



# Eurachem

**A focus for analytical chemistry in Europe**

## News

Issue 33 Autumn 2015

*In this Issue:*

### Words from the Chair....

#### Helping to see the light shine

When Eurachem was first created there was a widespread feeling that metrology (from its very inception) was in the hands of physicists and chemistry somehow did not fit in these surroundings. It is not by chance that „the mole“ was last in being adopted as a base unit, but it was another 2+ decades before a Consultative Committee was created to have a closer look into the actual use of the mole in chemical measurement. It was, of course, soon realized that the mole by far did not have the role of a central, let alone unique unit for expressing results from chemistry and biology.

Diversity, purity and stability all were obstacles in establishing a pyramidal system for the dissemination of standards in chemistry and biology. It was through the introduction of the CIPM MRA (Comite international des poids et mesures, multilateral recognition arrangement) that a whole

new mode of operation was invented for signatories of the MRA (a) to mutually recognize the degree of equivalence of national measurement standards and (b) to recognize the validity of calibration and measurement certificates issued by the NMIs defined by the so-called CMC (calibration and measurement capability). The „objective footing“ is based on three elements: results from key comparison, a quality management system and supplementary comparisons.

For maximum transparency results of key comparisons and mutually recognized claims in certificates are available in an openly accessible data base (<http://kcdb.bipm.org>). Two facts are noteworthy in this respect: there is no obvious connection established in the CIPM MRA between these two issues (equivalence and recognition) and the actual use of the data base where the majority of users („visitors“) are the NMIs themselves. For the connection between equivalence of standards and recognition of certificates it must be postulated that

the relationship between these two is established silently (and consequently not so tremendously transparent).

While the concept is regularly advanced and updated a major development took place on a sideline in 2007 when CIPM accepted that CMCs may just as well be produced by accredited laboratories. This is all laid down in a working document of a joint BIPM/ILAC working group by defining CMC as „...a calibration and measurement capability available to customers under normal conditions: (a) as published in the BIPM key comparison database (KCDB) of the CIPM MRA; or (b) as described in the laboratory's scope of accreditation granted by a signatory to the ILAC Arrangement.“ Of course, as the latter are not available in a common

database format our access to them is much more restricted in practice. But, I urge all readers to regularly explore the CMCs in the CIPM MRA data base relevant to them as the promotion of this data base is a good way „to transport the light“ to wherever necessary.

*Wolfhard Wegscheider*



Illustration by Douglas Hasbun, taken from the Traceability Leaflet, (for more information on Eurachem leaflets see page 4)

# Report from the General Assembly 2015



Foto: Agnieszka Zorawinska

Eurachem held their 31<sup>st</sup> GA on 28 May 2015 at the University of Warsaw, Ochota Campus. Ewa Bulska and Andrzej Brzyski were most gracious hosts to 35 Eurachem delegates from 21 countries. 5 seats on the Executive Committee became vacant. Ewa Bulska from Poland, Marina Patriarca from Italy, Isabelle Vercruysse from Belgium, Ricardo Bettencourt da Silva from Portugal and Kyriacos Tsimilis from Cyprus were elected and will serve until 2018. Anna Liisa Pikkarainen was appointed as auditor for 2015 – 2016. Alessandra Rachetti was appointed Treasurer for 2015 – 2016.

## GUIDES:

The publication of the new Eurachem Guide “Setting and Use of the Target Uncertainty in Chemical Measurement” was unanimously approved by the GA. The driving force behind the drafting of the guide was Ricardo Bettencourt da Silva. He was commended for his persistence and effort.

Two Eurachem /CITAC guides are currently under review. “Quality Assurance for Research and Development and Non-Routine Analysis” under the supervision of Eugenia Eftimie Totu, and “Guide to Quality in Analytical Measurements, an Aid to Accreditation”, where the group is led by Vicki Barwick. A decision whether the “Guide on

Selection and Use of Reference Materials” is due for an overhaul has been discussed and input from the GA is greatly appreciated. A “Template for Eurachem Guides” is also in the works and is due to be made available to Guide Editors later this year. Please be reminded that all guides can be downloaded for free from the Eurachem website.

This year’s discussion forum dealt with the topic of “Establishing Equivalence between Measurements Methods”.

## WORKING GROUPS:

Qualitative Analysis and Testing working group: Steve Ellison delivered an oral report about the efforts to redraft the Guide on “Uncertainty associated with Qualitative Test Results” or “Performance Characterization of Qualitative Test Methods”. Bertil Magnusson volunteered to pick up the drafting. There are few remaining members to the WG, more volunteers are needed.

All other reports of the Working groups are to be found on pages 6-7.

## European stakeholder/liaison organizations reports

This year we enjoyed presentations from the following organizations:  
- NMKL Nordic Methods Committee

- on Foods
- EA/Laboratory Committee
- EA-EUROLAB-EURACHEM Working Group “Proficiency Testing in Accreditation” (EEE-PT)
- EUROLAB
- EURAMET/Technical Committee of Metrology in Chemistry (TC-MC)
- European Association for Chemical and Molecular Sciences (EuCheMS)
- International Federation on Clinical Chemistry and Laboratory Medicine (IFCC)
- Cooperation on International Traceability in Chemistry (CITAC)
- Consultative Committee for Metrology in Chemistry and Biology (CCQM)
- Codex Alimentarius and Interagency Meeting Notes (CODEX & IAM)
- International Laboratory Accreditation Cooperation (ILAC)
- International Laboratory Accreditation Cooperation/ Laboratory Committee (ILAC/LC)
- International Union of Pure and Applied Chemistry (IUPAC)
- ISO-REMCO Committee on Reference Materials.

The next Eurachem GA will be held in Ghent, Belgium, on May 12-13, 2016.

*Alessandra Rachetti*  
Eurachem Secretariat



**Workshop**  
in connection with Eurachem  
General Assembly 2016

**Method Validation  
in  
Analytical Science**

Current Practices  
and Future Challenges

GENT, Belgium  
NH Hotel Belfort  
9-10<sup>th</sup> May 2016



[www.belab-eurachem2016.com](http://www.belab-eurachem2016.com)

# Target Uncertainty - the missing piece of the puzzle



Ricardo Bettencourt da Silva

The life of a measurement procedure starts after a specific problem has been identified. This problem can range from the assessment of a products compliance with a specification to the determination of a new biochemical marker variation with an health condition. Depending on the measurement goal, measurement requirements are set that once fulfilled ensure that they are fit for their intended use. Requirements cannot be so ambitious that they can make the measurements unfeasible or be so loose that their poor quality makes the measurements useless.

After a measurement procedure has been implemented, a chemical reference is selected, e.g. a reference material, defining measurement traceability. This reference is subsequently used for calibration and the analysis of an independent reference is used to assess performance. Performance assessment involves comparing performance parameters with

respective requirements.

Many types of requirements can be defined for specific characteristics of the measurement, such as the agreement of replicate results obtained under repeatability conditions, the closeness of results to the reference value of an adequate material, the range of quantities measurable by the procedure, etc. Since the interpretation of the measurement result depends on the measurement uncertainty, that reflects the combined effect of random and systematic effects on the measurements, a requirement for measurement uncertainty must be set. In fact, if a requirement for measurement uncertainty is set together with a measurement scope where the studied quantities and matrices are specified, the measurement requirements become adequately defined.

The latest edition of the International Vocabulary of Metrology defines Target Uncertainty as "measurement uncertainty specified as an upper limit and decided on the basis of the intended use of measurement results". Results are adequate if the reported uncertainty is smaller than the target value.

