

### Eurachem



# a focus for analytical chemistry and quality related issues in Europe

Michela Sega, EURAMET TC-MC chair Slides provided by B. Magnusson and W. Wegscheider

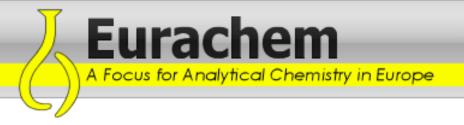


## Introduction

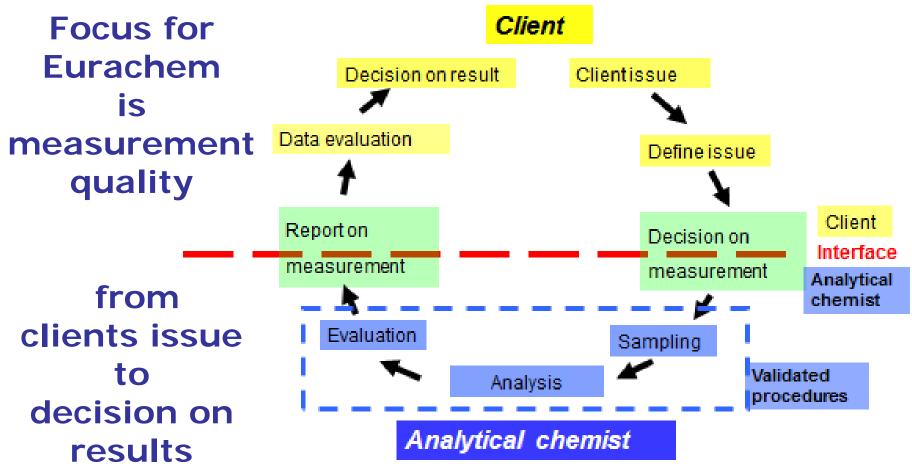
Eurachem aims and membership

Eurachem activities

- Recent and forthcoming activities
  - Guidance documents
  - Workshops



# The measurement cycle



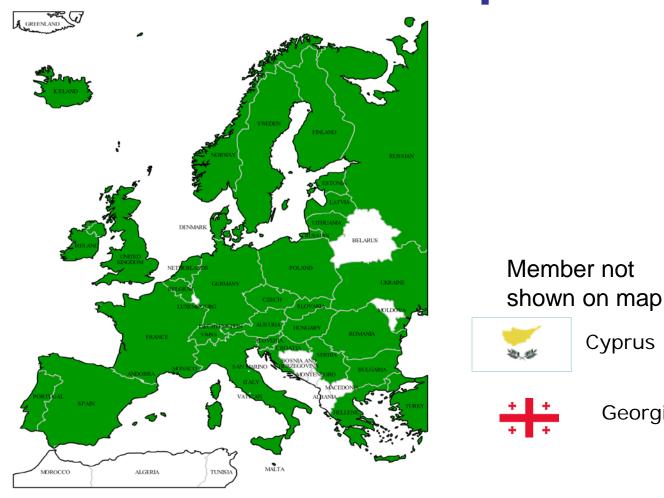


## What is Eurachem?

- A network of national and other organisations
- A focus on analytical quality
  - Validation
  - Uncertainty
  - Traceability
- Providing authoritative guidance documents
- Organising Workshops and training events
- Primary audience:
  - Laboratories for analytical measurement
  - Accreditation bodies and related organisations

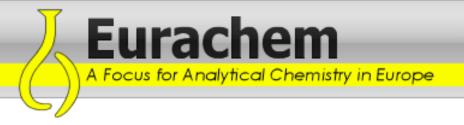


# Eurachem membership

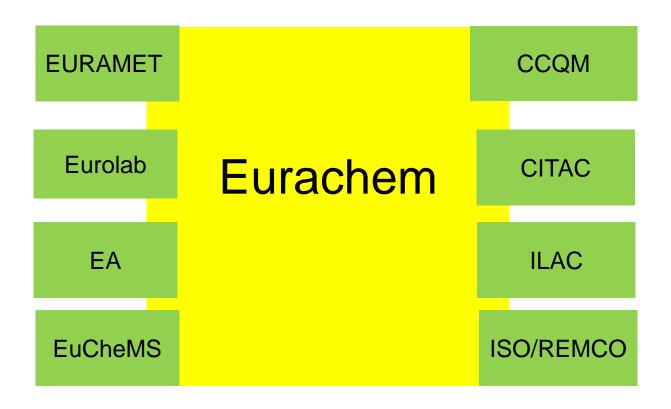


Cyprus

Georgia



# Major cooperations





## **Activities**

- Workshops and Training
  - International workshops on analytical QA issues
  - Hosted by members
- Guidance documents
  - Prepared by working groups
  - Disseminated via web and Secretariat
  - Translation and publication by members permitted



