



Standards and your business

How your business can benefit from standards and participate in standardization activities

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Standards are all around us,
even if we are not always
aware of them.

Millions of businesses are applying and using standards every day.

Standards are valuable tools that can help your business to:

- **ensure** the quality and safety of products and/or services
- **achieve** compatibility between products and/or components
- **access** markets and sell to customers in other countries
- **satisfy** your customers' expectations and requirements
- **reduce** costs, eliminate waste and improve efficiency
- **comply** with relevant legislation including EU regulations
- **gain** knowledge about new technologies and innovations

Knowing which standards to use, and how to apply them in the correct way, is vital for the success of your business. It is also important to understand how standards are made, and how you can contribute to the standardization process.

This booklet provides a brief introduction to the world of standards and the different kinds of standards that exist. It explains why standards are necessary for business and how companies of all sizes participate in standardization. It also offers an overview of the various ways in which you can help to shape the content of standards that could be relevant for your business.



What are standards?

A **standard** is a document that sets out requirements for a specific item, material, component, system or service, or describes in detail a particular method or procedure. Standards are established by consensus and approved by recognized standardization bodies.

There are several different **types of standards**. Some of the most commonly-used standards set out the requirements that a particular kind of product, service or process must fulfil, in order to establish that it is 'fit for purpose'. Other types of standard relate to methods of testing, terminology and definitions, information requirements, or the compatibility of connections.

Standards provide individuals, businesses and all kinds of organizations with a common basis for mutual understanding. They are especially useful for communication, measurement, commerce and manufacturing.

Standards make trade easier by ensuring compatibility and interoperability of components, products and services. They bring benefits to businesses and consumers in terms of reducing costs, enhancing performance and improving safety.

Standards are voluntary, which means that businesses and other organizations are not legally obliged to apply them. However, in certain cases standards may facilitate compliance with legal requirements, such as those contained in European directives and regulations.



The primary objective of standardization is the definition of voluntary technical or quality specifications with which current or future products, production processes or services may comply.

Standardization can cover various issues, such as standardization of different grades or sizes of a particular product or technical specifications in product or services markets where compatibility and interoperability with other products or systems are essential.



EU Regulation on European Standardization (1025/2012)

National standards organizations (such as the members of CEN and CENELEC*) can develop their own national standards, and they also contribute to the development and adoption of standards at the European and international levels. They can provide you with information about all kinds of standards and advise you on how to obtain any standards you might need.

National standards organizations bring together representatives of business and industry as well as other stakeholders such as: consumer organizations, environmental groups and bodies concerned with health and safety issues. The practical work of defining and setting standards is carried out in technical committees by experts who are nominated by the various stakeholders.

European Standards are developed and published by the European Standardization Organizations: the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), and the European Telecommunications Standards Institute (ETSI).

International standards are developed and published by the international standards organizations: the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), and the International Telecommunication Union (ITU). International standards are especially valuable as a means to facilitate trade between different countries.

In most cases, the initiative to develop a new standard is taken by businesses who consider that a particular standard is needed, as it would be useful as a way to address specific needs. These businesses and other stakeholders, including public authorities and academic experts, are taking part in standardization activities at the national, international and European levels.

Most standards (including European and international standards) can be purchased from the national standards organization(s) in your country. The revenue generated from the sale of standards is essential, as it contributes to the financial sustainability of the entire standardization system.

** For a full list of all CEN and CENELEC members, please see pages 14 & 15*



Standardization at European level

There are 3 European Standardization Organizations (ESOs) that are officially recognized by the European Union as being responsible for the development and adoption of European Standards. They are:

CEN - European Committee for Standardization

CENELEC - European Committee for Electrotechnical Standardization

ETSI - European Telecommunications Standards Institute

The members of CEN and CENELEC are the National Standards Bodies and National Electrotechnical Committees of 33* European countries - including all the member states of the European Union (EU) and other countries that are part of the European Single Market. All of the European Standards that have been approved and adopted by CEN and CENELEC are automatically accepted and recognized in all of these countries.

