



19th General Assembly of Eurachem



A beautiful sunshine welcomed the participants at the General Assembly in St.Gallen

The event took place at St. Gallen-Switzerland, on 20-24th May 2003 and was preceded by the meeting of the Executive Committee. Both have been kindly hosted and organised by Bruno Wampfler from EMPA and Ernst Halder, the Swiss Eurachem National Delegates.

The attendance list includes the Executive Committee members, National Delegates and guests representing organisations that Eurachem liaises with.

Among the various agenda items, one was faced with particular expectation "Eurachem Strategy: The Future", for which Eurachem has produced a Strategy Statement for the period 2000-2005 (see Newsletter n° 22: Summer/Autumn 2002).

Half way through this 5 year period, a forum discussion triggered by the Executive Committee, took place with the participation of all Eurachem Delegates.

Focusing mostly on national representatives and their concerns, the

discussion addressed the following items:

What do the Delegates feel that has been done?

How has the Action Plan been accomplished?

What is there to be done?

Which are the priorities now for the remaining half term?

It was the general opinion that Eurachem has gained a reputation through production of most appreciated and followed Guides and through the support to highly formative Workshops.

National Delegates have been excellent vehicles for the dissemination of guidance in Quality Issues to the Analytical Laboratories of more or less small dimension and scope of action. At the same time they bring to the forum the picture of the real daily needs and difficulties expressed by the scientific and technical community at local level.

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Eurachem Guides

Traceability in Chemical Measurement (2003)

The Selection and use of Reference Materials (2002)

Guide to Quality in Analytical Chemistry: An Aid to Accreditation (2002)

Accreditation for Microbiological Laboratories (2002)

Selection, Use and Interpretation of Proficiency Testing (PT) Schemes by Laboratories (2000)

Quantifying Uncertainty in Analytical Measurement, 2nd Edition (2000)
(Translations available)

The Fitness for Purpose of Analytical Methods: A Laboratory Guide to Method Validation and Related Topics (1998) (Translations available)

Harmonised Guidelines for the Use of Recovery Information in Analytical Measurements (1998)

Quality Assurance for Research and Development and Non-routine Analysis (1998) (Translations available)

Other Documents

Eurachem Memorandum of Understanding

Eurachem Strategy 2000-2005

Harmonisation of Analytical Practices in Europe - Tasks for Eurachem (1999)

Cooperation between Laboratories and Accreditation Bodies - the PLG (2000)

EEE - Common Position Paper for the Use of Proficiency Testing as a Tool for Accreditation in Testing (2001)

Eurachem overhead transparencies for presentations

Information leaflet for lab customers concerning the quality of chemical analyses (2000) (Translations available)

Note: All documents available for download at the Eurachem website

Ricardo Bettencourt Silva
Eurachem Webmaster

Events 2004

METCHEM - Metrology in Chemistry Annual Meeting
www.bnm.fr/metchem
NCM, Sofia (Bulgaria)
10-13 February, 2004

EUROLAB General Assembly
www.eurolab.org
Lisbon (Portugal)
18-19 March, 2004

Analytika
Munich (Germany)
11-14 May, 2004

Eurachem General Assembly
Eurachem Workshop (see right box)
www.eurachem.ul.pt
Prague (Czech Republic)
26-29 May, 2004

EUROMET General Assembly
www.euromet.org
Bled (Slovenia)
2-4 June, 2004

EA General Assembly
www.european-accreditation.org
Vilnius (Lithuania)
8-9 June, 2004

Euroanalysis XIII
www.euroanalysis13.com
Salamanca (Spain)
5-10 September, 2004

CAC 2004 - 9th Chemometrics in Analytical Chemistry Conference
www.dequim.ist.utl.pt/CAC2004
Lisbon (Portugal)
20-23 September, 2004



Guide to Quality in Analytical Chemistry: An Aid to Accreditation (2002)
Price: 15 € + postage

Contact Eurachem & CITAC Secretariats

Eurachem 2004 WORKSHOP

TEACHING QUALITY AND METROLOGY IN CHEMISTRY
Prague, Czech Republic,
May 24-25, 2004
on the occasion of the
Eurachem Annual Meeting in Prague

SCOPE

The aim of the workshop is bringing together academic analytical chemistry teachers and clients of analytical results, assisting them to set up appropriate quality and MiC curricula, and helping them with a proper exchange of educational course materials.

ORGANISATION

The Organising Committee consists of members of the Eurachem Czech Republic. The management of the workshop and annual meeting is secured by ICARIS Ltd., Conference Management.

