

AFRIMETS

The Intra-Africa Metrology System
Système Intra-Africain de Metrologie

3rd General Assembly

July 2009

Dr Wynand Louw
Chair: AFRIMETS



- the guiding principles
- the structure
- the members
- the Technical committees and Working Groups
- the current situation



the guiding principles

- an **umbrella organisation for sub-regional metrology groupings**
- establish a cooperative / supportive relationship between RMOs and AFRIMETS;
- share **experiences** and **technical infrastructures**
- **transparency**;
- promote an **equal partnerships** between organisations and disciplines in metrology;
- respect national **autonomies**;
- commit to the **development of metrology**;
- brotherliness, solidarity and **mutual assistance**;
- **Inclusiveness**;
- **common approaches** / positions;
- **excellence**;
- Increase **recognition** of African metrology **competence**



the Stakeholders, peers and others

- Pan African organisations; **AU, NEPAD**
- Regional economic groupings; **COMESA, ECOWAS, SADC, EAC, UEMOA, CEMAC, MAGHREB**
- **OIML, BIPM, IAEA**
- **APMP, SIM, EURAMET, COOMET**
- African sub-regional metrology organisations: **EAMET, MAGMET, SADC MET/MEL, CEMACMET, SOAMET, NEWMET**
- Individual NMIs
- Legal Metrology organisations
- Other organisations; **regional accreditation, standards, calibration and testing bodies, the dti, the African Committee for Metrology, the NLA, the AFM**
- Pan African organisations; **ARSO, Accreditation**





