

Date 14 February 2014

1. General Aspects

The work of the Technical Committee for Metrology in Chemistry, TC-MC, continues in its well-established form. The TC-MC members are actively participating in the European Metrology Research Programme (EMRP).

The sixth meeting of EURAMET TC-MC was held in Braunschweig, Germany, hosted by PTB, from 5th to 8th February 2013. All the four Sub-Committees (SCs) had separate meetings on the first two days of the conference and a TC-MC plenary meeting was held on 7th–8th February. About 100 representatives from various European NMIs/DIs participated in these meetings. An extra day on 4th February 2013 was reserved for the periodic meetings of EMRP projects in which a big participation of stakeholders was recorded.

Running EURAMET projects, EMRP projects and also proposals for upcoming EMRP calls were discussed in detail.

Dr. Béatrice Lalere (LNE) was nominated as the new convenor of the Sub-Committee for Organic Analysis in the plenary meeting. She replaces Gavin O'Connor (formerly LGC, now IRMM), who ended his second mandate of Convenor and had acted as the convenor of this SC for four years.

2. Projects

There are currently 8 active projects; they are all comparisons and mainly carried out in the field of gas analysis. Detailed information on the projects is given in the TC-MC project webpage. In 2013 3 comparisons were concluded, 2 started and 5 proposed.

Year	project started	completed projects
2003	5	4
2004	4	3
2005	5	4
2006	8	3
2007	4	4
2008	4	3
2009	3	3
2010	3	4
2011	9	8
2012	-	1
2013	2	3

3. Comparisons

8 EUROMET.QM Supplementary Comparisons and 8 Key Comparisons are registered in the BIPM KCDB:

EUROMET.QM-K1.c: completed
EUROMET.QM-K3: completed
EUROMET.QM-K4: completed
EURAMET.QM-K4.1: completed
EUROMET.QM-K17: completed
EURAMET.QM-K12: completed
EURAMET.QM-K16: ongoing
EURAMET.QM-K26.a: ongoing
EUROMET.QM-S1: completed
EUROMET.QM-S2: completed
EUROMET.QM-S3: completed
EURAMET.QM-S4: completed

EURAMET.QM-S5: completed
 EURAMET.QM-S6: completed
 EURAMET.QM-S8: completed
 EURAMET.QM-S7: ongoing

About the 80% of such comparisons is carried out in the gas field.

4. CMCs

In 2013, a review of new claims as well as a re-review of a range of existing claims was carried out in the regional CMC review process under cycle XIV of the CMC claim period. The files and accompanying documents were received by the relevant TC-MC SC convenors and discussed and evaluated by the SCs and appointed reviewing experts from different European NMIs/DIs, already prior to the meeting. The evaluation was completed during Sub-Committee meetings on 5th–6th February 2013. 65 new and 86 revised and re-reviewed claims (28 of which were withdrawn) have been proposed by 15 NMIs and DIs from 12 countries covering 8 categories (1, 2, 4, 5, 7, 10, 11, 15). A number of claims of cat. 11 already submitted under Cycle XIII, but to be reviewed in Cycle XIV were also considered. The collated claims from all the subcommittees were sent to the chairperson of the CCQM KCWG on the 22nd of February 2013, according to CCQM rules, for the inter-regional review.

The claims were divided into Fast Track and Non Fast Track ones and only 2 EURAMET claims were put among the Non Fast Track ones. 122 EURAMET Fast Track claims (63 new and 59 revised) were published in the KCDB in June 2013. The remaining 2 EURAMET Non Fast Track claims (both new) were published in the KCDB in December 2013. In addition, the 269 EURAMET Non Fast Track claims still pending from Cycle XIII were all published in the KCDB in April 2013.

EURAMET experts also took part in the inter-regional review process leading to the publication in the KCDB of 709 Non Fast Track claims of Cycle XIII from AFRIMETS, COOMET, SIM, APMP, 345 Fast Track claims and 67 Non Fast Track claims of Cycle XIV from AFRIMETS, COOMET, SIM, APMP.

5. Activities of the Sub-Committees

Meetings of all Sub-Committees were conducted together with the TC-MC plenary meeting in Braunschweig from 5th to 8th February 2013.

A review of new claims as well as the obligatory re-review of a range of existing claims were carried out under cycle XIV of the CMC claim period.

Running and new projects in the framework of EURAMET and EMRP and also proposals for upcoming EMRP calls were discussed in detail in all sub-committees.

Periodic meetings of the JRPs ENV01 “MACPoll-Metrology for chemical pollutants in air”, ENV05 “OCEAN-Metrology for ocean salinity and acidity”, ENV08 “WFDtraceability – Traceable measurements for monitoring critical pollutants under the European Water Framework Directive (WFD-2000/60/EC)”, ENG01-WP1 “Characterisation of energy gases”, ENG 09 “Biofuels – Metrology for biofuels”, and HLT05 “Metallomics – Metrology for metalloproteins” were carried out on the 4th and the 5th of February in Braunschweig prior to the TC-MC meeting.