Most European Standards are developed in response to specific needs that have been identified by businesses and other potential users of standards.

Some European Standards are prepared on the basis of requests (or **mandates**) that are issued to the ESOs by the European Commission. Many of these standards are known as **harmonized standards**. They enable businesses to ensure that their products (or services) comply with **essential requirements** that have been set out in European legislation (Directives).

European Standards are developed by teams of experts who have particular knowledge of the specific sector or topic that is being addressed. In CEN and CENELEC, the members of technical committees (as well as sub-committees and working groups) are nominated by the national standards organizations.

Technical committees are expected to take account of the opinions and interests of all the relevant stakeholders including business and industry, research institutes, consumer and environmental organizations. All of these stakeholders are invited to express their views on draft standards, for example by responding to public consultations or enquiries that are organized at national level in each country.

Every National Standards Body or National Committee that is part of the CEN or CENELEC system is obliged to adopt each European Standard as a national standard and make it available to customers in their country. They also have to withdraw any existing national standard that conflicts with the new European Standard. Therefore, one European Standard becomes the national standard in all the countries covered by CEN and CENELEC members.

** number of full members in 2013*



Each European Standard is identified by a unique reference code which contains the letters 'EN'. In addition to European Standards (EN), CEN and CENELEC also produce and publish several other types of documents. These include: Harmonization Documents (HD), Technical Reports (TR), Technical Specifications (TS), and Workshop Agreements (CWA).

The standardization activities of CEN and CENELEC cover products, processes and services across a wide range of sectors.

■ Topics and sectors being addressed by **CEN** activities include:

- Bio-based products
- Chemicals
- Construction
- Food
- Heating, Ventilation and Air Conditioning (HVAC)
- Materials
- Nanotechnologies
- Pressure equipment
- Services

■ Topics being addressed by **CENELEC** activities include:

- Electrical engineering
- Electromagnetic Compatibility (EMC)
- Fibre-optic communications
- Fuel Cells
- Household Electrical Appliances
- Solar (photovoltaic) electricity systems

■ Topics and sectors being addressed by both **CEN and CENELEC** activities include:

Accessibility	Machinery safety
Air and Space	Measurement
Consumer products	Medical equipment
Electric Vehicles	Railways
Environment	Security and defence
Energy and utilities	Smart Grids
Health and safety	Smart Metering
Healthcare	Transport and packaging
Information and Communication Technologies (ICT)	

Although they deal with different fields and sectors, CEN, CENELEC, and ETSI also collaborate on joint standardization activities in a number of areas where their respective competences coincide or overlap. These include various environmental topics, energy management, electricity distribution networks ('Smart Grids') and home automation ('Smart House') as well as information and communication technologies (ICT).

How can standards help my business?

There are many benefits that your business can gain from using standards.

→ Improved performance, quality and reliability

Standards provide clear guidelines and instructions that, when correctly applied, should ensure that a product or service will satisfy a series of specific quality criteria, corresponding with customers' requirements.

By implementing the relevant standards, you can achieve better levels of performance and reliability. This will help you to attract and retain customers for your products and services, thereby making your business more competitive and successful.

→ Better health and safety of your workers and consumers

Standards help to protect the health and safety of your employees and customers as well as the general public and the natural environment.

All relevant health and safety rules are taken into account during the development of European Standards, alongside input from organizations specializing in health and safety at work, consumer protection and environmental aspects.

By applying the relevant standards correctly, you can fulfil your responsibilities towards your employees and customers as well as your legal obligations.

→ Compatibility between different products and components

Standards are a useful tool for ensuring that different products and components are mutually compatible and will function properly when connected together. This objective – also known as interoperability – is vital for numerous industries.

By paying close attention to standards, you can make sure that all the products and services you provide are compatible with each other, and that they will also work with products and services offered by other companies and organizations.

→ Clear communication with your suppliers and customers

Standards provide precise and widely-accepted descriptions of components, products and services. They make it possible for every link in the supply chain to share a common understanding of the exact requirements that need to be fulfilled.

