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PROLOGUE

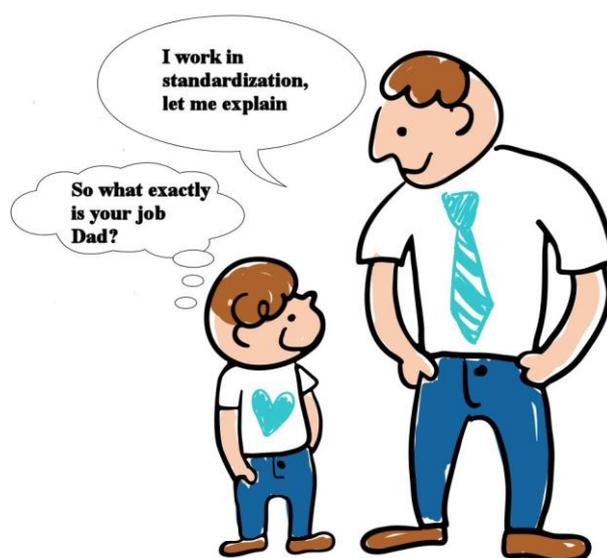
For many people the world of standards seems a closed one, with practitioners speaking in a strange language of unexplained acronyms such as CEN, CENELEC and CASCO and phrases such as 'normative references'.

To help those new to standardization find their way through the maze, this guide has been written by experienced standards users who come together regularly as a working group of IFAN, the international standards users' association. The members of the group have identified some key information that will guide the new standardizer or company standards manager through the maze of the standards world.

We decided to produce this guide having heard something like this so many times:

A Career in Standards... are you Serious???

"So what exactly is your job, dad?"



"I must have asked my father this question several dozen times from my early adolescent years into my twenties. Each time, he would try to sum up all the different committees and roles he would perform. The longer he took to explain, the less I was able to understand what in fact he did. The only thing that I was able to ascertain was that he travelled a fair amount and he dealt with safety standards. This was the precursor to my recent exposure to standards and what in fact made it intriguing for me." Chris Felinski, son of IFAN Past President David Felinski.

Sounds familiar? Even to close relatives of standardizers the world of standards and standardization seems a mystery.

In this guide we will unravel a few of the mysteries and help the beginner find some answers.

Why do we need Standards?

Could you imagine what would happen if you wanted to print a page and the printer rejected the job by reporting "unknown paper format"? What a nightmare! Imagine that you are in front of a teller in a supermarket, a long queue with impatient people behind you, and you want to pay by credit card, but the shape of the card doesn't fit into the card reader. These are just two scenarios of our daily life in which have been solved by standardization.



It'll get more serious if we regard safety of the parts in airplanes, trains or cars or if we talk about standards for data transmission which affect us almost everywhere and at any time (e. g. Global Positioning System [GPS] -navigation, mobile phones, TV or radio-controlled clocks).

For example, people working in industry who are in charge of material development have a need for special physical and mechanical requirements and have had to develop special documents as a necessary tool for different divisions, such as quality control, research & development [R&D] and purchasing.

These industrial documents can be based on national and international standards.

In recent times globalization has become more and more important to all of us. Without using standards as a tool for world trade, trade would suffer from the burden of high costs, complexity and reduced market access.

Hence, standards have to be regarded as documents fostering development and creating new opportunities.

The major benefits of standards can be summarized as follows:

- Impacts cost and time saving in terms of development and manufacturing
- Contributes to ensuring quality of goods and services
- Ensures compatibility between products and components
- Enhances protection of and confidence for customers
- Consolidates the needs of the market players
- Reduces technical barriers and therefore facilitate international trade
- Creates a partnership between public authorities and economic operators
- Supports legislation and regulation

Standards are a common language

What is a standard?

A standard is a document that sets out technical requirements for a specific item, material, component, system or service, or describes in detail a particular method or procedure.

A standard is developed on a knowledge sharing basis in a technical committee made up of a panel of industry experts and other stakeholders such as business, consumers, environmental, regulators and research/testing representatives.

