



Words from the Chair

Isabelle Vercruysse

It is a great honour for me to have been elected as Eurachem Chair for the next two years and to work closely together with all members and liaisons to further

strengthen the mission of Eurachem.

The past two years, everyone was affected by the Coronavirus pandemic. Despite this, the Eurachem community continued to actively navigate its path and quickly adapted from in-person meetings to online meetings.

This is the result of the expertise and drive of the motivated Eurachem members who are ready on a day-to-day basis to continue supporting Eurachem's mission.

At this moment the world of chemistry, metrology and laboratories is dealing with a number of important and interesting challenges. A world of change, where innovation and new techniques, but also new standards and regulations are coming our way. The challenges of digitalization, cyber security, artificial intelligence and the robotization revolution play a major role. On top of that, issues around climate neutrality and sustainability have many challenges ahead.

It is indeed our responsibility, in this fast-changing world, to keep pushing our limits and meeting the challenges. It is important to keep questioning ourselves, to keep cooperating with academics, laboratories and stakeholders in a positive way, and to keep the dialogue open.

Therefore, it is of great value to continue developing the activities of the Eurachem Working Groups, to get the National Eurachem organisations to be even more active in their countries and to motivate even more people to actively participate together in the Working Groups, or to use their expertise in the reviewing of

guides. Maintaining good contacts with our liaisons and stakeholders – sharing information and collaborating on joint webinars, workshops or guidelines – should also remain one of our priorities. After all, it is by continuing to cooperate with each other in a fruitful way that we grow into a stronger entity with mutual interests and the ability to disseminate knowledge widely.

This newsletter reflects the activities of the past year. This includes organising online workshops, updating leaflets and the reading list, as well as the productive work done continuously by the Working Groups and the active work within the

national organisations. This newsletter also highlights the passing of Prof J. Petraitis from Lithuania, as well as the farewell from the Executive Committee of two active members, Bertil and Wolfhard. Without their continued input over the past years, Eurachem would not be where it is today.

May this unique content inspire you to continue supporting and promoting the Eurachem mission.

Enjoy your reading.

Isabelle Vercruysse

Eurachem Chair

IN THIS ISSUE

Eurachem General Assembly 2022

The Eurachem General Assembly (GA) 2022, organized by the Georgian Laboratory Association on 19-20 May, was held online via Zoom (for the third time since 2020), due to international restrictions related to COVID-19.



Virtual handover of the Eurachem MoU (2022)

The 38th meeting was attended by 50 participants, including national delegates from 28 member countries. The virtual event was also attended by representatives of a number of liaison organizations including CITAC, CCQM, EU JRC, NMKL, EURAMET, EUROLAB.

As usual, the topics discussed included the of previous GA37 minutes, presentation of national and secretariat reports, updates on the status of Eurachem policies ("Establishment, Operation and Review of Eurachem Working Groups", "Guidance on the preparation of Eurachem reports"), guidelines/leaflets, and Working Group activities.

Great attention was paid to the very interesting reports of European and International stakeholder & liaison organizations (EA/LC, EUROLAB; EURAMET/TC-MC, METROFOOD, AOAC, NMKL, BIPM JCTLM, CITAC, CCMAS, CCQM, ILAC/AIC and LC, IUPAC, ISO-REMCO, ISO/TC).

One of the most important parts of the 2022 GA meeting was the appointment of new Eurachem Chairs for the next two years (2022-2024), namely: Isabelle Vercruysse (Belgium) became Chair and Eugenia Eftimie Totu (Romania) was elected Eurachem Vice Chair. *The photograph above* shows the virtual handing over of the Memorandum of Understanding (MoU) from

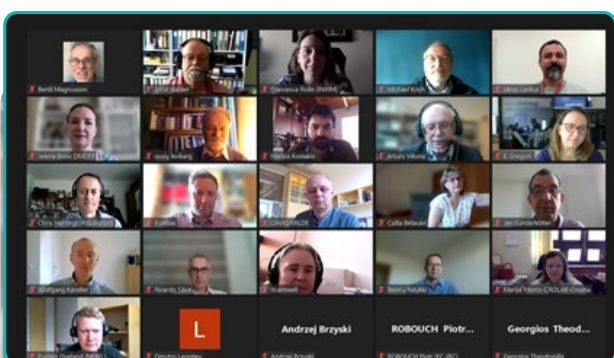
Vicki Barwick (former Chair) to Isabelle Vercruysse.

At the end of the GA meeting, future Eurachem workshops & meetings were discussed. For example, it was decided that the next annual Eurachem week would be held on 22-26 May, in Bern, Switzerland.

Feedback from the GA meeting, as well as the entire Eurachem week 2022, has been very positive, for which we are all very grateful to Vicki Barwick (former Chair) and Elena Sanchez (former Secretary) for their excellent organizational work.

Nino Manvelidze

Georgian Laboratory Association (GeLab)



Participants in the virtual Eurachem General Assembly 2022 meeting



Events

Online workshop

Quality Assurance Challenges of Measurements from Field to Laboratory with a Focus on ISO/IEC 17025:2017 Requirements (16-18 May 2022)

As part of the Eurachem General Assembly week, on 16-18 May 2022 a three-day scientific workshop was held virtually via the Zoom platform entitled: "Quality Assurance Challenges of Measurements from Field to Laboratory with a Focus on ISO/IEC 17025:2017 Requirements".

The workshop was organized by the Georgian Laboratory Association (<https://gelab.org.ge/en>) with the support of the Global Quality and Standards Program (GQSP) of the United Nations Industrial Development Organization (UNIDO), funded by the Swiss Secretariat for Economic Affairs (SECO). The German company QuoData – Quality and Statistics (<https://quodata.de/en>) also kindly supported an additional online session on improving the quality of measurement processes.

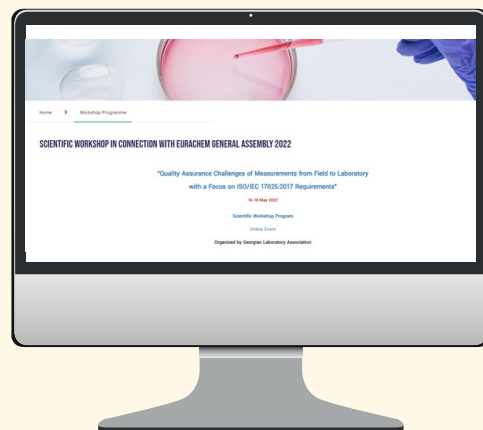
The workshop was attended by over 120 participants from several institutions (laboratories, associations, universities

and regulators) from 33 countries worldwide. About 25% of the participants were students and young scientists. The most represented countries were Georgia and Italy.

The program of the workshop included 5 sessions, which consisted of 18 invited lectures, 4 breakout sessions and 10 poster presentations.

The scientific workshop focused on the quality of analytical measurements and the reliability of solutions based on test results in accordance with the relevant international standard ISO/IEC 17025. It addressed current practices, challenges, and future recommendations on quality assurance of physicochemical and microbiological measurement methods and their validation, including sampling-related issues.

Invited speakers were mainly representatives of the Eurachem Working Groups and local QI institutions. It should be noted that three presentations were also made by colleagues from neighbouring countries: Armenia and



Azerbaijan. Due to the limited time associated with the online format, the posters were presented by the authors very briefly. Parallel breakout sessions covered topics on CRMs, PTs, MU & compliance assessment and validation of sampling procedures. During the relevant discussions, issues were raised that need to be followed up by the Eurachem Working Groups.

All materials related to the event (agenda, presentations, posters, etc.) are available on the Eurachem website. The recorded video presentations can be found on the Eurachem YouTube channel.

On behalf of GeLab, many thanks for the excellent cooperation of the members of the scientific and organizing committees, dear speakers, all participants and especially to Ms. Vicki Barwick (Eurachem Chair of that time) for her constant support during the preparation for the event.

Nino Manvelidze

Georgian Laboratory Association (GeLab)

Online workshop

Measurement uncertainty evaluation based on in-house validation data – 25-26 November 2022

Eurachem, in cooperation with CITAC, invited members of the international analytical community to attend this free online workshop on the topic of measurement uncertainty (MU) evaluation using method validation data. The workshop presented the principles of a new Eurachem Guide, intended to complement the existing guide, "Quantifying Uncertainty in Analytical Measurement", by providing a simplified evaluation of MU based on recovery and precision studies performed during in-house validation.

The workshop was run online attended by over 600 participants over the two days. The first day focused on implementation of measurement uncertainty, covering general approaches to evaluating measurement uncertainty; using in-house validation data; the use of precision and recovery (or bias) data for MU evaluation; and approaches to handle variation of MU with analyte level. Following a look at an informative example, the second day looked at several software tools for MU evaluation,

including two spreadsheet applications, before considering further topics such as validation of evaluated MU and the need for asymmetric MU intervals in cases of large uncertainty.

Video recordings of all presentations at the event are available on the Eurachem YouTube channel (see <https://eurachem.org/youtube>).

Steve Ellison

Eurachem MU & Traceability WG Chair

Trends & challenges for Non-Targeted Methods. Part 1.

Quo Vadis? What, How and Who?
– 15 November 2022



Consideration of non-targeted methods is a new activity under the Method Validation Working Group (MVWG)

At the Eurachem Workshop in Tartu, Estonia, May 2019, "Validation of targeted and non-targeted methods of analysis" the MVWG had focus on these rapidly developing methods for the first time. One of the presenters in Tartu, Mr. Martin Alewijn from The Netherlands is also Chair of a Working Group 5 on "Validation concepts for non-targeted methods" under the newly established CEN Technical Committee CEN/TC 460, "Food authenticity". In February 2022 the MVWG established an internal Task Group to deal specifically with the various aspects of Non-Targeted Methods (NTMs) and seek cooperation with the CEN Working Group. However, the NTMs are not only relevant for investigation of possible food fraud, and based on a newly established Eurachem/AOAC Europe Section MoU, the Task Group also started a cooperation on discussing and disseminating information on the wider

perspectives of NTMs (not least how to validate such methods).

Based on a number of planning meetings between the NTM Task Group and members of the AOAC-E board, it was decided to arrange a series of free ½-day webinars under the main heading, "Trends & challenges for Non-Targeted Methods", inviting experts in the field to give presentations on the various aspects of NTMs and assembling inputs from the participants for further discussion. The first webinar with the specific title "Quo Vadis? What, How and Who?" was held on 15 November, 2022, giving an overview of the subject through three presentations...

- The concept of NTMs (terminology and possible approaches)
- Quality markers (performance characteristics) for NTMs
- Challenges for the implementation of analytical databases for NTMs
- ...and presenting some application examples.

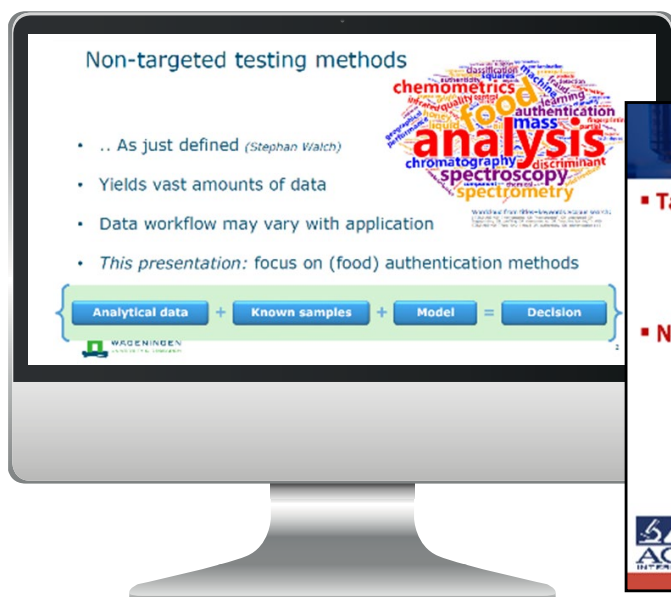
This first event gathered more than 120 participants, representing 47 countries from all over the world. The feedback was very positive, giving a lot of interesting input to the following webinars under titles like...

- » NTMs – qualitative or quantitative?
- » The Measurement Uncertainty aspect in relation to NTMs
- » Validation of NMTs
- » Tools for data interpretation in relation to NTMs
- » Specific fields of application – benefits/challenges ...etc.

The next ½-day webinar will be arranged in the late spring of 2023 – keep an eye on the Eurachem website for the announcement.

Lorens P. Sibbesen

Eurachem Denmark, Chair MVWG



Targeted Versus Non-Targeted

- **Targeted methods**
 - Look for defined compounds for authenticity or a defined adulterant.
 - Use sample preps best isolating these compounds.
- **Non-targeted methods**
 - Obtain authentic material.
 - Create a comprehensive fingerprint.
 - Typically uses a simple sample preparation to include as many matrix components as possible.
 - Some methods are performed on whole samples.

AOAC INTERNATIONAL
In food & agriculture, we set the standard.