In some cases target uncertainty is defined as part of the measurement requirements, particularly if the results

are to be used for compliance assessment. However, in many cases, related or not to compliance assessment, target measurement uncertainty is not included in the measurement requirements. Definition of target values for measurement intermediate precision and bias can be sufficient if there are uncertainty components not revealed by precision and trueness tests. If bias is estimated by spiking with a small stock solution volume, the spiking process can have an uncertainty component not revealed in trueness tests.

Following the publication of guides on measurement traceability, measurement uncertainty quantification and measurement interpretation, Eurachem and CITAC have published a guide that discusses the definition of the target uncertainty required for measurement process evaluation: The Eurachem/CITAC guide on Setting and Using Target Uncertainty in Chemical Measurement. This guide is applicable to analytical fields where clients (i.e. anyone interested in the measurement result, ranging from paying customer to regulators or citizens) did not clearly define their measurement requirements.

*Ricardo Bettencourt da Silva,  
Alex Williams*

## Upcoming Meetings and Workshops

### **Eurachem Workshop on Method Validation in Analytical Science**

9-10 May 2016, Ghent ( Belgium ), see advertisement on previous page

### **Eurachem 32<sup>nd</sup> General Assembly and Eurachem 52<sup>nd</sup> Executive Committee Meeting**

12-13 May 2016, Ghent (Belgium)

### **Eurachem 53<sup>rd</sup> Executive Committee Meeting**

October 2016, Prague

### **Eurachem 33<sup>rd</sup> General Assembly and Eurachem 54<sup>th</sup> Executive Committee Meeting**

9-13 May 2017, Cyprus

### **9<sup>th</sup> International Workshop on Proficiency Testing**

9-12 October 2017, St. Bernardin Resort, Portorož, Slovenia

will be organized by the Eurachem Proficiency Testing Working Group in association with EQALM and CITAC. This international PT workshop, building on the success of previous workshops, will enable delegates from around the world to come together to discuss a wide range of key issues across the three disciplines of analytical chemistry, microbiology and laboratory medicine. Further details can be found on the Eurachem website.



# This and That

## Information Leaflets: some light, heavy impact information

Eurachem Guides have been around for twenty years now and most of them are now in their 2<sup>nd</sup> or 3<sup>rd</sup> edition available. In an effort to reach a wider audience Working Groups have initiated the production of short documents, the Information Leaflets <https://www.eurachem.org/index.php/publications/leaflets>

These leaflets are intended to inform laboratory staff, managers and laboratory customers who aim at a better understanding of the issues covered in the guides, but are not prepared to work through a full-fledged document of some tens (and sometimes even more) pages. The leaflets are likely to be most useful for grasping the very central concepts laid out in the guides. Illustrations are an important feature as they serve to attract a larger audience without distorting the issues by resorting to undue short-cuts. Therefore great efforts are made and intense discussions in the Working Groups (and sometimes also in the Executive Committee) take place before a new leaflet is approved and published.

*Wolfhard Wegscheider*

## FUN with GUM

The new GUM draft recommends to use the expectation  $E(X)$  derived from the Bayesian calculation instead of the observed result. When these differ, as for counts, this change needs careful consideration:

For example, if a microbiologist counts three cfu on a plate,  $E(X)$  (the Bayesian estimate) would be 4 cfu per plate.

Now please imagine to hear this in Court:

„So, Mr Brookman, you actually saw 3 colonies but you would have us believe that there were really 4? Would you like to explain to the court why you have intentionally inflated your results by 33% to the detriment of my client?"

## Membership News

Bulgaria: Dimitar Stankov has retired, he is replaced by the new head of the metrology institute Paun Ilchev.

Germany: Rüdiger Kaus is retiring, new German representative is Martina Hedrich from BAM

UK: Andrew Damant is filling the void left by John Greene's passing away.

Italy: Enzo Ferrara is succeeded by Michela Segà

Greece is back on board, represented by Anna Stefanidou.

The Netherlands will terminate active membership, how sad.

Czech Republic: we welcome a second Eurachem representative, Vaclav Cerveny.

Russia: Maria Medvedevskikh is the second representative.

## How to keep up with Eurachem

Over the last year, Eurachem has been working to improve access to news about Eurachem. The website has been improved, and Eurachem has made it easier to spread and receive news via social media such as Twitter, Facebook and LinkedIn.

The Eurachem website at <http://eurachem.org> includes free copies of all Eurachem guides and information leaflets. Many translations are also available; some information leaflets are available in as many as 15 languages. Over the last year, the website has been improved for better access to Eurachem news.

The changes include:

- Improved usability, especially for reading on smaller smartphone and tablet screens.
- To help find information, articles on the site now carry 'tags'. Clicking on a tag will bring up a list of related articles.
- Sharing Eurachem information from the website via social media is now much easier.

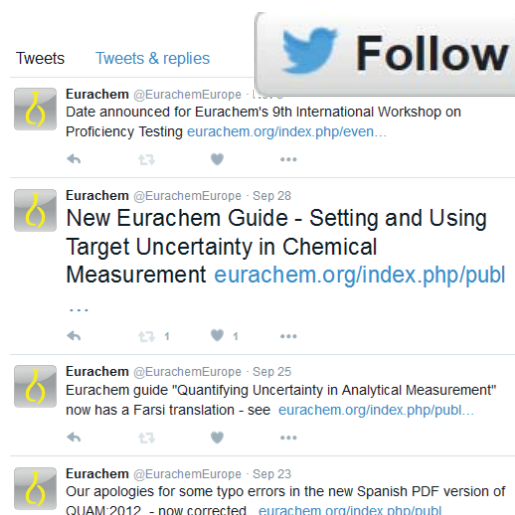


Most articles include 'sharing' buttons at the end of the article. These take a reader straight to a social network window, making it easy to share Eurachem news via twitter, LinkedIn and many other networks.



Eurachem now also has a number of Twitter feeds. The main feed is @EurachemEurope. All website news items will be announced on the main feed, which also appears on the front page of the Eurachem website. In addition, @EurachemEvents will be used for news on upcoming events, and the proficiency testing working group use @eurachemPT for PT-specific information. The Eurachem site also supports RSS feeds for newsreaders or for simple cross-site syndication. To subscribe to the news feed on the site, go to the News page and look for the RSS button.

*Steve Ellison*



## ISO/IEC 17025 Revision Progress Report

According to the progress report after the third meeting of the ISO CASCO WG 44 in August 2015 we can expect the publication of the revised ISO/IEC 17025 in May-June 2017.

What is new, what is to be expected of the "new" standard ?

- New structure according to the format of the 17000 series
- Introduction of new paragraphs on Independence and Impartiality
- Resources, Testing and Calibration Processes, and Support Processes are getting separate consideration
- There will be no distinction between types of laboratories
- Quality Management will have the option of operating under an ISO 9001 system integrating 17025 requirements.
- The approach towards "risk analysis" will be strengthened, the lab is responsible for deciding which risks and opportunities need to be addressed.
- The notion "quality manager" might be replaced by assigning responsibilities and authorizing qualified personnel.
- On the issue of "stand alone sampling" no agreement could be reached and action was taken in the form of a direct question to be directed to all WG 44 members: " Should the revised ISO/IEC 17025 be explicitly applicable to organizations that perform sampling without the subsequent testing or calibration ?"
- There is also no agreement yet on the issue of subcontracting of testing and calibration, but the laboratory normally shall itself perform the services it contracts to undertake.
- Where subcontracting is necessary the laboratory has to demonstrate the competence of the subcontractor

The Committee Draft on the revised ISO 17025 is out for voting since the end of August. A 2 months consultation period is given to the National Standards Bodies, and the drafting committee is expected to reconvene early next year.

