



Eurachem

A focus for analytical chemistry in Europe

Beyond the 25th Year....

The current issue of Eurachem News is prominently featuring the festivities staged to remember the founding of Eurachem 25 years ago. The entire choreography of the event was in the hands of Past Chair Bertil Magnusson and Secretary Joakim Engman, who managed to make it a highlight of their two-years term. Congratulations to the Swedish team that is currently also serving so actively on the Executive Committee of Eurachem !

And then, there was the Portuguese team. While the thrust of the work was managed locally by Ricardo Bettencourt da Silva, Maria Filomena Camoes was instrumental as the senior advisor behind the scenes (and sometimes also in front). Thanks to her and her husband's authority that the Eurachem birthday party could take place at a splendid old castle in

the harbor of Cascais that is in everyday use by the high ranking officers of the Portuguese navy. Thank you to all four of you and to everybody else who contributed, albeit in a way not so visible to me.

But, of course, the look at the past serves mainly to get mentally prepared for the future. Many issues now are well established that were in limbo 25 years ago and "at the top of the pyramid" we now have CCQM (Comité Consultatif pour la Quantité the Matière, Consultative Committee on Amount of Substance) within BIPM that establishes not only what can technically and scientifically achieved in chemical metrology, but was also tuned by its first chair, Rob Kaarls, who was also first chair of Eurachem, to carefully monitor "how far the light shines".



News

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Eurachem not only has to uphold the European perspective on these matters, but also acts as a relay into countries not active within CCQM (and there are many) and into industrial and academic circles too detached from the CCQM perspective. It also serves as a common reference and source of advice to laboratories, as well as to accreditation bodies and auditors.

Two issues are essential in this respect: a strong interaction with other organizations with similar interest through a network of corresponding members and liaisons, and the provision of a robust platform for as many European countries as possible. While local Eurachem organizations are ideally meant to run their own programs according to their national needs and priorities, Eurachem „activists“ are encouraged to provide input as contributors to local workshops upon invitation.

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Editor: Alessandra Meixner

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Report from the General Assembly

The 30th General Assembly took place on 22 and 23 May 2014 I at the Hotel Mundial in Lisbon, Portugal.

We had 46 participants from 25 countries, including a number of past chairs present for the 25th anniversary of Eurachem celebrations, Philomena Camoes, Paul de Bievre, Bernard King, Maire Walsh and Elisabeth Pritchard as past chair of the ETWG. Bulgaria, France, Georgia, Greece, Hungary and Serbia were not represented at this year's GA.

Handover of Chairmanship

Bertil Magnusson spoke a few words about his 2 year period of chairmanship and especially thanked Steve Ellison for a smooth transition. Wolfhard Wegscheider as new chair thanked Bertil Magnusson for his fresh and heartwarming personal style and commended Joakim Engman for leaving the finances in perfect order.

He then went on to speak about his vision for the coming two years.

- help laboratories achieve the fitness for purpose
- offer guidance by disseminating information
- offer a platform for networking on a national and international level
- fulfill the mission of educating and training, especially young people who move through the ranks of an organisation

Progress on Eurachem work items:

Eurachem has a new policy on the appointment of officers and a new website policy. There are 3 Eurachem guides under review.

The new guide on Target Uncertainty was presented for comments. The discussion was spirited and fruitful, it was decided to review the draft and present it for a vote at the next GA. The leaflet on Bias also needs a little more work before publishing.

Presentations from Liaisons

This year we had reports from:

- Nordic Methods Committee on

Foods

- European Cooperation for Accreditation (EA) and the EA/Lab Committee
- Permanent Liaison Group
- EA-Eurolab-Eurachem working group "Proficiency Testing in Accreditation"
- Eurolab
- Euramet
- European Association for Chemical and Molecular Sciences
- Consultative Committee for Amount of Substance (CCQM)
- Codex Alimentarius and Interagency Meeting
- International Laboratory Accreditation Committee/ Laboratory Committee
- International Laboratory Accreditation Committee
- International Union of Pure and Applied Chemistry
- ISO REMCO Committee on Reference Materials

Next General Assembly will be held in Warsaw, 26-29 May 2015.

Alessandra Meixner



Membership & Representation

Georgia is new associate member. Regrettably Malta has left Eurachem.

Manfred Golze from Germany is retiring. We thank him for serving many years as liaison from Eurolab to Eurachem and welcome Michael Koch as new national delegate for Germany.

Barbara O'Leary and Michael Fay are the new national delegates for Ireland. Maire Walsh left some big shoes to fill.

We also welcome Pawel Majek from the Slovak Republic and Alfonso Gonzalez del Rey Estevez from Spain.

Caroline Laurent from BIPEA will be representing France. Michela Segal from Italy is replacing Enzo Ferrara.

Miloslav Suchanek is retiring, he served Eurachem as Chair from 2010 to 2012 and as Past Chair from 2012 to 2014.

He was our liaison to and from ISO REMCO. A big thank you to Miloslav, he will be greatly missed.

Wolfhard Wegscheider from Austria is Eurachem's new Chairman. Prof. Wegscheider is one of the founding members of Eurachem and well known to most of the Eurachem community.

Bertil Magnusson from Sweden has finished his term as Chairman and will be Past Chair until 2016.

David Milde from Czech Republic is now Vice Chair and will take over Chairmanship in 2016.

Joakim Engman, our last secretary and treasurer, was elected member to the Executive Committee for the next 3 years.

Eugenia Eftimie Totu will remain member of the executive committee for another 3 years.

Alessandra Meixner from Austria will serve as secretary until 2016.

Eurachem 25th Anniversary



The difference between an organisation and its members is that an organisation, if vital, can easily outlive its members. Eurachem is now 25 years of age and most of the members are over 25 years old. Today Eurachem is vital and the membership is growing. Eurachem guides are being used more and more, and our workshops are well attended with participants from around the world. So there is a good chance that Eurachem will reach 50 years of age, even if many of us will not be able to celebrate that historical moment. But we did celebrate the 25 year anniversary in Lisbon, perfectly organised by our Portuguese team led by Ricardo Bettencourt da Silva.

The birthday party was held in Palácio Seixas, a prestigious premises in Cascais outside Lisbon housing the Portuguese Navy Mess (I even had to bring a tie this time). Except for Rob Kaarls and Veikko Komppa who were not able to come, and Ed de Leer who

is sadly no longer among us, we managed to gather all the past chairs and Alex Williams, one of the founding members of Eurachem. Alex was presented with a glass vase with a Eurachem inscription. The past chairs received nice photo books about Eurachem activities and souvenirs from Portugal prepared by Carla, the wife of Ricardo.