Guides and leaflets

All guides and leaflets are available from the Eurachem website, www.eurachem.org/index.php/publications

New leaflets in 2022 Proficiency Testing Working Group (PTWG)

[Proficiency Testing Schemes and other interlaboratory comparisons \(2022\)](#) | Translations available (2nd ed)

[How can Proficiency Testing help my laboratory? \(2022\)](#) | Translations available (2nd ed)

[Selecting the right proficiency testing scheme for my laboratory \(2022\)](#) | Translations available (2nd ed)

[Proficiency testing – How much, and how often? \(2022\)](#) | Translations available (2nd ed)

[Pre- and post-analytical proficiency testing \(2022\)](#) | Translations available (2nd ed)

[Use of surplus Proficiency Test items \(2022\)](#) | Translations available (2nd ed)

[How to investigate poor performance in proficiency testing \(2022\)](#) | Translations available (2nd ed)

[PT Schemes for sampling \(2020\)](#) | Translations available

[Let's call a PT scheme a PT scheme! \(2022\)](#)



Eurachem reading list

The complete reading list can be downloaded in pdf format from the Eurachem website

This reading list has been prepared by members of the [Eurachem Education and Training Working Group](#). It is based on bibliographies originally produced by TrainMiC and LGC – under the UK's Chemical and Biological Metrology programme (www.lgcgroup.com/nml) – but has been substantially updated. The main focus of the references contained in the list is metrology in chemistry, with a particular focus on quality assurance. However, it is anticipated that references will also be of interest to those working in other disciplines. It is not intended to be a comprehensive list of all publications relating to quality in analytical measurement. The aim is to provide references to a selection of websites, standards, guides and books which will

hopefully be of use to all those involved with chemical analysis (and related disciplines), including laboratory staff, students, lecturers and trainers.

Many of the references provided in this list are available to download free of charge, in particular documents published by Eurachem, JCGM, EURAMET, EUROLAB, ILAC, EA and accreditation bodies such as UKAS. The aim is to update the bibliography annually. The Working Group welcomes suggestions for additions to the bibliography and to send additional references.

The complete reading list can be downloaded in pdf format from the Eurachem website

News

Communication Task Group Update

The Communications Task Group (CTG) was formed in May 2020 and has continued to be active during 2022. The group focuses on the following activities:

- Maintaining and delivering a Eurachem marketing and publicity plan
- Maintaining a website for Eurachem
- Developing and maintaining a list of contacts for promoting Eurachem activities and outputs
- Distributing regular e-newsletters, with additional emails as required to promote specific activities

- Using social media to promote Eurachem activities

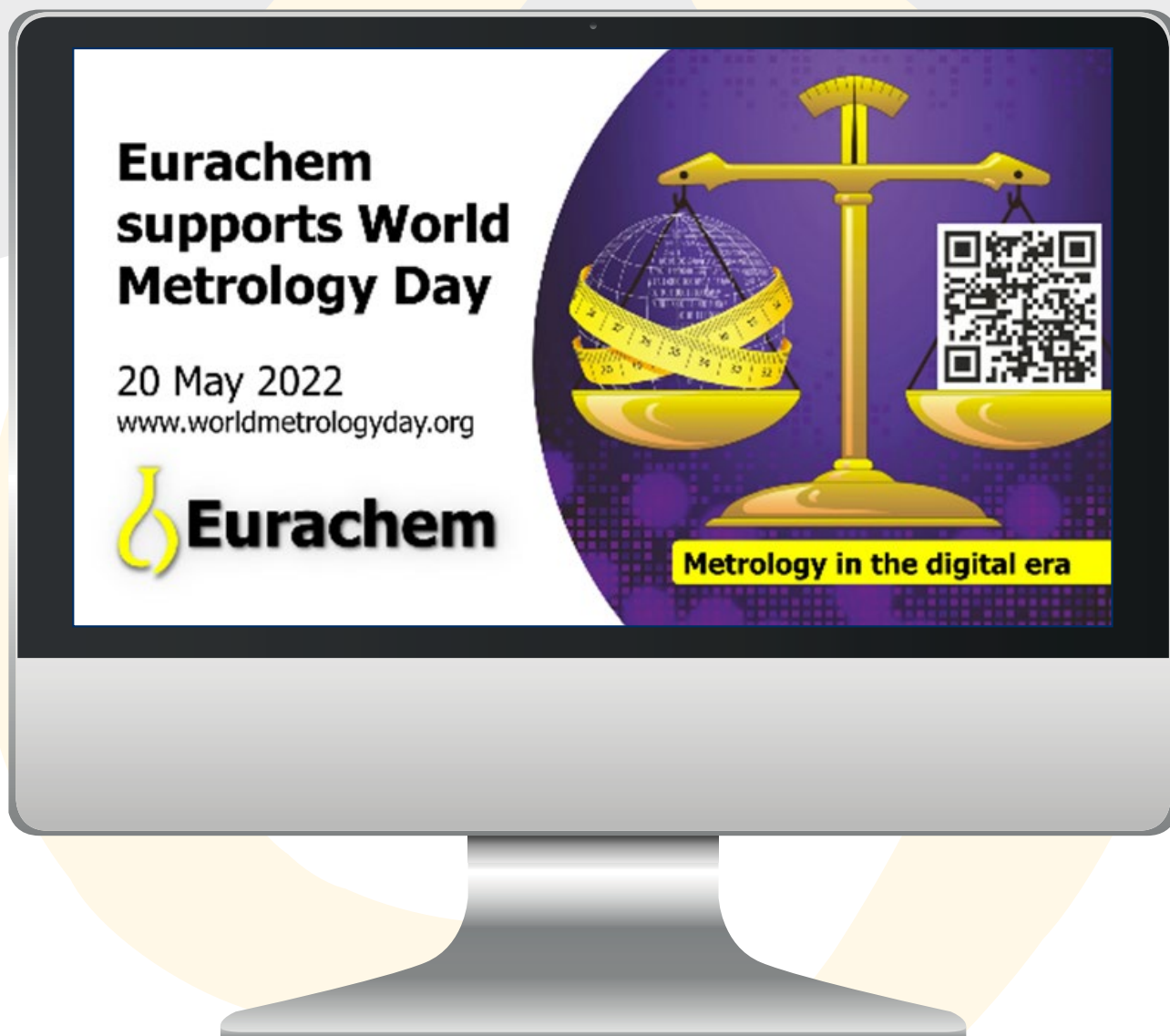
The e-newsletter is distributed three times a year. If you haven't yet done so, you can subscribe to the newsletter at <https://www.eurachem.org/subscribe>.

You can also keep in touch with Eurachem activities via our Twitter account @EurachemEurope and the 'corporate' LinkedIn in page (see <https://www.linkedin.com/company/eurachem/>).

We encourage you to follow the page and share posts within your networks so that we can spread the Eurachem 'message' as widely as possible. Eurachem also has

a YouTube channel (<https://www.youtube.com/@EurachemEurope>) which contains a number of videos from recent online workshops.

A significant task for the CTG in the coming year will be the upgrade of the Eurachem website to a new content management system. During the upgrade the group will address the feedback received from the website user survey that was completed in 2022 (see Newsletter 39).



Welcome to the Eurachem News list



Eurachem

A Focus for Analytical Chemistry in Europe

Welcome to the Eurachem email News List!

The list will give you early information of forthcoming Events, new Eurachem guidance and other Eurachem initiatives and activities. We expect to send general updates 3-4 times a year, plus occasional announcements of new publications or Eurachem events.

We'll send you a copy the latest regular mailing in the next day or so to bring you up to date. In the mean time, here are a few other ways of finding out more about Eurachem.



The Eurachem website at www.eurachem.org

Website features you may find useful:

Publications. All our guidance documents can be downloaded from the Eurachem website

Event Calendar. Forthcoming and past events are listed by year or topic

News. News and announcements appear immediately on the news feed (which also offers RSS feed integration)



Eurachem on YouTube

Eurachem's YouTube channel at www.eurachem.org/youtube includes short videos about Eurachem and useful playlists, and we'll add videos from some of our online events over time.



Eurachem on Twitter

Follow Eurachem's main Twitter feed at @EurachemEurope for short updates on all topics. Our @EurachemEvents feed provides event info and live commentary, and @EurachemPT is for news on Eurachem PT/EQA events.



Eurachem on LinkedIn

Our LinkedIn page at <https://www.linkedin.com/company/eurachem> includes updates on guidance, workshops and other events.

We hope you find the News List useful!

This message was sent to steve@tenzone.org.uk as part of our welcome series. You received it because you subscribed to one of our mailing lists.

To stop receiving messages from this series, please [unsubscribe here](#).

If you don't want to receive any of the communications sent to this list, please [unsubscribe here](#).

The CTG also coordinates Eurachem's activities in support of 'World Days'. These range from social media posts highlighting relevant Eurachem guidance, through videos and blogs – a great way to promote Eurachem as a focus for analytical chemistry in Europe. During 2022 Eurachem published two blogs. In June, Brian Brookman (Chair of the Proficiency Testing WG) published an article on 'Proficiency Testing and Accreditation' in support of World Accreditation Day on 9 June. Eurachem also supported World Standards Day on 14 October through an article on the importance of international standards in supporting laboratory quality assurance, prepared by Kyriacos Tsimillis (Executive Committee Member and National Representative for Cyprus).

In the past year, the CTG has developed a series of 'flash card' templates and a Eurachem colour palette to aid promotion of Eurachem activities via social media. The aim is to have a consistent Eurachem branding for promotional material. The templates are available to members under the 'Pages for members' section of the website. More recently, the group has also started work on a Eurachem flyer.

Finally, from the next edition, the responsibility for the production of the annual newsletter will pass from the Secretariat to the CTG, with Riin Rebane taking on the role of Editor.

The CTG members are: Vicki Barwick (Chair/Secretary), Steve Ellison, Eugenia Eftimie Totu, Philippe Maesen, Riin Rebane and Isabelle Vercruyssen.

Vicki Barwick

CTG Chair and Past Chair Eurachem

People news

Commemoration of Assoc. Prof. Dr. Julijonas Petraitis (1946-2021)



Associate Professor Dr. Julijonas Petraitis was born on 23 October, 1946 in Auksučiai village in Šiauliai district, Lithuania. In 1964, he entered the Faculty of Chemistry at Vilnius University and graduated with a specialization in organic chemistry in 1970. He married in 1972 and had two children. On 26 October, 1979, he defended his doctoral thesis in chemistry, "Synthesis of Honey Bee Pheromones and Their Structural Analogues Oxo- and Oxy-Trans-Decen-2-O Acids," at Kaunas Polytechnic Institute of Lithuania.

From 1980 to 1990, Julijonas worked as a senior research fellow at Vilnius University in the Faculty of Chemistry, where his main activity was scientific research in the field of liquid crystals. From 1994 to 1998, he worked as a lecturer, teaching a course on food chemical analysis for students in the Faculty of Chemistry. On 22 December, 1998, Julijonas was appointed as associate professor in the same faculty. From 1990 to 2012, J. Petraitis worked in Lithuanian state supervisory institutions, as head of laboratory in the Republic Nutrition Centre (1990-2001) and as deputy director in the National Food and Veterinary Risk Assessment Institute of Lithuania (2001-2012). His areas of interest included food and feed chemical

testing, in-house method validation for food testing, measurement uncertainty evaluation, and implementation of quality management systems in routine laboratories. After Lithuania regained its independence and was preparing to join the EU, Julijonas was one of the first chemists to actively promote the implementation of quality assurance and quality management systems principles in chemical and testing laboratories in Lithuania. He began work on the development and accreditation of a food testing and research laboratory in Vilnius.

Since 2002, Julijonas Petraitis has participated in various expert/technical committees of the European Commission, Codex Alimentarius, and Technical Committee of European Standardization CEN/TC 257/WG 10. He has also taken part in a number of international and national projects, such as BP6: GTC1-2002-73003 QUANAS "Improving of the Infrastructure for Metrology in Chemistry in the New Member States," BP6: INCO-CT-2004-003356 LIT-FQSN "Lithuanian Food Safety and Quality," and Twinning Project LT/03/IB/LI/04 "Development of Reliable Measurement Chemistry Infrastructure Based on EU Best Practices."

In May 1996, he and his colleagues established the Association of Eurachem-Lithuania, with the aim of promoting and elaborating the management principles of quality assurance systems in testing laboratories according to ISO standards

and Eurachem Guides, participating in international projects, and organizing trainings and various workshops for Lithuanian laboratories. More than 60 laboratories conducting chemical and/or microbiological analyses are involved in Eurachem-Lithuania activities. Four Working Groups – Quality Assurance, Training, Metrology in chemistry and Proficiency testing were formed. The Quality Assurance WG focused on the support of implementation of quality systems, closely collaborating with the national accreditation body. Eurachem-Lithuania members take part in the work of the External Council for the accreditation of chemical and microbiological laboratories. Eurachem-Lithuania started organising two yearly workshops on quality assurance in analytical laboratories. The first Eurachem MU Guide was translated into the Lithuanian language at that time.

Dr. Julijonas Petraitis was not only a very well-known chemist and expert in his field in the country, but also a colleague who could always give valuable advice or guidance, and a truly supportive and trustworthy friend highly respected for his personal qualities. Julijonas always had a positive impact on those around him, both professionally and personally.

Evaldas Naujalis

Eurachem Lithuania

Eurachem wants to thank.... Ex-Executive Committee members



Professor Dr Wolfhard Wegscheider

After more than 25 years service to Eurachem in roles, Wolfhard Wegscheider left the Executive Committee in May 2022. He is a professor of General and Analytical Chemistry at the Montanuniversitaet Leoben, Austria.

From 1995 to 2001 he served as Dean of Graduate Studies and from 2003 to 2011 as Rector of the said university. His academic background is

quite interesting: Technical Chemistry – Biochemistry and Food Chemistry followed by a PhD in Analytical Chemistry. Further to this, his scientific work as well as his long academic career enabled him to substantially contribute to training activities and publications prepared by the Working Group on Education and Training and on Measurement Uncertainty and Traceability. He is not only one of the founding members of both of them but an active member as well, for many years. Wolfhard served Eurachem as its Chair twice (2004-2006 and 2014-2016)

and for many years as a member of the Executive Committee while, at the same time, he was an active member in CITAC and other organizations, as well as editorial advisor for journals. Thankfully Wolfhard has not completely let the Eurachem family. He is still a National Representative for Austria and an active member of the Measurement Uncertainty and Traceability Working Group.