MAIN TOPICS

- MiC in curricula on analytical chemistry
- Quality control and quality assurance in curricula
- Laboratory exercises on metrology and quality
- Training laboratory staff
- Co-operation among the European universities
- Training clients in laboratory results

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UNIPETROL

Editorial

In the last century we have seen an exponential growth in Physical Metrology - in Mass metrology, although the SI unit is still defined by the same mass prototype, the development of more accurate instruments made it possible to improve its measurement by one order of magnitude from the beginning of the century to its end.

For Length metrology, the existing Meter prototype held at the BIPM has been substituted by realizations of the unit based on physical constants, and the equipments used to realize it developed in such a way that enabled to define the unit with an uncertainty 1000 times better at the end of the century than in its beginning.

In Electrical metrology, a similar experience happened, and the realization of the voltage has developed throughout the century, making it possible also to improve its uncertainty by a factor of 1000.

Time measurements held the greatest progress in the uncertainty of the realization of the unit, which improved by a factor of 10000! Thus Metrology turned first to Physics, to respond to the society needs in industrial and economic developments, and now begins to turn to Life Sciences, Chemistry and Biology, to respond to the present society needs of environmental protection, human health and quality of life.

So after the last issue being focused in several accreditation issues, the present edition of the Newsletter focus on the interactions between Chemistry and Metrology, with the aim to stimulate chemists to approach metrology with more enthusiasm.

Only by strengthening the cooperation between National Metrology Institutes, National Reference Laboratories, Academia and Industry will Metrology in Chemistry be able to achieve in this century the improvements that are necessary to make our life safer, healthier and enjoyable.

Leopoldo Cortez (Editor)

EUROMET - an Eurachem partner for the laboratory community

EUROMET is a cooperative voluntary organisation between the national metrology institutes (NMI's) in the EU including the European Commission, EFTA and EU Accession States (other European states may apply for membership). The organisation currently has 27 participating member countries

The objective of EUROMET is to promote the coordination of metrological activities and services with the purpose of achieving higher efficiency.

It's foundation goes back to the Western European Metrology Club (WEMC) in 1974, composed of NMI Directors, which turned into EUROMET in 1988.

Before this date, the WEMC launched from one of it's Working Groups, the Western European Calibration Cooperation (WECC), that become later on the European cooperation for the Accreditation of Laboratories (EAL) and finally the present European cooperation for Accreditation (EA).

The WEMC also launched another branch, the Western European Legal Metrology Cooperation (WELMEC) in 1990.

It has a Chair, elected by the General Assembly, and an Executive Committee to manage the current operation, and several Technical Committees:

- Acoustics, Ultrasound and Vibrations;
- Electricity and Magnetism;
- Flow;
- Ionising Radiation;
- Length;
- Mass and related quantities;
- Photometry and Radiometry;
- Thermometry;
- Time and Frequency;
- INTMET (Interdisciplinary Metrology), including the QS-Forum, where all NMIs present and discuss their own ISO 17025 implementation;
- METCHEM, a joint EUROMET-Eurachem committee on Metrology in Chemistry.

Each Technical Committee is convened by a chairperson, and often different Sub-Committees exist within each Committee.

The relevant activities are registered as projects, which generally are:

- studies, aimed at developing measurement capabilities;
- comparisons, intended to assess the comparability of measurement capabilities of different partners.

Adapted by the Editor from EUROMET website (www.euromet.org)



Education and Training Working Group

The working group education and training met at the St. Gallen meeting and decided there to have the next assembly at the Prague meeting 2004 in connection with the general assembly. The working groups QA at Universities and E & T (Education and Training) will be united again and will meet the first time together at the Prague meeting. There will also be a workshop in Prague organized by Miloslav Suchanek.

Due to lack of participants a planned workshop in Siegen was canceled unfortunately.

Some members of the group will continue the work on the glossary of analytical terms (GAT) in close connection with Paul de Bièvre.

There is also a new book available which uses Eurachem and some other material: Quality Assurance in Analytical Chemistry - Training and Teaching.

This book contains a CD with Powerpoint presentations to cover the different topics in quality assurance.

It is available at Springer Verlag.

As chairman I would like to ask all member countries to renew or inform the chairman about prospective or still active members in the working group. It is very difficult to keep contact if emails or addresses of members are not listed probably.

B. Wenklawiak
Convenor of E & T Working Group

Eurachem / Eurolab New Working Group 'Uncertainty from Sampling'

The Eurachem Executive committee, at its meeting in Siegen approved the terms of reference for a joint Eurachem / Eurolab Sampling Uncertainty Working Group. The main objective of the WG is to produce a Guide on the "Estimation of measurement uncertainty arising from sampling". The guide will not aim to modify existing sampling protocols, but to explain how the measurement uncertainty which they generate, can be estimated.