The past chairs had an opportunity to give a recollection of their Eurachem time in a three minute speech. Alex's wife Beryl – a regular attendee at Eurachem events – also gave a short speech. The small competition was to be as close as possible to 3.00 minutes. The winner was definitely Bernard King who gave an interesting recollection of the founding of Eurachem in exactly 2 minutes and 57 seconds.

The venue close to the sea was wonderful, the food delicious, the wine excellent, and the entertainment hilarious (including a specially prepared 'Eurachem song') which, together with the company of other Eurachem members, made it an evening I will keep in my memory.

In order to mark the anniversary there was a workshop on measurement quality (see separate article), and two papers have been prepared for the journal 'Accreditation and Quality Assurance' (AQUAL). The first paper outlines the history of Eurachem and

the second attempts to assess the impact of the first 25 years of Eurachem activities.

Both papers can be found in AQUAL this year but also on our website, www.eurachem.org.

*Bertil Magnusson,
Past Chair*



Beyond the 25th year....

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The task of disseminating best practice to the laboratories still remains an enormous one as every new lab person at the bench needs a minimum of understanding and proficiency. New methods of analysis in biochemistry and medicine ("multi-omics") are also quickly gaining ground and require a fresh look at routines and actions with respect to quality issues.

The two central issues however remain: how to get hold of reliable standards, and, secondly, how to establish the optimal procedure to achieve an uncertainty level that is fit-for-purpose, particularly when there is more and more bioinformatics involved in the extraction of information.

Yes, I have no doubts, advances in methodology continue to provide for a busy future for Eurachem.

*Wolfhard Wegscheider
Chair*



We remember



Paolo Bianco

Dr Paolo Bianco, the Director of the Testing Laboratories Department at ACCREDIA, passed away suddenly on October 4th. Dr. Paolo Bianco has received his professional formation in Turin to which he has remained bound even after moving to Rome to become Director of the SINAL, which later became ACCREDIA's testing laboratories. In this role he managed to convey to employees his expertise and enthusiasm for the job,

He was able to set aside personal aspirations, to always encourage the most appropriate choices to put Italy in line with European Union requirements.

The sad news also hit colleagues of EA and ILAC hard, where he was responsible for the accreditation of testing laboratories.

He was a great man, both professionally and personally, and will be remembered for his great expertise and also an extraordinary humanity.

*adapted from eulogy of
Frederick Grazioli
President ACCREDIA*



John Green

Eurachem regrets the recent loss of Dr John Green, a General Assembly member from the UK.

John Green was an industrial analytical chemist, moving into industry after his PhD in 1971.

His career included research into polymerisation catalysts, flavour isolation and the development of on-line analysis to manufacturing processes. He nonetheless retained contact with academia, both as a visiting lecturer at Hull and Dublin City universities and as an external MSc examiner.

Throughout his industrial career and into retirement, John was a very active member of the Royal Society of Chemistry, serving at local section level and with the society's Analytical Division (as Council Member, President and Treasurer). He served as a Eurachem UK delegate, nominated by the RSC, at Eurachem General Assemblies, reporting back to the RSC and actively supporting Eurachem-UK activities. As an industrial chemist, John brought a welcome sense of practicality and industrial relevance to his professional activities, as well as a strong sense of the importance of analytical quality assurance and of the importance of international harmonisation.

He will be missed by all of his professional colleagues, within and outside Eurachem.

Steve Ellison

New Book



Laboratory Statistics by Anders Kallner

Statistics is the science – and art – of describing sets of data in terms of probabilities, no matter if it refers to comparisons of events or results, uncertainties, or central tendencies. Statistics is a subject almost all, perhaps all, laboratorians have been exposed to during education and training and something almost everybody meets in daily life. Nevertheless, as soon as we are confronted with results or a computational problem outside our daily routines the question arises what is valid and exactly how were the formulas? Are there any caveats or precautions I need to consider? Is there any help available outside the complex statistical software? Can I do the calculations myself, rapidly and correctly?

The handbook "Laboratory Statistics" is meant as a compendium, to simplify recollection of statistical knowledge that might have fallen out of the immediate memory. Laboratory Statistics not only contains the most fundamental definitions of statistical entities but also more advanced procedures. Together it covers virtually all you need in ordinary laboratory work. The author has bent his back to write the formulas in an expanded format to avoid the mathematical shorthand, although many find that elegant. Many formulas therefore occur in different forms and formats to facilitate recognition across cultures. In addition, there is a comprehensive, yet informed, selection of metrological terms, chosen from VIM to enhance understanding and communication in the field.

Bertil Magnusson

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Print Book ISBN : 9780124169715

Eurachem Workshops 2014

Workshop on Quality in Analytical Measurements - From Specification to Decision, May 2014, Lisbon, Portugal

From 19 to 21 May 2014 Eurachem held a workshop on "Quality in Analytical Measurements", with the subtitle "From specification to decision" in Lisbon. This workshop was organised by the Working Group on "Measurement Uncertainty and Traceability" with the collaboration of the chairs of the ETWG, MVWG and PTWG. The local organizers were led by members of the Faculty of Sciences of the University of Lisbon. RELACRE, the Portuguese association of accredited laboratories, was particularly important for the advertisement of the event in Portugal.

The workshop discussed all stages of the measurement cycle and some

quality assurance tools that ensure the adequacy of the produced measurements for its intended use. There were 5 sessions: "Eurachem 25th Anniversary - The measurement cycle", "Setting requirements for measurement validation", "Bias evaluation and proficiency testing", "Measurement traceability and uncertainty", "Compliance assessment" and "Quality Assurance and Training".

The workshop started with a presentation by Alex Williams about why and how Eurachem was founded and closed with a discussion about future activities of Eurachem initiated by the former chair Maria Filomena Camões.

Sessions were accompanied by breakout session that allowed participants to share experiences and positions. Participants were asked to suggest how Eurachem can play an active role in areas that demand progress.

The 137 participants of the workshop from 36 countries and 3 continents gave a very positive feedback. The book of abstracts, some presentations and pictures are available on the workshop website (<http://eurachem2014.fc.ul.pt>) The most relevant information of the workshop is also available from www.eurachem.org.