Kyriacos Tsimillis

Eurachem Cyprus

Bertil Magnusson



Bertil Magnusson has been amongst the human cornerstones of Eurachem since 2002. He served as a member of the Eurachem Executive from 2008 to 2020 and as Chair of Eurachem from 2012 to 2014. Thankfully Wolfhard has not completely let the Eurachem family. He is still a National Representative for Austria and an active member of the Measurement Uncertainty and Traceability Working Group

Amongst the Working Groups he has served in are; WG on templates for Eurachem guides, WG on Eurachem guides for writing guides, WG on Measurement uncertainty and traceability, WG on guide for Accreditation for Microbiological laboratories, WG on uncertainty arising from sampling.

He served as editor for the 2014 edition of the "Fitness for Purpose of Analytical Methods: A laboratory Guide to Method Validation and Related Topics".

Bertil has unique organizational skills keeping track of and leading projects to fruition and completion. He does this

through his hard work and friendly and productive co-worker relationships. He is never satisfied with a partial understanding of things but delves deeply into chemical, statistical, mathematical, and other knowledge areas. That also makes him the excellent teacher he is. He pursues "Joie de vivre" to its fullest, for example, in his love for Balkan music and dances.

Elvar Theodorsson

Eurachem Sweden

Eurachem welcomes.... "new" EC members

David Milde (Eurachem Czech Republic)



Elected member Dr. David Milde is an associate professor of analytical chemistry at Palacky University in Olomouc, Czech Republic. He obtained his PhD in analytical chemistry in 2002. He has been a national delegate to Eurachem since 2006, a member of Education & Training Working Group since 2009. He served as Eurachem Chair in 2016-2018. His research and teaching activities are focused mainly

on atomic spectrometry (ICP-MS, AAS), chemometrics and metrology in chemistry. He is an author of almost 50 scientific papers, an editor and author of 10 textbooks. He is also a Chair of Eurachem Czech Republic and represents Eurachem-CZ in several technical and expert committees of the Czech Accreditation Institute.



Hanspeter Andres (Eurachem Switzerland)

"My candidature to the Eurachem Executive Committee is part of a Swiss initiative to engage more within Eurachem. I feel honoured to contribute to the excellent work of Eurachem, particularly in disseminating best practice and guidance in analytical chemistry and sciences at large."

Hanspeter finished his chemistry studies at the University of Berne, Switzerland, in 2000. After a post-doctoral stay in the US, back in Switzerland, he joined a private company. In 2007 he moved on to the Federal Institute of Metrology METAS as head of the analytical chemistry sector. In 2019 he

was appointed as head of the chemistry and biology division and member of the Executive board. Since 2021 he is Vice-director at METAS.

Hanspeter engages in several national and international organisations. Since 2008 he is an active member of the

consultative committee of amount of substance (CCQM) and the European counterpart. In 2012, he joined the Division Analytical Sciences of the Swiss Chemical Society and became the Swiss Delegate to Eurachem.

ISO 15189:2022 – A new standard for medical laboratories

Ten years after the publication of its previous version, the revised ISO 15189:2022 (in what follows, the Standard) is available as from last December. The objective of the Standard is to promote the welfare of patients and satisfaction of laboratory users through confidence in the quality and competence of medical laboratories.

Despite the big difference at a glance, in practice it will not be difficult for the already accredited laboratories to smoothly move to the new standard within the normal three-year transition period. Those who are familiar with ISO/IEC 17025:2017 are well prepared for the new structure, quite similar to the former. Figure 1 is an illustrative comparison of the structure and reminds us of a similar figure which appeared in the Eurachem leaflet “A new ISO/IEC 17025 for laboratories”. This is not surprising since it follows the format of not only the said standard but also others in the ISO 17000 series.

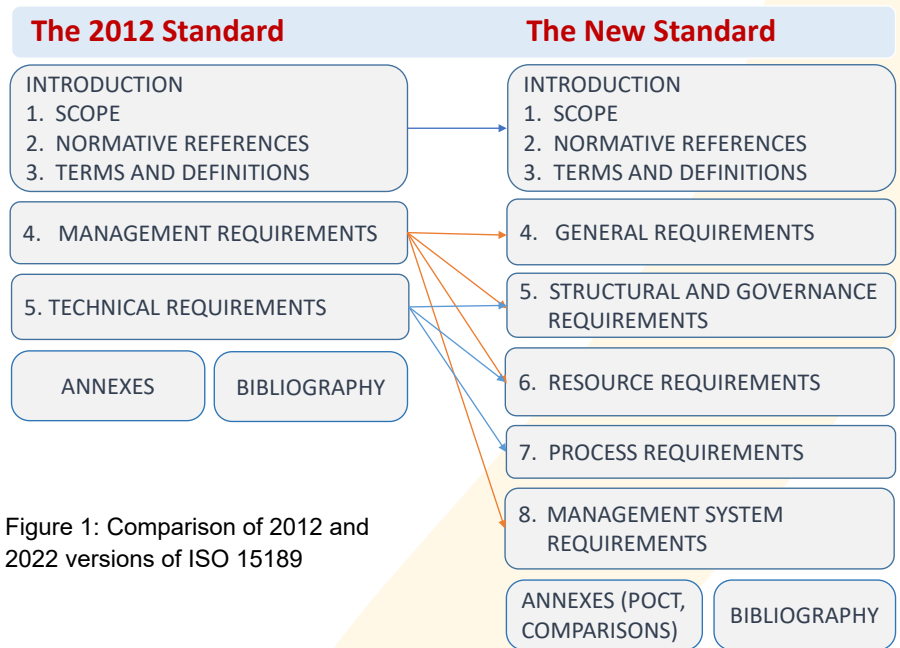


Figure 1: Comparison of 2012 and 2022 versions of ISO 15189

Some new definitions as well as new standards or their revisions are included in the Standard. However, the main change in the current edition is the introduction of requirements for the medical laboratory to plan and implement actions addressing risks and opportunities for improvement. Although risk management is not quite new aspect for medical laboratories, it now represents a main component in a new philosophy focused on the service to the patient. It is noteworthy to mention that risk is addressed in almost all clauses of the standard. Findings regarding risks are related to opportunities for improvement; consequently, no reference is made to preventive actions as it happens with ISO/IEC 17025.

In the evaluation of measurement uncertainty, no component arising from

sampling is taken into account; however, great emphasis is given to the pre-examination processes with an extensive description of all steps and the support of some standards referred to therein. Requirements for point-of-care testing (POCT) are now included in the Standard; to this end the relevant standard ISO 22870 is superseded.

The Standard provides for those laboratories already maintaining a quality management system and the extent to which this may support their task to demonstrate fulfilment of the requirements of the Standard. However, this is not as clear as in ISO/IEC 17025 and it has to be discussed in detail and clarified in competent committees. Other changes to the management requirements refer to the flexibility with regard to the use of a quality manual

(although all its elements are still required) and the lack of reference to technical manager and quality manager. Annex A (normative) introduces additional requirements for POCT further to the ones included in the main text; two Annexes provide a useful comparison between respectively the Standard and ISO 9001 and ISO/IEC 17025 (Annex B) and the 2012 version (Annex C).

Kyriacos Tsimillis

Eurachem Cyprus

Working Group reports

Period May 2021-May 2022

EURACHEM EDUCATION AND TRAINING WORKING GROUP REPORT (ETWG)

The Education and Training Working Group (E&T WG) met on 3 December 2021 (online meeting) with usual agenda. The E&T WG is currently working on several tasks.

Revision of Eurachem/CITAC 'Guide to Quality in Analytical Chemistry' – task leader Kyriacos Tsimillis

The revision of the QAC Guide has not made substantial progress; this was due to very busy schedule of the task leader and some difficulty in managing to find the optimum availability of the members of the Task Force Group while some contributions are still pending. Bearing in mind this delay, it is planned to have all gaps filled in during the coming two months so that the Group could further elaborate an updated draft as from the beginning of September.

Revision of the Eurachem Guide 'Terminology in Analytical Measurement: Introduction to VIM 3'

This task is led by Vicki Barwick. Work on the revision of this Eurachem Guide is continuing, final remarks are being addressed.

QA reading list

The reading list was updated and published in the 'Publications' area on the Eurachem website in February 2022. New proposals what should be included in the list (YouTube videos, web tools...) were discussed. The next revision will also very likely bring new chapters focusing on qualitative analysis and sampling.

Several WG members contributed to the scientific programme of this year Eurachem workshop entitled 'Quality Assurance Challenges of Measurements from Field to Laboratory with a Focus on ISO/IEC 17025:2017 Requirements'.

At the next meeting of the group elections of the Chair and Vice-Chair will take place.

David Milde

Chair, Eurachem ETWG

EURACHEM METHOD VALIDATION WG (MVWG)

The MVWG now has 30 members (eight of which are "corresponding members" – i.e., not necessarily participating in meetings, but (occasionally) contributing by commenting on documents etc.). This is two more than in the autumn 2021, but still represents 14 European countries.

Since the last GA (May 2021) there have been two (online) MVWG meetings

- November 2021 (dedicated to the current revision of the fitness for purpose Guide; 15 participants)
- February 2022 (16 participants)

At the meeting in February, Lorens Sibbesen and Helen Cantwell were re-elected for another two years period as Chair and Vice-Chair/Secretary respectively.

During the last year (since May 2021), the WG members have mainly been engaged in the following tasks:

Revision of the 2nd ed. of the fitness for purpose Guide

- The revision process has been following the plan with appointed 16 task groups suggesting necessary/relevant revision of allocated sections (and sub-sections) of the guide – until end of February 2022, where inputs to Revision 3 should be delivered, but infection with COVID among members of the task group delayed the delivery from some task groups.
- A total of 85 comments/issues on Revision 2 were discussed by a special editorial group (Editors + WG Chair) before the meeting in November, leaving only some major subjects for discussion at the meeting, e.g.:
 - » terminology related to some basic terms ("analytical measurement" and "analytical scientists" rather than "chemical analysis" and "analytical chemists")
 - » possible restructuring (partly) of the guide
 - » new subsection on MV in relation to sampling
 - » extensive and radical changes in section on "Working Range"
 - » change of approach to robustness/ruggedness

The WG agreed on most of the suggestions made by the members in relation to these subjects – e.g.:

- ‘Analytical measurement’ and ‘analytical scientists’ to be used rather than ‘chemical analysis’ and ‘analytical chemists’, whereas the term testing was kept (instead of ‘measurement’)
- Chapter 2 and 4 will be combined and will follow the current chapter 3.
- The sub-section on “Working Range” will be split into two separate sub-sections with a new sub-section on “The calibration Function” (to be one of the first sub-sections in chapter 6)
- A new sub-section 5.7 “Sampling and sample handling in relation to MV” (not giving specific guidance; see about new JTG below)

I.e., the intentions from the beginning for a “light revision” are NOT followed anymore.

A new Joint Task Group (JTG) has been established in cooperation with the Uncertainty from Sampling WG (and inviting participants from EUROLAB), on the subject of validation in relation to sampling.

The JTG consisting of around 20 participants from Eurachem and EUROLAB, has met 3 times discussing subjects like

- » terminology in relation to sampling and validation
- » requirements for accreditation of sampling
- » possible approaches for validation of sampling – integrated (including the subsequent measurement in the lab.; as described in the Uncertainty from Sampling Guide) or isolated (looking at the sampling as a “stand-alone” process)
- » preliminary outline of a possible guide on the subject
- » delegation of tasks to sub-groups for the first drafts of content

A joint event with EUROLAB has taken place on 4 May 2022 “Discussion forum on validity/validation of sampling procedures”, with the aim on getting input from people with opinions/experiences on the subject.

430+ people from all over world registered and approx. 130 participated giving a lot of useful input – during the event and in an online survey in parallel with the event.

A Task Group on “Use and validation of Non-Targeted Methods” has been established under the MVWG, with the aim of assembling information on the subject for a possible supplement to the fitness for purpose Guide. This will be done through contacts with other international organizations dealing with the subject in various fields of application, and especially a liaison has been established with a CEN WG, working on an EN Standard for validation of non-targeted methods to be used in relation to investigation of food fraud.

Planning of a joint 1/2-day webinar in cooperation with AOAC-E has started (and may develop into a series of events on the subject).

A task group is still working on a new supplement to the guide on the challenging subject of “Extent of Method Validation. Efforts to be spent by a laboratory to ensure fitness for purpose of a method” (based on a risk assessment approach). A first draft is planned to be ready for discussion at the WG meeting in the autumn 2022.

Another task group is working on the draft of a supplement “Method Validation/Verification and assessment of response curves”. This work is closely related to the subjects of the new separate sub-sections on “Calibration Function” and “Working Range” in the main guide, and this is also planned to be ready for discussion at the WG meeting in the autumn 2022

The WG is continuing communications with the WG on Qualitative Analysis on possibly starting some joint work on validation of such methods. (It has been decided to remove all guidance on validation of qualitative methods (including the present Annex D) from the next edition of the fitness for purpose guide).

The supplement on “Planning and reporting of validation studies has been translated into German and Ukrainian and the supplement on “Blanks in Method Validation” is now also available in German.

The leaflet “The importance of Method validation” has been translated into Turkish, German and Farsi.

