The A to Z on Standardisation for the Consumer

Prepared for

Department of Standards, Malaysia
Jabatan Standard Malaysia

by

Federation of Malaysian Consumers Association (FOMCA)
Gabungan Persatuan-Persatuan Pengguna-pengguna Malaysia

The A to Z *on* Standardisation for the Consumer

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Foreword

The Federation of Malaysian Consumer Associations (FOMCA) is pleased to come out with this important publication which aims to give the people at large, even schoolchildren, a clear picture of standards and what it is all about.

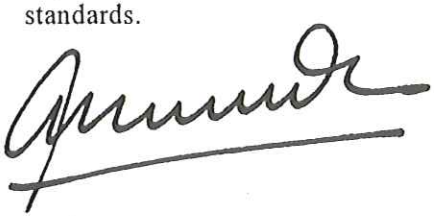
In this publication, we define all those terminology that is used in the work of standards, standardisation activities and many of the international terms used in this area in simple terms for the layman, who will soon be hearing about or coming across these terms.

In this period of rapid movement towards the goals and objectives of the World Trade Organisations, the issue of standards will come into play frequently, for under the open global market, we will be exposed to goods from all over the globe right in our backyard.

This means that we should have some acceptable assurances of quality and safety of the goods or services we use that are of foreign origin. We also want to know that a product that we purchase can be used any where else in the world if we are carrying it along with us during our travel.

This is where standardisation and international work for documents of uniform standards for the various goods and services we use in our daily life take meaning. Understanding the terminology will enable consumers to understand better the whole issue of standards.

I trust members of the public will find this booklet useful and informative, and that they will take steps to enlighten their children as well on the important subject of standards.



MARIMUTHU NADASON
Secretary General
FOMCA

Message from the Director-General Department of Standards Malaysia

First of all I would like to take this opportunity to thank the Federation of Malaysian Consumer Associations (FOMCA) for its efforts in supporting the Department of Standards Malaysia (DSM) in promoting standards and standardisation activities in Malaysia, especially among the consumers. With the production of this publication, the "A-Z of Standardisation", the first of its kind in Malaysia, standards and standardisation activities will be better understood. It provides a very useful guide to consumers and the general public alike, as it defines terms commonly used in standards and standardisation activities.

DSM as the national standards body acts as the focal and coordination point for Malaysia's involvement and participation in regional and international bodies related to standardisation. The Department is the official representative of the country in international standardisation bodies such as the International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC). One of its main functions is to disseminate information on standards and standardisation activities.

Standards being a very technical subject require this kind of interpretative document to reach to the general public, one of the main stakeholders in standardisation activities. It is my hope that this document will not only be read by adult consumers but also by schoolchildren.

Finally, I would like to congratulate FOMCA for coming up with this document and hope that with its continued support, standards will gain the recognition and support of the Malaysian consumers.

My sincere best wishes for the future.

MARIANI MOHAMMAD

Preface

Globalisation and the World Trade Organisation have become buzz words for us today. These words are always in the newspapers and we get to hear them on television and radio.

In the old days, communism called for the withering away of political boundaries, but today, globalisation is putting down every kind of boundary – social, political, economic, cultural, just about anything that can be a barrier to the so-called free trade concepts of the developed world.

A standard is a technical specification or other precise criteria that is used consistently around the globe as a rule, guideline, or definition of characteristics of a material, product, process and service to ensure that they are fit for their purpose.

The whole idea is to set a standard of quality, safety and reliability for any particular material, product, service or production/manufacturing process for the consumer anywhere in the world, no matter where the product or service comes from.

Having a standard for goods and services will ease global trading and to the consumer, it will mean, among other things, safer, healthier and more environmentally-sound products and services, products of improved quality and reliability, improved choice and access to goods and services and better product information.

Standards are established by consensus and approved by a recognised body that works around the globe, through national governments and specialised agencies. An international standard is a standard adopted by an international standards organisation and made available to the public in the form of published documents.

This publication is designed to give consumers a clear understanding of what standards are, why are they there and how standards affect us in our daily lives.

A

Accreditation – the procedure under which formal recognition is provided, by third party auditors, to competent laboratories or certification bodies, declaring that that they are competent to carry out specific tasks (under ISO/IEC Guide 2) and therefore are able to offer a ready means for customers to access reliable testing, calibration and certification services. Accreditation plays a very important role in promoting international trade and development.

Accreditation of Certification Bodies Scheme (ACB) – this programme offers accreditation to a certification body, governmental or private, that has demonstrated compliance with the criteria and requirements of DSM. DSM offers accreditation to ISO 9000 Quality Management System Certification/Registration Bodies, and ISO 14000 environmental management systems, and plans to cover other accreditation programmes such as product certification bodies.

Accreditation Systems – these are systems that have their own rules of procedures and management for carrying out accreditation.

Accredited Testing Laboratories – manufacturers may need the technical help of independent testing laboratories, either for developing new products or at the marketing or export stage. Many industrialised countries have made substantial attempts to develop laboratory networks that provide assurance of the quality of testing services.
At international level, this activity falls within the scope of the International Laboratory Accreditation Cooperation (ILAC). One of the objectives of this coordination is to provide companies with better access to the services of those laboratories that are most likely to meet their testing needs and optimise the use of these means. Consumer organisations and governments may also require the services of accredited laboratories to assess products.

