance of EN50708-2 series	WG 29	Maintenance of EN50708-3 series”
WG 28	Plug in cable-connections	WG 32	Maintenance of EN50708-1 series

4.3.61	IEC/TC 17	High-voltage switchgear and control gear			
Creation	-	Secretary	Anne BOSMA	Standards	72
Secretariat	Sweden (SEK)	Chairperson	Marc VITTOZ	Projects	28

Scope

To prepare standards, technical specifications and technical reports covering high-voltage switchgear and control gear as well as their assemblies having a rated voltage above 1 kV a.c. and 1,5 kV d.c., together with associated control digital communication, measuring, signaling, protective, regulating and other equipment.

2 Subcommittees (with 44 Working Groups)

SC 17 A	Switching devices	SC 17C	Assemblies

6 Working Groups

ahG 8	Topics to be addressed for the revision of IEC 62063	ahG 7	Catalogue data
		WG 6	Common specifications for DC switchgear
MT 2	Maintenance of IEC 62271-3: High-voltage switchgear and controlgear - Part 3: Digital interfaces based on IEC 61850	MT 1	Maintenance of IEC 62271-1
		MT 3	Maintenance of IEC 62271-4

4.3.62	CLC/TC 17AC	High-voltage switchgear and controlgear			
Creation	-	Secretary	Mark KUSCHEL	Standards	70
Secretariat	Germany (DKE)	Chairperson	Pascale PRIEUR	Projects	19

Scope

To prepare harmonized standards for high-voltage switchgear and controlgear including their assemblies for rated voltages above AC 1 kV or above DC 1.5 kV.
Note: In general, relevant IEC standards will be transposed into EN via the Dresden Agreement.
To prepare and revise harmonized standards for enclosures of gas-filled high-voltage switchgear having a design pressure higher than atmospheric pressure.
To observe and support European activities related to standardization in the field of high voltage switchgear and controlgear in order to ensure the availability of EN suitable to cover the essential requirements of European Directives.

3 Working Groups

WG 02	Maintenance of EN 50052	WG 04	Revision of EN 50187
WG 03	Revision of EN 50089		

4.3.63	IEC/TC 32	Fuses			
Creation	-	Secretary	Jean-François DE PALMA	Standards	60
Secretariat	France (AFNOR)	Chairperson	Viktor MARTINCIC	Projects	14
Scope					
- To prepare international standards regarding specifications of all types of fuses, with the object of determining: 1. The characteristics, which are essential in specifying the conditions for installation and operation of the fuses. 2. The requirements to be met by the fuses and the tests designed to ascertain their compliance with such requirements as well as the procedures to be followed for these tests; 3. Markings. - To prepare for these fuses international standards for standard value of: 1. Characteristics: rated voltages, currents and breaking capacities; 2. Dimensions in connection with the fixing and interchangeability of high-voltage and low-voltage fuses.					
3 Subcommittees (with 12 Working Groups)					
SC 32A	High-voltage fuses	SC 32C	Miniature fuses		
SC 32B	Low-voltage fuses				
6 Working Groups					
WG 1	New standard for HV fuses / DC and /or special application	AC CAG	Chairman's Advisory Group		
ahG 1	Differentiate SC 32C - SC 32B scopes	ahG 2	Clarified SC32A – SC32B scopes for HV fuses		
MT 2	Revise IEC 60943 TR	MT 3	Revision of IEC 60050-441		

4.3.64	CLC/SR 32	Fuses			
Creation	-	Secretary	Laurence DUFRENE	Standards	34
Secretariat	France (AFNOR)	Chairperson	-	Projects	9
	CLC/SR 32A	High-voltage fuses			
	CLC/SR 32B	Low-voltage fuses			
	CLC/SR 32C	Miniature fuses			

4.3.65	IEC/TC 33	Power capacitors and their applications			
Creation	1946	Secretary	Stefano ZUNINO	Standards	40
Secretariat	Italy (CEI)	Chairperson	Gunnar INGESTRÖM	Projects	5
Scope					
Standardization of Power Capacitors and their Applications					
10 Working Groups					
WG 23	Self-healing A.C. shunt power capacitors having a rated voltage above 1 000 V	JWG 22F	Thyristor controlled series capacitors linked to SC 22F		
JWG 17A	Grading capacitors linked to SC 17A	MT 18	Power electronics capacitors		
MT 13	Series capacitor banks and protective equipment	MT 19	Shunt capacitors for AC power systems having a rated voltage above 1000 V		
MT 20	Coupling capacitors and capacitor dividers	MT 21	Shunt power capacitors for AC systems having a rated voltage up to and including 1000 V		
MT 24	Special applications	MT 25	AC motor capacitors		

4.3.66	CLC/SR 33	Power capacitors and their applications			
Creation	-	Secretary	Ivano VISINTAINER	Standards	34
Secretariat	Italy (CEI)	Chairperson	-	Projects	5

4.3.67	IEC/TC 38	Instrument transformers			
Creation	-	Secretary	Filippo FRUGONI	Standards	21
Secretariat	Italy (CEI)	Chairperson	Volker LEITLOFF	Projects	20

Scope
Standardization in the field of AC and/or DC current and/or voltage instrument transformers, including their subparts like (but not limited to) sensing devices, signal treatment, data conversion and analog or digital interfacing.

11 Working Groups			
WG 37	Specific Clauses for Electronic Voltage Transformers (future IEC 61869-7), for Electronic Current Transformers (future IEC 61869-8) and Digital Interface for Instrument Transformers (future IEC 61869-9).	WG 45	Standard Mathematical Models for Instrument Transformers
		WG 47	Evolution of Instrument transformer requirements for the modern market
WG 39	IEV 321	WG 54	Instrument Transformers integrated with other devices
WG 49	Instrument Transformers for low voltage applications	AG CAG	Chairman's Advisory Group
JWG 52	Safety requirements for current and voltage transformers for low voltage applications (<1000Vac)	JWG 55	Uncertainty evaluation in the calibration of Instrument Transformers
		MT 48	Revision of IEC 61869-1: Instrument Transformers – General Requirements
JWG 56	Station Service Voltage Transformers (SSVT)		

4.3.68	CLC/TC 38	Instrument transformers			
Creation	-	Secretary	Paolo MAZZA	Standards	17
Secretariat	Italy (CEI)	Chairperson	Volker LEITLOFF	Projects	6

Scope
To prepare European Standards (using whenever possible IEC Standards) in the field of AC and/or DC current and/or voltage instrument transformers, including their subparts like (but not limited to) sensing devices, signal treatment, data conversion and analog or digital interfacing.

2 Working Groups			
WG 1	Harmonization of CENELEC TC 38 Standards to LV Directive	WG 2	Harmonization of CENELEC TC 38 Standards to EMC Directive

4.3.69	IEC/TC 73	Short-circuit currents			
Creation	1972	Secretary	Eirik SOLLIE	Standards	14
Secretariat	Norway (NEK)	Chairperson	Lutz HOFMANN	Projects	2

Scope
To prepare international standards for standardized procedures for the calculation of short-circuit currents, and of their thermal and mechanical effects. The standards shall be, as far as possible, in a form to facilitate their use by non-specialist engineers.

1 Working Group	
MT 1	Calculation of short-circuit currents

4.3.70	CLC/SR 73	Short-circuit currents			
Creation	-	Secretary	Henrik KIRKEBY	Standards	5
Secretariat	Norway (NEK)	Chairperson	-	Projects	0

4.3.71	IEC/TC 115	High Voltage Direct Current (HVDC) transmission for DC voltages above 100 kV			
Creation	2008	Secretary	Jun YU	Standards	11
Secretariat	China (SAC)	Chairperson	Marcus HÄUSLER	Projects	13

Scope

Standardization in the field of HVDC Transmission technology above 100kV. The task includes HVDC system oriented standards as design aspects, technical requirements, construction and commissioning, reliability and availability, and operation and maintenance.
Standards of HVDC equipment so far related to the system aspects will be prepared in close collaboration with the relevant Technical Committees and Subcommittees.

22 Working Groups

WG 2	Reliability and availability evaluation of HVDC system	WG 3	Electromagnetic performance of high voltage direct current (HVDC) overhead transmission lines
WG 4	Guidelines on Asset Management of HVDC Installations (former PT1)	WG 5	System design of HVDC project
WG 6	Guideline for HVDC system operation procedures	WG 7	DC side harmonics & filtering in LCC HVDC transmission systems
WG 9	High-Voltage Direct Current (HVDC) Power Transmission - System requirements for DC-side equipment	WG 10	Guideline for planning of HVDC systems - Part 1: HVDC systems with line commutated converters
WG 12	Life extension of HVDC converter stations	WG 13	Testing and commissioning of VSC HVDC schemes
WG 14	DC voltages for DC grids		
WG 16	Guidelines for parameters measurement of HVDC transmission line	WG 15	HVDC Grid Systems and connected Converter Stations- Functional Specifications
JWG 11	Performance of voltage source converter based high-voltage direct current transmission linked to SC 22F	JAHG 1	Control and protection systems for high-voltage direct current (HVDC) power transmission systems - Functional performance tests (PWI 22F-15) Managed by SC 22F
JWG 13	Insulation co-ordination for HVDC systems Managed by TC 99		
JWG 22	Atmospheric and altitude correction Managed by TC 42	MT 8	Maintenance work for IEC/TS 62344
		AG 1	Advisory Group on Road Map and Editing
JMT 1	HVDC substation audible noise linked to SC22F	JMT 5	Maintenance Team for IEC 60919 series Managed by SC 22F
JMT 7	Revision of IEC/TS 61936-2 Managed by TC 99		

4.3.72	CLC/SR 115	High Voltage Direct Current (HVDC) Transmission for DC voltages above 100kV (Provisional)			
Creation	-	Secretary	Guido HEIT	Standards	0
Secretariat	Germany (DKE)	Chairperson	-	Projects	0

4.3.73	IEC/TC 72	Automatic electrical controls			
Creation	-	Secretary	Joseph MUSSO	Standards	36
Secretariat	United States (ANSI)	Chairperson	Eckhard SCHWENDEMANN	Projects	6

Scope

To prepare standards related to inherent safety, to the operating characteristics where such are associated with applicational safety, and to the testing of automatic electrical control devices used in appliances and other apparatus, electrical and non-electrical, for household and similar purposes, but also extended to industrial purposes when no dedicated product standards exist, such as that for central heating, air conditioning, process heating building automation, etc., including the following:
1. Automatic electrical control devices, mechanically, electromechanically, electrically or electronically operated, responsive to or controlling parameters such as temperature, pressure, passage of time, humidity, light, electrostatic effect, flow or liquid level.
2. Automatic electrical control devices serving the starting of small motors that are used principally in appliances and apparatus for household and similar purposes. Such control devices may be built into or be separate from the motor.
3. Non-automatic control devices when such are associated with automatic control devices.

12 Working Groups

WG 1	Burner controls and maintenance of 60730-2-5	WG 3	Motor protectors and maintenance of 60730-2-3, 60730-2-10 and 60730-2-22
WG 5	Timers and maintenance of 60730-2-7	WG 6	Temperature and pressure sensing controls and maintenance of 60730-2-6, 60730-2-9, 60730-2-11, 60730-2-12, 60730-2-13, 60730-2-15
WG 8	General requirements for automatic electrical controls and maintenance of 60730-1		
WG 9	Electric actuators and valves	WG 12	Electrical sensors
AG 1	Part 1 Restructure Advisory Group	AG 2	Chair Advisory Group (CAG)
WG 13	Expanded use of intelligence in products, and the linking of products by information technology & wireless solutions (“internet of things” (IoT))	EG 1	Editing Group
		PT 60730	PT for Automatic electrical controls-Part 2-24: Particular requirements for displacement sensing controls

4.3.74	CLC/TC 72	Automatic electrical controls			
Creation	-	Secretary	Mick MAGHAR	Standards	65
Secretariat	United Kingdom (BSI)	Chairperson	Enrico Maria FUMAGALLI	Projects	8

Scope

To prepare harmonized standards for rules related to inherent safety, to the operating characteristics where such are associated with applicational safety and to the testing of automatic electrical control devices used in appliances and other apparatus, electrical and non-electrical for household and similar purposes such as those for central heating, air conditioning etc. including the following:
1. Automatic electrical control devices mechanically, electro-mechanically, electrically or electronically operated responsive to or controlling such parameters as temperature, pressure, passage of time, humidity, light, electrostatic effect, flow or liquid level.
2. Automatic electrical control devices serving the starting of small motors that are used principally in appliances and apparatus for household and similar purposes. Such control devices may be built into or be separate from the motor.
3. Non-automatic control devices when such are associated with automatic control devices.

3 Working Groups

WG 01	Routine tests and preparation of informative annex on reassessment requirements	WG 03	Updating EN 60730 series for the emc directive
		WG 04	Editing Committee

4.3.75	IEC/TC 120	Electrical Energy Storage (EES) Systems			
Creation	-	Secretary	Hideki HAYASHI	Standards	7
Secretariat	Japan (JISC)	Chairperson	Guy MARLAIR	Projects	12

Scope

1. Standardization in the field of grid integrated EES Systems:
- TC 120 focuses on system aspects on EES Systems rather than energy storage devices.
- TC 120 investigates system aspects and the need for new standards for EES Systems.
-TC 120 also focuses on the interaction between EES Systems and Electric Power Systems (EPS).
2. For the purpose of TC120, “grid” includes and is not limited to applications in:
a) transmission grids - b) distribution grids - c) commercial grids - d) industrial grids - e) residential grids
f) islanded grids - g) MUSH(Municipal/Military, Utilities/Universities, Schools, Hospitals) grids
h) ICI (Institutional, Commercial and Industrial) grids
It is also confirmed that TC120 can include “smart grid.” Storage in railway systems is considered if it contributes as an EES System to the grid as referenced in2 a-f.
3. EES Systems include any type of grid-connected EES Systems which can both store electrical energy from a grid or any other source and provide electrical energy to a grid. By that feature it maintains the balance between electrical energy demand and supply over a period of time. TC 120 considers all storage technologies as long as they are capable to store and to discharge electrical energy. (Energy storage itself is not in the scope of the work.)
Note) Thermal storage systems are included in the scope, only from the electricity exchange point of view.
Unidirectional energy storage systems such as UPS are not included in the scope of TC 120.
4. The scope of TC 120 is to prepare normative documents dealing with the system aspects of EES Systems.

8 Working Groups

WG 1	Terminology	WG 2	Unit parameters and testing methods
WG 3	Planning and installation	WG 4	Environmental issues
WG 5	Safety considerations	MT 7	Electrical energy storage (EES) systems - Part 5-2: Safety requirements for grid-integrated EES systems - Electrochemical-based systems
CAG 6	Chairman Advisory Group		
JWG 10	Distributed energy resources connection with the grid Managed by TC 8		

4.3.76	CLC/SR 120	Electrical Energy Storage (EES) Systems			
Creation	-	Secretary	Sebastian KOSSLERS	Standards	4
Secretariat	Germany (DKE)	Chairperson	-	Projects	1

4.3.77	IEC/TC 121	Switchgear and controlgear and their assemblies for low voltage			
Creation	2013	Secretary	Michaël LAHEURTE	Standards	94
Secretariat	France (AFNOR)	Chairperson	Karl HIERETH	Projects	18

Scope

To prepare international standards for low-voltage switchgear and controlgear equipment for industrial, commercial and similar use rated below or equal to 1 kV AC and 1,5 kV DC, electromechanical as well as semiconductor (solid state) equipment. The scope includes open and enclosed separate items of equipment as well as assemblies which are the combinations of items of equipment into complete functional units.