*Alessandra Rachetti*

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## Update on Certified Reference Materials from JRC-IRMM

The mission of the Institute for Reference Materials and Measurements, which is part of the European Commission's Joint Research Centre, is to support industrial competitiveness, quality of life, safety and security in the EU by developing advanced measurement standards and providing state-of-the-art scientific advice concerning measurements and standards for EU policies. The year 2015 marks the 55<sup>th</sup> anniversary of the JRC-IRMM.

Among its main deliverables are certified reference materials (CRMs) and the following recent releases may be highlighted:

ERM-EF001: the first rapeseed based biodiesel material, which is certified for 13 biodiesel quality parameters measured according to the standard EN 14214;

ERM-FD102: the first polydisperse nanoparticle CRM; separate values were assigned for the sizes of the two main populations (20 and 80 nm) and for various operationally defined nanoparticle diameters;

ERM-DA476/IFCC: the first serum protein CRM for the standardisation of measurements of anti-myeloperoxidase immunoglobulin G antibodies. The detection and quantification of these antibodies is important for the diagnosis and monitoring of several autoimmune diseases;

ERM-EB530A-C: replacement for the exhausted 'gold' standard used for  $k_0$  Neutron Activation Analysis (NAA);

ERM-AD442k: a solution certified for the mass concentration of lambda DNA, which is a crucial benchmark in the quantification of total DNA.

A training course on "Use of reference materials and the estimation of measurement uncertainty" did take place at JRC-IRMM in Geel, Belgium, on 12-13 October 2015. Further information is obtainable via [jrc-irrm-rm-course@ec.europa.eu](mailto:jrc-irrm-rm-course@ec.europa.eu).

*Hendrik Emons, JRC-IRMM*

# Working Group Reports

## Eurachem Education and Training Working Group

The Education and Training Working Group held a successful meeting in Warsaw in May. A key task for the group during the year has been the revision of the Eurachem 'Guide to Quality in Analytical Chemistry: An aid to accreditation'. The revision will bring the guide into line with ISO/IEC 17025 requirements and ensure that the terminology is consistent with current international vocabularies. A second draft of the revision has been completed and reviewed by the revision task group and wider Education and Training Working Group. It is hoped to have a draft ready for review by General Assembly members in early 2016.

The working group has prepared a leaflet 'You talk, we understand! The way out of the tower of Babel', which aims to highlight the importance of consistent terminology in analytical science, and raise awareness of the VIM and the Eurachem guide on terminology in analytical measurement. The leaflet will be published shortly on the Eurachem website.

The working group is also responsible for the 'Reading list' that is published in the publications area of the Eurachem website. The list is reviewed annually and an updated version was published in September.

Looking forward, in 2016 it will be 5 years since the publication of the guide 'Terminology in analytical measurement: Introduction to VIM 3'. In line with Eurachem policy, the working group will carry out a review of the guide to identify what revisions (if any) are required. To assist with this process we will be launching a short survey to seek opinions of users of the guide. The survey will be launched before the end of the year.

Vicki Barwick

## Method Validation Working Group

The year 2014 was the year where the work on revision of the "Fitness for Purpose" guide was finally brought to an end with the issue of the revised 2<sup>nd</sup> version in October. The group has 2 regular 1½ day meetings a year (January/June).

The major activity within the period towards GA 2016 in Ghent, Belgium, will be assisting the local organizers in setting up a two day workshop under the title "*Method Validation in Analytical Science – Current Practices and Future Challenges*"

It will be a workshop with the two themes "Current Practices" and "Future Challenges" heading each of the two days, starting with 4 – 5 presentations under the actual theme and followed by working groups for discussion of the subjects presented in the mornings. Furthermore participants will be invited to present posters on the subjects.

Regarding promotion of the revised guide :

- Successful half day seminar with about 80 participants at the ISS in Rome, January 2015
- Presentation of the guide at the annual meeting of Norwegian Chemical Society, October 2015 (around 100 participants)
- two trainings in The Philippines, Nov. 2014, (40 participants for a 2-day training + 30 participants for a 1 day introduction)
- Article in the Eurachem Newsletter LGC promoting it through trainings (and the website with training resources)
- Referred to on various national websites
- Mentioned several time in discussions in various groups on LinkedIn
- Promoted through EURLs trainings
- Eurachem activities presented on annual meeting for RLs for Heavy metals in food, mycotoxins & drug residues + Annual meeting for ACCREDIA

- Ministry of Agriculture in Turkey using the guide as basis for elaborating their guidance for authorized laboratories in Turkey
- Introduction of the Guide at Teknologisk Institute's conference Labbdagarna 2015, Stockholm 28-28 January (about 40 participants).
- Promotion of the Guide through a Chromatography Master (Universidad de Alcalá) and a Quality Course in the Spanish Association of uality (AEC)

The 2<sup>nd</sup> version was available for download from Eurachem Website immediately after publication and during that quarter (between 1 October and 1 January 2015) and it was accessed 4499 times. Nice to know that the Eurachem initiatives are appreciated out there!

Lorens Sibbesen

## Uncertainty and Traceability Working Group

The working group met after the meeting in Lisbon and will meet again at this meeting in Warsaw.

The main activity has been the completion of the guide on "Setting Target Measurement Uncertainty". The guide has been voted on by the GA and their comments have been taken into account in revised version. This version will be discussed at the meeting in Warsaw with the intention of presenting it to the EC for approval.

Further work is being carried out on the leaflet "Treatment of an Observed Bias" and it is hoped that this will be completed at the meeting in Warsaw. The uncertainty on the correction for bias remains a main issue and the working group is considering whether to add this as a work item.

Alex Williams

## Proficiency Testing WG

The EURACHEM Proficiency Testing Working Group (PTWG) continues to make progress on a number of work activities:

The 8th PT workshop was organized in Berlin from the 6th to 9th October 2014. The Workshop was attended by 245 delegates from 64 countries. The workshop covered a number of key topics through keynote speakers, short presentations, poster presentations (77 in total), and discussion groups. A training course on 'ISO 13528 and beyond' was held in conjunction with the workshop

The PT leaflet – “How can proficiency testing help my laboratory?” is available in the following languages on the Eurachem website – Croatian, Czech, English, Estonian, Finnish, French, German, Italian, Serbian, Slovakian, Spanish, Swedish, Turkish and Ukrainian.

The production of guidance on the performance evaluation in qualitative and interpretative PT/EQA schemes is progressing. A survey to current PT/EQA providers to enquire how they currently evaluate performance in qualitative and interpretative schemes has been undertaken which has generated a large amount of information. The information is currently being reviewed.

Two new leaflets are nearing completion:

“Selecting the right proficiency testing scheme for my laboratory” – undergoing final GA/Executive approval

“Proficiency Testing – How much and how often?” – will shortly be sent to GA for approval

Consideration is now being given to the 9<sup>th</sup> PT Workshop, to be held 9-12 October 2017, at the St. Bernardin Resort in Portoroz, Slovenia.

Current members of the PTWG are:

Brian Brookman, UK (Chair)  
Caroline Laurent, France  
Tracey Noblett, UK (Secretariat)  
Dragan Nikolic, Serbia  
Ewa Bulska, Poland  
Ulf Örnemark, Sweden  
Owen Butler, UK  
Marina Patriarca, Italy  
Laura Ciaralli, Italy  
Kees van Putten, The Netherlands  
Vicente Catalán Cuenca, Spain  
Piotr Robouch, EU  
Andreja Drolc, Slovenia  
Lorens Sibbesen  
Michael Koch, Germany  
Ulla Tiikkainen, Finland

*Brian Brookman*

## Ad hoc Working Group for the Revision of the Guide "Quality Assurance for Research and Development and Non-Routine Analysis"

An ad-hoc task group has been formed led by Eugenia Eftimie Totu (Romania). The members are: Laly Samuel (CITAC), Kyriacos Tsimillis (Cyprus), Mine Bilsel, Keveser Topal, Fatma Akcadag (Turkey), Florent Vanstapel (Belgium), Riin Rebane (Estonia), Lucia Mutihac, Alina Argatu, Georgeta Vulpe (Romania).