Act 549 of 1996 – the Standards of Malaysia Act defines the structure and objectives of national standardisation. The stated objectives include advancement of the national economy, benefiting the health, safety and welfare of the public, assisting and protecting consumers, facilitating and promoting domestic and international trade, among others.

.Standards are widely used in all sectors of the society. One of the key features of a national standardisation system is the unique method of development of standards through a process of consensus that includes input from and the taking into consideration of the views of all sectors of society, manufacturers, traders, consumers, government and others. These requirements of the Act, current international practices and the provisions of the Technical Barriers to Trade Agreement of the World Trade Organisation (WTO) have been incorporated into the Malaysian Standards Development system.

Affiliate Country Programme (IEC) – is a programme aimed at all newly-industrialising countries around the world. The programme offers such countries a form of participation in the IEC without the financial burden of membership, making full use of all IT tools to reduce costs of participation. The programme has two principal aims: to encourage greater awareness and use of IEC International Standards in newly-industrialising countries; and to help newly-industrialising countries understand and participate in the work of IEC.

ASEAN Consultative Committee on Standards and Quality (ACCSQ) is undertaken through the Senior Economic Officials Meeting (SEOM), which was formed by the ASEAN Economic Ministers (AEM) at their 24th meeting in Manila on Oct 22-23, 1992. In 1994, ACCSQ was formally accepted by the ISO as the regional standards organisation for the Southeast Asia. The main objective of ACCSQ is to facilitate the removal of Technical Barriers to Trade (TBT) among ASEAN member countries.

Asia Pacific Laboratory Accreditation Cooperation (APLAC) groups accreditation bodies in the Asia Pacific region responsible for accrediting calibration, testing and inspection facilities.

APLAC's principal objectives are to foster the development of competent laboratories and inspection bodies in member economies, to harmonize accreditation practices in the region and with other regions, and to facilitate mutual recognition of accredited test measurement and inspection results through the APLAC multilateral Mutual Recognition Arrangement (MRA).

This reduces the need for re-testing of products and therefore saves time and money. APLAC has active programmes for the development of technical guidance documents, inter-laboratory comparisons (proficiency testing), and for training of laboratory assessors. APLAC is recognized by Asia Pacific Economic Cooperation (APEC) member economies as a Specialist Regional Body (SRB).

B

Basic consumer needs – the right to basic goods and services which guarantee human survival: adequate food, clothing, shelter, healthcare, education and sanitation. One of the main purposes of standards is to ensure that the products consumed by consumers are not harmful.

Basic standard – a standard that has a wide-ranging coverage or contains general provisions for one particular field.

Note – A basic standard may function as a standard for direct application or as a basis for other standards.

Benefits of standardisation are:

- Safer, healthier and more environmentally-sound products and services
- Products with improved quality and reliability
- Better operational compatibility between products and greater consistency in delivery of services
- Improved choice and access to goods and services
- Lower costs and greater competition, hence lower prices for consumers
- Better product information.

Bilateral arrangement – recognition arrangement that covers the acceptance of each other's results by two parties

Brand name – ISO is well respected throughout the world. It has a reputation for integrity and neutrality and also enjoys a high status among international organisations. ISO covers standards for anything that is not electrical such as basic mechanics, SI units, freight containers, textiles, photography, toys and information technology. In fact, ISO standards are widely used and highly appreciated in all sectors. The term "ISO" gained widespread recognition in the 1990s as a result of the worldwide popularity of the ISO 9000 and ISO 14000 series.

Bulletin - The *ISO Bulletin* is the monthly magazine of the ISO Central Secretariat. The *ISO Bulletin* provides an overview of ISO's activities in international standardisation over almost the entire range of technology, from multimedia applications, safety requirements, interchangeability and compatibility of equipment to the movement of goods, people and services.

C

CASCO is the ISO Committee on Conformity Assessment. It was established in 1970 to study the means of assessing the conformity of products, processes, services and management systems to appropriate standards or other technical specifications. CASCO now has 90 member countries throughout the world. Its aim is also to promote mutual recognition and acceptance of national and regional conformity assessment systems and the appropriate use of International Standards for testing, inspection, certification, assessment and related purposes.

CEN or the European Committee for Standardisation was founded in 1961. CEN draws up European standards and groups 18 European standards institutes. CEN has witnessed strong development with the construction of European Union. Its headquarters is located in Brussels, Belgium. A Technical Board is in charge of the coordination, planning and programming of the work which is conducted within the work bodies (technical committees, subcommittees and working groups), the secretariats of which are decentralised in the different EU member states. CEN, which counts more than 250 technical committees, has published some 2,400 documents, including 2,100 European standards. More than 9,000 documents are under study.

CENELEC or the European Committee for Electrotechnical Standardisation was founded in 1959 and is also located in Brussels, Belgium. CENELEC fulfils within the electrotechnical sector the same functions as CEN.

Certification is a procedure by which a third party gives written assurance that a product, process or service conforms to specified requirements. (Definition: ISO/IEC Guide 2:1996) Certification is based on the results of tests, inspections and audits and gives confidence to the customer that a competent third body has intervened in a systematic manner to ensure product quality.

Certification Body – a body that conducts certification.

Note – A certification body may operate its own testing and inspection activities or oversee these activities carried out on its behalf by other bodies.

Choice – the right to choose products and services at competitive prices with an assurance of satisfactory quality.

