



UNIVERSITÀ DEGLI STUDI
DI GENOVA

The role of the Standardization in the development of Technology Transfer

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CEI - CT 113

Nanoinnovation 2020

Roma, 18 September 2020



CEI

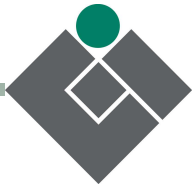
Italian Electrotechnical Committee

The Italian body for the standardisation in the fields of electrotechnics, electronics and telecommunications

135 Technical Committees

1891 Members

3000 Experts



European



International

National

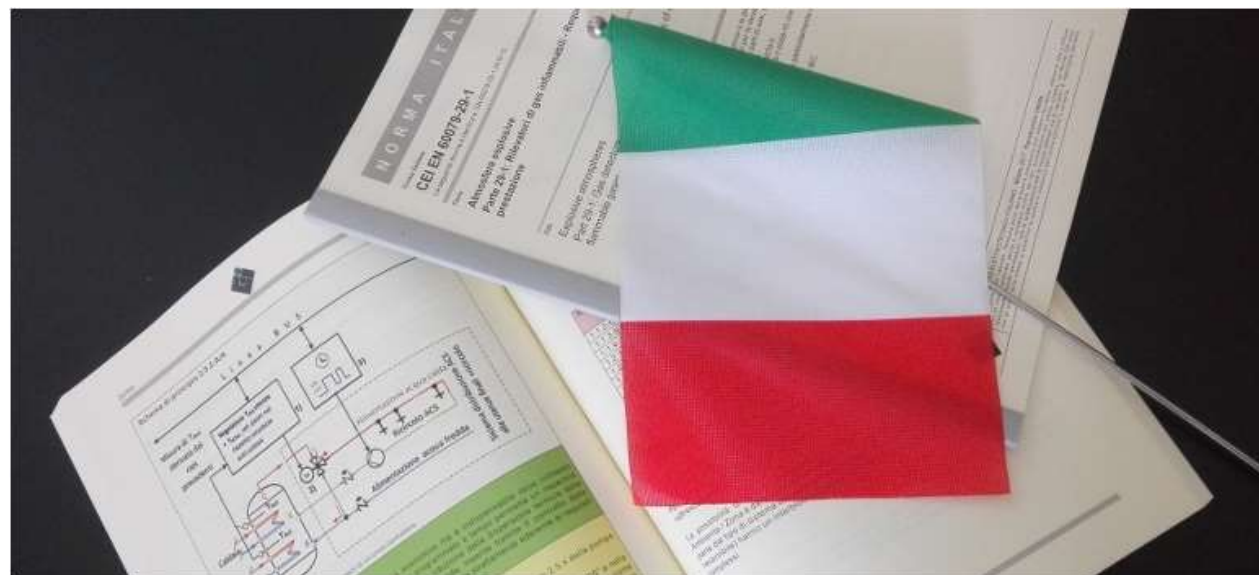


Standardisation activities

Standardisation activities

[Technical Committees](#)[Technical standards](#)[International Standardisation
Organisations](#)[National Standardisation
Programme](#)[Public Enquiries](#)[Standard Updates](#)[Technical Questions](#)[VIM – International Vocabulary](#)

LAVORI NORMATIVI / IT





Technical Committees

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Technical Committees

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The Technical Committees

CEI Technical Committees are the technical bodies in which the normative documents (CEI Standards and technical guides) are discussed and approved

CEI works thanks to the activity of their experts nominated in the Technical Committes/SubCommittees.

The members of CEI Technical Committees contribute to:

- define the Italian national position to be presented in International seats,
- propose national standards on subjects of interest of the Italian system
- deepen the application procedures of standards, including the European ones.



ABOUT US | STANDARDISATION | NEWS | CEINORME | IT

Home / Standardisation / International Standardisation Organisations

Technical Committees	109	Subcommittees	101	Total	210
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International Standardisation Organisations

[Standardisation activities](#)

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International Standardisation Organisations

