



AFRIMETS
Intra-Africa Metrology System
Système Intra-Africain de Métrologie



AFRIMETS TC-AUV

Report to General Assembly

21 July 2022

Presented by:
Riaan Nel
TC-AUV Chair (outgoing)

AUV Explained

Acoustics, Underwater Acoustics, Ultrasound, Vibration

Acoustics

- Human physiological development – speech, hearing
- Music – theater halls, cinemas
- Noise – roads, airports, mining, classrooms, offices (stressor)
- Ergonomics – product design, sound of quality, electronics (cellphones, noise cancelling ear-and headphones), NVH motor vehicles
- Wearable electronics – noise exposure

Underwater Acoustics

- Marine noise pollution
- Defense – submarines
- Global safety – CTBTO nuclear activity

Ultrasound

- Medical imaging
- NDT – inspection of welding, detection of fissures in aircrafts
- Cleaning of items
- Heating of materials - medical nebulizer, welding of materials
- Food processing

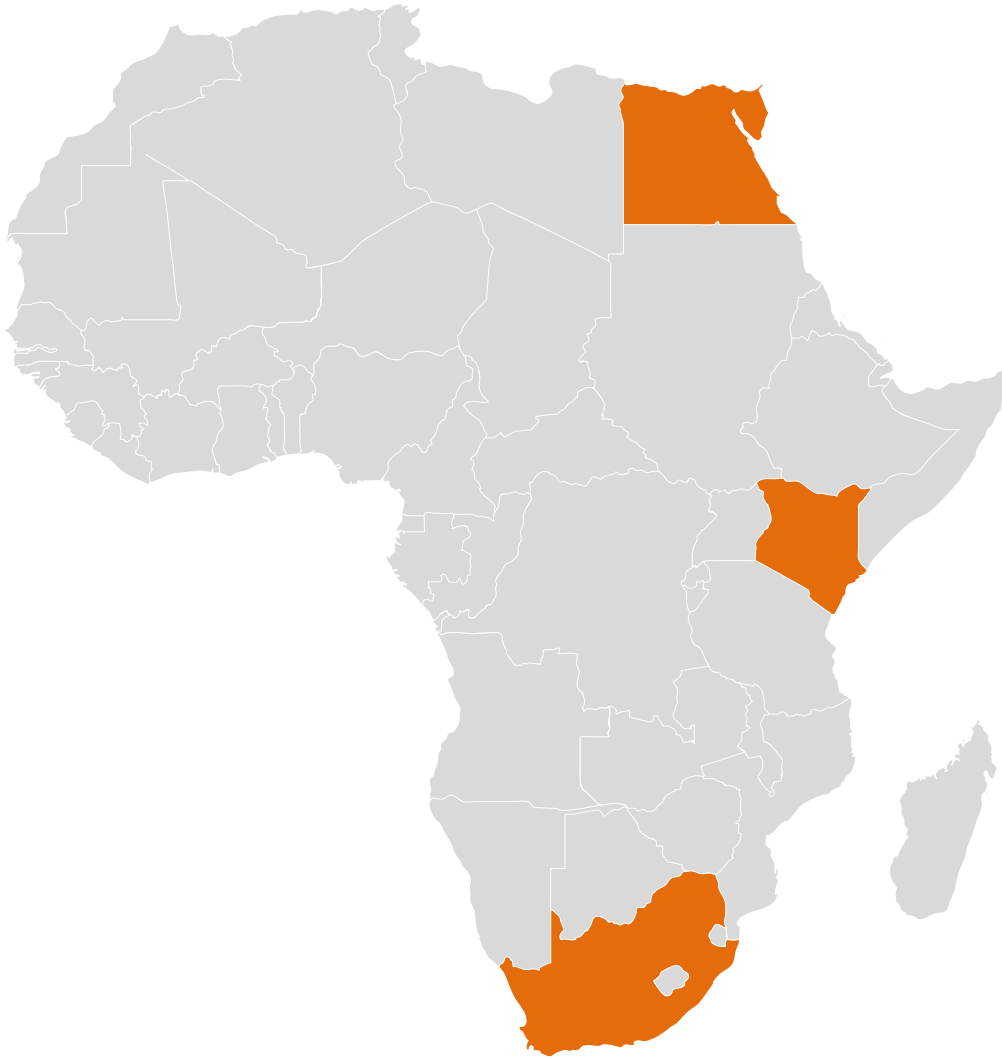
Vibration

- Predictive maintenance on rotating machinery
- Fatigue – prolonged exposure human & products/machinery
- Product development – NVH motor vehicles
- Earthquakes, tsunamis
- Wearable electronics – fitness trackers, sleep quality

Human senses – hearing & touch

Health, nuclear, aerospace, manufacturing, defence, stress, beneficitation, legal, fitness, communication, construction, electronics, green energy, quality of life, medical, document standardisation (IEC, ISO)

