

## A Total Quality Management System for the CSIR-National Metrology Laboratory

ISO17025, ISO9001, ISO14001

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## Accreditation in South Africa



- ◆ 1976: CSIR Subcommittee on National Measuring Standards and Metrology structures the NCS (National Calibration Service)
- ◆ 1980: The NCS is run alongside the NML
- ◆ October 1993: DTI proposed the concept of the South African National Accreditation System (SANAS)
- ◆ 1994: NCS independent from CSIR
- ◆ October 1994: Cabinet approval for establishment of SANAS as a section 21 company.
- ◆ January 1996: Registered
- ◆ Signatory to ILAC MRA



## Preparing for third party assessment

- ◆ Since 1980 NML staff involved and trained in ISO Guide 25 (nationally and internationally)
  - Technical Assessors
  - Lead Assessors
  - Technical Experts
- ◆ Denner/Peet preparing for the accreditation of the calibration and measurement services of an NMI
  - SWEDAC/SP
  - UKAS/NPL
  - NMI
- ◆ October 1998, signing of CIPM MRA
- ◆ November 1999, 1<sup>st</sup> Peer review under SADC MET (Zimbabwe, USA, Australia, England, Mauritius)
- ◆ Benchmarking NML approach with other NMIs by involvement of the NML Quality Manager in several international workshops



## Historical Perspective

- ◆ Individual laboratory quality systems
- ◆ No real pressure before the Global MRA



## New Approach

- ◆ A single TQMS
- ◆ Incorporate various requirements as required
- ◆ Minimize duplication of management system



## Challenges Encountered

- ◆ Lack of documentation and control thereof
- ◆ Mindset of technical staff
- ◆ "Measurement traceability"
- ◆ Applicability of ISO 17025 requirements to NMIs
- ◆ Accreditation as a goal



## Implementation of TQMS

- ◆ Electronic System
- ◆ Documentation structure
- ◆ Simultaneous learning and consultation
- ◆ Full time Quality Practitioner
- ◆ Push for ISO 9001 certification
- ◆ Other elements (ISO 14001 and organizational req)
- ◆ Communication
- ◆ Customer feedback
- ◆ Quarterly Management Reviews
- ◆ Technical self audits



## Accreditation

- ◆ Suitable technical assessors
- ◆ Current status
  - AUV - May 2001
  - T&H - Nov 2001
  - Force - April 2002
  - Gas - May 2002
  - Other laboratories - October 2003
- ◆ Cost
- ◆ Future plans
  - ISO 43
  - ISO 34



Thank you for your attention

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