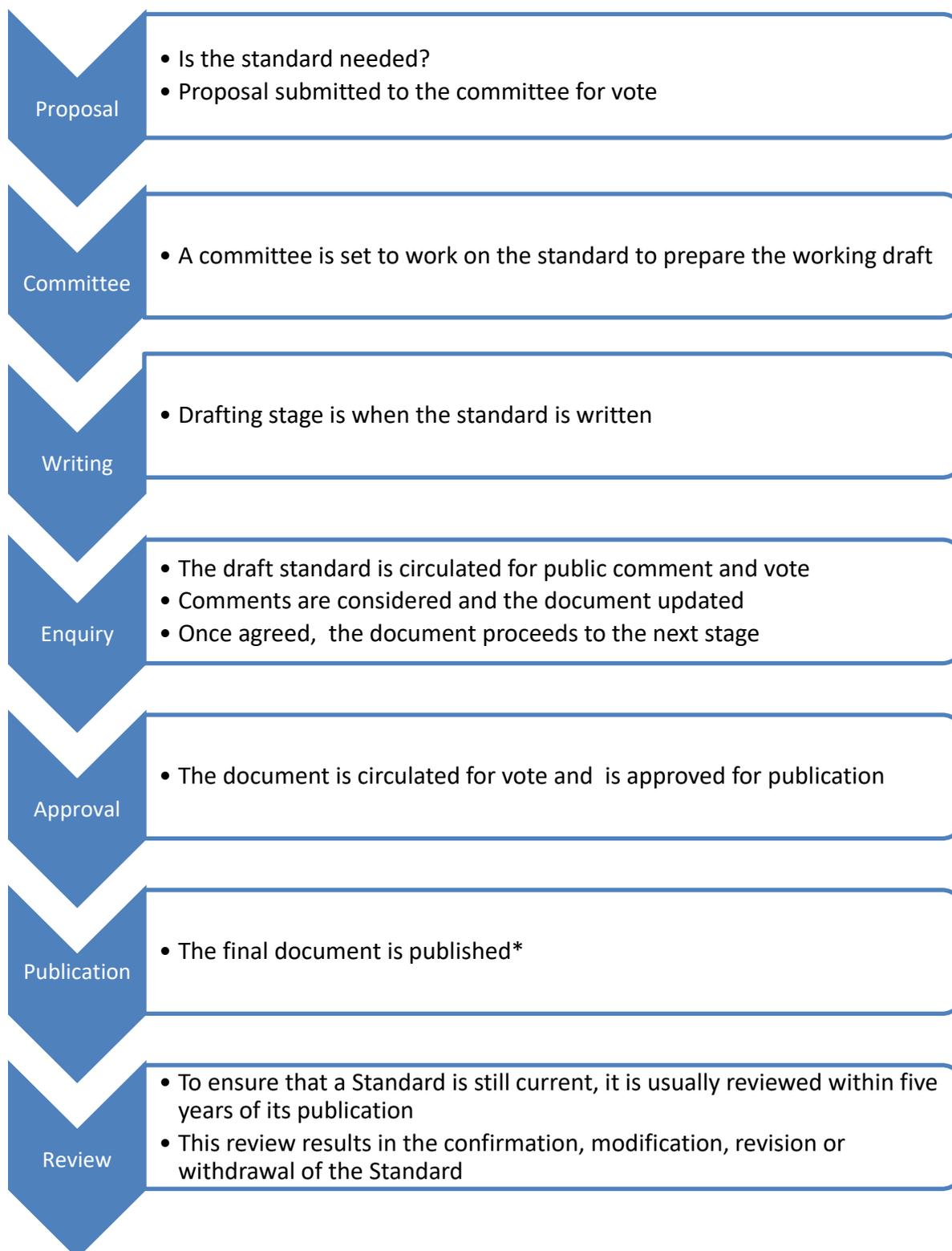
Consensus – general agreement or absence of sustained opposition – must be met on the final document before it becomes a standard.

Standards' developers must comply with strict procedures whether they are national, European or international. When published, a standard is ruled by copyright and complies with the intellectual property rights legislation.

The application of a standard is voluntary. However, they can be referenced in legislation and therefore become mandatory. Primarily standards are a technical reference and therefore facilitate business, trade, performance and improve safety.



How is a standard made?



