

*Eurachem*



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

*Vicki Barwick  
Eurachem Chair  
17 May 2021*

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## Introduction

- What is Eurachem
- Eurachem aims and membership
- Eurachem activities
  - Guidance documents
  - Workshops
  - Future activities

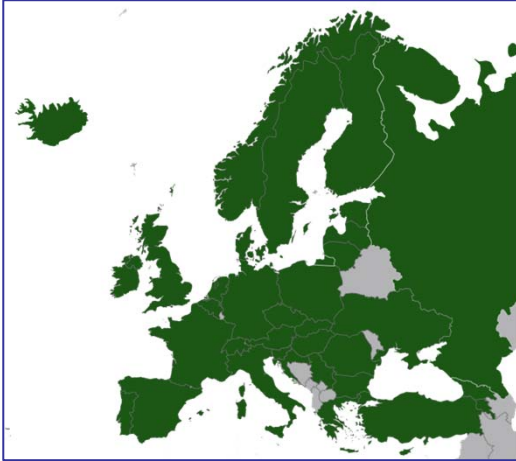
Scope & rules - Memorandum of Understanding see [www.eurachem.org](http://www.eurachem.org)

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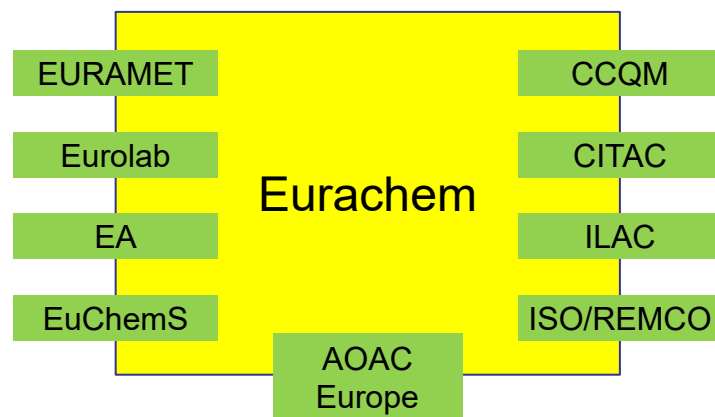
## Eurachem membership



- 36 members
- Full membership
  - Countries within EU and EFTA, European Commission
  - EU accession states
  - Countries with Association Agreement with EU
- Associate membership
  - Other European countries with good analytical chemical infrastructure



## Major cooperations





## Activities

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



## Currently active working groups

- Education and Training
- Measurement Uncertainty and Traceability
- Method Validation
- Proficiency Testing
- Qualitative Analysis and Testing
- Reference Materials
- Sampling Uncertainty

## Workshops since year 2010

- Method Validation (2016, 2019)
- Validation, Traceability and Measurement Uncertainty (2012)
- Measurement Uncertainty (2011, 2017, 2019)
- Data – Quality, Analysis, Integrity (2018)
- Accreditation Issues (2019, 2020)
- Proficiency Testing (2011, 2014, 2017)
- Internal Quality Control (2012)
- Metrology and QA (2010, 2014)
- QA of measurements from Field to Laboratory (2013)
- QA in the university curriculum (2020)
- Decision making (2010)

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

## Future Eurachem activities

- **Eurachem week 2022**
  - Tbilisi, Georgia
  - Workshop (16-17 May): QA challenges of measurements from field to laboratory with a focus on ISO/IEC17025: 2017 requirements
  - General Assembly (19-20 May)
- **10<sup>th</sup> Eurachem Workshop on Proficiency testing in analytical chemistry, microbiology & laboratory medicine**
  - 26-29 September 2022, Windsor, UK
  - [www.eurachem-pt2022.org](http://www.eurachem-pt2022.org)



## Guidance documents

Available at [eurachem.org](http://eurachem.org)

- Eurachem guides
  - Recommendations on good practice
- Supplementary guidance
  - Recommendations on good practice illustrating/amplifying Guide topics
- Information leaflet
  - 2 page document, introducing a Eurachem Guide or providing information on a topic of interest
- Translations available



