

Date 25 February 2013

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### 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 fifth meeting of EURAMET TC-MC was held in Biarritz, France, from 31<sup>st</sup> January to 3<sup>rd</sup> 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, 30<sup>th</sup> 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

There are currently 9 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 2012, none new project was initiated.

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

### 3. Comparisons

6 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 (final report in progress)  
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: ongoing  
EURAMET.QM-S6: planned

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

#### **4. CMCs**

In 2012, 96 new, 138 revised and 77 re-reviewed claims have been proposed by EURAMET members in the regional CMC review process under Cycle XIII. 88 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 together with the claims for the bioanalysis area were sent to JCRB on the 23<sup>rd</sup> of February. A number of claims already submitted under Cycle XII but to be reviewed in Cycle XIII were also considered.

The claims were divided into Fast Track and Non Fast Track ones. 71 EURAMET Fast Track new claims were posted on September 2012 in the KCDB. The EURAMET Non Fast Track claims comprise 17 new CMCs and 294 revised/re-reviewed ones (including 41 withdrawn claims) which are still pending.

EURAMET experts also took part in the interregional review leading to the publication in the KCDB of 281 new Fast Track claims of Cycle XIII from APMP, AFRIMET and COOMET. 143 Non Fast Track new claims and 697 revised/re-reviewed claims of Cycle XIII from APMP, AFRIMET and COOMET are still pending.

#### **5. Activities of the Sub-Committees**

Meetings of all Sub-Committees were conducted together with the TC-MC plenary meeting in Biarritz from 31<sup>st</sup> January to 3<sup>rd</sup> February 2012. A review of new claims as well as the obligatory re-review of a range of existing claims were 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 30<sup>th</sup> and 31<sup>st</sup> January in Biarritz prior to the TC-MC meeting.

#### **6. 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 started 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 3<sup>rd</sup> 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 JRP's" was held on the 31<sup>st</sup> January dealing with the main outcomes from the already finished iMERA projects related to the Amount of Substance field.

#### **7. Meetings**

##### **TC-MC annual meeting 2012:**

31<sup>st</sup> January to 3<sup>rd</sup> 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)*

#### **Next meeting:**

TC-MC annual meeting 2013:

- 4<sup>th</sup>- 8<sup>th</sup> February 2013 (sub-Committees and TC-MC plenary meeting) in Braunschweig, Germany, hosted by PTB.
- EURAMET workshop: "EMRP workshop in preparation of the 2013 call"

#### **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**

- Technical roadmapping: a “task force” for the renewing of TC-MC technical roadmapping has been set up, formed by the present and past TC chairs, the four SC convenors and the Contact Persons from UK and France. Five technical roadmaps, in line with the emerging requirements of the EMPIR programme, were prepared, focused on the following subjects: Basic Science, Environment, Energy, Healthcare, Industry.
- Discussion about participation in future EMRP TPs
- Discussion about CMC activities.

## **10. Outlook for 2013**

- Discussion for the participation in future EMRP activities and organisation of an EMRP workshop in preparation of the call 2013 during the TC-MC meeting
- Activities related to CMC submission and revision. Implementation of the Core Competencies approach in the inorganic analysis field, following the CCQM Inorganic Analysis WG strategy.

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