Codex Alimentarius Commission sets the international food standards. Established jointly in 1962 by the Food and Agricultural Organisation (FAO) and the World Health Organisation (WHO), it is committed by its statutes to protect the health of consumers and ensure fair practices in the food trade. Its work thus has a significant impact on the well-being of consumers, the environment and the world food trade. Codex is composed of the Commission itself, its executive committee and 28 specialised committees. Since 1962, Codex has set 237 commodity food standards. Though in theory all member countries can participate in Codex activities, in practice most government delegates come from the developed countries. Furthermore, at Codex meetings, representatives from the food and chemical industry heavily outweigh representatives from public interest groups.

Conformity assessment is any activity concerned with determining, either directly or indirectly, that relevant requirements are fulfilled (Definition ISO/IEC Guide 2). It is important to suppliers, consumers and regulators. Conformity assessment enables conscientious producers or service providers to distinguish their products from those of disreputable ones. It provides consumers with a means by which they can rely when selecting products in the marketplace where products are marked as complying with a national or international standard.

Conformity Assessment Body (CAB) – body that performs conformity assessment services. CABs assess conformity of products/services and suppliers to specifications/ requirements.

Consensus is the philosophy by which voluntary ISO and IEC standards are developed. In this, the views of all interests – the manufacturers, vendors and users, consumer groups, testing laboratories, governments, engineering professions and research organisations – are taken into account. Consensus is understood to mean "general agreement, characterised 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". (ISO/IEC Guide 2).

Consumer Communiqué – is a bi-annual publication of COPOLCO. The purpose of this publication is to exchange information on current standardisation work of interest to consumers at national as well as international levels. The Communiqué is available to members and other interested parties, both in paper and in electronic format.

Consumer education – actions taken to promote the acquisition of knowledge and skills necessary for one to be an informed consumer.

Consumers are buyers and users of consumer goods and services. COPOLCO defines a consumer as "an individual member of the general public purchasing or using goods, property or services for private purposes". (COPOLCO resolution 9/1978).

Consumers International represents the interests of almost 240 independent organisations from more than 100 countries on five continents. It is a non-profit, independent organisation supported by fees from member organisations and grants. Consumers International is the only consumer organisation with the right to be an observer at ISO and IEC technical committees.

COPANT or Pan American Standards Commission is a civil, non-profit association. It has complete operational autonomy and unlimited duration. The basic objectives of COPANT are to promote the development of technical standardisation and related activities in its member countries, to promote the industrial, scientific and technological development in benefit of an exchange of goods and the provision of services and to facilitate cooperation in the intellectual, scientific and social fields.

The Commission coordinates the activities of all institutes of standardisation in the Latin American countries. It develops all types of product standards, standardised test methods, terminology and related matters. The headquarters of COPANT is in Buenos Aires, Argentina.

COPOLCO is the ISO Committee on Consumer Policy and it reports to the ISO council. It was established in 1978. The committee is open to all ISO member bodies as participating or observer members, and to the ISO correspondent members as observer members. At present it has 79 members distributed throughout the world, in addition to the International Electrotechnical Committee (IEC).

Cooperation with the IEC includes representation in the meetings of COPOLCO and its working groups, and parallel circulation of basic draft documents of mutual interest. Two other international organisations have a liaison with COPOLCO: Consumers International and the Organisation for Economic Cooperation and Development (OECD). Other liaison relationships are now in the process of formalisation.

Correspondent member is usually an organisation in a country which does not yet have a fully developed national standards activity. Correspondent members of ISO do not take an active part in the technical and policy development work, but are entitled to be kept fully informed about work of interest to them.

D

Department of Standards Malaysia (DSM) was established on Aug 28, 1996 under the Ministry of Science, Technology and Environment (MOSTE) and is Malaysia's national standards body and accreditation body. Its role and functions are governed by the Standards of Malaysia Act 1996 (Act 549). The functions of DSM are to foster and promote standardisation and accreditation as a means of advancing the national economy, promoting industrial efficiency and technological development, facilitating domestic and international trade, benefiting the health and safety of the public, protecting consumers and furthering international cooperation. (Visit DSM's website at www.dsm.gov.my for more information)

DEVCO is the ISO committee on developing country methods. It was established in 1961 to identify the needs and requirements of the developing countries in the fields of standardisation and related areas (i.e. quality control, metrology, certification, etc.) and to assist the developing countries, as necessary, in defining these needs and requirements. Its role is also to provide a forum for the discussion of all aspects of standardisation and related activities in developing countries and to facilitate the exchange of experience between developed and developing countries and among developing countries.

E

Effective Consumer Representative – consumer representation in standardisation becomes more effective with:

- self-confidence and willingness to present a viewpoint, even if it is a minority view
- good-critical thinking and verbal views
- curiosity and willingness to learn new things
- time to devote to preparation, travel and participation
- having self-motivation and discipline. In many cases, the consumer representatives will have to do their own thinking and will often work to a self-imposed schedule
- having an understanding of how committees and organisations work
- being comfortable about receiving and absorbing a lot of information
- being comfortable asking questions
- being willing to travel
- being willing to follow through with a project that may last months or years

European Telecommunications Standards Institute (ETSI) develops European standards in the telecommunications field (ETS, European Telecom Standard). Its headquarters is at Sophie Antipolis in France. ETSI groups 400 members (administrations, operators, research bodies, industrialists and users) representing more than 30 countries (in the EU, EFTA and Eastern Europe).

European Association for the Coordination of Consumer Representation in Standardisation (ANEC) was set up in 1995 to provide a European focus for consumer participation in the area of standards. Consumer input is an important component of the two European standards-setting bodies, the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation (the equivalents of ISO and IEC).

