

STRATEGIC BUSINESS PLAN – ISO/TC 117

Executive summary

The main field of TC 117 is fans. Fans that are excluded from the scope of ISO/TC 117 are electrical fans or fan-based electrical appliances for household, and similar purposes in the scope of IEC/TC 59 and IEC/TC 61.

Fans are manufactured and used worldwide.

The world market for fans is about \$5,000 million per year.

Data on units sold per annum was not available at the time of writing this business plan.

This technical committee has been in existence since the mid-1960s during which time it has developed a suite of standards on the design and performance of fans. This has helped achieve trade from country to country and has begun to standardize requirements from one country to another. The continued work of TC 117 will help improve on what is already a good base.

The main objective of TC 117 is to complete the work programme and to develop new standards and technical reports as agreed at the annual plenary meeting.

1 Introduction

This clause 1, 1.1 and 1.2 is common across all ISO SBPs and cannot be altered.

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

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 dynamics – there has been an increasing internationalization of fan companies.

Economic dynamics – the industrial fans market is mature. Consequently, the competition is significant with unit costs being driven lower.

Technical, regulatory, and legal dynamics – energy efficiency is now high on most government’s agendas. This has an effect technically on fan design and manufacture. It is now a requirement to measure performance more accurately. The new energy efficiency regulations introduced in many regions call for greater energy efficiency and so ISO/TC 117 standards play a more significant role consequently.

Social dynamics – The increasing importance of health and safety standards led ISO/TC 117 to produce a standard for guarding and two for vibration. The warming climate drives the use of comfort fans which assist the cooling effect through evaporation off the skin of humans and animals. The COVID19 pandemic brought to light the need for improved building ventilation, which increases fan usage. This TC’s efforts to increase fan efficiency counteracts the resulting increase of electricity consumption of fans. These dynamics are likely to continue.

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:

- a. Total annual international trade in the products of several billion US\$.
- b. Estimated number of companies (world-wide) operating in the sector or producing the commercial/industrial fans is in excess of 800.
- c. Estimated employment (world-wide) in the sector is estimated to be in excess of 40,000.
- d. Estimated percentage of products in the marketplace self-declared or certified to the ISO committee’s International Standards is about 70%.
- e. The organisations (world-wide) requiring compliance with ISO/TC 117’s International Standards include
 - a. Public utilities in some countries
 - b. Large mining companies
 - c. Reputable HVAC contracting companies
- f. Government procurement in the major industrialized nations have adopted the ISO committee’s International Standards into legislation, regulations, or procurement requirements.
- g. Six of the ISO committee’s International Standards have been cited as normative references in International Standards of other ISO committees.

The ISO committee's International Standards have been adopted in many countries e.g. ISO 5801 has been adopted in UK, Italy, France, Philippines, Belgium, Sweden, Australia, Finland, India, Netherlands, Poland.

3 Benefits expected from the work of the ISO/TC

- It ensures a level playing field in a global market.
- The standards work has been effective in removing technical barriers to trade – it has saved a company having to test to several national standards with resulting cost savings to the company.
- The standards produced by ISO/TC 117 to date have been adopted in their entirety by several nations.
- ISO/TC 117 standards have been cited by ISO and CEN standards e.g. EN 12101-3 cites ISO 5801:2017.
- ISO/TC 117 standards have been used to improve energy efficiency and reduce carbon via legislative measures.
- Circular economy aspects (life cycle impact; material efficiency etc.)

4 Representation and participation in the ISO/TC

4.1 Membership

Countries/ISO member bodies that are P and O members of the ISO committee

4.2 Analysis of the participation

The participation amongst developed countries has been very good; amongst developing countries it has been good. In addition, several developing countries are “observers” in the TC 117 work.

The participation has good coverage across all regions of the world.

There is no lack of participation from specific countries or regions that has a negative impact on the standards work. With TC 117 being in existence for over 55 years, all countries and regions that have an impact have been encouraged to participate.

