



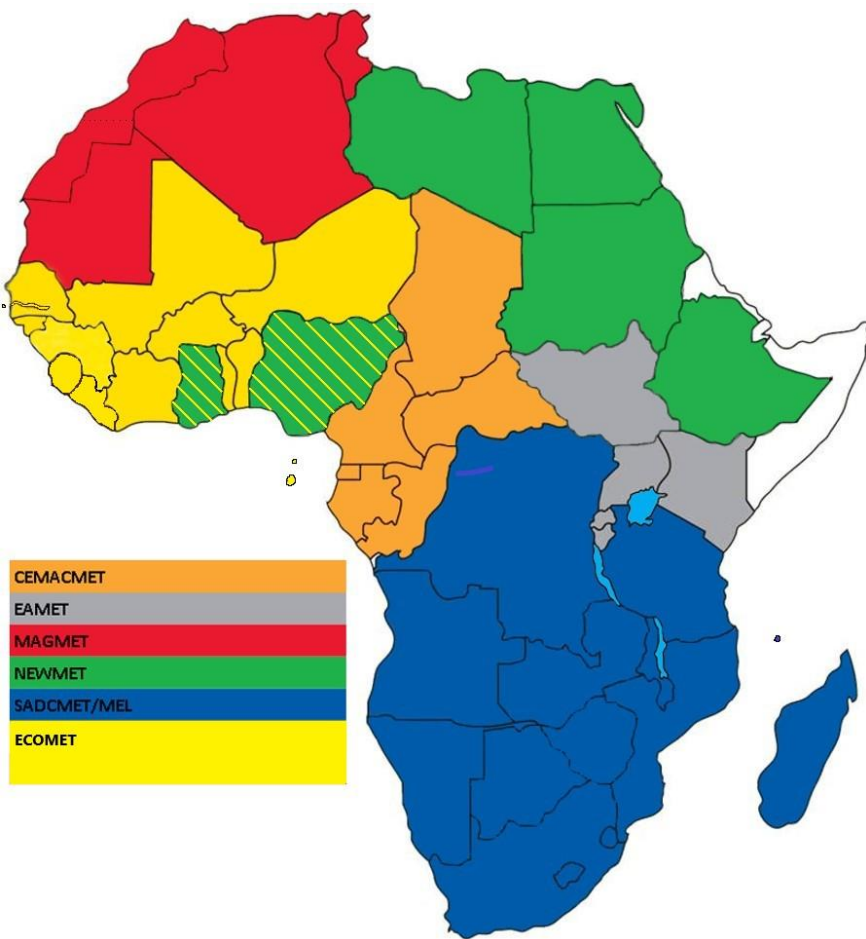
AFRIMETS

Update

July 2024

Dr Wynand Louw
Secretariat

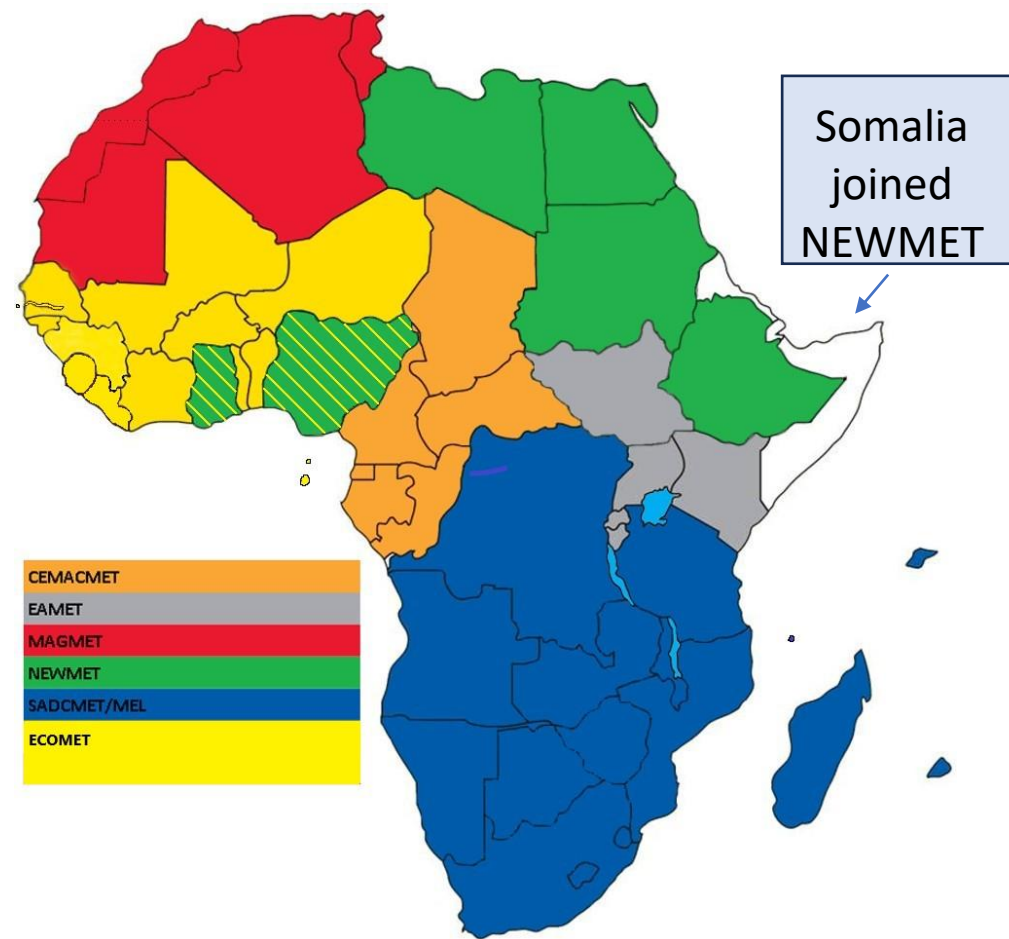
Dr Henry Rotich
Chair: AFRIMETS



AFRIMETS and its SRMOs: 2023



Full Members:
48 to 49
Ordinary Members:
None currently
Associate Members
9
Observers
10