By including references to specific standards in product catalogues, calls for tender, supply contracts and purchase agreements, you can insist that suppliers respect these requirements, and you can also make sure that the products and/or services you provide will correspond to your customers' expectations.

→ Access to customers across Europe and around the world

By using European Standards, your business can take full advantage of the Single Market and reach up to 600 million potential consumers across Europe.

European Standards published by CEN and CENELEC are recognized and accepted in 33 countries, so you can be sure that when you apply these standards, you will be able to sell your products and/or services in all these countries.

Furthermore, many CEN and CENELEC standards are identical to (or based on) international standards published by ISO and IEC, thereby making it easier for you to do business with customers and/or suppliers outside Europe.

→ Higher levels of customer confidence and satisfaction

Gaining the confidence of your customers and keeping them satisfied is crucial for the success of your business. Standards can help you to achieve these goals, because they enable you to maintain high levels of quality throughout the supply chain and production process, or when you are delivering a service.

When your customers are confident in your ability to provide high-quality products or services in an efficient and consistent way, they will be more likely to continue buying your products, using your services, and supporting your business.

→ Reduced costs, less waste and better efficiency

Standards facilitate competition by making it easier for customers to choose between different suppliers offering equivalent products or services. Purchasers are able to choose between products or services that comply with the same standard by looking at differences in terms of quality, price, and other criteria.

Standards also contribute to reducing waste and improving efficiency. For example, European Standards that integrate 'Ecodesign' principles are valuable tools for reducing energy consumption, thereby helping consumers to save money.

→ Compliance with relevant legislation (including EU Directives)

Standards can help companies and other organizations to ensure that their products and services fulfil the requirements of relevant legislation.

Some European Standards (called 'harmonized standards') enable companies to make sure that their products, services or processes comply with the requirements of specific EU directives and/or regulations. Those who apply these standards are said to benefit from a 'presumption of conformity' with the relevant legal requirements.

→ Access to the latest knowledge and state-of-the-art solutions

European and international standards are developed by experts from many different countries who share their knowledge and expertise in a particular field. These standards are also reviewed on a regular basis to ensure that they take account of the latest scientific, technological, regulatory and market developments.

By referring to the current versions of relevant standards, you can benefit from having access to the best available knowledge and state-of-the-art solutions.

→ Positive perception and reputation of your business

Alongside the direct benefits of using standards, there can also be indirect benefits that are just as important for the long-term success of your business.

Standards are a way of showing to the world that you are committed to excellence - not just in the quality of your products and/or services – but also in terms of health and safety, management processes, environmental aspects, etc.

Companies and organizations that make correct use of standards experience real benefits in how they are perceived by their customers, their stakeholders, and the wider community (public authorities, media, civil society, etc.)

Getting the benefit from standards

Here are some examples of businesses that have benefitted from using standards and have also decided to get actively involved in standardization.



Elysee Irrigation Ltd – Plastic Piping Industry

Based in Cyprus, Elysee Irrigation Ltd is a leading manufacturer of plastic pipes and fittings for irrigation, water supply, cable applications, sewerage and drainage. The company makes use of relevant European and international standards, and also participates actively in standardization activities via the Cyprus Organization for Standardization (CYS).



In our mind there is no question as to whether we should use standards or not:

Using standards is not only about improving the quality of the specific products. It is mostly about getting answers to everyday issues, peer-to-peer benchmarking and pushing further the boundaries of own technology.



© Elysee Irrigation Ltd

Panos Protopapas,
General Manager of Elysee Irrigation Ltd, and member of CEN/TC 155
(Plastics piping systems and ducting systems)

Bender Group - Electrical Safety Equipment

Bender GmbH & Co. KG is a German company with more than 60 years experience in providing electrical safety equipment to all kinds of industries, from healthcare to solar energy. Today the Bender Group markets its products to customers around the world, via companies and agencies in more than 80 countries including Canada, China, India, Russia, and the USA



© Bender GmbH & Co. KG



Active participation in standardization is very important for Bender and we see this as part of our strategic objectives. The success of our company depends on our ability to comply with relevant standards, and so it makes sense for us to be actively involved, in order to influence the content of these standards.