Ricardo Bettencourt da Silva



8th Eurachem Workshop on Proficiency Testing in Analytical Chemistry, Microbiology and Laboratory Medicine, October 2014 Berlin, Germany

From the 6th to 9th October, 245 delegates from 64 countries gathered in Berlin for this triennial event bringing together the world's leading proficiency testing (PT) providers, along with accreditation bodies, other regulators and a number of users of PT, in order to debate the latest developments in international standards and operational practice within the sector. The Workshop was organised by the Eurachem Proficiency Testing Working Group, in co-operation with CITAC and EQALM, and was supported by a number of organisations.

The workshop covered a number of

key topics through keynote speakers, short presentations, poster presentations (77 in total) and discussion groups. The key topics discussed were:

- Review of ISO/IEC 17043
- User perspective of PT
- Sampling PT
- The revised ISO 13528
- PT in developing countries
- Harmonisation of performance assessment in qualitative PTs

Prior to the workshop two training sessions were held on the topic 'ISO 13528 and beyond'.

Feedback from the delegates reflected the great success of the

event which provided good interactive participation and cross-fertilisation of ideas.

Copies of many of the presentations and posters are available on both the Workshop website (www.eurachempt2014.de) as well as the Eurachem website (www.eurachem.org). A number of papers will be developed from the various presentations, including feedback from the working groups, and published as a topical focus in an issue of Accreditation and Quality Assurance (Springer Verlag).

*Brian Brookman
Michael Koch*

Working Group Reports

Eurachem Education and Training Working Group

The Education and Training Working Group held a successful meeting in Lisbon in May. During the year we have been pleased to welcome new members from Germany, Slovakia and Turkey. Working group members have been working to collate a bibliography of quality assurance training resources. The list of resources has now been published as a 'Reading List', available as both a pdf and webpages, in the Publications section of the Eurachem website. The list will be reviewed and updated annually by the working group. A key task for the group in the coming year will be the revision of the Eurachem 'Guide to Quality in Analytical Chemistry: An aid to accreditation'. A task group has been formed and a 'kick-off' meeting held. Work on the revision will continue in the coming months. The revision will bring the guide into line with ISO/IEC 17025 requirements and ensure that the terminology is consistent with current international vocabularies. The working group is also preparing a leaflet, 'The right word for every concept: 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.

Vicki Barwick

Method Validation Working Group

The MVWG is now consisting of 20 members representing 11 different countries.

The year 2013 was finally the year where the work on revision of the "Fitness for Purpose" guide was put on track for real and a significant progress was made towards a revised version of the guide. This is not least thanks to Bertil Magnusson and Ulf Örnemark (assisted by Vicki Barwick), who by end of 2012 offered to act as editors in the process – but also thanks to an active and growing working group.

Activities have been centered around 3 meetings, – with a lot of communication and commenting going on within the WG in periods in between:

The first meeting in connection with the GA in Helsinki, May 2013 was held with 8 participants (among those 2 new members of the WG). Some of the members who had made their apologies for the meeting had also contributed with written comments. All comments were taken into a new draft of the 2nd version.

A 2-day meeting was held in Berlin in September 2013 with 6 participants discussing intensely the 50 pages of comments sent in during the periods since the previous meeting and additionally two excerpts from the text on specific subjects (LOD/LOQ and trueness). The discussions resulted in a new draft document sent out for further commenting within the WG. At the meeting suggestions for additional subjects to be included in an additional new guide (or new annexes to the existing one) were discussed, partly based on outputs from the WS in Berlin May 2012.

In addition to the new items it was strongly agreed within the group that a set of good and useful examples of typical validation protocols following the recommendations in our guide should be established. After formal approval such examples might be published on the Eurachem website.

In January 2014 another 2-day meeting was held in Rome with 9

participants (incl. 2 new members) and again intense and fruitful discussions led to new suggestions for revised text in a new version of the guideline. As it was impossible to agree on a final draft during the meeting, specific subjects were given to 4 sub-groups to elaborate on. A final draft could finally be sent out to members of the GA for commenting by end of February.

At this meeting it was also decided to set up a plan for the future work in the WG. The group will hold 2 regular meetings a year (January & June). After the completion of the revision of the guide relevant subjects that have come up might be tackled in the form of annexes to the validation guide.

After looking at the comments coming in from the GA representatives we were able to present a voting draft at the WG meeting in Copenhagen in June 2014. This led finally to the publication of the revised guide, **see separate article on page 7.**

Among the subjects considered for further discussion/elaboration are:

- Multi-parameter methods
- Multi-matrix methods
- Robustness
- Planning including efficient design
- Validation report outline
- Use of data from published standard
- Use of data from the validation study
- Setting performance requirements
- Verification of test kits/automated analysis (black box)
- Extent of validation – see IUPAC single lab guide p. 844
- Method validation/instrument qualification
- Calibration of analytical instruments

A priority list will be discussed within the WG and 1-2 subjects given to sub-groups within the WG for elaboration of drafts for discussion at the planned WG meetings in the future.

Lorens P. Sibbesen

Uncertainty and Traceability Working Group

The Uncertainty and Traceability Working Group held a meeting at LGC in December 2013. The main activities of the working group have been preparation for the workshop in Lisbon, drafting of the guide on target uncertainty and consideration of bias evaluation and its uncertainty. The Traceability guide is under revision. The working group will also meet on Wednesday 21st of May in Lisbon mainly to evaluate the workshop.

Alex Williams

Proficiency Testing WG

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

The latest PT leaflet – “How can proficiency testing help my laboratory?” has been finalized in English and is published on the Eurachem website. Translations are in progress and so far the following versions are available on the website: Croatian, Czech, Estonian, 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.

The final arrangements are being made for the 8th PT workshop being held in Berlin on the 6th to 9th October 2014. A report about this is on page 4.

Work continues on two new leaflets: „Planning and frequency of participation” and „Selecting appropriate PT schemes”.

Three new members, from France, Italy and Spain have joined the WG and will attend their first meeting in October.

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, Denmark, Michael Koch, Germany, Ulla Tiikkainen, Finland.

Brian Brookman

Upcoming Meetings and Workshops

CITAC/ Isranalytica International Workshop on Human Errors and Quality of Chemical Analytical Results

14-15 January 2015, Tel Aviv (Israel)

Eurachem 31st General Assembly and Eurachem 50th Executive Committee Meeting

26-29 May 2015 Warsaw (Poland)

Eurachem 51st Executive Committee Meeting

25 Sep 2015, Graz (Austria)

Eurachem 32nd General Assembly

9-13 May 2016, Ghent (Belgium)
in connection with a workshop on a topic on Method Validation

New version of the popular “Fitness for Purpose” Guide!

