

Eurachem

*A FOCUS FOR
ANALYTICAL CHEMISTRY
IN EUROPE*

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.



Goals

- ❖ **Promote best practice and develop networks for collaboration**
- ❖ **Develop international comparability of chemical measurements**
- ❖ **Provide a framework for co-operation in establishing traceability**
- ❖ **Establish national EURACHEM groups and provide input to other international organisations**
- ❖ **Raise awareness amongst decision makers and develop broadly based education and training**



European Commission



"Towards an integrated
infrastructure for measurements"

Warsaw, Poland
18-19 June 2002

SESSION n°: 3 - EURACHEM – A Focus for Analytical Chemistry

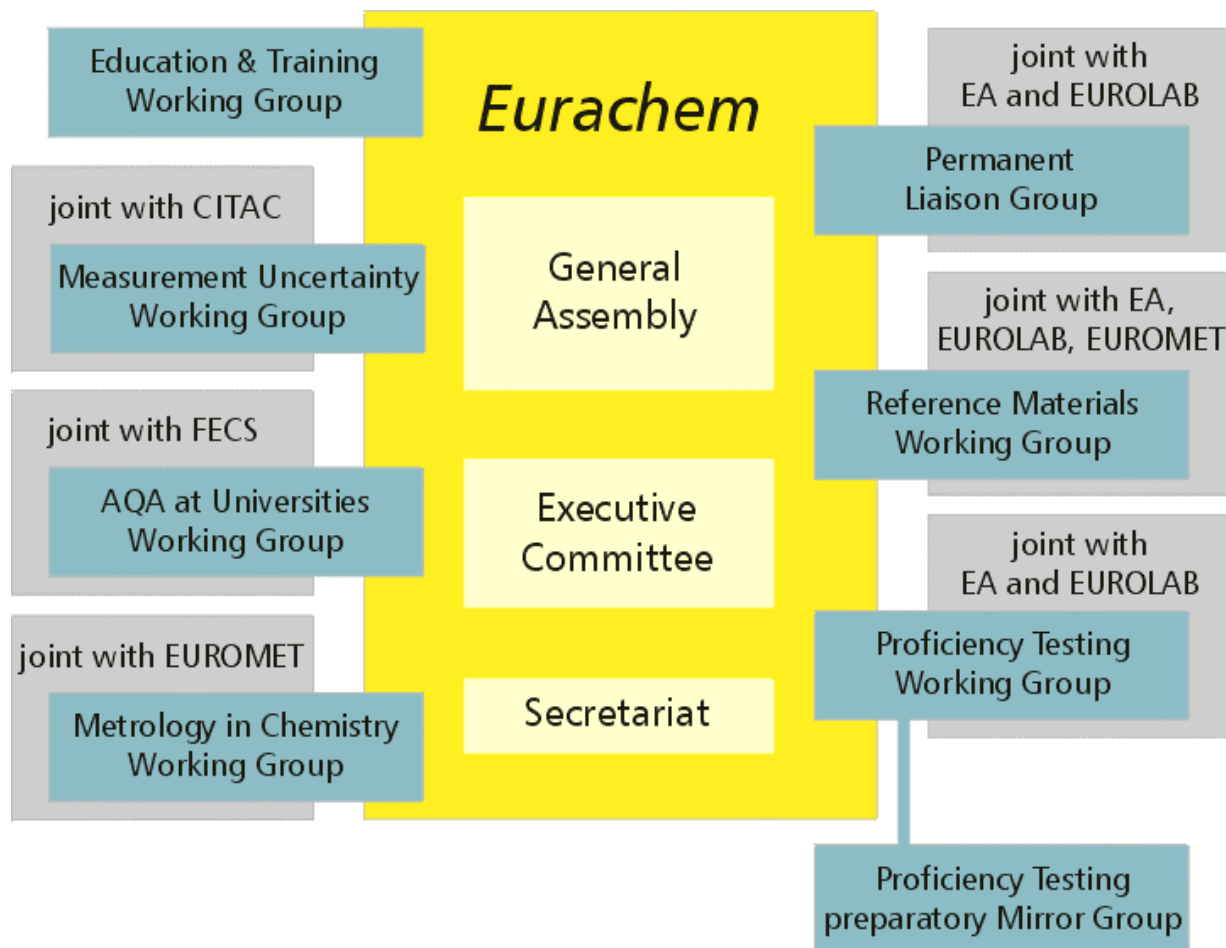
M. Filomena Camões

Membership

	Albania *		Luxemburg
	Austria		Malta
	Belgium		The Netherlands
	Cyprus		Norway
	Czech Republic		Poland
	Denmark		Portugal
	European Commission		Romania
	Finland		Russian Federation *
	France		Slovak Republic
	Germany		Slovenia
	Greece		Spain
	Hungary		Sweden
	Iceland		Switzerland
	Ireland		Turkey
	Italy		Ukraine *
	Lithuania		United Kingdom

