IN BRIEF

The Standards and Metrology Institute for Islamic Countries

www.smiic.org
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July 2017, Istanbul-TURKEY
INTRODUCTION

Standardization, metrology and accreditation is vital for accelerating the development of economies. This approach will promote common understanding throughout all countries. A common standardization, metrology and accreditation framework eliminates trade barriers and facilitates trade between the Organisation of Islamic Cooperation (OIC) Member States and the entire World. In an age of globalisation and economic interdependence, countries need to work together to establish fully functional and sustainable knowledge-based economies.

A quality infrastructure is needed for a country’s sustainable development, full participation in international trade and to be able to satisfy the technical requirements of the multilateral trading system. Standardization, metrology and accreditation are three separate, but interlinked and interdependent “pillars” which are essential for developing a quality infrastructure. Standardization, metrology and accreditation are the main building blocks, they are part of the integrated technical mix that is necessary for a country to be able to trade both bilaterally and within the multilateral trading system.

The role of National Standardization Bodies (NSBs) has been evolving over the last 50 years. The effects of globalization have made coordination and collaboration with international and regional standardization bodies a must NSBs need to ensure that their standardization
scheme is harmonized with regional and international standards.

Standards are vital to the emerging economies of Islamic Countries. Developing Islamic Countries have different historical trajectories and needs in relation to developed countries. Islamic Countries have specific needs and issues, which they themselves best comprehend, for example halal. This is an issue which touches the hearts of all Islamic Countries. A common standardization framework is fundamental for the development of halal, tayyib, good quality food, feed, pharmaceuticals, cosmetics, etc.

Collaboration between Islamic Countries will aid judicious and efficient utilization of scarce resources. Simultaneously, fostering the enhancement of Least Developed Countries (LDCs) shall increase growth and market access of Islamic Countries.

Setting standards and reviewing them requires regular evaluation. One-off policy advice is not sufficient. An institute as the Standards and Metrology Institute for Islamic Countries (SMIIC) is imperative. In order to develop fully functional and sustainable knowledge based economies, Islamic Countries need to collaborate and cooperate to achieve this together. This is why SMIIC was established.

“(...) We all have something we can teach each other. Collaboration between Islamic Countries will aid judicious and efficient utilization of scarce resources..."
The Organization of Islamic Cooperation (OIC) is the second largest inter-governmental organization after the United Nations which has membership of 57 countries spread over four continents.

The Organization is the collective voice of the Muslim world ensuring to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world.

OIC aims to collectively aid in enhancing and developing the infrastructure, trade and economies of its Member States. One of the priority areas is to aid the increase in intra- and inter- OIC trade.

“For detailed information: http://www.oic-oci.org”

It has been vital to take steps in order to establish a powerful standardization infrastructure between OIC Member States and hence the Standards and Metrology Institute of Islamic Countries has been established by OIC.
The Standards and Metrology Institute for Islamic Countries (SMIIC) is affiliated to OIC and it is a sound mechanism to realize OIC/SMIIC standards in Member States and to eliminate factors relating to the standards covering products, processes and systems, likely to affect adversely the trade among Member States. Standards which are prepared and published by SMIIC are called OIC/SMIIC Standards. Simultaneously, SMIIC is preparing OIC/SMIIC Standards that are aiming at enabling the Member States to reap a maximum benefit from the economic advantages to be brought about by the standards. SMIIC is establishing a conformity assessment scheme for the purpose of expediting exchange of materials, manufactured goods and products among Member States, beginning with mutual recognition.

SMIIC also aims at achieving uniformity in metrology, laboratory testing and standardization activities among Member States and providing education and training for the Member States personnel in the domain of standardization and metrology by making the most efficient use of existing means and sharing accumulated information and experience.
VISION

To become a leading actor by making key contribution to the economic improvements and to the welfare of its Member States by means of establishing quality infrastructure and high quality standards.

MISSION

To develop harmonized standards and other relevant specific standards through a voluntary standardization process to expedite exchange of goods and services among Member States targeting uniformity in metrology and laboratory services, standardization, and accreditation activities supporting sustainable economic growth, within the frame of health and environmental protection, promotion of innovation and ensuring safety issues.

