

**Eurachem**



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

Updated March 2024

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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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## What is Eurachem?

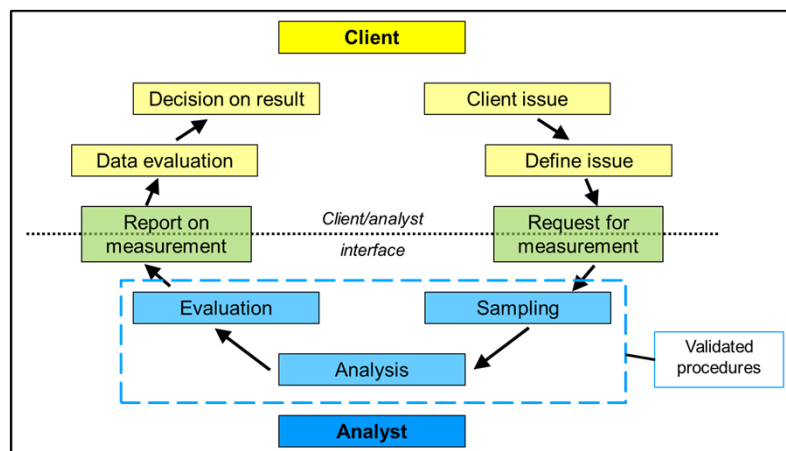
- A network of national and other organisations
- Founded in 1989
- A focus on analytical quality:
  - Traceability of Measurement Results
  - Method Validation
  - Measurement Uncertainty
- Providing guidance documents
- Organising workshops and training events
- Primary audience:
  - Laboratories for analytical measurement
  - Accreditation bodies and related organisations



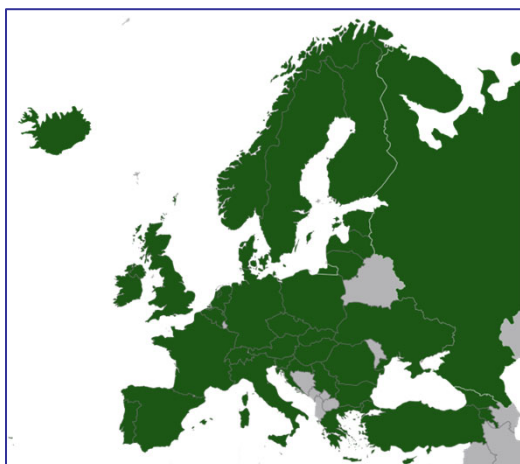
## The measurement cycle

Eurachem's focus is measurement quality...

...from client issue to decision on results

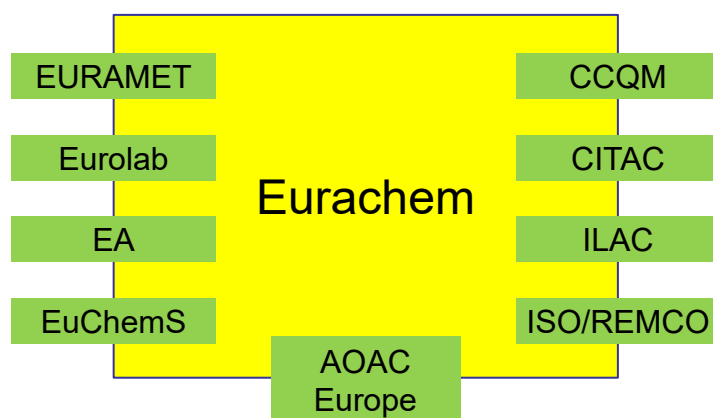


## Eurachem membership



- 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 & leaflets**
  - Prepared by working groups
  - Disseminated via web
  - Translation and publication by members permitted

## Workshops since year 2013

- Method Validation (2016, 2019)
- Measurement Uncertainty (2017, 2019, 2022)
- Data – Quality, Analysis, Integrity (2018)
- Accreditation Issues (2019, 2020, 2021, 2022)
- Qualitative analysis (2022)
- Proficiency Testing (2014, 2017, 2023)
- Metrology and QA (2014)
- QA of measurements from Field to Laboratory (2013)
- QA in the university curriculum (2020)
- Ensuring reliable and accurate results of analytical processes (2023)

... 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 2024**
  - Vilnius, Lithuania
  - Workshop (13-14 May): Quality assurance in Chemical, Medical and Microbiological Laboratories
  - WG meetings (15 May)
  - General Assembly & Executive meeting (16-17 May)