2 Subcommittees (with 25 Working Groups)

SC 121A	Low-voltage switchgear and controlgear	SC 121B	Low-voltage switchgear and controlgear assemblies

2 Working Groups

WG 1	Energy Efficiency	WG 2	Environmental aspects for Low-Voltage Switchgear and Controlgear and their assemblies.

4.3.78	CLC/SR 121	Switchgear and controlgear and their assemblies for low voltage			
Creation	-	Secretary	Frédéric DEVINANT	Standards	73
Secretariat	France (AFNOR)	Chairperson	-	Projects	17
	CLC/TC 121A	Low-voltage switchgear and controlgear			
	CLC/SR 121B	Low-voltage switchgear and controlgear assemblies			

4.3.79	IEC/TC 31	Equipment for explosive atmospheres			
Creation	1948	Secretary	Mick MAGHAR	Standards	94
Secretariat	United Kingdom (BSI)	Chairperson	Martin THEDENS	Projects	17

Scope			
To prepare and maintain international standards relating to equipment for use where there is a hazard due to the possible presence of explosive atmospheres of gases, vapors, mists or combustible dusts			
3 Subcommittees (with 20 Working Groups)			
SC 31G	Intrinsically-safe apparatus	SC 31M	Non-electrical equipment and protective systems for explosive atmospheres
SC 31J	Classification of hazardous areas and installation requirements		
36 Working Groups			
WG 22	Responsible for MT 60079-0, maintenance of IEV 60050.426 and other specific tasks assigned by TC 31	JMT 62784	Particular requirements for vacuum cleaners and dust extractors providing equipment protection level Dc linked to SC 61J
WG 27	Electric Machines (motors and generators)	PT 60079-44	Explosive atmospheres – Personal Competence
WG 28	Dusts		
WG 30	Equipment process sealing	PT 60079-45	Electrical Ignition Systems for Internal Combustion Engines
WG 31	Gas/dust hybrid mixtures		
WG 32	Creepage and clearance distances	PT 60079-46	Explosive atmospheres - Equipment assemblies
WG 37	Electrochemical cells and batteries and electrochemical capacitors in equipment for explosive atmospheres	MT 60079-1	Maintenance of IEC 60079-1
		MT 60079-2	Maintenance of IEC 60079-2
		MT 60079-7	Maintenance of IEC 60079-7
WG 39	Adverse service conditions	MT 60079-15	Maintenance of IEC 60079-15
WG 40	Luminaires	MT 60079-18	Maintenance of IEC 60079-18
WG 42	Safety Devices Related to Explosion Risk	MT 60079-26	Maintenance of IEC 60079-26
WG 43	High voltage	MT 60079-28	Risk of ignition by radiation from optical equipment
WG 47	Gc equipment	MT 60079-29	Maintenance of IEC 60079-29 series
WG 54	Reference point for TC 31 standards as a basic safety publication	MT 60079-30	Maintenance for IEC 60079-30-1 and IEC 60079-30-2
JWG 29	with TC 101 - Electrostatics linked to TC 101	MT 60079-31	Maintenance of IEC 60079-31
JWG 45	Toxic gas detection for workplace atmospheres linked to ISO/TC 146/SC 2	MT 60079-33	Maintenance of IEC 60079-33
		MT 60079-35	Maintenance of IEC 60079-35-1 and IEC 60079-35-2
JWG 50	JWG 50 standards coordination with IECEx		
AG 36	Chair's Advisory Group	AG 55	Specific Conditions of Use
AG 49	Portable and personal equipment	EG 52	Editing Group

4.3.80	CLC/TC 31	Electrical apparatus for potentially explosive atmospheres			
Creation	-	Secretary	Günter GABRIEL	Standards	72
Secretariat	Germany (DKE)	Chairperson	Ron SINCLAIR	Projects	22

Scope

To standardize the general requirements for the construction and testing of electrical apparatus for potentially explosive atmospheres and the specific requirements for the construction and testing of electrical apparatus, type of protection "o" (oil immersed) and type of protection "q" (powder filled) and types with protection for use in the presence of combustible dusts, and to co-ordinate the work of the sub-committees dealing with the standardization of specific requirements for other individual types of protection.

8 Subcommittees (with 9 Working Groups)

SC 31-1	Installation rules	SC 31-2	Flameproof enclosures "d"
SC 31-3	Intrinsically safe apparatus and systems "i"	SC 31-4	Increased safety "e"
SC 31-5	Apparatus type of protection "n"	SC 31-9	Electrical apparatus for the detection and measurement of combustible gases to be used in industrial and commercial potentially explosive atmospheres
SC 31-7	Pressurization and other techniques		
SC 31-8	Electrostatic painting and finishing equipment		

8 Working Groups

WG 09	Reliability of safety-related devices	WG 23	Marking
WG 11	Electrical installations in mines	WG 24	Vacuum Cleaner EPL Dc, Joint WG between CLC/TC 31 and CLC/TC 61 under Mode 4 Cooperation
WG 20	Electrostatics		
WG 21	IEC 60079-30-X		
WG 22	Editing Group Annex ZZ	WG CAG	Chairman advisory group

4.3.81	IEC/TC 27	Industrial electro-heating and electromagnetic processing			
Creation	1937	Secretary	Mariola NOWECKA	Standards	30
Secretariat	Poland (PKN)	Chairperson	Sven LINOW	Projects	9

Scope

Standardization in the field of industrial equipment and installations intended for electro heating, electromagnetic processing of materials and electro heat based treatment technologies Note: The scope of interest covers industrial installations with the use of the equipment:
- for direct and indirect resistance heating; - for electric resistance trace heating;
- for induction heating; - using the effect of EM forces on materials;
- for arc heating, including submerged arc heating; - for electro slag remelting;
- for plasma heating; - for microwave heating; - for dielectric heating;
- for electron beam heating; - for laser heating; - for infrared radiation heating.
The list presents typical examples of equipment and its applications and is not exhaustive.

12 Working Groups

AG 1	Chairman's Advisory Group (CAG)	JWG 34	Electrical resistance trace heating systems for industrial and commercial applications
MT 17	Maintenance of IEC 60519-10, IEC 62395-1 and IEC 62395-2	MT 26	Maintenance of IEC 60519-7 and IEC 60703
MT 18	Maintenance of IEC 60519-1 and IEC 60398	MT 28	Maintenance of IEC 60519-8 and IEC 60779
MT 21	Maintenance of IEC 60519-4, IEC 60676 and IEC 60683	MT 31	Maintenance of IEC 60519-12, IEC 62693 and IEC 62798
MT 23	Maintenance of IEC 60519-6, IEC 60519-9, IEC 61307 and IEC 61308	MT 32	Maintenance of IEC 60050-841
MT 24	Maintenance of IEC 60519-3, IEC 60519-11, IEC 61922 and IEC 62076	MT 33	Maintenance of IEC/TS 62996 and IEC/TS 62997

4.3.82	CLC/SR 27	Industrial electroheating and electromagnetic processing			
Creation	-	Secretary	Ewa ZIELINSKA	Standards	30
Secretariat	Poland (PKN)	Chairperson	-	Projects	3

Scope

Standardization in the field of industrial equipment and installations intended for electro heating, electromagnetic processing of materials and electro heat based treatment technologies Note: The scope of interest covers industrial installations with the use of the equipment:
- for direct and indirect resistance heating; - for electric resistance trace heating;
- for induction heating; - using the effect of EM forces on materials;
- for arc heating, including submerged arc heating; - for electro slag remelting;
- for plasma heating; - for microwave heating; - for dielectric heating;
- for electron beam heating; - for laser heating; - for infrared radiation heating.
The list presents typical examples of equipment and its applications and is not exhaustive.

4.3.83	IEC/TC 99	Insulation co-ordination and system engineering of high voltage electrical power installations above 1.0 kV AC and 1.5 kV DC			
Creation	-	Secretary	Erandi CHANDRASEKARE	Standards	12
Secretariat	Australia (SA)	Chairperson	Michael SCHWAN	Projects	6

Scope

Standardization of:
a) insulation co-ordination for high voltage systems in specifying basic principles of insulation co-ordination, definitions and standard insulation levels for all type of electrical equipment considering field of applications, minimum air clearances, test requirements and test procedures;
b) common rules and particular requirements for system engineering and erection of high voltage electrical power installations for power generation, transmission, distribution, and consumer premises, in both indoor and outdoor situations, with particular consideration of safety aspects

10 Working Groups

WG 12	Principles to be observed in preparation of safety publications-HV installations	JWG 13	Insulation co-ordination for HVDC systems linked to TC 115
JWG 22	Atmospheric and altitude correction Managed by TC 42	AG 11	Advisory Group on Strategy
		MT 4	Revision of IEC 61936-1
MT 10	Maintenance of IEC 60071-1 (former TC 28/MT10)	MT 9	Maintenance of IEC 60071-2 (former TC 28/MT9)
		MT 14	Revision of IEC TR 60071-4
JMT 7	Revision of IEC/TS 61936-2 linked to TC 115, SC 22F	JMT 10	Maintenance team for IEC 62477-2 Managed by TC 22

4.3.84	CLC/TC 99X	Power installations exceeding 1 kV AC (1.5 kV DC)			
Creation	-	Secretary	Sebastian HAUSCHILD	Standards	5
Secretariat	Germany (DKE)	Chairperson	Espen MASVIK	Projects	4

Scope

To prepare harmonized standards for high voltage power installations (exceeding 1 kV AC or 1.5 kV DC) located indoors or outdoors, including earthing. The standards will specify the design requirements of the installations, and the selection and erection of electrical equipment in order to ensure the safety of persons and the proper operation of the installations. The standards will not be applicable to: - factory built and type tested equipment, but will be relevant to the installation of this equipment; - overhead and underground lines between separate installations.

1 Working Group

WG 01	Earthing aspects		

4.3.85	IEC/TC 109	Insulation co-ordination for low-voltage equipment			
Creation	-	Secretary	Toni HOFFMANN	Standards	13
Secretariat	Germany (DKE)	Chairperson	Preben HOLM NIELSEN	Projects	0

Scope

To prepare International Standards on the principles of insulation coordination applicable to all low-voltage equipment (up to and including 1 000 V AC and 1 500V DC).
To provide IEC Technical Committees with:
- rules for the determination of voltage ratings for insulation coordination,
- physical data for dimensioning of insulations to given voltage rating and
- guidance for determination of clearances, and creepage distances and requirements for solid insulation with respect to insulation coordination and safety aspects up to 2 000 V AC and 3 000 V DC operating voltage.

Horizontal Safety Function: Insulation coordination for voltages up to and including 1 000 V AC and 1 500 V DC, including dimensioning of clearances, and creepage distances and requirements for solid insulation with respect to insulation coordination. This includes all methods of dielectric testing with respect to insulation coordination.

4 Working Groups

JWG 4	Insulation coordination for equipment within a voltage range between 1 kV and 2 kV A.C. or between 1,5 kV and 3 kV D.C.	MT 2	Coating, potting or moulding for protection against pollution
MT 1	Principles, requirements and tests for clearances, creepage distances and solid insulation	MT 3	High-frequency voltage stress with respect to insulation coordination of equipment within low-voltage systems

4.3.86	CLC/SR 109	Insulation co-ordination for low-voltage equipment			
Creation	-	Secretary	Rudolf BRANDNER	Standards	6
Secretariat	Germany (DKE)	Chairperson	-	Projects	0

4.3.87	IEC/TC 37	Surge arresters			
Creation	1951	Secretary	Michael G. COMBER	Standards	28
Secretariat	United States (ANSI)	Chairperson	Volker HINRICHSEN	Projects	10

Scope

To prepare international standards regarding:
- Specifications for surge arresters and other surge protective devices (SPDs)
- The choice of arresters to provide adequate protection of the system with satisfactory reliability, and the definitions of conditions of use enabling this result to be obtained

2 Subcommittees (with 12 Working Groups)

SC 37A	Low-voltage surge protective devices	SC 37B	Components for low-voltage surge protection

4 Working Groups

MT 4	Metal-oxide surge arresters - Maintenance of high voltage surge arrester test standards	MT 10	Maintenance of IEC 60099-5
JWG 22	Atmospheric and altitude correction Managed by TC 42	PT 60099-11	Prepare Surge Arresters - Part 11: Metal-oxide Surge Arresters to Protect Power Line Insulation

4.3.88	CLC/SR 37	Surge arresters			
Creation	-	Secretary	Athina SAVVIDIS	Standards	27
Secretariat	Germany (DKE)	Chairperson	-	Projects	5
	CLC/TC 37A	Low voltage surge protective devices			
	CLC/SR 37B	Components for low-voltage surge protection			

4.3.89	IEC/TC 64	Electrical installations and protection against electric shock			
Creation	-	Secretary	Wolfgang NIEDENZU	Standards	80
Secretariat	Germany (DKE)	Chairperson	Jacques PERONNET	Projects	20

Scope

To prepare International standards:
- concerning protection against electric shock arising from equipment, from installations and from systems without limit of voltage,
- for the design, erection foreseeable correct use and verification of all kind of electrical installations at supply voltage up to 1 kV AC or 1,5 kV DC, except those installations covered by the following IEC committees: TC 9/18/44/97/99.
- in co-ordination with TC 99, concerning requirements additional to those of TC 99 for the design, erection and verification of electrical installations of buildings above 1kV up to 35kV.

The object of the standards shall be:
- to lay down requirements for installation and co-ordination of electrical equipment
- to lay down basic safety requirements for protection against electric shock for use by technical committees
- to lay down safety requirements for protection against other hazards arising from the use of electricity
- to give general guidance to IEC member countries that may have need of such requirements
- and to facilitate international exchanges that may be hampered by differences in national regulations.

The standards will not cover individual items of electrical equipment other than their selection for use.
Safety Pilot Function: Protection against electric shock.