TC-AUV Members

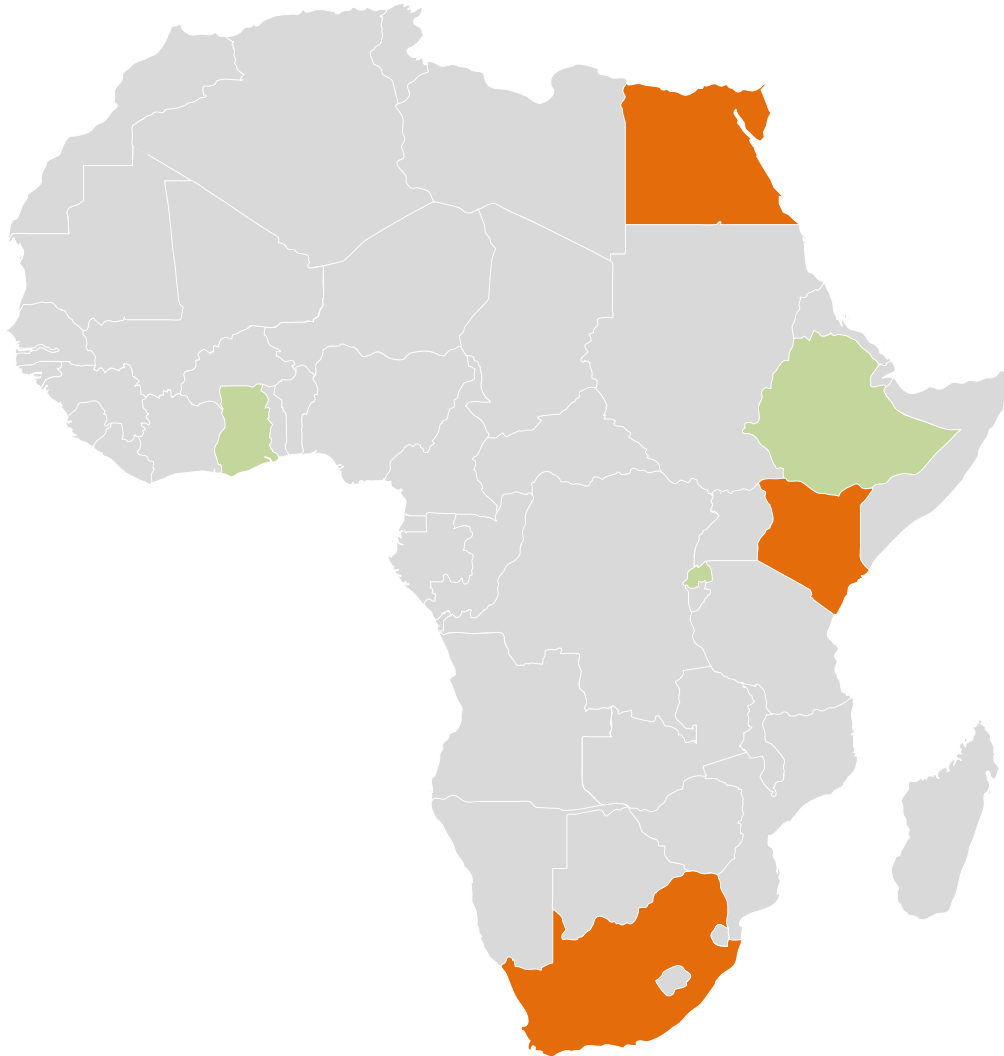


Egypt – NIS

Kenya – KEBS

South Africa - NMISA

TC-AUV Members

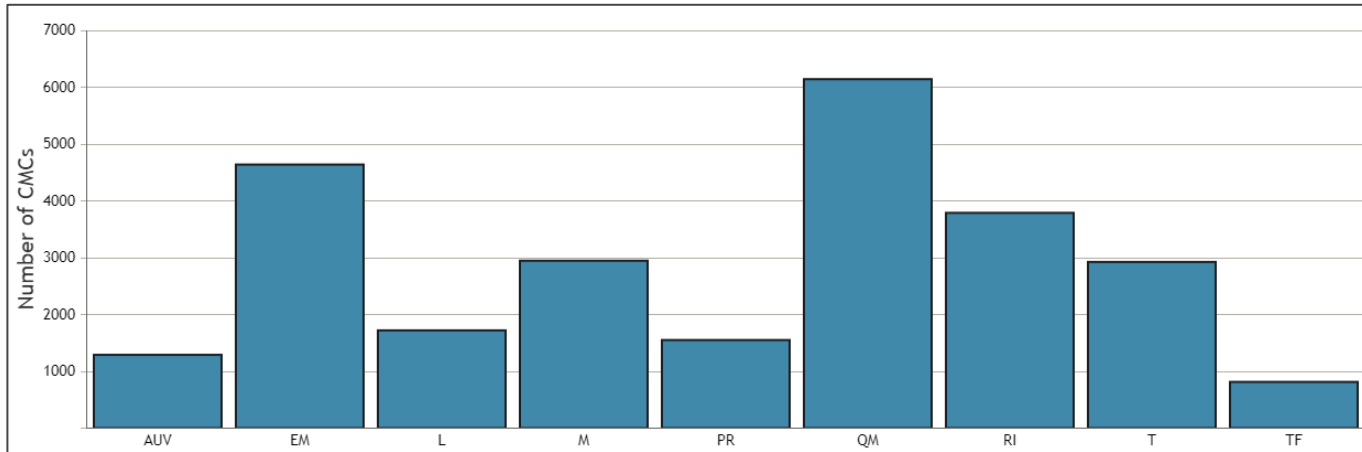


Egypt – NIS
Kenya – KEBS
South Africa – NMISA

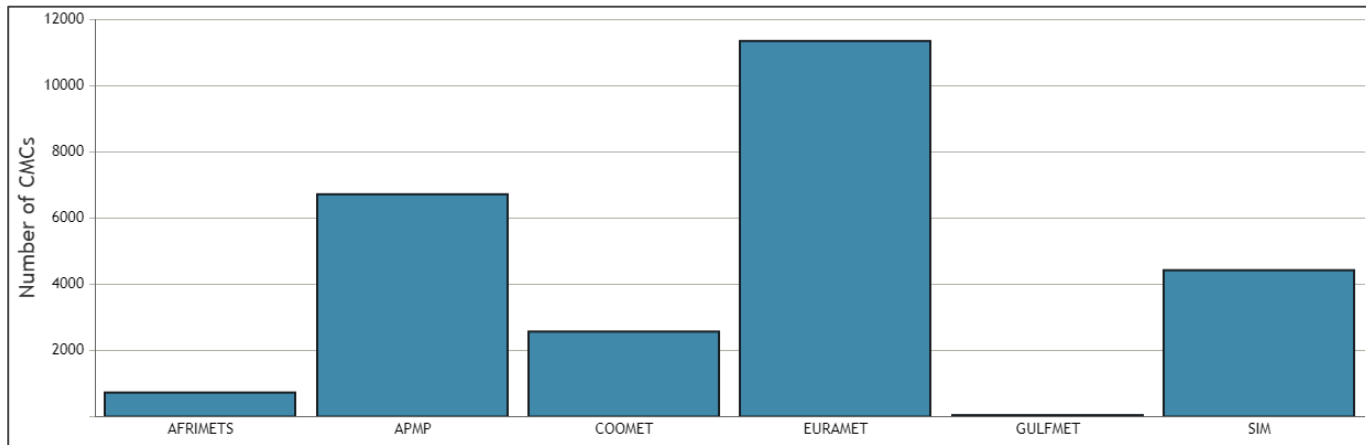
Ethiopia
Ghana
Rwanda

CMC Statistics

Number of CMCs per technical area (all RMOs published CMCs)