This should be achieved:

- revise the text in order to comply with the requirements of ISO/IEC 17025:2005 and the Eurachem / CITAC Guide "Quantifying Uncertainty in Analytical Measurement" (2012), ISO Guide 80:2014 (QCMs)
- harmonize terminology with VIM3 and the Eurachem Terminology Guide
- update the definitions
- correct the technical mistakes
- update and complete the references
- include a section for "Reporting of results" (Expression, Calculation, Uncertainty data, Interpretation...).

All members of the Eurachem National networks and CITAC are welcome to take part in this WG.

*Eugenia Eftimie Totu*

## New Eurachem/CITAC guide on Target Uncertainty

This guide discusses the need to set a "target" value for the measurement uncertainty as part of the measurement requirement. The guide describes approaches to defining the target uncertainty from ones based on the most adequate data for this assessment to those less likely to become consensual. Approaches to estimate the target uncertainty are presented based on the following data:

- 1) Compliance interval range;
- 2) Target values of limits of detection or quantification, precision and bias;
- 3) Acceptable risk of an incorrect compliance decision;
- 4) Criteria for assessing performance in proficiency test;
- 5) Measurement reproducibility;
- 6) Magnitude of studied trends;
- 7) Information from a different scope.

The guide also discusses how to define the target uncertainty for a range of quantities when the target value has previously been set for just one quantity, it discusses the impact of uncertainty quantification variability in uncertainty evaluation, and suggests how to use target uncertainty to guide procedure validation.

*Ricardo Bettencourt da Silva, Alex Williams*



# National Reports

The work within our national Eurachem organisations is one of the most important channels to convey our message to the laboratories and our stakeholders. Below you will find reports about activities in the national organisation.

## Austria

The Austrian Society of Analytical Chemists ASAC ([www.asac.at](http://www.asac.at)) within the Austrian Chemical Society ([www.goech.at](http://www.goech.at)) is an original signatory of the MoU in 1989. The main activity within Eurachem Austria is the post-graduate training in Metrology for academic and non-academic staff. The 4 weeks course is now in its 15th year, last year there were 20 students. Dr Wegscheider is current Chair of Eurachem and Austria is also holding the Eurachem Secretariat until May 2016.

*Alessandra Rachetti*

## Belgium

BELAB is the association of Belgian Laboratories and organizations involved in accreditation. BELAB is member of Eurachem and Eurolab. The association has an executive board with 9 members and counts 60 members in the GA.

Members of the Executive committee of BELAB are represented in several advisory boards of BELAC (Belgian accreditation authority).

Since 2012, BELAB is has been lead by Isabelle Vercruysse (chair) and Philippe Dewolfs (vice-chair).

In autumn 2013, a new website [www.belab.be](http://www.belab.be) was created. This new website came online early 2014. This website gives on different levels information to members (with password) and people who are interested. Eurachem events, guides, general information, ...are also distributed by this way.

A BELAB seminar in French and Flemish was organized in March 2015 in Brussels. About 153 persons (80 Flemish and 73 French speaking people) from very different fields (pharmacy, textile, water, food, medical labs ..... ) attended the seminar. The seminar was organized

in cooperation with BELAC. The topics of the seminar were: internal audit, different documents of BELAC, ILAC and EA. In the introduction given by the president and vice president of BELAB, the work of BELAB, Eurachem and Eurolab was presented.

BELAB will organize the venue for the GA and Executive Committee of Eurachem as well as a workshop "Method Validation in Analytical Science-Current Practice and Future Challenge" in May 2016 in Gent. Every year the activities and information of Eurachem is diffused in a presentation on the GA and through the new website. The Eurachem Informative Bulletin is distributed between the members.

BELAB also distributes a newsletter by mail with the latest news from BELAB and Eurachem.

*Isabelle Vercruysse*

## Bulgaria

In the period from November 2014 until October 15, 2015 the activities carried out by the "Bulhem" to the Union of Metrologists in Bulgaria (UMB) are in the following areas:

### 1. Trainings and seminars:

1.1. "Practices for ensuring of the requirements to microbiological tests based on international documents" - November 27, 2014.

1.2. "Measurement uncertainty in sampling", June 3, 2015.

1.3. "Uncertainty of measurement results in the field of analytical chemistry", 4-5 June 2015.

In these trainings the basic principles and practices are discussed based on the following documents : Eurachem Guide - Accreditation for Microbiological Laboratories (2013); Eurachem Guide - Measurement uncertainty arising from sampling 2007, Eurachem / CITAC Guide-Quantifying Uncertainty in Analytical Measurement, 3rd Edition (2012). The

trainees have benefited from the Bulgarian translation of these guidelines, issued by Newsletters of the Union of metrologists in Bulgaria.

2. **Discussion:** "Calibration of measuring instruments used in the field of analytical chemistry - international practices" - June 2015. During the session the interpretation of the definitions of Eurachem Guide Terminology in Analytical Measurement: Introduction to VIM 3 related to the topics was discussed.

## Croatia

CROLAB, the Society of Croatian Laboratories – was founded on 16 June 2003 in Zagreb, with the vision of providing laboratories as an infrastructure for the development of the manufacturing and industry. CROLAB has been clearly oriented to the permanent improvement of quality and competence of the laboratories, leading to the development and raising the quality of living and standards in general. The 180 CROLAB members are testing, analytical, metrology laboratories, certification and inspection bodies.

The CROLAB activities are performed through clubs (testing, analytical and calibration laboratories) and a technical committee for education (every year an average of 30 training courses are organized, including courses on measurement uncertainty, analytical method validation, reference materials, external quality control and proficiency testing, application of statistical data evaluation, design of experiments, sampling, requirements of ISO 17025 and more others subjects). The technical committees have published 14 issues of the CROLAB Newsletter that covered all events connected to CROLAB yearly activities. CROLAB also organizes meetings such as round tables, forums, conferences, etc., which are joined by the members according to their fields of common interest or a concrete task.

CROLAB has established excellent collaboration with national leaders in quality infrastructure, such as Croatian Accreditation Agency, Croatian Metrology Institute, Croatian Chamber of Economy, Academic and Research Institutions, Ministries and



other governmental bodies. CROLAB is a full member of relevant International societies such as EUROLAB, EURACHEM and ILAC, realizing thus its networking and cooperation throughout Europe and beyond. CROLAB has held the eleventh International Conference "COMPETENCE OF LABORATORIES 2015" from 21 to 24 October 2015 in Zadar. The main focus of Conference will be how the knowledge and experience from laboratories may support the economy and international trade growth ( see page 15 for a report on the conference )

Veronika Kubanović

## Cyprus

The newly established Division of Quality Assurance operating under the umbrella of the Pancyprian Union of Chemists (PUC) started its activities.

### Training activities

A one-day seminar on Quality Assurance for Food and Water was organized on Friday, 23<sup>rd</sup> January 2015. More than 140 people attended the event, which was hosted at the University of Cyprus



Foto: Kyriacos Tsimillis

### Teaching Quality Assurance in the University of Cyprus

A chapter on Quality Assurance (8 hours) was presented, on an ad-hoc basis, in spring for the 4<sup>th</sup> year students of the Department of Chemistry, University of Cyprus. It is expected that this will be the case for the next academic year as well.