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the history



23/24-03-
2006

Kick-off workshop, Midrand, Sout Africa

16-05-2006

1st MoU Task Force Meeting, Midrand

23-05-2006

2nd MoU Task Force Meeting, Midrand

27-09-2006

3rd MoU Task Force Meeting, Midrand

01-02-2007

4th MoU Task Force Meeting, Pretoria

04/06-07-
2007

1st AFRIMETS General Assembly, Midrand

04/05-10-
2007

1st Executive Committee Meeting,
Pretoria

12/13-03-
2008

2nd Executive Committee Meeting,
Casablanca

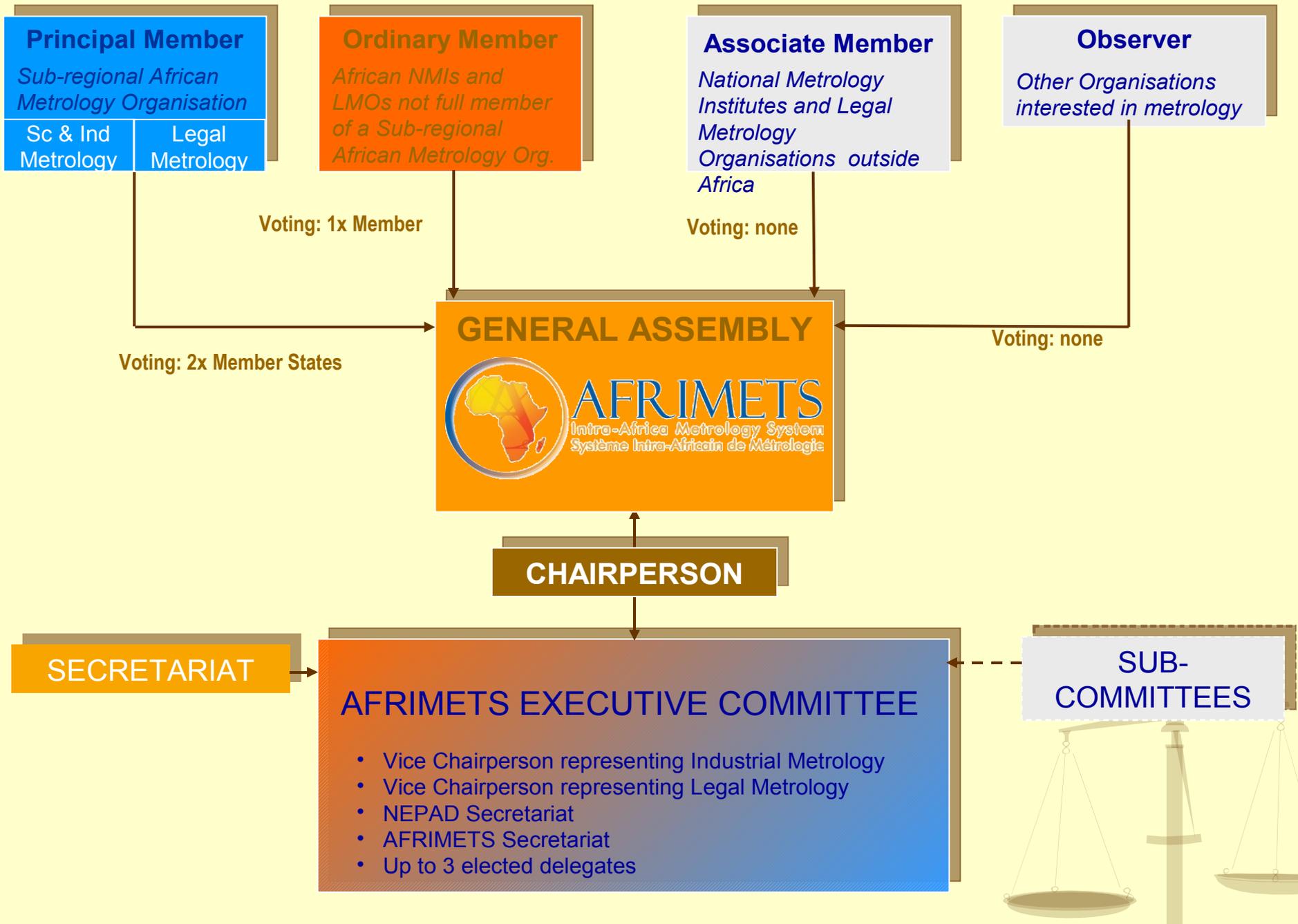
01-07-2008

3rd Executive Committee Meeting, Tunis

02/04-07-
2008

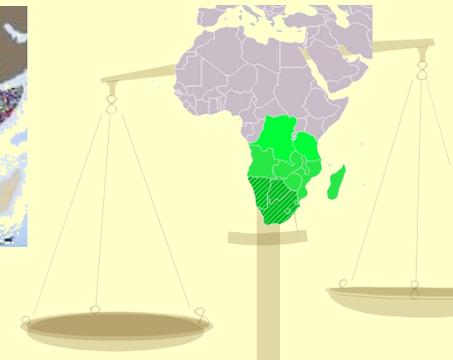
2nd AFRIMETS General Assembly

The Structure of AFRIMETS



the members

CEMACMET	Cameroon, Central African Republic, Chad, Equatorial Guinea, Gabon, Republic of the Congo
EAMET	Kenya, Uganda, (Tanzania), Rwanda, Burundi
MAGMET	Algeria, Morocco, Tunisia, Mauritania
SADC MEL/ MET	Angola, Botswana, DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, Zimbabwe and Seychelles
SOAMET	Benin, Burkina Faso, Guinea-Bissau, Mali, Niger, Senegal, Togo, Cote d'Ivoire
<i>NEWMET</i>	<i>Egypt, Ethiopia, Ghana, Libya, Nigeria, Sudan (to be ratified at the GA)</i>

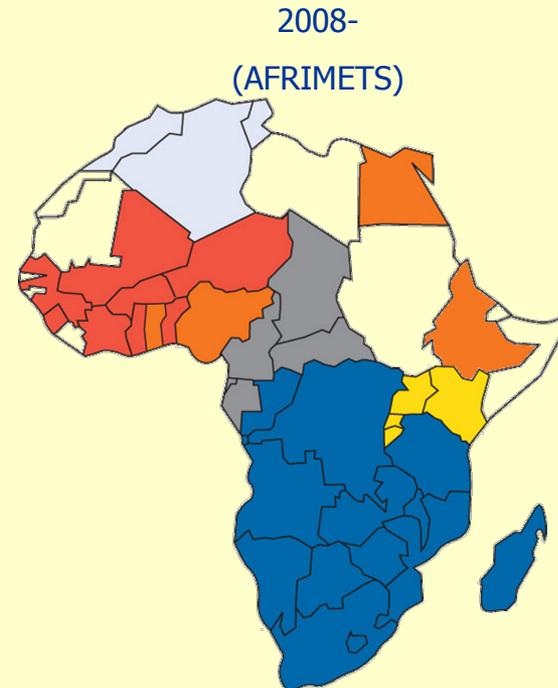
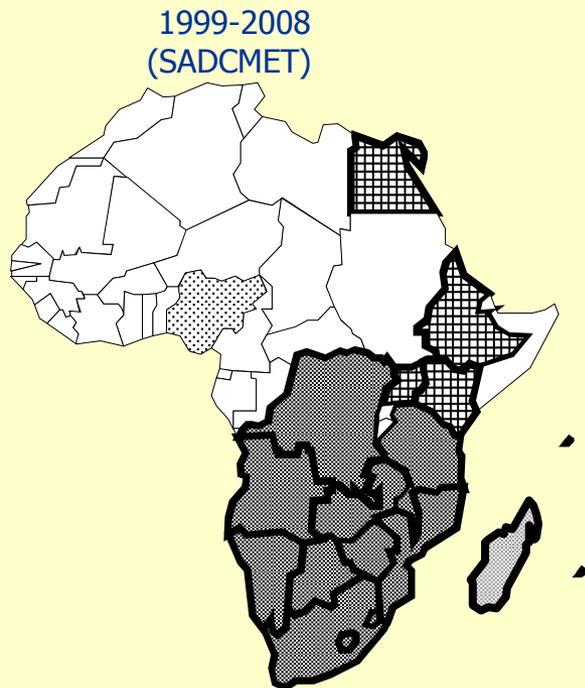