The Eurachem Guide “**Fitness for Purpose of Analytical Methods. A laboratory Guide to Method Validation and Related Topics**” was first issued in 1998 and has been very popular over the years. It has actually been the 2nd most downloaded document from the website, only “beaten” by the MU guide!

Already some years ago, the Executive Committee saw the need for a revision of the guide, and the Method Validation Working Group (MVWG) was revived. So, now after 3-4 years of intensive work within the MVWG a 2nd version was released this October, taking in account experiences gained over the years, new applications, renewed requirements in the field, but basically keeping the same structure of the guide. The text in the various sections has been thoroughly discussed, updated – and in some cases reworded, especially on the subjects “*Limit of detection and limit of quantification*” (sect. 6.2) and “*Working range*” (sect. 6.3)

The guide is aimed at in-house validation, focusing on mostly quantitative analysis.

Annex A of the previous version was dealing with definitions. This has been replaced by references to the VIM3 and the Eurachem guideline “Terminology in analytical measurement” (TAM, also freely downloadable from the Eurachem website).

Two new annexes for better understanding of the statistical methods for the evaluation of validation data have been added **Annex B**: “*Statistical basis of limit of detection calculations*” and **Annex C**: “*Analysis of Variance (ANOVA)*”.

Annex D “*Notes on qualitative analysis*” and a small sub-section (6.2.5) on “*Capability of Detection*” deals with some problems in Qualitative Analysis.

The new version includes a “**Quick Reference**” for every validation parameter with an instruction on how to deal with that specific validation parameter in practical circumstances.

We, the members of the MVWG, are convinced that this new version will be as popular as the old one. It is planned to make some worked examples of applications within the scope of the guide available on the Eurachem website. Also a workshop is planned for May 2016 on a related topic in connection with the GA 2016 in Ghent.

Special thanks go to the two editors Bertil Magnusson and Ulf Örnemark who took upon them the vast task of keeping track of all the comments made and finally combining everything nicely into the new version and to all the members of the WG for all the voluntary work.

Lorens P. Sibbesen

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

Wolfhard Wegscheider from Austria is Eurachem's new Chairman. He represents the Austrian Society of Analytical Chemists ASAC (www.asac.at) within the Austrian Chemical Society (www.goech.at), an original signatory of the MoU in 1989. Dr Wegscheider is a member of the working group on Measurement Uncertainty and Traceability and of the working group on Education and Training. He is currently Professor of General and Analytical Chemistry at the Montanuniversität Leoben, where he also served as Rector (President) from 2003 to 2011.

Among the achievements is the high visibility and very prominent representation of quality matters in all chemistry curricula both at the secondary school and university level. The main activity within Eurachem Austria is the post-graduate training for academic and non-academic staff. The 4 weeks course is now in its 14th year, last year there was a very high participation with 36 students. Austria is also holding the Eurachem Secretariat until May 2016.

Alessandra Meixner

Belgium

BELAB is member of Eurachem and Eurolab. The association has an executive board with 9 members and counts 50 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 has been led by Isabelle Vercrusse (chair) and Philippe Dewolfs (vice-chair). In 2013, BELAB gave to his members on the yearly GA meeting a report of the questionnaire survey they organized late 2012. This survey gave

a good view about how the relation is between BELAC (Accreditation body in Belgium) and their clients. The response of the survey was 62,5%. The information was spread by mail to all members.

BELAB presented the results of the questionnaire survey to the BELAC advisory board.

In autumn 2013, a new website www.belab.be was created which 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 was organized in March 2014 in Brussels. About 130 persons (70 Flemish and 60 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: measurement uncertainty, non conformities and flexible scope. In the introduction given by the president and vice president of BELAB, the work of BELAB, Eurachem and Eurolab was presented.

In spring 2015 BELAB will organize a workshop in cooperation with BELAC about internal audit and validation of software used in the lab.

In May 2016 BELAB will organize the Eurachem General Assembly and The Eurachem Executive Spring Meeting in connection with a workshop on a subject based on the new Eurachem validation guide.

The Eurachem activities and information is diffused through the new website and in a presentation on the GA. The Eurachem Informative Bulletin is distributed among the members.

Isabelle Vercrusse

Bulgaria

In 2013 the Third Edition of the EURACHEM /CITAC Guide „Quantifying Uncertainty in Analytical Measurement” was translated in Bulgarian language supported by UBM and disseminated in paper and electronic form.

Several seminars and specialized courses for representatives of laboratories for testing and calibration were organized on the subject of:

- Uncertainty in sampling: Assessment of the measurement uncertainty in testing (March 2014).
- Good laboratory practice: Technical requirements and operators, influences on assurance of reliable and metrological traceable results of measurement in testing and calibration. Practical application of CRM (December 2013).

Lectures were given on themes from following EURACHEM Guides, part of which have been translated in Bulgarian language:

“Measurement uncertainty arising from sampling “(2007); Traceability in Chemical Measurement (2003); Guide to Quality in Analytical Chemistry (2002); The Selection and use of Reference Materials (2002); Terminology in Analytical Measurement: Introduction to VIM 3”.

Until the end of 2014 a publication in the bulletin about Guide QUAM, 2012, is planned aimed at experts working in field of chemistry.

A program for training courses with the participation of the BULCHEM section was drawn up and discussed by the Board of UBM on the following subjects:

- QUAM 2012 Guide with examples in the field of chemistry
- Calibration of measurement instruments: spectrophotometers, chromatographs and spectrometers on the base of good laboratory practice.

Dimitar Stankov

Cyprus

An ad-hoc committee was established with the task to revise the EA-4/10 "Accreditation for Microbiological Laboratories". This document was drafted by Eurachem more than ten years ago and following a decision by EA, Eurachem was asked to revise and publish it as its own document. In December 2013, after the submission of comments by the national Eurachem committees, the Eurachem Guide entitled "Accreditation for Microbiological Laboratories" (second edition) was published.

It has been decided that the Cyprus Eurachem Committee, operating under the umbrella of the Pancyprian Union of Chemists (PUC), is restructured to ensure more efficiency and to encourage the involvement of more experienced people working in laboratories and the universities as well of young colleagues. To this end, after a proposal for the formation of a Division on Quality Assurance that was approved by the last General Assembly of the PUC in March 2014, further steps were taken to realize the aforementioned task. Up to 30 people working in both public and private laboratories and the academia actively expressed their interest in participating. It is quite important that young colleagues have already joined the effort. After two meetings held in May and June, a detailed plan for coming activities has been drafted. Emphasis is given to training and awareness activities, use of communication and information means and wider involvement in the activities of Eurachem.