### Involvement in the work of Eurachem

More people have been involved in the discussion of drafts prepared by WGs of Eurachem. These refers not only to experienced people working on accredited laboratories but also to postgraduate students.

### Website

The activities of the Division appear on the restructured website of the PUC (<http://www.chemistry.org.cy>)

### New tasks

The planning for next year provides for training events on environmental measurements and quality assurance in medical laboratories.

Kyriacos Tsimillis

## Czech Republic

During 2013-2014, Eurachem Czech Republic was involved in the following activities:

In autumn 2013 due to requests from laboratories we again arranged a six days course „Quality Manager in Chemical Laboratory“. This course took place in Prague with the support of the Czech society for quality and with seven lecturers from Eurachem-CZ and two independent experts. In January 2014 we organised a three days TrainMiC© event in Bratislava with 25 Slovak participants from academia.

The translation of the 3rd edition Eurachem/CITAC *Guide Quantifying Uncertainty in Analytical Measurement* into Czech language was successfully completed and will be shortly published as volume No 19 of our series called Qualimetrics.

Our organisation has issued two newsletters with 8 pages of text for our members in 2013-14. The summer edition informed readers about the new edition of ISO 15189 as it was published in Czech. The winter edition 2014 focused on the newly translated ISO Guide 34. Our newsletters also bring information about local events and future developments.

Our webpage, [www.eurachem.cz](http://www.eurachem.cz), is a tool for dissemination of up-to-date information. This year two new leaflets were published and are freely accessible. Both of them are translations of Eurachem leaflets into Czech.

Members of the Executive Committee of EURACHEM-CZ closely cooperate with Czech Institute for Accreditation, the Czech Metrological Institute, and EUROLAB-CZ.

David Milde

## Denmark

The number of members of Eurolab Denmark has been more or less constant over the last 2-3 years, but an interesting new member from a major Food Company in Denmark joined our organisation in 2014. Eurachem/Eurolab Denmark has in 2014 been very much focused on the up-coming revision of the ISO/IEC 17025 standard.

A survey on the laboratories wishes/expectations for the revision was performed in June 2014. In August a meeting dealt with the outcome of the survey and possible aspects of the coming revision. The meeting attracted more than 50 participants and was an opportunity to give input to the two Danish representatives in the ISO/CASCO WG 44 . In September a meeting in our Network for Analytical Chemistry was held on the subject "Selection of methods – do we do it well enough?". The meeting was not focusing on method validation, but raising the discussion on how we secure to apply the optimal procedure for the specific tasks. There were lively and interesting discussions on the benefits and limitations of available analytical techniques in many different situations – and about trustworthiness of the results in this aspect.

As usual, one of the important activities for Eurolab Denmark is representing the accredited laboratories towards our Danish Accreditation body, DANAK, and appointing/supporting members for the various advisory groups within DANAK, where especially one related to Environmental Testing and another related to Food Testing is of big relevance for our Network for Analytical Chemistry.

A number of our members are working in environmental analysis. An important issue for our organisation is therefore to closely follow the development in terms of new threshold values or requirements on the quality of analysis. This can be achieved by having good contact with our two representatives (1 on chemistry + 1 on microbiology) in the steering group of the official Danish Reference Laboratory for Environmental analysis.

Lorens Sibbesen

## Estonia

Estonia joined Eurachem in May 2013.

The following actions have taken place since GA30:

- A seminar for laboratories was organized in November of 2014 to give laboratories more information about Eurachem and proficiency testing, including info from the Eurachem PT workshop organized in Berlin and quality assurance generally.
- A two part tutorial review article for LC-MS method validation has been published. The tutorial review intends to give an overview of the state of the art of method validation in liquid chromatography mass spectrometry (LC-MS). The review addresses and compares all the major validation guidelines published by international organizations: ICH, IUPAC, Eurachem, AOAC, FDA, EMA (EMA), SANCO, NordVal, European Commission Decision 2002/657/EC.
- A Massive Open Online Course (MOOC) "LC-MS method validation" is in the process of being set up for the year 2016. The MOOC will be largely based on the Eurachem validation guideline.
- Indirectly related to Eurachem, the "Estonian Centre of Analytical Chemistry" ([www.akki.ee](http://www.akki.ee)) is a distributed interdisciplinary scientific research infrastructure for the development and application of modern analytical methods as well as the quality assurance of chemical measurements in research, surveillance and industry laboratories.
- The Massive Open Online Course (MOOC) "Estimation of measurement uncertainty in chemical analysis" was run the second time during Mar 2 – Apr 19, 2015 with 489 registered participants from 70 countries. The course was awarded the title "e-course of the year" in Estonia.
- The first admission was completed to the *Erasmus Mundus* master's programme "Excellence in Analytical CHEmistry" (EACH).

*Riin Rebane*

## Finland

Eurachem Finland belongs to the Finntesting Association. Finntesting Association has three sections: Eurachem Finland, Eurolab Finland and a section of laboratory management. The Association has 27 company members and 25 individual members. Finntesting Association has an executive board with 10 members. Finntesting Association has nominated members in the Eurachem Executive Committee, Eurachem General Assembly, and several Eurachem Working Groups. In 2014 Finntesting Association renewed its web pages (<http://kemianseurat.fi/finntesting/>) and organized an annual meeting and two seminars. The topics of the seminars covered quality and managements issues with several presentations about "challenges of quality assurance in the future" and "challenges in collective labor agreements and in payroll systems". Finntesting Association encouraged two students by delivering them awards based on student's meritorious thesis where quality assurance aspects had been taken into account.

A Finnish translation on Eurachem's PT leaflet entitled "How can PT help my laboratory?" was published.

*Eurachem Finland*

## France

BIPEA proceeded with the translation in French of all the leaflets available produced by the PT WG and relied the EURACHEM events on our website and in our newsletter which is diffused towards approximatively 900 French laboratories involved in the sectors of food & beverage and the environment.

*Caroline Laurent*

## Germany

Since May 2014 EUROLAB-D, the German mirror group of Eurachem, has a new chair. Prof. Ziegler took over from Prof. Henneke, the former president of BAM.

The secretariat of EUROLAB-D has now also fully moved to VMPA, the Association of Materials testing Institutes, one of the EUROLAB-D members. A new website was also launched reflecting all the news from Eurachem, Eurolab aisbl and the German activities.

The main Eurachem activity in Germany in 2014 was the organization of the 8th International Workshop on Proficiency Testing in Analytical Chemistry, Microbiology and Laboratory Medicine in October in Berlin, which turned out to be great success.

The Committee on Chemical Analysis of EUROLAB-D which mirrors the European Eurachem activities met twice in 2014 to receive the reports of the German delegates and to provide input to the Eurachem working groups.

*Michael Koch*

## Ireland

Barbara O'Leary (State Laboratory) and Hugh Fay (Henkel Ireland) took up the role of Irish representatives to Eurachem in May 2015 following the retirement of Michael Nangle (State Laboratory) and Ray Leonard (Henkel Ireland). The contribution of Michael and Ray to Eurachem in Ireland over many years is appreciated.

A new Eurachem Ireland committee was formed in December 2014 with the primary objective being the promotion of Eurachem objectives in Ireland including good quality practices.

Other objectives of Eurachem Ireland include, but are not limited to:

- Facilitate networking among Irish analytical chemistry labs from public sector, private sector and education sector;
- Provide a forum for discussion of common issues;
- Encourage Irish participation on Eurachem working groups;

- Increase awareness of opportunities for organisations to participate in research;
- Contribute to development of chemistry students to meet needs of Irish employers.

