

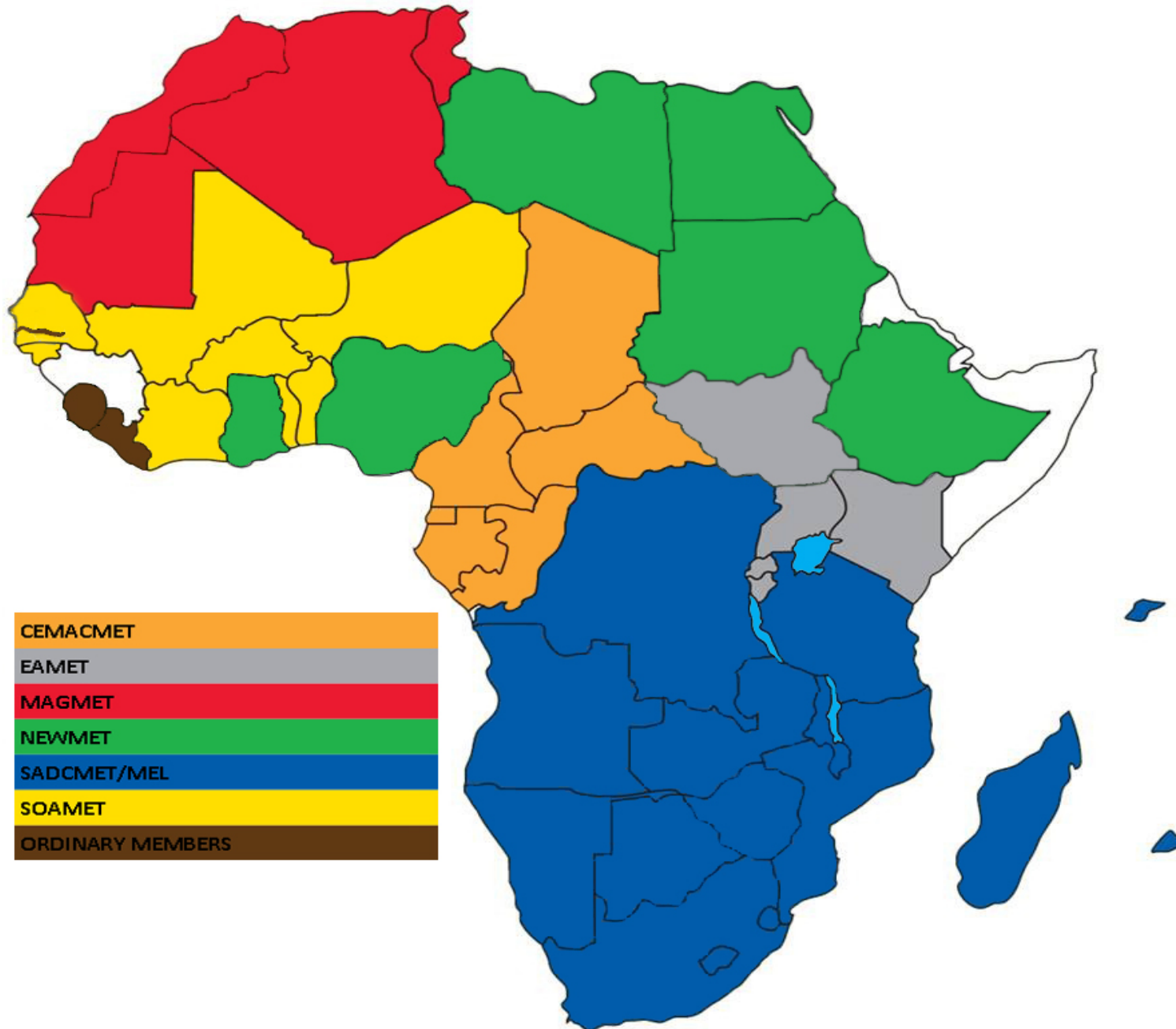


Report of AFRIMETS TC-M

Thomas Mautjana

CCM, 26-27 June 2025





Structure



- TC M – Chair: Mr Thomas Mautjana,
- Vice Chair: Dr Wilson Ombati
- Vice Chair: Dr Ahmed Desoki

