

Press Release



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Frankfurt/Germany, 12 January 2024 - The importance of standardization work is often underestimated or given little attention. For companies, it is often an important basis for innovation and competitiveness.

It is therefore important to inspire young talents for standardization.

Andre Thuswaldner, Vice President of EUROTRANS, described this topic vividly:

Shape The Future With Standards

What are Standards?

Standards are documents that provide rules, guidelines and requirements for the design, production, use or performance of materials, products, processes, services or persons. They are the result of voluntary national, European and international standardization activities.

The use of standards is voluntary. Standards only become binding if they are the subject of contracts between parties, for example between vendor and buyer, or if compliance with them is mandatory by law.

Advantages of Standards

Standards provide a common language for an efficient communication and work flow between designers, manufacturers, vendors, end-users, certification bodies.

Standards can serve as a catalyst for innovations and help in anchoring solutions more quickly on the market.

Standards define compatibility requirements. As everybody knows, compatibility between individual components and systems is essential.

Standards as a global language of technology facilitate market access and help to reduce technical trade barriers.

Standards help to save costs, for example overhead costs of every part bought or sold.

Standards improve product safety by defining quality and minimum requirements, that help to protect users, their health and safety, and the environment.

Standards reduce product liability risk by providing clarity about the properties of a product and are considered to be clear and recognized rules of technology. In contracts, reference to standards increases legal certainty.

Who creates Standards?

Did you know? Standards are developed by the interested parties themselves and not by the legislator, government authority or a national regulator. All parties interested in the specific topic can get involved with the professional work within the standard committees and contribute with their expertise. Industry experts drive all aspects of the standard development process, from deciding whether a new standard is needed to defining its technical content.

Organisation of ISO

ISO is a global network of national standards bodies. ISO has one member per country, i.e. each member represents ISO in its country. P-members can actively participate by sending nominates into the working groups and by voting on the standards at various stages of their development. O-members can observe the standards that are being developed, and can offer comments and advice.

A technical committee (TC) or subcommittee (SC) consists of national bodies (e.g. AFNOR, DIN, SNV...) indicated their involvement in the work as a P-member to participate actively or O-member to observe the work done in the specific committee.

Working groups (WG) are established by a technical committee or subcommittee and consist of individual specialists, such as designers, manufacturers, end-users and academia. These specialists are put forward by the ISO member bodies who have indicated to work actively in the committee (P-members).

How is an ISO Standard developed?

The proposal for a new standard can be submitted by ISO member bodies, ISO technical committees or partner organizations (liaison). ISO checks if there is a global market need by asking the countries to vote. ISO members can choose to actively participate in a technical committee. Depending on the size of the committee, there is a minimum number of P-members (4 or 5) needed for active contribution. If it is approved, the proposal gets added to an ISO committee's work program. They can nominate experts to write the draft standard in the working group. After consensus, the document is sent up to the parent technical committee for review. The technical committee shares the draft standard with the national experts for comment. Once the national standards bodies receive their feedback, they will then vote to approve or disapprove the draft. The technical committee sends the draft to the ISO central secretariat which sends it to all ISO member bodies for voting. If the ballot was closed and the vote passed, then it can be published as an International Standard.

The standard is reviewed on a regular basis to ensure that it is in line with the technical progress and either confirmed, revised or withdrawn. The review takes into account the feedback from national experts.

Types of ISO Documents

Beside the International Standard (IS), as discussed before, we also know Technical Specifications (ISO/TS) and Technical Reports (ISO/TR). ISO/TS is published for immediate use, but it also provides a means to obtain feedback, because work is still in development. The aim is that it will eventually be transformed and republished as an International Standard. An ISO/TR is informational only and may contain, for example, technical research, tutorials or information on 'state-of-the-art' developments.

How to get involved?

You are interested in getting involved? Contact your national association or the national standards body that represents ISO in your country:

Belgium: NBN Bureau de Normalisation marketing@nbn.be

Germany: DIN Deutsches Institut für Normung e.V. directorate.international@din.de

Finland: Finnish Standards Association SFS sfs@sfs.fi

France: AFNOR Association française de normalisation Standardization@afnor.org

Italy: UNI Ente Italiano di Normazione normazione@uni.com

Switzerland: SNV Swiss Association for Standardization normung@snv.ch

Türkiye: TSE Türk Standardları Enstitüsü usm@tse.org.tr

United Kingdom: BSI British Standards Institution standards.international@bsigroup.com

Examples of ISO Standards in the field of Drive Technology

<i>Standard</i>	<i>Title</i>
IEC 61400-4	Wind energy generation systems - Part 4: Design requirements for wind turbine gearboxes
ISO 1328-1	Cylindrical gears - ISO system of flank tolerance classification - Part 1: Definitions and allowable values of deviations relevant to flanks of gear teeth
ISO 17485	Bevel gears - ISO system of accuracy
ISO 4468	Gear hobs - Accuracy requirements
ISO 701	International gear notation - Symbols for geometrical data
ISO 1122-1	Vocabulary of gear terms - Part 1: Definitions related to geometry
ISO 1122-2	Vocabulary of gear terms - Part 2: Definitions related to worm gear geometry
ISO 10825-1	Gears - Wear and damage to gear teeth - Part: 1: Nomenclature and characteristics
ISO 6336-1	Calculation of load capacity of spur and helical gears - Part 1: Basic principles, introduction and general influence factors
ISO 6336-2	Calculation of load capacity of spur and helical gears - Part 2: Calculation of surface durability (pitting)
ISO 6336-3	Calculation of load capacity of spur and helical gears - Part 3: Calculation of tooth bending strength
ISO 14635-1	Gears - FZG test procedures - Part 1: FZG test method A/8,3/90 for relative scuffing load-carrying capacity of oils
ISO 14635-2	Gears - FZG test procedures - Part 2: FZG step load test A10/16, 6R/120 for relative scuffing load-carrying capacity of high EP oils
ISO 14635-3	Gears - FZG test procedures - Part 3: FZG test method A/2, 8/50 for relative scuffing load-carrying capacity and wear characteristics of semifluid gear greases
ISO 10300-1	Calculation of load capacity of bevel gears - Part 1: Introduction and general influence factors
ISO 10300-2	Calculation of load capacity of bevel gears - Part 2: Calculation of surface durability (pitting)
ISO 10300-3	Calculation of load capacity of bevel gears - Part 3: Calculation of tooth root strength
ISO 23509	Bevel and hypoid gear geometry

ISO 6336-5	Calculation of load capacity of spur and helical gears - Part 5: Strength and quality of materials
ISO 4156-1	Straight cylindrical involute splines - Metric module, side fit - Part 1: Generalities
ISO 4156-2	Straight cylindrical involute splines - Metric module, side fit - Part 2: Dimensions
ISO 4156-3	Straight cylindrical involute splines - Metric module, side fit - Part 3: Inspection

EUROTRANS

Within Europe, the member associations represent the interests of more than 600 enterprises, with a collective annual production of ca. 40 billion EURO (including the bearing industry and without the automotive business and the electrical side). Within Europe, more than 160.000 people are employed by this sector. Most of the small and mid-sized companies are active worldwide.

EUROTRANS provides a platform through its technical working group to bring national and international standardization activities into an European context. This is then fed back into the national activities. It is also an aim to promote standardization work within the companies and to young people, since it is an important factor for the competitiveness in a global market.

www.euro-trans.org



Author Andre Thuswaldner, Vice-President of EUROTRANS, wishes you a happy and prosperous new year 2024!