



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



**TCL WG**  
**Length/dimensional feedback**  
**2017**

**O Kruger**



# Length activities for 2017

## •Comparisons:

- 1) AFRIMETS LK 1: Gauge blocks by interferometry. Had problems with artefacts, wrong artefacts delivered. Plan to start in next few months.
- 2) AFRIMETS LS 1: end standards (gauge blocks) comparisons – NIS to pilot.
- 3) AFRIMETS LS 7: Four countries completed measurements. Problems with artefacts stuck in one country and delayed for several months.



# Length working group Roadmap (top priorities)

- MRA – Supporting of MRA through comparisons, submission of CMCs and review of other region's CMCs
- Training
- R&D projects
- TCL meeting 31 July 2017– 7 countries attended



# Comparison data base

<b>AFRIMETS comparisons</b>	<b>Status</b>	<b>Phase</b>	<b>Pilot laboratory</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Gauge blocks, up to 100 mm	Received artifacts	1	NMISA						
Line scales up to 500 mm, 1 metre	Running	0	NMISA						
Dial indicator	Planned	0	NIS						
External micrometer	Planned	0	NIS						
Micrometer setting piece, 500 mm	Planned	0	NIS						
Gauge blocks, up to 100 mm	Completed	2	Egypt						
<b>SADCMET comparisons</b>	Circulating	3	NMISA						
Gauge blocks, up to 100 mm	5 labs completed measurements				Stopped				
Line scale, 1 m rule	Only 4 send in results				Stopped				
External micrometer, 0-25 mm & 25mm-50 mm and two micrometer setting pieces					Stopped				



# Training

<b>Technical training</b>	2017	2018	2019
Basic length	ongoing		
Gauge block by interferometry, including basic distance interferometry			
Line Scale			
Long distance base line, including GPS.			
Length bars/long serious slip gauges			
<b>Other training</b>			
CMC submission			
Pilot of comparisons			



# Strategy for Research & Development

- **Perform research into metrology areas specific to Africa.**
- **Through this research, develop Human Capital-training of line scale systems**
- **Get AFRIMETS NMIs involve in R&D not only for development of measuring system but also of scientific research.**