AFRIMETS and its SRMOs: 2024

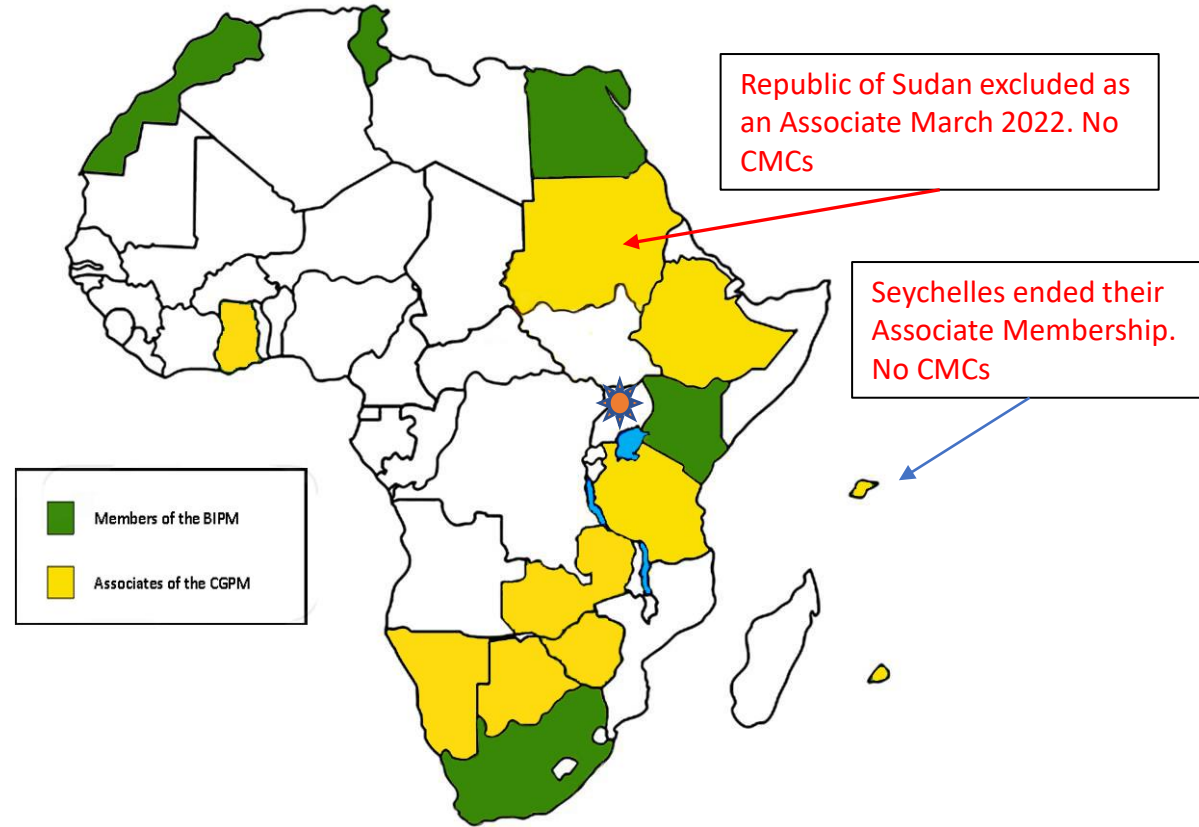


Metre Convention: 5 