Eliminating technical barriers to trade in order to benefit from the economic advantages.
OBJECTIVES

To endeavor to realize OIC/SMIIC standards in Member States and to eliminate any factor relating to the standards covering products, processes and systems, likely to affect adversely the trade among Member States.

To prepare OIC/SMIIC Standards aiming at enabling the Member States to reap a maximum benefit from the economic advantages to be brought about by the standards.

To establish a conformity assessment scheme for the purpose of expediting exchange of materials, manufactured goods and products among Member States, beginning with mutual recognition.

To achieve uniformity in metrology, laboratory testing and standardization activities among Member States.

To supply to the Member States; through cost sharing system, calibration and metrology services which necessitate large investments and expenditures.

To provide education and training for the Member States personnel in the domain of standardization and metrology by making most efficient use of existing means and sharing accumulated information and experience.

To provide documentation and information services in connection with standards and issues related to the needs of the Member States in this field.

To provide technical assistance to OIC Member States which do not possess such standardization bodies with the view of enabling them to establish their own standardization body.
The idea to establish a sound mechanism for the harmonization of standards among Islamic Countries can be traced back to the 1st Meeting of the Economic and Commercial Cooperation Standing Committee (COMCEC) of OIC in 1984. The Standardization Experts Group (SEG) which was established in 1985 for this purpose worked to this end and its work led to the approval of the SMIIC Statute at the 14th COMCEC Meeting in 1998.

The Statute of SMIIC was first submitted to the Member States for its signature during the 15th COMCEC Meeting held in Istanbul, Republic of Turkey, on November 04-07, 1999.

The Statute entered into force after fulfilling the ratification requirement of 10 OIC Member States on May 2010 and the Institute established in August 2010. SMIIC is affiliated to OIC and its Headquarters is located in Istanbul, Republic of Turkey.

13 OIC Member States (in alphabetical order) which ratified the SMIIC Statute are (in 2010):

1- People's Democratic Republic of Algeria,
2- Republic of Cameroon,
3- Republic of Guinea,
4- Hashemite Kingdom of Jordan,
5- Libya,
6- Republic of Mali,
7- Kingdom of Morocco,
8- Islamic Republic of Pakistan,
9- Republic of Somalia,
10- Republic of Sudan,
11- Republic of Tunisia,
12- Republic of Turkey, and
13- United Arab Emirates.
MILESTONES

1984 At the 1st Meeting of the Standing Committee for Economic and Commercial Cooperation (COMCEC) chaired by the Turkish President in 1984, it was emphasized that the Standardization Bodies of the Member States should harmonize their national standards for the purpose of eliminating technical barriers to trade and thus developing trade among themselves.

1985-1997 According to the resolutions made by the Expert Group and Coordination Committee who had 14 meetings between 1985-1997, it was decided to establish the Standards and Metrology Organization for Islamic Countries (SMOIC).

1996 The expert group decided to submit the Draft statute to the 12th COMCEC Meeting.

1997 Draft Statute submitted to the 12th COMCEC Meeting, where it was decided that the statute be reviewed technically and judicial in the frame of opinions received from members and name of SMOIC changed to the Standards and Metrology Institute for Islamic Countries (SMIIC).

1998 Revised Draft Statute of SMIIC submitted to the 14th COMCEC Meeting held on November 01-04, 1998 as agenda item (Article 7) and approved.

1999 Statute of SMIIC first submitted to the Member States for signature during the 15th COMCEC Meeting held on November 04-07, 1999 in Istanbul.

2010 Statute of SMIIC entered into force after fulfilling the ratification requirement of 10 OIC Member States on May 2010. 1st General Assembly Meeting of SMIIC was held on 02 August 2010.

2011 • The SMIIC General Secretariat initiated its activities at SMIIC Headquarters in Istanbul, Turkey with 13 SMIIC Member States.

• 1st Board of Directors Meeting of SMIIC was held in January 2011 and Technical Committee (TC) 1 on Halal Food Issues was established.