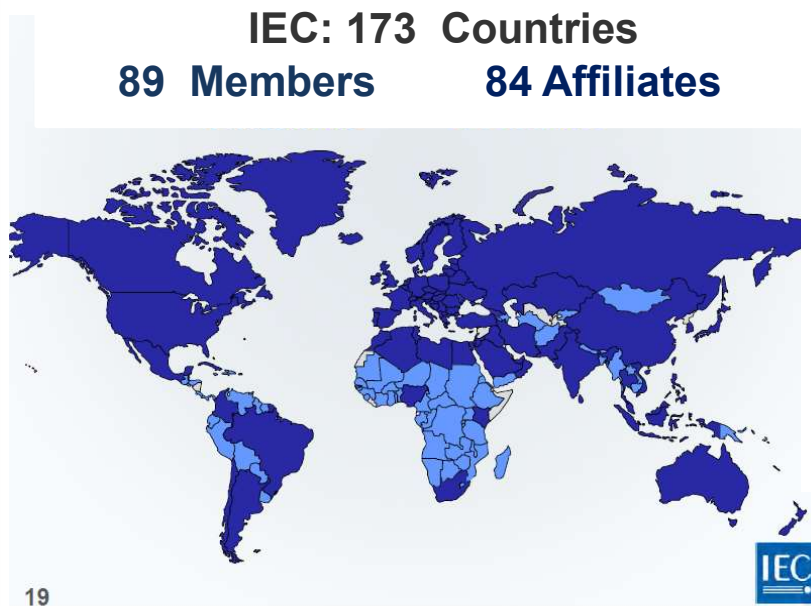
[National Standardisation Programme](#)

[Public Enquiries](#)

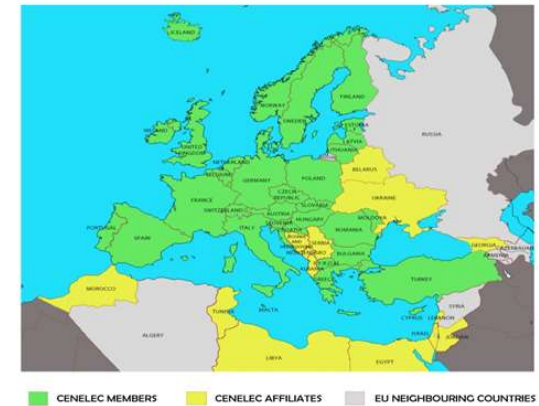
[Standard Updates](#)

[Technical Questions](#)

[VIM – International Vocabulary](#)



CENELEC



The IEC's members are [National Committees](#), and they appoint [experts and delegates](#) coming from industry, government bodies, associations and academia to participate in the technical and conformity assessment work of the IEC.

National Standardisation Programme

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The National Standardisation Programme, includes the detailed list of the international and european standards that CEI is going to adopt in its role of recognised Italian standardisation body and the list of the standards and guides **of national origin** that are under development, public enquiry or final publication.

The National Standardisation Programme is reviewed every six months so as to present a constantly updated situation of the ongoing standardisation activities.



The National Standardisation Programme [↗](#)

PROGRAMMA DI LAVORO NAZIONALE 2020

NATIONAL WORK PROGRAMME

The present document is made available through CEI Website in order to inform the standardisation users about the CEI activities presently.

This document is splitted in the following Sectors:

Sector A: Electrical installations, relevant components, industrial systems and energy efficiency

Sector B: Production, transmission and distribution, electrical energy, relevant components and smart grid

