

Guide on EURAMET comparisons

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7th Meeting of the Focus Group on
Facilitating National Metrology Infrastructure Development

Zagreb, Croatia, 13th-14th November 2014

TC-MC
Metrology in Chemistry
EURAMET Technical Committee

EURAMET Technical Committee Projects

The Technical Committees are the forum for scientific and technical cooperation in the respective fields.

The types of cooperation (EURAMET projects) are:

- Cooperation in research
- Comparison in measurement standards
- Traceability
- Consultation between members

Participation in EURAMET projects is open to all EURAMET members and associates in accordance with the EURAMET Eligibility Criteria for Participation in EURAMET TC Projects.

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Type of comparisons

There are several type of comparisons to be organised within each RMO:

- Regional Key Comparisons
- Supplementary RMO comparisons

Formal value within CIPM-MRA;
CIPM MRA-D-05 “Measurement comparisons in the CIPM-MRA”

- EURAMET TC comparisons → No written rules

CIPM KCs, Regional KCs and SCs

- CIPM Key comparison organized at CC or CC-WG level that results in a Key Comparison Reference Value
- Regional Key Comparison organized by the RMO using the same procedure, similar artifact or same measurand as the CC comparison and with linking results to the KCRV
- Supplementary Comparisons organized by the RMO with procedures and artifacts or measurand ranges not used in KCs
- For the RMO KCs and SCs, the protocol and report need to be approved by the relevant CC or CC-WG.

The report is published in the Technical Supplement of Metrologia.
The templates for registration can be found at www.bipm.org

Organization of EURAMET comparisons different from KCs and SCs

- EURAMET does not have yet a protocol for organization of TC comparisons
- The only information available is on the Project registration form

"Forms are to be sent to the EURAMET Secretariat as word or pdf file

- *by the TC Chair or*
- *by the proposer/coordinator of the project with copy to the TC Chair*
- *If the proposer/coordinator is not EURAMET TC contact person the national contact person(s) of the relevant TC(s) have to be involved in the registration process."*

- More information is given for regional KCs and SCs

How do we organize EURAMET comparisons? Current practices

- During the TC or SC meetings or by any other means it is identified the need of a comparison in an determined field using a specific transfer standard
- A pilot laboratory is chosen or self proposed
- A protocol is elaborated based on collected information and needs
- Invitation to participate along with the protocol is sent to all TC or SC members
- The participants sends the confirmation to the pilot laboratory
- ….. Every TC has its own rules.
- These non-written rules are not always known and/or respected!!!

How to move further?

- EUROMET Guide n. 3 “EUROMET Guidelines on Conducting Comparisons” not yet adopted by EURAMET
- Including written rules not only for Regional KCs and SCs but also for other TC comparisons taking into account the current practices
- Several TCs are now engaged in the development of procedures for organization and data analysis: common and shared approach is needed
- A draft EURAMET Guide is under development (M. Sega, E. Batista, W. Schmid) updating EUROMET Guide n. 3 with close link to CIPM MRA-D05

Contents of the Guide on comparisons

1. Introduction
2. Participation in EURAMET comparisons
3. Responsibilities for initiating and conducting EURAMET comparisons
4. Organisation of a EURAMET comparison
5. Late entry in a comparison
6. Performing EURAMET comparisons
7. Reporting the results of a EURAMET comparison
8. Preparation of the report on a EURAMET comparison
9. Inconsistent results
10. Getting approval of the relevant Consultative Committee on the report of a EURAMET key comparison and the proposal for entry of the results in the BIPM MRA database
11. Entry in the BIPM MRA database and publication of the results of a EURAMET comparison
References
Appendix 1 - Information to the CC on EURAMET proposed key and supplementary comparisons
Appendix 2 - Scheme: Course of EURAMET comparisons events

Issues to be considered

- The draft protocol must circulate and be approved by the members of the relevant technical SC (also enlarging the communication to experts attending the meetings)
- The TC chair should be informed and he/she could have the right to consult the TC and ask for approval in case of controversial
- Comparions opened in principle to all EURAMET members and associates (there should be good reasons not to do so, but they have to be explained)
- The final protocol will be uploaded on the database together with the registration form
- The comparison should be in principle discussed at the TC/SC meetings
- The results should be presented and discussed at the TC/SC meetings
- The draft B report should be circulated and approved within the TC/SC (giving a fixed deadline for comments)

Next steps

- Circulating the draft Guide to the EURAMET TC Chairs to share rules that can be applied to all the TCs
- Promoting the involvement of NMIs and DIs in the proposal of new comparisons
- Need to stick to the rules to avoid the flourish of comparisons not discussed or properly presented to the relevant TC(s) or SC(s)
- Discuss the draft EURAMET Guide on comparisons at the next TCCs meeting (February 2015)



Other inputs for discussion...

Thank you for your attention!