Wolfgang Hofheinz,
former Chief Technical Officer of Bender GmbH & Co. KG,
and President of the German Electrotechnical Commission (DKE).

Molok Ltd - Production of waste containers

For more than 20 years, the Finnish company Molok Ltd has been developing, producing and marketing waste collection systems that facilitate recycling, using underground containers. Molok applies the relevant European Standards, and actively contributes to the work of the CEN Technical Committee that is responsible for waste management (CEN/TC 183).



© Molok Ltd



Following standards enables us to ensure that our products respect all of the relevant regulations with regard to quality and safety, and allows us to participate in tenders for public contracts. Being involved in standardization also helps us to be informed about the latest trends and upcoming developments that will affect our customers and our business.





Hannu Jokinen,
Managing Director of Molok Ltd.

Why participate in standardization?

While businesses can enjoy a wide range of benefits simply by using standards and applying them correctly, there are several reasons why many businesses also choose to actively participate in the development of standards.

By getting involved in standardization, you can help to shape the content of new standards that will affect your business, while they are being prepared. You can make sure that any concerns or issues you consider important are taken into account during the drafting and development process, and prevent (or minimize) any potential costs or other negative impacts on your business.

 A European Standard is shaped
by those who contribute to its development. 

When you participate in standardization on a regular basis, you will also **be better informed** about all kinds of developments that could impact on your business. For example regarding opportunities to revise existing standards, proposals to develop new standards, or the introduction of new regulations - either at national or European level.

By taking part in technical groups – whether at national, European or international level - experts from your company will benefit from having **access to the latest knowledge** in a particular field or sector that is essential for your business. They will learn about relevant innovations and technological developments as well as emerging trends and evolving market needs.

How to participate in standardization?

Businesses as well as other organizations and stakeholders, can participate in standardization in a number of different ways.

It is up to each business or organization to choose whether it wishes to get involved in standardization, and how it prefers to participate. This choice will normally depend on a number of factors, including: the number and variety of fields or sectors to be followed, the availability of technical experts who could participate in technical work, and whether it is possible to combine resources by cooperating with other companies or organizations .

Have your say at national level

The main route for businesses or other stakeholders to get involved in standardization is via a National Standards Body or National Electrotechnical Committee. These national organizations can provide you with up-to-date information about what standards are being developed in your domain of interest and how you can help to shape their content.



The simplest way to have your say is by submitting written comments in response to public consultations on draft standards. These consultations (or 'enquiries') must be held in all of the participating countries before any new European Standard can be adopted by CEN or CENELEC.

Should you wish to participate directly in discussions on new standards, you can nominate experts to be members of national technical bodies, including 'mirror committees', which are responsible for following and contributing to the development of standards at European and/or international level.

An increasing amount of technical work is being done electronically, either via email or using web-based tools (known as 'e-commenting'). Teleconferencing also reduces the need for face-to-face meetings, thereby saving time and reducing the costs of participating in standardization.

Have your say at European level

Participating in technical work at national level can sometimes be a first step to getting involved in standardization activities at European level or international level. It may lead to being nominated as a member of a CEN or CENELEC Technical Committee (TC), Sub-Committee (SC) or Working Group (WG). However, it is important to note that the members of these European technical bodies are expected to represent the consensus of all the stakeholders in their respective countries - not just the interests of an individual company or organization. This is known as the 'national delegation principle'.

Make use of your trade or business association

Another avenue for influencing the development of standards is via business associations or those representing specific industries. In many cases, these national associations are also part of Europe-wide federations that are contributing to standardization activities at European level in their capacity as Partner or Liaison Organization of CEN and/or CENELEC.

Members of CEN and CENELEC

For more information about standards and how your company can participate in standardization, please contact the National Standards Body or National Electrotechnical Committee in your country.

