BUSINESS PLAN

ISO/TC 2
Fasteners

EXECUTIVE SUMMARY

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 140 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 ISO/TC 2

2.1 Description of the Business Environment

Fasteners as covered by ISO/TC 2 are, in the first place, for industrial use.

In the past, fasteners have been mainly produced in small and medium-sized enterprises, but now a concentration to bigger enterprises is taking place, although there are still many small and medium-sized enterprises which very often produce specialized and high-performance products.

The trade with fasteners takes place either directly between manufacturers and users or via big dealers, which are able to supply a great variety of different fasteners.

Fasteners are used in almost all branches of the producing industry, for example the automotive, machine-building, electrical, shipbuilding, structural building, furniture, pressure vessels and many other industries. Among these lines of business, in particular the automotive industry plays a leading role, since it needs large quantities of fasteners and interchangeability and consistent quality of the fasteners are extremely important for a production which is automized to a widest extent.

An exception is the aerospace industry. Fasteners for aerospace applications are not covered by the ISO/TC 2 technical committees but by ISO/TC 20/SC 4 "Aerospace fastener systems".

2.2 Quantitative Indicators of the Business Environment

For the time being, the worldwide production of fasteners is about 10,6 million tons, representing a value of about 49 billion US $. Fasteners are produced in industrialized and developing countries and a considerable portion is sold on the international market.

3 BENEFITS EXPECTED FROM THE WORK OF ISO/TC 2

The standardization of fasteners will create worldwide uniform fasteners, which especially the global playing enterprises need. It will facilitate the international trade of the products and will enable the developing countries to share the market on fasteners. Technical barriers to trade, which have been established by different national technical developments, will be reduced.

International standards will ensure that the technical requirements for fasteners will be uniform in all countries. They will promote the competition on the market. Moreover, international standards will reduce production cost and will help to supply fasteners at cheaper prices.

In some cases, national or regional regulations may be a problem, for instance regulations for structural building or for pressure vessels.

4 REPRESENTATION AND PARTICIPATION IN THE ISO/TC 2

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

4.2 Analysis of the participation

The countries participating in the standardization of fasteners are, without exception, industrialized countries.
In the first place, the standardization work in ISO/TC 2 is carried out by the manufacturers of fasteners. Only few experts from the user or dealer side participate in this work. Within the wide range of users, it is the automotive industry which plays the leading role in defining the requirements and the manufacturers know very well what the automotive industry (but also other industries) expects from standardization. This is the reason why the standardization of fasteners works satisfactorily, although the users are mostly underrepresented.

5 OBJECTIVES OF THE ISO/TC 2 AND STRATEGIES FOR THEIR ACHIEVEMENT

5.1 Defined objectives of the ISO/TC 2

The most important objectives of ISO/TC 2 for the market in the field of fasteners are the following:

- the worldwide interchangeability of fasteners on the basis of a high level of performance
- the quality assurance of fasteners
- the reduction of product variety
- communication.

All of these objectives contribute to the expected benefits mentioned above.

The reduction of product variety in connection with the enormous quantity of fasteners needed on a worldwide market leads to big production numbers of the individual products, which allows fully automatized manufacturing and well-controlled manufacturing processes. This is the precondition for an effective and cheap production.

The worldwide supply of identical fasteners can only function if there is a clear communication between supplier and customer and this is achieved in the first place by standardized designations of the products.

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

ISO/TC 2 started with the elaboration of basic standards, which specify common requirements for all fasteners. These standards concern

- mechanical requirements (including testing)
- basic elements (threads, head shapes, driving features etc.)
- tolerances
- terms and definitions
- designation system.

On the basis of these standards, in a second step, product standards for different types of fasteners, which in particular specify the preferred nominal sizes, could be elaborated.

In a third step, standards for special properties of fasteners like surface coatings and torque/tension properties have been elaborated ~~or will be published in the near future (e.g. torque/tension properties)~~.

All these ISO standards are regularly revised and completed and standards for further products are established in accordance with the needs of the market.

In order to work effectively, the ISO standards are prepared in several specialized working groups and ad hoc groups, in which the experts for the respective work item are concentrated. Only the final decisions or decisions concerning paramount problems are taken in the TC or in independent subcommittees.

The European countries decided to accept, with few exceptions, the ISO standards on fasteners as European standards. Thus, the ISO standards become automatically national standards of the member countries of CEN, which guarantees a high regional level of usage.

As to the other member countries of ISO/TC 2, no general statistics as to the level of usage of the ISO standards on fasteners are available.

6 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE ISO/TC 2 WORK PROGRAMME

One problem which, in some cases, places constraints on the completion or implementation of ISO standards on fasteners is the fact that changing from national to international standards may force the users of the fasteners to incur enormous organizational and logistical expense, since such fasteners are used in thousands of places and may require changes of constructions. Therefore, the conversion from existing national standards to ISO standards can be costly.

7 STRUCTURE, CURRENT PROJECTS AND PUBLICATIONS OF THE ISO/TC

This section gives an overview of the ISO/TC's structure, scopes of the ISO/TC and any existing subcommittees and information on existing and planned standardization projects, publication of the ISO/TC and its subcommittees.

7.1 Structure of the ISO committee

7.2 Current projects of the ISO technical committee and its subcommittees

7.3 Publications of the ISO technical committee and its subcommittees

Reference information

Glossary of terms and abbreviations used in ISO/TC Business Plans

General information on the principles of ISO's technical work