Professor Mike Ramsey has been invited to chair this working group, and anyone interested in joining this WG should contact him: M.H.Ramsey@sussex.ac.uk

Alex Williams
Eurachem Delegate

A New joint Working Group on Qualitative Analysis and testing

Quantitative analysis is an important part of the work of many analysts. Examples include identification of a material, confirmation of identity, traditional 'spot tests', or spectroscopic checks for presence of a material. Many analytical reports from quantitative analysis, too, are actually reported in terms of a binary (yes/no) response; is the substance over a specified limit, or not? Decisions about the acceptability of a product, compliance with legislation, prosecution or clinical diagnosis can depend on the results, so it is, as ever, important to be sure about their reliability.

While uncertainties associated with quantitative measurement results have been the subject of considerable activity since the publication of the ISO Guide to the expression of uncertainties in measurement, the issue of uncertainties in qualitative testing and analysis has received less attention. With the publication of ISO 17025:1999, however, interest in uncertainties in testing operations has increased. The problems of establishing uncertainty associated with qualitative tests, such as 'pass/fail', identity and comparative identity tests have accordingly become more important, particularly for accredited laboratories. A trend towards biological testing has

also put pressure on traditional analytical laboratories developing new capabilities.

At the Eurachem/CITAC workshop "Measurement uncertainty and traceability: meeting the requirements of ISO/IEC 17025" in Lucerne, June 2002, a workshop session was held on the topic of uncertainty in qualitative analysis and testing. That workshop recommended the formation of a new Eurachem working group to provide guidance on the topic, based on the discussion paper presented at that meeting. The group, to be known as the "Qualitative Analysis Working Group" met first in May 2003, and again in November.

The working group will be working on guidance for the assessment and expression of uncertainty in qualitative analysis and testing. The aim is to provide guidance on issues such as:

- the effort required to obtain sufficiently reliable false response rates (the most common basis for assessing the reliability of qualitative tests);
- methods of determining false response rates, including experimental methods, methods based on databases, and prediction

of false response rates from the performance of quantitative methods used in the testing process;

- practical methods of expressing the performance of methods, including guidance on the wide range of different terminology in use.

The working group will be operating formally as a working group of Eurachem. It will, however, cooperate with other organisations as appropriate, and has already invited participation from CITAC; we were pleased to welcome several CITAC representatives at the November meeting. We believe it is particularly important, too, to find representatives of different measurement sectors; for example, specific terminology and practice in qualitative analysis is well-established in clinical chemistry. We are therefore keen to involve other groups to make sure that we develop widely acceptable guidance, and welcome interest from within and outside Eurachem.

Steve Ellison
Convenor of Eurachem/CITAC Qualitative Analysis Working Group.

Report on the General Conference on Weights and Measures (CGPM) - October 2002

The Meter Convention is a Treaty established by 13 Member States in 1875, which established the General Conference on Weights and Measures (CGPM) (Articles 3 and 7) with the task of controlling the activities of the Bureau International des Poids et Mesures (BIPM) - its managing agency, and "...to discuss and initiate measures necessary for the propagation and improvement of the Metric System, and to sanction new fundamental metrological measurements and initiatives..."

Composed by delegates of all the signing members, its creation was the fundamental pillar for the creation of the science of Measurement as an independent field of Physics.

The evolution of Metrology since then has been also based on the decisions of these conferences, held every 4 years (6 years in the old days). Primarily related with physical measurements, it spread in the last years to new areas like chemistry, clinical chemistry and biochemistry.

The International System of Units (SI), the traceability and uncertainty of measurements and the CIPM Mutual Recognition Arrangement (CIPM-MRA) are the international backbones of metrology.

The international activities for Metrology in Chemistry are primarily coordinated by the Consultative Committee for Amount of Substance (CCQM) and the Consultative Committee for Units (CCU).

The 22nd CGPM was held in Paris, 12-17 October 2003 with delegations from 54 Governments. It was a very lively and important conference, with several resolutions that reflect the actual importance and impact of metrology in a global economy and welfare society.

The delegates adopted twelve resolutions:

- 1 Links with other organizations
- 2 Metrology and trade
- 3 On the coordination of the initiatives to support the implementation of metrology, accreditation, and standardization in developing countries and economies
- 4 Value and benefits of the Metre Convention for Member States and for Associates of the General Conference
- 5 Report on evolving needs for metrology in trade, industry and society, and the role of the International Bureau of Weights and Measures
- 6 On the importance of the CIPM Mutual Recognition Arrangement
- 7 Involvement of national metrology institutes in the complete range of work of the Metre Convention
- 8 Revision of the mise en pratique of the definition of the metre
- 9 Requirements for cross-border transport of measurement standards, metrological equipment and reference materials
- 10 Symbol for the decimal marker
- 11 Relationship between National Metrology Institutes and nationally recognized Accreditation Bodies
- 12 Dotation of the BIPM for the years 2005 to 2008

Details of the resolutions can be found on

<http://www.bipm.org/en/convention/resolutions.html>

Of special interest to chemists was the discussion of the BIPM Program.