Signatories and 8 Associates

2007



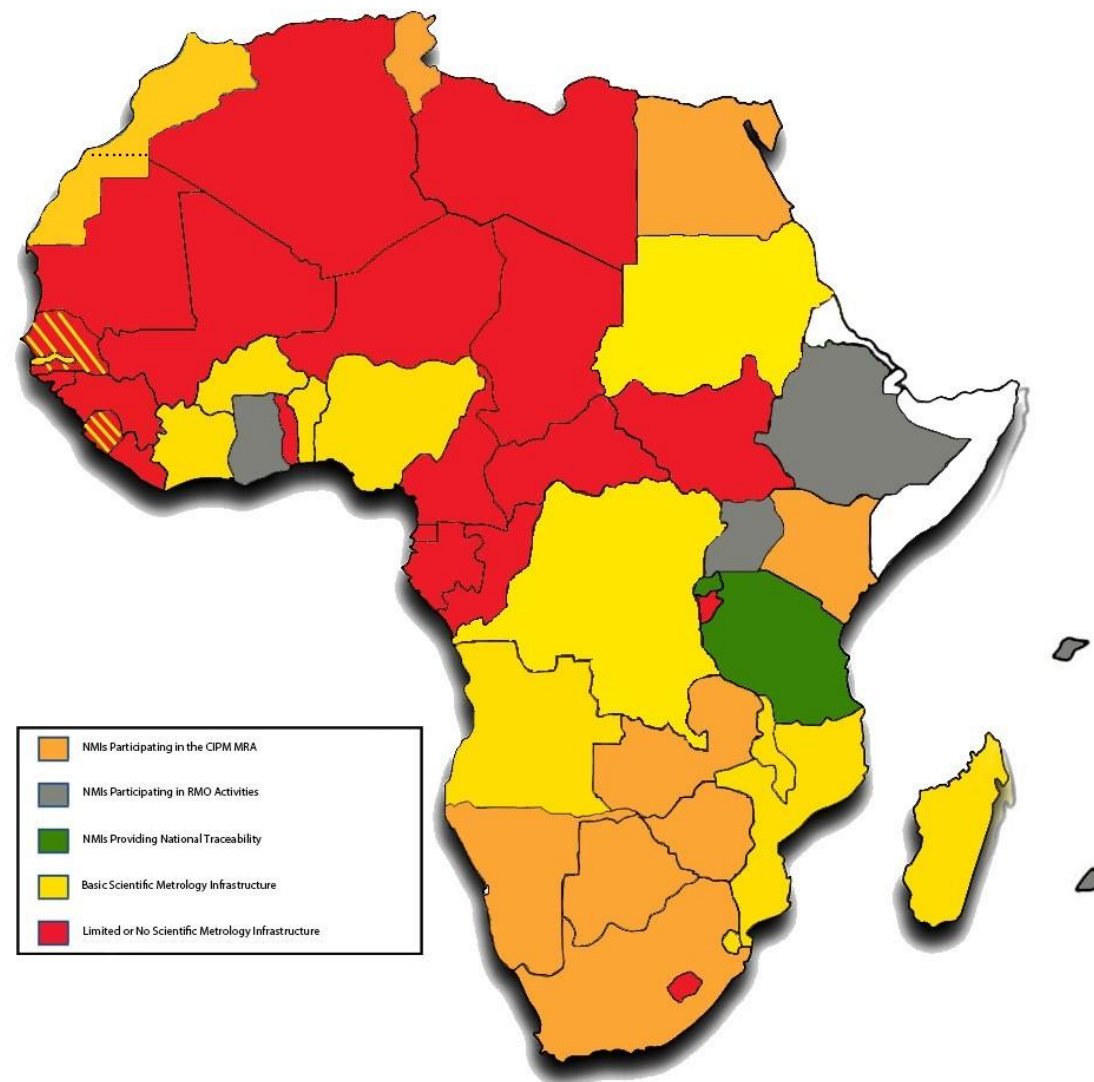
2023



