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**International Standards and the
World Trade Organization (WTO) Agreement
on Technical Barriers to Trade (TBT)**

In view of their potentially positive impact on international trade, standards developed by international standardizing bodies have a special status in the TBT Agreement. Technical regulations established in accordance with such standards and contributing to one of the legitimate objectives explicitly mentioned in the Agreement "shall be rebuttably presumed not to create an unnecessary obstacle to international trade". Moreover, once they decide to develop a technical regulation, WTO Members are obliged to use existing international standards, or parts of them, as a basis except when the standards' use would be "ineffective or inappropriate" to fulfil the legitimate objective pursued.

**STANDARD-RELATED ACTIVITIES AND
THE TBT AGREEMENT**

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Introduction

This paper responds to the Chairman's request, at the informal meeting of the Committee on technical Barriers to Trade on 5 March 1997, for a basic factual background paper that facilitates Members' understanding of the issues being discussed in the context of the Triennial Review of the Agreement.

Standards and technical regulations have proliferated worldwide since the "industrial revolution" in the 19th century, responding to the needs of increasingly complex technical, economic and social systems. Standardization may help to enhance production efficiency, facilitate communication and information transfer, improve market transparency and reduce transaction costs, and further basic public policy objectives related, for example, to health, safety and the environment. Reflecting their ubiquitous nature, standards apply to virtually all product areas and production stages in modern-day economies.

According to the degree of compliance required, the WTO Agreement on Technical Barriers to Trade (TBT Agreement) distinguishes between standards and technical regulations. While compliance with *standards* is voluntary, *technical regulations* need to be met as the goods covered would otherwise be prohibited from being sold and/or used. Standards normally result from a consensual process among producers, consumers and other interested parties; technical regulations

are specified, introduced and enforced through national legislation¹. However, the economic impact of a standard may in certain instances come close to a technical regulation. For example, quality perceptions associated by users with well-known standards may leave new market entrants with no real alternative but to comply.

The TBT Agreement commits Members to using international standards as a basis for their technical regulations except when these "would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems" (Article 2.4). The purpose of this paper is to explain the process leading to the adoption of international standards and, in the light of the relevant provisions of the TBT Agreement, their relationship with regional, national and local standards. A final section provides an overview of how a product's conformity with the relevant standards or technical regulations may be assessed.

1 In Annex 1 to the TBT Agreement, a *technical regulation* is defined as a "document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, which with compliance is mandatory ...". By contrast, a *standard* is considered to be a "document approved by a recognized body, that provides ... rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory ...".

International standardizing bodies

These are at present close to 50 international standardizing bodies¹. Annex 1 contains a list of international standardizing bodies, as identified by ISO/IEC, and a description of their main activities². Their focus is either issue-, sector- or product-specific. For example, international electrotechnical standards are developed by the International Electrotechnical Commission (IEC);

weighting and measurement standards by the International Bureau of Weights and Measures (BIPM); telecommunication and radiocommunication standards by the International Telecommunications Union (ITU); transport-related standards by the International Union of Railways (UIC), the International Civil Aviation Organization (ICAO), the International Air

1 ..." According to the ISO/IEC Directory of International Standardizing Bodies, 46 such bodies existed in 1995. For purposes of the TBT Agreement, an *international body or system* is considered to be a "body or system whose membership is open to the relevant bodies of at least all members" (Annex 1 to the Agreement).

2 The Agreement does not make reference to any specific international standardizing bodies in this regard.

Transport Association (IATA) and the International Maritime Organization (IMO); standards for textiles by the International Bureau for the Standardization of Man-Made Fibres (BISFA); the International Wool Textile Organization (IWTO) and the International Silk Association (ISA); nuclear and radiation safety standards by the International Atomic Energy Agency (IAEA); food standards by the FAO/WHO Codex Alimentarius Commission; and health-related standards by the World Health Organization (WHO).

