



“SMIIC's Efforts in Improving Metrology in the OIC Member Countries”

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2024

Standards

Metrology

Accreditation

OUTLINE

Organization of Islamic Cooperation (OIC) & Standards and Metrology Institute for Islamic Countries (SMIIC)

SMIIC Metrology Council

SMIIC Metrology Council Training Activities

Projects under development by the SMIIC Metrology Council





Annual Meetings of the SMIIC Metrology Council

Conclusion



ORGANIZATION OF ISLAMIC COOPERATION (OIC)



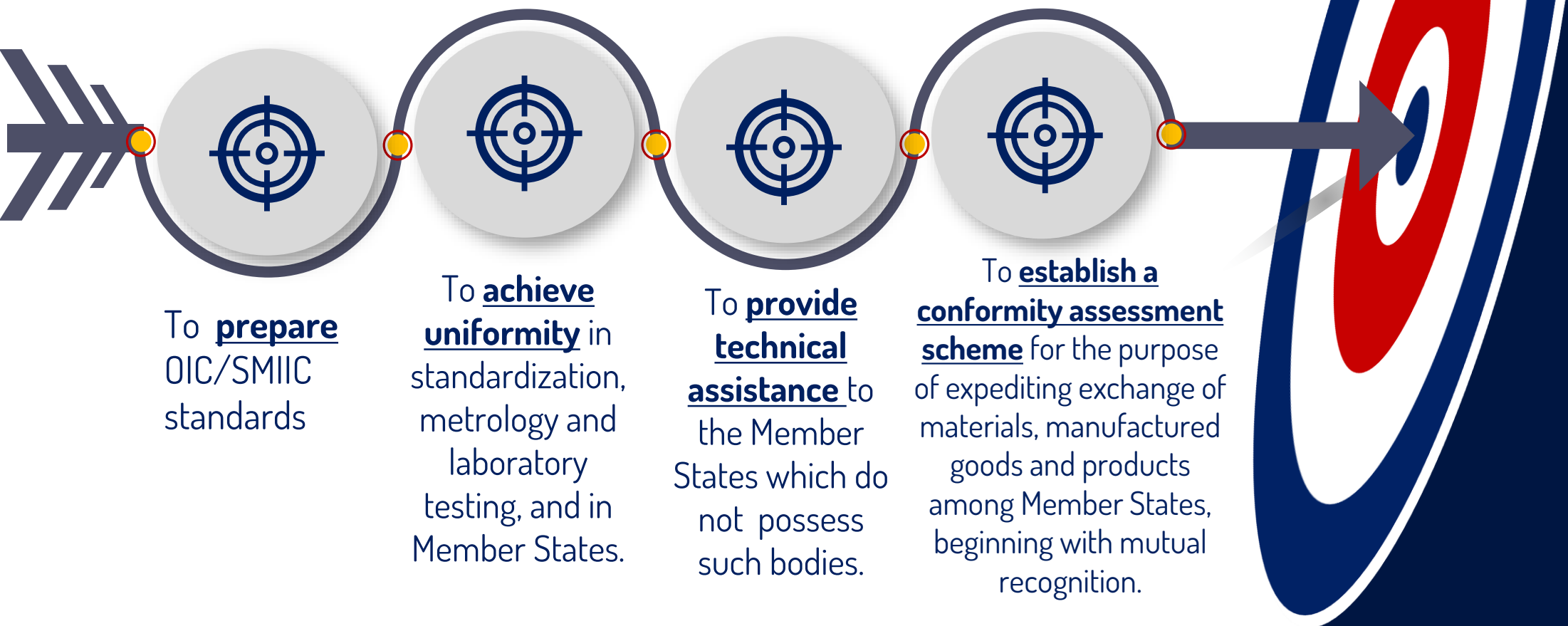
-  The second largest inter-governmental organization after the United Nations.
-  Established in September 1969.
-  57 Member States spread over four continents.
-  Collective voice of the Muslim world and ensuring to safeguard and protect the interests of the Muslim world.