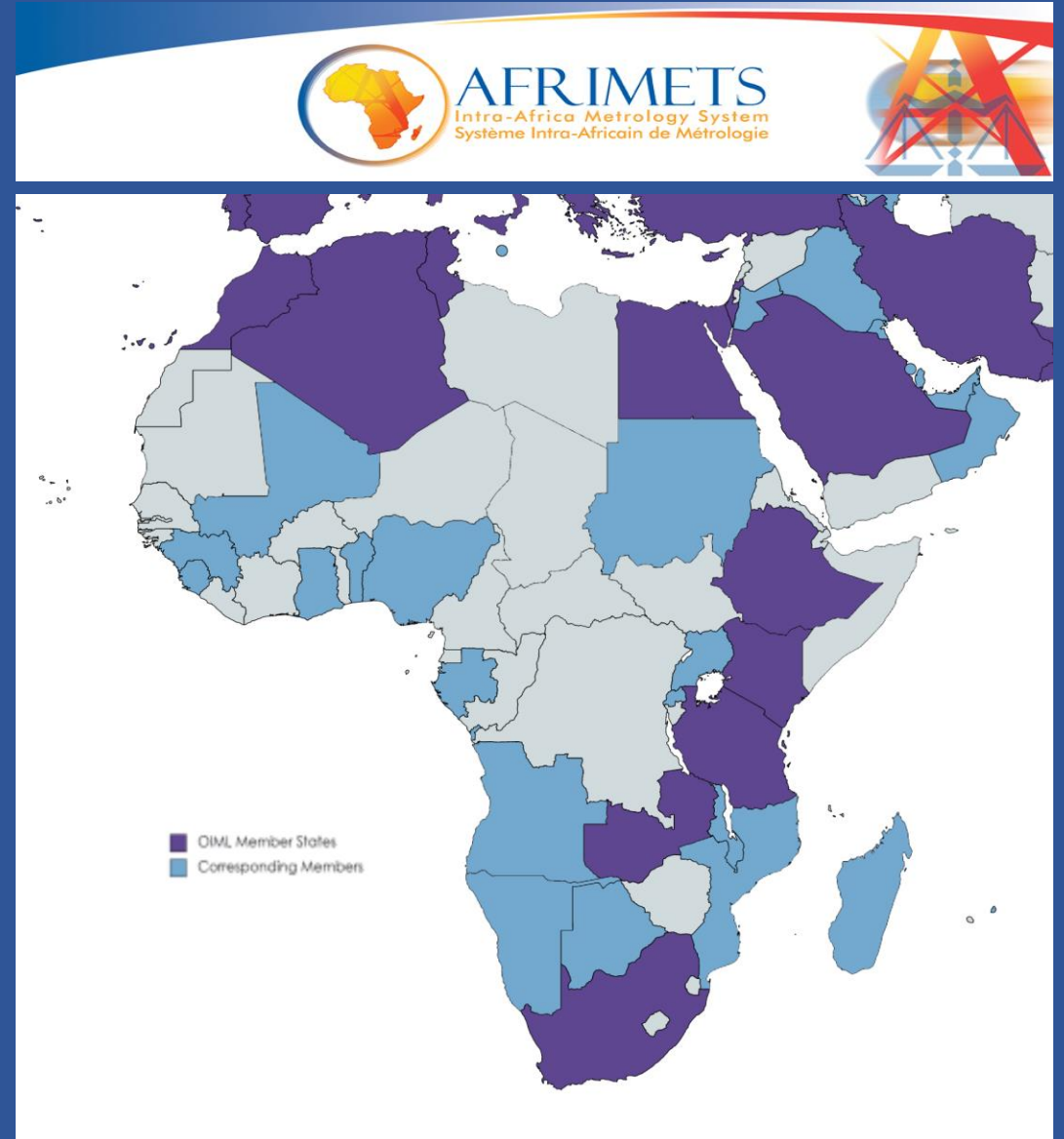
Scientific Metrology: Members with
identifiable institutes/activities



