

STANDARDIZATION ORGANIZATIONS

Four Geneva-based organizations promote international cooperation on all questions of standardization (compatibility, quality and safety of products and systems, and testing and certification). The International Organization for Standardization (ISO) develops standards in most domains (agriculture, health care, information handling, etc.). The International Electrotechnical Commission (IEC) is the world authority for electrical and electronic engineering standards. The International Telecommunication Union (see ITU chapter) promotes standardization in the telecommunications industry. And the UN Economic Commission for Europe, an intergovernmental regional body, (see UNECE chapter) prepares standards at the regional level for an increasingly global set of users in areas including transport and trade facilitation.

ISO and IEC bring together governments and representatives of industry, research institutes, universities and consumers to reach a consensus on worldwide standards. Both organizations cooperate in their activities and work to a common set of operating procedures known as the ISO/IEC Directives.

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

The International Organization for Standardization (ISO) is a non-governmental organization formed in 1947 to promote worldwide standardization through the adoption of standards in all important areas of human activity.

Widely used examples of standards developed under ISO include the standardized format of telephone and banking cards which allows the cards to be used worldwide, and standardized codes for the names of countries, currencies and languages. ISO Secretary-General is Alan Bryden.

ISO is a worldwide federation of national standards bodies from 147 countries, one from each country. The U.S. member is the American National Standards Institute (ANSI) in New York, a private nonprofit organization with close links to the National Institute of Standards and Technology (NIST) of the U.S. Department of Commerce. ISO is not part of the United Nations, but collaborates closely with the UN, especially with the International Telecommunication Union.

The need for international standardization stems from the growth of world trade, and is the logical result of a process which began centuries ago when standards of weight and measure were developed by individual communities. Industrialization led

STANDARDS FOR MANAGEMENT AND THE ENVIRONMENT

ISO standards have traditionally addressed tangibles, such as compatibility and safety of equipment used in industry, or requirements and test methods for equipment and materials ranging from health care devices to petroleum products.

In 1987 the organization broke new ground when it issued its first set of standards for quality management and quality assurance: the ISO 9000 core series. The standards represent an international consensus on the essential features of a quality system to ensure the effective operation of any business.

In 1996 a similar set of standards –the ISO 14000 series – were published to address various aspects of environmental management. By 2003, more than half a million organizations in some 160 countries were ISO 9000 certified and more than 49,000 in 118 countries had earned ISO 14000 certification.

ISO 9000 and ISO 14000 are what are known as generic management system standards. They focus on the process of work, rather than on the output, or products produced by that work.

The ISO 9000 series includes models for quality assurance in design, development, production, installation, servicing, final inspection and testing. They are applicable not only to hardware-type product industries, but also to software industries and to service industries such as banking, health care, or tourism.

ISO 14000 is a series of international, voluntary environmental management standards. The first standard in the series, ISO 14001, provides the outline for creating an Environmental Management System (EMS), a systematic approach to dealing with the environmental aspects of an organization.

ISO does not itself issue certificates of conformity to ISO 9000 or ISO 14000 series standards. In most countries the assessment of quality systems is entrusted to third-party registration bodies.

to more formalized company standards, and then to national standards. International standards – ISO's prime objective – was the next logical step.

ISO has some 2,940 technical working bodies, in which 30,000 experts from industry, labor, government, and standardization bodies in all parts of the world develop new standards and revise existing standards as necessary. Since its creation in 1947, ISO has published more than 13,730 international standards covering a whole variety of items that affect daily life. These include, for example, automobile bumper heights, sizes and colors of road signs, hygiene and toxicity in the food industry, test methods

in the health sphere, ski-boot bindings, nut and bolt combinations, light measurement in photography, child-resistant packaging, and aircraft and space vehicles.

Standards have also been developed for monitoring the state of the environment and ensuring safety at work (for example, standards for protective clothing, safety of machinery). The scope of ISO is not limited to any particular branch; it covers all technical fields except electrical and electronic engineering which is the responsibility of IEC.

ISO standards contribute to making the development, manufacturing and supply of products and services more efficient, safer and cleaner. They contribute to making trade between countries easier and fairer, and they provide governments with a technical base for health, safety and environmental legislation. Standardized symbols provide danger warnings and information that transcends linguistic barriers.

In the field of information technology, ISO and IEC (electrical and electronics standards – see below) have joined forces to provide standards to facilitate interconnection and communication between personal computers, word processors and other industrial, commercial and domestic systems.

Other joint ISO/IEC international standards deal with “smart cards” – integrated circuit cards such as financial transaction cards (for payphones and retail banking) and personal identification cards and machine readable passports. Both the ISO and IEC work with the ITU (International Telecommunication Union) on telecommunications standards, such as those for multimedia applications.

INTERNET

www.iso.org

Information on ISO's organization and activities, including the full catalogue of ISO International Standards and ISO's technical work programme, updated daily.

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