ANEC represents consumers from both the European Community and the European Free Trade Association. Members participate in some 60 standards committees and working groups, focusing on child safety, electrical appliances, the environment, machinery, gas appliances and traffic. Increasing emphasis is being placed on the role of standardisation in the regulation of services.

F

Field of standardisation – domain of standardisation (deprecated). Group of related subjects of standardisation

Note – Engineering, transport, agriculture, and quantities and units, for example, could be regarded as fields of standardization.

G

General rule of standards is that they are for voluntary application, not mandatory. In certain cases, implementation may be obligatory (such as in fields connected with safety, electrical installations and in relation to public contracts and so on), or where national or regional legislation refers to standards, such as the new approach in Europe today.

General reference (to standards) – reference to standards that designates all standards of a specified body and/or in a particular field without identifying them individually.

H

Harmonised standards – standards on the same subject approved by different standardizing bodies, that establish interchangeability of products, processes and services, or mutual understanding of test results or information provided according to these standards

Hazard Analysis Critical Control Point (HACCP) – has been recognised internationally as a logical tool towards the development of a more scientifically-based system to ensure the safety of food. The key element of a HACCP-based food safety system is its preventive nature, with emphasis on exercising better control along the manufacturing process at critical steps, identified as critical control points (CCP). Its application consists of a logical sequence of 12 steps encompassing seven basic principles.

HACCP enables defects that have an impact on the safety of food to be readily detected and corrected at specific points in the manufacturing process, instead of relying on end-product inspection and testing. By applying HACCP, food processing establishments can better control hazards, and thus provide a higher and more consistent assurance of safety for their products.

Healthy environment – the right to live and work in an environment, which is neither threatening nor dangerous, and which permits a life of dignity and well-being.

I

Industry Standards Committees are responsible for the planning, strategy and approval of new projects and acceptance of final draft in the respective sectors of a standard.

Industry-wide ISO and IEC standards are developed through global solutions to satisfy industries and customers worldwide. Industry-wide standardisation is a condition existing within a particular industrial sector when the large majority of products or services conform to the same standards. It results from consensus agreements reached between all economic players in that industrial sector – suppliers, users and often, governments. They agree on specifications and criteria to be applied consistently in the choice and classification of materials, the manufacture of products, and the provision of services.

Industry Workshop Agreement (IWA) essentially this is through an open workshop mechanism whereby market players will be able to negotiate in workshops, setting the contents of particular normative document. The results of such workshops are published in documents designated as IWA. An IWA therefore is a technical document developed by a workshop outside of the technical structure of ISO, with the administrative support of a designated member-body.

Information – here it is defined as the right to be protected against dishonest or misleading advertisements or labels and the right to be given the facts and information needed to make an informed choice.

Interface standard – standard that specifies requirements concerned with the compatibility of products or systems at their points of interconnection

International Accreditation Forum, Inc. (IAF) is the world association of Conformity Assessment Accreditation Bodies and other bodies interested in conformity assessment in the fields of management systems, products, services, personnel and other similar programmes of conformity assessment. Its primary function is to develop a single worldwide program of conformity assessment which reduces risk for business and its customers by assuring them that accredited certificates may be relied upon. Accreditation assures users of the competence and impartiality of the body accredited. IAF members accredit certification or registration bodies that issue certificates attesting that an

organisation's management, products or personnel comply with a specified standard (called conformity assessment).

The primary purpose of IAF is two-fold. Firstly, to ensure that its accreditation body members only accredit bodies that are competent to do the work they undertake and are not subject to conflicts of interest. The second purpose of the IAF is to establish Mutual Recognition Arrangements (MLA) between its accreditation body members which reduces risk to business and its customers by ensuring that an accredited certificate may be relied upon anywhere in the world. The MLA contributes to the freedom of world trade by eliminating technical barriers to trade. IAF works to find the most effective way of achieving a single system that will allow companies with an accredited conformity assessment certificate in one part of the world, to have that certificate recognised else where in the world. The objective of the MLA is that it will cover all accreditation bodies in all countries in the world, thus eliminating the need for suppliers of products or services to be certified in each country where they sell their products or services. Certified once - accepted everywhere.

International Classification for Standards (ICS) – inasmuch as an ever-growing number of standards catalogues are structured in accordance with ICS, the users of standards benefit from a common access key to many of the standards collections of the world. Users have a more comprehensive view over their fields of interest, thanks to multiple classifications of the standards, and are better guided in their search. ICS comprises 41 fields, subdivided into 340 groups which are further subdivided into some 530 subgroups.

International Electrotechnical Commission (IEC) was founded in 1906 and is responsible for international standardisation in the fields of electricity, electronics and related technologies. Its character embraces all electrotechnologies including electronics, magnetics, and electromagnetics, electroacoustics, telecommunications and energy production and distribution, as well as associated general disciplines such as terminology and symbols, measurements and performance, dependability, design and development and safety and the environment. IEC members, currently numbering more than 50, are national committees, with one for each country. They are required to be fully representative of all electrotechnical interests in the country concerned. National committees obtain a large measure of support from industry and are mostly recognised by their governments.

IEC's affiliate country programme is a programme aimed at all newly-industrialising countries around the world. The programme offers such countries a form of participation in the IEC without the financial burden of membership, making full use of all IT tools to reduce costs of participation. The programme has two principal aims: to encourage greater awareness and use of IEC International Standards in newly-industrialising countries; and to help newly-industrialising countries understand and participate in the work of IEC.