The committee includes representatives from public sector, private sector and the academic sector and organised a Eurachem Ireland TrainMiC workshop on World Accreditation Day, 9 June 2015.

A new website was launched and a LinkedIn group created.

([www.statelab.ie/eurachem.html](http://www.statelab.ie/eurachem.html))

Unfortunately the popular Eurachem Analytical Measurement Competition (EAMC) did not take place in 2015 due to unforeseen circumstances. The EAMC Committee will meet to agree measures to prevent this recurring. The competition will return in Spring 2016 when Athlone Institute of Technology will be the hosting it.

*Barbara O'Leary*

## Italy

Eurachem in Italy is jointly supported by the National Institute for Research in Metrology (INRiM), the National Institute of Health (ISS) and the National Institute for Environmental Research and Protection (ISPRA).

Over the last year, efforts were put in place to promote Eurachem to Italian laboratories. A presentation about the two documents recently translated into Italian (the Eurachem Guide "Terminology in Analytical Measurement" and the Nordtest Guide "Internal Quality Control") was given to both the Annual Meetings organized by ACCREDIA, . An update on the latest developments in Eurachem has become a regular item in the program of the Joint Workshop of the National Reference Laboratories (NRLs) for Heavy Metals in Food, Heavy Metals in Feed and Additives in Feed. Information on the latest Eurachem workshops was presented and the participants were addressed to the materials available on the Eurachem website for further details.

In January 2015, a special event was held in Rome, beside the meeting of the Eurachem Method Validation

Working Group (MVWG), to present the revised guide to an audience of laboratories involved with environmental and food control. Lorens Sibbesen, Chair of the MVWG, Bertil Magnusson and Piotr Robouch, both members of the WG, highlighted key issues to the 90 participants and answered several questions. A working group has been established to carry out the translation of the Guide into Italian.

Eurachem Italy contributes to the Eurachem Working Groups on: Education&Training, Proficiency Testing and Method Validation and to the joint EA-Eurolab-Eurachem WG Proficiency Testing and Accreditation. Meetings of both the MVWG and the Proficiency Testing WG were hosted at ISS (Rome), in January and March 2015, respectively.

*Marina Patriarca*

## The Netherlands

The main activity of the Dutch Section of Eurachem is the organization of a yearly symposium. The organization is carried out by the members of the Steering Committee.

In 2014, no symposium was organized due to lack of a subject that would attract a substantial number of participants.

*Rob Ritsema*

## Norway

THE NORWEGIAN CHEMICAL SOCIETY (NKS) - DIVISION OF ANALYTICAL SCIENCES is member of Eurachem. The Division is open for all members of NKS with an interest in analytical chemistry, and in 2015 the list of members counts 560 individuals. The members are employees from industry, academia, research institutes, chemical laboratories, consultancy, governmental supervisory authorities, as well as Master end PhD students. Our objectives are to promote analytical chemistry and stimulate to collaboration between analytical chemists. One of our main tasks is to contribute to knowledge dissemination and training in advances in analytical

chemistry by organizing seminars and conferences. An understanding of quality in chemical measurements is important for analytical chemists and for clients, both in industry, science and public administration. Thus participating in Eurachem activities benefit our members.

Elin Gjengedal, associate professor at the Norwegian University of Life Sciences, has been chair of the division executive board since 2002. She is the Norwegian delegate to both Eurachem and the European Association for Chemical and Molecular Sciences (EuCheMS) Division of Analytical Chemistry (DAC). At the DAC annual meeting in 2015 she was elected as head of the DAC Quality Assurance Study Group. She is mutually liaison between EuCheMS-DAC and Eurachem.

*Elin Gjengedal*

## Poland

Presently, 65 laboratories are members of the Eurachem-PL Section of Polish Chemical Laboratories in the Club of Polish Testing Laboratories POLLAB. Since the end of 2013 Eurachem-PL has been lead by Andrzej Brzyski (chair), Ewa Bulska (vice-chair), and the section secretariat is hosted by POLLAB.

The Section was established in 1992, and is one from 9 sections of the Club of Polish Testing Laboratories POLLAB.

Members of the Section are involved in organization of yearly symposia by POLLAB. The main topic at XX POLLAB Symposium (2014) was „Statistical methods in laboratory practice". Over 400 participants attended the symposium in two rounds.

A special section's meeting was also organized, including invited lectures dedicated to selected subjects. In 2014 there was one meeting, where participants discussed about „PT/ILC programs and requirements of accreditation". In 2014 we organized 3 rounds ILC programs.

Eurachem-PL continue its present policy to support laboratories in 2015. Members are encouraged to attend the POLLAB Symposium, section meetings and the new ILC/PT programs.

*Andrzej Brzyski*



## Portugal

In 2014 the Portuguese delegates of Eurachem have been involved in the organization of the Eurachem Workshop on "Quality in Analytical Measurements: From Specification to Decision", the 30<sup>th</sup> Eurachem General Assembly, the 25<sup>th</sup> Eurachem Anniversary, and various working group and executive committee meetings held in Lisbon between 19-23 May 2024.

The delegates have also been actively involved in the activities of the "Measurement Uncertainty and Traceability" working group. The dissemination of Eurachem activities and guidance is carried out through courses on Metrology in Chemistry at the University of Lisbon, within the curricula of the Euromaster on "Measurement Science in Chemistry" and Erasmus Mundus on "Quality in Analytical Laboratories", and in TrainMiC training events. The publication of various papers on Analytical Chemistry and Metrology has also been used to publicize Eurachem guidance.

*Ricardo Bettencourt da Silva*

## Romania

The EURACHEM Romania Association continued to promote activities related to principles of method validation, metrology in Chemistry, and also contributed to specific working groups: Education and Training, Uncertainty in Sampling, Proficiency Testing and more through its many members from different institutions.

The main activities of EURACHEM Romania Association in 2014 were: organizer and sponsor of the Professional Students' Contest on Analytical Chemistry and Coordinative Chemistry "Petru Spacu" 2014 Edition - [www.petruspacu.ro](http://www.petruspacu.ro) co-organizer and sponsor of the International Conference: "New Trends on Sensing-Monitoring-Telediagnosis in Life Science, Brasov, Romania July 2014" co-organizer and sponsor of the 2nd International Conference on Analytical Chemistry, RO-ICAC'2014, Targoviste, September 2014

A special session on "Metrology, Reference Materials and Method

Validation" chaired by Roland Kallenborn / Camelia Draghici and Jens E.T. Andersen / Raluca -Ioana Stefan-van Staden was organized within the context of the 2nd International Conference on Analytical Chemistry, RO-ICAC'2014. This session included the following presentations: Jens E.T. Andersen: "Consensus science and the impact on analytical chemistry"; Roland Kallenborn: "Method requirements and validation methods for trace level quantitative determination of persistent organic pollutants in biological samples matrices"; Khaldun M. Al Azzam: "Development and validation of a stability-indicating capillary electrophoresis method". A plan for EURACHEM Romania Association has been discussed and established and this includes the continuous support of the students' professional activity, and also organizing a few short courses on specific issues on metrology in analytical chemistry.

*Gabriel-Lucian Radu*

## Slovakia

Activities of EURACHEM – Slovakia (ES) were oriented in this period as follows:

- Transfer of information from the Eurachem resources to the analytical working-sites in the Slovak Republic (SR) and increasing the professional level of the analytical workplaces in the SR.
- The Eurachem leaflet *How can proficiency testing help my laboratory?* was translated into Slovak.
- ES organized series of *in house trainings* which covered interpretation of following standards:
- STN EN ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories,
- STN EN ISO 19011:2012 Guidelines for Auditing Management Systems,
- STN EN ISO/IEC 17020:2012 Conformity assessment - Requirements for the operation of various types of bodies performing inspection.
- ES co-organizes a local workshop *Trends and advances in analytical chemistry* for people from academic areas.