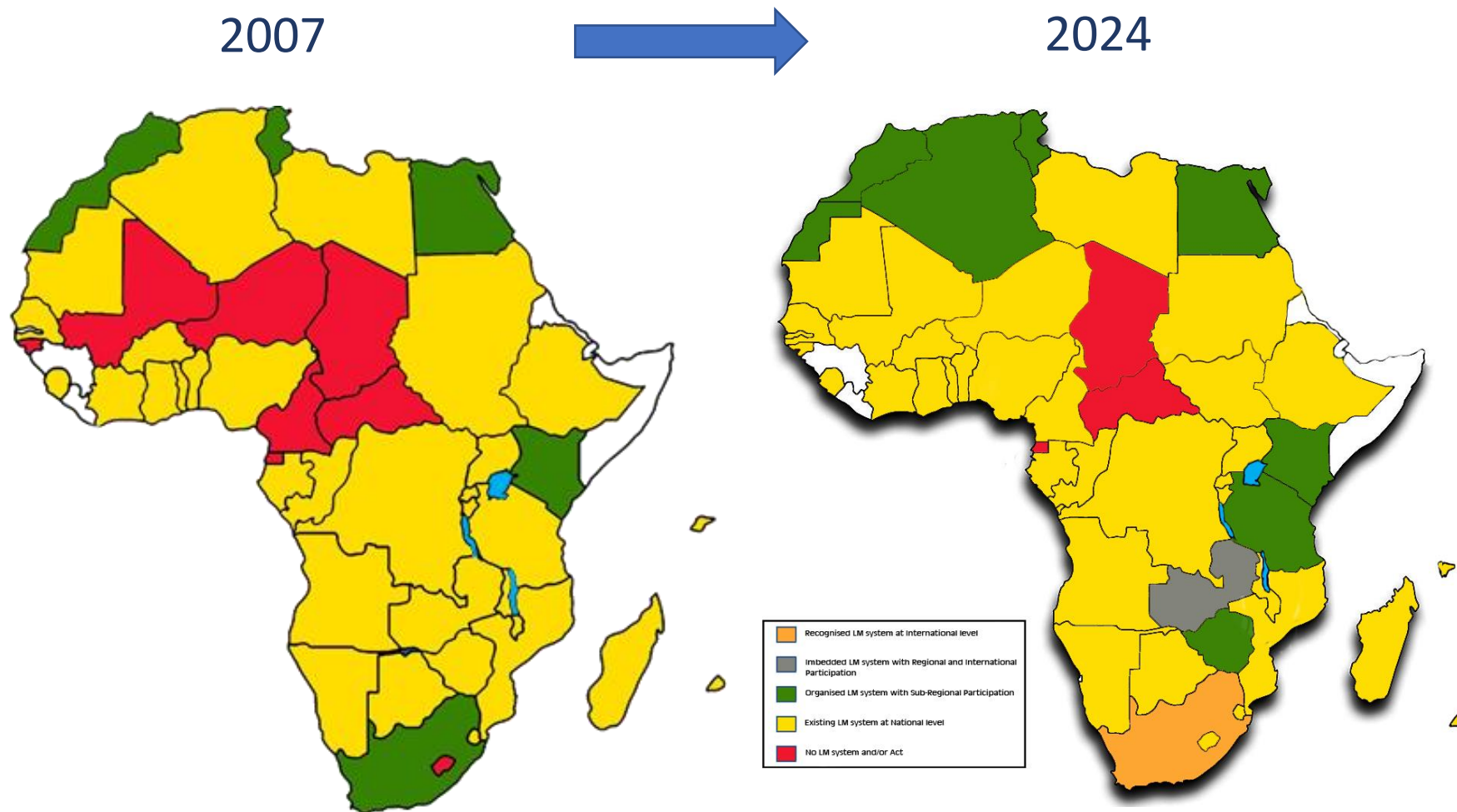
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Système Intra-Africain de Métrologie