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## Guidance documents

- Use of Uncertainty Information in Compliance Assessment (2<sup>nd</sup> ed, 2021)
- Selection, Use and Interpretation of Proficiency Testing (PT) Schemes by Laboratories (3<sup>rd</sup> ed, 2021)
- Traceability in Chemical Measurement (2<sup>nd</sup> ed, 2019)
- Measurement Uncertainty Arising from Sampling (2<sup>nd</sup> ed, 2019)
- Guide to Quality in Analytical Chemistry: An Aid to Accreditation (3<sup>rd</sup> ed, 2016)
- Setting Target Measurement Uncertainty (2015)
- The Fitness for Purpose of Analytical Methods: A Laboratory Guide to Method Validation and Related Topics (2<sup>nd</sup> ed, 2014)
- Accreditation for Microbiological Laboratories, 2<sup>nd</sup> ed (2013)
- Quantifying Uncertainty in Analytical Measurement (3<sup>rd</sup> ed, 2012)
- Terminology in Analytical Measurement: Introduction to VIM 3 (2011)

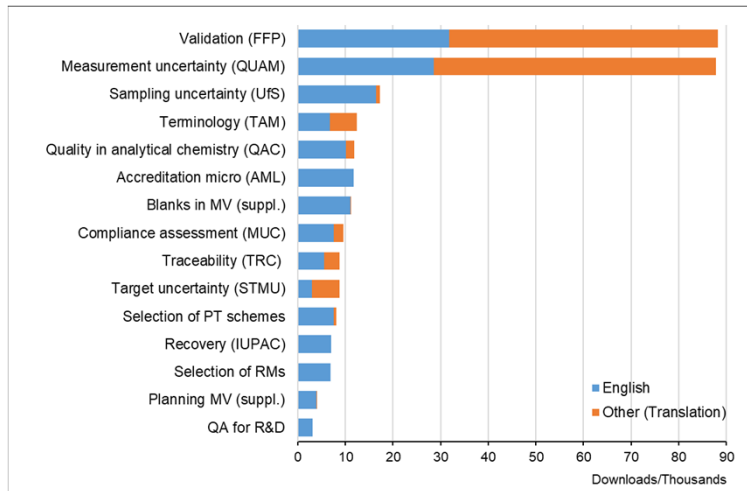


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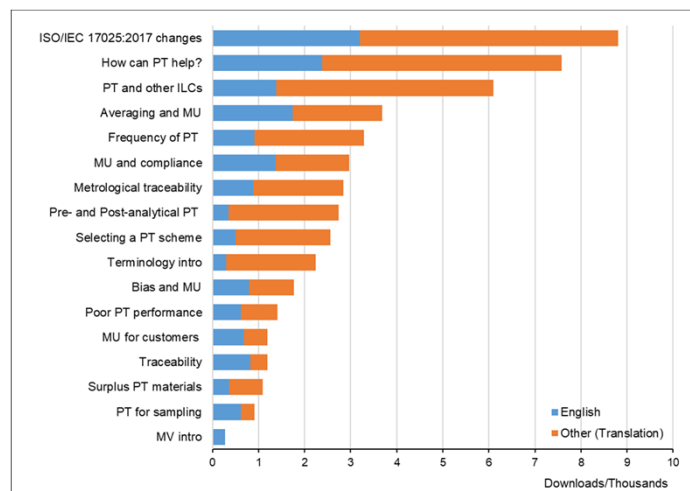
## Downloads of guides