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, 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

Eurachem in Denmark is nested in the Network for Analytical Chemistry within Eurolab Denmark and has about 110 individuals from about 70 member institutions/companies signed up. The network is facilitated by our technical secretariat (and the board) in terms of arranging meetings providing the members with information of interest and relevance for analytical laboratories and appointing representatives among the members for advisory groups within DANAK (the Danish Accreditation Body), steering committees of reference laboratories etc.

We have only had one formal meeting

during November 2013 on the subject "Developments within Method Validation".

The meeting was mainly based on two activities in the area: The ongoing work on revision of the Eurachem Guide "Fitness for Purpose..." and parallel work in a Danish working group on revising an older DANAK guideline on the subject. The meeting was very well attended, and gave a lot of useful feedback from the participants in terms of relevant questions and experiences from practical work on method validation in the laboratories.

One of the important activities for Eurolab Denmark is representing the accredited laboratories towards our Danish Accreditation body, DANAK. Our organization is appointing 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. Our representative is holding the chairmanship in the Environmental Advisory Group at present, and we are working deliberately on setting up relevant agendas for the meetings and initiate relevant discussion for improving the accreditation practices in the area.

During 2013 our members attached to the Network for Analytical Chemistry were contacted a number of times for comments on drafts for new laws suggested as part of our regulatory system in Denmark related to activities in analytical laboratories. Especially a revised regulation on Quality Assurance related requests for laboratories doing work related to monitoring of our environment was issued during the year, and comments from a number of our members contributed to a more adapted – and realistic – wording in the revised regulation. In relation to this particularly the guidance – and additional discussions – from Eurachem in handling of uncertainty related to bias proved very useful. So directly or indirectly Eurachem has been alive and kicking among analytical laboratories in Denmark in 2013.

Lorens P. Sibbesen

Estonia

In 2013, Estonia joined Eurachem and Eurachem activities in Estonia are coordinated by the Estonian Environmental Research Centre (EERC). The two national representatives are Riin Rebane from EERC and Ivo Leito from University of Tartu.

This year many activities were aimed at starting a stronger Eurachem community in Estonia: establishing a webpage with all the most important info about Eurachem translated into Estonian (<http://www.klab.ee/firma/eurachem/>) with links to different guidelines and events.

In addition, a small survey was conducted which helped to spread information about Eurachem and also combine a list of interested laboratories for further discussions (about 30 laboratories). The survey showed that 80% of the organisations have heard about the Eurachem and the main interest areas are validation, uncertainty and proficiency testing.

In addition, a tutorial review article for LC-MS method validation is being written with the participation of Riin Rebane and Ivo Leito, also containing the info about the Eurachem validation guideline. A validation course mostly based on the Eurachem validation guideline was organized in May 2014. Multiple Eurachem drafts of documents have been given feedback to and PT leaflet was translated into Estonian.

Ivo Leito participates in the work of the Eurachem Measurement Uncertainty WG and specifically in compiling the leaflet on bias correction (together with Bertil Magnusson). Indirectly related to Eurachem, a Massive Open Online Course (MOOC) "Estimation of measurement uncertainty in chemical analysis" has been set up and its first edition has successfully run during March 03 - April 13, 2014. The course eventually had 270 participants from more than 40 countries. 141 participants successfully completed the course, making the completion rate 52%.

Riin Rebane

Finland

Finntesting Association is an umbrella association for Eurachem Finland and Eurolab Finland. The association has 30 company members and 27 individual members. Finntesting Association has an executive board with 10 members. Finntesting Association has nominated members in the Eurachem Executive Committee, in the Eurachem General Assembly, and several Eurachem Working Groups.

In 2013 Finntesting Association organized the Eurachem annual meeting during which a two-day Finntesting/MIKES/Eurachem workshop on Quality Assurance of Measurements from Field to Laboratory was held. The 45 participants of the workshop were from 12 countries. There were two main subjects in the workshop including a poster session and discussions: challenges related to on-site/on-line measurements and challenges on nanotechnology. The participants considered the scientific programme important and interesting according to the results of the questionnaire made.

Finntesting Association encouraged two students by delivering them awards based on student's meritorious thesis where quality assurance aspects had been taken into account. The Association also recognized Christina Waddington-Waldén from FINAS for her successful work in the field of accreditation nationally and internationally during many decades.

Finntesting Association

Germany

In November 2013 EUROLAB-D organised a successful second TrainMiC seminar at BAM in Berlin. As decided by the General Assembly of EUROLAB-D, the transfer of the Secretariat from BAM Federal Institute for Materials Research and Testing to another member (VMPA, Association of Materials Testing Institutes) was prepared in 2013 and came into operation on 1 January 2014.

According to a contract between EUROLAB-D and VMPA, the new Secretariat will perform all administrative tasks while BAM will continue to support the work of EUROLAB-D concerning substantive issues and the management of the Technical Committees.

A new website is under preparation and will be launched before the next General Assembly which will take place on 6 June 2014 in combination with a colloquium. Among others the website will provide topical information of EUROLAB and EURACHEM, e.g. the EURACHEM Guides and leaflets and, if available, their German translations. Recently German translations of TROLL Book and TAM were finished.

EUROLAB Germany is organising the 8th International Workshop on Proficiency Testing in Analytical Chemistry, Microbiology and Laboratory Medicine, which will take place from 6 - 9 October 2014 in Berlin. In the meantime the second circular was prepared and disseminated and published on the workshop website

(www.eurachempt2014.de). Abstracts for short presentations and scientific posters can be submitted via this website by 31 May 2014. Notification of acceptance by the Scientific Committee will be done by 15 July 2014. Some sponsors were found to support this event and some organisations registered as exhibitors. We will need further the full support of all EURACHEM organisations for promoting this workshop in order to make it as successful as its predecessors.

Eurolab Germany

Ireland

The Eurachem Analytical Measurement Competition (EAMC) is held annually and the event is organised and run by EAMC Committee, Eurachem Ireland Secretariat and by the host IT / University. The competition continues to thrive and engender support throughout the chemistry education community and is largely self supported.

This year's EAMC competition was hosted by Limerick Institute of Technology. Twenty two teams from eleven colleges took part. The teams had to carry out an acetylsalicylic acid analysis by back titration and an estimation of iron by UV-vis spectrophotometry using 1,10 phenanthroline.

The winning team was from Waterford IT and the runners up from IT Carlow and Dublin City University.

This year's judges were Ray Leonard formerly of Loctite Henkel Ireland, Tom Hannigan from the Forensic Laboratory and Darragh Cunningham from the EPA.