International Federation of Standard Users (IFAN) - The International Federation of Standards Users is an independent, non profit-making international association of national organisations for the application of standards, companies, professional and trade associations and governmental agencies concerned with the use of standards.
It was founded in 1974 when 11 national standards organisations met in Paris for an International Conference.

The objectives of IFAN, *inter alia*, include:

- To promote uniform implementation of standards without deviation and develop solutions to the problems of standards users, without itself drawing up standards;
- To consolidate the interests and views of standards users on all aspects of standardisation and conformity assessment, and to cooperate with international and regional standardising bodies (e.g. ISO, IEC, ITU, CEN, COPANT, etc) in order to communicate user views to these organisations;
- To promote networking in the field of international standardisation and conformity assessment.

IFAN is open to four categories of members: national, corporate, developing national and prospective corporate members. The *national members* are national standards user bodies; the *corporate members* are companies, professional and trade associations and governmental agencies that deal with the use of standards; *developing national members* are national standards user bodies with limited economic resources and *prospective corporate members* are companies, professional and trade associations and governmental agencies that deal with the use of standards and participate in IFAN activities with a view to becoming corporate members.

INTERNATIONAL LABORATORY ACCREDITATION COOPERATION (ILAC) is an international cooperation between the various laboratory accreditation schemes operated throughout the world. Founded twenty years ago, ILAC was formalised as a cooperation in 1996 when 44 national bodies signed a Memorandum of Understanding

(MOU) in Amsterdam. This MOU provides the basis for the further development of the Cooperation and the eventual establishment of a multilateral recognition agreement between ILAC member bodies. Such an agreement will further enhance and facilitate the international acceptance of test data, and the elimination of technical barriers to trade as recommeded and to support the World Trade Organisation (WTO) TBT agreement.

As part of its global approach, ILAC also provides advice and assistance to countries that are in the process of developing their own laboratory accreditation systems. These developing systems are able to participate in ILAC as associate members, and access the resources of ILAC's more established members.

In conjunction with ILAC, specific regions have also established their own accreditation co-operations, notably in Europe (EA) and the Asia-Pacific (APLAC). These regional co-operations work in harmony with ILAC and are represented on ILAC's board of management. ILAC is encouraging the development of such regional co-operations in other parts of the globe.

Hence ILAC is the world's principal international forum for the development of laboratory accreditation practices and procedures, the promotion of laboratory accreditation as a trade facilitation tool, the assistance of developing accreditation systems, and the recognition of competent test facilities around the globe.

International Standard is a standard that is adopted by an international standardising/ standards organisation and made available to the public.

International Organisation for Standardisation (ISO) is a non-governmental organisation established in 1947. The mission of ISO is to promote the development of standardisation and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity. There are currently 145 members of ISO.

ISO logo is a registered trademark. Unless authorised by ISO, the use of its logo is prohibited. Notably, ISO will not allow its logo to be used in connection with conformity assessment activities. These include the certification of management systems, products, services, materials or personnel, even when these certifications attest conformity to an ISO standard, such as one of the ISO 9000 or ISO 14000 series.

Examples of unacceptable use of the ISO logo include its use on products, on Internet sites, in marketing materials, advertisements and company letterheads. Allowing the

ISO logo to be used would give the false impression that ISO carries out certification activities, or has approved or authorised the organisation using its logo. These activities are not business functions of ISO.
ISO is not an auditor, assessor, registrar, or certifier of management systems, products, services, materials or personnel, nor does it endorse any such activities performed by other parties. ISO develops International Standards but does not operate any schemes for assessing conformance with them.

International Telecommunication Union (ITU) – The birth of ITU can be traced back to 1865. A specialised agency of the United Nations since 1947, ITU membership currently includes some 180 countries and more than 400 sector members. ITU international recommendations are developed in the fields of both telecommunications and radiocommunications.

ISO 14000 – is primarily concerned with "environmental management". In plain language, this means what the industry or organisation does is to minimise harmful effects on the environmental caused by its activities.

ISO 9000 – is primarily concerned with "quality management". Like "beauty", everyone may have his or her idea of what "quality" is. In plain language, the standardised definition of "quality" in ISO 9000 refers to all those features of a product (or service) which are required by a customer. "Quality management" means what the organisation does to ensure that its products conform to the customer's requirements.

ISONET – the ISO Information Network is there to assist customers in retrieval of information required. This is a worldwide network of national standards information centres which have cooperatively agreed to provide rapid access to information about standards, technical regulations, and testing and certification activities currently used in different parts of the world. Members of this network – usually the ISO member of any given country – act to disseminate information and identify the relevant sources for solving specific problems. Each national member of ISONET has a dual responsibility. ISONET has become the international reference point for information about the standards, technical regulations and certification systems that operate in each country. Secondly, it is expected to provide its own nationals with an efficient information service on national, foreign, regional and international technical rules.

J

Joint Technical Committee on Information Technology – the IEC is a key player in the preparation of international standards in information technology (IT) through the Joint Technical Committee on Information Technology (JTC 1), which was formed in 1987 by an agreement between the IEC and the ISO. Created to cover the IT work in both the IEC and ISO, JTC 1 also receives inputs from the ITU which has an official liaison role in JTC 1.

Information technology is an important feature of everyday life in today's society, and JTC 1 is the premier IT standards technical committee in the world. Through the IEC and ISO, JTC 1 serves the market of companies that can implement standards, buyers of products based on standards and potential partners in future standards development.