# Workshops since year 2000

- Validation, Traceability and Measurement Uncertainty (2000, 2012)
- Education & Training (2004)
- Proficiency Testing (2000, 2003, 2005, 2008, 2011)
- Measurement Uncertainty (2000, 2002, 2008, 2011)
- Reference Materials (2000)

- Sampling (2001, 2008)
- Metrology and QA (2008, 2009, 2010)
- Decision making (2008, 2010)
- Internal Quality Control (2012)
- QA of measurements from Field to Laboratory (2013)

...as well as Quality Assurance (QA) and training events in conjunction with General Assembly meetings and in collaboration with other organisations

# Eurachem A Focus for Analytical Chemistry in Europe

### **Future Eurachem Workshops**

- Measurement Quality from client issue to decision on result Lisbon 19-20 May 2014
- in conjunction with celebration





- Together with NMI/L on measurement uncertainty in food and feed analysis, Copenhagen 29-30 September
- 8<sup>th</sup> Eurachem workshop on proficiency testing in analytical chemistry, microbiology and laboratory. Medicine Berlin 6-9 October 2014
- International Workshop on Human Errors and Quality of Chemical Analytical Results, Tel-Aviv, Israel, 13 January 2015



# More recent Guidance Documents

- Accreditation for Microbiological Laboratories, 2<sup>nd</sup> ed, 2013
- Quantifying Uncertainty in Analytical Measurement, 3<sup>rd</sup> ed, 2012
- Selection, Use and Interpretation of PT Schemes 2<sup>nd</sup> ed, 2011
- Terminology in Analytical Measurement 2011
   Discusses a selection of the concepts in VIM 3, focusing on those most likely to be encountered in analytical laboratories
- Measurement uncertainty arising from sampling 2007

  Describe various methods that can be used to estimate the uncertainties arising from the processes of sampling and the physical preparation of samples.
- Use of uncertainty information in compliance assessment 2007
   Applicable to decisions on compliance with regulatory or manufacturing limits where a decision is made on the basis of a measurement result accompanied by information on the uncertainty associated with the result



# **More Guidance Documents**

- Traceability in Chemical Measurement (2003)
- Accreditation for Microbiological Laboratories (2002)
- The Selection and use of Reference Materials (2002)
- Accreditation for Chemical Laboratories (2002)
- Common Position Paper for the Use of Proficiency Testing as a Tool for Accreditation in Testing (2001)
- Selection, Use and Interpretation of Proficiency Testing (PT)
   Schemes by Laboratories (2000)
- The Fitness for Purpose of Analytical Methods A Laboratory Guide to Method Validation and Related Topics (1998)
- Quality Assurance for R&D and Non-routine Analysis (1998)

All Guides are currently available free of charge from <u>www.eurachem.org</u> and several translations are available at national Eurachem websites. Guides were prepared by Eurachem or in cooperation with e.g. CITAC



### **Downloads of Guides**

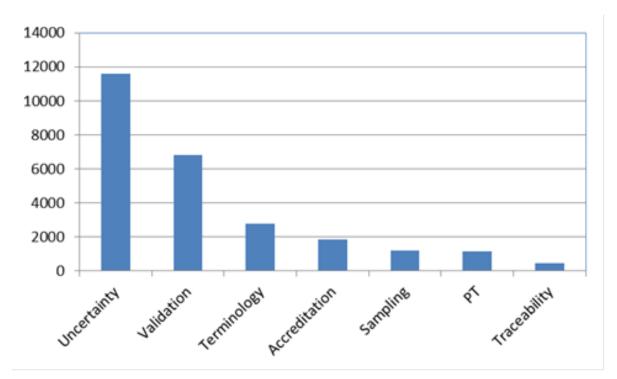
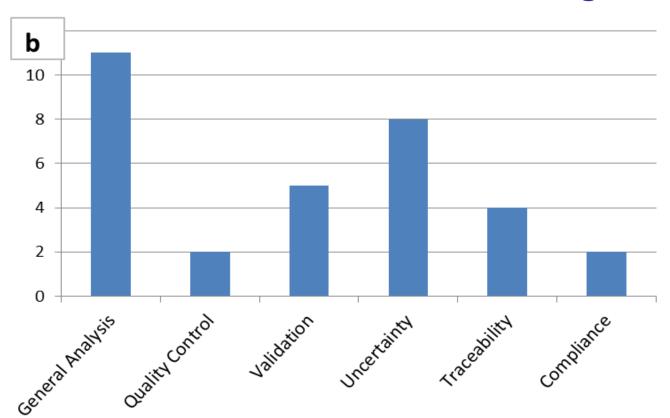


Figure 3 Number of downloads of Eurachem guides during 2012-10-01 to 2013-09-30. The Guides are referred to with a single name. Note that Sampling refers to the guide Uncertainty in sampling



# Impact - References to Eurachem in ISO documents - survey 2013





## **Eurachem information leaflets**

Leaflets are short briefing documents on a specific topic intended to inform a wide audience, including laboratory staff, managers and laboratory customers. Examples: traceability, proficiency testing,

quality (uncertainty), compliance.