The competence of the International Organization for Standardization (ISO) extends across a wide range of sectors and activities, including mechanical engineering; basic chemicals; non-metallic materials as well as ores and metals; information processing, graphics and photography; agriculture; construction and building materials; special technologies; health and medicine; environment; and packaging and distribution of goods. In 1980, ISO launched a Programme for Developing Countries (DEVPRO), within the framework of its special Committee on Developing Country Matters (DEVCO). The programme involves *inter alia* the publication of relevant

documents, training seminars, sponsorship of participation in ISO standards committee meetings, and support and guidance to developing countries and countries in transition in the establishment of international standards.

Although the TBT Agreement imposes disciplines on the standard-setting process at regional, national and local levels, it does not extend directly to the preparation of standards by international bodies. However, the Agreement contains certain provisions on WTO Members' participation in and contribution to such bodies. In particular, Members are encouraged to take measures to ensure that international standardizing bodies are organized and operated in a way that facilitates active and representative participation; the special problems faced by developing country Members are to be taken into account in this context (Article 12.5). In turn, developing countries may request that international standardizing bodies "examine the possibility of, and, if practicable, prepare international standards concerning products of special trade interest" to them (Article 12.6). Developing countries may also approach other WTO Members for technical assistance (Article 11.2).

Stages in the international standardization process

International standards are normally developed in technical committees or commissions comprising experts representing governments, industrial and professional associations, trade unions, consumers and research bodies. The committees may establish sub-committees if deemed necessary to focus on individual items of a work programme. If an envisaged international

standard falls under the responsibilities of several standardizing bodies, the relevant work may be carried out in joint technical committees.

Standard development processes generally comprise several stages, ranging from the monitoring of existing standards to the approval

and publication of a new standard. ISO and IEC procedures provide for the following stages: ¹

STAGE 0: PRELIMINARY STAGE

Technical committees or subcommittees regularly review developments in the sectors concerned with a view to identifying areas - for example, emerging technologies - which may warrant new international standards. Preliminary work items are added to the regular agenda of a technical committee and sub-committees by voting.

STAGE 1: PROPOSAL STAGE

The first step in the development of an international standard is a formal request from companies, technical experts, trade associations or other interested parties. It may be made to the competent national standardizing body which normally participates in, and may transmit appropriate requests to, the technical committee of an international body for voting. Depending on the outcome, the proposal may be included in the

1 See ISO/IEC (1995), "Directives, Part 1, Procedures for the Technical Work".

committee's work programme¹. A project leader is appointed, and a date fixed for the committee to submit the draft standard.

STAGE 2: PREPARATORY STAGE

The task of defining the technical specifications of a standard is normally entrusted to a working group. Its project leader is assisted by technical experts from countries interested in the subject. On adoption of a draft standard, the working group is disbanded and the draft submitted to the parent committee. The project leader retains a consultative status.

STAGE 3: COMMITTEE STAGE

The draft standard is sent for comment to the national member organizations, affording them an opportunity to introduce changes. The comments received are circulated either with a view to being discussed at a subsequent meeting, initiating work on a revised committee draft for comments, or preparing and circulating a final draft for voting. Several committee drafts may be needed to reach consensus and ensure that all participants can express their views. The notion of consensus does not, however, necessarily require unanimous approval ².

STAGE 4: ENQUIRY STAGE

The draft standard is circulated to all members of the international body for voting and comment within a fixed time period (six months in ISO and IEC). In order for the draft to be adopted, it must be approved by at least two-thirds of the voting members of the committee or subcommittee; no more than one-quarter of the votes cast may be negative. On adoption, the standard is registered as a final draft international standard. If the outcome is negative, the text is returned to the originating committee for further study and revision.

ISO rules allow for a "fast-track procedure" if the content of a standard developed by other international bodies can be used as a basis. Skipping the first three stages, a document may be circulated directly for approval as a draft international standard or, if the relevant body has been recognized by the ISO Council, as a final draft international standard (Stage 5).