the members

<p>Associate Member (3)</p>	<ul style="list-style-type: none">■ LNE, France■ PTB, Germany■ NIRPS (National Institute of Radiation Protection and Research, Nigeria)■ <i>Tanzania-TAEC, Madagascar-INSTN, Ghana Radiation Protection Institute (to be ratified at the GA)</i> 
<p>Observer (3)</p>	<ul style="list-style-type: none">■ EURAMET■ CAFMET (Comité Africain de Métrologie)■ Arab Federation for Metrology 



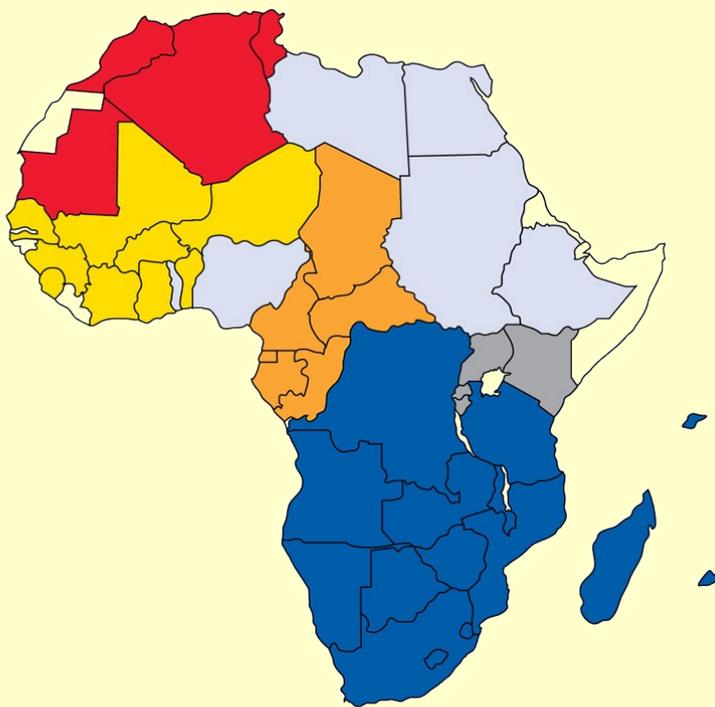
- AFRIMETS was officially accepted as a RMO by the CIPM in October 2008.





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AFRIMETS as RMO



CEMACMET
EAMET
MAGMET
NEWMET
SADC MET
SOAMET



- AFRIMETS Structures are in place
- For the past 6 months, AFRIMETS focused on the consolidation of its TC and TC1 WGs
- Working Programme for 2009 includes:
 - 5 Regional comparisons
 - 1 Regional Proficiency Testing scheme
 - Legal Metrology work and action plan
 - Fund raising activities
 - Sub regional metrology workshops
- First TC1 WG meetings held in Kenya in Dec 2008 (QM, Mass, EM)
- Joint AFRIMETS and SADC MET TC1 WG Chair meeting held in South Africa in March 2009



the structure – Technical Committees

TC 1A	CIPM, BIPM, JCRB Issues	J. Kioko, S. Kajane, W. Louw
TC 1B	OIML Issues	S. Carstens, S. Issoufou
TC 2A	Scientific Metrology Education	M. Berrada, M. Rabolinyane, M. Masuku
TC 2B	Legal Metrology Education	K. Zulu, B Hassine, K Temba
TC 3	Metrology Infrastructure	O. Yankine, V. Kanama, W.Louw
TC 4A	Metrology Legislation Harmonization	N.Malaga, E. Mvula, D.Masuku
TC 4B	Metrology Legislation Harmonization	B. Hassine, K. Temba
TC 5	Metrology Awareness	G. Albasini, V. Kanama and the Secretariat