The BIPM Program, which establishes the priorities for work programmes between the several science fields developed at BIPM, consolidated the gradual interest and importance that metrology in chemistry is taking among the metrologists.

It is also worth to mention that during the CGPM pause day (3rd day), the annual meeting of Directors of National Metrology Institutes was held at the BIPM site, in Sèvres, on the surroundings of Paris.

On this occasion visits to the different BIPM sections and laboratories are organized, and discussions were held with BIPM Heads of Sections on the current and future developments of the different science fields.

A final word to thank and acknowledge the work of Mr Terry Quinn, BIPM Director, who will retire at the end of 2003 after decades of reputed dedication to BIPM, and to salute Mr Andrew Wallard, who will become the new Director in 2004.

*Carlos Nieto de Castro
Member of the Executive Committee of
EUROMET*



NMI Directors on the gardens of the BIPM site.

19th General Assembly of Eurachem

(Continued from page 1)

They are often addressed with questions on "how to calculate uncertainties".

Translations of Guides, Courses and Workshops for quality managers have been organised. Universities have been driven into putting forward Courses and

and global levels,

- Ensure that Guides and Guidelines percolate through Universities, Polytechnics and Colleges,
- Bring forward materials for education; insist in education and training actions,

- Use the Eurachem Newsletter as a privileged means of communication,
- Explore and enhance the possibilities of the Eurachem website (www.eurachem.ul.pt)



Projects, producing and disseminating educational material.

Within Eurachem when we feel that there is a gap, we try to fill it by writing a guide - and the Working Groups have been remarkable in corresponding to that. Future activities of the Working Groups are planned according to new emerging fields, e.g. Biotechnology and Nanotechnology.

New Working Groups are being formed to address pertaining, not yet formally addressed issues such as Sampling and Computing.

While there are and there will always be something new to be done and specific topics to be addressed, some major guidelines are envisaged and ask for further continuous investment:

- Bring Guides and Guidelines to the knowledge of our community,
- Continue to supply guidance to the Analytical Laboratory and to the Analytical Community while progressing towards the Scientific and Technical Community at large,
- Search for new European Projects,
- Labs want to meet accreditation requirements; that is a common objective of the Laboratories and the Accreditors,
- Update the ideas,
- Unify approaches at the 4Es: EA, Eurachem, EUROLAB and Euromet,
- Harmonise approaches with international organisations dealing with Quality,
- Liaise with other professional groups, such as Food, Medicine, Environment, at national, regional

- Equipment producers and manufacturers should produce clear and satisfactory uncertainty statements,
- Certified Reference Materials with assigned uncertainty values are required for more and more applications,
- Overcome the common "black box instrumental approach",
- Publish scientific and technical papers, as well as Eurachem pages at journals of wide circulation such as ACQUAL and Chemistry International,
- Produce leaflets that may help disseminate concepts and Quality messages,

Last but not least, worth of mention in itself, is the pleasant location where the event took place, St. Gallen.

The History and the links with other parts of Europe, namely Ireland, remind us of grand cultural and technical achievements that have dignified Humankind.

A lot has been done,
A lot is to be done!

Maria Filomena Camões
Eurachem Chair



This page shows different aspects of the General Assembly and its surroundings

Future of Metrology in Chemistry

Good measurements are those that give results of acceptable metrological qualities to solve those problems that led to the execution of those measurements.

Metrology thus is centered around all issues that help to qualify the result a measurement as a suitable one. Apart from the identification of a suitable measurand itself and the timeliness of the availability of a result, the associated measurement uncertainty is probably the most relevant characteristic.

It is the one that helps to narrow down the grey area of poor decisions around cut-off values or production quality criteria.

A natural purpose of metrology in chemistry is thus the identification and fostering of excellence in chemical measurement science. To the degree

that this is possible we are in a position to offer measurement capability both in terms of volume (number of sample) and quality (small measurement uncertainty).

Chemical measurements at its best require excellent staffing and infrastructure. Consequently, it is far from trivial to identify those centers that are "best" for a certain type of measurement. For the identification of these institutions often done by intercomparison exercises and for the updating of this information we need to build and maintain networks of laboratories interested in similar challenges.

For these laboratories to work together properly and frictionless it is required to develop a set of coherent standards: material reference standards,

nomenclature and best practice standards. To disseminate measurement capability we must teach and educate and train, and also transfer our standards to everybody who needs them.

The future of metrology in chemistry will thus be the identification of excellence, the building and maintaining of networks - not the least successful of them being Eurachem -, the common development of standards of all types and training for further regionalisation and distribution of measurement capabilities.