26 Working Groups

JWG 32	Electrical safety of PV system installations	MT 2	Current carrying capacity of conductors and related overcurrent protection
JWG 44	Prosumer's Low Voltage Installation		
MT 1	Terms and definitions (IEV 826 and IEV 195 in collaboration with TC 1, and existing MT1-revision of IEC 60364 Part 1)	MT 3	External influences
		MT 4	Effects of current passing through the body
		MT 12	Verification of electrical installations
MT 9	Disconnecting times and related matters	MT 32	Maintenance of IEC 60364-7-705: Electrical installations of buildings -Electrical installations of agricultural and horticultural premises
MT 17	Basic requirements for protection against electric shock		
MT 33	Maintenance of IEC 60364-7-708, IEC 60364-7-709 709 and IEC 60364-7-721	MT 34	Electrical installations of buildings - Part 7-718: Requirements for special installations or locations - Communal facilities and workplaces
MT 36	Maintenance of IEC 60364-5-53, Clause 531		
MT 37	Maintenance of IEC 60364-5-53, Clause 532	PT 60364-5-57	Low-voltage electrical installations - Part 5: Selection and erection of electrical equipment - Clause 57: Stationary secondary batteries
MT 38	Maintenance of IEC 60364-5-53, Clause 533		
MT 39	Maintenance of IEC 60364-5-53, Clause 535 to 537	PT 60364-7-716	DC power distribution over Information Technology Cable Infrastructure
MT 40	Maintenance of IEC 60364-7-710 - Medical locations	PT 60364-7-720	Requirements for special installations or locations—DC power supply system in the data centre
MT 41	Low voltage electrical installations - Part 8-1		
MT 42	Low voltage electrical installations - Supply of electric vehicles	PT 60364-8-3	Low-voltage electrical installation - Part 8-3: Evolutions of Electrical Installations
ahG 35	Review of TC 64 publications		
WG 43	Application guides parts 61200-200 complying with IEC 60364	PT 61200-101	Application Guide: Residential electrical installation in direct current not intended to be connected to Public Distribution Network

4.3.90	CLC/TC 64	Electrical installations and protection against electric shock			
Creation	-	Secretary	Wolfgang NIEDENZU	Standards	105
Secretariat	Germany (DKE)	Chairperson	Jacques PERONNET	Projects	25

Scope

To prepare International standards:
- concerning protection against electric shock arising from equipment, from installations and from systems without limit of voltage;
- for the design, erection foreseeable correct use and verification of all kind of electrical installations at supply voltage up to 1 kV AC or 1.5 kV DC, (except those installations covered by the following IEC committees: TC 9X, TC 18X, TC 44X, TC 97, TC 99X);
- in co-ordination with TC 99X, concerning requirements additional to those of TC 99X for the design, erection and verification of electrical installations of buildings above 1 kV up to 35 kV.

The object of the standards shall be:
- to lay down requirements for installation and co-ordination of electrical equipment,
- to lay down basic safety requirements for protection against electric shock for use by technical committees,
- to lay down safety requirements for protection against other hazards arising from the use of electricity,
- to give general guidance to IEC member countries that may have need of such requirements, and
- to facilitate international exchanges that may be hampered by differences in national regulations.

The standards will not cover individual items of electrical equipment other than their selection for use.

31 Working Groups

WG 01	Fundamental principles	WG 02	Wiring systems - Protective measures against thermal effects, overcurrent
WG 03	Earthing arrangements, protective conductors and protective bonding conductors	WG 04	Protection against overvoltages of atmospheric origin or due to switching
WG 05	Selection and erection of electrical equipment - Common rules	WG 06	Medical locations
WG 07	Selection and erection of electrical equipment - Switchgear and controlgear	WG 08	Luminaires and lighting installations - Coupler and boxes for luminaires
WG 09	Disconnecting times and related matters	WG 10	Low-voltage generating sets
WG 11	Safety services, communal facilities and workplaces	WG 12	Low-voltage electrical installations - Verification
WG 13	Protection against electromagnetic interference (EMI) in installations of buildings	WG 14	Embedded heating systems
WG 15	Auxiliary circuits	WG 16	Mobile and temporary installations
WG 17	Protection against electric shock - Common aspect for installation and equipment	WG 18	Determination of cross sectional areas of conductors and selection of protective devices
WG 19	Lighting installations for advertising signs with a rated output voltage not exceeding 1000V , which are illuminated by hot-cathode-fluorescent lamps, luminous discharge tubes (neon-tubes), inductive discharge lamps, light emitting diodes (LEDS) and/or LED modules	WG 20	Caravans, caravan parks and marinas
		WG 21	Location containing a bath tub or a shower basin
		WG 22	Swimming pools and other basins rooms and cabins containing sauna heaters
WG 23	Construction and demolition side installation - Restrictive conductive locations	WG 24	Installations in agricultural and horticultural premises
WG 27	Electric vehicles	WG 28	Supply of inland navigation vessels
WG 29	HD 60364-8-1, low voltage electrical installations - Energy efficiency	WG 30	Low-voltage electrical installations - Part 8-2: Smart Low-Voltage Electrical Installations
WG 31	HD 60364-7-716	JWG 64/82	Installation of PV - Equipment
WG AHG	Coordinating Parts 5 and Parts 4		

4.3.91	IEC/TC 81		Lightning protection	
Creation	-		MEMBERS	51 States
Secretariat	Italy (CEI)			28 participants / 23 observers
Secretary	Marina BERNARDI			Luxembourg delegates: 1
Chairperson	Alexander W. KERN			**Independent**: Guy SCHINTGEN
Standards	19			
Projects	6			
Structure	10	Working Groups		

Scope

To prepare international standards and guides for lightning protection for structures, as well for persons, installations, services and contents. The objective of the standards will be:
• To develop requirements for design and installation of Lightning Protection Systems for structures,
• To develop requirements for design and installation of Surge Protection Measures for structures as they relate to protection from lightning effects,
• To develop basic requirements for protection against electromagnetic effects due to lightning,
• To give general guidance to IEC member countries that may have need of such requirements and
• To facilitate international exchanges that may be hampered by differences in national regulations.

Working Groups

WG 18	Application Guide of IEC 62305-3, Ed.3	MT 3	Maintenance of IEC 62305-4
MT 8	Maintenance of IEC 62305-1	MT 9	Maintenance of IEC 62305-2
MT 14	Maintenance of IEC 62561 series	MT 16	Maintenance of IEC 62858
MT 17	Maintenance of IEC 62793	MT 20	Maintenance of IEC TR 62713
MT 21	Maintenance of the IEC 62305-3	ahG 19	Conformity Assessment in the field of lightning protection

Publications	Projects	Subjects
6	5	Protection against lightning
10	0	Lightning protection system components
1	1	Safety procedures for reduction of risk outside a structure
2	0	Lightning density based on lightning location systems - General principles

4.3.92	CLC/TC 81X		Lightning protection	
Creation	-		MEMBERS	Europe - 34 States
Secretariat	Italy (CEI)			
Secretary	Marina BERNARDI			Luxembourg delegates: 1
Chairperson	Alain ROUSSEAU			**Independent**: Guy SCHINTGEN
Standards	25			
Projects	6			
Structure	3	Working Groups		

Scope

To prepare European Standards or, where not possible, guides for lightning protection for structures and buildings as well as for persons, services and contents.

Working Groups

WG 02	Lightning protection components	WG 04	Assessment of the risk of damage due to lightning
WG 03	Protection against lightning		

Publications	Projects	Subjects
2	0	Lightning density based on lightning location systems (LLS) - General principles
14	2	Lightning Protection System Components - Part 1: Requirements for connection components
1	0	Lightning protection systems - Symbols
8	4	Protection against lightning - Part 1: General principles

4.3.93	IEC/TC 79	Alarm and electronic security systems			
Creation	-	Secretary	Olivier LANEN	Standards	55
Secretariat	France (AFNOR)	Chairperson	Norbert SCHAAF	Projects	6

Scope

To prepare international standards for the protection of buildings, persons, areas and properties against fraudulent actions having the purpose to enter in a place or to take or to use something without permission and other threat related to persons.
The scope includes, but is not limited to equipment and systems, either used by ordinary persons or by trained people in the following residential and non-residential applications:
- Access control systems; - Alarm transmission systems; - Video surveillance systems;
- Combined and/or integrated systems even including fire alarm systems;
- Fire detection and fire alarm systems; - Intruder and hold-up alarm systems;
- Remote receiving and/or surveillance centers; - Social alarm systems.
These systems can be used for providing a local or remote alarm; they can be used for calling private guards, social assistance, fire brigade or police force. They can be used for recording and transmission of dated or undated information, sounds, pictures of places and people for surveillance purposes.
The standards cover:
- terminology; - technical characteristics regarding performance criteria, reliable operation, installation, maintenance;
- testing for detection, monitoring, recording, triggering an alarm and transmission to a remote center including procedures and protocols for communication.
Electrical safety, environmental conditions and behaviour of alarm systems regarding electromagnetic compatibility are also considered with reference to the appropriate standards (e.g. Guide ISO/IEC 51).

5 Working Groups

WG 11	Electronic access control systems	WG 12	Video Surveillance Systems (VSS) (formerly called CCTV)
WG 13	General requirements for building intercom systems	ahG 14	Interoperability
PT 626921	Digital door lock system		

4.3.94	CLC/TC 79	Alarm systems			
Creation	-	Secretary	Petar LUZAJIC	Standards	103
Secretariat	United Kingdom (BSI)	Chairperson	Norbert SCHAAF	Projects	14

Scope

To prepare harmonized standards for detection, alarm and monitoring systems for protection of persons and property, and for elements used in these systems.
The scope includes in particular intruder and hold-up alarm systems, access control systems, periphery protection systems, combined alarm - fire alarm systems, social alarm systems, CCTV-systems, other monitoring and surveillance systems related to security applications, as well as associated and dedicated transmission and communication systems. The standards shall specify conformity tests.

14 Working Groups

WG 01	Intruder & hold-up alarm systems	WG 02	Detection devices for intruder alarm systems
WG 03	Control & indicating equipment, power supply for intruder alarm systems	WG 04	Social alarm systems
WG 05	Alarm transmission systems (annunciation equipment)	WG 06	Warning devices (audible & visual) for intruder & hold-up alarm systems
WG 07	Cctv surveillance systems for security applications	WG 09	Environmental testing
WG 10	Obscuration Security Devices	WG 11	Alarm systems local interconnections
WG 14	Monitoring and alarm receiving centre requirements	WG AHG	Ad Hoc Group - Cyber Security for Connected Alarm Systems
WG 15	Audio and video door entry apparatus	WG CAG	Chairman's Advisory Group

4.3.95	CLC/TC 216	Gas detectors			
Creation	-	Secretary	Jacky DUNCAN	Standards	21
Secretariat	United Kingdom (BSI)	Chairperson	Anthony Richard BANFIELD	Projects	0

Scope

To standardize general and specific requirements for the construction, safety, performance and testing for electrical apparatus for sensing the presence of gas or vapor and for providing an indication, alarm and/or other output function, the purpose of which is to give a warning of explosion hazard, fire hazard or health hazard.
The standardization work of TC 216 concerns domestic gas detectors and those industrial and commercial gas detectors that are not included in the scope of CLC/SC 31-9. To provide information and guidance, as appropriate, on the selection, installation and operation of such apparatus.

10 Working Groups

JWG 09	TS 50612 (JWG with CEN/TC 109)	WG 05	Detectors in car parks and tunnels
WG 09	EN 50291-1:201X	WG 10	Revision of EN 50244:2000
WG 11	EMC levels in 50194-2 and 50291-2	WG 12	Electric apparatus used for detection and concentration measurement of refrigerant gases or SF6 - Performance requirements and test methods
WG 13	Revision of EN 50379-2		
WG 14	Specification for portable electrical apparatus designed to measure draught & gas pressures of heating appliances and systems	WG 15	Working group for the revision of EN 50194-1
		WG 16	Working Group for the revision of EN 50292

4.3.96	IEC/TC 23	Electrical accessories			
Creation	1933	Secretary	Wim Léon I DE KESEL	Standards	251
Secretariat	Belgium (CEB-BEC)	Chairperson	Nadine BRAVAIS	Projects	58

Scope

To coordinate between the different subcommittees of TC 23 and with other technical bodies within and outside IEC, aspects concerning safety, EMC, coordination, performance, compatibility interoperability, interchangeability, energy efficiency and terminology for electrical accessories contributing to the global management of the electrical energy.
To prepare standards for electrical accessories and related systems, for AC and DC, for household and similar purposes, the word “similar” including locations such as offices, commercial and industrial premises, hospitals, public buildings, etc.
These accessories and related systems are:
- Intended for fixed installations or for use in or with appliances and other electrical or electronic equipment, and may include electronic components, and related software and digital interfaces.
- normally installed by instructed or skilled persons and are normally used by ordinary persons.
(…)

7 Subcommittees (with 42 Working Groups)

SC 23A	Cable management systems	SC 23H	Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles
SC 23B	Plugs, socket-outlets and switches		
SC 23E	Circuit-breakers and similar equipment for household use	SC 23J	Switches for appliances
SC 23G	Appliance couplers	SC 23K	Electrical Energy Efficiency products

9 Working Groups

WG 8	Electrical accessories for direct current	WG 9	Energy Efficiency Aspects in TC 23
WG 12	Home and Building Electronic Systems (HBES)	JWG 14	Energy Efficiency in Industrial Automation (EEIA) Managed by TC 65
ahG 1	Conditions for electrical accessories to be used at temperatures outside the range of the existing standards	AG 10	Coordinating Group of TC 23
		MT 6	Installation couplers intended for permanent connection, maintenance of IEC 61535
MT 1	Sound signaling devices for household and similar purposes - Maintenance of IEC 62080	MT 11	Maintenance of IEC/TR 61916 - Electrical accessories - Harmonization of general rules

4.3.97	CLC/SR 23	Electrical accessories			
Creation	-	Secretary	Thierry DE LEEUW	Standards	164
Secretariat	Belgium (CEB-BEC)	Chairperson	-	Projects	49
	CLC/SR 23B	Plugs, socket-outlets and switches			
	CLC/TC 23BX	Switches, boxes and enclosures for household and similar purposes, plugs and socket outlet for D.C.			
	CLC/TC 23E	Circuit breakers and similar devices for household and similar applications			
	CLC/SR 23G	Appliance couplers			
	CLC/TC 23H	Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles			
	CLC/SR 23J	Switches for appliances			
	CLC/SR 23K	Electrical energy efficiency products			

4.3.98	IEC/TC 20	Electric cables			
Creation	1934	Secretary	Walter WINKELBAUER	Standards	254
Secretariat	Germany (DKE)	Chairperson	Gavin HOLDEN	Projects	11

Scope

To prepare international standards for the design, testing and end-use recommendations (including current ratings) for insulated electrical power and control cables, their accessories and cable systems, for use in wiring and in power generation, distribution and transmission. The applications cover an unlimited range of voltage and current, and includes applications such as cables for photovoltaic installations, charging cables for electric vehicles, HVDC cables (land and sub-sea), High Temperature Superconducting (HTS) cables and heating cables where the current is used to create heat. Cables specifically designed for marine applications covered by SC 18A are excluded. All cables for communication, data transmission and other non-power applications are covered elsewhere. TC 20 holds a Group Safety Function for fire hazard testing on cables comprising:
- flame propagation tests; - fire resistance tests; - smoke optical density tests; - corrosivity tests.

7 Working Groups

WG 16	High voltage cables (1kV and above), their accessories and cable systems	JMT 18	IEC/TR 62271-209: High-voltage switchgear and controlgear - Part 209: Cable connections for gas-insulated metal-enclosed switchgear for rated voltages above 52 kV - Fluid-filled and extruded insulation cables - Fluid-filled and dry type cable-terminations Managed by SC 17C
WG 17	Low voltage cables below 1kV		
WG 18	Burning characteristics of electric cables		
WG 19	Current rating and short-circuit limits of cables		

4.3.99	CLC/TC 20	Electric cables			
Creation	-	Secretary	Walter WINKELBAUER	Standards	237
Secretariat	Germany (DKE)	Chairperson	Dr NOYES	Projects	13

Scope

To prepare harmonized standards in the field of insulated conductors, cables and flexible cords and their accessories, for both low and high voltage with the exception of telecommunications wires and cables.