JTC 1 has 17 subcommittees and their work covers everything from software engineering to programming languages, computer graphics and image processing, interconnection of equipment, security techniques, etc. JTC 1 won the American Academy of Television Arts and Sciences "Emmy" Awards in 1996 for its image compression standards JPEG and MPEG.

L

Labeling is information given on a paper attached on a product to indicate the manufacturer, price, nature, contents, weight, volume, shelf-life, etc, whichever is applicable. Consumers prefer informative labeling which enables them to compare products easily in order to make an informed choice.

Laboratory accreditation provides a means of determining the competence of laboratories to perform specific types of testing, measurement and calibration. Very importantly, laboratory accreditation provides formal recognition to competent laboratories, thus offering a ready means for customers to access reliable testing and calibration services.

Laboratory Accreditation Scheme of Malaysia (SAMM) – this programme was first established by the Government in August 1990 and is under the purview of DSM. SAMM is a unified national laboratory accreditation programme and is multi-disciplinary in its scope of accreditation. It covers accreditation of both calibration and testing laboratories.

Legal metrology is the entirety of the legislative, administrative and technical procedures established by, or by reference to public authorities, and implemented on their behalf in order to specify and to ensure, in a regulatory or contractual manner, the appropriate quality and credibility of measurements related to official controls, trade, health, safety and the environment.

M

Management Systems Standards – there have been in recent years the development and application of what are known as "generic management systems standards", where "generic" means that the standards' requirements can be applied to any organisation, regardless of the product it makes (or whether the "product" is actually a service activity). "Management system" refers to what the organisation does to manage its processes. Two of the most widely known series of international standards falling into this category are almost certainly the ISO 9000 series for managing quality systems and the ISO 14000 series for environmental management systems.

Mandatory standard – standard the application of which is made compulsory by virtue of a general law or exclusive reference in a regulation.

Multilateral arrangement (MRA) is the recognition arrangement that covers the acceptance of each other's results by more than two parties.

N

Name - ISO's name – Many people will have noticed a seeming lack of correspondence between the official title when used in full, International Organisation for Standardisation, and the short form, ISO. Shouldn't the acronym be "IOS"? Yes, if it were an acronym - which it is not.

In fact, "ISO" is a word, derived from the Greek *isos*, meaning "equal", which is the root of the prefix "iso-" that occurs in a host of terms, such as "isometric" (of equal measure or dimensions) and "isonomy" (equality of laws, or of people before the law).

From "equal" to "standard", the line of thinking that led to the choice of "ISO" as the name of the organisation is easy to follow. In addition, the name ISO is used around the world to denote the organisation, thus avoiding the plethora of acronyms resulting from the translation of "International Organization for Standardisation" into the different national languages of members, e.g. IOS in English, OIN in French (from Organisation Internationale de Normalisation). Whatever the country, the short form of the organisation's name is always ISO.

National Standards are a collective work. The national standard is programmed and studied under the authority of the national standards body, which then publishes the standards. It is therefore protected, as early as the draft standard stage, by a copyright belonging to the national body.

National standards body – standards body recognised at the national level, that is eligible to be the national member of the corresponding international and regional standards organisations

Observer members in ISO are members who simply follow the work of the ISO. Observers have equal rights as participating members in such matters as attending meetings, commenting on documents or suggesting new work areas, but cannot vote.

Organisation International de Métrologie Légale (OIML) is an intergovernmental body established in 1955. Its main objective is to achieve international harmonisation for legal metrology, providing an important basis for measurement credibility, eliminating technical barriers to trade in measuring instruments and promoting international trade by confidence in measurement capability.

The main output of OIML's work is the production of international Recommendations, which are technically based models for legal control of measuring instruments.

Organisation for Economic Cooperation and Development (OECD) – has been called a think tank, a monitoring agency, a rich man's club and an unacademic university. It has elements of all, but none of these descriptions capture the essence of the OECD. The OECD groups 30 like-minded countries in a unique forum to discuss, develop and refine economic and social policies. Membership is limited only by a country's commitment to a market economy and a pluralistic democracy.

The OECD compares experiences, seeks answers to common problems and works to coordinate domestic and international policies to help members and non-members deal with the increasingly globalised world. Its exchanges may lead to agreements to act in a formal way – for example by establishing legally binding agreements to crack down on bribery, or codes for free flow of capital and services.
The OECD is also known for 'soft law' – non binding instruments on difficult issues such as its Guidelines for multinational enterprises. Beyond agreements, the discussions at the OECD make for better informed work within member countries' own governments across the broad spectrum of public policy and help clarify the impact of national policies on the international community.

The OECD is a rich grouping, in that its 30 members produce two thirds of the world's goods and services, but it is by no means exclusive. The core of original European and

North American members has expanded to include Japan, Australia, New Zealand, Finland, Mexico, Korea and four former communist states in Europe: the Czech Republic, Hungary, Poland and the Slovak Republic. Non-members are invited to subscribe to OECD agreements and treaties, and the organisation now involves in its work some 70 non-member countries from Brazil, China and Russia to the least developed countries in Africa and elsewhere.

Exchanges between OECD governments flow from a Secretariat in Paris that provides information and analysis. The organisation is one of the world's largest and most reliable sources of comparable statistical, economic and social data. Various divisions in the Secretariat collect data, monitor trends and analyse and forecast economic developments while others research social changes or evolving patterns in trade, environment, agriculture, technology, taxation and other areas.