Sector C: ICT and relevant components

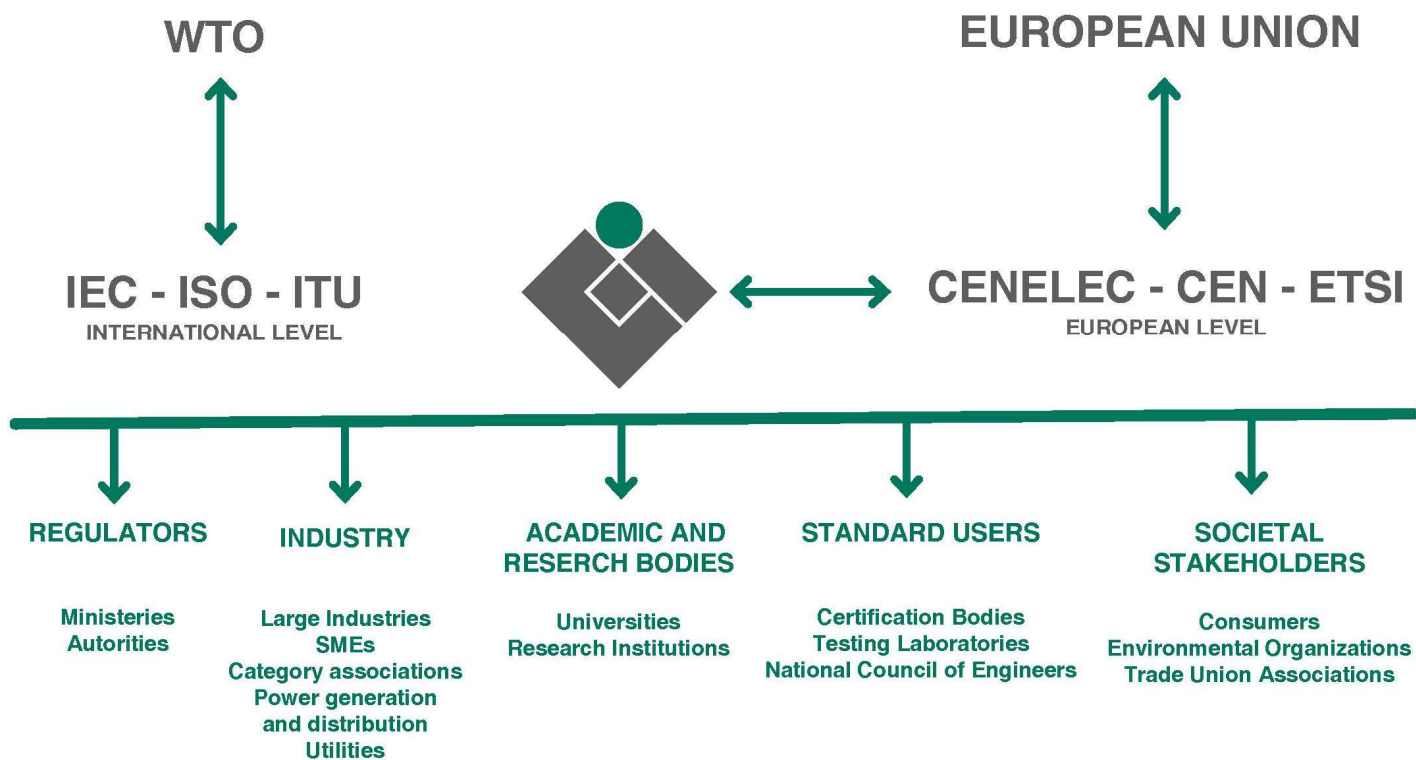
Sector D: Transport and relevant components and E- mobility

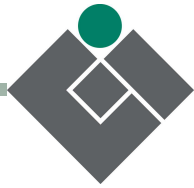
Sector F: Consumer goods

Sector G: Environment



STANDARDIZATION PROCESS





Innovation is widely recognized as a key element for competitiveness and economic growth.

In an ever more competitive world economy, success is increasingly being determined by the ability of businesses and societies to be innovative.

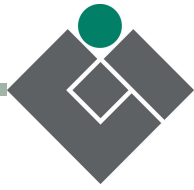
Standardization accelerates innovation

The comment that you certainly have heard:

“Standards hamper innovation, they bring things down to the lowest common denominator...”

is not true:

- Standards allow to start from a higher level platform: safety and environmental concerns have already been addressed, and interoperability is ensured.
- Standards are the sum of many voices: they are the results of a consensus among the best experts of the specific field.
- Standards give a platform that helps you save money and time.
- Standards keep R&D faster and more focused and are the basis for applied creativity. They help to direct internal efforts to those solutions that will work in the market place.



The importance and role of standardization in relation to innovation is recognized by EC in relation to the ***European Commission Communication COM(2008)133:***

'Towards an increased contribution from standardization to innovation in Europe'

- Common European standards are an important factor in creating an effective single market.
- Thanks to their continuous support to the Internal Market, standards can play a major role in promoting innovative products and services by providing legal security for innovative companies, creating large scale markets and building confidence among consumers.

Hence standards can be considered an important driver of innovation in Europe

Innovation through standardization leads to multiple benefits such as the improvement of the quality of products, the opening of new markets for these new products that are thus created, and the expansion of the product range.



CEN-CENELEC activities

The CEN-CENELEC has established an **Innovation Directorate** in order to promote standardization and its benefits in those sectors and markets that do not use it today.

This includes assistance to stakeholders for starting new standardization activities, where relevant. That assistance also extends, case by case, to **research proposals** encompassing a standardization package.

Moreover, the CEN and CENELEC Technical Boards agreed in October 2008 on the creation of a joint strategic **Working Group** to address **Standardization, Innovation and Research (STAIR)**.

CEN-CENELEC STAIR will give strategic advice to the two Technical Boards in order to reach an integrated approach and develop the links between research and innovation and standardization.



The IEC and Industrial Consortia: a win-win partnership which is getting stronger

IEC and Industrial Consortia experts share insights to stay ahead of trends and anticipate future market developments.