• The first meeting of TC1 was held in Yaoundé, Republic of Cameroon on 16-17 May 2011 with the participation of 33 representatives from various OIC Member States.
## MILESTONES

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestone</th>
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<tbody>
<tr>
<td>2012</td>
<td>- TC1 considered and adopted the three documents, with the contributions</td>
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<tr>
<td></td>
<td>of 39 OIC-SEG Member States and IIFA, as OIC/SMIIC Standards, namely</td>
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<td></td>
<td>- OIC/SMIIC 1:2011, General Guidelines on Halal Food,</td>
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<td></td>
<td>- OIC/SMIIC 2:2011, Guidelines for Bodies Providing Halal Certification,</td>
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<td>- OIC/SMIIC 3:2011, Guidelines for the Halal Accreditation Body</td>
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<td></td>
<td>Accrediting Halal Certification Bodies.</td>
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<td></td>
<td>- SMIIC Members increased to 20, 6 New TCs, Accreditation Committee,</td>
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<td></td>
<td>and Metrology Committee were established and held their first meeting</td>
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<td></td>
<td>during SMIIC Forum 2012.</td>
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<td>2013</td>
<td>- SMIIC Members increased to 29 (including 1 with observer status).</td>
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<td></td>
<td>SMIIC Workshop for OIC-LDC Member States was held.</td>
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<td>2014</td>
<td>- SMIIC Members increased to 31 Members. (including 2 with observer status)</td>
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<td>2015</td>
<td>- SMIIC Information System (IS) launched.</td>
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<td></td>
<td>- Strategy and Action Plan Committee established to study and finalise</td>
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<td></td>
<td>SMIIC Strategic Plan.</td>
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<td>2016</td>
<td>- SMIIC Members increased to 36 Members (including 3 with observer status)</td>
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<td></td>
<td>- 5 new TCs established (TC10 Halal Supply Chain, TC11 Halal Management</td>
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<td></td>
<td>Systems, TCL2 Dangerous Goods Transportation, TC13 Jewellery, TC14</td>
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<td></td>
<td>Petroleum and Petroleum Products).</td>
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<tr>
<td>2017</td>
<td>- OIC/SMIIC 5:2017, General Guidelines on Occupational Safety and Health</td>
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<td></td>
<td>(OSH) adopted and published.</td>
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<td></td>
<td>- SMIIC Internal Regulations (Statute, Rules of Procedure, Financial</td>
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<td></td>
<td>Regulations and Staff Regulation) revised at 11th General Assembly.</td>
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<td></td>
<td>- Standardization Management Council, Accreditation Council, Metrology</td>
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<td></td>
<td>Council reconstructed and a Standing Advisory Committee established.</td>
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SMIIC STRATEGIC PLAN
2016-2020

SMIIC Strategic Plan has been developed by SMIIC Member States taking consideration the SMIIC objectives and the needs of the Members. Development of Standards according to the needs of its members is a main priority of SMIIC and SMIIC will be putting active effort into the training and active involvement of experts in the Standardization process. Simultaneously, SMIIC will be encouraging the adoption and implementation OIC/SMIIC by its members. SMIIC will protect the worldwide interests of the OIC Member States on the technical matters and will be the common voice of the OIC Member States on Halal Conformity assessment system. In line with SMIIC objectives the plan also includes continuation of the coordination of meetings, trainings and joint projects for capacity building. These are a few of the goals mentioned in the plan and further information about the plan can be obtained from the SMIIC website on https://www.smiic.org/en/smiic-strategic-plan.

With the purpose of implementation of the SMIIC Strategic Plan 2016-2020, major Strategic Activities/Actions document is prepared for two-year period which includes the activities/actions planned, expected outcomes, key success factors, timeline and Key performance Indicators for Monitoring and Verification. This is a working document which helps to achieve the objectives in the plan for two-year period.
STRUCTURE OF SMIIC

The structure of the Institute is comprised of the following organs:

1. GENERAL ASSEMBLY
2. BOARD OF DIRECTORS
   a. Standardization Management Council
   b. Metrology Council
   c. Accreditation Council
   d. Standing Advisory Committee
3. GENERAL SECRETARIAT

GENERAL ASSEMBLY
is the supreme decision making organ of SMIIC. The General Assembly has all the powers necessary to achieve the purpose of the Institute.

BOARD OF DIRECTORS
is the organ entrusted with the supervision of the execution of the programs, plans and activities of the Institute. The Board of Directors is comprised of thirteen members, including the host country as the permanent member, elected by the General Assembly, on the basis of an equitable geographic distribution, for a term of three years. Any member of the Board may be re-elected for successive terms. The Board shall elect a chairman and three vice-chairmen among its members for a term of three years re-electable for successive terms.