STAGE 5: APPROVAL STAGE

The final draft international standard must be made available to all member bodies for a final vote within two months. The national committee's votes must be explicit: positive, negative or qualified abstention. Again, approval requires a two-thirds majority of the members of the technical committee or subcommittee while no more than one-quarter of the votes cast must be negative. Otherwise, the document is referred back to the originating technical committee for

reconsideration in the light of the reasons given for the negative votes. While technical comments as such are no longer taken into account at this stage, they will be considered in the context of future revisions.

STAGE 6: PUBLICATION STAGE

Once approved, the final text is published as an international standard; only minor editorial changes are still possible.

MONITORING OF INTERNATIONAL STANDARDS (confirmation, revision and/or withdrawal)

The production-cycle of a standard is not terminated with publication. Rather, standards are subject to regular review in the light of technical and scientific changes or new policy objectives. As a rule, all international standards are reviewed at least once every five years by the competent technical committee or sub-committee which may confirm, revise or withdraw them.

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- 1 In ISO and IEC, the proposal is accepted if a simple majority of the voting members of the technical committee or subcommittee approves and at least five permanent members declare their commitment to participate actively in the project.
 - 2 According to ISO/IEC Guide 2:1991, consensus is a "general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. NOTE - Consensus need not imply unanimity."

Standardization at regional, national and local levels

The work of international standardizing bodies is accompanied and underpinned by the activities of a large number, estimated at some 600, of regional, national and local standardizing bodies¹. They may be organized as public or private institutions.

The bulk of standardization in Europe is carried out by the European Committee for Standardization (CEN), the European Commission for Electrotechnical Standardization (CENELEC) and the European Telecommunications Standards Institute (ETSI). CEN covers all fields of standardization except electrical, electrotechnical and telecommunications standards; CENELEC focuses on

electrical and electro-technical standards. ETSI, the youngest of the three European bodies, develops telecommunications standards and, in cooperation with the European Broadcasting Union (EBU) and CEN/CENELEC, standards for broadcasting and information technologies. Other regional standardizing bodies include the Arab Industrial Development and Mining Organization (AIDMO), the ASEAN Consultative Committee on Standards and Quality Control (ACCSQ), the African Regional Standards Organization (ARSO), and the Pan-American Standards Organization (COPANT) and the Pacific Area Standards Congress (PASC) ². These bodies cooperate with their international counterparts, in particular ISO.

While it is beyond the scope of this paper to describe structure, mandate and operation of bodies operating at national and regional levels, relevant information is contained in the WTO Trade Policy Reviews.

With a view to avoiding trade-impeding or trade-distorting effects, the Code of Good Practice in Annex 3 to the TBT Agreement specifies rules for the preparation, adoption and application of standards by regional, national and local standardizing bodies. WTO Members are required to ensure that their central government standardizing bodies accept, and comply with, the Code. They are further committed to taking "such reasonable measures as may be available to them" to ensure

that local government and non-governmental standardizing bodies within their territories, as well as regional bodies in which they participate, do the same (Article 4).

Standardizing bodies that have accepted the Code are obliged in principle to use international standards, or the relevant parts of them, as a basis (par. F of the Code of Good Practice) ³. Bodies under the Code must respect the principles of non-discrimination and national treatment, and their standards must not create "unnecessary obstacles to trade". Since performance-related standards tend to provide more flexibility, the Code stipulates that they be preferred to standards using design or descriptive characteristics (par. I). The Code further requires that the bodies covered play a full part, in an appropriate way within the limits of their resources, in the development of international standards in areas in which they have adopted, or expect to adopt, standards (par. G). Duplication of, or overlap with, the work of other standardizing bodies is to be avoided (par. H). The bodies are to allow interested parties located within the territory of WTO Members at least 60 days for comments before adopting a draft standard (the period may be shortened in the event of urgent safety, health or environmental problems). The comments shall be taken into account. At least once every six months, standardizing bodies are required to publish a work programme containing the standards under preparation and those adopted (parr. J, L, and N).