*Pawel Májek*

## Russia

The Association of Russian Analysts "Analitica" works under the auspices of the Scientific Council of the Analytical Chemistry of Russian Academy of Sciences. The Association cooperates with international organizations, the President of the Association is a member of CITAC, and since 2004 the Association is an associate member of ILAC and since 2007 onwards is a member of APLAC.

The Association includes more than 130 member laboratories of industry and academic institutions, institutions of tertiary education and national metrology institutions, enterprises of various forms of ownership. The main focus areas of the Association are the following:

- involvement in the formation and functioning of domestic accreditation systems for analytical laboratories
- development of regulations governing analytical control
- stimulation of the development of analytical laboratories and analytical instruments producers
- providing information and advisory activity
- harmonization of the activities of Russian laboratories with international practice.

The Association "Analitica" actively participates in interlaboratory proficiency testing schemes, training courses, organization of conferences, workshops and symposia. The Association holds a Workshop where the National Representative makes a report on the Eurachem activities and its current tasks annually. Since this year a webpage with information about Eurachem was established <http://analitica.org.ru/> in Russian. Recently Russian translations of "Terminology in Analytical Chemistry" and NordTest "Troll book" were finished by the Association.

As relevant as ever is the task to develop the collection of high purity substances and materials for the elaboration of a traceability system in analytical measurements in Russia.

*Vasilisa Baranovskaya*

## Serbia

The contact organization for Eurachem activities in Serbia is the Directorate of Measures and precious metals (DMDM).

Serbia's representatives in Eurachem are members of the Proficiency Testing and Measurement Uncertainty and Traceability Working Groups.

The vision is to get many people and organizations in Serbia, particularly members of the Serbian Chemical Society and the Serbian Biochemical Society, the association of accredited laboratories and others involved into Eurachem activities.

Serbian representatives took part in the PT Workshop in Berlin in October 2014.

Two PTWG leaflets were translated into Serbian:

- How can proficiency testing help my laboratory;
- Pre-and post-analytical proficiency testing.

In Serbia there are no accredited PT providers, so activities regarding PT schemes are organized by DMDM, who also acts as a pilot laboratory. Currently there is one PT scheme in process, for determining sugar content in the refractometers.

The project "Support of the quality infrastructure in Serbia" is supported by the German government. DMDM has acquired the "PROLab Software" for processing the data of the participants in PT schemes.

During May 2015 18th TrainMiC course was held. This course is organized in Serbia on regular levels since 2007.

## Slovenia

In 2014, activities in the area of quality of analytical results done by chemists from Slovenia were very diverse, hence addressing various aspects and audiences. They are shortly summarised below. "School for analytical laboratories", a 5 day course, is being organised on a regular basis by the Slovenian Institute of Quality and Metrology

(SIQ) <http://www.siq.si/izobrazevanje/>. Topics on all relevant issues are being presented by lecturers having theoretical knowledge, practical experience, as well as being experts about developments at the European and international level. In the upcoming publication on practical examples on traceability, measurement uncertainty and validation in chemistry an example from chemical industry is included, authored by Slovenian experts having rich experience in quality related issues. Furthermore, a TrainMiC® publication on traceability, validation, ILC and IQC has been completed and submitted for publication, with Slovenian contribution amongst several others.

At academic level, Slovenian students from University of Maribor joined the 7<sup>th</sup> Euromaster Measurement Science in Chemistry School (MSC), which took place last year in July in Casablanca, Morocco, and at which two lecturers from Slovenia were teaching students about statistics, validation and accreditation. Slovenian MSC graduates were also invited to the MSC graduation ceremony, which took place in Brussels on 12 December 2014

*Nineta Hrastelj Majcen*

## Spain

During 2014, Eurachem Spain has been involved in the following activities:

Preparation of the Guide "Validation of Methods" that was published in October.

Attended meeting of ETWG and started ISO 17025 application guide in chemistry and biochemistry in testing laboratories.

Translation of 4 leaflets:

- Eurachem compliance
- Metrological traceability
- Proficiency testing
- Customers information

Incorporation of a new member in the Eurachem WG of proficiency testing.

Started the translation into Spanish the guide "uncertainty estimation in chemical tests".

Informed Spain Eurolab members and Regional Network of Public laboratories in Madrid about Eurachem activities and workshops.

Published information about Eurachem activities in the monthly Newsletter of Eurolab Spain.

Training courses performed (7):

- Management and Technical Requirements of ISO 17025
- ISO 17025 audits
- Quality Assurance
- Uncertainty estimation
- Equipment calibration
- Validation of methods
- Reference materials

Collaborated with the National Body Accreditation (ENAC) in reviewing of General Criteria for Accreditation document.

## Sweden

In Sweden we have a joint national Eurolab and Eurachem organisation with 26 members representing over 100 companies and the analytical part of the Chemical Society. We take active part in the following work:

- Eurachem and Eurolab working groups
- The laboratory committee of EA and ILAC
- The ILAC accreditation committee
- The advisory board of the Swedish accreditation body, Swedac
- Since 2014 member of the committee SIS/TK 316 that works with ISO/IEC 17025

The dissemination of Eurachem activities and guidance has been performed in cooperation with *The Swedish Chemical Society* and Eurachem in a 4-day course *Measurement quality in practice according to recommendations in ISO/IEC 17025 & ISO 15189* to PhD students in analytical chemistry at universities in Sweden.

Members of Eurolab/Eurachem Sweden, who took active part in "Fitness for Purpose Guide" released 2014, were Joakim Engman (Livsmedelsverket), Bertil Magnusson (SP), Elvar Theodorsson (Linköpings Universitet)

*Bertil Magnusson*

## Turkey

During 2014, Eurachem Turkey has been involved in the following activities:

- Training events were organized in Gebze/Kocaeli, covering the following topics; Analytical Chemistry and Statistics, Chemical Metrology, Method Validation and Uncertainty in Chemical Analysis in May and November 2014.
- Reviews and comments for the Guides "The fitness for Purpose of Analytical Methods", "Guide to Quality in Analytical Chemistry, An Aid to Accreditation"
- ILAC AIC Survey: Areas requiring Revision in ISO/IEC 17025:2005 Requirements of ISO/IEC 17025:2005" were performed.
- Attendances in the workshop on "Quality in Analytical Measurements" in Lisbon May 2014.
- Translation of Guide "The Fitness for Purpose of Analytical Methods".

Several lectures were presented covering the following topics:

- "Determination of PBDE's by Validated GC-IDMS Method in Water with Low Detection Limit", 5<sup>th</sup> EuCheMS Chemistry Congress, Istanbul, August 2014.
- "External Quality Activities" International Workshop on Accreditation of Testing Laboratories: EN ISO/IEC Gebze, December 2014.
- "The Characteristics, Importance and Application Areas of Certified Reference Materials" at the 2<sup>nd</sup> National Accreditation Sempozyum, Cesme, October 2014.
- "Determination of selenomethionine in human serum by isotope dilution HPLC-ICP-MS" at National Chromatography Conference, Cesme, May 2014.
- "Production and certification of reference materials of elements in spring water" at the National Analytical Chemistry Conference, Kahramanmaraş, September 2014.

Eurachem Turkey contributed to the Eurachem Education & Training working group, Method Validation working group and to Measurement Uncertainty and Traceability working group.

Mine Bilisel

## United Kingdom

Eurachem activity in the UK is coordinated between the Analytical Methods Committee of the Royal Society of Chemistry (AMC), and through LGC.