The plaques for the winners were replaced by engraved glass plates on a wooden plinth, still featuring the Newgrange lightbox logo that is allied to the competition.

Sponsors include Institute of Chemistry of Ireland, Royal Society of Chemistry Analytical Trust Fund, EPA, Masontech, Pharmaceutical Ireland. The expenses for the teams and their mentors are paid with support of the Association of Heads of Schools of Science. The student bursaries are paid by Eurachem Ireland.

Marie Walsh of LIT passed the Chairmanship of the EAMC Committee to Ray Benson, IT Carlow, which will host next year's event.

Seán McGowan

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). Its activity is aimed to promote the implementation of metrology concepts by analytical scientists and is carried

out through the dissemination of relevant information, the organization of training events, the contribution to guidance documents and their translation in Italian. The same organizations and the Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta also support the EC JRC IRMM Programme TrainMiC "Training in Metrology in Chemistry" (www.trainmic.org).

The latest developments in Eurachem activities were highlighted at the 3rd Joint Workshop of the National Reference Laboratories for Heavy Metals in Food, Heavy Metals in Feed and Additives in Feed, held in Rome on the 29 and 30 October 2013.

Information on the latest Eurachem workshops was presented and the participants were addressed to the materials available on the Eurachem website for further details. An update was given on the revision of Guides, including completed projects (Accreditation for Microbiological Laboratories, 2013), on-going revisions (Traceability in Chemical Measurement and The Fitness for Purpose of Analytical Methods) and coming projects (Guide to Quality in Analytical Chemistry: An Aid to Accreditation) with an invitation to those interested to come forward. Participants received copies of the Eurachem Newsletter and of Eurachem leaflets.

In February 2014, a TrainMiC training event on "Validation of test methods and measurement uncertainty evaluation" was held for 16 members of staff at ISS.

The translation in Italian of the Eurachem Guide "Terminology in Analytical Measurement" has been completed and is available on-line free of charge, as a National Institute of Health Report (Rapporti ISTISAN 13/41, www.iss.it) as well as on the Eurachem website. In addition, the leaflet on "How can Proficiency Testing help my laboratory?" produced by the PTWG was translated in Italian.

Eurachem events, such as Eurachem Workshops, were promoted through the distribution of announcements and links to mailing lists and their publication on the organizations' websites. 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. A two-days meeting of the Method Validation WG was hosted at ISS (Rome) in January 2014.

Marina Patriarca

Poland

Presently 77 laboratories are members of the Eurachem-PL Section of Polish Chemical Laboratories in the Club of Polish Testing Laboratories, POLLAB.

Since 18.12.2013 Eurachem-PL has been lead by Andrzej Brzyski (chair), Ewa Bulska (vice-chair), and the section secretariat is hosted by secretariat 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 the organization of symposia organized every year by POLLAB. The main topic at the XIX POLLAB Symposium (2013) was „Managing measurement results in a testing and calibration laboratory”. The symposium was attended by over 400 participants in two rounds.

We organized also special section's meetings, including invited lectures dedicated to selected subjects. In 2013 there were two meetings, where participants discussed about „PT/ILC programs and requirements of accreditation”.

We also organized 2 rounds ILC programs in 2013.

In 2014 Eurachem-PL intends to continue the present policy to support laboratories. The members will attend the POLLAB Symposium, section meetings and new ILC/PT programs.

Andrzej Brzyski

Romania

EURACHEM Romania recorded active members from the following institutions:

- teaching staff from universities (University of Bucharest, Politehnica University of Bucharest, Transylvania University of Brasov, Ovidius University of Constanta, University of Iasi, Technical University of Iasi etc.)
- researchers from various research institutes (INCDSB, ICECHIM, INMR etc.)
- specialists from national and/or local agencies for environmental monitoring, for public health, from national accreditation body (RENAR)
- practitioners from specialized and accredited laboratories

The main activities of EURACHEM Romania Association in 2013 were:

- the annual FORUM and the General Assembly
- EURACHEM Informative Bulletin no.17 (11 pages)
- Translation of VIM-3
- Translation of 3rd edition Eurachem / CITAC *Guide Quantifying Uncertainty in Analytical Measurement* into Romanian language
- Continuous development of the web site <http://www.eurachem.ro> in order to assure a constant and dynamic information of our collaborators.

New activities are oriented towards sustaining the young generation to come forward to science, organizing professional contests for students. In November 2013 the Professional Students' Competition - Analytical and Co-ordinative Chemistry, was held.

Members of EURACHEM Romania are in specialized panels involved in the evaluation activities of RENAR, the Romanian Accreditation Association. They are also co-operating with the National Metrological Institute. Common efforts to attract material resources are being supported by RENAR, the Romanian Accreditation Association and local companies developing activities in analytical instrumentation area.

Gabriel-Lucian Radu

Russia

There are more than 300 thousand analytical chemists in Russia. On behalf of them we congratulate Eurachem on the anniversary. The whole year stood under the sign of change associated with the reversal of the legal basis. Since July 1, 2014 the entire field of conformity assessment and accredited laboratories will work under a new document. End of last year, the President of Russian Federation signed the "Accreditation in the national system of accreditation" law. The reforming of the accreditation system in Russia is carried out with the support of colleagues from the European Union. The success of the Russian system of accreditation reform will appear in a growing trust towards analytical results of our national laboratories and to the real possibility of establishing a free trade area from Lisbon to Vladivostok.

One of the main metrological centers of Russia is the Ural Scientific Institute of Metrology- www.uniim.ru. Special mention should be made of the important role of the Proficiency Testing Working Group for the purposes of assessment of the technical performance of measurement and testing laboratories in Russia. The UNIIM Working Group proposed to the SAWG CCQM to organize a comparison in the field of measurements of porosity characteristics (specific adsorption, surface area, specific volume and pore diameter). Primary pilot comparisons will be organized for not only national metrology institutes, but for other organizations having skills and experience in this area. Those wishing to participate may send an application to: 251@uniim.ru.

Common interests and issues of analysts in the industry of precious metals led to a necessity for a development of a branch-wise reference materials service of precious metals and alloys. Please contact the Ekaterinburg non-ferrous metal processing plant gorbatova@ezocm.ru for information. The Association of Analytical Centers of Russia "Analitica" offered to open a special page on the own portal that is devoted to activities of the Eurachem in the Russian language.