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1. According to Annex 1 to the TBT Agreement, a *regional body or system* is a "body or system whose membership is open to the relevant bodies of only some of the Members".
 2. COPANT was created in the 1940s to coordinate standardization in South America, parts of Central America and several Caribbean Islands; its members recently agreed to use international standards whenever possible. PASC was set up in 1973 by the Pacific Rim nations. Contrasting with COPANT, PASC does not develop own standards but seeks to harmonize the standards-related initiatives of its national member bodies.
 3. Expressly exempt are situations where international standards are ineffective or inappropriate, for instance, because of an insufficient level of protection or fundamental climatic or geographical factors or fundamental technological problems.

Use of international standards by WTO Members

The TBT Agreement does not establish a link between a country's vote on an international standard on the one hand and its domestic standardization policy on the other. Thus, approval of an international standard does not carry an obligation to implement it domestically or transform it into a technical regulation.

In view of their potentially positive impact on international trade, standards developed by international standardizing bodies have a special status in the TBT Agreement. Technical regulations established in accordance with such standards and contributing to one of the legitimate objectives explicitly mentioned in the Agreement "shall be rebuttably presumed not to create an unnecessary obstacle to international trade". Moreover, once they decide to develop a technical regulation, WTO Members are obliged to use existing international standards, or parts of them, as a basis except when the standards' use would be "ineffective or inappropriate" to fulfil the legitimate objective pursued.

Non-use of international standards may trigger particular information and notification procedures. Technical regulations that are not in accordance an international standard and may have a significant trade effect must be published at an early stage to inform interested parties. In addition, the country concerned must notify other Members through the WTO Secretariat of the coverage, objective and rationale of the proposed regulation, provide on request particulars or copies of it, and allow reasonable time for comments. The comments must be discussed on request and the results of these discussions be taken into account.

The Agreement acknowledges the potential regulatory impact ensuing from the particular technological and socio-economic conditions of developing countries. Hence these are not "expected to use international standards as a basis for their technical regulations or standards, including test methods, which are not appropriate to their development, financial and trade needs" (Art. 12.4).

Conformity assessment procedures

Conformity assessment may be considered a natural concomitant of the standards-setting process¹. While users are ensured that a product meets specified criteria, for example in terms of performance, safety or durability, suppliers may see conformity as an important marketing tool. In addition, conformity assessment helps to ensure regulatory authorities and/or insurance companies of a product's compliance with legal or contractual requirements. Under the TBT Agreement, conformity assessment procedures comprise "any procedures used, directly and indirectly, to determine that relevant requirements in technical regulations or standards are fulfilled"; these include, *inter alia*, "procedures for sampling, testing and inspection; evaluation, verification and assurance of conformity; registration,

accreditation and approval as well as their combinations" (Annex 1 of the Agreement).

With respect to the parties involved, conformity certification relies either on the *supplier's declaration*, *second-party assessments* or *third-party assessments*.

C *First-party assessment*, usually in the form of a *supplier's declaration of conformity* are widely used in commercial transactions². Integrity and reliability of the conformity assessment process is ensured mainly through a supplier's need to defend his brand reputation in competitive markets; liability legislation and

¹ The following section draws largely on: ISO/IEC (1992), "Certification Activities", Switzerland; ISO/IEC Guides

Compendium (1995), "Conformity Assessment", Switzerland; National Research Council (1995), "Standards, Conformity Assessment, and Trade, Into the 21st Century", Washington D.C.

- 2 According to ISO/IEC Guide 2:1991 such declarations consist of a supplier giving written assurance that a product, process or service conforms to specified requirements

provisions against false advertising etc. may impose additional disciplines. The procedures generally prove time- and cost-efficient and do not require a producer to disclose information he may consider as commercially sensitive.

- C *Second-party assessments* are carried out in a manufacturer's premises through inspectors commissioned by customers. They tend to provide a more reliable indication, in particular in technically complex areas, of a product being manufactured in accordance with specified requirements.
- C *Third-party assessments*, conducted by independent persons or bodies, are generally considered the strictest approach to conformity certification. Third parties may be involved at all stages, individually or combined, of the assessment process (testing, inspection and certification) ¹.