*Wolfhard Wegscheider
Eurachem Vice-Chair*

VIM revision

The International Vocabulary for Metrology, (known as 'VIM') is published by ISO, with the collaboration of several international organizations: ILAC (International Laboratory Accreditation Cooperation), IUPAC (International Union for Pure and Applied Chemistry), IUPAP (International Union for Pure and Applied Physics), IFCC (International Federation for Clinical Chemistry), OIML (Organisation Internationale de Metrologie Legale) and BIPM (Bureau International des Poids et Mesures).

VIM ultimately defines some of the terms now familiar in many testing and analytical laboratories, like for example:

- measurement uncertainty,
- traceability,
- calibration,
- accuracy,
- error,
- repeatability and reproducibility,
- reference material.

Since VIM is being increasingly referred in other important standards (e.g. ISO 17025, ISO GUM), its contents began to concern a wider community than the original calibration and metrology laboratories.

The current version was approved in 1995, and reflects already the incorporation of some concepts of metrology in chemistry in the pre-existing physics' metrology vocabulary.

However, there are some differences between some definitions existing in other ISO standards (e.g. ISO 3534), that might hamper the harmonization and use of ISO standards, since they are not fully compatible between each other. So part of the revision work is devoted to achieve better harmonization.

Other expected changes are a greater focus on metrology in chemistry terminology, that would only reflect the current trend of metrology today. Thus, new terms are being discussed, e.g.,

- commutability;
- target uncertainty;
- verification.

The revision of the current edition started already some years ago, and the first draft will be available for comments during 2004.

Leopoldo Cortez, based on contributions made by Paul de Bièvre

ISO/IEC 17025 revision

When ISO/IEC 17025 was issued in 1999, it intended to on one hand merge the existing accreditation standards EN 45001 and ISO Guide 25, and on the other hand align the quality system requirements with ISO 9001 (1994).

However, since a substantially revised edition of ISO 9001 was issued in 2000, it became clear that ISO 17025 needed a further alignment.

So the work within ISO/CASCO started and Amendment 1 was produced and is now for voting since November 2003 until April 2004.

Only minor adjustments (e.g. client becomes customer; quality system becomes management system) were made, and as a consequence the 'process approach' of ISO 9001:2000 was not implemented - this resulted in the Amendment explicitly stating that compliance to ISO 17025 does not imply full compliance to ISO 9001.

This is a drawback for the laboratories, since additional assessments by certification bodies may be needed to state compliance to ISO 9001, as required by some ISO 9001 companies.

Leopoldo Cortez, based on contributions made by Pavel Klenovski

METCHEM

A personal view of the new Chairman on the cooperation between Euromet and Eurachem

Entering the world of metrology

Before joining the world of metrology at BNM-LNE and then taking over the Chair of the METCHEM Technical Committee a few months ago, I have been working for twenty years as a chemical scientist in the industry. I have been involved in applied R&D in various industrial sectors in different continents.

And throughout this time, I have never been heightened in metrology principles. These industrial experiences have carved out the personal idea that chemistry doesn't amount solely to pollution issues, and analytical chemistry to determination of hazardous compounds. Chemistry is a rigorous science which underpins the manufacturing of plastics, paper, textile, steel, paintings and many other products.

In my view, the major role of the METCHEM TC Chair is not to define and enact general orientations but to identify different options and examine scenarios for increasing the research collaboration between the NMIs (National Metrological Institutes) and consolidate the analytical infrastructure in Europe.

We have to keep in mind that the main objective of our metrological work is the mutual acceptance of analytical measurements within Europe and outside.

After two years spent in the world of metrology, and after fruitful discussions with some of the senior experts of the field, the main features of the European research area in chemistry are beginning to take shape:

- Chemical metrology currently plays a fundamental and concrete role in the monitoring of environmental area, in food safety and consumer protection, and health care.
- Industry, as a whole, is never enthusiastic to disclose information

regarding its process and therefore is not willing to share or to discuss specific aspects of measurement and testing. Nevertheless, metrological problems are real and need to be addressed for a fully harmonization of measurements. In many cases, a metrology demand exists. An excellent demonstration has been given recently in the Metrotrade project (EU Project: Metrological support to international trade) with an example of optical measurement in the paper industry. It was observed significant difference amongst trading partners in standard methods in diffuse optical reflectance, that is to say the brightness of the pulp, obviously a fundamental quality parameter of the product. Because NMIs are used to working in cooperative studies, two NMIs have agreed on a common basis and have succeeded in matching the absolute reflectance factor scales and eventually in removing the technical barrier to trade.

- It has been demonstrated that the implementation of metrology principles in fields laboratories, for instance for water analysis, improves the traceability and the reliability of chemical analysis. Other benefits of a metrological approach can also be underlined for Proficiency Testing Schemes: the reference value can be obtained by carrying out primary methods, the uncertainty of a measurement can be established through the review of uncertainty sources.