The AMC (<http://www.rsc.org/AMC/>) has sub-committees concerned with sampling uncertainty/sampling quality, statistical methods and validation all of which complement interests and concerns of Eurachem. The AMC continues to publish Technical Briefs which reach all members of the analytical division of the RSC and are on-line for all to access and use: Briefs can be found by following the 'Technical Briefs' link at <http://www.rsc.org/AMC/>. Eight new Technical Briefs have been published in the year, including: two on nitrogen factors for meat products; briefs on random sampling and on robust analysis of efficient "staggered-nested" designs for uncertainty estimation; a discussion of the problem of accumulating uncertainties associated with tests for increasingly small effects; a Brief on sample stability verification for environmental testing and an introduction to analytical methods for 'heritage science'. Members of the AMC regularly receive the Eurachem Newsletter and information on Eurachem activities. Activities associated with the UK Chemical and Biological Measurement programme are now described on the LGC website at <http://www.lgcgroup.com/our-science/national-measurement-institute/>. Activities of particular interest to Eurachem in the year ending May 2015 include a range of training courses, including courses on measurement uncertainty, analytical method validation, method validation for biologists, statistics for analytical chemists and design of experiments. The programme also provides guidance documents and reports; these can be found on the website above by following the "Publications and Resources" links. Eurachem UK members have also contributed actively to the Eurachem PT working group, E&T working group, Measurement Uncertainty and Traceability and Validation working groups.

Steve Ellison

## Ukraine

Main Eurachem-Ukraine activities have been concentrated on translating Eurachem guides and related documents.

The Eurachem guide *Terminology in Analytical Measurement: Introduction to VIM 3* was translated into Ukrainian, and the translation is placed on Eurachem website. The translation was positively appreciated by the National Standardization Technical Committee on Scientific and Technical Terminology.

The Eurachem guide *Measurement uncertainty arising from sampling: a guide to methods and approaches* was translated into Russian. Information on the translation availability is placed on Eurachem website.

In addition to Eurachem guides, the IUPAC Technical Report *Metrological traceability of measurement results in chemistry: concepts and implementation* was translated into Russian.

All those translations were published as books and are placed on Ukrmetrteststandart website.

Moreover, translations into Ukrainian of two Eurachem leaflets were prepared and placed on Eurachem website: *How can proficiency testing help my laboratory?* and *Use of uncertainty information in compliance assessment*.

Information on Eurachem activities and translated documents has been and will be presented at different seminars and meetings, the most recent of which is a workshop *Oils and Fats Industry: Technologies and Market* to be held on May 28-29, 2015 in Kiev.

Eurachem-Ukraine contributes to Eurachem *Measurement Uncertainty and Traceability* working group, as well as regularly responds to Eurachem draft documents.

Mykhailo Rozhnov  
Ovsiy Levgarg



## Workshop “Human Errors and Quality of Chemical Analytical Results”

**Kfar Maccabiah, Israel,  
13 January 2015**

The workshop was organized by the Israel Analytical Chemistry Society with participation of the Israel Laboratory Accreditation Authority, in cooperation with IUPAC, CITAC and Eurachem.

Opening remarks were given by Dr. Ilya Kuselman, Independent Consultant on Metrology, Modiin, Israel, Chair of the Workshop Organizing Committee, and Prof. Wolfhard Wegscheider, the University of Leoben, Austria, Chair of Eurachem.

Keynote lectures were

- “The measurement cycle: principles of quality of analytical results and decisions which can be made on their base” by Prof. Wegscheider.

- “Metrology and quality of test results: documents of the Joint Committee for Guides in Metrology (JCGM)” by Dr. Walter Bich, Istituto Nazionale di Ricerca Metrologica (INRIM), Italy.

After these lectures Dr. Michela Segal, INRIM, Italy, moderated the round-table discussion “Can human error be taken into account as a component of measurement uncertainty?”

The second half of the workshop day started with the lecture by Dr. Kuselman “Knowledge is power (Francis Bacon 1597): comparability concept and global metrology system”.

Finally, a round-table discussion “Is a laboratory quality assurance system effective against human errors?” was moderated by Prof. Emil Bashkansky, ORT Braude College, Israel.

It was a fruitful and pleasurable meeting. The next two days, 14-15 January, the workshop participants took part in the Isranalytica 2015 Conference and Exhibition.

A summary of these events is available at <http://bioforumconf.com/isranalytica15>.

*Ilya Kuselman*

## EUROANALYSIS XVIII Bordeaux, France, 6-10 September 2015

The 18th EUROANALYSIS attracted over 600 participants from all over the world. More than 30 sessions with 160 oral presentations and more than 500 poster presentations built a very exciting scientific program.

From EURACHEM perspective the following lectures were of specific interest:

- “Reference Materials for the Detection and Quantification of Characteristic DNA Fragments in Food and Feed Labelling”, by Hendrik Emons (EC, JRC, IRMM) showing that Reference Materials (RMs) are required for various purposes in the development, validation and application of analytical procedures.
- “Using MOOCS for teaching Analytical Chemistry” by Ivo Leito (University of Tartu, Estonia)
- “Requirements for Teaching Analytical Chemistry- Conclusions from the European Employment Survey” by Philip Taylor (EC, JRC, IRMM)
- “Advanced Chemometric Strategies for Food Authentication”, by Federico Marini (University of Rome “La Sapienza”, Rome, Italy).

On Tuesday 8th September 2015 one of the parallel sessions at EUROANALYSIS XVIII was dedicated to “Analytical chemistry and environmental legislation”, which was chaired by *Nineta Majcen*, from EuCheMS.

In the last day of EUROANALYSIS XVIII, Prof. Peter Schoenmakers, from Van 't Hoff Institute for Molecular Sciences, University of Amsterdam, The Netherlands, presented the plenary lecture “How to Separate Extremely Complex Samples?”

EUROANALYSIS has established itself as the premier European meeting for discussion and presentation of analytical chemistry in a global sense.

The Swedish Chemical Society will organize EUROANALYSIS XIX in Stockholm, Sweden, August 27-31, 2017.

*Eugenia Eftimie Totu*

## CROLAB „COMPETENCE OF LABORATORIES”, Zadar, Croatia, 21-24 October 2015

The Eleventh International CROLAB Conference did attract more than 100 participants.

The conference was opened by the CROLAB President prof.dr. Davor Zvizdic who gave the lecture about the future of CROLAB and plans for CROLAB to represent its member-laboratories in Croatia and in Europe.

Distinguished plenary lecturers from abroad included:

- Peter Unger, ILAC Chair, with lecture on “ILAC and IAF: Benefits and Obligations of Membership”, and
- Wolfhard Wegscheider representing EURACHEM, with lectures on “Eurachem – Today and Tomorrow”

This was followed by many plenary lectures, posters presentations and round table discussions on the topics of testing, calibration, inspection, certification and accreditation

The conference also featured the exhibition of laboratory equipment and literature.

During the conference the accession of CROLAB to the full membership of EUROCAL was signed by the EUROCAL secretary Roman Honig and CROLAB president Davor Zvizdic.

No special surprise was the proverbial friendly atmosphere, social events and educational excursion CROLAB continues on the path of vigorous activity for the benefit of its member-laboratories' competence contributing and supporting to development of the knowledge, economy and international trade.

CROLAB also pledges its willingness to host the EURACHEM GA sometime in the near future.

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To get involved in Eurachem in your nation, contact the Eurachem secretariat for details on how to contact your national representatives or visit the Eurachem website [www.eurachem.org](http://www.eurachem.org).

## Eurachem Member Countries



Eurachem countries in green,  
associate member Georgia not  
displayed