Product certification, the most common type of third-party conformity assessment, is defined as a "procedure by which a third party gives written assurance that a product, process or service conforms to specified requirements" (ISO/IEC Guide 2:1991). The relevant certification programme depends on a product's characteristics and final use; particularly sensitive products such as pharmaceuticals may require multiple tests and inspections. If finally approved, the certifying body issues a document - the certificate - that confirms compliance with the relevant standards or regulations; eligible products or their packaging are often allowed to carry a *mark of conformity*. The development of common certification systems has proved an important underpinning of regional integration projects, including the European Communities' internal market programme. In the regulatory field, EC legislation and policy has laid down, in the so-called New Approach Directives, a

comprehensive conformity assessment system including supplier's declaration, product and quality system certification and inspection ². A CE marking is affixed to products complying with the essential requirements and having undergone the conformity assessment procedures spelled out in the relevant directives.

In recent years, conformity assessment systems have developed additional layers to ensure, through accreditation and recognition, the competence of the assessment service providers. According to ISO/IEC Guide 2:1991, *accreditation* is the "procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks". The reviews involved tend to focus, among other things, on the technical procedures, quality controls and the qualification of staff employed by approved laboratories and assessment systems. *Recognition programmes* for accreditation services help to promote the credibility and reliability of such service providers and, by implication, the competence of domestic laboratories, certifiers and quality registrars.

Like technical regulations, conformity assessment requirements tend to vary between countries reflecting, for example, their technological, economic, institutional and social conditions. Nevertheless, it may be possible at least to ensure a uniform level of technical competence through guides developed by international standardizing bodies ³. The Agreement provides disciplines - such as non-discrimination, the obligation not to create unnecessary obstacles to trade, harmonization and transparency - governing the procedures for assessment of conformity by central and local government bodies, non-governmental bodies and international and regional systems (Articles 5, 7, 8 and 9).

1 Test programmes directed at conformity assessment can be characterized as *type testing*, *batch testing*, and *100 per cent testing* depending on whether samples representing the total amount of production, production batches or each product leaving the production line are tested. The tests are carried out by independent laboratories which, in turn, are subject to certain requirements. (For example, according to the ISO/IEC Guide 25:1990 they must be legally identifiable and organized in a way that ensures confidence in their

independence of judgement and integrity). According to ISO/IEC Guide 39:1988, *inspection services* include assessing, recommending for acceptance and subsequent audit of suppliers' production and testing facilities, personnel and quality control operations, and selection and evaluation of products on site or in factories, laboratories or elsewhere as directed.

- 2 Products currently covered by such Directives include: low-voltage electrical products, simple pressure vessels, toys, construction products, electromagnetic compatibility, machinery, personal protective equipment, non-automatic weighing machines, appliances burning gaseous fuels, telecommunications terminal equipment, active implantable medical devices, hot water boilers, explosives for civil uses, medical devices, equipment and protective systems for use in potentially explosive atmospheres, recreational crafts and lifts.
- 3 Such guides are being referred to in a forthcoming Secretariat background document on ISO/IEC guides.

cooperation between accreditation bodies operating

Multiple testing and certification requirements may operate as significant barriers to trade. The TBT Agreement promotes mutual recognition of conformity assessment results, recognizing, however, that prior consultations may be necessary to arrive at a mutually satisfactory understanding regarding the technical competence of the relevant bodies (Article 6). Recent developments in this area are addressed, *inter alia*, in a separate background document currently prepared by the Secretariat¹. Further, there are arrangements at regional level to improve the basis for recognizing conformity assessment results, among public or private bodies, such as the European Cooperation for Accreditation of Laboratories (EAL), the European Accreditation of Certification (EAC) and Asian Pacific Laboratory Accreditation Cooperation (APLAC)².