About the METCHEM structure

The current structure of METCHEM consists of four experts groups (sub-committees) to mirror the CCQM (Comité Consultatif pour la Quantité de Matière), which leads the chemical metrology activities on a world wide basis: gas, electrochemistry, inorganic and organic chemistry.

During the last few years, a large part of the activities was dedicated to the submission of CMCs (Calibration Measurements Capabilities). Experts of each group have also been appointed to review CMCs lines from

other metrological regions (RMOs).

The efficiency of the current METCHEM structure is questionable since European NMIs are actively participating, sometimes as coordinators, in CCQM comparisons.

It could be considered to set up ad hoc working groups which may focus on specific issues or thematic areas (for instance food analysis, metals speciation, purity of compounds, etc.). But it seems that real transversal activities between working groups are not so frequent, and it probably would be more efficient to organize seminars (and invite experts from different sub-committees) on particular topics. Nevertheless, because the number of intercomparisons undertaken within Euromet is rather low, the question of the METCHEM structure has to be addressed at short term.

It is also important to remind that during the last few years a deep and fundamental scientific work has been carried out by the working groups and it is therefore essential to maintain and promote this scientific cooperative spirit. METCHEM sub-committees are with no doubt the right forums for scientific discussions.

The focal point

As it is known, just 4 years ago, representatives of Eurachem have joined the former group Amount of Substance of Euromet - METCHEM is therefore a joint committee between Euromet and Eurachem.

The work which has been carried out during the last few years in METCHEM, under the impulsion of the past TC Chair Eva Déak, has laid the foundations for an integrated area in chemistry.

But it is necessary to intensify the current cooperation between Euromet and Eurachem. The METCHEM structure is a valuable convergent point between metrology and analytical chemistry where the two organisations can communicate on a very fundamental and scientific level.

The group needs to present an effective

(Continues next page)

METCHEM - *continued from previous page*

common, transparent and end-users oriented approach (industry, field laboratories, customers, public research, authorities, etc.) to become a more important part of the European Research Area.

Euromet will be therefore able to ensure adequate supply of metrology capabilities to users particularly through the development of traceable measurements and reference materials (training and dissemination of metrology principles, development of validated procedures to establish traceability of measurements, certification of reference materials).

Eurachem representative have to play a key role as a go-between with the field, to gather needs of end-users and then transfer research results and metrology capabilities.

To increase collaboration between members NMIs within Euromet, the current METCHEM group must take into account the local needs, specificities and current status of NMIs, and particularly in making every effort towards the new EU accessing countries in order to efficiently help improving the suitable capabilities of these NMIs for this new situation.

There is a clear will in Euromet to concentrate metrological research on metrology in chemistry.

The Joint Committee with Eurachem inside METCHEM can be considered as the perfect structure to identify and prioritise research trends, to lead the activities and finally to transfer capabilities of NMIs to the field.

Philippe Charlet
METCHEM convenor

IAGRM working group creation

In the mid 90s, in order to avoid duplication of effort in the area of Reference Materials (RMs) in Europe, the European laboratory and accreditation organisations Eurolab, Eurachem, and EA amalgamated their RM activities and formed a common RM working group (commonly known as EEE-RM).

Euromet joined several years ago and the group became known as 4E-RM.

ILAC was associated with the group since its inception and has actively participated in its work. ISO REMCO and other interested bodies have also attended the 4E-RM meetings.

At the September 2002 meeting of the working group a resolution was passed to truly internationalise the work of the group.

As a result, the creation of an international (and not only European) RM working group was discussed in a meeting in Dublin between several interested parties, and it was accepted to form the International Advisory Group on Reference Materials, IAGRM.

The planned membership reflects the internationalisation and broadening of scope, and includes:

- Accreditation bodies (e.g. ILAC, EA);
- Standardization bodies (e.g. ISO-

REMCO);

- Metrology organizations (e.g. CCQM, Euromet);
- Users, producers, regulators and professional organizations (e.g. IAEA, IUPAC, IRMM, Codex, WHO);
- Laboratory associations (e.g. Eurachem, Eurolab).

The work programme intends to cover many facets of the production, quality and use of RMs and the advisory group will therefore require access to a diverse range of expertise.

Ed de Leer
IAGRM

Proficiency Testing Mirror Group

The role of the Proficiency Testing Mirror Group (PTMG) has been discussed in past meetings and stated as covering all aspects of PT within the analytical chemistry community, such as:

- to improve the organisation of proficiency testing in Europe;
- to promote best practice in proficiency testing;
- to provide a forum for organisers and users of proficiency testing schemes on issues affecting the practice of proficiency testing;
- to provide input to international activity related to proficiency testing;
- to communicate issues surrounding PT to national and international

networks in various sectors; Additionally, the PTMG provides input, with respect to the chemical measurement community, to the EEE-PT Working Group. So, the remit of the PTMG is much wider - the EEE-PT WG is concerned with proficiency testing in accreditation procedures whilst the role of PTMG covers all aspects of PT as stated above.