Downloads\* of Eurachem Guides  
Apr 2020 - Mar 2021

\*Downloads: HTTP requests ("hits") – all versions

## Downloads of information leaflets



Downloads\* of Eurachem Information  
Leaflets  
Apr 2020 - Mar 2021

\*Downloads: HTTP requests ("hits") – all versions

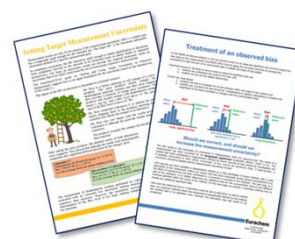
## Information leaflets & supplements

- Proficiency testing (PT)
  - PT schemes for sampling (2020)
  - How to investigate poor performance in proficiency testing (2019)
  - Use of surplus Proficiency Test items (2019)
  - Proficiency testing - How much, and how often? (2017)
  - Selecting the right PT scheme for my laboratory (2015)
  - How can PT help my laboratory? (2013)
  - Pre- and post-analytical PT (2009)
  - PT Schemes and other interlaboratory comparisons (2005)



## Information leaflets & supplements

- Measurement uncertainty and traceability
  - Use of uncertainty information in compliance assessment (2021)
  - Setting target measurement uncertainty (2018)
  - Treatment of an observed bias (2017)
  - Using repeated measurements to improve the standard uncertainty (2015)
  - Traceability of Analytical Results (2005)
  - Measurement uncertainty for laboratory customers (2000)





## Information leaflets & supplements

- Method validation
  - The importance of method validation (2021)
- Accreditation
  - ISO/IEC 17025:2017 - A New Accreditation Standard (2018)
- Terminology
  - You talk, we understand – The way out of the tower of Babel (2016)
- **SUPPLEMENTS TO GUIDES**
  - Blanks in Method Validation (2019)
  - Planning Method Validation Studies (2019)



## Current guidance activities

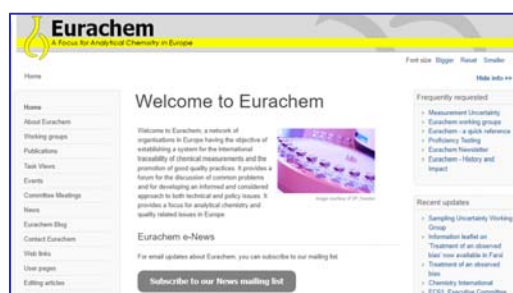
- **Guides in preparation:**
  - Expressing uncertainty in qualitative analysis
  - Evaluation of measurement uncertainty from in-house precision and trueness tests
- **Guides under revision:**
  - The Selection and Use of Reference Materials (2002)
  - Quality Assurance for R&D and Non-routine Analysis (1998)
  - Terminology in Analytical Measurement (2011)
  - Accreditation for Microbiological Laboratories (2013)
  - The Fitness for Purpose of Analytical Methods: A Laboratory Guide to Method Validation and Related Topics (2014)
  - Guide to Quality in Analytical Chemistry: An Aid to Accreditation (2016)

## Administration 2020-2022

- Change of Chairs (2-year cycle)
  - Chair: Vicki Barwick (UK)
  - Vice chair: Isabelle Vercauteren (Belgium)
  - Past chair: Marina Patriarca (Italy)
- Secretariat
  - LGC, UK
  - [secretariat@eurachem.org](mailto:secretariat@eurachem.org)
- Website: [www.eurachem.org](http://www.eurachem.org)

## Keep in touch...

- Website: [www.eurachem.org](http://www.eurachem.org)
- Twitter: @EurachemEurope
- YouTube: Search for Eurachem
- Mailing list:  
<https://www.eurachem.org/subscribe>



## Summary

- Continuing development of guidance
  - Latest guides
    - Selection, Use and Interpretation of Proficiency Testing (PT) Schemes by Laboratories (3<sup>rd</sup> ed 2021)
    - Use of uncertainty information in compliance assessment (2<sup>nd</sup> ed 2021)
- Continuing development of leaflets & supplements
- International workshops in 2022
  - Eurachem “week” 2022 – Tbilisi, 16-20 May 2022
  - 10<sup>th</sup> Proficiency Testing Workshop – Windsor, 26-29 September 2022

## Eurachem is people

General Assembly, May 2020  
Virtual meeting hosted by  
Eurachem-Romania