5 Working Groups

WG 09	Cables for use by electricity supply companies	WG 10	Fire performance tests for cables
WG 11	Harmonization of joints, accessories and terminations of electric cables	WG 12	Harmonization of cables for railway rolling stock
		WG 13	Covered overhead line conductors

4.3.100	IEC/TC 46	Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories			
Creation	1960	Secretary	David WILSON	Standards	339
Secretariat	United States (ANSI)	Chairperson	Christian PFEILER	Projects	64

Scope

To establish and maintain standards for the terminology, design, characteristics, related test methods and requirements for quality assessment of metallic conductors, wires, waveguide, RF connectors, RF and microwave passive components and accessories for analogue and digital transmission systems and equipment for communication networks and cabling.
Note: Magnetic components and ferrite devices covered by the scope of TC 51 will not be dealt with by this technical committee

3 Subcommittees (9 Working Groups)

SC 46A	Coaxial cables	SC 46C	Wires and symmetric cables
SC 46F	RF and microwave passive components		

8 Working Groups

WG 5	Test methods and limits for the electromagnetic compatibility (EMC) of metallic cables and other passive components, by the measurement of their electromagnetic coupling with the environment	WG 6	Passive Intermodulation Measurement (PIM)
		WG 9	Metallic Cable Assemblies for ICT
		JWG 1	Raw materials and environmental issues linked to SC 86A
AG 11	Requirements and Test Methods	ahG 10	Coupling attenuation of cable assemblies absorbing clamp method
MT IEV-726	IEV 726	ahG 12	ahG12

4.3.101	CLC/SR 46F	RF and microwave passive components			
Creation	-	Secretary	Laurence GUEDON	Standards	76
Secretariat	France (AFNOR)	Chairperson	-	Projects	18

4.3.102	CLC/TC 46X	Communication cables			
Creation	-	Secretary	Christophe CANEPA	Standards	194
Secretariat	France (AFNOR)	Chairperson	Thomas HÄHNER	Projects	21

Scope

To establish standards related to wires, symmetric cables, coaxial cables and waveguides with metallic conductors for use in telecommunication, data transmission, radio frequency, video communication and signaling equipment to satisfy the advances in developing technologies.
Particular requirements for materials, if necessary, will be evaluated in liaison with other technical committees.

2 Subcommittees (with 2 Working Groups)

SC 46XA	Coaxial cables	SC 46XC	Multicore, multipair and quad data communication cables

3 Working Groups

WG 02	Electrical Test method (excepting EMC and Raw materials)	WG 04	Mechanical and Environmental Test Procedures
		JWG 1	JWG TC46XTC86A - Fire test methods and raw materials

4.3.103	IEC/TC 86	Fibre optics			
Creation	-	Secretary	Steve SWANSON	Standards	549
Secretariat	United States (ANSI)	Chairperson	Michel BOUQUAIN	Projects	97

Scope
To prepare standards for fibre optic systems, modules, devices and components intended primarily for use with communications equipment. This activity covers terminology, characteristics, related tests, calibration and measurement methods, functional interfaces, optical, environmental and mechanical requirements to ensure reliable system performance.

3 Subcommittees (with 14 Working Groups)			
SC 86A	Fibres and cables	SC 86C	Fibre optic interconnecting devices and passive components
SC 86C	Fibre optic systems and active devices		

4 Working Groups			
WG 1	Terminology and symbology	WG 4	Fibre optic test equipment calibration
JWG 9	Optical functionality for electronic assemblies linked to TC 91	JAG 10	(Joint Advisory Group) Laser safety

4.3.104	CLC/SR 86	Fibre optics			
Creation	-	Secretary	Thomas SENTKO	Standards	559
Secretariat	Germany (DKE)	Chairperson	-	Projects	94
	CLC/TC 86A	Optical fibres and optical fibre cables			
	CLC/SR 86B	Fibre optic interconnecting devices and passive components			
	CLC/TC 86BXA	Fibre optic interconnect, passive and connectorised components			
	CLC/SR 86C	Fibre optic interconnect, passive and connectorised components			

4.3.105	CLC/TC 213	Cable management systems			
Creation	-	Secretary	Rajeev VAGDIA	Standards	36
Secretariat	United Kingdom (BSI)	Chairperson	Emmanuel PETIT	Projects	30

Scope
To prepare European standardization publications for products and systems used for the management of all types of cables, information and communication lines, electrical power distribution conductors and associated accessories. Management includes support and/or containment and/or retention and/or protection against external influences.

13 Working Groups			
WG 01	Cable trunking systems and cable ducting systems	WG 02	Conduit systems including conduit fixing devices and liquid tight sheathing (underground conduit is excluded).
WG 04	Conduit systems intended to be buried underground	WG 05	Cable tray systems and cable ladder systems
WG 06	Cable ties for electrical installations	WG 07	Fire performances and environmental performances of cable management systems
WG 07-01	Resistance to fire		
WG 08	Cable cleats for electrical installations	WG 09	Cover plates and cover tapes for the protection and warning of the location of buried cables or buried conduits in underground installations
WG 10	Powertrack systems		
WG 11	Electromagnetic characteristics of linear cable management systems	WG 12	Articulated systems and flexible systems for cable guiding
WG CAG	Chairman's advisory group		

4.3.106	CLC/TC 215		Electrotechnical aspects of telecommunication equipment
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	Germany (DKE)		Luxembourg delegates: 4
Secretary	Thomas WEGMANN		**EBRC**: Antoine FRANCOIS, Bruno FERY, Sébastien RENAULD, Sébastien RICHARD
Chairperson	Mike GILMORE		
Standards	71		
Projects	13		
Structure	3 Working Groups		

Scope

- To address standardization in the field of electrotechnical aspects of telecommunication equipment and associated infrastructures and liaise with other standardization bodies as appropriate.
- To prepare harmonized standards (EN, TS or TR) covering all aspects of generic and application-specific telecommunications cabling (e.g. ISDN, LAN and others) within all types of premises.
- These documents also cover the requirements and recommendations for building infrastructures related to the effective installation and operation of associated telecommunication equipment by reference to the existing or forthcoming standards provided by the relevant committees or using technical inputs from them.
- To provide contributions to ETSI standards (EN and/or other deliverables) in areas related to those detailed above.
- To serve as a mediator in those cases where in accordance with the CENELEC-ETSI-Agreement ETSI indicates to CENELEC the need of standardization activities of electrotechnical aspects related to its work.
- Identification of the appropriate TC within CENELEC, thereby providing proper assignment of the technical work to the responsible group of experts. - Where an appropriate TC within CENELEC cannot be identified, TC 215 may decide to establish a Working Group to resolve a specific task.
- To review international standardization results of ISO/IEC JTC 1 as far as telecommunication equipment with respect to Customer Premises Cabling and Energy Efficient Data Centers are concerned. This includes coordination of harmonization and assignment to the responsible organization in close cooperation with CEN bearing in mind JTC 1 being a joint ISO/IEC-Committee.

Working Groups

WG 01	Cabling design	WG 02	Cabling installation - Quality assurance and installation practices
WG 03	Facilities and infrastructures		

Publications	Projects	Subjects
1	0	Cabling guidelines in support of 10 GBASE-T
4	0	Customer premises cabling for Information Technology
1	1	Information technology - Automated infrastructure management (AIM) systems
14	0	Information technology - Cabling installation
1	0	Information technology - CENELEC/ETSI Glossary of terms and definitions for broadband deployment including sustainability aspects
22	9	Information technology - Data center facilities and infrastructures
22	1	Information technology - Generic cabling systems
1	0	Information technology - Implementation of BCT applications using cabling in accordance with EN 50173-4
1	0	Information technology - Implementation of BCT applications using cabling in accordance with EN 50173-4
1	1	Information technology - Measurement of end-to-end (E2E) links
1	1	Information technology - Premises distribution access network (PDAN) cabling to support deployment of optical broadband networks
1	0	Resistibility requirements for equipment having (a) telecommunication port(s)
2	0	Telecommunications bonding networks for buildings and other structures

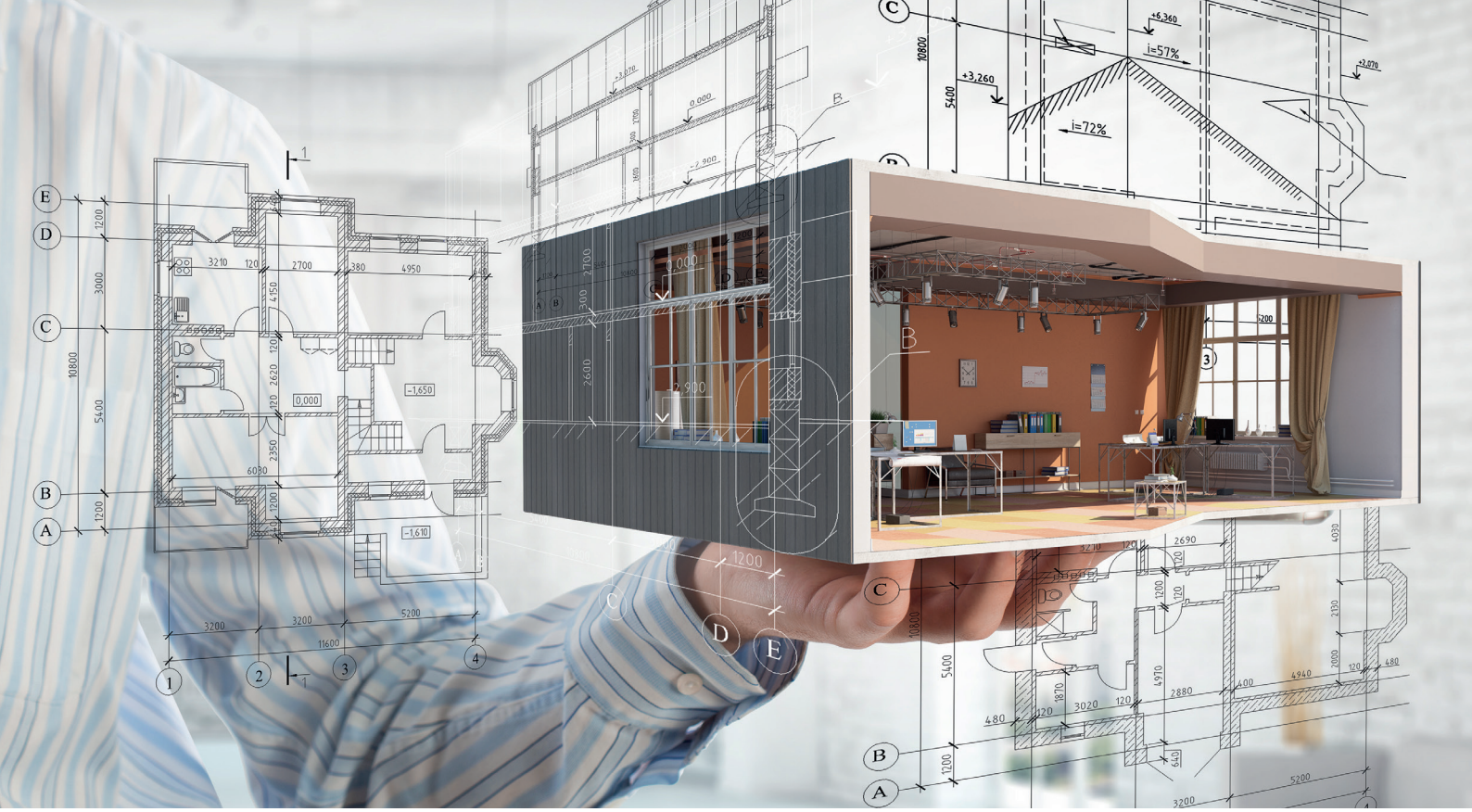
4.3.107	CLC/TC 209	Cable networks for television signals, sound signals and interactive services			
Creation	-	Secretary	Thomas WEGMANN	Standards	38
Secretariat	Germany (DKE)	Chairperson	Volker LEISSE	Projects	3

Scope

To develop harmonized and other European standards and deliverables relating to cable networks including equipment and associated methods of measurement for headend reception, processing and distribution of television and sound signals and for processing, interfacing and transmitting all kinds of data signals for interactive services using all applicable transmission media.
These signals are typically transmitted in networks by frequency-multiplexing techniques.
This includes for instance:
- regional and local broadband cable networks,
- extended satellite and terrestrial television distribution systems,
- individual satellite and terrestrial television receiving systems,
- all kinds of equipment, systems and installations used in such cable networks, distribution and receiving systems.
The extent of this standardization work is from the antennas and/or special signal source inputs to the headend or other interface points to the network up to the terminal input of the customer premises equipment.
The standardization work will consider coexistence with users of the RF spectrum in wired and wireless transmission systems.
The standardization of any user terminals (i.e. tuners, receivers, decoders, multimedia terminals etc.) as well as of any coaxial, balanced and optical cables and accessories thereof is excluded.

7 Working Groups

WG 01	Safety requirements	WG 02	EMC for equipment and cable networks
WG 03	Equipment for coaxial cable networks	WG 05	Equipment and systems for optical cable networks
WG 07	System performance	WG 08	Ad-hoc WG « SAT » - Satellite systems and equipment
WG CAG	Chairman's advisory group		



4.4
COMPLETION & FINISHING

PLASTERING

JOINERY

FLOOR AND WALL COVERING

PAINTING

GLAZING

ROOFING

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4.4.1	ISO/TC 89	Wood-based panels			
Creation	1957	Manager	Holzwirt Bernd TREPKAU	Standards	45
Secretariat	Germany (DIN)	Chairperson	Harald SCHWAB	Projects	2

Scope
Standardization in the field of panels such as fibreboards, particle boards and plywood based on lignocellulosic materials (derived from wood or other materials) including terminology, classification, dimensions, test methods and quality requirements.

3 Subcommittees			
SC 1	Fibre boards	SC 2	Particle boards
SC 3	Plywood		

1 Working Group	
WG 5	Test methods

4.4.2	CEN/TC 112	Wood-based panels			
Creation	-	Secretary	Bernd TREPKAU	Standards	69
Secretariat	Germany (DIN)	Chairperson	Steffen TOBISCH	Projects	13

Scope
Preparation of standards for wood-based panels and panels of other lignocellulosic materials covering: - terminology; - classification; - requirements; - product specifications; - methods of tests.