Lorens Sibbesen

Chair, Eurachem MVWG

MEASUREMENT UNCERTAINTY AND TRACEABILITY WORKING GROUP (MUTWG)

Membership

The MU and Traceability Working Group is a joint Working Group with CITAC. The group currently has 34 members. We were pleased to be joined by Dr Anders Svaneborg (SE), Dr Dmytro Leontiev (UA) and Dr Michael Melzer (DE) during 2021-22.

Dr Maire Walsh, one of our longest-serving members, stepped down during the year. Dr Walsh brought a particularly strong understanding of chemical measurement for regulation, as well as a broad understanding of laboratory quality management, and we are grateful for her many years of service to the Working Group.

Meetings

The complete WG met five times in the year to end April 2022, with a further meeting planned for 10 May 2022. In addition, an informal task group, on handling asymmetry in compliance (see below), met three times, and a further small planning group has met three times to plan a proposed event (see Workshops below). All meetings were held online.

MU & Traceability guidance

The Eurachem Working Group on Measurement Uncertainty and Traceability is responsible for four current Eurachem guides.

Guide	Publication year
Quantifying uncertainty in analytical measurement	2012
Traceability in chemical measurement	2019
Use of uncertainty information in compliance assessment	2021
Setting target measurement uncertainty	2015

The measurement uncertainty guide (QUAM:2012) was reviewed and confirmed in 2017. The WG will be initiating a review in 2022 following Eurachem's policy for 5-year periodic review.

"Traceability in chemical measurement" is in its second edition, published in 2019. There are currently no plans for amendment or review.

The Working Group published a second edition of the guide "Use of uncertainty information in compliance assessment" in May 2021 (reported at the 2021 GA). This updated the guide for consistency with recent international guidance, particularly the accreditation guide ILAC-G8.

The guide on setting target measurement uncertainty was reviewed during 2020-21. The guide was confirmed and remains current. A short list of minor corrections (errata) has, however, been added to the Eurachem website.

The WG also maintains a number of Information Leaflets:

- Information leaflet for lab customers concerning the quality of chemical analyses (2000)
- Traceability of Analytical Results (2019)
- Use of uncertainty information in compliance assessment (2nd ed, 2021)
- Using repeated measurements to improve the standard uncertainty (2015)
- Treatment of an observed bias (2017)
- Setting target measurement uncertainty (2018)

The latest of these, on use of uncertainty information in compliance assessment, was published in May 2021 alongside the Guide on the same topic.

Current work programme

The WG has continued to work towards draft guidance on the evaluation of uncertainty from in-house validation data. This will supplement QUAM:2012. Progress had slowed in 2021 with the focus on the compliance guide, but the group has renewed effort and hopes to circulate a consultation draft later in 2022.

The Working Group has formed an informal task group to review the need for additional guidance on handling asymmetry in the context of compliance assessment. The task group is steered by Alex Williams, supported by Felipe Lourenço as the task group meeting secretary. Asymmetry becomes important for larger uncertainties, where the relative standard uncertainty exceeds approximately 20%. The aim of the task group is to consider where asymmetry makes a significant difference to conformity decisions, establish the effect on uncertainty intervals and on the risks of incorrect conformity statements, and recommend additional guidance to the Working Group. A draft decision flowchart has been developed, based on the relative uncertainty, the level of confidence required, and the proximity of any natural constraints on the measurand (such as closeness to zero concentration). Research is under way to determine appropriate 'cutoff' values at which asymmetry becomes sufficiently important to require action.

The Working Group also continues to monitor JCGM WG1, the group responsible for the GUM, to be that any substantive changes in international guidance can be addressed.

Workshops

Following the move of the PT workshop to 2023, the MU & Traceability WG intends to run a two day online workshop in October 2022 to present the principles of the draft guide on uncertainty from in-house validation data. The workshop is currently planned for 25-26 October 2022, with a fixed programme to allow quick arrangement. The WG currently hope the event will be free to attend; this is, however, subject to final choice of platform and host. A 'date for the diary' announcement will be made shortly, with registration details to follow closer to the event.

Steve Ellison

Chair, Eurachem MUTWG

QUALITATIVE ANALYSIS WORKING GROUP (QAWG)

The Qualitative Analysis Working Group had several meetings to finalise the Eurachem/CITAC Guide “Assessment of the performance and uncertainty in qualitative chemical analysis,” published in November 2021 [1].

The group also met to plan future work and elect Ricardo Bettencourt da Silva and Steve Ellison for a new term as Working Group Chair and Secretary.

Some Working Group members were also involved in organising a joint Eurachem/CITAC workshop, hosted by the Singapore Health Sciences Authority, that aimed at disseminating the published guide and the relevance of ensuring qualitative analyses are fit for the intended use. The event had over 500 participants from 75 territories that assessed the event and relevance of the topic covered very positively. The programme and videos of the lectures and discussions of the event are available on the Eurachem website [2].

1. R. Bettencourt da Silva and S. L. R. Ellison (eds.) Eurachem/CITAC Guide: Assessment of performance and uncertainty in qualitative chemical analysis. First Edition, Eurachem (2021). ISBN 978-0-948926-39-6.

2. A joint Eurachem/CITAC Online Workshop, Assessment of Performance and Uncertainty in Qualitative Chemical Analysis, 19-27/01/2022

Ricardo Bettencourt da Silva

Chair Eurachem QAWG

EURACHEM PROFICIENCY TESTING WORKING GROUP REPORT (PTWG)

The Eurachem Proficiency Testing Working Group (PTWG) has continued to make progress on several work activities:

- A state-of-the-art paper on current practices for performance evaluation in qualitative and interpretative PT schemes, based on the results from a survey and literature search, has been published in ACQUAL. The paper highlights the wide range of performance evaluation criteria in use, a clear disadvantage compared to the more aligned approach in quantitative PT schemes. The paper presents current practices and scoring systems grouped by categories with defined criteria, and will serve as a basis for further discussion and investigation towards the harmonization of performance evaluation in qualitative and interpretative PT schemes.
- An expanded task group, consisting of PTWG members, along with some other invited experts, is has been established to continue the work on reviewing and investigating practices for performance evaluation in qualitative and interpretative PT schemes.

- The WG has been busy reviewing its existing PT leaflets to bring them up to date with the recently published 3rd edition of the Eurachem PT Guide. The necessary changes have now be published and translations into various languages is now underway.
- A new leaflet on ‘Let’s call a PT scheme a PT scheme!’ has been approved and will be published shortly.

Work continues on two new leaflets:

- » Understanding PT Statistics
- » Understanding PT Performance Assessment
- Arrangements for the 10th Eurachem PT Workshop, now moved to 2023 is ongoing. The new dates for the workshop are 25-28 September 2023 in Windsor, UK.

Brian Brookman

Chair, Eurachem PTWG



EA-EUROLAB-EURACHEM WORKING GROUP: “PROFICIENCY TESTING IN ACCREDITATION” (EEE-PT)

The EEE-PT WG has continued to make progress on several work activities over the past year:

- The WG undertook the revision of the EA document ‘Guidance on the level and frequency of proficiency testing participation’ (EA-4/18). This revised version has now been approved and published by EA (EA-4/18 G:2021).
- The EEE-PT WG has continued to provide input to the ILAC AIC activities with regards to proficiency testing.
- Following the publication of ILAC G18 (Guideline for describing Scopes of Accreditation), working with the EA Technical Network for PT providers, a survey has been undertaken to consider whether further guidance is required on flexible scopes for PT providers.
- In preparation for the publication of the revised ISO/IEC 17043, the WG will start to consider two activities:
- An impact study of the revised standard.
- Potential guidance on the risk-based approach to the requirements of the revised standard.

Current Eurachem representatives on the EEE-PT WG are:

Frank Baumeister, Germany, Brian Brookman, UK, Caroline Laurent, France, Coralie Leonard, France, Raquel Murtula, Spain

Brian Brookman

Chair, EEE-PT Working Group

EURACHEM/CITAC REFERENCE MATERIALS WORKING GROUP (RMWG)

The WG met virtually on 28 January.

The WG confirmed Marina Patriarca as Chair and approved Giulia Suriani as Secretary/Vice Chair of the WG.

The WG agreed to adhere to the Eurachem policy on copyright and that Eurachem will be the responsible organisation for the approved guidance, since Eurachem started the WG to revise an existing Eurachem document.

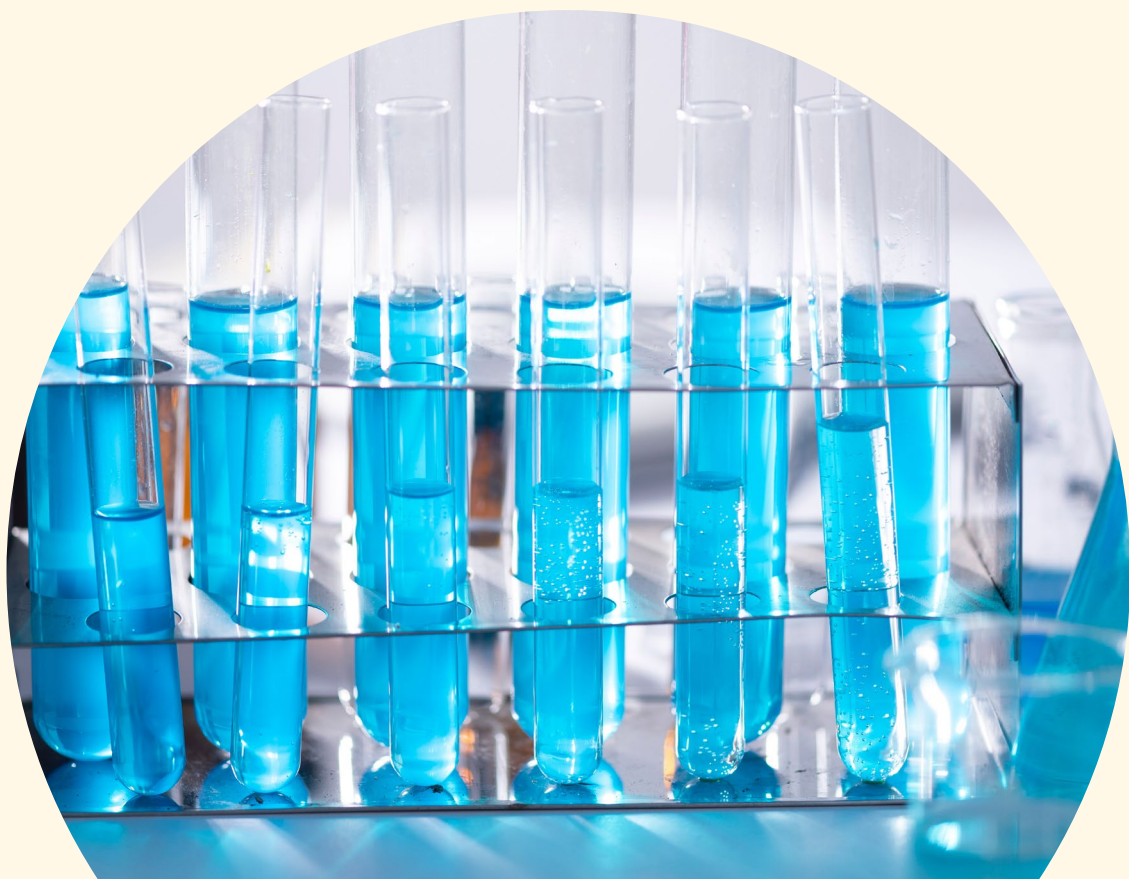
The WG agreed on the content of the revised Guide and to form task groups to outline the content of each chapter. The task groups were formally established with a following exchange of emails. The outcome of this work is expected shortly.

Recently EA LC nominated two members in the RMWG (Dr. Harris Alexopoulos – ESYD and Beatriz Almagro – ENAC). With this addition, the current membership of the WG is 27 members.

A new meeting will be called before the summer to discuss the progresses of work.

Marina Patriarca

Chair, Eurachem RMWG





UNCERTAINTY FROM SAMPLING WORKING GROUP (UfSWG)

In the last year three meetings of the UfS-WG were held online, jointly with AMC UfS-EWG, in June and October 2021, and February 2022.

A Joint Task Group (JTG) was set up with the Eurachem Method Validation WG on the Validation of Measurement Procedures that Include Sampling (VaMPIS). The JTG have met three times online (November 2021, and January and April 2022), with representatives from EUROLAB and NMKL. Discussions (reported separately) focused on: (a) the balance between (a) the quantitative/descriptive approach, and (b) the integrated/isolated approach. Subgroups of JTG members have been identified to address these issues and to begin to prepare draft text for the Supplementary Guidance on VaMPIS. An online Discussion Forum, jointly with EUROLAB, is to be held on 4 May 2022 to engage with a wider user community.

A WG member Fernando Cordeiro (from EU-JRC) gave a very useful presentation on 'Uncertainty from sampling: Identifying a few challenges from the point of view of the EU legislation'.

Progress has been made on two currently planned joint publications. There was discussion of the first draft of a new Joint AMC/Eurachem Technical Brief on Comparison of the MU values (based on paper to be published by ACQUAL*).

Revisions are in progress, prior to wider circulation. A draft outline of the contents of the 'Supplementary Guidance on Validation of Measurement Procedures that include Sampling' was agreed.

An online election was held that confirmed the continuation of Mike Ramsey as Chair Eurachem UfS-WG for a further three years, in conformance with Eurachem procedures.