Legal Metrology: Africa



Legal Metrology Categorisation



Metrology in Africa - calibration & measurement capabilities

○ 637 CMCs published in the KCDB: **Up from 535 in 2017**

• NMISA	(RSA)	=	511 (533)
• NIS	(Namibia)	=	111 (39)
• KEBS	(Kenya)	=	35 (17)
• DEFNAT	(Tunisia)	=	25 (14)
• LPEE	(Morocco)	=	20 (0)
• SIRDC	(Zimbabwe)	=	19 (13)
• ZMA	(Zambia)	=	11 (11)
• NMIE	(Ethiopia)	=	6 (0)
• NSI	(Namibia)	=	7 (7)
• BOBS	(Botswana)	=	3 (3)



CIPM Mutual Recognition Arrangement

- The Technical Committees had workshops and organised more than 14 comparisons of national measurement standards
- AFRIMETS Technical experts met during the 16th AFRIMETS General Assembly, July 16-20 in Egypt. A Digitalisation Workshop was also held
- Quality Management Systems approved by the Technical Committee for QS for all countries with CMCs. The review of the QSs of GSA-Ghana and NSI-Namibia are underway
- International acceptance of services further supported by 3rd party accreditation to ISO/IEC 17025, 43 and ISO 17034



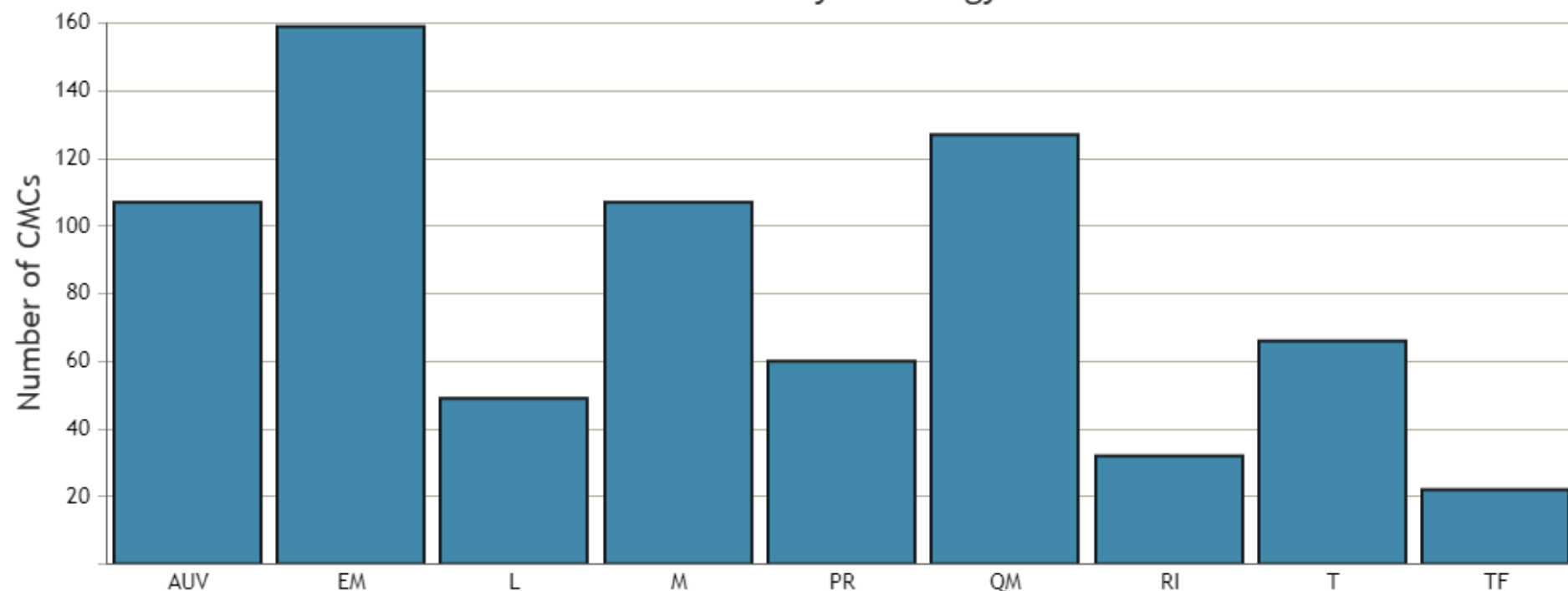
Internationally Accepted Measurement Capabilities