WHAT IS SMIC?



- SMIC is a treaty based and an intergovernmental organization, technical and affiliated to the OIC.
- Recognized as an international organization, has diplomatic status.
- Established in August 2010.
- Headquarters located in Istanbul, Turkey.
- Not a conformity assessment body (CB).

MAIN OBJECTIVES OF SMIIC



SMIIC MEMBERS

All OIC Member States through their National Standardization, Metrology and Accreditation Bodies can be a SMIIC member.

SMIIC has 47 Member States to date. (44 Full and 3 Observer Members)

<https://www.smiic.org/en/members>





VISION

To create a quality infrastructure that improves economy, welfare and protects our Member States.

MISSION

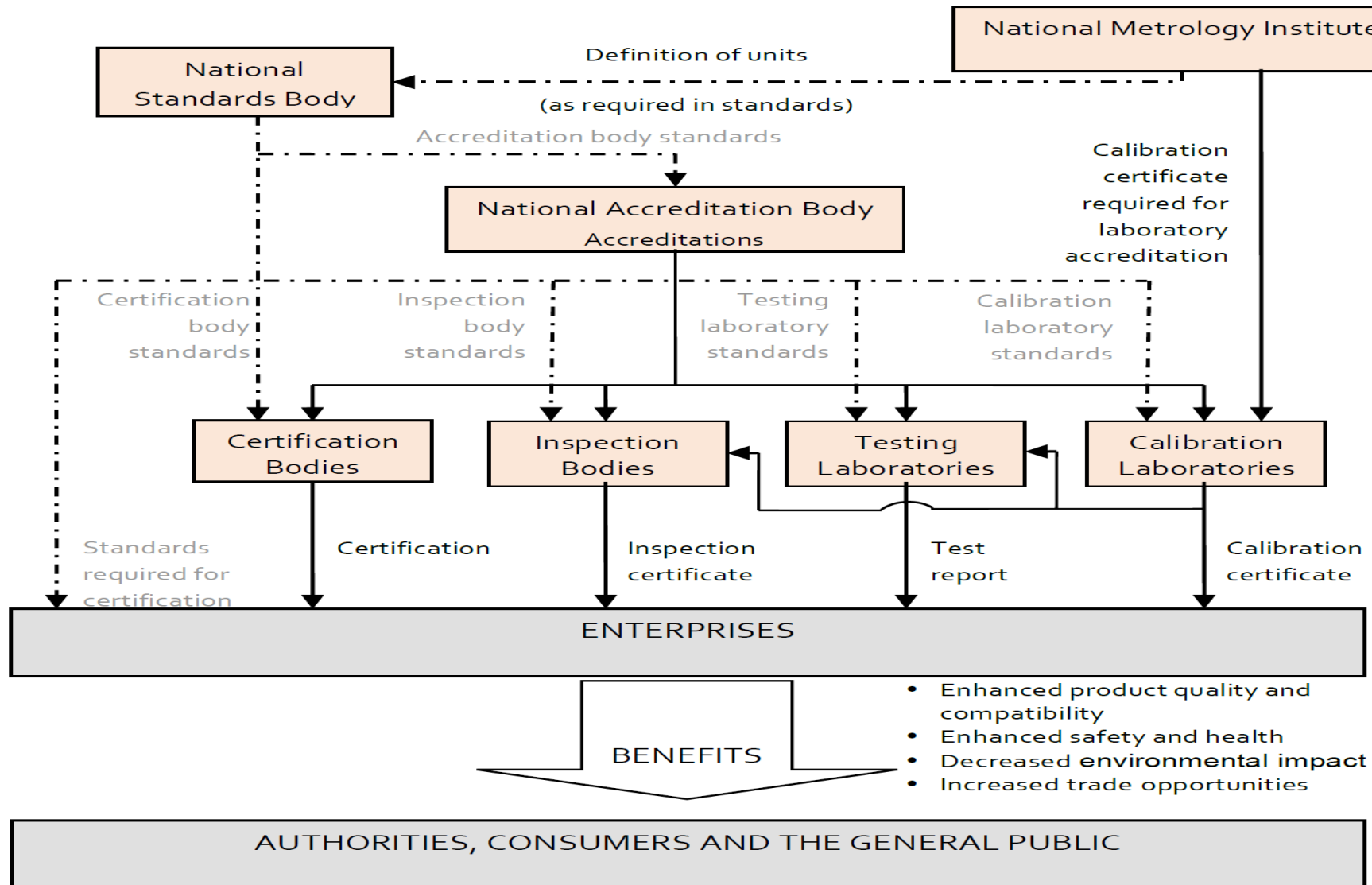
To develop quality infrastructure, by establishing uniformity in standardization, metrology and accreditation activities including conformity assessment and quality improvement to facilitate trade and support sustainable economic growth, consumer welfare, environment and innovation promotion for our Member States.