8 Working Groups			
WG 2	Plywood	WG 4	Test methods
WG 5	Regulated dangerous substances	WG 7	Semi-finished and finished products
WG 8	Oriented strand boards (OSB)	WG 9	Solid wood panels
WG 11	Particleboards and fibreboards	WG 13	Mandate

4.4.3	CEN/TC 38	Durability of wood and wood-based products			
Creation	-	Secretary	Ambre LE FERREC	Standards	46
Secretariat	France (AFNOR)	Chairperson	Magdanela KUTNIK	Projects	26

Scope
Standardization of natural or conferred durability of wood and wood-based products against biological agents and their characteristics associated with exposure

8 Working Groups			
WG 21	Durability - Classification (Use classes-natural durability)	WG 22	Performance - Assessment and specifications (treated wood - Wood preservatives)
WG 23	Fungal testing (basidiomycetes-microfungi)	WG 24	Insect testing - (beetles - termites)
WG 25	External Factors and Preconditioning	WG 26	Physical/chemical factors (analytical methods)
WG 27	Exposure Aspects	WG 28	Performance classification

4.4.4	CEN/SS B02	Structures			
Creation	-	Manager	Karagianni PAVLINA	Standards	16
Secretariat	CCMC (CEN)	Chairperson	-	Projects	4

4.4.5	ISO/TC 165	Timber structures			
Creation	1976	Manager	Paul JAEHRLICH	Standards	49
Secretariat	Canada (SCC)	Chairperson	Ying CHUI	Projects	8

Scope

Standardization concerning structural applications of timber, wood -based panels, other wood based products, and related lignocellulosic fibrous materials including:
- requirements for design;
- structural properties, performance, and design values of materials, products, components, and assemblies;
- test methods and requirements to establish related structural, mechanical and physical properties and performance.
Note: In cases where topics of TC 165 are also a subject, for non-structural purposes, of the Technical Committee of the relevant material or product (e.g. TC 89 or TC 218) a strong liaison with the relevant Technical Committee will be established.

5 Working Groups

WG 2	Structural glued wood products	WG 7	Connections and assemblies
WG 10	Characteristic values and design specifications	WG 11	Solid and mechanically laminated timber products
WG 12	Structural use of bamboo		

4.4.6	CEN/TC 124	Timber structures			
Creation	-	Secretary	Benoît CROGUENNEC	Standards	38
Secretariat	France (AFNOR)	Chairperson	Frédéric ROUGER	Projects	20

Scope

Preparation of standards for the structural use of timber, covering:
- test methods for the determination of strength and stiffness for solid timber, glued laminated timber, mechanical joints, wood based panel products, timber structures and their components;
- solid timber: preferred sizes, strength grading and strength classes system (included glued laminated timber), evaluation of mechanical properties;
- glued laminated timber: essential requirements, production requirements and control, structural full size finger joints;
- mechanical fasteners.

6 Working Groups

WG 1	Test methods	WG 2	Solid timber
WG 3	Glued laminated timber	WG 4	Connectors
WG 5	Prefabricated wall, floor and roof elements	WG 6	Wood poles

4.4.7	ISO/TC 218	Timber			
Creation	1998	Manager	Oksana SAK	Standards	62
Secretariat	Ukraine (DSTU)	Chairperson	Oleksii TSYTSYLIANO	Projects	8

Scope

Standardization of round, sawn and processed timber, and timber materials in and for use in all applications, including terminology, specifications and test methods.
Excluded: those applications of timber as covered by ISO/TC 165 "Timber structures".

7 Working Groups

WG 1	Terminology	WG 2	Round timber
WG 3	Sawn and processed timber	WG 4	Test methods
WG 5	Parquet and wood flooring	WG 7	Wood residue and post-consumer wood
WG 6	Wooden products		

4.4.8	CEN/TC 175	Round and sawn timber			
Creation	-	Secretary	Frédéric HENRY	Standards	56
Secretariat	France (AFNOR)	Chairperson	Philippe PANGAULT	Projects	19

Scope

Standardization of round and sawn timber in all uses,
including timber prefabricated products and excluding structural aspects.

9 Working Groups

WG 1	General matters, definitions, measurement methods	WG 2	Sawn timber
WG 4	Round timber	WG 32	Specific user requirements - Timber in joinery
WG 33	Specific user requirements - Timber in flooring	WG 34	Specific user requirements - Timber in packaging and pallets, and other timber products
WG 37	Specific user requirements - Timber in stairs		
WG 38	Specific user requirements - Timber in cladding and paneling	WG 39	Specific user requirements - Fire retardant treated wood

4.4.9	CEN/TC 349	Sealants for joints in building construction			
Creation	-	Secretary	Benoît SMERECKI	Standards	10
Secretariat	France (AFNOR)	Chairperson	Laurent NERY	Projects	2

Scope

European standardization on sealants for joints in building construction,
by the preparation of European standards for their diverse applications.

4.4.10	CEN/TC 361	Polymer modified bituminous thick coatings for waterproofing Definitions/requirements and test methods			
Creation	-	Secretary	Maja ZIMMER	Standards	9
Secretariat	Germany (DIN)	Chairperson	-	Projects	9

4.4.11	CEN/TC 185	Fasteners			
Creation	-	Secretary	Amit PATEL	Standards	178
Secretariat	United Kingdom (BSI)	Chairperson	Uwe HASSELMANN	Projects	31

Scope

Standardization in the field of mechanical fasteners, taking cognizance of the ISO standards prepared by ISO/TC 2.
Note: The term "Mechanical fastener" covers all types of products designed to connect mechanically two or more structural parts to form a solid or movable joint or to contribute essentially to establish this function, such as screws, nuts, washers, pins and rivets.

1 Working Group

WG 6	Structural bolting

4.4.12	CEN/TC 128		Roof covering products for discontinuous laying and products for wall cladding
Creation	-	MEMBERS	Europe - 34 States
Secretariat	Belgium (NBN)		Luxembourg delegates: 2
Secretary	Nicole LENS		
Chairperson	Eric WINNEPENNINCKX		**Fallprotect**: David CALLEJAS
Standards	37		**St Quadrat Fall Protection**: Martin BINDER
Projects	27		
Structure	3	Working Groups	
	10	Subcommittees	
	13	WG in Subcommittees	

Scope

Standardization in the area of general and specific requirements and test methods for roof covering products for discontinuous laying and products for wall cladding, including anchor devices intended to prevent persons from falling and/or to arrest falls, used in and on buildings and civil engineering works.

Subcommittees

SC 1	General requirements for roofing products - Types and scope of tests	SC 10	Gutters
		SC 2	Concrete roofing tiles
SC 4	Fiber-cement products for roofing	SC 3	Clay roofing tiles
SC 7	Roofing products from metal sheet	SC 6	Bitumen shingles and corrugated sheets for roofing
↳	*David CALLEJAS- Fallprotect*		
SC 9	Prefabricated accessories for roofing	SC 8	Slate and stone products for roofing
↳	*Martin BINDER - St Quadrat Fall Protection*	SC 11	Double skin metal faced insulating sandwich panels for roofing and cladding
↳WG 1	*Martin BINDER - St Quadrat Fall Protection*		

Working Groups

WG 1	Mandates - Preparation	WG 3	Renewable energy systems for roofs
WG 2	Pre-consideration Working Group		

Publications	Projects	Subjects
1	1	Bitumen shingles with mineral and/or synthetic reinforcements
1	1	Brackets for eaves gutters - Requirements and testing
5	2	Clay roofing tiles
2	1	Concrete roofing tiles and fittings for roof covering and wall cladding
1	1	Corrugated bitumen sheets - Product specification and test methods
1	1	Determination of the uplift resistance of installed clay or concrete tiles for roofing
0	1	Double skin metal faced insulating panels - Factory made products
2	2	Eaves gutters
0	3	Factory-made double skin metal faced insulating sandwich panels
4	4	Fiber cement
1	0	Fully supported metal sheet and strip
1	0	General requirements for a discontinuously laid roofing covering
3	1	Light transmitting
0	1	Permanent anchor devices and safety hooks
4	3	Prefabricated accessories for roofing
1	0	Rigid underlays for discontinuous roofing
1	1	Roof coverings
3	1	Roofing and cladding products from metal sheet
6	1	Roofing products from metal sheet
0	1	Schist and schistose stone types for discontinuous roofing
1	0	Self-supporting double skin metal faced insulating panels
1	1	Self-supporting metal sheet for roofing, external cladding and internal lining
2	0	Slate and stone for discontinuous roofing and external cladding
1	0	Solar energy systems for roofs

4.4.13	CEN/TC 88	Thermal insulating materials and products			
Creation	-	Secretary	Benjamin WIENEN	Standards	61
Secretariat	Germany (DIN)	Chairperson	Andreas HOLM	Projects	50

Scope

Standardization in the field of thermal insulating materials and products for application in buildings, including insulation for installed equipment and for industrial insulation, covering:
- terminology and definitions,
- list of required properties with regard to different applications,
- methods for the determination of these properties,
- sampling procedures,
- conformity criteria,
- specifications for insulating materials and products,
- marking and labelling of insulating materials and products.

22 Working Groups

WG 1	Common general test methods	WG 2	Coordinating group
WG 3	Mineral wool	WG 4	Expanded polystyrene foam (EPS)
WG 5	Rigid cellular polystyrene, extruded	WG 6	Rigid cellular polyurethane and polyisocyanurate
WG 7	Rigid cellular phenolic foam	WG 8	Cellular glass (CG)
WG 9	Mineral bonded wood wool (including multi-layered products)	WG 10	Building equipment and industrial installations
		WG 11	Vacuum insulation products (VIP)
WG 12	Prefabricated products of bonded expanded perlite	WG 13	Expanded cork boards (ICB)
		WG 15	In situ formed insulation products
WG 16	Factory production control	WG 17	Wood fibre boards (WF)
WG 18	External thermal insulation composite systems	WG 19	Polyethylene foam
WG 20	Expanded clay lightweight aggregates	WG 21	Reflective insulation products
WG 22	Factory made calcium silicate (CS) products	WG 23	Vegetal fibers based products (VFBP)

4.4.14	ISO/TC 160	Glass in building			
Creation	1974	Manager	Nyomee HLA-SHWE TUN	Standards	55
Secretariat	United Kingdom (BSI)	Chairperson	Nigel REES	Projects	13

Scope

Standardization in the field of glass in building,
including terminology, performance requirements and methods of calculation and test, design and construction rules, classification and specification of materials,
including dimensional properties.

2 Subcommittees (with 13 Working Groups)

SC 1	Product considerations	SC 2	Use considerations

1 Working Group

CAG	Chairman advisory group

4.4.15	CEN/TC 129	Glass in building			
Creation	2000	Secretary	Laura BONNAVE	Standards	49
Secretariat	Belgium (NBN)	Chairperson	John Brian WALDRON	Projects	24

Scope

Standardization in the field of glass used in building including:
- definitions of all types of glass products, basic and processed; - definition of characteristics; - test methods for measurement of characteristics; - calculation methods for characteristics; - requirements e.g. durability; - classifications e.g. anti-bandit glazing; - glazing methods.

18 Working Groups

WG 1	Basic glass products	WG 11	Fire resistant glazed assemblies
WG 2	Toughened, heat strengthened and enamelled glass	WG 12	Glass in building - Assembly rules
WG 3	Laminated glass	WG 13	Safety glazing
WG 4	Insulating glass units	WG 14	Security
WG 5	Coated glass for mirrors	WG 16	Bonded glazing
WG 6	Coated glass for windows	WG 17	Management
WG 8	Mechanical strength	WG 18	Filmed glass
WG 9	Light and energy transmission, thermal insulation	WG 19	Acid etched glass and sand blasted glass
WG 10	Sound insulating glazed assemblies	WG 20	Health, Hygiene, Environment and Sustainability

4.4.16	ISO/TC 162	Doors, windows and curtain walling			
Creation	1975	Manager	Akira KUDO	Standards	20
Secretariat	Japan (JISC)	Chairperson	Yasuo OMI	Projects	2

Scope

Standardization in the field of doors, doorsets, windows, and curtain wall including hardware, manufactured from any suitable material covering the specific performance requirements, terminology, manufacturing sizes and dimensions, and methods of test. Excluded: The responsibility for dimensional coordination with other parts of buildings and general performance requirements derived from buildings as a whole, which devolves upon ISO/TC 59.

Working Groups

WG 3	Terminology	WG 4	Windows and doors
WG 5	Curtain walling		

4.4.17	CEN/TC 33	Doors, windows, shutters, building hardware and curtain walling			
Creation	1988	Secretary	Nathalie GIRARDOT	Standards	116
Secretariat	France (AFNOR)	Chairperson	Frédéric DUCLOYER	Projects	58

Scope

Definition of functions of doors, windows, shutters, building hardware, and curtain walls and performance levels and classification associated with these functions which characterize the usage including the ability to meet the essential requirements (of the Construction Products Directive), tests requirements and, if necessary, the essential dimensions, terminology, symbols, packaging, marking and labelling.

7 Working Groups

WG 1	Windows and doors	WG 3	Blinds and shutters
WG 4	Building hardware	WG 5	Industrial, commercial and garage doors and gates
WG 6	Curtain walling		
WG 7	Burglary resistance	WG 9	Powered Pedestrian Doors (PPD)

4.4.18	ISO/TC 189	Ceramic tile			
Creation	1985	Manager	John P. SANDERS	Standards	28
Secretariat	United States (ANSI)	Chairperson	Noah CHITTY	Projects	15

Scope

Standardization of ceramic tiles generally used for floor coverings and wall facings.

10 Working Groups

WG 1	Test methods	WG 2	Product specifications
WG 3	Products for installation	WG 4	Thin Tiles
WG 6	Installation methods	WG 7	Sustainability issues for ceramic tiling systems
WG 8	Antimicrobial properties of ceramic tile surfaces	WG 9	Low modulus adhesives for exterior tile finishing
WG 10	Slip Resistance Measurement for Ceramic Tile	WG 11	Uncoupling membranes for ceramic tile installation

4.4.19	CEN/TC 67	Ceramic tiles			
Creation	-	Secretary	Clara MIRAMONTI	Standards	30
Secretariat	Italy (UNI)	Chairperson	Luciano GALASSINI	Projects	12

Scope

To establish European Standards concerning terminology, technical characteristics, dimensional characteristics and tolerances, test and control methods, design and installation of ceramic tiles.

4 Working Groups

WG 1	Test methods	WG 2	Specifications
WG 3	Products for installation of ceramic tiles	WG 5	Product category rules for ceramic tiles and installation products for ceramic tiling

4.4.20	ISO/TC 219	Floor coverings			
Creation	1999	Manager	Karin EUFINGER	Standards	83
Secretariat	Belgium (NBN)	Chairperson	F.W. SEIFERT	Projects	5

Scope

Standardization in the field of textile, resilient and laminate floor coverings.
Excluded: wood, ceramic, terrazzo, concrete and raised access type floorings.

3 Working Groups

WG 1	Textile floor coverings	WG 2	Resilient floor coverings
WG 3	Laminate floor coverings		

4.4.21	CEN/TC 134	Resilient, textile and laminate floor coverings			
Creation	-	Secretary	Karin EUFINGER	Standards	88
Secretariat	Belgium (NBN)	Chairperson	Guy VERRUE	Projects	12

Scope

Standardization of definitions, requirements, classification and test methods and provision of guidance documents and reports for resilient and textile floor coverings and for laminated floor coverings.

5 Working Groups

WG 7	Resilient floor coverings	WG 8	Textile floor coverings
WG 9	Laminate floor coverings	WG 11	Modular mechanical locked floor coverings (MMF)
WG 10	Harmonization		

4.4.22	CEN/TC 217	Surfaces for sports areas			
Creation	-	Secretary	Audrey LEPLAT	Standards	46
Secretariat	France (AFNOR)	Chairperson	Aurélien LE BLAN	Projects	26
Scope					
This European Standard specifies a method for the determination of the slip resistance of a sports surface in relation to a studded or smooth soled sports shoe.					
3 Working Groups					
WG 2	Surfaces of sports halls	WG 6	Synthetic surfaces primarily used outdoor		
WG 11	Test methods for sports surfaces.				