The OECD is at the forefront of efforts to understand and help governments respond to new challenges such as sustainable development, electronic commerce, biotechnology and food safety. This work underpins discussions by member countries when they meet in specialised committees of the OECD. Much of the research and analysis is published, on paper and online.

P

Pacific Area Standards Congress (PASC) - The importance of international standardisation to trade and commerce is recognised throughout the world. Countries on the Pacific Rim agree on the need for a forum to strengthen international standardisation programmes of the International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC) and to improve the ability of Pacific Rim standards organisations to participate in these programmes effectively.

In 1972, representatives of a number of standards bodies met in Honolulu, Hawaii, USA, to plan for and suggest a programme leading to development of a voluntary, independent organisation of Pacific area national standards organisations. In 1973, the first meeting of the organisation, which was named the Pacific Area Standards Congress (PASC), was held in Honolulu.

The members of PASC have adopted by consensus a number of important resolutions concerning international standardisation, the work of ISO and IEC and communication and interrelationships among PASC members. PASC is concerned not only with standards preparation but also with conformance to standards.

The objectives of PASC are to exchange information and views and initiate necessary actions to help ensure that international standardisation activities are properly coordinated on a consensus basis to meet world needs and foster international trade and commerce, to provide a geographically convenient forum for the countries and territories of the Pacific area to develop recommendations for communication to the international standards bodies, particularly ISO and IEC, to form a consultative liaison with international and regional standards bodies to help them meet world needs in standardisation through communication of recommendations of PASC members and to examine future requirements in international standardisation and the changes in the current international structure that may be necessary to meet these requirements.

Participating members of committees have an obligation to vote and are actively involved in the work of ISO. ISO member bodies (fully active members of ISO) may be participating members of committees.

Policy Development Committees - The General Assembly may establish advisory committees, called policy development committees. They are open to all member bodies and correspondent members, and their management reporting line is to the Council

Product standard – standard that specifies requirements to be fulfilled by a product or a group of products, to establish its fitness for purpose

Publicly Available Specifications (PAS) Technical Committees (TC) may decide that a particular work term should result in publication of a PAS. The text is developed through the preparatory stage within a working group. At the end of this stage the text is submitted for approval, either by correspondence or at a meeting, for publication as a PAS. Acceptance of the document requires approval by a simple majority of the participating members of the TC under which the working group operates. After six years, a PAS shall either be converted into an International Standard or withdrawn.

Q

Quality – totality of features and characteristics of a product or service (an entity) that bears on its ability to satisfy stated and implied needs.

Quality Management Principles is a document that introduces the eight quality management principles on which the quality management system standards of the revised ISO 9000:2000 series are based. These principles can be used by senior management as a framework to guide their organisations towards improved performance.

Quality requirement has taken on increasing importance and asserts itself more and more as a determining factor for competitiveness. While today it is easy to compare prices, it is much more complex to compare levels of quality. The existence of a unanimously recognised quality system of reference constitutes a very precious clarification tool. The standard plays precisely this role.

R

Redress – the right to be compensated for misrepresentation, shoddy goods or unsatisfactory services.

Regional standards bodies are formed as part of an attempt to encourage regional trade agreements. There are regional standards bodies covering the European Union, Africa, North America, Latin America and the Pacific area. Some examples of regional standards bodies are CEN, CENELEC, ETSI and COPANT.

Representation – the right to express consumer or other interest in the making and execution of government policy.

S

Service standard – standard that specifies requirements to be fulfilled by a service, to establish its fitness for purpose
Note – service standards may be prepared in fields such as laundering, hotel-keeping, transport, car-servicing, telecommunications, insurance, banking, trading.

SIRIM Berhad – a wholly-owned company of the Malaysian Government, it came into operation on Sept 1, 1996 with a vision to be a world class corporation of choice for technology and quality. The corporatisation of SIRIM has put the company into a new mode of operation and paved the way for flexibility, cost-efficiency and responsiveness, and to be customer- focused.

The activities of SIRIM Berhad are classified into three main business portfolios. They are research and technology development, standardisation and technology transfer. The research and technology portfolio includes strategic research, contract research and development projects. The product line of standardisation portfolio is testing, certification and national standards development and measurement. Technology transfer includes SMI development, commercialisation of research findings, information services, consultancy, technology sourcing and evaluation and technology forecasting.

To provide a better focus for its business and at the same time to deliver more efficient services to its clients, three wholly-owned subsidiaries, one-partly owned subsidiary and one associate company have been established. The wholly-owned subsidiaries, SIRIM QAS Sdn Bhd, SIRIM Training Services Sdn Bhd and SIRIM-Rapid Prototyping Services Sdn Bhd provide certification, training and prototyping services respectively.

Standards are documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics in order to ensure that materials, products, processes and services are fit for their purposes.

.A standard (as defined in IEC/ISO Guide 2) is a document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities aimed at the achievement of the optimum

degree of order in a given context. An international standard is a standard adopted by an international standardising/standards organisation and made available to the public.

Standards development takes place at the subnational, national, regional and international level. Very often, standards developed and approved at one level are introduced and adopted at other levels because the issues they address are shared by more than one level.

Standards Writing Organisation (SWO) – SWOs are appointed by SIRIM Berhad to undertake and manage standards development work under the direction of a specific Industry Standards Committee (ISC). In an attempt to expedite the development of Malaysian Standards and as part of efforts to lead the nation towards industrialisation, a national strategy to decentralise some of the standards development activities to the relevant private and public sector organisations has been adopted.