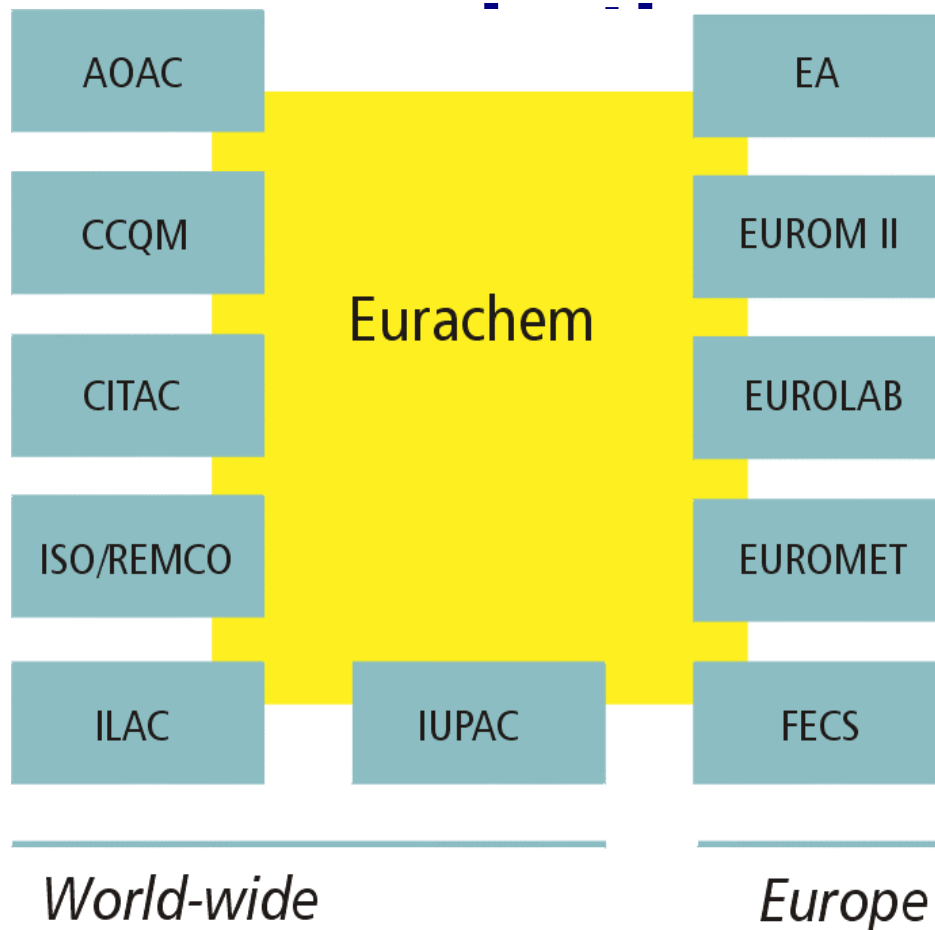


Organisation





Interface with other





Interlaboratory studies

IRMM, supported by EURACHEM: International measurement evaluation programme (IMEP)

completed

<i>IMEP Round</i>	<i>Title</i>	<i>Time Period</i>
IMEP 1	Li in Human Serum	1988
IMEP 2	Cd in Polyethylene	1990-91
IMEP 3	Trace elements in Water	1991-93
IMEP 4	Trace elements in Bovine Serum	1991-95
IMEP 5	Fe in Human Serum	1991-94
IMEP 6	Trace elements in Water	1994-95
IMEP 7	Trace elements in Human Serum	1997-98
IMEP 8	n(¹³ C)/n(¹² C) and n(¹⁸ O)/n(¹⁶ O) in CO ₂	1997-99
IMEP 9	Trace elements in Water	1998-99
IMEP 10	Trace elements in Polyethylene	1997-98
IMEP 11	Trace elements in Car Catalysts	1998-99
IMEP 13	Trace elements in Polyethylene	1999-2000
IMEP 14	Trace elements in sediments	1999-2000

on-going

<i>IMEP Round</i>	<i>Title</i>	<i>Time Period</i>
IMEP 12	Trace elements in Water	2000-2001
IMEP 15	Trace elements in Water	2001
IMEP 16	Lead in Wine	1999-2001
IMEP 17	Trace and Minor Constituents in Serum	2000-2002