4.4.23	CEN/TC 303	Floor screeds and screed materials			
Creation	-	Secretary	Clara MIRAMONTI	Standards	11
Secretariat	Italy (UNI)	Chairperson	Paolo MURELLI	Projects	2
Scope					
Standardization of floor screeds and screed materials for floorings in buildings and civil engineering works.					
2 Working Groups					
WG 1	Terminology and properties	WG 2	Test methods		

4.4.24	CEN/TC 241	Gypsum and gypsum based products			
Creation	-	Secretary	Eva CONTIVAL	Standards	13
Secretariat	France (AFNOR)	Chairperson	Yves BENKEMOUN	Projects	0
Scope					
To prepare European standards for gypsum plasterboard, gypsum plasters, gypsum units, gypsum based and ancillary products as well as for design and application of the products: definitions, performance requirements, specifications & test methods.					
3 Working Groups					
WG 1	Powders	WG 3	Board products		
WG 5	Framework and coordination				

4.4.25	CEN/TC 284	Greenhouses			
Creation	-	Secretary	Jacques VAN DEN HOORN	Standards	1
Secretariat	Netherlands (NEN)	Chairperson	Frans BIJLAARD	Projects	1
Scope					
Standardization in the field of permanent and non-permanent greenhouses. To coordinate work in relation to greenhouses in other functional and material related CEN/TCs, and to establish the appropriate liaisons.					

4.4.26	ISO/TC 35		Paints and varnishes	
Creation	1947		MEMBERS	65 States 28 participants / 37 observers
Secretariat	Netherlands (NEN)			Luxembourg delegates: 1
Manager	Annemarie MEWE			
Chairperson	Andre VAN LINDEN			**ArcelorMittal**: Thomas URIOS
Publications	277			
Projects	33			
Structure	4	Working Groups		
	5	Subcommittees		
	10	WG in Subcommittees		

Scope

Standardization in the field of paints, varnishes and related products, including raw materials.

Subcommittees

SC 9	General test methods for paints and varnishes	SC 12	Preparation of steel substrates before application of paints and related products
SC 14	Protective paint systems for steel structures		
↳	*Thomas URIOS - ArcelorMittal*	↳	*Thomas URIOS - ArcelorMittal*
SC 15	Protective coatings: concrete surface preparation and coating application	SC 16	Chemical analysis

Working Groups

CAG	Chairman's advisory group	WG 2	Terminology
WG 4	Binders for paints and varnishes	WG 5	Naval stores

Public.	Projects	Subjects	Public.	Projects	Subjects
171	23	General test methods for paints and varnishes	3	0	Gel permeation chromatography (GPC)
			1	0	Liquid chromatography at critical conditions (LCCC)
51	8	Preparation of steel substrates before application of paints and related products	1	1	Terms and definitions
14	0	Protective paint systems for steel structures	1	0	Determination of MEQ value of water-based coating materials and binders
5	1	Chemical analysis			
25	0	Binders for paints and varnishes	1	0	Raw, refined and boiled linseed oil for paints and varnishes
2	0	Clear liquids			
1	0	Driers for paints and varnishes	1	0	Tall-oil fatty acids for paints and varnishes

4.4.27	CEN/TC 139	Paints and varnishes			
Creation	-	Secretary	Bernd REINMÜLLER	Standards	313
Secretariat	Germany (DIN)	Chairperson	Helge KRAMBERGER-KAPLAN	Projects	56

Scope

Standardization in the field of paints, varnishes and related products.
Establishment of methods of test and requirements for coating materials and coatings. Definition of terms.

7 Working Groups

WG 1	Coating systems for masonry	WG 2	Coating systems for wood
WG 5	Organic coatings on aluminum for architectural purposes	WG 8	Powder organic coatings for hot-dip-galvanized steel products
WG 9	Testing of coil coated metals		
WG 13	Reactive coatings for fire protection	WG 10	Microbiology and leaching of substances

4.4.28	CEN/TC 240	Thermal spraying and thermally sprayed coatings			
Creation	-	Secretary	Holger ZERNITZ	Standards	42
Secretariat	Germany (DIN)	Chairperson	Sven HARTMANN	Projects	5
Scope					
Standardization of definitions, acceptance test and quality control for thermal spraying equipment, specifications for spraying materials and sprayed coatings, including technical requirements, health and safety aspects, testing and testing procedures, basic rules for training and minimum requirements for operators.					

4.4.29	CEN/TC 99	Wallcoverings			
Creation	-	Secretary	Marguerite BONNIN	Standards	11
Secretariat	France (AFNOR)	Chairperson	Christopher IREDALE	Projects	0
Scope					
To elaborate ENs for wallcoverings in the sense that the term "wallcoverings" is used to cover all forms of flexible webs supplied in roll form for hanging onto walls or ceilings by means of an adhesive; it includes "finished wallcoverings", "wallcoverings for subsequent decoration", "heavy duty wallcoverings" and "textile wallcoverings" and cork wallcoverings in roll and panel form.					

4.4.30	CEN/TC 277	Suspended ceilings			
Creation	-	Secretary	Eric WINNEPENNINCKX	Standards	0
Secretariat	Belgium (NBN)	Chairperson	Martin VAN DER MEIJDEN	Projects	3
Scope					
To establish EN's on suspended ceilings for building and civil engineering works covering items such as terminology, fire, acoustics, thermal performances and also specifications for installations and application. To coordinate the outgoing work in relation to suspended ceilings in other functional and material related TC's.					

4.4.31	CEN/TC 357	Stretched ceilings			
Creation	-	Secretary	Marguerite BONNIN	Standards	1
Secretariat	France (AFNOR)	Chairperson	-	Projects	0

4.4.32	ISO/TC 136	Furniture			
Creation	1969	Manager	Fabrizio TACCA	Standards	25
Secretariat	Italy (UNI)	Chairperson	Marco FOSSI	Projects	10

Scope

Standardization in the field of furniture including: - terms and definitions; - performance, safety and dimensional requirements; - requirements for specific components (such as hardware); - test methods.
By furniture is meant free-standing or built-in units which are used for storing, lying, sitting, working and eating.
Excluded: such units with corresponding functions that are dealt with by other ISO technical committees.

10 Working Groups

AG 1	Advisory Group on Cooperation with IEC/TC 61	WG 1	Chairs - Methods of test
WG 2	Tables - Methods of test	WG 3	Storage units - Test methods for determination of strength and durability
WG 4	Beds - Methods of test	WG 5	Kitchen furniture co-ordinating sizes
WG 6	Children's and nursery furniture	WG 7	Mattresses – Methods of test
WG 8	Furniture surfaces - Methods of test	WG 9	Hardware for furniture – Methods of test

4.4.33	CEN/TC 207	Furniture			
Creation	-	Secretary	Fabrizio TACCA	Standards	70
Secretariat	Italy (UNI)	Chairperson	Marco FOSSI	Projects	27

Scope

Standardization in the field of all furniture (including mattresses, excluding transport furniture), considering, where appropriate: - terminology; - safety and health; - test methods and requirements for end products, parts, components, surfaces, surface finishes and furniture hardware; - dimensions.
Standards for raw materials are excluded.

9 Working Groups

WG 1	Requirements for domestic furniture	WG 2	Requirements for children’s and nursery furniture
WG 3	Office furniture		
WG 5	Requirements for non-domestic furniture	WG 4	Requirements for Outdoor furniture
WG 7	Requirements and test methods for furniture surfaces	WG 6	Requirements for educational furniture
WG 8	Requirements and test methods for hardware for furniture	WG 9	Test methods

4.5
SAFETY, MACHINERY & EQUIPMENT

SAFETY ON CONSTRUCTION SITES

SAFETY IN USE OF EQUIPMENT AND MACHINERY

DESIGN AND USE OF MATERIALS AND MACHINERY

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4.5.1	ISO/TC 94		Personal safety – Personal protective equipment	
Creation	1959		MEMBERS	60 States 32 participants / 28 observers
Secretariat	Australia (SA)			Luxembourg delegates: 1
Manager	Manjoo LALWANI			**DuPont de Nemours Luxembourg**: Stéphane NOWAK
Chairperson	Russell SHEPHARD			
Publications	185			
Projects	47			
Structure	3	Working Groups		
	6	Subcommittees		
	28	WG in Subcommittees		

Scope

Standardization of the performance of personal protective equipment designed to safeguard wearers against all known possible hazards.

Subcommittees

SC 3	Foot protection	SC 4	Personal equipment for protection against falls
SC 6	Eye and face protection	SC 13	Protective clothing
SC 14	Firefighters' personal equipment	↳	*Stéphane NOWAK - DuPont de Nemours Lux.*
↳ WG 4	*Stéphane NOWAK - DuPont de Nemours Lux* *Stéphane NOWAK - DuPont de Nemours Lux.*	↳WG 3 ↳WG 6	*Stéphane NOWAK - DuPont de Nemours Lux.* *Stéphane NOWAK - DuPont de Nemours Lux.*
		SC 15	Respiratory protective devices

Working Groups

CAG	Chairman advisory group	WG 1	Compatibility of PPE items
WG 2	Head protection		

Public.	Projects	Subjects	Public.	Projects	Subjects
1	1	Industrial safety helmets	19	11	Eye and face protection
0	1	Guideline on compatibility of PPE	68	15	Protective clothing
17	5	Foot protection	33	5	Firefighters' personal equipment
12	0	Personal equipment for protection against falls	35	10	Respiratory protective devices

4.5.2	CEN/TC 158		Head protection		
Creation	1988	Secretary	Amit PATEL	Standards	13
Secretariat	United Kingdom (BSI)	Chairperson	Peter HALLDIN	Projects	6

Scope

To prepare European standards for all types of protective helmets.

8 Working Groups

WG 1	Industrial safety helmets	WG 11	Headforms and test methods
WG 3	Firefighters helmets	WG 13	Helmets for mountaineers
WG 5	Helmets for horse riders	WG 14	Helmets for field sports
WG 6	Airborne sports helmets	WG 15	Helmets for S-EPAC users

4.5.3	CEN/TC 159	Hearing protectors			
Creation	-	Secretary	Nora FRIEDRICH	Standards	14
Secretariat	Germany (DIN)	Chairperson	Martin LIEDTKE	Projects	9

Scope

To prepare European standards related to personal hearing protective equipment to be used when sound exposure is expected to be hazardous to the ear including fit testing systems for determination of the individual hearing protection performance.

3 Working Groups

WG 2	Electronic and amplitude-sensitive hearing protectors	WG 6	Hearing protectors - General requirements and test methods
WG 5	Hearing protectors - Selection and use		

4.5.4	CEN/TC 160		Protection against falls from height including working belts
Creation	2015	MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 3
Secretary	Hendrik LÜTTGENS		**Lifteurop**: Gaetan LAMBERT
Chairperson	Petra JACKISCH		**St Quadrat Fall Protection**: Martin BINDER
Standards	23		**Luxembourg Institute for Building and Technology**: Markus TRESSER
Projects	9		
Structure	5 Working Groups		

Scope

Standardization of requirements for personal protective equipment against falls (systems, subsystems and components), working belts and accessories including definitions of terms and establishment of test methods.

Working Groups

WG 1	General requirements ↳ *Martin BINDER - St Quadrat Fall Protection* ↳ *Markus TRESSER - Luxembourg Institute for Building and Technology*	WG 2	Personal fall arresting systems, components and systems ↳ *Martin BINDER - St Quadrat Fall Protection*
WG 3	Personal equipment for work positioning and/or prevention of falls from a height	WG 5 WG 6	Rescue equipment Definitions

Publications	Projects	Subjects
2	1	Anchor devices
1	1	Descender devices for rescue
1	0	Guided type fall arresters including an anchor line
1	0	Lanyards
1	0	Personal fall protection systems
1	0	Rescue harnesses
1	0	Rescue lifting devices
1	0	Rescue loops
1	1	Rope access systems - Rope adjustment devices
1	1	Sit harnesses
1	0	Connectors
1	1	Energy absorbers
1	1	Full body harnesses
2	0	General requirements for instructions for use, maintenance, periodic examination, repair, marking and packaging
1	1	List of equivalent terms
1	1	Guided type fall arresters including a flexible anchor line
1	1	Retractable type fall arresters
2	0	Test methods
1	0	Low stretch kern mantel ropes
1	0	Belts and lanyards for work positioning or restraint

4.5.5	CEN/TC 161	Foot and leg protectors			
Creation	1988	Secretary	Tim BELLAMY	Standards	21
Secretariat	United Kingdom (BSI)	Chairperson	Pete DOUGHTY	Projects	8

Scope

To prepare European standards in the field of protective footwear and leg protectors.
Note: leg protectors are defined as an extension of protective footwear.

2 Working Groups

WG 1	PPE footwear - Test methods	WG 2	PPE footwear - Requirements

4.5.6	CEN/TC 162		Protective clothing including hand and arm protection and lifejackets
Creation	2015	MEMBERS	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 2
Secretary	Inga TRÖSTER		**DuPont de Nemours Luxembourg**: Stéphane NOWAK
Chairperson	Markus LELICKENS		**Sigma 4 Constructions**: Alison SYRETT
Standards	139		
Projects	35		
Structure	13	Working Groups	

Scope

To prepare European Standards (requirements and testing) in the field of clothing to protect against physical and chemical hazards. Hand and arm protectors are included as well as high visibility clothing and clothing against drowning (e.g. lifejackets).

Working Groups

WG 1	General requirements for protective clothing	WG 2	Resistance to heat and fire of protective clothing
WG 3	Protective clothing against chemical, infective agents and radioactive contamination	WG 4	Protective clothing against foul weather, wind and cold
	Alison SYRETT - Sigma 4 Constructions *Stéphane NOWAK - DuPont de Nemours Lux.*	WG 5	Resistance to mechanical impact of protective clothing
WG 6	Lifejackets	WG 7	Visibility clothing and accessories
WG 8	Protective gloves	WG 9	Motorcycle rider protective clothing
WG 10	Buoyant aids for swimming instruction	WG 13	Joint WG between CEN/TC 162 and CEN/TC 161 - Test methods for permeation of chemicals through materials for protective footwear, gloves and clothing
WG 11	Body protection for sports		
WG 12	Diving suits		

Publications	Projects	Subjects
9	4	General requirements for protective clothing
25	8	Resistance to heat and fire of protective clothing
21	1	Protective clothing against chemical, infective agents and radioactive contamination
6	1	Protective clothing against foul weather, wind and cold
18	7	Resistance to mechanical impact of protective clothing
14	3	Lifejackets
3	0	Visibility clothing and accessories
16	4	Protective gloves
12	2	Motorcycle rider protective clothing
3	4	Buoyant aids for swimming instruction
18	0	Body protection for sports
3	0	Diving suits
3	1	Test methods for permeation of chemicals through materials for protective footwear, gloves and clothing

4.5.7	CEN/TC 53	Temporary works equipment			
Creation	1970	Secretary	Billal KIANI	Standards	20
Secretariat	Germany (DIN)	Chairperson	Robert HERTLE	Projects	6

Scope

Standardization of temporary works equipment used for maintenance, building, construction work and for temporary structures made of the same equipment. The products and systems are normally intended for repeated use. Standardization of machinery is excluded.