*Rostron P.D., Fearn T., and Ramsey M.H. (2022) Comparing Uncertainties – Are they really different? Accreditation and Quality Assurance: Journal for Quality, Comparability and Reliability in Chemical Measurement. ACQA-D-21-00054R3. Accepted 26 February 2022 DOI: 10.1007/s00769-022-01501-2

Mike Ramsey

Chair, Eurachem UfSWG

National Reports

Period May 2021-May 2022

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

AUSTRIA

As one of the original 12 signatories of our MoU the Austrian Society for Analytical Chemistry (ASAC, <https://www.goech.at/asac>) has quickly formed the mirror group, Eurachem-Austria, to bring together all the scattered initiatives in analytical quality assurance at the time. Two major activities are currently being pursued on a regular basis: the IFA Proficiency Testing Scheme in Tulln and the University Course "Quality Assurance in the Chemical Laboratory" in Leoben.

The IFA Proficiency Testing Scheme (<https://www.ifatest.eu>) is run in cooperation with the Environment Agency Austria (<https://www.umweltbundesamt.at/en/>) and focuses on water quality monitoring laboratories as required by EU regulations and commissioned by the Austrian Ministry of Agriculture, Regions and Tourism. The program is directed by W. Kandler.

The University Course (<https://weiterbildung.unileoben.ac.at/en/quality/quality-assurance-in-the-chemical-laboratory>) that was founded more than 20 years ago has produced several hundred graduates during this time. The course is headed by T. Prohaska and is well established as an almost integral part of PhD-curricula in analytical chemistry for all Austrian Universities. Due to the pandemic the course has seen a conversion from 15 % to about 90 % distance learning. This transformation has gone very smoothly due to the excellent cooperation of all instructors and students. The next cycle is planned to start in June 2022.

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 8 members and counts 45 members-laboratories in the General Assembly.

The members are laboratories from different sectors (textile, water, clinical, pharmaceutical, calibration, inspection, ...) and different organizations (private, university, authorities, ...).

Members of the Executive committee of Belab are represented in different boards of Belac (Belgian accreditation authority): Commission of coordination (management of Belac) and National Council (advisory board of Minister of Economy). Belab represents the laboratories in the Belac Board of Appeal.

Belab is chaired by Isabelle Vercruyse (APB). Philippe

Maesen (University of Liège – GxABT) is Vice-Chair.

Belab organised in June 2021 during the online General Assembly an informative session with a presentation on the results of the Belab survey on accreditation (the new ISO17025) and flexible scope – C. Fierens (Belab). There was also a presentation on "the Interpretation and evaluation of calibration certificates – JL Debiève (Trescal) and C. Geurs (Trescal). Furthermore there was a presentation on Flexible scope – E. Somers (Belac). M. Logghe (Belac) gave a reaction to the results of the Belab survey and also presented an overview of Belac's future plans.

Belab organised in March 2022 during the online General Assembly an informative session together with Belac. M. Logghe (Belac) gave an overview of Belac's future plans and E. Somers (Belac) and N. Di Cintio (Belac) presented the "Revision of the Belac application form and working version scope"

Every year the activities and information of Eurachem are disseminated by a presentation at the General Assembly of Belab, via the website and by emailing newsletters to the members of Belab at regular intervals. Some members of Belab are active in different Working Groups of Eurachem.

Isabelle Vercruyse

BULGARIA

The Union of Metrologist in Bulgaria and Bulgarian Institute of Metrology represent Eurachem in Bulgaria by established section **BULCHEM**.

In 2021, the activity of BULCHEM was in line with the global pandemic COVID 19 and some of the courses and trainings were held online.

Training events were organized covering the following topics:

- Requirements for documenting the scope of laboratory activities, for reporting their results in accordance with the requirements of BDS EN ISO/IEC 17025: 2018 and applicable national and international documents (February 2021, 36 participants from different laboratories),
- Evaluation of characteristics of the analytical (chemical) methods for measurement and testing during validation and verification in the context of the requirements of BDS EN ISO/IEC 17025: 2018 (June 2021, 32 participants from different laboratories),
- Good laboratory practice based on BDS EN ISO/IEC 17025: 2018 – documented information and evidence of implementation. Practical exercises (June 2021, 17 participants from different laboratories),
- Requirements for conducting audits according to BDS EN ISO 19011:2018 of management systems for laboratories and organizations. Practical exercises (July 2021, participants from Bulgarian Institute of Metrology),
- Sampling, conservation and sample preparation of water

samples for analysis of inorganic contaminants. Sample preparation for analysis of mercury and methylmercury in aqueous samples. Prerequisites for qualitative analysis (June 2021, 24 participants from different laboratories),

The BULCHEM Section within Union of Metrologist in Bulgaria continue good collaboration with Bulgarian Accreditation Service and Non-governmental organizations such as CLUB 9000, Union of quality specialists in Bulgaria etc.

Dimka Ivanova

Representative of BULCHEM on behalf of Union of Metrologist in Bulgaria

CROATIA

CROLAB is an association of Croatian laboratories whose primary goal is to improve laboratories' quality of work and competitiveness. Today, the CROLAB association counts 195 members. It is organized through the work of various clubs: the Club of Analytical Laboratories, the Club of Testing Laboratories, the Club of Calibration Laboratories and the Club of Inspection and Certification Bodies. In addition, CROLAB has a Publishing Committee and a Training Committee responsible for publishing newsletters about CROLAB members' work and Education.

The work of CROLAB can be described through the role of connecting laboratories, exchanging opinions and training.

CROLAB's annual international conference, Laboratory Competence, was held on the island of Veliki Brijun, the largest island within the Brijuni National Park, from 13-16 October 2021.

The conference was dedicated to the role of laboratories in the economy. The conference's main topics were focused on the activities of testing, analytical and calibration laboratories, and inspection and certification bodies. In addition, the conference's goals were to define the position and role of laboratories in the EU and future EU members and cooperate with state administration bodies, faculties, institutes, and agencies. The conference hosted numerous guests from EUROLAB, laboratories and institutions from Croatia and the entire region.

The next international conference, Laboratory Competence, will be in Cavtat, 9-12 November 2022. More information and registration of papers and presentations may be found on the page www.crolab.hr.

Organizing seminars on laboratory issues and topics of interest to other conformity assessment bodies is an integral part of CROLAB 's activities in which it fulfils its task towards its members. Each seminar is an opportunity to present CROLAB to the public, get to know existing members better and create a broader platform for exchanging opinions and cooperation.

Participants in the seminar are not only from Croatia but also from the entire region and come from laboratories, industry, research institutions and government agencies.

During the past period, many online seminars were held on topics relevant to the laboratory work, such as applying statistics in the laboratory, control charts and proficiency testing, risk and opportunity management, equipment and staff management within the laboratory and internal audits. Particular interest was for seminars on sampling, measurement uncertainty, and reporting conformity statements.

Marija Trkmić

CYPRUS

The Division of Quality Assurance was established in spring 2014 under the Pancyprian Union (PUC); it undertook the role of the Cyprus Eurachem Committee which was established in 1997 and participated for a first time in the Eurachem Week of May 1997 hosted in Dublin. During these 25 years many activities have been organised in Cyprus, some of them in cooperation with Eurachem (especially the ETWG). Members of the Division actively participated in events organised in neighbouring countries.

May 2022: the 25th anniversary!

A number of activities planned for the last two years were postponed due to the pandemic; hopefully the situation is getting better so that some activities are held later this year.

Communication with the members

Communication with the members was ensured via virtual meetings. The General Assembly of the Division was organised as a session in the General Assembly of PUC.

Involvement in the work of Eurachem

The Division was extensively involved in the activities of Eurachem, at various levels, namely the General Assembly, the Executive Committee and some of the Working Groups (ETWG, RM, PT) as well as the EA LC Healthcare Working Group. Further to these, there was a contribution to the revision of the Guides for Quality Assurance in Analytical Laboratories (QAC) and Accreditation for Microbiological Laboratories (AML) in order to address all additional requirements of ISO/IEC 17025. The revision of ISO 15189 for clinical laboratories, already approaching its completion, was another important topic. Presentations were made at virtual workshops organised by Eurachem-Czech Republic (May 2021) and Eurachem-Georgia (May 2022) with some posters presented as well.

Cooperation with countries in the region

The Division is promoting cooperation in the region; this is mainly achieved via training events hosted in Cyprus with the participation of colleagues from neighbouring countries; some priorities have been decided for translation of leaflets into Greek in cooperation with the Hellenic Eurachem Committee. The cooperation with other countries in the region was continued to the extent possible.

Kyriacos Tsimillis | Despina Charalambous

National Reports

CZECH REPUBLIC

Eurachem Czech Republic has been working as an independent organisation since 1993, currently with almost 70 members. On the other hand, we have been closely cooperating with the national accreditation body, EUROLAB-CZ, and the national metrological institute. In September 2021 Eurachem-CZ held a round table discussion table of so called 4E Chairs or directors from our country. Local experts have continued to contribute to the technical boards of the Czech accreditation institute.

The activities of our national organization focused mainly on education. We published a new textbook as the 26th volume of the KVALIMETRIE edition (Qualimetrics in English). This volume brings translation of two NORDTEST technical reports, namely TR 537 (*Handbook for Calculation of Measurement Uncertainty in Environmental Laboratories, 4th ed., 2017*) and TR 604 (*Uncertainty from sampling: A Nordtest Handbook for Sampling Planners on Sampling Quality Assurance and Uncertainty Estimation, 2nd ed., 2021*). The translation and issuing of this textbook was funded by the Czech Office for Standards, Metrology and Testing as well as by the Ministry of Education Youth and Sports. The textbook is freely available in pdf format on our website.

Recently, we translated two Eurachem information leaflets into Czech – *Proficiency testing schemes for sampling* and *The importance of method validation*.

Eurachem-CZ members contribute to activities of the E&T and RM Working Groups.

Our organisation distributed among our members two issues of the Eurachem-CZ Newsletter. Our members can find up-to-date information about our activities as well as many freely accessible leaflets, on our website – www.eurachem.cz.

David Milde

DENMARK

The activities in EUROLAB Denmark (where Eurachem in Denmark is based) in 2021 have been lower than normal, because of the COVID-19 pandemic. Meetings have been mainly online, although in spring and late autumn there were openings for onsite meetings.

For Eurachem related activities a restructuring and reactivation has taken place in summer/autumn 2021. Eurachem activities have been normally nested in EUROLAB DK, but thanks to a new joint Danish membership with Danish Society of Analytical Chemistry (SAC), the Danish activities are now based on a revived network and cooperation between EUROLAB Denmark and SAC – and with the aim of reaching out to other Danish organisations with an interest in analytical chemistry (e.g. Society of Laboratory Technicians, Danish Engineers in Chemistry, Pharmacists working in Pharmaceutical Industry).

This means there are now two Danish Eurachem members; one representing EUROLAB Denmark (Anders

K. Svaneborg), and one representing SAC (Lorens P. Sibbesen).

EUROLAB DK based activities:

- Interest group Analytical Chemistry: Accreditation rules and risk assessment
- Interest group for Microbiology: MU and risk assessment
- Members meeting: Info on new TG on validation of sampling

SAC based activities:

- Presentation of Eurachem to GA
- Joint EUROLAB DK/SAC activities
- Start-up meeting for new network (Contributions by Vicki Barwick and Bertil Magnusson)
- Planning of new activities (inviting other organizations)

Generally, EUROLAB Denmark is representing the accredited laboratories in Denmark in relation to the Danish Accreditation Body, DANAK (appointing/supporting members for the various advisory groups within DANAK). Especially the discussions in the advisory groups related to Environmental Testing and another related to Food Testing are followed closely in the Network for Analytical Chemistry, as well as in the board for EUROLAB Denmark.

Lorens P. Sibbesen | Anders K. Svaneborg

ESTONIA

Eurachem activities in Estonia are coordinated by the Estonian Environmental Research Centre (EERC). Two national representatives are Riin Rebane from EERC and Ivo Leito from University of Tartu. Riin Rebane is also an Executive Committee member and participates in Communication Task Group.

Education is one of the main tasks in Eurachem activities in Estonia. Ivo Leito is responsible for annually organizing two Massive Open Online Courses (MOOC): “Estimation of measurement uncertainty in chemical analysis” (<https://sisu.ut.ee/measurement/uncertainty>) and “LC-MS method validation” (https://sisu.ut.ee/lcms_method_validation/), which by now have been organized eight and five times, respectively, and attract hundreds of participants from all over the world every year. Moreover, there is a web-based software for validation ValChrom (<http://www.valchrom.ut.ee>) for chromatographers that is almost ready and will soon also contain Eurachem validation guideline.

Eurachem activities in Estonia are strongly connected to the network called Estonian Centre of Analytical Chemistry (AKKI, <https://www.akki.ee>) which aims for high quality chemical analysis in Estonia. This is also where all the information related to Eurachem activities in Estonia are presented.

Riin Rebane | Ivo Leito

FINLAND

In addition to Finntesting Association/Eurachem Finland's seminars and annual meetings, because of COVID19 pandemic, the Executive Board of the Association met virtually. Quality related activities were promoted in several ways.

Events:

In 2021 the Association had traditional annual meetings in spring and in autumn. In connection with those meetings, quality related seminars were held. In May the main topic of the seminar, the online webinar, was measurement uncertainty and how to assess it in practise by utilising MUKit software. The content of the software was presented and experiences related to its use was under discussion.