Here are some examples of Industrial Consortia already working with the IEC:

- Bluetooth SIG
- COBO
- ECHONET Consortium
- ICC
- ICFSHE
- IIC
- PhoxTrot
- The Unicode Consortium
- The Zhaga Consortium
- USB IF



CT 113

Nanotecnologie per sistemi e prodotti elettrotecnici

PRESIDENTE **Prof. Fabrizio Barberis**

SEGRETARIO **Prof. Gianfranco Coletti**

Per informazioni contattare il segretario tecnico del CEI **Ing. GIUSEPPE BOSISIO** (Giuseppe.Bosisio@ceinorme.it)

Campo di applicazione

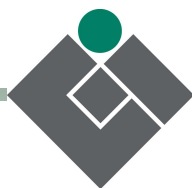
-Il Comitato svolge studi ed attività normativa nel settore delle nanotecnologie per quanto riguarda componenti, prodotti, apparecchiature, sistemi e materie usate in ambito elettrico ed elettronico -Le problematiche di particolare interesse per le nanotecnologie e per la normazione relativa riguardano: la terminologia ed i simboli grafici, le misure (nanometrologia) e la valutazione delle prestazioni, sicurezza, affidabilità, progettazione e sviluppo, compatibilità elettromagnetica, il rispetto ambientale e della salute umana ed animale. Le norme in fase di studio riguardano l'utilizzo delle nanotecnologie in produzione e nel settore medico farmaceutico.

Struttura

Il CT 113 opera in contatto con la Commissione Tecnica UNI "Nanotecnologie" corrispondente del TC ISO 256.

Comitati collegati

<i>IEC</i>	<i>Descrizione</i>
TC 113	Nanotechnology for electrotechnical products and systems



TC 113 Nanotechnology for electrotechnical products and systems

[Scope](#) | [Structure](#) | [Projects / Publications](#) | [Documents](#) | [Votes](#) | [Meetings](#) | [Collaboration Platform](#)

TC 113 Scope

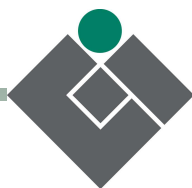
Standardization of the technologies relevant to electrotechnical products and systems in the field of nanotechnology in close cooperation with other committees of IEC and ISO

[Log in](#)

[En](#) | [Fr](#)

Further information

Secretariat	Germany
Strategic Business Plan	
Contact	TC 113 Officers



TC 113 Nanotechnology for electrotechnical products and systems

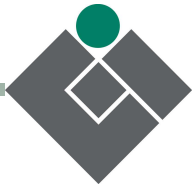
Scope Structure Projects / Publications Documents Votes Meetings Collaboration Platform

TC 113 Scope

Standardization of the technologies relevant to electrotechnical products and systems in the field of nanotechnology in close cooperation with other committees of IEC and ISO

TC 113 Subcommittee(s) and/or Working Group(s)

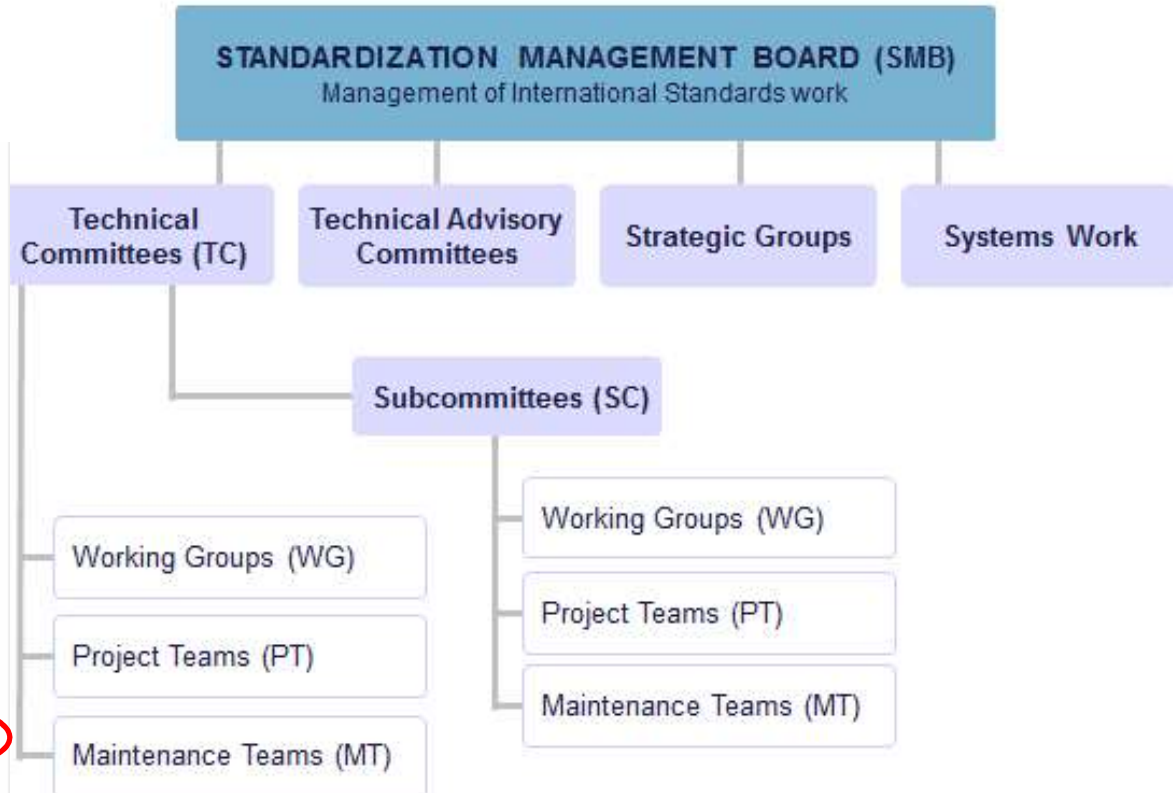
Label	Title
Working Groups	
WG 3	Performance assessment
WG 7	Reliability
WG 8	Graphene related materials/Carbon nanotube materials
WG 9	Nano-Enabled Photovoltaics Thin Film Organic/Nano Electronics, Nanoscale
WG 10	Luminescent nanomaterials
WG 11	Nano-enabled energy storage



