

**Intercomparison Workshop  
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# **Accreditation and the value of Intercomparisons**

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# The Value of Accreditation

- What is accreditation?
- Laboratory Standard - ISO 17025
- The value of accreditation and intercomparisons

# Accreditation



*“ Formal recognition that an organisation is competent to carry out specific tests or types of test”*

- Accreditation by UKAS demonstrates the integrity, competence, impartiality and sustainable performance of organisations providing testing services.

# ISO 17025



- General requirements for the competence of testing and calibration laboratories
- Management requirements, Technical requirements
- International Standard published in 2000
- Replaced ISO Guide 25, EN45001 and NAMAS Standard M10.



# Management Requirements

- Organisation
- Quality System
- Document Control
- Contract Review
- Subcontracting
- Purchasing supplies
- Service to client
- Complaints
- Non-conforming work
- Corrective Action
- Preventive Actions
- Audits and Reviews
- Records

# Technical Requirements

- Personnel
- Accommodation / Environmental conditions
- Test methods and method validation
- Uncertainty of measurement
- Equipment
- Measurement traceability
- Sampling
- Sample handling
- Quality control
- Reporting the results



# Management Requirements

- Customer Focus
  - Contract Review, Service to the client
  - Resolution of complaints
- Self regulation
  - Audits and audit programme
  - Review
  - Identifying non conforming work
  - Corrective and Preventive actions

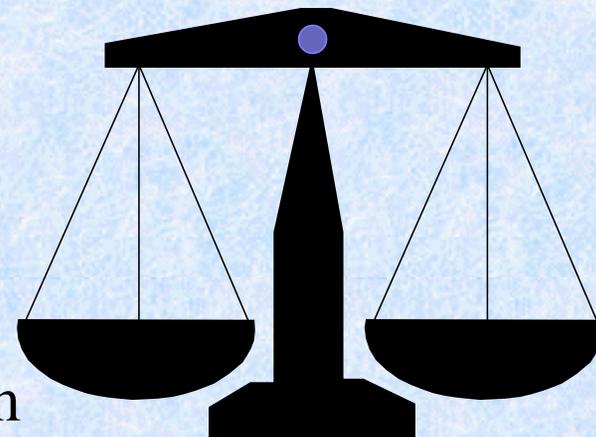


# Technical Requirements (1)

- Personnel - trained and competent.
- Professional and educational qualifications. Instrument manufacturer training. Demonstrating internal competency by measurement of reference materials, duplicates etc and achieving accurate and precise results.
- Accommodation and Environment
- Monitoring of parameters eg temperature, humidity
- Methods and Validation
  - Uncertainty of measurement
  - Control of Data

# Technical Requirements (2)

- Equipment –  
Gamma and alpha spectrometers etc
- Measurement Traceability –  
Radionuclide standards: NPL, Amersham
- Sampling - Plan and Procedures (Accreditation if required)
- Handling of Test Items - Uniquely identified and traceable. Environmental samples, Bioassay, Foodstuffs, Contaminated Land





# Technical Requirements (3)

- Quality Assurance
  - Internal QC
    - Certified Reference Materials from LGC, IAEA, NIST etc
    - In house Reference Material, Replicate Tests, Spiked Samples
  - Proficiency Testing – Procorad, NPL, IAEA
- Reporting

# Proficiency Scheme Providers



- Important to “have faith” in the schemes produced by proficiency scheme providers and hence the results.
- Accreditation to ISO Guide 43-1, Proficiency Testing by Interlaboratory Comparisons (and ILAC G13, Guidelines for the requirements for the competence of Providers of PT Schemes) is now available from UKAS and provides a third party assessment of the competency of the scheme providers.
- See **www.ilac.org**, Publications for copy of ILAC G13

# Accredited Proficiency Scheme Providers



- Proficiency scheme providers accredited by UKAS to ISO/IEC Guide 43 and assessed to ILAC G13
- Laboratory of the Government Chemist
- PHLS water
- VLA
- FSS
- PHLS food
- Central Science Laboratory
- QM
- Randox

# Laboratory Evaluation of Proficiency Scheme Providers



- Requirement under ISO17025 that accredited laboratories need to evaluate the proficiency scheme provider as a supplier of services.
  - Is the proficiency scheme appropriate/suitable for the laboratories requirements.
  - UKAS accredited or other third party evaluation.
  - Establish suitability by participation (trial), if no third party evaluation in place.
  - Historical evidence from previous participation.



# Why accreditation - what value does it add?

- Consumer Confidence in results
- Technical competence
- Systems are under control

# How to find out more....



- UKAS Helpdesk ☎ + 44 (0) 208 917 8555
- UKAS Website enquiry and Testing

Schedule Website:

–  [www.ukas.org](http://www.ukas.org) &  [www.ukas.com](http://www.ukas.com)