The PTMG provides an expert body to the EURACHEM Executive Committee on proficiency testing. The Group's role is essential in that, as well as providing a two-way link between the Executive and the EEE-PT WG, it provides a EURACHEM focus on all

issues and activities concerned with proficiency testing. As such the Group is much more than simply a Mirror Group.

In addition to starting to plan the 5th International PT workshop, the PTMG has just started two new activities:

- development of an information leaflet on 'what is PT' aimed at PT participants and their customers;
- production of a bibliography of PT documents for publication on the EPTIS homepage.

Brian Brookman
PTMG Convenor

VIRM project

THE meeting place . . .
for all Reference Material users
and producers

On 1 January 2003 a consortium of 22 partners, funded by the European Community within the framework of the 5th Research Framework Programme, started a project to set up a "European Virtual Institute for Reference Materials". VIRM will become a non-profit, non governmental organisation.

The objective of the European Virtual Institute for Reference Materials (VIRM) is to offer The meeting place for the European Reference Material community. It actively involves experts from all over Europe, covering R+D organisations, governmental and private laboratories, RM producers and industry.

The main objective is to facilitate dissemination of information and advice, know-how and help on Reference Materials and related fields.

The VIRM is to evolve to an indispensable tool in Quality Control for analytical measurements.

The innovative character of VIRM consists in its virtual structure, combining a minimal logistic infrastructure with the maximal effectiveness of a European-wide ICT network. The scope of VIRM covers all European countries.

VIRM will offer through its website, a broad range of useful tools in the field of Reference Materials and Quality Control. Registered members will have unlimited access to the common use features, with regular newsletters and information for both, users and producers of RM's. These will include, for example:

- searchable database (e.g. 'Find a RM')
- a library of related publications, a glossary;
- National Contact Points in each European country, to overcome

language barriers

- an electronic Newsletter.

Registration allows access to all VIRM services, newsletter subscription, use of databases, download facilities, etc. It will be free of cost during the initial phase of the project (2003-2004). View and experience the website www.VIRM.net where you can apply directly, on-line, by filling in the application form. For any question or comments contact our international helpdesk at: info@VIRM.net

The VIRM Project is supported by the European Commission 5FWP Growth Contract: G7RT-CT-2002-05104

Kees Kramer
Project Coordinator



Other EU GROWTH 5th Framework Programme projects related to Metrology and Chemistry



MetroTrade
(www.metrotrade.dk) -
Metrological support to
international trade.

Its objectives are to
remove existing and
future impediments to international
trade caused by lack of knowledge of
the degree of equivalence of national
measurement capability, by the
absence of a framework for the mutual
acceptance of calibration certificates,
and by de facto requirements to repeat
traceable calibrations.



TrainMiC (www.trainmic.org) - It is a
EC funded training platform to foster
advanced professional training on
generic issues related to the
measurement science in chemical
measurements (Metrology in
Chemistry).

The platform intends to be open to all
organisations and people agreeing to


the basic principles of the VIM and the
GUM. TrainMiC offers support in the
form of training courses, support to
organising training courses by
providing material, lectures etc., and by
direct financial support.



QUA-NAS (www.univ-pau.fr/quanas) - The
main purpose of this
Network is to create an
extensive forum for the
improvement of the

infrastructure for metrology in
chemistry in the New Associated States
(NAS) by a transfer of knowledge
between the EU and the NAS countries.
The emphasis of the network will be
given to three main sectors, namely
environmental, food and clinical.
Dissemination across different user
communities will guarantee that these
concepts are firmly embedded.
Share and disseminate best practice, in
the context of traceability and
uncertainty of chemical measurements,
inter-laboratory comparisons.

COEPT (www.eptis.bam.de/coept)
Current state (February 2004):
Compilation of the very encouraging
results of the data analysis ("first
intercomparison") into a report for
submission to the European
Commission - this publication will also
be made available on the website;
Preparing for the field trial ("second
intercomparison") that will take place
from February to October 2004, thus
purchasing and distributing reference
materials for this study.

VICIM
(www.vicim.urv.es) The 
Virtual Institute for
Chemometrics and Industrial Metrology

IQUALAN-NAS - Impact of qualitative
chemical analysis in the 6 Framework
Programme: networking with NAS.