GENERAL SECRETARIAT
is the organ which is responsible for the implementation of the programs, plans and decisions of the SMIIC; it is headed by the Secretary General of the Institute. The General Secretariat is composed of two specialized units as Technical Support and Training Unit and Administrative and Financial Unit.
The TCs are the key bodies that drive the standardization and are comprised of experts from the members and the work of TCs is a completely voluntary effort.

IN GENERAL

A standard is a document, established by consensus and approved by a recognized body. It provides rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context for common and repeated use.

Standards are made by technical experts and are reached by consensus among its stakeholders ensuring a high level of safety and quality of goods and services while simultaneously encompassing state-of-the-art technology. The application of standards is voluntary and contributes to international trade.

Standardization contributes not only to international trade but also to the infrastructure that supports society, including education, health and environment while promoting sustainability.
WITHIN SMIIC

Standards are not developed by the standardization organization itself, as is the case in SMIIC. Standardization is handled by various Technical Committees (TCs). The TCs are the key bodies that drive the standardization and are comprised of experts from the members and the work of TCs is a completely voluntary effort.

A TC is a technical decision making body with a precise title, scope, strategic business plan and work programme, established within SMIIC. A TC essentially manages the preparation of SMIIC deliverables in accordance with an agreed business plan.

The primary duty of a TC is the development and systematic maintenance of OIC/SMIIC Standards according to related activities within a particular scope of work (e.g.: TC 1 Halal Food Issues, etc.).

A TC is composed of a chairman, a secretary, SMIIC Members and if any, liaison organizations.

SMIIC TCs are as follows (as of July 2017):

- TC1 Halal Food Issues
- TC2 Halal Cosmetics Issues
- TC3 Service Site Issues
- TC4 Energy Efficiency and Renewable Energy
- TC5 Tourism and Related Services
- TC6 Agricultural Products
- TC7 Transportation
- TC8 Leather and Tanning Material
- TC9 Textiles and Related Products
- TC10 Halal Supply Chain
- TC11 Halal Management Systems
- TC12 Dangerous Goods Transportation
- TC13 Jewellery
- TC14 Petroleum and Petroleum Products

Standardization work is managed by the SMIIC Standardization Management Council, who deals with all matters of strategic planning, coordination, performance, and monitoring of technical committee activities.

All activities of Technical Committees (standardization activities) are conducted via SMIIC Information System (SMIIC IS).

The SMIIC IS can be accessed via the following address: http://is.smiic.org/auth/login
Conformity assessment involves a set of processes that show the product, service or system meets the requirements of a standard. The main forms of conformity assessment are testing, certification, and inspection.

SMIIC Committee on Standards for Conformity Assessment (SMIIC/CCA) is the committee that works on issues relating to conformity assessment.

SMIIC/CCA will develop policy and publish OIC/SMIIC standards related to conformity assessment and it does not perform conformity assessment activities.

The scope of the Committee is the preparation of policies and standards (including guidelines, criteria, technical specifications etc.) for bodies involved in testing, calibration, certification, inspection, accreditation, and other related standards especially halal conformity assessment and accreditation.

The objectives of SMIIC/CCA are as follows:

• To study means of assessing the conformity of products, processes, services and management systems to appropriate standards or other technical specifications.

• To prepare OIC/SMIIC guides and standards relating to the practice of testing, inspection and certification of products, processes and services, and to the assessment of management systems, testing laboratories, inspection bodies, certification bodies, accreditation bodies and their operation and acceptance.

• To promote mutual recognition and acceptance of national and regional conformity assessment systems, and the appropriate use of OIC/SMIIC Standards for testing, inspection, certification, assessment and related purposes.

• To propose the relevant globally recognized regional or international standards to the SMIIC General Secretariat for direct adoption.
IN GENERAL

Metrology is the science of measurement. It includes units of measurement and their standards, measuring instruments and their field of application, and all theoretical and practical problems relating to measurement.

Metrology is classified in three main fields:
1. Scientific Metrology,
2. Industrial Metrology and
3. Legal Metrology.

Scientific Metrology is that part of metrology which deals with problems common to all metrological questions irrespective of the quantity measured.