Decision limit

Leaflet introducing the traceability guide

Upper limit





# Current guidance activities

- Qualitative analysis
  - Guide in preparation on "Expressing uncertainty in qualitative analysis"
- Revisions
  - "Validation" guide from 1998 Due October 2014
  - Accreditation for Chemical Laboratories
  - Quality Assurance for R&D and Non-routine Analysis



# **Administration 2012-2014**

- Change of Chairs (2-year cycle)
  - Chair: Bertil Magnusson (Sweden)
  - Vice chair: Wolfhard Wegscheider (Austria)
  - Past chair: Miloslav Suchanek (Czech republic)
- Secretariat
  - Eurolab/Eurachem Sweden 2012-2014,
     secretary@eurachem.org
- Website
  - www.eurachem.org



## Administration 2014-2016

- Change of Chairs (2-year cycle)
  - Chair: Wolfhard Wegscheider (Austria))
  - Vice chair: David Milde (Czech republic)
  - Past chair: Bertil Magnusson (Sweden)
- Secreteriat
  - Eurachem Austria, <u>secretary@eurachem.org</u>
- Website
  - www.eurachem.org

Home

About Eurachem

Working groups

**Publications** 

Task Views

Events

Home

News

Contact Eurachem

Web links



Welcome to Eurachem

Welcome to Eurachem, a network of organisations in Europe having the objective of establishing a system for the international traceability of chemical measurements and the promotion of good quality practices. It provides a forum for the discussion of common problems and for developing an informed and considered approach to both technical and policy issues, it provides a focus for analytical chemistry and quality related issues in Europe.



Image courtesy of SP, Sweden

### Forthcoming Events

20 May 2013 Quality Assurance of Measurements from Field to Laboratory

23 May 2013 Eurachem General Assembly 2013

6 Oct 2014 8th International Workshop on Proficiency Testing

View Full Calendar

### > Page not found

Recent updates

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Frequently requested

> Eurachem Publications

> The Fitness for Purpose of Analytical Methods (1998)

 Quantifying Uncertainty in Analytical Measurement, 3rd

> Terminology in Analytical

Measurement: Introduction

> Eurachem Guides

Edition (2012)

to VIM 3

- Eurachem Guides
- > Eurachem Publications
- > Validation, Traceability and Measurement Uncertainty (2012)
- Measurement Uncertainty in Sampling and Compliance (2008)
- > Key Challenges in Internal Quality Control (2012)

# Recent News

> Proficiency Testing

Measurement Uncertainty

Task Views

Eurachem News No. 30 issued



The latest Eurachem Newsletter is now available to download in PDF format 🔁. Printed copies will also be available through National members. Previous newsletters can be found on the Newsletter page.

#### Pre-Post PT guide now available in 12 languages

Check the Task Views to find all the Eurachem resources for particular topics:



The Eurachem PT working group has released 11 new translations of the information leaflet "Pre- and Post-analytical PT" to accompany the English edition. The translations can be downloaded here.

Other information leaflets can be found under 'Information leaflets'.

#### Eurachem Workshop on Quality Assurance of Measurements from Field to Laboratory - Registration open



The Eurachem Workshop on Quality Assurance of Measurements from Field to Laboratory will be held in Finland on 20-21 May in 2013. The topics of the workshop focus on two main subjects; on challenges of measurements related to nanotechnology and on challenges related to on -site/on-line measurements. Further information and registration details can be found on the workshop page or the conference website.



# Eurachem 25 years in AQUAL 2014

On the occasion of the 25th anniversary, Eurachem was invited to submit review articles to the journal Accreditation and Quality Assurance (AQUAL) covering Eurachem's formation and impact so far

- Eurachem's 25th Anniversary: Two members' perspective by Alex Williams (Chairman, WG on Uncertainty and Traceability)
   Paul De Bièvre (Eurachem Chairman 1993 -95)
- Impact of Eurachem 25 years of activity by Bertil Magnusson, Eurachem chair 2012-2014, Stephen L.R. Ellison webmaster, chair of WG on Qualitative analysis

Marina Patriarca, Member of Eurachem executive board



# **Summary**

- Continuing development of guidance
  - Latest new guide: Accreditation for Microbiological Laboratories,
     2<sup>nd</sup> edition, 2013
- International workshops
  - Measurement Quality from client issue to decision on result in conjunction with 25 year celebration Lisbon 19-20 May 2014
  - Measurement Uncertainty for food and feed analysis
     Copenhagen, 29-30 September
  - 8<sup>th</sup> Eurachem workshop on proficiency testing
     Berlin 6-9 October 2014
  - International Workshop on Human Errors and Quality of Chemical Analytical Results, Tel-Aviv, Israel, 13 January 2015

**Eurachem**