Working Group	Chair	Vice Chair
Density and Viscosity	Dr Mohamed Hamdy (NIS-Egypt)	Ms Beatrice Lugadiru (KEBS-Kenya)
Force and Torque	Dr Khaled Abdelaziz (NIS-Egypt)	Mr David Kimetto (KEBS-Kenya)
Fluid Flow	Mr Bongani Ndlovu (NMISA-South Africa)	Dr Ali Zahran (NIS-Egypt)
Mass	Mr Bongani Ndlovu (NMISA-South Africa)	Mr Lhossain Mechkour (LPEE-LNM –Morocco)
Pressure and Vacuum	Dr Shaker Gelany (NIS-Egypt)	Mr George Maswai (KEBS-Kenya)

Training and Meetings



Physical Uncertainty of Measurement (UoM) Course, held in Johannesburg, South Africa in February 2025. The training, sponsored by PTB, was attended by representatives from 14 member states



CIPM MRA: Comparisons



Identity	Quantity/Range	Field	Status	Pilot
AFRIMETS.M.FF-S1	(50 -5 000) mL/min	Fluid Flow (gas flow rate)	Draft A Report in progress	NMISA
AFRIMETS.M.P-S2	(10 - 110) kPa	Pressure	Draft A Report in progress	KEBS
AFRIMETS.M.D-S2	Liquid density determination using the oscillation type density meter	Density	Measurements Completed	NIS
AFRIMETS.M.F-S3	Compression range : 200 kN to 3000 kN Tension range : 20 kN to 100 kN	Force	Measurements in Progress	KEBS
AFRIMETS.M.M-S1	0.5g – 5kg	Mass	Protocol Complete	KEBS
CCM.D-K3	Stainless Steel weights	Density	In Progress	NMIJ/AIST
CCM.M-K2.2024	100 mg - 10 kg	Mass	Planned	NRC

CIPM MRA: Completed Comparisons

Identity	Quantity/Range	Field	Status	Pilot
AFRIMETS.M.T-S1	500 Nm & 1 000 Nm	Torque	Completed-2023	NIS
AFRIMETS.M.D-S1	(0.65-0.7 & 1.2 -1.25) kg/m ³	Density (Hydrometers)	Completed-2022	NIS
AFRIMETS.M.M-K7	0.5 g - 5 kg	Mass	Completed-2022	NIS
AFRIMETS.M.F-S1	(10 & 100) kN	Force	Completed-2022	KEBS
AFRIMETS.M.F-S2	0 kN, 250 kN and 500 kN	Force	Completed-2021	KEBS
CCM.T-K2.1	10 kN m, 20 kN m	Torque	Completed-2023	NMIJ/AIST
AFRIMETS.M.FF-K4.2.2015	100 µL	Fluid Flow	Completed-2020	NIS
CCM.V-K4.A	140 mm ² /s at 20 °C; 55 mm ² /s at 40 °C; 10 mm ² /s at 100 °C	Viscosity	Completed-2025	CENAM
CCM.V-K4B	10 000 mm ² /s at 10 °C; 4 600 mm ² /s at 20 °C & 100 mm ² /s at 100 °C	Viscosity	Completed-2025	CENAM

CIPM MRA: Recently Published CMCs



Country	Fluid Flow	Mass Standards	Torque
Egypt (NIS)		7	4
Ethiopia (EMI)	1		
Kenya (KEBS)	1	4	
South Africa (NMISA)		6	
Total	2	16	4

Intra RMO Review:

Country	Field
Tanzania (TBS)	Fluid Flow(volume of liquids)
Botswana (BOBS)	Mass Standards

Strategy :



☐ Financial Sustainability

- Purchasing and transportation of artefacts
- Costs for technical reviewers, technical members to attend meetings, conferences and workshops
- Introduction of membership fee to support technical activities

☐ Harmonization of regional regulations/standards

- Restrictions of movement of product and goods

☐ Enhance collaboration with other RMOs and strategic partners such as AU, PAQI, AFRAC, ARSO etc.

Thank you.

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