It covers general theoretical and practical problems concerning units of measurement, including their realization and dissemination through scientific methods, the problems of errors and uncertainties in measurement and the problems of metrological properties of measuring instruments.

There are different specialist areas of scientific metrology, for example:
- Mass metrology dealing with mass measurements;
- Dimensional metrology dealing with length and angle measurements;
- Temperature metrology dealing with temperature measurements;
- Electrical metrology dealing with electrical measurements;
- Chemical metrology dealing with measurements in chemistry.

Industrial metrology deals with measurements in production and quality control. It covers calibration procedures, calibration intervals, control of measurement processes and management of measuring instruments in industry to ensure that they are in a state of compliance with requirements for their intended use.

Legal metrology is that part of metrology which is subject to legal/regulatory control. It is defined in the International Vocabulary of Legal Metrology as that part of metrology relating to activities which result from statutory requirements and concern measurement, units of measurement, measuring instruments and methods of measurement and which are performed by competent bodies.
**WITHIN SMIIC**

Metrology forms the backbone of standards and is one of the main areas of concern for SMIIC. SMIIC aims to achieve uniformity in metrology and laboratory testing among Member States, for this purpose has established the SMIIC Metrology Council consisting of a chair and members from national metrology institutes of the Member States and Observers of SMIIC and purposes attaining this by:

- Having an inventory of existing calibration standards and establish a chain of traceability reaching reference standards for each basic unit.
- Acting as intermediary, for any unit, for meeting calibration requirements which may arise at any link of the chain to be established. It shall, through its staff of experts, certify the extent of accuracy and precision with which any calibration laboratory offers services.
- Supplying metrology services by making the most efficient use of the existing potentials in the Member States and aid in solving their problems in the field of metrology through coordinated research.

“Since the metrology forms the backbone of the standards, achieving uniformity in metrology and laboratory testing amongst OIC Member States is the one of the aims of SMIIC.”
AC is the organ carrying out activities aimed at the establishment of an accreditation scheme in OIC Member States. AC is responsible for supporting actions for establishing a sound accreditation system OIC-wide and raise awareness of accreditation concept within the Member States.

Accreditation Council (AC) consists of members from national accreditation bodies authorized by Member States and Observers of SMIIC.

The chair and 12 members from national accreditation bodies authorized by Member States shall be appointed or elected by the Board of Directors for the management of AC, on the basis of an equitable geographic distribution, in accordance with the Rules of Procedure.

AC will form accreditation technical committees (ATC) to implement accreditation related policies/projects/programs in line with the SMIIC Strategic Plan. Membership of ATC is open to all Member States.

Accreditation is a quality infrastructure tool which supports the credibility and value of the work carried out by conformity assessment bodies and thus of the corresponding attestations issued by them (test and inspection reports, calibration certificates, certifications of management systems, products and personnel and other attestations).

Accreditation of conformity assessment bodies is carried out against globally accepted requirements set out in international standards defining competence criteria for the category of conformity assessment body, against supplementary sector specific requirements and against guidance documents from international and regional cooperation organizations of accreditation bodies.

A product or service accompanied by a conformity attestation delivered by an accredited conformity assessment body inspires trust as to the compliance with applicable specified requirements. Thereby accreditation favors the elimination of technical barriers to trade. Accreditation ensures to the consumer that standards have been adhered to and certificates issued appropriately.

WITHIN SMIIC

Accreditation: Third-party attestation related to a conformity assessment body conveying formal demonstration of its competence to carry out specific conformity assessment tasks
STANDING ADVISORY COMMITTEE (SAC)

Standing Advisory Committee is a consulting committee on the important issues with regards to policy of SMIIC, cooperate with members about international development in the area of standardization and related areas and advise Board of Directors on the issues related to the governance, policy and activities of Councils. SAC shall consist of a minimum of (6) and maximum of (9) members divided equally between the three main pillars of SMIIC activities those are standardization, metrology and accreditation. The Secretary General shall be an ex-officio member and convenor of SAC. SAC members will be nominated by General Secretariat, appointed by Board of Directors and shall be a part of Organization of Islamic Cooperation and its organs/international organizations/internationally recognized bodies/non-governmental organizations well known in their respective field.