



الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

National Measurements and Calibration Center (NMCC)

Kingdom of Saudi Arabia

SMIIC 2020

7th Metrology Council Meeting
28-29 January 2020
TUBITAK UME

NMCC Responsibilities



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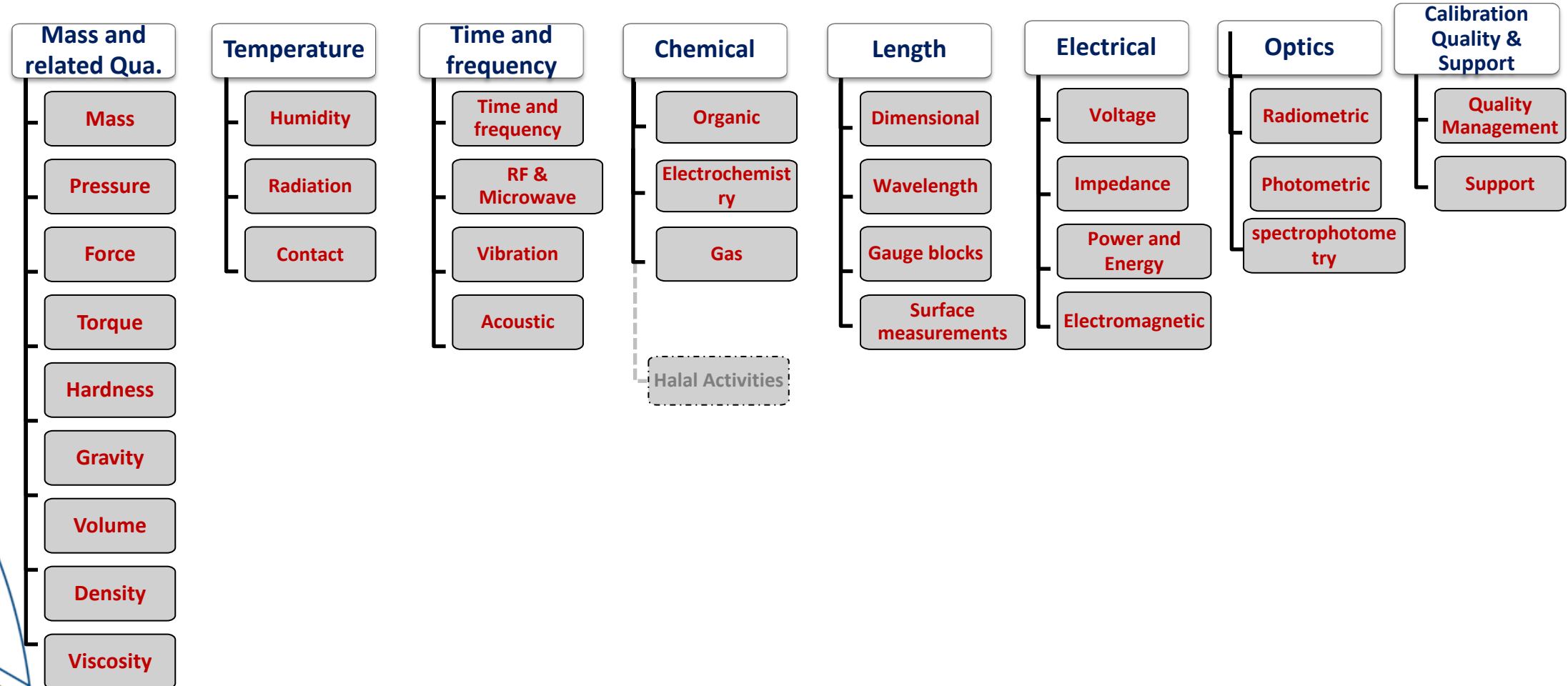
- (NMCC) was established in 1406 AH (1986) to be the reference of measurement and calibration for KSA. NMCC is responsible for maintaining the national measurement standards in accordance with the SI units.
- Calibration of the measurement standards maintained by the governmental and private sector laboratories.
- Providing technical support in the field of laboratory accreditation to the Saudi accreditation body, SAC
- Preparation and revision of the documentary standards and regulations related to measurement and calibration.
- Providing training and consultations in metrology.
- Participation in the regional and international comparisons as a representative of the government of Saudi Arabia.

NMCC Organizational Chart



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NMCC is structured of 8 Departments and 30 Laboratories