The TBT Agreement explicitly encourages the formulation and adoption of international systems for conformity assessment (Article 9). A current example of such systems is the *International Laboratory Accreditation Cooperation (ILAC)*. It is open for membership by all nationally recognized accreditation bodies that operate according to the relevant ISO/IEC Guide and have already accredited laboratories³. ILAC's objectives include establishing "mutual confidence between regional organizations and between participating accreditation bodies". In addition, since 1994, the *International Accreditation Forum (IAF)* is seeking to facilitate

in the field of certification. In addition, under the auspices of IEC, three schemes are destined to minimize re-testing requirements: the *IEC Quality Assessment System for Electronic Components (IECQ)*, the *IEC Scheme for Recognition of Results of Testing to Standards for Safety of Electrical Equipment (CB Scheme)* and the *IEC Scheme for Certification to Standards for Electrical Equipment for Explosive Atmospheres (IECEx Scheme)*. The *ISO/IEC Quality System Assessment Recognition Programme (QSAR)*, currently in preparation, uses peer evaluation among accreditation bodies for the certification/registration of ISO quality management standards.

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- 1 "Restrictive Trade Effects of Standards, Technical Regulations and Conformity Assessment Procedures".
 - 2 The European Cooperation for Accreditation of Laboratories, created in 1994 by the EC and EFTA member countries, is entrusted, *inter alia*, with building confidence between nationally recognized accreditation systems and developing mutual recognition agreements between EAL and non-member accreditation bodies or regional groups. The Asian Pacific Laboratory Accreditation Cooperation (APLAC), established in 1995, is open for membership to laboratory accreditation bodies in the Asia-Pacific region and pursues similar objectives. The European Accreditation of Certification (EAC), founded in 1991, is aimed at ensuring the quality and acceptance of European certificates of conformity issued by accredited certification bodies for personnel, products and quality systems and promotes mutual recognition. It is likely that at the end of 1997 EAL and EAC will merge to one organization, the European Accreditation (EA).
 - 3 ISO/IEC Guide 58:1993 on "Calibration and Testing laboratory accreditation systems - General requirements for operation and recognition".

Annex 1: List of international standardizing bodies

Name	Fields of standardization
Codex Alimentarius Commission (CAC)	Specification, sampling and analysis of food products; food additives; food hygiene; pesticide residues; contaminants; labelling; essential composition; nutritional aspects; veterinary drug residues; food import/export inspection and certification systems.
Cooperation Centre for Scientific Research relative to Tobacco (CORESTA)	Analysis and testing of tobacco and tobacco products.
Euro-International Committee for Concrete (CEB)	International recommendations and Codes of Practice for use in building and civil engineering work.
FDI World Dental Federation (FDI)	Dental materials; dental instruments and equipment; working environment of the dentist.
Intergovernmental Organization for International Carriage by Rail (OTIF)	International carriage of dangerous goods.
International Air Transport Association (IATA)	Standards for: airport and passenger services, cargo services, cargo and passenger agents.
International Association for Cereal Science and Technology (ICC)	Testing and analysis of cereals and cereal products.
International Atomic Energy Agency (IAEA)	Nuclear and radiation safety standards.
International Bureau for the Standardization of Man-made Fibres (BISFA)	Specification and testing on man-made fibres.
International Bureau of Weights and Measures (BIPM)	Units, standards and methods of measurement of physical quantities.
International Civil Aviation Organization (ICAO)	Air transport; air navigation; aviation safety; airports design; airworthiness; aircraft noise; international law, etc.
International Commission for Uniform Methods of Sugar Analysis (ICUMSA)	Methods of sugar analysis.
International Commission on Illumination (CIE)	Metrology in the fields of light, lighting and colour; science, technology and art of light, lighting and colour.
International Commission on Irrigation and Drainage (ICID)	Irrigation and drainage; terminology
International Commission on Radiation Units and Measurements (ICRU)	Radiation units and measurements; radiation dosimetry