4 Working Groups

WG 3	Tubes and fittings	WG 4	Mobile access towers
WG 10	Guardrails for temporary works	WG 15	Execution

4.5.8	IEC/TC 78	Live working			
Creation	1975	Secretary	Sophie CHABIN	Standards	66
Secretariat	France (AFNOR)	Chairperson	Jim PHILLIPS	Projects	12

Scope

To prepare International standards for tools, equipment and devices for utilization in Live Working, including their performance requirements, care and maintenance. Excluded: Work practices and methods for Live Working.
To prepare technical publications related to the utilization of tools, equipment and devices on, and in the vicinity of live parts of electrical installations and systems.

24 Working Groups

MT 60050-651-60743	Maintenance of IEC 60050-651 and IEC 60743	PT 61472-2	Preliminary Work Item for calculation of the minimum approach distances at medium voltage level
MT 60855-1	Maintenance of 60855-1: Live working - Insulating foam-filled tubes and solid rods - Part 1: Tubes and rods of a circular cross-section	PT 62819	To develop IEC 62819 Ed.1.0: Live working - Eye, face and head protectors against the effects of electric arc - Test methods and requirements
MT 60895	Maintenance of IEC 60895: Live working - Conductive clothing for use at nominal voltage up to 800 kV A.C. and ± 600 kV D.C.	PT 63232	Electric arc performance of hand protection equipment - Test standard
		PT 63247	Integration of EN 50321-1 to IEC 63247
MT 60903-984	Maintenance of IEC 60903: Live working - Gloves of insulating material and of IEC 60984: Sleeves of insulating material for live working	PT 78-901	To develop an IEC Technical Report for correlating the results of arc test methods to electrotechnical applications in order to select the proper electric arc protective equipment
MT 61057	Maintenance of 61057: Aerial devices with insulating boom used for live working		
MT 61111-61112	Maintenance of IEC 61111 and IEC 61112	PT 902	Guidance for the selection, use and maintenance of electrical arc flash personal protective equipment
MT 61243-1	Live working – Voltage detectors – Part 1: Capacitive type to be used for voltages exceeding 1 kV a. c.	PT 903	Guidance for Insulating hand tools for work on or near conductor rail systems operating at voltages up to 1500 V DC
MT 61318	Maintenance of IEC 61318: Live working - Conformity assessment applicable to tools, devices and equipment	WG 1	Terminology and symbols
		WG 11	Technical support
		WG 12	Tools and equipment
MT 61482-1-1	Maintenance of IEC 61482-1-1: Live working - Protective clothing against the thermal hazards of an electric arc - Part 1-1: Test methods - Method 1: Determination of the arc rating (ATPV or EBT50) of flame resistant materials for clothing	WG 13	Protective equipment
		WG 14	Diagnostic equipment
		WG 15	Arc Flash Protection
MT 62192	Maintenance of IEC 62192: Live working - Insulating ropes	MT 61482-2	Maintenance of IEC 61482-2: Part 2: Live working - Protective clothing against the thermal hazards of an electric arc - Part 2: Requirements

4.5.9	IEC/TC 85	Measuring equipment for electrical and electromagnetic quantities			
Creation	1983	Secretary	Guiju HAN	Standards	86
Secretariat	China (SAC)	Chairperson	Benoît LEPRETTRE	Projects	11

Scope

To prepare international standards for equipment, systems, and methods used in the fields of measurement, test, recurrent test, monitoring, evaluation, generation and analysis of steady state and dynamic (including temporary and transients) electrical and electromagnetic quantities, as well as their calibrators.
Such equipment includes devices for testing the safety of power distribution systems and connected equipment, devices for monitoring the power distribution systems, electrical measuring transducers, signal generators, recorders together with their accessories.
Note: Product safety aspects are covered by TC 66.

8 Working Groups

WG 8	Measuring and monitoring equipment for testing protective devices in energy distribution systems	WG 20	Equipment for measuring and monitoring of steady state and dynamic quantities in Power Distribution Systems
WG 22	Waveform parameter measurements	WG 24	Uncertainty Definition and Determination Process
MT 23	Revision of IEC 6051 series: Direct acting indicating analogue electrical measuring instruments and their accessories (Parts 1-9)	AG CAG	Chair Advisory Group
PT 85-1	Terminology	MT 25	Maintenance 60477

4.5.10	CLC/TC 85X	Measuring equipment for electrical and electromagnetic quantities			
Creation	-	Secretary	Catherine KÖRBÄCHER	Standards	62
Secretariat	Germany (DKE)	Chairperson	Franck GRUFFAZ	Projects	19

Scope

To develop European standards for equipment and systems for measuring, testing, monitoring, generating, and analyzing simple and complex electrical and electromagnetic quantities, as well as their calibrators.
These standards apply to measuring equipment for industrial, commercial and building electrical installations (networks) always with the aim to preserve the quality of power supply in order to avoid malfunction and overheating of the connected devices, in particular due to an alteration of the mains voltage.
The development of harmonized standards is also intended to meet the challenges of controlling energy consumption and is likely to be used as a support to the Technical Bodies involved in the Smart Grid and Smart Metering activities, or to be used as a support for EC Directives.
Equipment in the scope of CLC/TC 85X include power meters and power quality instruments, calibrated measurement devices, signal generators, monitoring equipment, recorders and electrical measuring transducers, and devices for testing, measuring or monitoring of protective measures as given by European installation standards, together with their accessories.

2 Working Groups

WG 1	Pre-standardization, standardization and maintenance in the field of measurement applications	WG 2	Testing and monitoring of protective measures

4.5.11	CEN/SS 109	Small tools			
Creation	-	Manager	Joanna FRANKOWSKA	Standards	8
Secretariat	CCMC	Chairperson	-	Projects	0

4.5.12	CLC/TC 78	Equipment and tools for live working			
Creation	-	Secretary	Fabrice MARTIN	Standards	66
Secretariat	France (AFNOR)	Chairperson	Tony PIERCE	Projects	11

Scope

To prepare CENELEC standards for work equipment, devices and tools, including personal protective equipment used for work on or near live electrical systems or installations.

9 Working Groups

WG 04	Harmonization of IEC 61482-2 with PPE Directive	WG 05	Revision of EN 50321
		WG 06	Elaboration of Annex ZZ Electrical insulating gloves and sleeves
WG 07	Revision of EN 50365		
WG 08	Revision of EN 50340	WG 09	Revision of EN 50528
WG 10	Revision of EN 50374	WG 12	Harmonization of IEC EN 62819 with PPE regulation
WG 11	Revision of EN 50286		

4.5.13	IEC/TC 116	Safety of motor-operated electric tools			
Creation	2008	Secretary	Joseph HARDING	Standards	133
Secretariat	United States (ANSI)	Chairperson	Axel WALZER	Projects	13

Scope

To prepare international safety standards for electric motor-operated hand-held tools, transportable tools and lawn and garden machinery.

5 Working Groups

WG 7	Electric motor-operated hand-held transportable tools and lawn garden machinery - Safety - Part 1: General Requirements	WG 8	Electric motor-operated hand-held tools
		WG 10	Electric motor-operated lawn and garden machinery
WG 9	Electric motor-operated transportable tools	WG 11	Dust measurement for electric motor-operated tools

4.5.14	CLC/TC 116	Safety and environmental aspects of motor-operated electric tools			
Creation	-	Secretary	Eckerhard STRÖTGEN	Standards	112
Secretariat	Germany (DKE)	Chairperson	Marcel DUTRIEUX	Projects	39

Scope

To prepare European safety and environmental aspects standards for electric motor-operated hand-held and transportable tools and lawn and garden machinery

4 Working Groups

WG 02	Electric motor-operated hand-held and transportable tools	WG 04	Dust
WG 05	Electric motor-operated lawn and garden machinery	WG 06	Environmental aspects of motor-operated electric tools

4.5.15	CEN/TC 213	Cartridge operated hand-held tools - Safety			
Creation	-	Secretary	Marcel KNECHT	Standards	1
Secretariat	Switzerland (SNV)	Chairperson	Tilo DITTRICH	Projects	0

Scope

Standardization in the field of hand-held machines, using propulsive charges.
Priority should be given to the development of a standard for safety requirements for the design, construction and use of cartridge operated fixing tools (system consisting of tool, fastener and cartridge, functioning as an integral whole).
Safety standards relating to the fastening point made with the cartridge operated fixing systems are not included in the scope.
Safety standards for other cartridge operated, hand-held machines must be investigated.

1 Working Group

WG 1	Cartridge Operated Fixing and Hard Marking tools

4.5.16	CEN/TC 255	Hand-held, non-electric power tools - Safety			
Creation	-	Secretary	Sara BERGGREN	Standards	15
Secretariat	Sweden (SIS)	Chairperson	Ulf NYLUND	Projects	0

Scope

1) Standardization in the field of safety of non-electric hand-held power tools (including their use when mounted in fixtures) which can be both in one generic standard for aspects common to several types of tools, and standards for specific types of tools;
2) Coordination with CLC/TC 61F, CEN/TCs 65, 142, 144, 213, 151, 196 etc. for the purpose of ensuring the highest possible consistency in common safety measures;
3) Utilization of the work carried out in PNEUROP and other European Sector Committees or organizations;
4) Consideration of how B1-Standards for e.g. the measurement of noise and vibration, and dust suppression, should be achieved in the field of responsibility and with the aid of the CEN committees established for the purpose;
5) Standardization of vocabulary, symbols, and pictograms related to safety of hand-held tools.

4.5.17	ISO/TC 111	Round steel link chains, chain slings, components and accessories			
Creation	1963	Manager	Hirotsugu GUNJI	Standards	21
Secretariat	Japan (JISC)	Chairperson	Jim COUPE	Projects	2

Scope

Standardization in the field of:
- round steel link chains (excluding anchor chains and those used in mining);
- sling hooks;
- shackles, eyebolts, terminal links, joining links and terminal fittings for slings and other accessories.
To deal with the following aspects of the above- mentioned items: terminology, material, dimensions and tolerances, basic design criteria, proof testing, working load, destructive and non-destructive tests relating to required mechanical properties, inspection, certification and marking.
Excluded: anchor chains covered by ISO / TC 8; mining chains covered by ISO / TC 82.

2 Subcommittees (with 2 Working groups)

SC 1	Chains and chain slings	SC 3	Components and accessories

4.5.18	ISO/TC 127	Earth-moving machinery			
Creation	1968	Manager	Sally SEITZ	Standards	172
Secretariat	United States (ANSI)	Chairperson	Charles CROWELL	Projects	18

Scope

Standardization of nomenclature, use classification, ratings, technical requirements and test methods, safety requirements, operation, maintenance manual format for earth-moving and related machinery.

4 Subcommittees (with 26 Working Groups)

SC 1	Test methods relating to safety and machine performance	SC 3	Machine characteristics, electrical and electronic systems, operation and maintenance
SC 2	Safety, ergonomics and general requirements	SC 4	Terminology, commercial nomenclature, classification and ratings

5 Working Groups

AHG 3	Investigation regarding the differences between block handlers and wheel loaders	CAG	Chair's Advisory Group
SG 1	ISO Off-Road Mobile Work Machine	WG 17	Rechargeable Energy Storage System (RESS) application for EMM (ISO 5757)
WG 8	Sustainability		

4.5.19	ISO/TC 195	Building construction machinery and equipment			
Creation	1989	Manager	Shuang LIU	Standards	38
Secretariat	China (SAC)	Chairperson	Jing Li	Projects	11

Scope

Standardization in the field of Machines and equipment used on construction sites, including:
- concrete machines (e.g. batcher, mixer, pump, sprayer, transport, vibrator, floating)
- foundation machines (e.g. piling, diaphragm walling, earth boring, jetting, grouting, drill rigs for soil and rock mixture)
- aggregate processing machines (e.g. screening, crushing)
- road construction and maintenance machines and equipment
- tunnel boring machines (TBMs) and associated machines and equipment [e.g. shielded tunnel boring machines, unshielded tunnel boring machines, telescopic shield machines, reaming machines, micro-tunneling machines, thrust boring machines, auger boring machines except for those used in mining), air locks, rescue chambers for TBMs, tunnel boring multi-service vehicles (MSVs)]
- scaffolds
- machines and plants for production and processing of building materials, including tooling of natural stone manufacture of fine, heavy clay and refractory ceramics, production, treatment and processing of flat, hollow and special glass
- machines and equipment for processing building materials on-site
- road operation machinery and equipment, and associated services, concerning nomenclature, application, classification, ratings, technical requirements, test methods, safety requirements

Excluded: - equipment for the extraction of solid mineral substances [e.g. road headers, continuous miners, rock drill rigs, raise boring machines, high wall miners, LHDs, mining auger boring machines, RMDSs (rapid mine development systems) (ISO/TC 82)]; - cranes (ISO/TC 96); - earth-moving machinery (ISO / TC 127); - elevating work platforms (ISO / TC 214); - building and civil engineering works (ISO/TC 59)

3 Subcommittees (with 10 Working Groups)

SC 1	Machinery and equipment for concrete work	SC 2	Road operation machinery and associated equipment
SC 3	Drilling and foundation machinery and equipment		

5 Working Groups

AG 1	Advisory group	WG 5	Road construction and maintenance equipment - Terminology and commercial specifications
WG 2	Terminology		
WG 6	Hand-held machinery and equipment	WG 9	Safety of mobile road construction machinery

4.5.20	CEN/TC 151	Construction equipment and building material machines - Safety			
Creation	-	Secretary	René KAMPMEIER	Standards	68
Secretariat	Germany (DIN)	Chairperson	Carolin MAHN-BARENHOFF	Projects	53

Scope

Standardization in the field of safety of machines and equipment used on construction sites, for winter service and highway maintenance as well as for the production and processing of mineral building materials. In exceptional cases, glass machinery used outside the building material sector (e.g. laboratory glass machinery) is included.
Excluded are:
- Mining machinery and equipment (e.g. road headers, rock drill rigs, raise boring machines, shaft boring machines, load haul dump (LHD)), (covered by CEN/TC 196);
- Cranes (covered by CEN/TC 147);
- Elevating work platforms (covered by CEN/TC 98);
- Building hoists (covered by CEN/TC 10 SC 1);
- Industrial trucks (covered by CEN/TC 150).

12 Working Groups

WG 1	Earth-moving machinery - Safety	WG 9	Machines and plants for the production of cement, lime, and gypsum, including crushing, screening, sizing and recycling - Safety
WG 3	Drilling and foundation equipment		
WG 4	Tunnel boring machines (TBM) and associated machines and equipment - safety	WG 11	Machines and plants for mining and tooling of natural stone - Safety
WG 5	Road construction machines - Safety	WG 13	Machines and plants for the production, treatment and processing of flat glass - Safety
WG 6	Machines and equipment to process building materials (portable, hand-guided, support-mounted, on rails or self-propelled) - Safety	WG 15	Electromagnetic compatibility
		WG 16	Road operation machinery - Safety requirements
WG 8	Concrete preparation and handling equipment - Safety	WG 18	Machines and plants for the production, treatment and processing of hollow and special glass - Safety

4.5.21	ISO/TC 96	Cranes			
Creation	1960	Manager	Ling FU	Standards	108
Secretariat	China (SAC)	Chairperson	Xijun ZHANG	Projects	16

Scope

Standardization in the field of cranes and related equipment which suspend loads by means of a load-handling device, particularly in respect of terminology, load rating, testing, safety, general design principles, maintenance, operation and load lifting attachments.