TCs report to the SMB (Standardization Management Board).

Management of standards development

Facts and Figures	
IEC Technical Committees and Subcommittees (TC/SC)	210
Working Groups (WG)	692
Project Team (PT)	194
Maintenance (MT)	644
IEC Experts	21891



Any TC and WG need Experts skilled in multiple task to properly manage the Technical Need



What we do

The **International Electrotechnical Commission** is the leading global organization that publishes consensus-based International Standards and manages conformity assessment systems for electric and electronic products, systems and services, collectively known as electrotechnology.



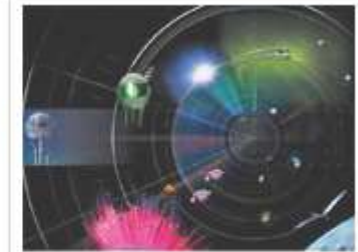
International Standards

IEC produces consensus-based global standards.



Conformity Assessment

IEC solutions to prove conformity to its standards.



Technology sectors

IEC covers a broad range of technologies.



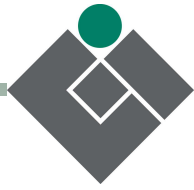
International Standard

The definition given in all IEC standards reads: "A normative document, developed according to **consensus procedures**, which has been approved by the IEC National Committee members of the responsible committee in accordance with Part 1 of the [ISO/IEC Directives](#)."



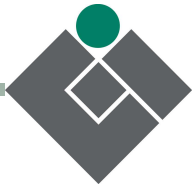
Technical Specifications (TS)

A Technical Specification is similar to an International Standard (IS) in that it is normative in nature, developed according to consensus procedures. A TS is approved by two-thirds of the Participating Members (P-Member) of an IEC Technical Committee (TC) or Subcommittee (SC).



Topics treated by IEC Standards: Exempla

- Guidance on measurands for characterising nano-objects and materials that contain them
- Nanotechnologies: A guideline for ellipsometry application to evaluate the thickness of nanoscale films
- Nanomanufacturing - Key control characteristics : Graphene material – Domain size: Surface oxidation
- Nanomanufacturing - Key control characteristics : Traceable spatially resolved nano-scale stray magnetic field measurements – Magnetic Force Microscopy
- Nanomanufacturing - Reliability assessment: Graphene materials - Stability test: Temperature and humidity
- Nanotechnologies - 3D image reconstruction of rod-supported nano-objects using transmission electron microscopy
-



Stimulate collaboration – Facilitate integration

Masami Yamamoto

President, Fujitsu

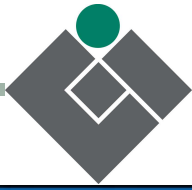
[+ Watch the interview](#)



IEC International Standards have a huge impact on many companies, industries and nations. And many partners worldwide are working together with the IEC to ensure technology transfer, easier access to markets and to find solutions to technical challenges.

The IEC has begun interviewing global leaders from industry and governments on the benefits of electrotechnical standardization.

The result is IEC Global Visions: a series of mini-documentaries that illustrate how international organizations cope with some of today's global challenges and how the IEC helps them to do so.





Grazie

WWW.CEINORME.IT

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