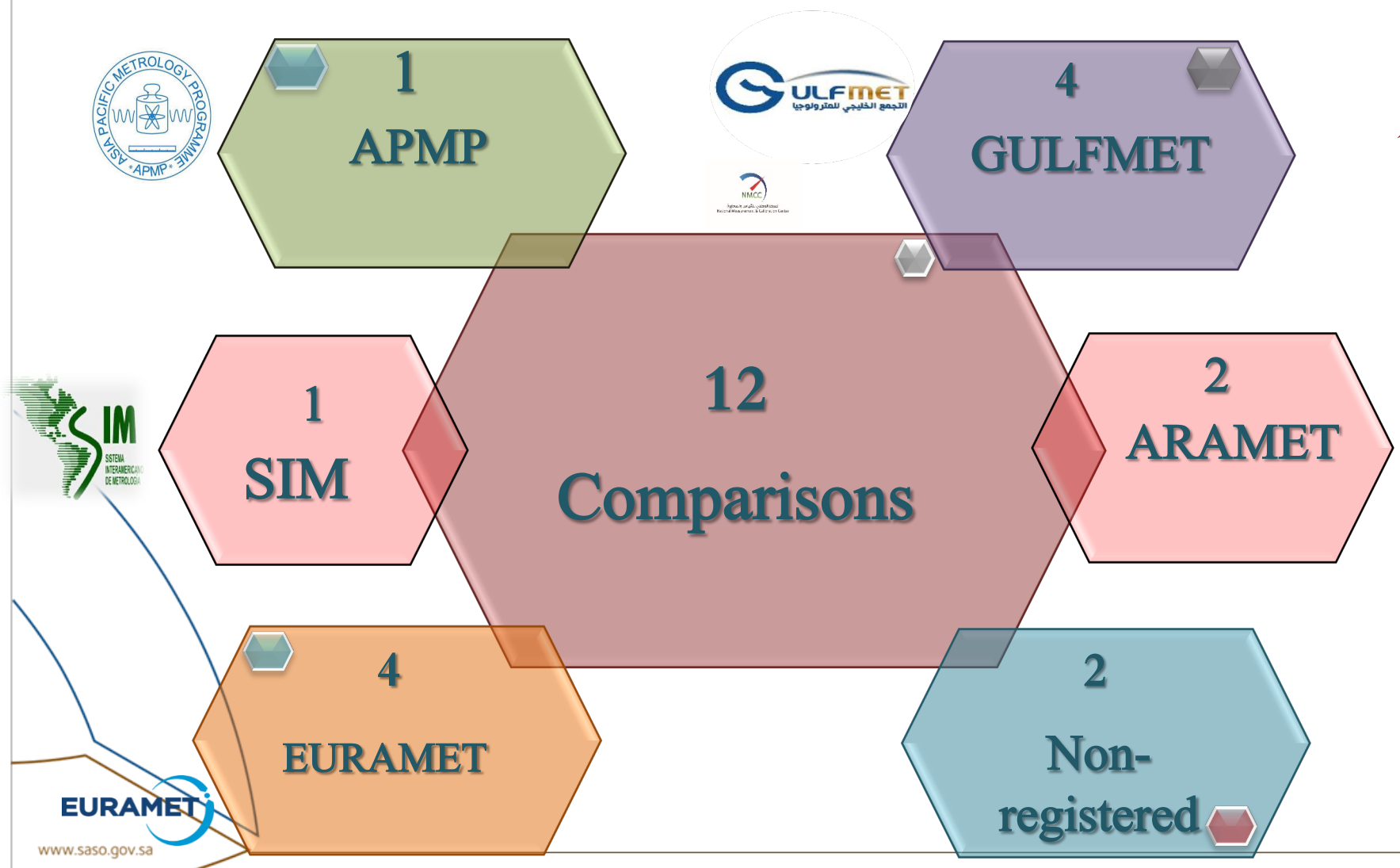


RMO MEMBERSHIP



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- NMCC/SASO is a full member of the Gulf Association for Metrology (GULFMET).
- In 2019, NMCC/SASO has become an associate member at APMP
- NMCC/SASO staff are active in participation in the EURAMET CCs meetings
- NMCC/SASO staff are active in participation in the BIPM CCs meetings



 NMCC has participated in 12 international comparisons





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Preparations for CMCs publications

- Quality system based on ISO 17025-2017 is in place
- Quality system based on ISO 17034-2016 is in place
- NMCC has been recently peer evaluated by APMP (Jan 2020)

Metrology in chemistry at NMCC/SASO

- NMCC has an organic Reference Material Laboratory
- The lab is equipped with: GC-MSMS, LC-MSMS, GC-TOF, HPLC-UV, HPLC-FL, HPLC-RI, GC-ECD, GC-FID, GC-NPD
- The lab is also equipped with: UV-VIS-NIR spectrophotometer, Karl Fisher, IR and TGA
- The laboratory can measure many organic food components:
 - Ethanol in aqueous solution.
 - Sodium benzoate.
 - Potassium sorbate.
 - Pesticides.
 - PAHs.
- Measurements of DNA for meat adulteration and other food ingredients is not in our scope now

NMCC/ SASO CRM

- 1- NMCC has produced Sodium Benzoate Calibration Solution
Certified Reference Material (1000 ppm).
- 2- Certification has been performed by three independent methods
- 2- The CRM can be used for:
 - Quality control
 - Calibration
 - Proficiency testing



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Halal Food Measurement Activities in Saudi Arabia

- The Food and Drug organization undertakes the routine analysis of Halal Food in Saudi Arabia
- NMCC/SASO is responsible for certification of Reference Materials in Saudi Arabia
- Cooperation between both organizations in the Area of Halal Food is not yet established



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Metrology in chemistry at NMCC/SASO

- NMCC has already submitted proposal to the SASO Management to establish Halal Metrology activity in 2020.
- We need to know a list of Reference Materials needed by SMIIC for the quality of Halal Food Measurements



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Thank you for your kind attention

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