*European Standards are published in 3 languages. English, French and German
When European Standards are published conflicting national standards are withdrawn

The Language of Standards

To help all readers understand, the style of a standard is kept as simple and concise as possible. However, standards require some knowledge of the subject, its terminology, quantities, units and symbols. Standards can set the vocabularies used for specific domains. Standards need to be comprehensible to qualified people who have not participated in its preparation. Of course, the ideal is not always achieved and sometimes user-friendliness is missing.

A standard should be clear and unambiguous so, the way a standard is written is laid down in various rules. They formalize content, style and structure.

Examples:

- ISO/IEC Directives Part 2: 2018 Principles and rules for the structure and drafting of ISO and IEC documents
- CEN-CENELEC Internal Regulations Part 3: 2017 Principles and rules for the structure and drafting of CEN and CENELEC documents

The user of the standard needs to be able to identify the requirements he/she is obliged to satisfy in order to claim compliance with a document. The user also needs to be able to distinguish these requirements from other types of provisions where there is a choice (i.e. recommendations, permissions, possibilities and capabilities). It is essential to follow rules for the use of verbal forms so that a clear distinction can be made between requirement, recommendations, permissions, possibilities and capabilities.

In colloquial language there is no distinct differentiation for expressing what is required, recommended, permitted or possible. In particular, the actual meaning of 'shall' and 'should' in daily routine is not always obvious. The before mentioned ISO/IEC Directives and CEN-CENELEC Internal Regulations provide guidance for the use of certain words, specifically the use of shall and should:

- **Shall** for a requirement.
- **Should** for a recommendation.

Frequently asked questions include: 'why do guidance documents often use 'shall' when, in principle, they give recommendations?' The reason is, to provide the option to claim compliance with the guidance document, when the recommendations have been carried out.

In Europe, Standards are published in the three official languages of English, French and German. Countries that do not use one of these languages will make a translation from one of these languages.

Translations of standards sometimes show minor differences, this is because the terminology or the language concept expressing a certain clause is different in another language. For instance, rods and bars are summarized by one single term in French as *barres* and in the German language as *Stangen*, regardless of whether the cross section is circular, square or rectangular.

See also FAQs [Annex 1]

The First Page of a Standard explained

The way the first page of a standard looks and the way the document is presented as a whole, is in itself standardized.

The title of a standard is composed of separate elements, each as short as possible, proceeding from the general to the particular, for example:

- a) an introductory element indicating the general field to which the document belongs (this can often be based on the title of the committee which prepared the document);
- b) a main element indicating the principal subject treated within that general field;
- c) a complementary element indicating the particular aspect of the principal subject or giving details that distinguish the document from other documents, or other parts of the same document.

The examples below, from BSI, DIN and AFNOR demonstrates this:

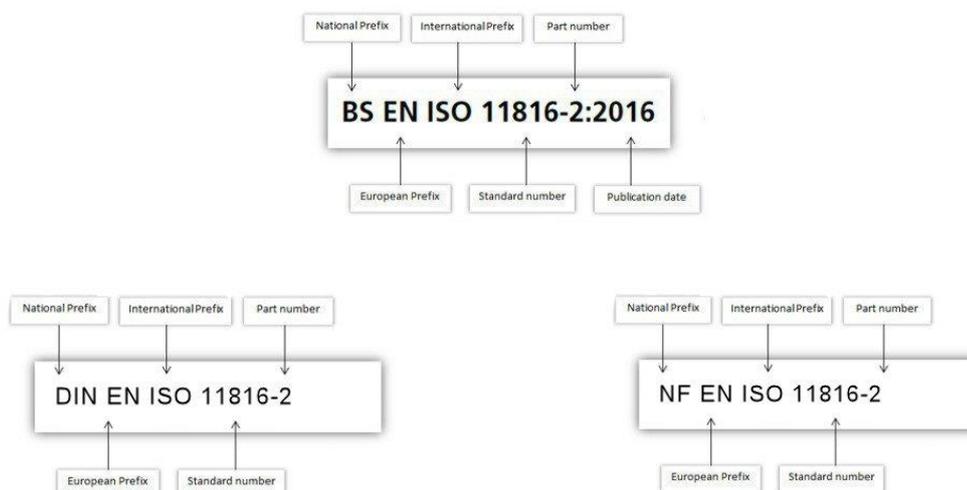


DEUTSCHE NORM		December 2016
DIN EN ISO 11816-2		
ICS 67.100.30	Ersatz für DIN EN ISO 11816-2:2003-06	
<p>Milch und Milchprodukte – Bestimmung der Aktivität der alkalischen Phosphatase – Teil 2: Fluorimetrisches Verfahren für Käse (ISO 11816-2:2016); Deutsche Fassung EN ISO 11816-2:2016</p> <p>Milk and milk products – Determination of alkaline phosphatase activity – Part 2: Fluorimetric method for cheese (ISO 11816-2:2016); German version EN ISO 11816-2:2016</p> <p>Lait et produits laitiers – Détermination de l'activité de la phosphatase alcaline – Partie 2: Méthode fluorimétrique pour le fromage (ISO 11816-2:2016); Version allemande EN ISO 11816-2:2016</p>		
Gesamtdruckung 23 Seiten		
DIN-Normenausschuss Lebensmittel und landwirtschaftliche Produkte (NAL)		

norme française		ISO 6396:2001 NF EN ISO 11816-2 21 Octobre 2016
		Indice de classement : Y 04-054-2
		ICS : 67.100.30
<p>Lait et produits laitiers — Détermination de l'activité de la phosphatase alcaline — Partie 2 : Méthode fluorimétrique pour le fromage</p> <p>E: Milk and milk products — Determination of alkaline phosphatase activity — Part 2: Fluorimetric method for cheese D: Milch und Milchprodukte — Bestimmung der Aktivität der alkalischen Phosphatase — Teil 2: Fluorimetrisches Verfahren für Käse</p>		
Norme française homologuée		
par décision du Directeur Général d'AFNOR Remplace la norme homologuée NF EN ISO 11816-2, du juin 2003.		
Correspondance		
La Norme européenne EN ISO 11816-2:2016 a le statut d'une norme française et reproduit intégralement la Norme internationale ISO 11816-2:2016.		
Résumé		
Le présent document spécifie une méthode fluorimétrique de détermination de l'activité de la phosphatase alcaline (ALP, EC 3.1.3.1) dans le fromage. La méthode est applicable aux fromages à pâte molle, pâte pressée non cuite et pâte pressée cuite, à condition que la maturation ne soit présente que sur la surface. Le fromage et ne se soit pas propagé à l'intérieur, comme dans le cas des fromages vendus de bloc, par exemple. Pour les gros fromages à pâte pressée cuite, des conditions spécifiques d'échantillonnage s'appliquent. L'instrument permet de détecter des activités dans le surrogat de l'ordre de 7 000 mL/litres par litre (pLU).		
Descripteurs		
Thésaurus International Technique : produit laitier, fromage, lait cru, lait pasteurisé, comparaison, analyse chimique, détermination, dosage, phosphatase, méthode fluorimétrique.		
Modifications		
Par rapport au document remplacé, révision technique de la norme.		
Corrections		
Édition d'application: Révisé par l'ensemble de Normalisation (NF02) — 11, rue Favard de launay — 75071 La Plaine Saint-Denis Cedex Tél. : +33 (0)1 41 02 00 00 — Fax : +33 (0)1 40 17 30 00 — www.afnor.org		
© AFNOR — Tous droits réservés		Version de 2016-10-F

An International Classification for Standards [ICS] code is applied to every standard.

Each standard is in a series and has a number (also known as the standard identifier) and a date. Amendments may also be noted on the title page; in some cases amendments are published separately. The standard identifier [number] is made up of the following elements:



A Standard Number explained:

National Prefix, in the example BS is used which stands for British Standard. In the case of a French Standard the prefix would be NF or for a German Standard it would be DIN.

European Prefix, this indicates that the standard is a European Standard and EN is the abbreviation used.

Note: European Standards (EN) can only be purchased as European national standards

International Prefix, ISO or IEC in the standard number indicates that it is an International Standard.

Note: An international Standard (ISO and IEC) is available as an international standard and may be also available as a national adoption

Standard Identifier, the identifier can be a simple number or can have an additional number to indicate a part. The number is the same in every country that adopts an international standard. The year is usually added. In some countries it immediately follows the standard number, in some countries it is on the line below.