Austria

AS - Austrian Standards Institute
www.austrian-standards.at

OVE - Österreichischer Verband
für Elektrotechnik
www.ove.at

Belgium

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

CEB/BEC - Comité Electrotechnique Belge /
Belgisch Elektrotechnisch Comité
www.ceb-bec.be

Bulgaria

BDS - Български институт за стандартизация
www.bds-bg.org

Croatia

HZN - Hrvatski zavod za norme
www.hzn.hr

Cyprus

CYS - Κυπριακός Οργανισμός Τυποποίησης
www.cys.org.cy

Czech Republic

ÚNMZ- Úřad pro technickou normalizaci,
metrologii a státní zkušebnictví
www.unmz.cz

Denmark

DS - Dansk Standard
www.ds.dk

Estonia

EVS - Eesti Standardikeskus
www.evs.ee

Finland

SFS - Suomen Standardisoimislitto SFS ry
www.sfs.fi

SESKO - Suomen Sähkötekni-
Standardoimisyhdistys
www.sesko.fi

France

AFNOR - Association française de normalisation
www.afnor.org

AFNOR-Système français de normalisation-UTE
(UTE - Union Technique de l'Electricité)
www.ute-fr.com

Germany

DIN - Deutsches Institut für Normung
www.din.de

DKE - Deutsche Kommission Elektrotechnik
Elektronik Informationstechnik im DIN und VDE
www.dke.de

Greece

ΕΛΟΤ - Ελληνικός Οργανισμός Τυποποίησης
www.elot.gr

Hungary

MSZT - Magyar Szabványügyi Testület
www.mszt.hu

Iceland

IST - Staðlaráð Íslands
www.stadlar.is

Ireland

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

Italy

UNI - Ente Nazionale Italiano di Unificazione
www.uni.com
CEI - Comitato Elettrotecnico Italiano
www.ceiweb.it



Latvia

LVS - Latvijas standarts
www.lvs.lv

Lithuania

LST - Lietuvos standartizacijos departamentas
www.lsd.lt

Luxembourg

ILNAS - Institut Luxembourgeois de la normalisation, de l'accréditation, de la sécurité et qualité des produits et services
www.ilnas.lu

The former Yugoslav Republic of Macedonia

ISRM - Институт за стандардизација на Република Македонија
www.isrm.gov.mk

Malta

MCCAA - Malta Competition and Consumer Affairs Authority
www.mccaa.org.mt

The Netherlands

NEN - Nederlands Normalisatie-instituut
NEC - Nederlands Elektrotechnisch Comité
www.nen.nl

Norway

NEK - Norsk Elektroteknisk Komite
www.nek.no
SN - Standard Norge
www.standard.no

Poland

PKN - Polski Komitet Normalizacyjny
www.pkn.pl

Portugal

IPQ - Instituto Português da Qualidade
www.ipq.pt

Romania

ASRO - Asociația de Standardizare din România
www.asro.ro

Slovakia

SUTN - Slovenský ústav technickej normalizácie
www.sutn.sk

Slovenia

SIST - Slovenski inštitut za standardizacijo
www.sist.si

Spain

AENOR - Asociación Española de Normalización y Certificación
www.aenor.es

Sweden

SIS - Swedish Standards Institute
www.sis.se
SEK - Svensk Elstandard
www.elstandard.se

Switzerland

SNV - Schweizerische Normen-Vereinigung
www.snv.ch
Electrosuisse
www.electrosuisse.ch

Turkey

TSE - Türk Standardları Enstitüsü
www.tse.org.tr

United Kingdom

BSI - British Standards Institution
www.bsigroup.com



CEN (European Committee for Standardization) and **CENELEC** (European Committee for Electrotechnical Standardization) are officially recognized organizations responsible for developing and defining standards at European level. These standards set out specifications and procedures in relation to a wide range of products and services.

The members of CEN and CENELEC are the National Standards Bodies and National Electrotechnical Committees of 33* European countries. European Standards (ENs) approved by CEN and CENELEC are accepted and recognized in all of these countries.

CEN and CENELEC work to promote the international harmonization of standards in the framework of technical cooperation agreements with ISO (International Organization for Standardization) and IEC (International Electrotechnical Commission).

** number of full members in 2013*