WHAT IS QUALITY INFRASTRUCTURE?

Quality infrastructure refers “to all aspects of *standardization, metrology, accreditation and conformity assessment (testing, management systems, inspection, certification)* that have a bearing on conformity assessment.

Quality infrastructure is a system of institutions which jointly ensure that products and processes meet **predefined specifications** which are **standards**.

OVERALL QUALITY INFRASTRUCTURE



Source: World Bank 2007.



Pillars of Conformity Assessment

Standards are the key to any conformity assessment (CA) activity since the pillars of the CA depend on the existence of necessary standards.



OIC GLOBAL HALAL QUALITY INFRASTRUCTURE (OHAQ)

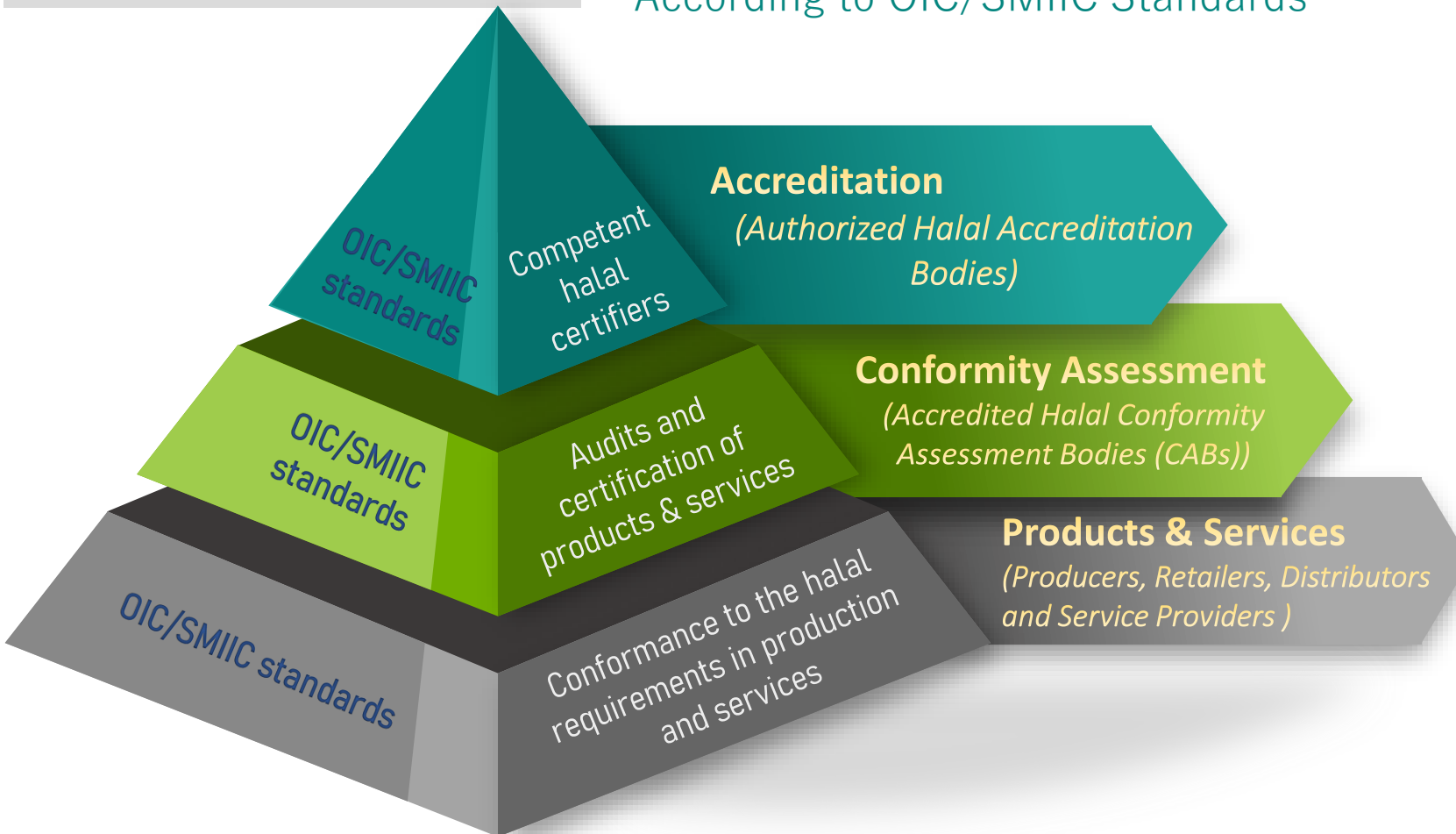


Designated Structure (IFHAB)



Mutual Recognition
MRA & Peer evaluation
in accordance with OIC/SMIIC standards

Halal Conformity Assessment Structure According to OIC/SMIIC Standards



Guidelines for Halal Accreditation Bodies Accrediting Halal CABs.

SMIIC/CCA

OIC/SMIIC 3:2019

Guidelines for Halal CABs performing halal certification activities.

SMIIC/CCA

OIC/SMIIC 2:2019

Other OIC/SMIIC standards

Guidelines for Producers, Manufacturers and Service Providers to ensure halal conformance.

SMIIC TCs

OIC/SMIIC 1:2019

OIC/SMIIC 4:2018

OIC/SMIIC 9:2019

Other OIC/SMIIC standards

ELEMENTS OF OIC GLOBAL HALAL QUALITY INFRASTRUCTURE

DESIGNATED STRUCTURE

Peer Evaluation 

- Develop additional documents regarding MLA/MRA and peer evaluation to implement the requirements of OIC/SMIIC standards;
- Perform peer-assessments of ABs and regional organizations;
- Coordinate with legislators to approve the results of conformity assessments.

OIC Member States

Issue notification based on registration and accreditation

Accreditation Bodies

Perform accreditation assessment according requirements of OIC/SMIIC standards

Conformity Assessment Bodies

Apply for notification and accreditation from Member States wishing to operate in their markets.





- Metrology is one of the key parts of the OIC Global Halal Quality Infrastructure that supports global trade of halal products and services. Metrology infrastructure, harmonization and implementation of measurement standards among the OIC Member States play a critical role for improving quality and reliability of halal products and eliminating technical barriers to trade and thus developing the trade among themselves and other countries.
- Metrology activities in OIC Global Halal Quality Infrastructure will provide the technical basis for the halal certification programs throughout the OIC Member States that aims at qualifying the halal products of OIC Member States within and for access to new markets.



METROLOGY COUNCIL (MC)

- MC members are national metrology institutes of the Member States and Observers of SMIC.
- MC shall make cooperation in all types of metrology activities and policies among SMIC Member States.



SMIIC Metrology Council Training Activities

- The MC has its own website connected to the SMIIC Website
- <https://www.smiic.org/en>

- The MC has a 3 yearly working plan.