6. EMRP

The ongoing European Metrology Research Programme (EMRP) represents a very important factor in the work and prospect of the Technical Committee for Metrology in Chemistry (TC-MC) of the European Association of National Metrology Institutes EURAMET e.V..

TC-MC is strongly involved in the EMRP process and participates in about 15 running projects in all the EMRP fields, i.e. “Health”, “Energy”, “Metrology for environment”, “Metrology for industry”, SI broader scope, “New technologies”, indicating the cross-disciplinary nature of the TC itself.

Chemical aspects related to the upcoming EMRP calls “ Metrology for Environment II” and “Metrology for Energy II” were addressed in a “EMRP workshop in preparation of the 2013 call” held on 7th February. Ideas for research topics were presented and discussed. The workshop was opened by a presentation on EMRP and EMPiR given by the EMRP chair Joern Stenger. 13 presentations were given by representatives of vari-

ous European NMIs/DIs, dealing with both TPs. The large amount of discussed topics underlines the interdisciplinary features of metrology in chemistry

7. Meetings

TC-MC annual meeting 2013:

5th to 8th February 2013 (sub-Committees and TC-MC plenary meeting) in Braunschweig, Germany.

- EURAMET workshop: “EMRP workshop in preparation of the 2013 call” in Braunschweig, Germany, 7th February 2013 with invited speakers.

Highlights:

Reports on:

- Information from EURAMET
Wolfgang Schmid, Head of EURAMET Secretariat
- Activities of CCQM and CIPM
Bob Kaarls, CIPM Secretary and Immediate Past President of CCQM
- BIPM Metrology in Chemistry Programme and strategic planning
Robert Wielgosz, Head of BIPM Chemistry Department
- EURACHEM activities
Bertil Magnusson, SP (Sweden), EURACHEM Chair
- CCQM WG activities
Representatives of the 6 technical CCQM WGs
- Issues related to DIs and CMCs
Wolfgang Schmid, Head of EURAMET Secretariat

The last point was of particular concern and attention was given to issues related to designation of DIs and CMCs and to the need of assuring the dissemination role of DIs. The preparation of a position paper that, starting from TC-MC will be extended to the other EURAMET TCs, was agreed.

- Workshop: “EMRP workshop in preparation of the 2013 call”:

Latest development on EMPIR

Joern Stenger, PTB

TP Environment II

Isotope analysis for environmental and climatic studies

Jochen Vogl, BAM

Primary methods for emerging pollutants and their metabolites

Christian Piechotta, BAM

OCEAN II

Henning Wolf, PTB

Metrology to support new WFD requirements

Béatrice Lalere, Sophie Vaslin-Reimann, LNE

Accurate measurement infrastructure for airborne particles (chemical and physical characterization)

Sophie Vaslin-Reimann, LNE

Innovative measurements for environmental monitoring in support of EU regulation

Helen Parkes, LGC

Underpinning policy making and implementation in the field of environment and energy – JRC “food for thought”

Marina Ricci, JRC

TP Energy II

Electromobility

Petra Spitzer, PTB

New measurement challenges for biofuels. Ideas from working together with biofuels producers and consumers

Bertil Magnusson, SP

The need for appropriate metrology on organic photovoltaic device stability and efficiency

Muhammet Erkan Köse, TÜBİTAK UME

Topics on Environment and Energy

Emerging requirements for accurate measurements in the gas and environmental sectors

Richard Brown, NPL

INRIM ideas for EMRP call 2013

Francesca Durbiano, INRIM

Possible ideas for PRTs by the Gas Subcommittee

Hugo Ent, VSL

Next meeting:

TC-MC annual meeting 2014:

- 3th- 7th February 2014 (sub-Committees and TC-MC plenary meeting) in Teddington, Great Britain, jointly hosted by NPL and LGC.

8. Issues

- Re-review process of existing CMCs exceeding new CMCs
- Need to organise new comparisons to support CMCs based on old KCs
- Need to organise new comparisons in emerging fields
- Coordination of EMRP activities
- Coordination of metrological infrastructure at the national levels: cooperation between NMIs and DIs

9. Strategic planning

- Discussion about participation in future EMRP/EMPIR projects
- Discussion about CMC activities.

10. Outlook for 2014

- Discussion for the participation in future EMPIR activities
- Activities related to CMC submission and revision. Formalisation of EURAMET TC-MC representatives in the CCQM KCWG
- Participation in the transversal EURAMET Task Groups "Health" and "Environment"

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