Name	Fields of standardization
International Commission on Radiological Protection (ICRP)	Radiation hazards and radiation protection.
International Council for Building Research Studies and Documentation (CIB)	The activities of CIB are mainly oriented on pre-standardization work.
International Council for Standardization in Haematology (ICSH)	Recommendations or recommended methods for use in medical practice.
International Council on Combustion Engines (CIMAC)	Acceptance tests for combustion engines; noise; pollution.
International Dairy Federation (IDF)	Milk and milk products (composition, sampling and analyses); milk farm and factory equipment; disinfectants.
International Federation for Information and Documentation (FID)	Classification
International Federation of Fruit Juice Producers (IFJU)	Fruit juice analysis
International Federation of Library Associations and Institutions (IFLA)	Bibliographic control and other aspects of library matters.
International Gas Union (IGU)	Gas transmission distribution and utilization safety; use of SI units in gas industry.
International Institute of Refrigeration (IIR)	Tests of thermal performances of insulated vehicles; test of insulated materials; refrigerated storage and transport of perishable foodstuffs; food freezing; refrigerating equipment; terminology.
International Institute of Welding (IIW)	Welding and allied processes.
International Labour Office (ILO)	Working conditions and environment; occupational safety and health; equality of treatment between men and women; non-discrimination; rights of tribal and indigenous peoples; employment.
International Maritime Organization (IMO)	Maritime safety; prevention of pollution from ships; facilitation of international maritime traffic.
International Office of Epizootics (OIE)	Advice on standardization of procedures in the preparations of biologicals (vaccines, sera, diagnostic reagents, etc.) to control epizootics.
International Olive Oil Council (IOOC)	Table olives; olive oil; olive-pomace oils.
International Organization of Legal Metrology (OIML)	Measuring methods and units; measuring devices and instruments; verification and control of measuring devices (from a legal point of view).
International Seed Testing Association (ISTA)	Seed testing.
International Silk Association (ISA)	Silk testing and classification.

Name	Fields of standardization
International Telecommunication Union - Radiocommunication Sector (ITU-BR)	Radiocommunications
International Telecommunication Union - Telecommunication Standardization Sector	All aspects of telecommunication equipment, systems, network and voice and non-voice services, including : telegraphy; telephony; data communication; telematics; message handling; audiovisual; multimedia, integrated services digital networks; universal personal telecommunication; intelligent networks. All technical, operating and administrative areas, including: service definition; network operation, numbering and routing; traffic engineering; maintenance and telecommunication management network; tariff and accounting principles; data networks; open systems interconnection; switching and signalling; quality of service and performance management; transmission media, systems and equipment.
International Union of Leather Technologists and Chemists Societies (IULTCS)	Analysis and testing of leather.
International Union of Pure and Applied Chemistry (IUPAC)	Nomenclature, terminology, symbols, quantities and units in chemistry.
International Union of Railways (UIC)	Projects and studies necessary to the improvement of international rail traffic.
International Union of Testing and Research Laboratories for Materials and Structures (RILEM)	Nomenclature and testing of building materials and structures.
International Vine and Wine Office (OIV)	Methods of wine analysis; oenology; labelling.
International Wool Textile Organization (IWTO)	Testing of wool textiles.
United Nations Educational, Scientific and Cultural Organization (UNESCO)	Scientific and technological information and documentation, libraries and archives.
World Customs Organization (WCO)	Classification; customs valuation; customs procedures; customs applications of computers. Adoption of a standardized goods declaration form (Single Goods Declaration).
World Health Organization (WHO)	All matters directly or indirectly related to health, including biological and pharmaceutical substances, food additives, pesticides, pesticide residues in food, food safety, air and water quality, diagnostic procedures, terminology, nomenclature and classification.
World Intellectual Property (WIPO)	Patents; trademarks; industrial designs; appellations of origin; copyright; neighbouring rights; classification systems.
World Meteorological Organization (WMO)	Meteorological and hydrological observations; agricultural, aeronautical and marine meteorology; data processing and telecommunications.

Source: ISO/IEC Directory of International Standardizing Bodies, Seventh Edition, 1995.