Want to know more?

National, regional and international standardization organizations provide information via the internet.

You may find there:

- What they do, their structure,
- How standardization work is organized, technical committees, their work programmes, How to participate,
- Surveys on the benefits of standardization,
- Latest developments
- Catalogue of their deliverables, such as standards, guides and other related documents where you can search for standards via their number or descriptors.

International:

International Organization for Standardization ISO www.iso.org

International Electrotechnical Commission IEC www.iec.ch

Regional:

European Committee for Standardization CEN www.cen.eu

European Committee for Electrotechnical Standardization CENELEC www.cenelec.eu

You can find details of your own National Standards Body/National Committee (NSB/NC) or Standards Developing Organization (SDO) in the member section of the ISO and IEC websites. Your own NSB/NC/SDO will be a good place to find additional information on how standards are written in your country and how to participate in their development.

And of course you may find further useful information on the IFAN website: www.ifan.org

ANNEX 1

Frequently asked questions

1. Why do some cross references in standards have a date and others don't?

Undated references may be made:

- only to a complete document;
- if it will be possible to use all future changes of the referenced document for the purposes of the referring document;
- when it is understood that the reference will include all amendments to and revisions of the referenced document.

Reference to a specific part of the text of a document must be dated, as an amendment could change the text that is being referenced.

2. What is the difference between an HD and a Harmonised Standard?

An HD is a Harmonised Document, [in CENELEC] it is a set of technical requirements that have to be adopted by each member body, either by direct transposition (as with an EN), or by being incorporated within the existing body of national standards (by amendment or revision)

A Harmonised Standard is a technical specification adopted by European Standards Organizations, developed under a mandate/standardization request given by the EC and/or EFTA, in support of essential requirements of a New Approach Directive

3. What is an Annex Z?

An Annex Z (Annex ZA for CEN documents, and Annex ZZ for CENELEC documents) is an informative correlation table annexed to a harmonized standard document (hEN). It indicates the relationship between essential requirements or safety objectives of a EU Regulation or Directive aimed to be covered, and the content of the hEN. It is required for a standard to have an Annex Z to be cited in the Official Journal of the European Union (OJEU).

ANNEX 2

Some useful links

CEN-CENELEC FAQ site

<https://www.cencenelec.eu/research/FAQs/Pages/default.aspx>

General CEN FAQs

<https://www.cen.eu/helpers/pages/faq.aspx>

General CENELEC FAQs

https://www.cenelec.eu/faq/faq_entry.htm

A world built on standards

<https://www.ds.dk/~media/DS/Files/Downloads/publikationer/A-world-build-on-standards.ashx>

What is a European Standard

<https://www.cencenelec.eu/standards/DefEN/Pages/default.aspx>

How standards support research and innovation

<https://www.standardsplusinnovation.eu/>

<https://www.cencenelec.eu/research/Pages/default.aspx>

Find out more about Standards

<https://www.standards4all.eu/>

BSI's FAQ site

<https://www.bsigroup.com/en-GB/about-bsi/media-centre/media-faqs/>

BSI site with general information about standards

<https://www.bsigroup.com/en-GB/standards/Information-about-standards/>

DIN

<https://www.din.de/de/ueber-normen-und-standards/basiswissen>

<https://www.din.de/en/about-standards/a-brief-introduction-to-standards>

<https://www.dinsoftware.de/en/dienstleistungen/tbt-enquiry-point-germany>

<https://www.dinsoftware.de/de/dienstleistungen/tbt-auskunftstelle>

AFNOR

<https://normalisation.afnor.org/foire-aux-questions/>

ANNEX 3

IFAN Publications

Guide 2 Guidelines for establishing a National Standards Users group

Guide 3 Guidelines to assist members of standards committees in preparing user-friendly European standards

Guide 4 Education and Training about Standardization

IFAN Publications can be accessed here:

<http://www.ifan.org/ifan-publications.html>

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IFAN SECRETARIAT
c/o 22 Avenue De-Luserna
CH-1203
Geneva
Switzerland
E-mail ifan@ifan.org
Website: www.ifan.org