



STRATEGIC BUSINESS PLAN – ISO/TC 5

Executive summary

0.1 Business environment

Ferrous metal piping systems addressed by ISO/TC 5 and composed of steel and cast iron pipes, metal hoses, fittings and expansion joints are essential elements in piping systems for the supply of liquid and gaseous fuels, industrial plants and the infrastructure of urban environments and buildings where the systems are applied for supply of gas and water, discharge of sewage and waste.

ISO/TC 5 also covers the market of piping elements for mechanical application such as for machines, apparatus, general engineering purposes, scaffolding as well as consumer goods.

Metal tubes and piping systems are used in most industrial sectors and in all parts of the world. Consequently, this market extends to all countries; and this requires the use of standardized products in order to permit easy international trade.

0.2 Benefits

Experts from countries worldwide interested in the work of ISO/TC 5 deliver the best knowledge and capability to assemble the best technical information and requirements in every aspect such as design, performance, test method, installation, etc. in order to assure reliability of the piping systems to their customers.

The foremost aim of ISO/TC 5 is to facilitate the exchange of goods and services through the elimination of technical barriers to trade.

0.3 Priorities

The main task of the ISO/TC 5 is the management, coordination and supervision of the work so that it is brought to a successful rapid conclusion. The subcommittees work independently but maintain close contact with the Secretariat of the technical committee.

The committee and the subcommittees endeavor as far as possible to limit the options of their standardization work in order to let the users benefit from unequivocal solutions specified worldwide.

Priorities of the drafts are decided by the subcommittees in line with the work in hand.

1 Introduction

1.1 ISO technical committees and business planning

The extension of formal business planning to ISO Technical Committees (ISO/TCs) is an important measure which forms part of a major review of business. The aim is to align the ISO work programme with expressed business environment needs and trends and to allow ISO/TCs to prioritize among different projects, to identify the benefits expected from the availability of International Standards, and to ensure adequate resources for projects throughout their development.

1.2 International standardization and the role of ISO

The foremost aim of international standardization is to facilitate the exchange of goods and services through the elimination of technical barriers to trade.

Three bodies are responsible for the planning, development and adoption of International Standards: [ISO](#) (International Organization for Standardization) is responsible for all sectors excluding Electrotechnical, which is the responsibility of [IEC](#) (International Electrotechnical Committee), and most of the Telecommunications Technologies, which are largely the responsibility of [ITU](#) (International Telecommunication Union).

ISO is a legal association, the members of which are the National Standards Bodies (NSBs) of some 164 countries (organizations representing social and economic interests at the international level), supported by a Central Secretariat based in Geneva, Switzerland.

The principal deliverable of ISO is the [International Standard](#).

An International Standard embodies the essential principles of global openness and transparency, consensus and technical coherence. These are safeguarded through its development in an ISO Technical Committee (ISO/TC), representative of all interested parties, supported by a public comment phase (the ISO Technical Enquiry). ISO and its [Technical Committees](#) are also able to offer the ISO Technical Specification (ISO/TS), the ISO Public Available Specification (ISO/PAS) and the ISO Technical Report (ISO/TR) as solutions to market needs. These ISO products represent lower levels of consensus and have therefore not the same status as an International Standard.

ISO offers also the International Workshop Agreement (IWA) as a deliverable which aims to bridge the gap between the activities of consortia and the formal process of standardization represented by ISO and its national members. An important distinction is that the IWA is developed by ISO workshops and fora, comprising only participants with direct interest, and so it is not accorded the status of an International Standard.

2 Business Environment of the ISO/TC 5

2.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal and social dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this ISO/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

• Political factors

International Standards for steel tubes, cast iron pipes, metal hoses and expansion joints are instruments for avoiding technical barriers in the world market.

A strong International and therefore worldwide standardization activity could be a basis for a good cooperation of national and regional standardization bodies with ISO in the new context of WTO (World Trade Organization).

In 2015, the United Nations set an ambitious 15-year plan to address some of the most pressing issues faced by the world. See more details by the link: <https://www.iso.org/sdgs.html>

Standards in ISO/TC 5 is mainly helping meet the following United Nations Sustainable Development Goals (SDGs):

✓ Goal 6: Clean Water and Sanitation

Ensure availability and sustainable management of water and sanitation for all

✓ Goal 9: Industry, Innovation and Infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

✓ Goal 11: Sustainable Cities and Communities

Make cities and human settlements inclusive, safe, resilient and sustainable

✓ Goal 12: Responsible Consumption and Production

Ensure sustainable consumption and production patterns

✓ Goal 13: Climate Action

Take urgent action to combat climate change and its impacts

At ISO General Assembly in September 2021, ISO members approved the London Declaration, ISO's commitment to combat climate change through standards.