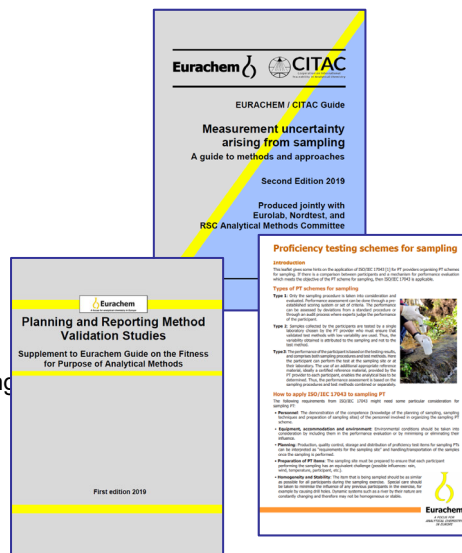


## Currently active working groups

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

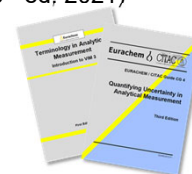
## Guidance documents Available at [www.eurachem.org](http://www.eurachem.org)

- Eurachem guides (translations available)
  - Recommendations on good practice
- Supplementary guidance
  - Recommendations on good practice illustrating/amplifying Guide topics
- Information leaflets (translations available)
  - 2-page document, introducing a Eurachem Guide or providing information on a topic of interest
- Reading list (ETWG)
  - to provide references to a selection of websites, standards, guides and books

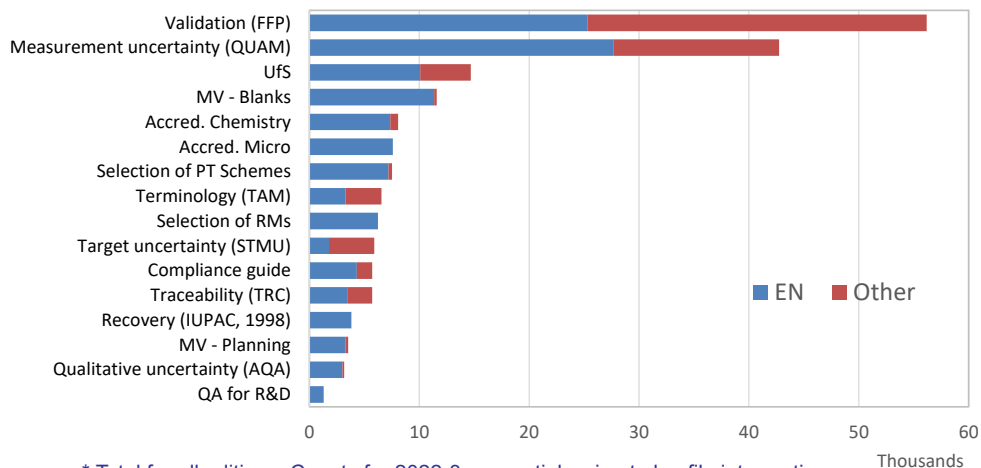


## Guidance documents

- Accreditation for Microbiological Laboratories (3<sup>rd</sup> ed, 2023)
- Terminology in Analytical Measurement: Introduction to VIM 3, (2<sup>nd</sup> ed, 2023)
- Assessment of performance and uncertainty in qualitative chemical analysis (1<sup>st</sup> ed, 2021)
- 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 (1<sup>st</sup> ed, 2015)
- The Fitness for Purpose of Analytical Methods: A Laboratory Guide to Method Validation and Related Topics (2<sup>nd</sup> ed, 2014)
- Quantifying Uncertainty in Analytical Measurement (3<sup>rd</sup> ed, 2012)



## Guidance downloads – Guides\*

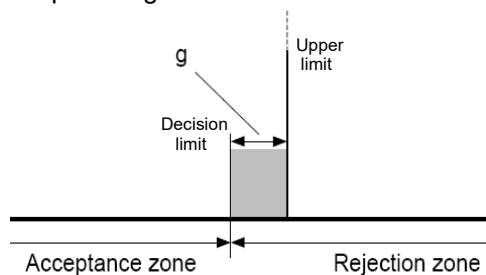


\* Total for all editions. Counts for 2022-3 are partial owing to log file interruption.

