

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) as well as in EURAMET projects.

The fifth meeting of EURAMET TC-MC was held in Biarritz, France, from 31st January to 3rd February 2012. All Sub-Committees had separate meetings on the first two days of the conference and a TC-MC plenary meeting was held on 02 - 03 February 2012. 66 representatives from 34 institutions and 26 countries participated in these meetings located at the Domain de Françon. An extra day, 30th January 2012, was reserved for the periodic meetings of EMRP projects. Running EURAMET projects, EMRP projects and also proposals for upcoming EMRP calls were discussed in detail.

Dr. Hugo Ent (VSL) was nominated as the new convenor of the Sub-Committee for Gas Analysis in the plenary meeting. He replaces Rob Wessel (VSL), who left his work at VSL and had acted as the convenor of this SC for three years and a half.

2. Projects and 3. Comparisons

There are currently 10 running projects. The duration periods of projects in previous years as listed below have been revised according to the final reports given on the TC-MC project webpage, where detailed information can be found.

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	5	8

5 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
EUROMET.QM-K4.1: completed
EUROMET.QM-K17: completed
EUROMET.QM-S1: completed
EUROMET.QM-S2: completed
EUROMET.QM-S3: completed
EURAMET.QM-S4: completed
EURAMET.QM-K12: completed
EURAMET.QM-S5: ongoing
EURAMET.QM-K16: planned
EURAMET.QM-K26.a: ongoing

4. CMCs

In 2011, CMC claims of the new cycle, Cycle XII, and of the previous one, Cycle XI, underwent to interregional review. The definitive EURAMET claims were posted for approval by JCRB on 28th November 2011 and finally published on 4th January 2012.

Cycle	Number of CMCs
XI	68
XII	299

51 new claims and 248 revised/re-reviewed claims of Cycle XII, submitted by 11 NMIs and designated institutes from 10 countries covering 9 categories (1, 3-5, 8-12), were published in the KCDB. 3 new claims and 65 revised/re-reviewed claims of Cycle XI were published in the KCDB.

EURAMET experts also took part in the interregional review leading to the publication in the KCDB of 208 new claims and 120 revised/re-reviewed claims of both Cycle XI and XII from APMP, AFRIMET, COOMET and SIM.

New cycle, Cycle XIII:

96 new, 138 revised and 77 re-reviewed claims have been proposed by EURAMET members in the regional CMC review process. 82 of the new claims, 138 revised and 77 re-reviewed claims were submitted to the interregional review process. These claims were submitted by 20 NMIs and designated institutes from 15 countries covering 10 categories (1, 2, 4, 5, 7, 8, 10-13). The collated claims from all sub-committees inorganic, gas, organic and electrochemical were sent to JCRB on the 23rd of February. A number of claims already submitted under Cycle XII but to be reviewed in Cycle XIII were also considered.

5. Activities of the Sub-Committees

Meetings of all Sub-Committees were conducted together with the TC-MC plenary meeting in Biarritz from 31st January to 3rd February 2012. A review of new claims as well the obligatory re-review of a range of existing claims was carried out under cycle XIII of the CMC claim period. Running EMRP projects, new EMRP projects and also proposals for upcoming EMRP calls were discussed in detail in all sub-committees. Periodic meetings of the JRP's 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" were carried out on 30th and 31st January in Biarritz prior to the TC-MC meeting.

6. Participation in EMRP

The ongoing European Metrology Research Programme (EMRP) is now a dominant 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 13 running projects in the fields of "Health", "SI and fundamental constants", "Energy", "Metrology for environment", "Metrology for industry".

TC-MC members are also strongly involved in the EMRP calls "Health", "SI Broader Scope" and "New Technologies" conducted in 2011. This call was really successful for TC-MC: its members participate in various projects in all the three TPs (HLT04, HLT05, HLT08, HLT10, SIB09, NEW01, NEW02, NEW03), indicating the cross-disciplinary nature of the TC itself. The projects will start in mid 2012.

Chemical aspects related to the upcoming EMRP calls were addressed in a "EMRP workshop in preparation of the 2012 call" held on 3rd February. Ideas for research topics were presented and discussed. The proposals dealt with the three calls on "Industry", "SI Broader Scope" and "Open Excellence". Compared to the previous years, less topics were proposed in 4 presentations, confirming the deep involvement of resources of

the various NMIs and DIs in the ongoing calls. Among the topics addressed there were innovative measurement methods and techniques and purity assessments.

A “Mini workshop on iMERA plus ended JRPs” was held on the 31st January dealing with the main outcomes from the already finished iMERA projects related to Amount of Substance field.

7. Meetings

- TC-MC annual meeting:
31st January to 3rd February 2012 (sub-Committees and TC-MC plenary meeting) in Biarritz, France
- EURAMET workshop: “Mini workshop on iMERA plus ended JRPs” in Biarritz, France, 31-01-2012 with invited speakers
- EURAMET workshop: “EMRP workshop in preparation of the 2012 call” in Biarritz, France, 02-02-2012 with invited speakers.

Highlights:

Reports on:

- Activities of CCQM and JCTLM (Joint Committee on Traceability in Laboratory Medicine)
Bob Kaarls, President of CCQM
 - BIPM Metrology in Chemistry Programme 2012-2015
Robert Wielgosz, Head of BIPM Chemistry Department
 - EURACHEM activities and the new EURACHEM/CITAC Guide
Bertil Magnusson, SP (Sweden), EURACHEM Vice-chair
 - Workshop: “Mini workshop on iMERA plus ended JRPs”:
- T2.J01 “Breath analysis - Breath analysis as a diagnostic tool for early disease detection”
Adriaan Van der Veen, VSL (The Netherlands)
- T2.J04 “Regenmed - Metrology on a cellular scale for regenerative medicine”
Rainer MacDonald, PTB (Germany)
- T2.J10 “Tracebioactivity - Traceable measurements for biospecies and ion activity in clinical chemistry”
Bernd Guettler, PTB (Germany)
- T2.J11 “Clinbiotrace - Traceability of complex biomolecules and biomarkers in diagnostics - Effecting measurement comparability in clinical medicine”
Helen Parkes, LGC (United Kingdom)

- Workshop: “EMRP workshop in preparation of the 2012 call”:

SI broader scope

LGC: Potential bio/chem. PRTs for SI Broader Scope and Metrology for Industry 2012 EMRP Call
Helen Parkes, LGC (United Kingdom)

Open excellence: Metrology for innovative and incoming water quality monitoring tools

Sophie Lardy-Fontan, LNE (France)

Possible ideas for PRTs by the Gas Subcommittee

Hugo Ent, VSL (The Netherlands)

Possible ideas for PRTs by the Organic Subcommittee

Gavin O'Connor, LGC (United Kingdom)

8. Issues

- CMCs review process between RMOs: late publication of CMC entries in the KCDB
- Re-review process of existing CMCs exceeding new CMCs

- Need to organise new comparisons to support CMCs based on old KCs
- Coordination of EMRP activities

9. Strategic planning and 10. Outlook for 2012/2013

- Technical roadmap update for EMPIR
- Discussion about participation in future EMRP TPs
- Discussion about CMC activities