Baranovskaya Vasilisa

Slovakia

The main activity of EURACHEM Slovakia (ES) is the transfer of information from the Eurachem resources to the analytical laboratories in the Slovak Republic (SR) and increasing the professional level in the SR.

This transfer is realized by translating some guides from English into Slovak language and by organizing professional seminars on current topics for people in quality control and metrology and especially for accredited bodies of SR. During these seminars participants are acquainted with activities and professional events organized by working groups of the ES. The Slovak Accreditation Body accepts these professional seminars as a one of the forms of staff training of accredited bodies.

Over the last year ES has organized two seminars, one on metrological traceability of chemical measurements, the second one was focused on ensuring the quality of the measurement results in the testing laboratory - Evaluation of Experimental Data in Qualitative Analysis. Participants obtained all material in electronic form. Among it was the third revised edition of Quantification of Uncertainty in Analytical Measurement in Slovak language.

Recently there has been a significant shift in membership of ES. In part it was related to organizational changes in the Slovak Institute of Metrology, in the Slovak National Accreditation Service and due to the departure of some members from the mentioned institutions. A result of these changes was the absence of our representatives at the Annual Meeting in 2013. In the first quarter of 2014, there has been a reorganization of the ES Committee. The chairman of the ES became Dr. Pavel Májek from Institute of Analytical Chemistry, Faculty of Chemical and Food Technology, Slovak University of Technology in Bratislava and Dr. Zuzana Ďurišová from the Slovak Institute of Metrology is the secretary. Both members of the ES will be representing the ES externally including EURACHEM Annual Meeting.

*Pavel Májek
Zuzana Ďurišová*

Spain

During 2013, Eurachem Spain has been involved in the following activities:

1. Working Group Validation of Methods: attended meeting in Helsinki to prepare the Guide for single validation of chemical methods.
2. Working Group of Education and Training : attended meeting in Helsinki to review survey results on training provision and needs for metrology in chemistry and biochemistry in testing laboratories, as well as the translation of the VIM, Quality Assurance bibliography and the revision of 'Guide to Quality in Analytical Chemistry: An Aid to Accreditation'.
3. Review and comments for the Guide of Accreditation for Microbiological Laboratories.
4. Eurolab Spain has upgraded its website to include the link to Eurachem website.
5. Final translation of technical paper Nordtest 567 on quality control in analytical laboratories.
6. Translation leaflets: Use of uncertainty information in compliance assessment and Pre- and Post-analytical Proficiency Testing.
7. Speech at the IELAB Conference on internal quality control - December 2013 Barcelona-Spain.
8. Spread Eurachem activities and workshops throughout Eurolab Spain Members, the Regional Net of Public Laboratories in Madrid and the Spanish Society of Analytical Chemistry.
9. Spread information about Eurachem activities into the monthly Newsletter of Eurolab Spain.
10. Training courses performed (18):
 - Management and Technical Requirements of ISO 17025: 4
 - ISO 17025 audits: 2
 - Quality Assurance: 5
 - Uncertainty estimation: 4 (one of them about microbiology testing)
 - Equipment calibration: 1
 - Validation of methods: 1
 - Reference materials: 1
11. Collaboration with the National Body Accreditation (ENAC) in the reviewing of Document for validation of microbiological and the Selection of testing methods

Sweden

In Sweden we have a joint national Eurolab and Eurachem organisation with 26 members representing over 100 companies.

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

During 2013 we held 2 member meetings focussing mainly on accreditation and measurement quality issues such as:

- Calibration – new demands due to ILAC P10
- Validation
- How to deal with and follow up wrong reporting to clients
- Review of contracts

We also held the Eurachem secretariat during 2013.

*Bertil Magnusson and
Magnus Holmgren*

Turkey

The training group in the Chemistry Group Lab in UME in collaboration with EC JRC IRMM Programme TranMIC has organised a trainMIC training event in Gebze/Kocaeli (19th-20th of December 2013), covering a variety of topics. The course was attended by 24 participants. The presentation were given in Turkish by the TrainMIC trainers from Turkey. In addition training on method validation and uncertainty in chemical measurement was organised in UME on 6th-10th of May 2013, 12th-16 th of November 2013, and 9th-10th December 2013. The training course, which included lectures, practical exercises and learning evaluation, was attended by 44 participants.

Eurachem leaflets were translated to Turkish language; Proficiency testing leaflet : "How can proficiency testing help my laboratory" and Compliance leaflet: "Use of uncertainty information in compliance assessment". The translation of the "Quantifying Uncertainty in Analytical Measurement" guide into Turkish is in progress.

EURACHEM Turkey contributes to the Eurachem WGs: Education & Training, Uncertainty and Traceability and Method Validation.

Several lectures were presented in conferences covering the following topics : "External quality control and proficiency testing", "Uncertainty in chemical measurement", "Method validation and measurement uncertainty in chromatography", "Method validation and measurement uncertainty in ICPMS", "Method validation and measurement uncertainty in IC techniques", "The importance of use and production of SRM" at the 1st national laboratory accreditation and safety semposium on 16-18 May 2013 in Istanbul.

"Method validation and measurement uncertainty in determination of Aspartame in drug" at the chemistry of drug conference on 29-31 March 2013 in Antalya/Turkiye.

"The Importance of Metrology in Chemical Measurements", at the 2nd Congress of International Association For Forensic Science Institutes "Challenges In Forensic Sciences", on 23-26th October 2013, Istanbul/Turkiye

"Production and Certification of Reference Material For Aflatoxin In Dried Fig: Feasibility Study", at the Eurofoodchem XVII conference, 07-10 May 2013, Istanbul/ Turkey

"Primary Level pH Measurement System and Uncertainty Estimation", at the 10th International Electrochemistry Meeting, 4-8 September 2013, Konya/Turkey

Mine Bilsel

Ukraine

In November 2013 a workshop *Safety and Quality of Food Products* was held under the auspices of the Ministry of Agrarian Policy and Food of Ukraine.

Different aspects of food products testing were considered, including legislation and normative documents.

Among others, Eurachem Guide *Terminology in Analytical Measurement – Introduction to VIM 3* and its translation were presented.

A Draft translation of the Eurachem leaflet *How can proficiency testing help my laboratory?* into Ukrainian was prepared and sent to Eurachem for publication.

Ovsiy Levbarg

United Kingdom

Eurachem activity in the UK is coordinated between the Analytical Methods Committee of the Royal Society of Chemistry (AMC), and through LGC, who lead the UK Chemical and Biological Measurement programme.