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Number of CMCs by metrology area





Other CIPM MRA Activities

- The Afrimets Capabilities and Services Database (ACSD) will support the mutual recognition of metrological capabilities for the African Continental Free Trade Area (AfCFTA)
- The Testing of the database has commenced. It was to be placed on the AFRIMETS website, but an upgrade by the host NMISA caused compatibility issues. While other options are being explored, synergies are being investigated with the KCDB2.0, most notably to add digital identifiers to services
- The AFRIMETS States party to the Metre Convention and the Associates of the CGPM will continue to publish their CMCs in the KCDB, for international recognition of their services
- The information in the ACSD will assist AFRIMETS to better identify gaps and with strategic planning for the AfCFTA

AFRIMETS Activities 2023

- AFRIMETS Digitalisation Workshop
- More than 100 delegates from over 30 countries in Africa in Hybrid format
- Several international guests and invited speakers
- 10 presentations and AFRIMETS Digitalisation round-table discussion
- Main outcome was the formation of the AFRIMETS Joint Forum for Digitalisation (AJFD)





- **Primary focus is on Digital Calibration Certificates and Digital Conformity assessment Certificates**



- Automation of Services and online booking for calibration
- Several projects to make information machine readable
- Participate in international digitalisation activities such as workshops and conferences

Focus on the AfCFTA: PT Schemes

AFRIMETS is involved in several initiatives and meetings for the implementation of the African Continental Free Trade Area (AfCFTA)

Several proficiency testing schemes are being coordinated by TC-QM:

Available on the AFRIMETS-website (www.AFRIMETS.org)

- Determination of pesticides in fruit (0.05-4 mg/kg, 4 rounds)
- Determination of aqueous ethanol at forensic concentration levels
- Determination of fluoride at blood sample preservation levels
- Determination of organochlorine pesticides in water (ng/L)
- Nutritional parameters in Corn Soya Cereal
- Zearalenone in maize (APMP and AFRIMETS)
- Multiple mycotoxins in maize (26 participants, 6 from AFRIMETS)
- Aflatoxins in peanuts (8 participants, 3 from AFRIMETS)
- Aflatoxins in peanut slurry (22 participants, 6 from AFRIMETS)
- SADCMET Water PT
 - Chemistry: Round 17
 - Microbiology: Round 10





Food Safety Testing Capacity survey



Figure 1 A: Number of laboratories from African countries that participated in the on-line survey (113)