Other ISO technical committees, IEC and CEN technical committees, EUROVENT-CECOMAF, AMCA International and the World Customs Organization are in liaison with ISO/TC 117. During 2019 to 2021 ISO played a pivotal part informing the joint ISO/IEC CAISEMS project (*Coordination and Alignment of IEC & ISO Standards for Energy Efficient Electric Motor Driven Systems*). At the conclusion of the project, ISO/TC 117 joined the resulting ISO/IEC Joint Advisory Group IEC/TC 22/SC 22G/JAG 22 (Optimized Energy and Power Consumption of Electric Driven Machine Units [e.g. pump, fan, compressor]) and currently hold the position of chair of that JAG.

ISO/CS and ISO/TC 117 continue to reach out and welcome participation/observation from all regions/NSBs to become involved if they wish to do so.

Each NSB decides in which ISO committees they wish to participate and observe (the NSBs can make membership updates themselves, directly in the ISO Global Directory), and where to appoint their experts. This all depends on their stakeholders and interests. We cannot insist on any NSB to get involved. If there is a special case, it is OK to contact the NSB but normally the TC leadership does not contact NSBs directly on a regular basis to encourage participation (this would rather come from the NSBs towards the committees).

Whenever we get a request of interest directly from an expert to become involved, we refer the expert to contact the ISO Member Body in their country directly.

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

5.1 Defined objectives of the ISO/TC

Around 1990 TC 117 identified the standards that needed to be produced, and it has been steadily working through its work programme in order of importance. It identified standards for:

- Performance measurement
- On-site performance measurement
- Sound testing
- Safety standards
- Dimensional standards
- Vibration standards
- Terminology
- Efficiency classification
- Computational performance prediction
- Air curtain unit performance

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

- The priority was to produce “performance” standards first, then design standards
- Some industry standards were used (e.g., AMCA standards) and some from the European Trade Association – EUROVENT
- ISO/TC 117 conduct their work through correspondence, annual meetings, e-mail, and the Internet using ISO Documents. Increasingly, TC 117 uses remote meetings especially for its working groups.
- Development of standards for air curtain units in WG 09 has required some research/test work.
- The structure of ISO/TC 117 is one main TC and [nine working groups](#) to deal with the active work items. This structure was chosen after first trying sub-committees. The working group structure has seemed to work better.
- This committee contributes, with 24 standards, to the following Sustainable Development Goals: #3 Good Health and Well-being; #7 Affordable and Clean Energy; #9 Industry, Innovation and Infrastructure; #13 Climate Actions.
- TC 117 supports ISO's [London Declaration to combat climate change](#) through standards defines ISO's commitment to achieve the climate agenda by 2050 and considers [ISO Guide 84, Guidelines for addressing climate change in standards](#).
- TC 117 will consider the [ISO-IEC Guidance on Gender Responsive Standards](#), available since September 2022, when proposing new standards or revisions to existing standards.
- TC 117 will consider [Guidance on the use of inclusive terminology in ISO and IEC documents](#) and [A list of non-inclusive terms and recommended alternatives for ISO and IEC documents](#), available since 2024, when proposing new standards or revisions to existing standards.

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

During 2020 to 2022, the effects of the global COVID-19 pandemic had an impact on the effectiveness of some working groups. It is felt that for 2023 onwards, there are no factors that the TC has identified as affecting the completion and implementation of its work programme. Along with many other TCs in ISO,

TC 117 appreciates there are challenges in holding the in-person part of a Hybrid Plenary meeting in some regions of the world and conducted a CiB of all members in 2024 to gather views and establish a Plenary meeting format that works for TC 117 members.

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

Information on ISO online

The link below is to the TC 117 page on ISO's website:

[ISO TC 117 on ISO Online](#)

Click on the tabs and links on this webpage 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](#) including information on:
 - Governance of technical work
 - Technical management board
 - TMB communiqué
 - Key policies and guidance
 - ISO's global relevance policy
 - ISO/IEC standards and patents
 - Code of ethics and conduct
 - Selection criteria for people leading the technical work

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