T

Technical Barriers to Trade (TBT) – sometimes referred to as the Standards Code, it aims to reduce impediments to trade resulting from differences between national regulations and standards. As far as international consensus-based standards are concerned, the Agreement invites the signatory governments to ensure that the standardising bodies in their countries accept and comply with a "Code of good practice for the preparation, adoption and application of standards", embodied in Annex 3 to the Agreement and known as the WTO Code of Good Practice.

Technical Committees (TC) are responsible for the consultation process and consensus establishment for the development of Malaysian Standards. They actually develop domestic standards. Each committee is set up to ensure that there is a balance of interests among stakeholders, including consumers. Committees also include representatives from the private sector, government regulators, environmental specialists and academicians who either have expertise or who represent a specific interest.
Each technical committee develops a particular standard. Although they may become inactive for a time, their work will continue as the standard is revised and reviewed, ideally within five years.

Technical Report (TR) - An informative document containing information of a different kind from that normally published in a normative document. When a committee has collected information in support of an approved work item or work items, it may decide, by simple majority vote of the participating members, to request that the information be published in the form of a technical report. The ISO Secretary-General, if necessary in consultation with the Technical Management Board, shall decide whether to publish the document as a technical report.

ISO Technical Reports were essentially of three types: Type 1 for documents which had been intended to become standards but for which the required levels of agreement could not be attained; Type 2 to describe either the directions of standardisation in particular fields or in some instances to make available an experimental standard for trial use; and Type 3 which are for information only. In future, the term ISO technical report will be retained purely for informative documents (i.e. the current type 3 technical

reports). Normative technical reports (types 1 and 2) will in future be published as technical specifications (TS).

Technical Specifications (TS) Technical Committees may decide that a particular work item should result in the publication of a TS. The text is developed through the preparatory and committee stages, at the end of which the text shall be submitted for voting by the participating members of the committee on whether to approve the publication of the document as a TS. Acceptance of the document requires approval by two thirds of the participating members. After six years, the TS shall either be converted into an International Standards or be withdrawn.

Terminology standard – standard that is concerned with terms, usually accompanied by their definitions, and sometimes by explanatory notes, illustrations, examples, etc.

Total Quality Management (TQM) – is the management of quality totality. It is defined as "that aspect of the overall management that determines and implements the Quality Policy and as such, is the responsibility of the top management". TQM is a new concept and is a basic shift from the past concepts of quality. It is not, therefore, just a question of achieving standards but one of survival and being strong all the time. Furthermore, managerial responsibilities are not just concerned with focusing on one particular aspect of the business but in being fully aware and in control of all the various activities, no matter how small they are. Thus, TQM is an organisational concern and not the domain of any specialist or specific functions.

Types of Standards – standards establish a wide range of requirements for products, processes and services:

- performance specifications ensure that a product meets a prescribed test, for example, strength requirements;
- prescriptive specifications identify product characteristics, such as the thickness, type or dimensions of materials. Standards may also combine performance and prescriptive requirements;
- design specifications set out the specific design or technical characteristics of a product; and
- management specifications set out requirements for the processes and procedures companies put in place, such as for quality and environmental management systems.

U

Unified standards – harmonized standards that are identical in substance but not in presentation

Unilateral arrangement – recognition arrangement that covers the acceptance of one party's results by another party

User – a person who actually uses the product or service. It need not necessarily be the person who bought the product or service.

V

Voluntary – international standardisation is market-driven and therefore based on the voluntary involvement of all interests in the market-place.

Voluntary consensus standards are developed within an open process that provides the opportunity to all who have a directly- and materially- affected interest to express their views and to have those views considered.

W

Working Groups (WG) are groups of experts on a particular product or service, nominated by each participating country, to work together to produce draft working documents that can be taken forward and considered by technical committees for use as an international standard.

World Standards Services Network (WSSN) is a network of publicly accessible World Wide Web servers of standards organisations around the world. The objective of WSSN is to simplify access to international, regional and national standards information available through the Web.

World Standards Day - Each year on Oct 14, the members of ISO, the IEC and ITU celebrate World Standards Day as a means of paying tribute to the collaborative efforts of the thousands of experts worldwide who develop the voluntary technical agreements that are published as international standards.

World Trade Organisation is the international organisation dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible. The ISO, together with the IEC (International Electrotechnical Commission) and the ITU (International Telecommunication Union) has built a strategic partnership with the WTO.

The political agreements reached within the framework of WTO require underpinning by technical agreements. ISO, IEC and ITU, as the three principal organisations in international standardisation, have the complementary scopes, the framework, the expertise and the experience to provide this technical support for the growth of the global market.

Z

Zero defect – a system of rewarding workers who make no mistakes and waste no materials over a given and specified period of time.

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About **FOMCA**

The Federation of Malaysian Consumers Associations or its acronym, FOMCA is a national non-governmental organization that is voluntary, non-profit, non-political and civil minded. It is the umbrella body of registered consumer associations in Malaysia. FOMCA, which was founded on 10th June 1973 links the activities of consumer associations in Malaysia as well as at international level and works together towards strengthening consumer protection. FOMCA is a movement of the people, by the people and for the people. Its main concern is not only value for money but more so, value for people.

FOMCA is not only a consumer organisation, it is also a development organisation. FOMCA 's aim is to create independence amongst consumers i.e. "The Best Protection is Self Protection". FOMCA also strives to create a wise and empowered consumer.

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