the structure — Working Group chairs

Mass and Related Quantities	B. vd Merwe, D. Tonui
Flow	D. Ondoro
Pressure	C. Korasie
Force, Torque and Hardness	B. Burke
Dimensional (Length)	O. Kruger
AUV	I. Veldman
Temperature	H. Liedberg
Time and Frequency	C. Matthee, A. Ibrahim
Photometry and Radiometry	N. Nel-Sakharova, H. Eissa



the structure — Working Groups

Ionising Radiation	Z. Msimang
Radioactivity Standards	F. Van Wyngaardt
DC-LF (Voltage)	A. Matlejoane
Metrology in Chemistry	
-CMC level	S. Prins, Kenya, Egypt
-Accredited level	To be appointed
-Developing level	Tanzania
Quality WG	A. El Sayed, M. Peart



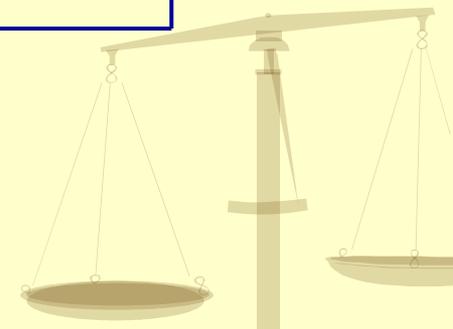
- South Africa's NMISA and Egypt's NIS are the only members with CMC's in the KCDB. In total, AFRIMETS has 344 CMCs officially accepted in General physics (286), Ionizing Radiation (37) and Chemical metrology (21).
- The Quality system of NIS (Egypt) was accepted by EURAMET. AFRIMETS will closely follow the process of the submission of CMCs by Egypt, as a learning exercise for AFRIMETS. The first Quality system that is expected to be submitted to the AFRIMETS TC-QS is that of Kenya (KEBS).



the Consultative Committees

NMISA: Full membership of 8,5 of the 10

Consultative committees (10)	Status
Consultative Committee for Acoustics, Ultrasound and Vibration (CCAUV)	Full member
Consultative Committee for Electricity and Magnetism (CCEM)	Full member
Consultative Committee for Length (CCL)	Full member
Consultative Committee for Mass and Related Quantities (CCM)	Full member
Consultative Committee for Photometry and Radiometry (CCPR) (Chairmanship)	Full member
Consultative Committee for Amount of Substance (CCQM)	Full member
Consultative Committee for Ionizing Radiation (CCRI) Section I Section II (Chairmanship) Section II	Observer Full Member None
Consultative Committee for Thermometry (CCT)	Full member
Consultative Committee for Time and Frequency (CCTF)	Full member



the Consultative Committees Other Countries in Africa

Consultative committees (10)	Country/Institute
Consultative Committee for Acoustics, Ultrasound and Vibration (CCAUV)	None yet
Consultative Committee for Electricity and Magnetism (CCEM)	NIS, KEBS
Consultative Committee for Length (CCL)	NIS
Consultative Committee for Mass and Related Quantities (CCM)	NIS, KEBS
Consultative Committee for Photometry and Radiometry (CCPR)	None
Consultative Committee for Amount of Substance (CCQM)	NIS, KEBS
Consultative Committee for Ionizing Radiation (CCRI) Section I Section II	NIS
Consultative Committee for Thermometry (CCT)	NIS, KEBS
Consultative Committee for Time and Frequency (CCTF)	NIS



Quality systems in AFRIMETS of Countries participating in the CIPM MRA: Status in March 2009

Member	Institute	Quality System			Pathway	Status
		17025	9001	Other		
Egypt	NIS	√	√	√	c	A
South Africa	NMISA	√	√		a	A
Kenya	KEBS	√	√		a	P

Key:

a – Third party accreditation

b – Certification to ISO 9001 and attestation by technical peers

c – Attestation by a team consisting of quality system experts and technical peers

A – Approved by the RMO

S – Submitted for approval to TC-QS

P – In progress (QS being set up)



- The AFRIMETS Quality system review document was accepted by the JCRB, March 2009
- First full GA including WG meetings in SA, July 2009
- 61 attendees in the fields of
 - Mass and related quantities
 - Ionising radiation
 - P&R
 - Length
 - Electrical quantities (voltage)
 - Metrology in chemistry
 - Temperature
 - Legal Metrology



- 60 attendees to the GA Plenary, including the EURAMET, APMP, IAEA, UNIDO, BIPM, OIML and PTB
- UNIDO Assistance project, €623 000
 - Roadmap for AFRIMETS
 - Training
 - Summer school
 - Support for comparisons