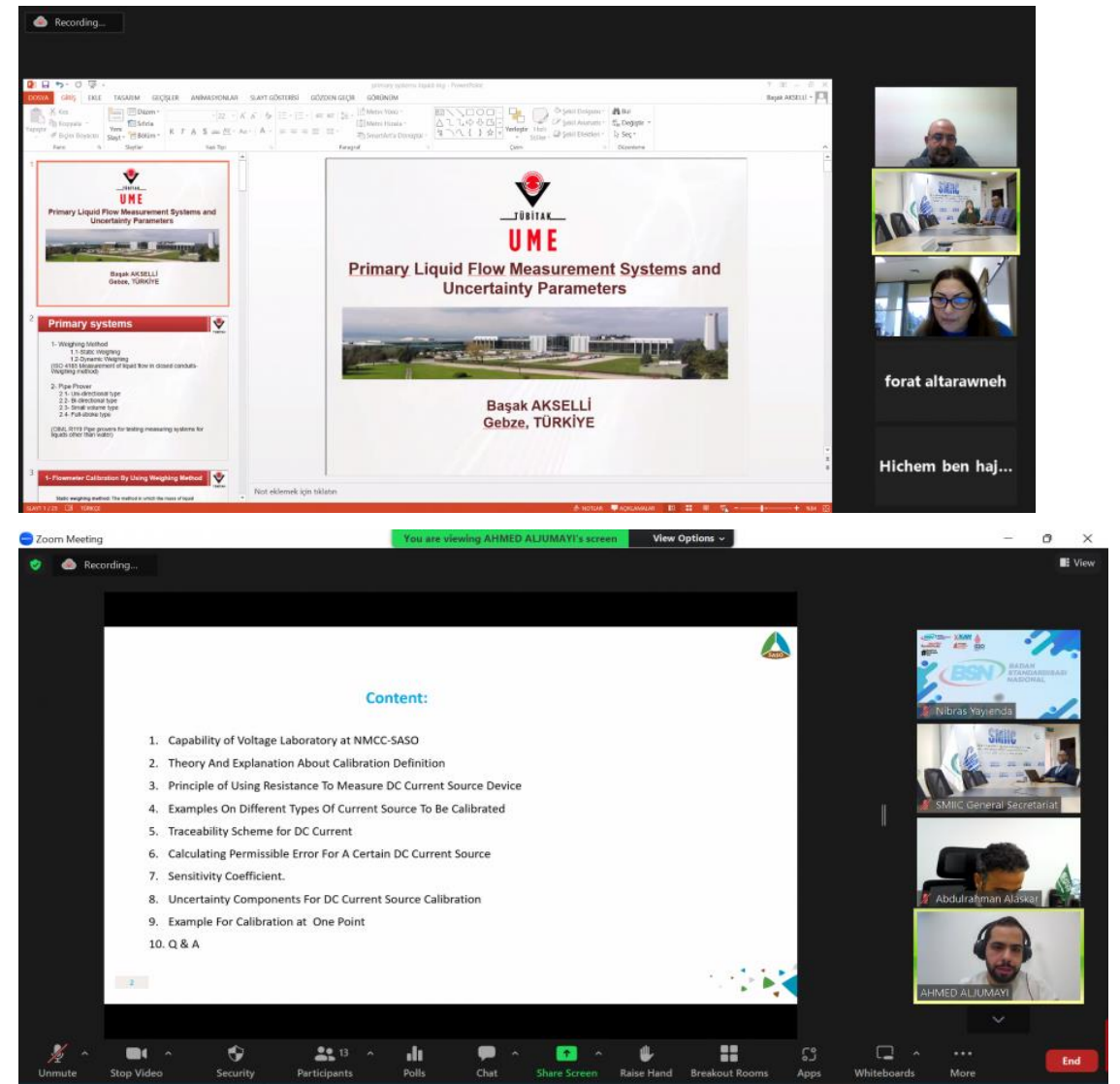
The **SMIIC MC Work Plan 2021-2023** which covers the main activities planned to be realized by the SMIIC MC Member States for three years and is coordinated by the MC Chairmanship.