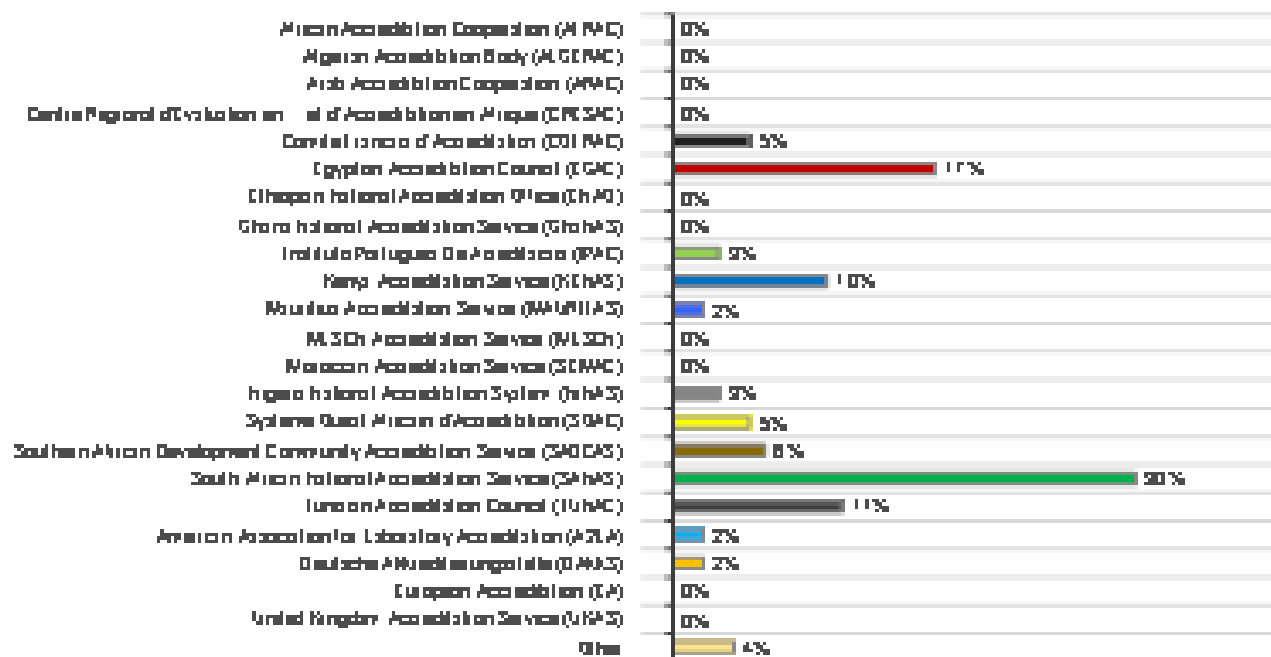


Figure 2 Percentage of Food testing laboratories accredited through ILAC recognized accreditation bodies

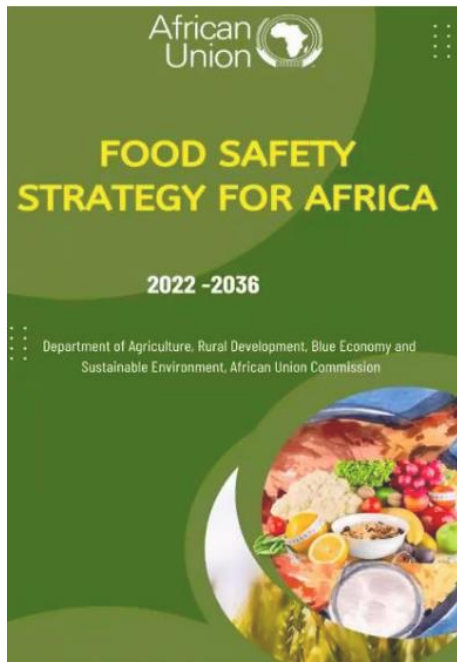
Capacity building, Training and Other activities

The AFRIMETS initiative is supported by



Objective

To capacitate National Metrology Institutes (NMIs), developing NMIs and designated institutions with the necessary chemical analysis (metrology) skills to sustainably deliver services in support of food safety and quality within the AfCFTA.



This aligns with the AU FSSA 2022-2036, prioritising the protection of public health and economic growth by enabling fair and safe trade within the region and globally.



Who should attend?

Scientists from:

- National Metrology Institutes (NMIs), developing NMIs and designated institutions within AfCFTA.
- Major national food monitoring & inspection laboratories that play a key role in maintaining food safety and quality.

Training Courses



ON-SITE Instrument Maintenance Operation Troubleshooting*

- GC & GC-MS
- LC & LC-MS
- ICP-OES & MS



ON-SITE Summer schools*

- Mycotoxin
- Pesticides
- Toxic elements
- Nutrients
- How to develop and validate methods & report



Interactive on-line sessions with practical

- Chemical metrology
- Traceability, UoM, method validation
- Sample analysis & assessment
- Workshop



Proficiency Testing Schemes

- Mycotoxins
- Pesticides
- Toxic elements
- Nutritional
- Demonstration of continued competence

***NMISA, Pretoria – South Africa**



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Other activities

- **Signed MOU with IMEKO**
- Precious Stones and heavy metal verification and analyses (piloted by NIS, Egypt)
- Registration of AFRIMETS as a Legal entity
- Introduction of Membership fee to support pan-African and international participation



Key Challenges

- Travel remains difficult from Sub-Saharan Africa to especially West and North-Western Africa
- The movement of artefacts for the comparison of national measurement standards remains problematic
- **Cuts in funding after the pandemic**
- **New personnel and management at many NMIs**

Thank you and Stay Safe!