To help deliver on ISO commitments, the TMB has developed an action plan that will support the ISO technical community. The action plan focuses on:

– Working with committees to prioritize the revision of selected, high impact standards.

– Identifying opportunities for the development of new standards and pathways as to how standardization can contribute to climate action.

– Increasing the participation of underrepresented stakeholders in the development of standards.

ISO/TC 5 is going to through the above actions to develop more climate-friendly standards in response to the London Declaration.

• Economical factors

The use of International Standards leads to a harmonization of the market. The opportunity to have, worldwide, a single standard for a given product leads to a saving in terms of stocking, avoiding the fragmentation of the market in a lot of products manufactured according to different standards.

• Technical factors

The majority of ISO/TC 5 standards are basic standards, suitable to be used by the industry and other technical committees for the development of their specific product standards.

- **Regulatory/Legal factors**

An important part of the work of ISO/TC 5 is that carried out in respect of national and regional legislations, codes, rules and regulations as for example for pressure equipment, gas appliances, and construction products.

- **Social factors**

The sector is of great importance for global employment.

2.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the ISO/TC:

The market covers the entire chain, from pipe manufacturers up to stockists (on the supplier side) and all types of major industries (on the user side). Products are, depending on their application, ordered either directly from manufacturers or via stockholders.

3 Benefits expected from the work of the ISO/TC 5

Through these works ISO/TC 5 contributes to the business of metal piping systems by promoting their wide acceptance in various applications, by providing developing countries with objectives, guides and targets in their adoption, and by saving expenses by avoiding the overlapping of technical product development and testing.

Development and/or maintenance of International Standards on products permits the continuation of efficient worldwide trade.

The use of standardized products allows consistent design and fabrication of equipment worldwide.

Technical continuous improvement of the delivered products avoids the possible replacement by non ferrous materials.

4 Representation and participation in the ISO/TC 5

4.1 Membership

<https://www.iso.org/committee/45592.html?view=participation>

4.2 Analysis of the participation

The main participants in ISO/TC 5 subcommittees are the major industries, manufacturers, consumers, trade unions, public authorities and non-governmental organizations.

One of the major risks for ISO/TC 5 is the lack of availability of experts due to the crisis of the sector and the continuous evolution of the economic situation.

The technical committee and the subcommittees maintain close technical cooperation with the European Committee for Standardization (CEN) within the framework of the Vienna Agreement.

5 Objectives of the ISO/TC 5 and strategies for their achievement

5.1 Defined objectives of the ISO/TC 5

ISO/TC 5 is one of the oldest committees, its work program is developing as required by new technologies and products.

The aim is to align the ISO/TC 5 work program with expressed market needs and to ensure the adequate resourcing of projects through their development stages.

Most of the industrial sectors are covered by already published standards. ISO/TC 5 wants to keep these standards up-to-date, in line with the market needs and the evolution of the manufacturing processes.

The committee and the subcommittees endeavor as far as possible to limit the options of their standardization work in order to let the users benefit from unequivocal solutions, specified world-wide.

5.2 Identified strategies to achieve the ISO/TC 5's defined objectives

All major countries (those which are producers of significant importance) are represented in ISO/TC 5.

The work is done within subcommittees that deal with products for specific applications.

Some subcommittees have set up working groups for preparing standards for very specific type of products.

Priorities are decided by the subcommittees in line with the work in hand.

The follow-up of the evolution both in market needs and manufacturing processes allows ISO to launch at appropriate time the revision of the appropriate standards. Particular attention is focused on the work carried out in CEN, in order to harmonize as far as possible ISO and EN standards.

The technical committee and the subcommittees maintain close technical cooperation with the European Committee for Standardization (CEN) within the framework of the Vienna Agreement. They afford high priority to the standards required by CEN in order to avoid duplication of work.

6 Factors affecting completion and implementation of the ISO/TC 5 work programme

Besides the growing lack of availability of experts, there are great difficulties for harmonization of standards based on different basic concepts (e.g. inch sized systems).

Difficulties have also been found in the harmonization of the steel grades used in various standards and of the technical requirements of products, due to the existing differences in national standards.

7 Structure, current projects and publications of the ISO/TC 5

Information on ISO online

The link below is to the TC's page on ISO's website:

<https://www.iso.org/committee/45592.html>

Click on the tabs and links on this page to find the following information:

- About (Secretariat, Committee Manager, Chair, Date of creation, Scope, etc.)
- Contact details
- Structure (Subcommittees and working groups)
- Liaisons
- Meetings
- Tools
- Work programme (published standards and standards under development)

Reference information

[Glossary of terms and abbreviations used in ISO/TC Business Plans](#)

[General information on the principles of ISO's technical work](#)