SMIIC MC Work Plan for 2021 – 2023

The SMIIC MC, briefly, intends to harmonize and facilitate the activities in metrology services in Member Countries based on international arrangements and regional metrology organization membership requirements; by organizing trainings and relevant metrological activities. The SMIIC MC intends to contribute in enhancing the technical and metrological capabilities of Member States to contribute to and facilitate removal of technical trade barriers. In line with these objectives, the SMIIC MC Work Plan 2021-2023 is prepared by the Task Force Group which was constituted during the 8th SMIIC MC meeting.

The SMIIC MC Work Plan 2021-2023 covers the main activities planned to be realized by the SMIIC MC Member States for three years and is supposed to be coordinated by the MC Chairmanship. Due to the COVID-19 pandemic, some activities i.e. training, capacity building, consultancy, etc. will be organized online and the future of the other activities will be decided mutually by the involvement of the member NMIs. This plan may be subject to intermediate revision at the SMIIC MC meetings in case it is requested by the members. The main activities are as follows.

- The Metrology Council completed its Metrology Council Annual Working Plan
- The MC 2021-2023 Working Plan includes training and capacity building trainings on:
 - a) Scientific Metrology Training (11 trainings)
 - b) Legal Metrology Training (3 trainings)
 - c) Training Related to Halal Activities (7 trainings)
 - d) Calibration Trainings (8 trainings)
 - e) Proficiency Testing Training (3 trainings)
 - f) Joint Work, Consultancy, R&D and Workshops (11 programs)



The image shows two screenshots from a Zoom meeting. The top screenshot displays a presentation slide titled "Primary Liquid Flow Measurement Systems and Uncertainty Parameters" by Başak AKSELLİ Gebze, TÜRKİYE. The slide includes a list of primary systems: 1. Weighing Method (1.1 Scale Weighing, 1.2 Dynamic Weighing), 2. Pipe Flow (2.1 In-differential type, 2.2 In-differential type, 2.3 Differential type, 2.4 Pitot-static type), and 3. Flowmeter Calibration By Using Weighing Method. The bottom screenshot shows a Zoom meeting interface with a list of content items:

Content:

1. Capability of Voltage Laboratory at NMCC-SASO
2. Theory And Explanation About Calibration Definition
3. Principle of Using Resistance To Measure DC Current Source Device
4. Examples On Different Types Of Current Source To Be Calibrated
5. Traceability Scheme for DC Current
6. Calculating Permissible Error For A Certain DC Current Source
7. Sensitivity Coefficient.
8. Uncertainty Components For DC Current Source Calibration
9. Example For Calibration at One Point
10. Q & A

Projects under development by the SMIIC Metrology Council

SMIIC Research & Development project

- During the 10th SMIIC MC Meeting the Council decided to conduct Research & Development projects for capacity building of the MC Members,

There will be three types of projects:

- i. scientific research projects
- ii. development of measurement standards projects
- iii. establishment of legal metrology infrastructure (documentation)





SMIIC MC Inter-laboratory Comparisons (ILC)

- The SMIIC Metrology Council has initiated the SMIIC MC Inter-laboratory Comparisons (ILC) in accordance with Resolution 19/2022 from the 11th SMIIC MC meeting convened on October 28-29, 2022, in Almaty, Kazakhstan.





SMIIC MC Guide in Medical Metrology

- The SMIIC Metrology Council is working to develop a guide on Medical Metrology Standard/Guide for Legal Metrology Purposes as per Metrology Council Resolution 06/2023





Annual Meetings:

SMIIC MC conducts Annual Meetings



CONCLUSION

- Metrology is essential for establishing standards and plays a crucial role in the work of SMIIC.
- SMIIC Metrology Council is the common platform set for **National Metrology Institutes of OIC Countries.**
- SMIIC Metrology Council is **resolved** to developed the National Metrology Infrustructure for the **Member States**

Thank you for your kind attention

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