## 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.

Leaflet introducing the compliance guide



Leaflet introducing the traceability guide

## Information leaflets & supplements

- Proficiency testing (PT)
  - Let's call PT scheme a PT scheme (2022)
  - PT schemes for sampling (2020)
  - How to investigate poor performance in proficiency testing (2022)
  - Use of surplus Proficiency Test items (2022)
  - Proficiency testing - How much, and how often? (2021)
  - Selecting the right PT scheme for my laboratory (2022)
  - How can PT help my laboratory? (2022)
  - Pre- and post-analytical PT (2022)
  - PT Schemes and other interlaboratory comparisons (2022)
  - (Interlaboratory comparisons other than PT (2024))

**REVISED**



## 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)
  - What is the uncertainty factor? (2021)



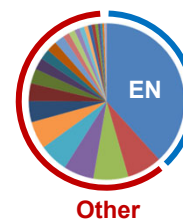
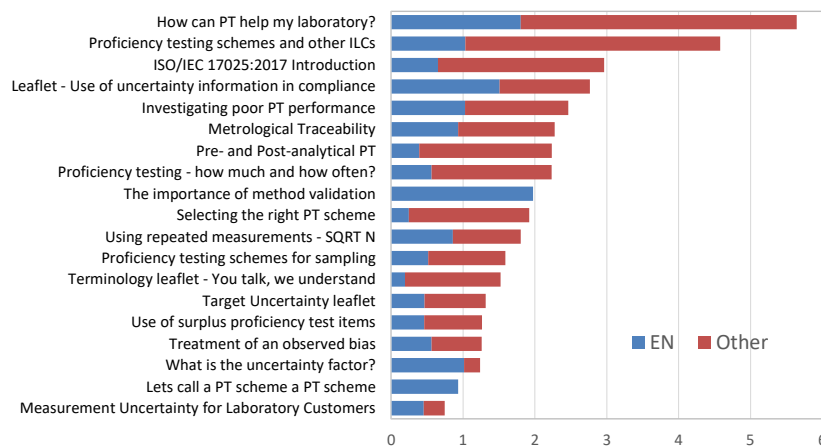


## Information leaflets & supplements

- Accreditation
  - ISO/IEC 17025:2017 - A New Accreditation Standard (2018)
- Terminology
  - You talk, we understand – The way out of the tower of Babel (2023)
- Method validation
  - The importance of method validation (2023)
- **SUPPLEMENTS TO GUIDES**
  - Blanks in Method Validation (2019)
  - Planning Method Validation Studies (2019)



## Guidance downloads – Leaflets\*



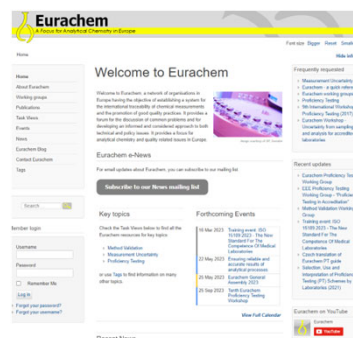
\* Total for all editions. Counts for 2022-3 are partial owing to log file interruption. Thousands

## Current guidance activities

- **Guide in preparation:**
  - 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)
  - 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 2022-2024

- **Change of Chairs (2-year cycle)**
  - Chair: Isabelle Vercruyse (Belgium)
  - Vice chair: Eugenia Eftimie Totu (Romania)
  - Past chair: Vicki Barwick (UK)
- **Secretariat**
  - Belab, Belgium – Philippe Maesen
  - [secretariat@eurachem.org](mailto:secretariat@eurachem.org)
- **Website:** [www.eurachem.org](http://www.eurachem.org)



## Eurachem social media channels

### Twitter



@EurachemEurope  
@EurachemEvents  
@EurachemPT

### LinkedIn

- LinkedIn page  
[www.eurachem.org/linkedin](http://www.eurachem.org/linkedin)



### YouTube



[www.eurachem.org/youtube](http://www.eurachem.org/youtube)

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## Eurachem blog, e-News and Newsletter

### Eurachem Blog

Topical articles on a range of topics.

#### How chemical measurement supports the global food system

Published: Thursday, 18 May 2023 17:37



The theme for World Metrology Day 2023 is "Measurements supporting the global food system". Here, we take a look at some of the many ways in which chemical measurement supports the food chain, including

- Food safety and Quality
- Nutritional Analysis
- Food Authentication and Traceability
- Process Monitoring
- Shelf-Life Determination
- Allergen Detection
- Climate and environment monitoring

Spring 2023

[View online version](#)



### Eurachem news, Spring 2023

Eurachem e-News provides news updates and information on forthcoming events, new Eurachem guidance and other Eurachem initiatives. We hope you find it useful.

### Event news

**Eurachem Workshop - Ensuring reliable and accurate analytical processes**



A focus for analytical chemistry in Europe

SPRING 2023 | ISSUE 40

### Words from the Chair

Subale Vercopoulos

It is a great honour for me to have been awarded the Chair for the next two years and to work closely together with our members and partners.

The past two years, my colleagues and I have been working hard to ensure that the Eurachem community continues to actively contribute to work and public interest through our research and activities.

This is the result of the expertise and drive of the individual Eurachem members who are ready on a day-to-day basis to continue supporting

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**Eurachem**

A Focus for Analytical Chemistry in Europe



General Assembly, May 2023, Bern, Switzerland