In November the autumn seminar on chemistry and measurement related to food items was a hybrid event, where participation was possible in-person or virtually online. During the seminar Finntesting awarded the 2020 master's thesis prize to Ms Jutta Koskinen, University of Jyväskylä, for her work related to metal scavenging 3D method to remove metals affecting environmental load. Finntesting also awarded the 2020 prize to Mr Mikko Määttä Metropolia University of Applied Sciences for his thesis on diagnostics of molecular biology related to COVID-19 disease. Both Jutta Koskinen and Mikko Määttä gave presentation on their work at the seminar.

Dissemination of information:

Association's information source on the website was updated on a regular basis and new information, such as news and events from relevant organisations was disseminated.

Eurachem Finland published quality related terminology in Finnish concerning analytical and clinical chemistry in 1997. It has been under revision and will be available via website when finalised.

Co-operation:

The Executive Board of Finntesting Association has met on a regular basis and promoted quality related activities. The Association has members in Eurachem General Assembly, Eurachem Working Groups, EUROLAB, CITAC and also in national groups where the focus is related to topics on conformity assessment, and food. The Association cooperates nationally and internationally through Eurachem, EUROLAB and CITAC activities.

Anna-Liisa Pikkarainen

FRANCE

BIPEA is a scientific non-profit organization gathering more than 2500 laboratories concerned about quality control and analytical accuracy. BIPEA has been a member of Eurachem since 2014.

BIPEA's main activities are focused on education, training and analytical accuracy. We act in the field of laboratory

analysis by providing proficiency testing programs under ISO 17043 accreditation (in the fields of food, water and cosmetics) and organizing training sessions on analytical topics.

BIPEA is involved in standardization by collaborating with AFNOR, SNIAA and COOP DE FRANCE for standard validations, and participating in standardization commissions.

Within the framework of Eurachem main activities of BIPEA are:

Education and Training:

From July 2021 until June 2022, BIPEA set up an annual plan of 9 training sessions by Visio conference:

- 3 training sessions for "Method Validation"
- 2 training sessions for "Uncertainty of measurements and exploitation of data from the report"
- 2 training sessions for "Validation method in food microbiology according to ISO 16140"
- 2 training sessions for "Internal Auditors"

These training courses of 12 people each are very well appreciated by the participants and included lectures, practical exercises and learning evaluation.

Also, several customized training sessions were made for group of laboratories in France.

Participation in Working groups:

Ms Caroline LAURENT, Director of BIPEA takes part in the PT Working Group.

M. Abdelkader BOUBETRA, Scientific and Technical Manager takes part in Validation Method Working Group.

Translations:

Leaflets, Guides and other important documents were translated into French

Website:

Workshops and Conferences organized by Eurachem are posted on BIPEA website (www.bipea.org)

Also, a new page dedicated to Eurachem/BIPEA collaboration is available in BIPEA website : <https://www.bipea.org/eurachem/>

Caroline Laurent

National Reports

GEORGIA

The Georgian Laboratory Association (GeLab) is a non-profit legal entity established in 2013. It has a board of 5 members and over 30 laboratories in both the public and private sectors.

As usual, GeLab activities are mainly focused on consulting, training and education in accordance with the requirements of accreditation standards (ISO/IEC 17025, ISO15189, and ISO/IEC 17020).

GeLab continuously cooperates with the Georgian Accreditation Center (GAC), the Georgian National Agency for Standards and Metrology (GEOSTM), the Ministry of Environmental Protection and Agriculture of Georgia (MEPA), the academic sector (universities and vocational education institutes), other associations and also manufacturers, to effectively meet the needs and expectations of member laboratories.

The main activities of GeLab in 2021-2022 are related to the ongoing project "Strengthening the Conformity Assessment of the Fruit and Vegetable Value Chain (VC) in Georgia" of the United Nations Industrial Development Organization (UNIDO), Global Quality and Standards Program (GQSP), funded by the Swiss State Secretariat for Economic Affairs (SECO). According to the [VC study document](#) conducted by the Bern University of Applied Sciences (BFH), it was highly recommended to support GeLab in its institutional development, which mainly includes: improving the technical service and management capacity of laboratories, creating a website including a "lab-finder function to promote the services of the association, high-quality translation of relevant documents (international standards, Eurachem guidelines, etc.), etc. Related activities have been provided in 2021, which included:

- Institutional setup – GeLab charter revised (new organizational structure created);
- A business plan was developed, incl. identification of key services and a membership strategy;
- New Website/Logo/Branding

On 2 March 2022, UNIDO and MEPA launched the Georgian Laboratory Association (GeLab), a leading platform that was recently revamped to better support coordination and cooperation among individual actors in conformity assessment. More than 100 participants attended this online event, including representatives from Ministries, members of Parliament, laboratories, other CABs, different associations, educational institutions and international partners.

Now GeLab is the main partner in the final stage of the GQSP-project to create a Laboratory Infrastructure Roadmap in Georgia. The relevant document should serve as a basis for creating a laboratory policy for the further development of appropriate quality infrastructure in the country.

One of the most important events of 2022 is dedicated to the organization of the Eurachem GA 2022 and the

associated scientific workshop: QUALITY ASSURANCE CHALLENGES OF MEASUREMENTS FROM FIELD TO LABORATORY WITH A FOCUS ON ISO/IEC 17025:2017 REQUIREMENTS, which was planned to be held at the Georgian Technical University (in Tbilisi), but, unfortunately, due to restrictions related to the COVID-19 pandemic, the event is being held virtually.

More detailed information about the activities of GeLab is available on the website: <http://www.gelab.org.ge/en>

Nino Manvelidze

GERMANY

EUROLAB-D is member of EUROLAB and Eurachem and the EUROLAB-D Committee on Chemical Analysis is acting as the mirror group for all Eurachem activities.

This committee met twice in the period May 2021 to April 2022 in the form of online meetings.

There, reports were given on Eurachem activities, in particular on the General Assembly and the Eurachem Working Groups. EUROLAB-D is represented in almost all Eurachem Working Groups and also in the Eurachem Executive Committee.

The following Eurachem publications have been translated or are currently being translated

- Leaflet "Use of uncertainty in compliance assessment" (finalised)
- Leaflet "What is the uncertainty factor?" (finalised)
- Leaflet "The importance of method validation" (finalised)
- Guide "Uncertainty from sampling" (in progress)

The Sensory Testing Working Group has adopted new methods for the collection of methods for sensory testing of food contact materials.

Michael Koch

GREECE

Eurachem Greece team was active as follows:

Greece's representative, professor Georgios Theodoridis Department of Chemistry, Aristotle University Thessaloniki, National, is holding a blog to establish communication with the team and other Greek scientists.

Method Validation Working Group: Helen Gika, Aristotle University, and Marios Kostakis, Athens University. Participation in online meetings of the WG, collaboration in editing documents.

Measurement Uncertainty and Traceability Working Group: Zonaras Vasileios Benaki Phytopathological Inst.:

- 12 May Eurachem MU&T WG web-meeting (participation)
- 17-19 2021 Eurachem online workshop "Trends

& Challenges in Ensuring Quality in Analytical Measurements”

- 8 September 2021 Eurachem MU&T WG web-meeting (participation)
- 20-23 September 2021 “12th International Conference on Instrumental Methods of Analysis Modern Trends & Applications”
- 23 November 2021 Eurachem MU&T WG web-meeting (participation)
- 23 February 2022 Eurachem MU&T WG web-meeting (participation)
- 31 March 2022 Eurachem MU&T WG web-meeting (participation)
- 4 May 2022 Eurachem – EUROLAB Discussion Forum on the Validity/Validation of Sampling Procedures (participation)

Sampling Uncertainty Working Group: Achilleas Iakovakis –Veltia Labs Sindos, Zonaras Vasileios Benaki Phytopathological Inst

- 9 June 2021 Eurachem UfS WG web-meeting (participation)
- 6 October 2021 Eurachem UfS WG web-meeting (participation)
- 19 October 2021 Eurachem UfS WG web-pre-meeting for MV & UfS Joint Task Group “Validation of Sampling Methods” (participation)
- 10 November 2021 Eurachem MV & UfS Joint Task Group “Validation of Sampling Methods” web-meeting (participation)
- 10 January 2022 Eurachem MV & UfS Joint Task Group “Validation of Measurement Procedures that Include Sampling” web-meeting (participation)
- 2 February 2022 Eurachem UfS WG web-meeting (participation)
- 11 April 2022 Eurachem MV & UfS Joint Task Group “Validation of Sampling Procedures” web-meeting (participation)

Reference Materials Working Group: Dr Christina Virgiliou, Aristotle University

Our plans for the future aim to increase involvement in Eurachem actions and more active involvement in the Eurachem Working Groups. Eurachem Greece team is planning an open day to be organised with the support of the Association of Greek Chemists, to inform the community about guidance and documentation from Eurachem. We discussed for an online event with polling options to collect data from questionnaires about the needs of chemists working in analytical laboratories. The event is planned for fall 2022 in Greek Language; we consider/discuss inviting colleagues from Cyprus.

We presented Eurachem Greece actions and team at the 12th International Conference “Instrumental Methods of Analysis”(IMA-2021), September 2021. Eurachem Greece: promoting quality of analytical measurements, QA and QC in analytical laboratories. M. Kostakis, V. Zonaras, H. Gika and A. Iakovakis, C. Virgiliou, G. Theodoridis

http://aclab.web.auth.gr/ima2021/#xl_xr_page_program

This was a presentation in the Societies session. We discussed and informed the community.

Overall, the Greek participants are active in various fields of Analytical Chemistry, Validation and Metrology:

- The Hellenic Metabolomics Network and FoodOmicsGR_RI consortium which are headed by G. Theodoridis co-organised a number of online meetings in 2022 with participation reaching an average of 60 researchers. We also took part in events organised by MetrofoodRI (<https://www.metrofood.eu/>) a European research infrastructure aiming to provide High-Level Metrology Services in Food and Nutrition. Topics included QA/QC in metabolomics, lipidomics analysis, standardization through the analysis of reference standards. Lecturers and audience included renown scientists from CERTH, Univ. Athens, Aristotle University and other Universities (<https://hellenicmetabolomics.gr/>).
- G. Theodoridis and H. Gika are active members in the Metabolomics QA & QC Consortium (mQACC), an international think tank aiming to develop collaborative efforts to address key quality assurance (QA) and quality control (QC) issues in untargeted metabolomics. G. Theodoridis is co-Chair of the Best Practices work group of the mQACC. H Gika is member of Interactive forum preparation committee for QC and validation in untargeted analysis. Within this line Gika and Theodoridis are authors of publications on the development and validation of reference materials and on minimum reporting standards for untargeted analysis.

H. Gika and her team will edit a Book on Metabolomics Analysis (Springer) as follow up of an original 2018 edition of the group.

Georgios Theodoridis

National Reports

HUNGARY

Since the end of 2018, the Cluster of Hungarian Accredited Organisations (ASZEK) acts as the Hungarian national Eurachem organization. ASZEK plays a central role in disseminating information to and gathering feedback from the Hungarian accredited community on materials circulated by Eurachem and other international organisations in the field of accreditation.

Due to improvements in the SARS-CoV-2 pandemic situation, the annual “Accreditation – current trends” conference could be held in person in 2021, organised in co-operation by ASZEK and the National Accreditation Authority (NAH). The event concentrated on practical issues of the accreditation procedure and requirements, in particular impartiality, use of accreditation symbol, competence management and questions of accredited organisations. Workshops allowed for discussion and formulation of proposals on specific topics by participants in smaller groups. Discussion topics included information management, validation of sampling, control of PT and ILC results, flexible and conditional accreditation as well as lessons of remote assessment, which became commonplace during the height of the pandemic in 2020-2021. Over 120 participants attended the conference in person.

Another ASZEK conference is foreseen at the end of May, focusing on environmental sampling and measurement. The National Accreditation Authority (NAH) also held several online trainings and seminars throughout the year, predominantly aimed at accreditation assessors, experts and opponents. Similarly, to previous years, ASZEK members have been active in offering comments and advice on various documents, standards and guides related to accreditation. ASZEK also offers the possibility to accredited organisation to anonymously evaluate individual performance of assessors, experts and opponents involved in their accreditation process. This feedback helps the competence management program of the National Accreditation Authority.

Two delegates are active in the Proficiency Testing Working Group, Dr. Erika Sárkány (also a representative of EQALM) and Dr. Csilla Bélavári. Dr. Sárkány is additionally delegated to EEE-PTWG “Proficiency Testing in Accreditation”.

Csilla Bélavári

IRELAND

The Eurachem Ireland Committee comprises people interested in analytical chemistry from the public sector, private sector and the academic sector. Despite the second year of COVID-19 restrictions, the committee remained active with online initiatives and sponsorships to continue to promote interest in Analytical Chemistry in line with Eurachem objectives.

Online Events:

- **Facilitated Discussion on Replicate Analysis** in September 2021.
- **Webinar** in November 2021 – “Meeting our Energy Targets – Sustainable Practices in Laboratories” by Dr. Una Fitzgerald, National University of Ireland Galway.
- **Webinar for World Water Day** in March 2022 – “Water Monitoring Challenges – Are analytical methods meeting the demands posed by old and new chemicals of concern?”
 - » *Analytical Developments to Address the Chemical Cocktail in our Water* by Prof. Fiona Regan – DCU Water Institute.
 - » *Groundwater Monitoring: Challenges and Best Practice* by Lindsay Connolly – Arup.

Sponsorships:

Eurachem Ireland sponsored a prize at the 72nd Irish Universities Chemistry Research Colloquium in the University of Limerick in June 2021. The winner of the **Best Analytical Chemistry Speaker** was Niamh O'Mahoney of University College Cork for her presentation on the *Characterisation of Pharmaceutical Formulations using the Novel Technique Broadband Acoustic Dissolution Spectroscopy (BARDS)*.