The AMC (<http://www.rsc.org/AMC/>) has sub-committees concerned with sampling uncertainty/sampling quality, statistical methods and validation [of analytical methods] 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/>. Topics for recent Technical Briefs include "Checking the quality of contracted-out analysis", "Experimental design and optimisation (4): Plackett-Burman designs", "What causes most errors in chemical analysis?", "An introduction to non-parametric statistics" and "Estimating sampling uncertainty – how many duplicates are required?" 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 described on the programme website at <http://www.nmschembio.org.uk/>. Activities of particular interest to Eurachem in the year ending May 2013 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. The most recent are the "Guide to achieving reliable quantitative LC-MS measurement" and the new "Good Practice Guide for the application of Quantitative PCR (qPCR)". 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

NEWS * NEWS * NEWS * NEWS

Massive Open Online Course (MOOC) on measurement uncertainty estimation

During Mar 03 - Apr 16, 2014 the MOOC "Estimation of measurement uncertainty in chemical analysis" (sisu.ut.ee/measurement/) was offered by the University of Tartu. The course eventually had 270 participants from more than 40 countries. 141 participants successfully completed the course, making the completion rate 52%, which is very good for a MOOC, especially one that has quite difficult calculation exercises.

The participant feedback was very positive and we are glad that evidently we were able to offer something that is really needed by people who do chemical analysis in their everyday work, as many of our participants *do*. The participants were very active and asked lots of questions. These were often very much to the point and addressed things that are really important to analysts in their everyday work. The course had several forums (general and by topic) and the overall number of posts to *forums* during the course period reached beyond 300! (overall number containing posts from participants and teachers).

This active participation made teaching this MOOC a great experience also for the teachers. The discussion threads gave a lot of added value to the course and some of them triggered making important modifications to the course materials. It is planned to repeat this course again in spring 2015.

The course material is open to the public sisu.ut.ee/measurement/

Ivo Leito
University of Tartu



To Measure was a Pleasure, Casablanca

The 7th edition of the Summer School, core activity of the EuroMaster® Programme on Measurement Science in Chemistry, <http://www.msc-euromaster.eu/>, took place between the 27th of July and the 9th of August 2014 in Casablanca / Morocco.

The enthusiasm shared by our colleagues of the Ecole Supérieure de l'Industrie du Textile et Habillement-ESITH, which housed the event, was decisive for choosing the location.

It has certainly been an experience in many respects for the teachers, but to the 40 European, Moroccan and Tunisian students selected to participate, this course represents a land mark in their careers. They were aware that this was a unique opportunity to benefit from active learning of a modern scientific perspective of Analytical Chemistry in a truly international environment. The Programme of activities has been organized along the Learning Objectives revised and updated according to the experience gained through the previous editions. Ten groups of four students started with an apparently trivial mission of measuring the salinity of the seawater from Casablanca beaches at ten different locations. The training aimed at measuring skills and data treatment and interpretation, traceability, validation and measurement uncertainty, and providing results of quality fit for the purpose of their intended use.

The already classical laboratory game of client-customer interaction was played too as well as the simulated The visit as auditors to an accredited laboratory. Multiple reports, presentations and written examination were progressively accomplished and assessed.

All the hard work by the experienced teachers and the effort to provide laboratory facilities paid off and one can be confident that an enthusiastic new generation of professionals will be capable of answering future needs of society.

It was not trivial, but after work, it was party time!

*Maria Filomena Camões
MSC Coordinator*

NMKL Workshop, Copenhagen



NMKL and Eurachem arranged a joint workshop on Measurement Uncertainty (MU) for Chemical Food and Feed Analysis, 29-30 September 2014 in Copenhagen, Denmark.

General aspects on MU, the relation between MU and bias, estimation of MU from sampling, estimation of MU in multi-component analytical methods and in non-destructive analytical methods were presented, as well as the fitness for purpose, compliance assessment and accessible online MU course and software.

The about 30 attendees were from Denmark, Finland, Iceland, Norway, Sweden and Slovenia. On the second day of the workshop, there were roundtable discussions. It became clear that most laboratories estimate MU, and some express MU when reporting the result, while others forward it only on request.

Few laboratories correct routinely for any observed bias. However, if the bias could be attributed to recovery, several laboratories did include a correction. Some laboratories had experience in estimating MU from sampling.

NMKL gives a special thank to the Eurachem delegates Bertil Magnusson, Joakim Engman and Wolfhard Wegscheider for their effort and contribution to this workshop.

This was the first joint NMKL-Eurachem workshop, and based on the success, it should not be the last.

*Hilde Skår Norli
NMKL Secretary General*

CROLAB, Sibenik

Crolab is the Croatian association of labs across Croatia, having about 189 labs as members, including their National accreditation body. In consequence attendance and interest in the conference were quite high. There were officials from the ministries - economy and technology, and also a Presidential Counsellor and a video with a greeting from the President of Croatia towards Crolab was given.

The presentation of Eurachem was on the first day of the conference. It was very well received and during the next discussions the "Klub" of Analytical Chemistry took the decision to join the Method Validation Working Group of Eurachem, with the declared intention to be actively involved.

It is a sad thing that hardly any Crolab participants can attend Eurachem conferences and workshops due to financial constraints. In order to overcome this I suggested to Crolab that it would be helpful to try to organize a workshop or a training course in Croatia in connection with an Eurachem General Assembly. The response was favourable and **it might be possible to organize the 2017 GA of Eurachem in Croatia** in connection with a workshop on a topic of local interest.

On the last day of conference I gave a presentation about the Lisbon GA. The Eurachem poster was put at the entrance of the conference room.

Jointly to this Conference Crolab held their GA and a Forum on QA in Analytical Chemistry Laboratories as well. I had a chance to highlight the support that Eurachem could give in a short speech and emphasized the necessity for Crolab to come closer to Eurachem.

I do hope that Crolab will be present from now on on Eurachem activities, and there are good chances for Crolab to organize Eurachem GA 2017.

Eugenia Eftimie Totu

Contact Points

Eurachem Secretariat

Alessandra Meixner
secretariat@eurachem.org

Chair

Wolfhard Wegscheider
Montanuniversität Leoben
Franz Josef Straße 18
A 8700 Leoben
wegschei@unileoben.ac.at

Vice Chair

David Milde
Palacky University
Department of Analytical Chemistry
17. Listopadu 12
77146 Olomuc
david.milde@upol.cz

Past Chair

Bertil Magnusson
SP Technical Research Institute of
Sweden
Bertil.magnusson@sp.se

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.

Eurachem Member Countries



Eurachem countries in green,
Cyprus and associate member
Georgia not displayed