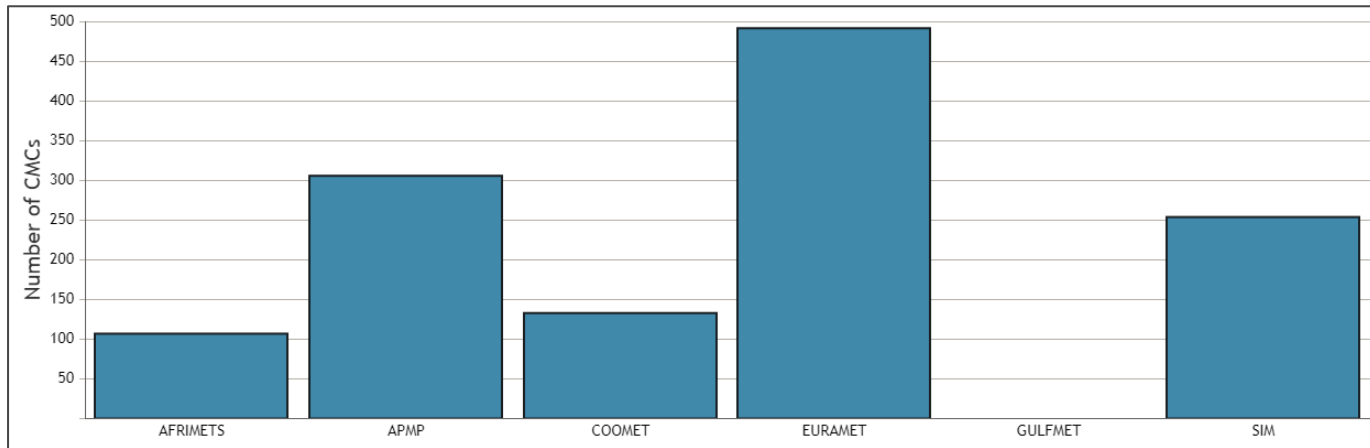


Number of CMCs per RMO (all published CMCs)



CMC Statistics

Number of AUV CMCs per RMO



107 registered AUV CMCs in the KCDB (as on 15 July 2022)

Egypt (NIS, 7)

7 Acoustics (sound in air)

Kenya (KEBS, 15)

3 Acoustics (sound in air)

12 Vibration

South Africa (NMISA, 85)

56 Acoustics (sound in air)

29 Vibration

Comparisons

- Most recent comparisons (2021-2022)
 - CCAUV.V-K5
 - EURAMET.AUV.V-S1
- Current comparisons
 - CCAUV.A-K6 Draft B
 - CCAUV.W-K2 Draft B
 - AFRIMETS.AUV.A-S2 Draft B
 - AFRIMETS.AUV.V-K5
- Future comparisons
 - Investigating

TC-AUV Chairs

- AFRIMETS TC-AUV meeting on 15 July 2022
 - Chair Mr Ian Veldman, NMISA
 - Vice Chair Mr Anderson Maina, KEBS