We also sponsored a prize at the Environ 2021 Conference of the Environmental Sciences Association of Ireland in June 2021, which was attended by 235 delegates. The winner of the Eurachem Best Analytical Chemistry Poster was Dylan O'Flynn of Dublin City University for his poster on *Method development for the determination of emerging pharmaceutical contaminants in surface water environments*.

Eurachem Analytical Measurement Competition:

Unfortunately, this very popular competition could not take place in April as usual due to COVID-19 restrictions. This annual event is organised and run by the EAMC Committee, Eurachem Ireland Secretariat, and by a host Institute of Technology or University. It is a competition for second year students and is always very well subscribed to. We hope to be in a position to run the competition in 2023.

Working Groups:

Ireland continues to be well represented on Eurachem Working Groups.

Communication & Publicity:

Eurachem Ireland communicates with its members via:

- **Mailing list**
 - » This is an important tool for our communication. Eurachem Ireland publicises all Eurachem notifications, courses, webinars, workshops, newsletters and items of general analytical interest (in a GDPR compliant manner) to people on the mailing list.
- Website www.statelab.ie/eurachem.html
- LinkedIn group <https://www.linkedin.com/groups/8259308/>
- Twitter [@EurachemIreland](https://twitter.com/EurachemIreland)

Hugh Fay

ITALY

Italy is represented in Eurachem by the National Institute of Health (ISS) and the National Institute of Metrological Research (INRIM). In 2021 a change in the Italian representation happened and Emanuela Gregori (ISS) succeeded Marina Patriarca and joined Francesca Rolle (INRIM) as Italian delegate in the General Assembly.

Collaboration is in place with other relevant national organizations, such as the Italian Accreditation Body (ACCREDIA), the Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), the Institute for Environmental Research and Protection (ISPRA) and a number of organizations at regional level.

Activities of Eurachem Italy mainly focus on contributing to Eurachem guidance and its promotion to analytical laboratories at all levels, in particular by translating into Italian Eurachem Guides and leaflets and providing training on specific topics, based on Eurachem guidance.

Experts from Eurachem Italy participate in the Eurachem Working Groups on Education and Training, Proficiency Testing, Method Validation, Reference Materials, Measurement Uncertainty and Traceability, Uncertainty from sampling and Qualitative Analysis. Members of Eurachem Italy are also involved in the Task Group for the revision of the Eurachem Guide “Accreditation for microbiological laboratories” and in the newly formed Joint Task Group on “Validation of sampling procedures”.

During the last year, Eurachem Italy worked to complete the translation of the Guide on “Measurement uncertainty arising from sampling”, undertaken jointly with ACCREDIA, EUROLAB (ALPI), INRIM, ISPRA and ISS, as well as to finalise the publication of the translation of the two supplements to the Eurachem Guide “The fitness for purpose of analytical methods”, dealing with the aspects of “Planning and Reporting Method Validation Studies” and “Blanks in method validation studies”, both expected shortly.

A new project was the translation of the revised Eurachem Guide “Selection, use and interpretation of proficiency testing schemes (PT) by laboratories”, to be followed by the translation of two other documents, developed jointly by the EEE-PT WG. Other on-going translation projects include the Eurachem Guides “Metrological Traceability in Chemical Measurement” (rev. 2019) and “Setting and Using Target Uncertainty in Chemical Measurements”.

In addition, a lecture on “Compliance with legal requirements and measurement uncertainty in food analysis” was given within the Course “METROFOOD-RI: Traceability and comparability of results in food measurements” (Parma, Italy, 20-23 September 2021). A presentation of Eurachem recent developments and future meetings was given as part of an update on international activities related to quality assurance at the X Workshop of the National Reference Laboratories for metals and nitrogenous compounds in food and feed, feed additives and process contaminants, Virtual event on 26-27 May 2021, (<https://www.iss.it/web/guest/Inr-mcaa-metalli-eventi>). Training courses based on Eurachem guides were delivered, on request by various organizations, and covered the following aspects: “Certified reference materials: selection and use”, “Reference materials and certified reference materials: general concepts and guidance for production and characterization”, “Proficiency Testing Schemes with few participants” and “Decision rules: technical aspects”.

In 2021, information on Eurachem initiatives, new guidance and upcoming events was promoted through distribution of information to mailing list and to relevant organizations. The website of Eurachem Italy (www.iss.it/eurachem) was re-established, after restyling of the host website, to provide easy reference and spread information from Eurachem to the Italian laboratories operating in the field of analytical chemistry. Printed and electronic copies of the latest Eurachem Newsletter were also distributed to interested parties.

Francesca Rolle

National Reports

LITHUANIA

A brief summary of the activities of Eurachem-Lithuania during last year. Our main activities are organisation of trainings and seminars, consultation of routine laboratory staff, cooperation with national organisations such as accreditation, standardisation bodies, National Metrology Institute, etc. During last two years the COVID-19 pandemic has affected many activities in common life and in laboratories. The total number of organized trainings decreased but nevertheless five training events were organized covering the following topics:

- The implementation of the new version of LST EN ISO/IEC 17025:2018 – major changes and review of requirements for laboratory activities;
- Quality assurance in chemical and medical laboratories;
- Method validation;
- Metrological traceability and calibration services;
- Principles of the measurement uncertainty estimation and compliance assessment;
- Resource management according to LST EN ISO/IEC 17025:2018 and related risks and opportunities.

Next year we are planning to start translation of Eurachem leaflets. In order to work more efficiently we would like to attract more persons from universities and scientific research institutes for collaboration with Eurachem-Lithuania.

Evaldas Naujalis

POLAND

Presently, 106 laboratories are members of the Eurachem-PL, Section of Polish Chemical Laboratories in Club of Polish Testing Laboratories POLLAB., Since 18 December 2013 Eurachem-PL has been led by Andrzej Brzyski (Chair), Ewa Bulska (Vice-Chair), and the section secretariat is hosted by secretariat POLLAB.

Members of the Section are involved in organization of symposia organized every year by POLLAB, but 2021 was the second difficult year due to the COVID-19 pandemic. We observed that pandemic problems are less in a summer. We calculated the risk and took a decision to organize a hybrid symposium in June and September 2021. In total, 278 people participated in both rounds of the symposium.

We organized only online Section meeting, including invited lectures dedicated to selected subjects. In 2021 participants discussed the requirements for laboratories resulting from the standard PN-EN ISO/IEC 17025:2018 and pandemic problems.

We organized some online training courses for our members. These courses are very popular with, many people attending them.

We cooperate with the Polish Center for Accreditation to improve the management system in laboratories.

Eurachem-PL will continue to present policy to support laboratories in 2022.

Our members will be attending Symposium POLLAB, section meetings and new PT/ILC programs.

Andrzej Brzyski

PORTUGAL

Between May 2021 and May 2022, the Portuguese delegates, or members they have nominated, were actively involved in the activities of the “Measurement Uncertainty and Traceability”, “Qualitative Analysis”, and “Education and Training” Working Groups.

Eurachem PT collaborated with RELACRE – Accredited Laboratories Association of Portugal Working Group 5 (GT5 – Chemical Metrology) and ForMEQ – International Forum on Metrology and Examinology in Chemistry in the translation of the guide on “Measurement uncertainty arising from sampling” (2nd edition) (Editors of the translations: Florbela Dias and Maria Ascensão Trancoso).

The dissemination of Eurachem activities and guidance has also been performed through training courses and Working Groups promoted by RELACRE, teaching Analytical Chemistry at the University of Lisbon, “International Summer School on Analytical Science, Metrology and Accreditation” and other training promoted by Eurachem-PT members. Various papers on Analytical Chemistry have also been used to publicize Eurachem guidance.

Ricardo Bettencourt da Silva

ROMANIA

The Eurachem-Romania Association has active members from different institutions: teaching staff from universities, researchers from research institutes, specialists from national and/or local agencies for environmental monitoring, for public health, etc., practitioners from specialized and accredited laboratories.

The main activities of Eurachem-Romania Association developed in 2021 were focused on: the online annual Forum, General Assembly and bio-analysis workshop; prepared and issued of the Eurachem-Romania Association Informative Bulletin in Romanian language; developing the national network; dissemination of the Eurachem guides and leaflets support of the annual Students Scientific Communications Session; organization and support of the Students Professional Contest on Analytical Chemistry; supporting activity to update and consolidate the national network.

Eugenia Eftimie Totu

SERBIA

The Directorate of Measures and Precious Metals (DMDM), which is a National Metrology Institute of Serbia, represents Eurachem and its activities in Serbia.

Serbia Eurachem representative actively participated in the work of Institute for Standardization of Serbia, as a member of Technical Committees for Air quality, Medical devices, Petroleum fuels and Natural gas. Due to the restrictions of the COVID-19 pandemic, usual face-to-face meetings and events were not held. Accordingly, in the framework of this collaboration with ISS, 4 online training courses "Measurement uncertainty as a requirement of SRPS/ISO IEC 17025:2017" were held by the Eurachem NR for Serbia (September, October and December 2021, and February 2022), with over 50 participants from the Balkan region. The translation of several ISO standards was carried out in 2021, in all mentioned fields of standardization.

As Eurachem representatives, we are closely collaborating with the Accreditation Body of Serbia, at different seminars and events.

The continued dissemination of information about Eurachem activities, guidance documents and leaflets was maintained in 2021. for all interested parties, during the trainings held, or via mailing lists. The electronic copies of Eurachem Newsletter were distributed to analytical laboratories in Serbia.

Jelena Bebić

SLOVAKIA

The activities of Eurachem Slovakia were oriented to three areas of the chemical metrology and chemical measurements in the Slovak Republic:

i. Eurachem Slovakia and Slovak national policy in industrial metrology

In the period of 2020 and 2021 Eurachem Slovakia (ES) focused on the activities of development of the Slovak industrial metrology which was not sufficiently developed in the domain of chemical measurements. To contribute to the development of industrial metrology, Eurachem Slovakia (hereafter as ES) reviewed "*The concept of the state policy of technical standardization, metrology, quality, conformity assessment and accreditation of conformity assessment bodies for the years 2021 to 2024*" a principal document of the Slovak Bureau of Standardisation, Metrology and Testing (UNMS SR) where the part on metrology was specially oriented toward co-operation in industrial metrology. The concept of the state policy was approved by the Slovak government and became the principal document for development of metrology in the given period.

Referred to the "Concept of the state policy" ES was developing and negotiating new ways of co-operating in applied chemical metrology and chemical industrial measurements with the Slovak metrological authority –

UNMS SR. A little progress was achieved on the way to create a new official state policy towards industrial metrology in the domain of chemical measurements which had been absent for many years in Slovakia.

ii. Translation of the Eurachem/CITAC Guides.

ES translated the newest Eurachem/CITAC guides: (a) "*Measurement uncertainty arising from sampling*" A guide to methods and approaches, 2nd edition (2019), (b) "*Selection, Use and Interpretation of Proficiency Testing (PT) Schemes*", (2021) and (c) "*Use of Uncertainty Information in Compliance Assessment, Second edition (2021)*". The Slovak versions of the Guides were available and used as technical literature to support the participants of the organised seminars and trainings for testing and calibration laboratories.

iii. Seminars and trainings

ES organised seminars or trainings on:

(a) the "*Evaluation of uncertainties in sampling*" for the Slovak testing and calibration laboratory staff focused on the sampling schemes and evaluation of uncertainties accompanied by the selected applied models. The participants of the seminar were supported by study literature of the Slovak translation of the Eurachem/CITAC Guide: "Measurement uncertainty arising from sampling", 2nd ed. (2019);

(b) "*Proficiency Testing (PT), Selection, Use and Interpretation of results*" where mostly accredited laboratories were trained how the PT should be organised, evaluated, and reported. The Slovak translation of the Eurachem Guide: "Selection, Use and Interpretation of Proficiency Testing (PT) Schemes", (2021) was used as a supporting study literature during the training.

Dusan Kordik

SPAIN

Although with less incidence, the different waves of the SARS-COVID pandemic have continued to affect the availability and organization of activities related to Eurachem.

1. Eurachem Spain, is integrated into the daily operations of EUROLAB-Spain and FELAB, and all EUROLAB-Spain partners have been regularly informed of all the information generated by Eurachem, through circulars and newsletters.

2. Working Groups:

a. Pedro Pablo Morillas and Francisco Raposo members of Validation WG.

b. Pedro Pablo Morillas member of Education and Training WG.

c. Raquel Murtula member of Proficiency Testing WG.

d. Estibaliz Sastre member of Reference Material WG.

National Reports

3. Guide Translations into Spanish:

- Preparing translation group for the guide Selection, Use and Interpretation of Proficiency Testing (PT) Schemes by Laboratories (2021)
- Review of the leaflets available for translation in 2022

4. Through FELAB there have been several meetings with the National Accreditation Body (ENAC) about different complementary documents that are applicable in the accreditation processes of the different sectors.

Alfonso González del Rey | Pedro Pablo Morillas

SWEDEN

We had as usual 2 member meetings, in this case digital meetings discussing accreditation issues.

Our webpage has been missing and we have been working with setting up a new

Bertil Magnusson

SWITZERLAND

Eurachem-CH is hosted by the Division of Analytical Sciences (DAS) of the Swiss Chemical Society (SCS). The DAS has around 600 members. The members of the board represent academia, administration and industry. SCS is a full member of EuChemS and of Chemistry Europe. The DAS is a member of EuChemS Analytic (Analytical Chemistry Division and Division of Chemistry and the Environment) and co-owner of the journal Analytical and Bioanalytical Chemistry.