Workshops

Comparability & Traceability I (Belgium 1992)

Comparability & Traceability II (The Netherlands 1996)

Education & Training I (France 1991)

Education & Training II (Germany 1998)

Measurement Uncertainty I (Austria 1994)

Measurement Uncertainty II (Germany 1997)

Measurement Uncertainty III (Finland 1999)

Proficiency Testing I (The Netherlands 1993)

Proficiency Testing II (The Netherlands 1995)

Proficiency Testing III (Sweden 2000)

Good Automated Laboratory Practice (Spain 1993)

Quality Assurance in RD (Switzerland 1998)

Reference Materials (Germany 2000)

Sampling (Portugal 2001)

Measurement Traceability in Uncertainty in Analytical Chemistry-Meeting the requirements of ISO/IEC 17025 (Switzerland 2002).

**Quality Assurance guides****available**

- The Fitness for Purpose of Analytical Methods – A Laboratory Guide to Method Validation and Related Topics (1998)
- Harmonised Guidelines for the Use of Recovery Information in Analytical Measurements (1998) (joint with AOAC Int., IUPAC, ISO)
- Quality Assurance for R&D and Non-routine Analysis (1998) (joint with CITAC)
- Selection, Use and Interpretation of Proficiency Testing (PT) Schemes by Laboratories (2000)
- Quantifying Uncertainty in Analytical Measurement
2nd edition (2000) (joint with CITAC)
- Common Position Paper for the Use of Proficiency Testing as a Tool for Accreditation in Testing (2001)

under revision

- Accreditation for Chemical Laboratories (1993)
(joint with CITAC)
- Accreditation for Microbiological Laboratories (1996)
(joint with EA)

in preparation

- Guidance on Traceability



The Idea is Born July 1987

As UK Government Chemist I felt there was a need for a European forum to discuss QA in analytical chemistry, tentatively called EURO-CHEM, in analogy with EUROMET, which I had initiated a few years earlier. However the role envisaged for EUROCHEM was very different. It is interesting to recall that at the time that EUROMET was set up we considered whether or not to include chemical analysis, but there was little or no support for this, in fact there was quite strong opposition in some quarters.

Together with a colleague Dr Don Packham, who was then a deputy director at LGC, we decided on five basic issues that needed to be addressed. We made numerous visits to laboratories and government agencies throughout Europe during the latter part of 1987 and the first half of 1988. By far most of those whom we consulted said that EUROCHEM was an excellent proposal and should be set up as quickly as possible.

Alex Williams *in* Eurachem Newsletter n.º16, Summer 1999



EURACHEM is Created

At Strasbourg in July 1989, it was agreed that the name should be changed to EURACHEM, with the A standing for analytical and that it was now time to declare that EURACHEM had officially come into existence. The first meeting under the new name was held in Frankfurt in November 1989.

Twelve countries (Austria, Belgium, Ireland, FRG, Finland, France, Italy, The Netherlands, Norway, Spain, Sweden, and the UK) and the CEC signed the MoU at the meeting on 26 June 1990 in Frankfurt. At the following meeting on 4 October 1990 in Paris, Denmark and Switzerland signed and Portugal and Luxembourg signed in December. So by the end of 1990 the membership was sixteen countries.

Alex Williams *in* Eurachem Newsletter n.°16, Summer 1999.



Outlook

Emerging issues of the forthcoming century which should be on the agenda of EURACHEM are:

- Accreditation/Certification - With the new standard ISO 17025 and the revised ISO 9000, analytical laboratories will face new challenges and problems. The European market will grow further by integrating Central and Eastern European countries. Consequently, accreditation will be a key topic for laboratories in these countries. A new understanding of metrology in chemistry will shift the accreditation scope for analytical chemistry labs from testing towards calibration.
- Traceability/Measurement uncertainty - are the vehicles of the standards mentioned above and the keys to global comparability and acceptance of measurement results and laboratory services. Considerable consequences for standardisation, method validation, the producers of reference materials, and organisers of proficiency tests are expected.
- Training/Education - Quality in Analytical Chemistry will become a basic element in the chemistry syllabi at universities and institutes of higher technical education. Globalisation will not keep clear of universities, so teaching material must be harmonised and fit for transnational application. The idea of proficiency testing (with a European Quality Award) will conquer the nowadays still impregnable fortresses of higher education.
- R&D - The Internet will become the most important source of information and the most important medium for the exchange of data, knowledge and expert material on Analytical Chemistry and QA. Concerted problem-solving efforts will be virtualised in regional or global networks.

EURACHEM has the experts and the organisational flexibility to respond to these challenges, actively participate in and appropriately contribute to the solutions.