9 Subcommittees (with 16 Working Groups)

SC 2	Terminology	SC 7	Tower cranes
SC 3	Selection of ropes	SC 8	Jib cranes
SC 4	Test methods	SC 9	Bridge and gantry cranes
SC 5	Use, operation and maintenance	SC 10	Design principles and requirements
SC 6	Mobile cranes		

4.5.22	CEN/TC 147		Cranes - Safety
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 2
Secretary	Jeannette BERNARD		**Codiprolux**: Christophe LOSANGE
Chairperson	Markus GOLDER		**Lifteurop**: Gaetan LAMBERT
Standards	30		
Projects	14		
Structure	10	Working Groups	

Scope

Development and maintenance of safety standards for the design, manufacture and information to be provided for the following products:
1. cranes (as defined in CEN/TC 147 Resolution 99);
2. equipment for the lifting of persons on/with certain cranes;
3. power driven winches and hoists, and their supporting structures;
4. hand-powered lifting machines;
5. non-fixed load lifting attachments;
6. manually controlled load-manipulating devices.

Working Groups

WG 2	Design - General	WG 3	Design - Requirements for equipment
WG 11	Mobiles cranes	WG 12	Tower cranes
WG 14	Bridge and gantry cranes	WG 15	Offshore cranes
WG 17	Power driven winches and hoists	WG 18	Loader cranes
WG 20	Hand powered cranes	WG 21	Non-fixed load lifting attachments

Publications	Projects	Subjects
1	0	Access
1	0	Bridge and gantry cranes
1	1	Controls and control stations
2	0	Equipment for the lifting of persons
7	5	General design
2	0	Information for use and testing
1	0	Light crane systems
1	0	Loader cranes
1	0	Manually controlled load manipulating devices
1	1	Mobile cranes
2	2	Offshore cranes
3	2	Power driven winches and hoists
1	0	Requirements for container handling spreaders
6	2	Safety
1	0	Slewing jib cranes
1	1	Tower cranes - Anti-collision systems - Safety requirements

4.5.23	ISO/TC 214		Elevating work platforms		
Creation	1996	Manager	Michelle DEANE	Standards	9
Secretariat	United States (ANSI)	Chairperson	Jason C. BERRY	Projects	1

Scope

Standardization of terminology, ratings, general principles (technical performance requirements and risk assessment), safety requirements, test methods, maintenance and operation for elevating work platforms used to raise (elevate) and position personnel (and related work tools and materials) to a work position where a work task is to be performed.

1 Working Group

WG 1	Mobile elevating work platforms

4.5.24	CEN/TC 98		Lifting platforms
Creation	-	MEMBERS 	Europe - 34 States
Secretariat	Germany (DIN)		Luxembourg delegates: 1
Secretary	Armin WEIH		**Fallprotect**: David CALLEJAS
Chairperson	Rolf-Jürgen TRABOLD		
Standards	6		
Projects	6		
Structure	8 Working Groups		

Scope

This standard specifies the safety requirements of Suspended Access Equipment (SAE). SAE comprises a working platform suspended by wire ropes from a roof rig.
The working platform is lifted and lowered by one or more hoists and may also be traversed and rotated. The system may be powered or hand operated.

Working Groups

WG 1	Mobile elevating work platforms	WG 2	Lifting tables
WG 3	Vehicle lifting devices	WG 4	Tail lifts
WG 5	Dock levellers	WG 6	Jacks
WG 7	Suspended access equipment	WG 9	Mechanical Parking Devices
↳	*David CALLEJAS - Fallprotect*		

Publications	Projects	Subjects
1	0	Dock levellers - Safety requirements
2	0	Lifting platforms - Mast climbing work platforms
1	2	Mobile elevating work platforms
1	0	Mobile or movable jacks and associated lifting equipment
1	0	Safety of machinery - Equipment for power driven parking of motor vehicles - Safety and EMC requirements for design, manufacturing, erection and commissioning stages
1	1	Safety requirements for lifting tables
1	1	Safety requirements for suspended access equipment - Design calculations, stability criteria, construction - Examinations and tests
2	1	Tail lifts - Platform lifts for mounting on wheeled vehicles - Safety requirements
1	1	Vehicle lifts

4.5.25	CEN/TC 93		Ladders		
Creation	1998	Secretary	Bernd TREPKAU	Standards	7
Secretariat	Germany (DIN)	Chairperson	Uwe HOLICKA	Projects	6

Scope

Standardization of portable ladders designed for general professional and non-professional use, attic stairs/loft ladders and ladders designed for specific professional use which are not covered by the scope of other Technical Committees.

9 Working Groups

WG 1	Step stools	WG 10	EN 131-1 and EN 131-2
WG 2	Single and multiple hinge-joint ladders	WG 12	Telescopic ladders
WG 3	User information	WG 13	Ladders with separate platform
WG 7	Accessories	WG 14	Window cleaning ladders
WG 9	Loft ladders		

4.5.26	CEN/TC 168		Chains, ropes, webbing, slings and accessories - Safety -
Creation	2013	MEMBERS 	Europe - 34 States
Secretariat	United Kingdom (BSI)		Luxembourg delegates: 2
Secretary	Jacky DUNCAN		**Codiprolux**: Christophe LOSANGE
Chairperson	Jim COUPE		**Lifteurop**: Gaetan LAMBERT
Standards	34		
Projects	5		
Structure	4 Working Groups		

Scope

Standardization in terms of safety of:
- welded round steel link chains and chain slings;
- steel wire ropes, their terminations and wire rope slings;
- fiber ropes, fiber rope slings, flat textile slings and round slings;
- hooks and other accessories;

used for lifting (lifting includes: raising, lowering and suspending) purposes.

Working Groups

WG 1	Welded round steel link chains and chain slings	WG 2	Steel wire ropes, their terminations and wire rope slings
WG 4	Hooks and other accessories		
↳	*Christophe LOSANGE- Codiprolux*	WG 6	Load restraint assemblies

Publications	Projects	Subjects
6	0	Components for slings - Safety
2	0	Forged steel eyebolts grade 4 for general lifting purposes
1	0	Forged steel shackles for general lifting purposes - Dee shackles and bow shackles
2	0	Load restraining on road vehicles - Safety
3	0	Load restraint assemblies on road vehicles - Safety
7	0	Short link chain for lifting purposes - Safety
3	0	Steel wire rope slings - Safety
1	0	Steel wire ropes - Pulling eyes for rope installation - Types and minimum requirements
11	1	Steel wire ropes - Safety
8	4	Terminations for steel wire ropes - Safety
3	0	Textile slings - Safety

4.5.27	CEN/TC 242		Safety requirements for passenger transportation by rope		
Creation	-	Secretary	Sylvie FERNANDEZ	Standards	16
Secretariat	France (AFNOR)	Chairperson	François GRUFFAZ	Projects	6

Scope

Safety standards for the construction and operation of aerial ropeways, funicular ropeways and surface lifts for passenger transportation.

13 Working Groups

WG 1	Terminology	WG 9	Recovery and evacuation
WG 2	General requirements and calculations	WG 10	Operation
WG 3	Ropes	WG 13	Safety of travellators for tourist or sporting use, used to transport passengers mainly in ski areas
WG 4	Tensioning devices and mechanical systems		
WG 5	Carriers	WG 14	Prevention and fight against fire
WG 6	Electrical installations	WG 15	Workers safety
WG 8	Tests, maintenance, inspection	WG 16	Freight cableway installation with restricted passenger transport

4.5.28	CEN/TC 231	Mechanical vibration and shock			
Creation	1990	Secretary	Ulrich SCHOBER	Standards	45
Secretariat	Germany (DIN)	Chairperson	Christoph HECKER	Projects	4

Scope

Standardization in the field of mechanical vibration and shock, including:
- methods for measuring and evaluating mechanical vibration and shock;
- methods for assessing human exposure to mechanical vibration and shock in any kind of environment;
- description of the effects caused by human exposure to mechanical vibration and shock and guidelines for the reduction of these effects;
- methods for evaluating the effects of mechanical vibration and shock on structures;
- methods for reducing by machine design, risks resulting from exposure to mechanical vibration and shock;
- methods for measuring and assessing the vibration and shock reduction characteristics of personal protective equipment (e.g. antivibration gloves), vibration isolators (e.g. resilient materials) and suspension systems (e.g. seats).

2 Working Groups

WG 2	Hand-arm vibration	WG 11	Guidance on databases for human vibration

5 CONCLUSION

The construction sector is one of the keystones of the national economy, with a valuable know-how and a high level of expertise. In order to remain competitive, national stakeholders have to stay informed of the state of the art of this constantly evolving sector.

In this context, technical standardization plays an important role, not only to give a first-hand insight into the latest developments, thus supporting innovation, but also to contribute to the harmonization of systems and procedures, to open access to external markets, to ensure constant progress, and to build trust.

Indeed, standards contribute to the promotion and exchange of good practices and techniques available through the market. They ensure the quality, security and performance of products, systems, and services. They also facilitate dialogue and exchange between various stakeholders. In this sense, standardization represents an important economic lever to improve business productivity.

Construction is one of the growth sectors identified in the national standardization strategy 2020-2030[32]. ILNAS actively supports national stakeholders willing to be involved in the technical standardization for this sector, in line with the "Luxembourg's policy on technical standardization in the construction sector 2020-2025"[33]. The main objectives of this policy are to foster and strengthen the national construction sector's involvement in the standardization domain. To achieve this, ILNAS is conducting three intertwined projects:

a) Promoting technical standardization in the construction sector;
b) Emphasizing the value of technical standardization in the construction sector and enhancing the involvement of the market in this process;
c) Supporting and strengthening education about standardization and related research activities.

This Standards Analysis of the construction sector constitutes a tool to foster the positioning of Luxembourg in the construction standardization landscape. It highlights the opportunities offered to the national market to participate in the standardization process. This Standards Analysis also provides a snapshot of the technical committees active in the construction sector, highlighting the current involvement of the market.

Through this first edition of the Standards Analysis, ILNAS, with the support of ANEC EIG, is laying the foundations of the implementation of its policy for the construction sector and aspires to see the national market make rapid progress in its appropriation of technical standardization and reap its benefits effectively. A proper understanding of the stakes associated with construction standardization is necessary to adopt the optimal position, within the standardization landscape, and benefit from all the related opportunities.

"Technical standardization, an inclusive tool for performance and excellence to serve the economy"

[32] https://portail-qualite.public.lu/dam-assets/publications/normalisation/2020/strategie-normative-luxembourgeoise-2020-2030.pdf
[33] https://portail-qualite.public.lu/dam-assets/publications/normalisation/2020/politique-pour-la-nornalisation-technique-du-secteur-de-la-construction-2020-2025.pdf

6 ANNEXES

6.1 List of acronyms

AFNOR	*Association Française de Normalisation*
AG	Advisory Group
ahG	Ad-hoc Group
ANEC	*Agence Nationale pour l'Economie de la Connaissance*
ANSI	American National Standards Institute
ASI	Austrian Standards International
BEC-CEB	Belgian Electrotechnical Committee
BSI	British Standards Institution
BT	Technical board
CAG	Chairman Advisor Group
CCMC	CEN-CENELEC Management Centre
CEI	Italian Electrotechnical Committee
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
CLC	CENELEC
CRTI-B	*Centre de Ressources des Technologies et de l'Innovation pour le Bâtiment*
DIN	*Deutsches Institut für Normung*
DKE	German Commission for Electrical, Electronic & Information Technologies
DS	*Dansk Standard*
DSTU	Ukrainian scientific research and training center for standardization
EC	European Commission
EIG	Economic Interest Group
EN	European Standard
ESOs	European Standardization Organizations
ETSI	European Telecommunications Standards Institute
ICT	Information and Communication Technologies
IEC	International Electrotechnical Commission
ILNAS	*Institut Luxembourgeois de la Normalisation, de l'Accréditation, de la sécurité et qualités des produits et services*
IPQ	*Instituto Português da Qualidade*
ISO	International Organization for Standardization
ITU	International Telecommunication Union
ITU-T	International Telecommunication Union's Telecommunication Standardization Sector
JISC	Japanese Industrial Standards Committee
JPC	Joint Project Committees
JTC	Joint Technical Committee
JWG	Joint Working Group
KATS	Korean Agency for Technology and Standards
MoU	Memorandum of Understanding
MSZT	*Magyar Szabványügyi Testület*

MT	Maintenance Team
NACE	Nomenclature of Economic Activities
NACELUX	*Nomenclature de référence de classification des activités économiques du Luxembourg*
NBN	*Bureau de Normalisation/Bureau voor Normalisatie*
NEK	Norwegian Electrotechnical Committee
NEN	*Nederlands Normalisatie-instituut*
NQIS/ELOT	National Quality Infrastructure System/Hellenic Organization for Standardization
OF	Open Forum
OLAS	*Office Luxembourgeois d'Accréditation et de Surveillance*
OLN	*Organisme Luxembourgeois de Normalisation*
OVE	Austrian Association of Electrical Engineering - *Österreichischer Verband für Elektrotechnik*
PKN	Polish Committee for Standardization
PT	Project Team
SA	Standards Australia
SABS	South Africa Bureau of Standards
SAC	Standardization Administration of China
SC	Subcommittee
SCC	Standards Council of Canada
SEK	Swedish Electricity Standard - *Svenks Elstandard*
SESKO	National Electrotechnical Standardization Organization of Finland
SG	Study Group / Sub-Group
SIS	Swedish Institute for Standards
SLG	Strategic Liaison Group
SN	Standards Norway
SnT	Interdisciplinary Center for Security, Reliability and Trust of Luxembourg University
SNV	*Schweizerische Normen-Vereinigung*
SR	Reporting Secretariat
SyC	Systems Committee
TC	Technical Committee
TG	Technical Group
UNE	*Asociación Española de Normalización*
UNI	*Ente Italiano di Normazione*
UNMZ	Czech Office for Standards, Metrology and Testing
WG	Working Group
WS	Workshop
WSC	World Standards Cooperation
WTO	World Trade Organization

6.2 Useful links

ISO Home page: https://www.iso.org/home.html
ISO technical committees: https://www.iso.org/technical-committees.html

IEC Home page: https://www.iec.ch/homepage
IEC technical committees: https://www.iec.ch/dyn/www/f?p=103:6:0

CEN Home page: https://www.cen.eu/Pages/default.aspx
CEN technical committees: https://standards.cen.eu/dyn/www/f?p=CENWEB:6:::NO:::

CENELEC Home page: https://www.cenelec.eu/index.html
CENELEC technical committees: https://www.cenelec.eu/dyn/www/f?p=104:6:898769532802401:::::

ILNAS Home page: https://portail-qualite.public.lu/fr.html
ILNAS Standardization: https://portail-qualite.public.lu/fr/normes-normalisation.html
ILNAS e-Shop: https://ilnas.services-publics.lu

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ILNAS
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