Since the foundation of the DAS the organisation of seminars and training courses in the fields of special analytical techniques, spectroscopy, separation technology and quality assurance is the core competence of the division. From the total of almost 60 courses about 15 are related to quality assurance. The courses cover the needs of accredited and regulated laboratories.

In 2021 and early 2022 again SARS-CoV-2 and its mutations were determining activities.

Slowly, the on-site events are increasing. For example, CHanalysis 2022 is taking place face-to-face on 19-20 May. The on-site courses are also slowly increasing. We all hope that the situation will not deteriorate dramatically again in autumn.

In 2023, DAS/Eurachem-CH will act as organiser at two international events:

- The Eurachem Week 2023 will take place from 22-26 May at METAS in Bern.
- Euroanalysis 2023 will take place in Geneva from 26-31 August.

A draft document "The Fitness for Purpose of Analytical Equipment – A Laboratory Guide to the Life Cycle of

Analytical Equipment, Equipment Qualification and Related Topic" (working title) was prepared as a proposal for a Eurachem Guide. Before it was submitted to the MVWG and the EC, it was reviewed by a number of Swiss colleagues working in the field of analytical science. The suggestions were incorporated into the draft.

To increase visibility in the German-speaking area and with a view to the Eurachem Week 2023 in Bern, a contribution on Eurachem has been added to the German-language Wikipedia.

Eurachem Switzerland is currently active in the Working Groups on Method Validation and on Reference Materials.

Ernst Halder

TURKEY

In the 2021-2022 reporting period, Eurachem Turkey has been involved in the activities of the Education and Training Working Group, Method Validation Working Group and Proficiency Testing Working Group.

Eurachem ETWG members participated in the web meetings on 11 June 2021 and 3 December 2021. Eurachem MVWG members participated in the web meetings on 11 November 2021 and 3-4 February 2022. The members are involved in the revisions of Eurachem Guides "Guide to Quality in Analytical Chemistry – An Aid to Accreditation" and "The Fitness for Purpose of Analytical Methods". Eurachem PTWG members participated on the web meeting on 6-7 October 2021 and 16-17 March 2022. PTWG members were involved in preparation of "Understanding PT statistics" and "Understanding PT Performance Assessment" leaflets.

The trainings on "ISO/IEC 17043 TECHNICAL REQUIREMENTS" (SMIIC) "External Quality Control Activities", "Internal Quality Control Activities and Control Charts" (UNIDO), "Proficiency Testing" as webinar, METROFOOD-PP webinar series (this project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 871083) were given by Eurachem representatives to the end users from international laboratories performing chemical measurements.

Oktay Cankur

UKRAINE

Due to continued COVID-19 restrictions, Eurachem-Ukraine activities were mostly limited to participation in the online events. Among them a conference devoted to the 20th anniversary of the State Pharmacopeia of Ukraine in November 2021 may be mentioned. The conference programme included the presentations on analytical quality control, method validation, reference materials, uncertainty evaluation, and other topics related to metrology in chemistry.

In April 2022 our representatives took part in the 27th

CCQM meeting, as well as in the meetings of the CCQM Working Groups on gas analysis (GAWG), electrochemical analysis (EAWG), and inorganic analysis (IAWG), as well as EURAMET TC "Metrology in chemistry" and its Working Groups in 2021 and 2022.

We keep on participating in the ISO technical committees: ISO/TC 158 Analysis of Gases and ISO/TC 193 Natural Gas, as well as representing Ukraine in ISO/TC 334 Reference Materials.

Work on translating the Eurachem documents into Ukrainian continues.

Dr. Dmytro Leontiev from the Ukrainian Scientific Pharmacopoeia Centre for Quality of Medicines has joined the Eurachem Measurement Uncertainty and Traceability Working Group. Thus, now Eurachem-Ukraine has two representatives in this Working Group and one representative in the Qualitative Analysis Working Group.

Now our activities are hampered by the Russian invasion of Ukraine.

Mykhailo Rozhnov | Ovsy Levbarg

UNITED KINGDOM

Eurachem activity in the UK is coordinated between the Royal Society of Chemistry Analytical Division, mainly through the Analytical Methods Committee (AMC), and LGC which leads the UK Chemical and Biological Metrology programme. The AMC, which includes representation from LGC, operates as the Executive for Eurachem UK. The AMC receives regular reports on Eurachem activity through the UK National Representatives and AMC members also receive the Eurachem Newsletter. Eurachem information is also distributed through the MyRSC online chemistry community.

The AMC (<http://www.rsc.org/AMC/>) has several expert Working Groups, all concerned with aspects of harmonisation and best practice in analytical chemistry. The AMC publishes reports and Technical Briefs developed by the different expert Working Groups. Reports are extended publications in the refereed literature, giving detailed information and recommendations on technical aspects of analytical chemistry. Three Reports appeared in 2021-22, all on applications of gas-liquid chromatography to the analysis of particular essential oils (see References). These provide typical GC profiles to help laboratories identify high value essential oils.

Technical briefs are short documents giving information on particular technical topics; the AMC has now published approximately 110 Technical Briefs. Technical Briefs since 2012 are published as a themed collection by the RSC journal "Analytical Methods" and are available online; they can also be found, with older technical briefs, by following the 'Technical Briefs' link on the AMC webpage at <https://www.rsc.org/amc>.

Nine new Technical Briefs were published in 2021-22

(including two approved in early 2021 but not listed in the 2021 report to the GA):

- AMCTB 102: Simplex optimisation in practice (DOI: 10.1039/D1AY90004H)
- AMCTB 103: Wax and wax-like materials – the what, where, and how in heritage collections (DOI: 10.1039/D1AY90035H)
- AMCTB 104: Thermal desorption part 2: applications in analytical measurement (DOI: 10.1039/D1AY90049H)
- AMCTB 105: How reliable is my uncertainty estimate? (DOI: 10.1039/D1AY90060A)
- AMCTB 106: Fourier transform infrared spectroscopic analysis of organic archaeological materials: background paper (DOI: 10.1039/D1AY90064A)
- AMCTB 107: Method selection for liquid chromatography (DOI: 10.1039/D1AY90086B)
- AMCTB 108: Hand-held X-ray fluorescence analysis of archaeological artefacts: challenges, advantages and limitations (DOI: 10.1039/D1AY90094C)
- AMCTB 109: X-ray micro-computed tomography for heritage building materials (DOI: 10.1039/D1AY90154K)
- AMCTB 110: Summarising the precision statistics from collaborative trials (DOI: 10.1039/D2AY90010F)

References

1. M. J. Milchard, N. C. DaCosta, R. Esdale, L. Gates, P. MacCormick, P. Merle, G. Moran, N. Moss, D. A. Moyler, N. Owen, N. Roach, A. Sherlock, T.D. Smith, B. Starr, J. Webb and R. Wood, Application of Gas-Liquid Chromatography to the Analysis of Essential Oils, Part 1 of 3: Fingerprint chromatograms of esters-containing essential oils: Chamomile

2. M. J. Milchard, N. C. DaCosta, R. Esdale, L. Gates, P. MacCormick, P. Merle, G. Moran, N. Moss, D. A. Moyler, N. Owen, N. Roach, A. Sherlock, T.D. Smith, B. Starr, J. Webb and R. Wood, Application of Gas-Liquid Chromatography to the Analysis of Essential Oils, Part 2 of 3: Fingerprint chromatograms of esters-containing essential oils: Bergamot oil, clary sage oil and spike lavender oil. Perfumer and Flavorist, October 2021

(<https://www.perfumerflavorist.com/fragrance/regulatory-research/article/21855643/application-of-gasliquid-chromatography-to-the-analysis-of-essential-oils-part-2>)

3. M. J. Milchard, N. C. DaCosta, R. Esdale, L. Gates, P. MacCormick, P. Merle, G. Moran, N. Moss, D. A. Moyler, N. Owen, N. Roach, A. Sherlock, T.D. Smith, B. Starr, J. Webb and R. Wood, Application of Gas-Liquid Chromatography to the Analysis of Essential Oils, Part 3 of 3: Fingerprint chromatograms of esters-containing essential oils: Neroli oil, petitgrain bigarade oil and petitgrain oil Paraguay. Perfumer and Flavorist, October 2021

(<https://www.perfumerflavorist.com/fragrance/regulatory-research/article/21855653/application-of-gasliquid-chromatography-to-the-analysis-of-essential-oils>)

Activities associated with the UK Chemical and Biological Metrology programme are described on the LGC website at <https://www.lgcgroup.com/uk-national-measurement-laboratory/>. This work contributes to maintenance of the UK National Measurement System.

Activities of particular interest to Eurachem in the year ending May 2022 include training courses on, for example, measurement uncertainty, analytical method validation and statistics for analytical chemists. The programme also provides guidance documents and reports; some of these can be found at <https://www.lgcgroup.com/our-impact/> under “Best practice guides”.

Eurachem UK members have also contributed actively to the following Eurachem Working Groups:

- Education and Training
- Measurement Uncertainty and Traceability (Chair)
- Proficiency Testing (Chair)
- EEE Proficiency Testing – “Proficiency Testing in Accreditation” (Chair)
- Qualitative Analysis
- Uncertainty from Sampling
- Method Validation
- Reference materials.

Steve Ellison | Chris Harrington

Upcoming events

Eurachem week 2023

After three consecutive online meetings the Eurachem representatives and experts will again meet in person from 22-26 May 2023 in Berne, Switzerland. The meetings take place on the premises of METAS, the Swiss National Metrology Institute.

The Eurachem week will start with a two-day Scientific Workshop entitled “Ensuring reliable and accurate results from analytical processes”. The analytical process spans from sampling over sample preparation to the actual measurement process. All these steps contribute to the measurement uncertainty of the result. Reliable and accurate results are subsequently interpreted and further used. Leading international and Swiss experts will share their current practices, latest developments and challenges across the analytical process. The workshop is organised along the four themes: method validation, equipment and software validation, internal and external quality controls and uncertainty and traceability of results.

The 24 May is reserved for Eurachem Working Groups Meetings. The General Assembly will take place from 25-26 May.

Registration for the Eurachem Week 2023 is open at: www.metas.ch/eurachem2023. The national Eurachem Delegates Hanspeter Andres (Vice Director at METAS) and Ernst Halder are very pleased to welcome you in Berne, Switzerland.



Workshop PT

10th Workshop on Proficiency Testing in Analytical Chemistry, Microbiology and Laboratory Medicine

Windsor (UK), 25-28 September 2023

The Eurachem Proficiency Testing Working Group, in cooperation with CITAC (www.citac.cc) and EQALM (www.eqalm.org), is organising the 10th event of a series of workshops addressing current practice and future directions of proficiency testing (PT) and external quality assessment (EQA) in analytical chemistry, microbiology and laboratory medicine.

Venue

The workshop will take place at the De Vere Beaumont hotel in Windsor, a town on the River Thames in southeast England, just west of London. It is home to Windsor Castle, a residence of the British Royal Family, built by William the Conqueror in the 11th century. The story of De Vere Beaumont Estate in Old Windsor is a very British one; a tale of democracy, royalty, education and religion. At its heart, sits an 18th-century mansion, a chapel, 75 event spaces and a Georgian white house in 40 acres of parkland grounds. The original house was built for Lord Weymouth but it was during its time as a public school, from 1854-1967, that saw most of the estate's architectural developments.

Technical Programme

The workshop will be structured to include training sessions, keynote lectures, short presentations, Working Group discussions and poster sessions, to enable interactive participation and cross-fertilisation of ideas. The official language of the workshop will be English. Invited lectures and accepted presentations/posters will be considered, through peer-review, for publication as full papers as a topical focus in an issue of Accreditation and Quality Assurance (Springer Verlag).



Training Sessions

Four training sessions, which are open to workshop delegates, will be held on the following topics:

- Basic statistics
- Further statistics
- PT scheme design
- Ensuring the quality of proficiency test items

Lectures and Working Group Topics

- Revision of ISO/IEC 17043
- Guidance on different methods for setting the standard deviation for proficiency assessment
- Collusion or falsification of results in PT – why does it happen and how can it be prevented
- Comparisons of synthetic vs real PT items
- Emerging trends in PT
- Risk analysis approach for PT participation

Who should attend?

The workshop will provide an excellent opportunity for PT/EQA scheme organisers, and end-users of PT/EQA (laboratories, accreditation bodies, regulators and the laboratories' customers) to come together and share their views.

Registration and more information at <https://eurachem-pt2023.org/>

Workshop Secretariat

Adele Collins | Phone: +44 161 762 2555

Email: adele.collins@lgcgroup.com

Member Countries

Eurachem member countries in blue.



Contact Points

Eurachem Secretariat
Philippe Maesen
secretariat@eurachem.org

Chair
Isabelle Vercruyse
Association Pharmaceutique Belge
DGO/SCM-Phasius
Rue Stevinstraat 137
1000 Bruxelles
Belgium
chair@eurachem.org

Vice-Chair
Eugenia Eftimie Totu
University "Politehnica" of Bucharest
Str. Polizu, no 1-5, sector 1
011061 Bucharest
ROMANIA

Past-Chair
Vicki Barwick
National Measurement Laboratory
LGC
Queens Road
Teddington, Middlesex
TW11 0LY
United Kingdom

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.



© All rights reserved. No part of this publication may be reproduced or transmitted in any form or any means, electronic or mechanical, including photocopying, recording of any retrieval system, without the written permission of the copyright holder.