Information gathered by the
Editor based on the EU
website www.cordis.lu and
projects' websites





The Metropolis network

"Growth" programme Contract n° G6RT-CT-2002-05095)

Metropolis is a multidisciplinary network funded under the European Commission's 5th Framework Programme for Research and Development (FP), with the objective of harmonising and improving measurement practices and monitoring systems in the environmental field across Europe.

Metropolis stems from the growing need for global monitoring systems that are able to provide reliable information at EU level about the state of our environment and current trends, all of which is essential to ensure effective implementation of current environmental policies and to help in shaping future legislation.

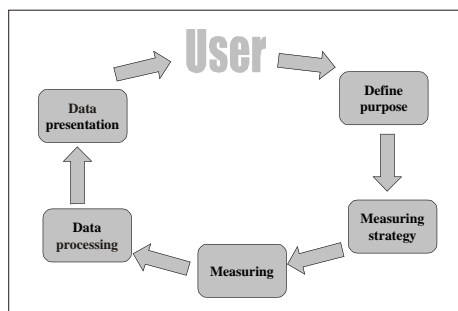
In this context, the role of measurements is indeed a fundamental one. That helps to explain why so many programmes and initiatives are being carried out in different specific fields to improve co-ordination of the activities of and the communication between the various parties involved across Europe (policy-makers, researchers, practitioners in field laboratories, standardisation bodies, etc.).

The Metropolis action is intended to complement the work of those existing initiatives and programmes. It does this by taking horizontal or transverse approach to the problems encountered in environmental measurements and monitoring systems. It bridges the various sectorial approaches in order to:

- convey to decision-makers a consistent message which reflects the many sectorial interests
- prepare the ground for further integration of research expertise and resources in environmental monitoring across Europe.

Metropolis brings together experts involved in the complex process that we call the "measurement cycle" in the

many countries and sectors concerned (i.e. experts from different environmental fields, but also experts from different specialities, such as chemists, biologists, geologists and experts in risk assessment) and explores the main areas of concern throughout the "measurement cycle".



The project, which started in July 2002, will run for two years. The work-load is split into 7 Work Packages, each one of which deals with a different aspect of the "measurement cycle", starting from the definition of the representative measurements, collection of the data, their harmonisation and evaluation of uncertainties to the interpretation and presentation of the results to policy-makers.

Metropolis has so far opened 12 internet discussion fora on various items of environmental metrology, including:

- the definition and use of standards for the certification of instruments used in environmental analysis;
- the revision of the VIM (ISO vocabulary for metrology);
- a list of FAQs (Frequently Asked Questions) on ISO 17025;
- a survey on the status of PTS (Proficiency Testing Schemes) in the EU in the environmental field, etc.

The current discussion fora are accessible at:

[Http://www.metropolis-network.net/forum/list.php](http://www.metropolis-network.net/forum/list.php)
New fora will be opened soon.

A first workshop on the "Techniques for data presentation and data distribution" was organised by NILU in September.

Another one will be held on 18-19 December in Rome on the "development of the Metropolis database on bio-monitoring and

chemical analytical methods and future collaborative research needed within the 6th FP".

In the area of QA/ QC, Metropolis will produce:

- a critical review of significant national and / or EU documents and standards for the calculation of uncertainty, with recommendations on new guidance material, at EU level
- a study on the status of PTS (Proficiency Testing Schemes) in the EU in the environmental field, as a follow-up to the EPTIS database
- a list of FAQs (Frequently Asked Questions) to help testing laboratories to work in accordance with ISO 17025
- a guide on the use of Reference Materials in the environmental field.

All final documents will be available on the Metropolis website (<http://www.metropolis-network.net/>) in June 2004, which is when the project ends. But, in line with its ultimate objectives, Metropolis would like to encourage metrology experts to become involved in developing these documents, by expressing their critical opinions and making proposals via the internet discussion fora.

Horizontal co-operation of this sort will be crucial for the development of views that truly represent all the various interests and will help to provide the basis for long-term opportunities for concerted actions in the field of environmental monitoring as a follow-up to the activities of Metropolis.

Metropolis can be contacted via the website quoted above, by e-mail to Valeria Dulio (Metropolis co-ordinator), telephone n° +33 3 44 55 66 47.



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METCHEM Metrology in
Chemistry - Eurachem
/Euromet

Permanent Liaison Group - EA
/Eurolab /Eurachem

Proficiency Testing Eurachem
Mirror Group

Proficiency Testing - EA
/Eurolab /Eurachem

Reference Materials - IAGRM -
ILAC /BIPM / Eurolab
/Eurachem

Eurachem has interfaces with
AOAC, CCQM, CITAC, EA,
Eurolab, EUROM II, Euromet,
FECS, ILAC, ISO/REMCO and
IUPAC.

A complete list of all contact
points for both Eurachem
activities and partner/liaison
organisations can be found on
the Eurachem website

<http://www.eurachem.ul.pt>

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