



Report of the 21st Meeting of the JCRB

Held on 24-25 September 2008 at the BIPM, Sèvres

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Author: JCRB Executive Secretary
Approved on March 17, 2009

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Participants**BIPM-CIPM**

Prof. Andrew J. Wallard	(Chairman) BIPM
Mr Luis Mussio	(Executive Secretary) BIPM
Dr Robert Kaarls	CIPM
Dr Claudine Thomas	(KCDB coordinator) BIPM
Dr Pedro Espina	BIPM
Mr Michael Streak	BIPM

Delegations

Dr Kwang Hwa Chung	(Representative) APMP
Mrs Ajchara Charoensook	APMP
Dr Yoshio Hino	APMP
Dr WooGab Lee	APMP
Dr Sergey Alekseevitch Komissarov	COOMET
Dr Sergey Korostin	COOMET
Dr Pavel Neyezhmakov	COOMET
Mr Gorislav Sydorenko	COOMET
Prof. Dr Michael Kühne	(Representative) EURAMET
Mr Luc Erard	EURAMET & CIPM
Dr Wolfgang Schmid	EURAMET
Prof. Dr Ali Abu Elezz	SADCMET
Prof. Dr. Ahmed Ali Mohamed El Sayed	SADCMET
Dr Wynand Louw	(Representative) SADCMET
Mr Donald Masuku	SADCMET
Dr Alan Steele	(Representative) SIM
Dr William Anderson	SIM
Dr Claire Saundry	SIM

1. Welcome by the Chairman and changes to the Agenda

The Chairman welcomed the delegates to the BIPM and asked the participants to introduce themselves. The Chairman proposed to include item 12 of the agenda under item 3, Report of the Chairman. The Chairman then invited changes to the Agenda. The Agenda was approved with no further changes.

2. Approval of the minutes and discussion on matters arising from the report of the 20th meeting held at Wellington, New Zealand

R. Kaarls pointed out that item 9.2 should include “assign values to in-house reference materials”, and also asked for an amendment to the text under item 10.1. With these two amendments the minutes of the 20th meeting were approved.

The Executive Secretary then presented an update of the status of actions pending from the 20th meeting. On Action 20/2, he noted that communication of the COOMET delegate to the CCTF CMCWG was still pending.

No further comments were made.

3. Report by the Chairman on progress since the 20th JCRB meeting

See document [JCRB 21.03](#).

A. Steele requested additional information on whether or not the countries that do not have CMCs have participated in regional activities. C. Thomas and L. Mussio informed him that this information is already available in the BIPM KCDB website.

4. RMO reports to the JCRB

4.1 APMP report

The APMP report ([JCRB 21.04\(2\)](#)) was presented by K.H. Chung.

R. Kaarls asked whether designated institutes in APMP are considered full members or not. K.H. Chung replied that designated institutes could indeed be full members, but pointed out that there is only one vote per country. The chairman asked about the status of KRISS' QS as the APMP report mentions that it has ISO 9001 certification but there is no reference to ISO/IEC 17025.

K.H. Chung explained that this ISO 9001 applies only for the administrative part of the KRISS operations, but the technical part relies on peer reviews assessments. KRISS has self-declared compliance with ISO/IEC 17025.

The APMP delegation clarified that accreditation is not mandatory in the APMP, and self-declaration is also permitted. R. Kaarls suggested that the report should include a listing of the self-declarations and compliance with ISO/IEC 17025; otherwise it may seem that the NMI does not have this standard implemented.

4.2 COOMET report

The COOMET report ([JCRB 21.04\(3\)](#)) was presented by S. Korostin.

The chairman asked if the software for COOMET certificates (see page 3 in the COOMET report), has the option to include the CIPM MRA logo. S. Korostin replied that it will be an option. A. Wallard then asked about the COOMET designation systems and its compliance with the CIPM MRA requirement to only have one institute per metrology area. S. Korostin replied that only the highest level institute will have CMCs in a given metrology area in compliance with the CIPM MRA rules.

R. Kaarls asked for clarification of the term “umbrella designation” (see page 2 in the COOMET report). S. Korostin explained the procedure. It was considered that the “umbrella designation” is equivalent to the procedure used in many countries where the NMI is an institution without its own laboratories and who designates the participants in the CIPM MRA (e.g., Chile).

4.3 EURAMET

The EURAMET report ([JCRB 21/04\(4\)](#)) was presented by M. Kühne.

L. Mussio asked the EURAMET delegation to contact the NMIs that have not sent the BIPM their official communications about changes in designations. C. Thomas pointed out that this problem is particularly important in the case of Denmark. The EURAMET delegation will take actions to solve this problem.

4.4 SADC MET

The SADC MET report ([JCRB 21/04\(5\)](#)) was presented by D. Masuku.

The structure of the RMO AFRIMETS was presented. The chairman asked about the structure in AFRIMETS for the review of NMI QS. W. Louw explained that the structure of technical committees is basically the same as that of SADC MET, but the QS review is still under preparation. He added that during the last General Assembly, AFRIMETS approved the option of self declaration.

The chairman noted that establishment of the QS review process was important for the approval of AFRIMETS as an RMO within the scope of the CIPM MRA by the CIPM.

4.5 SIM report

The SIM report ([JCRB 21/04\(6\)](#)) was presented by A. Steele.

L. Mussio asked if it would be acceptable for SIM to include the chairpersons of the technical subgroups in the contact list of the JCRB review process. The proposal was accepted by the SIM delegation.

5. KCDB report

The KCDB report (JCRB 21/05) was presented by C. Thomas.

C. Thomas explained that there are CMCs that have been greyed-out for more than three years and in her opinion it should be decided for how long CMCs can remain in this status before being permanently deleted from the KCDB. After a short discussion it was agreed that the RMOs will report on the current status of their greyed-out CMCs.

<p>Action 21/1 The RMOs will include the status of their greyed-out CMCs in their reports to the 22nd JCRB. Responsible: RMOs</p>

C. Thomas remarked on the importance of submitting CMCs according to the established procedures and asked the delegations to stress this point to their membership. A. Steele asked if it would be possible to have access to the statistics presented in the KCDB report, which would be very useful for planning actions in the RMOs. C. Thomas showed where in the KCDB website the file with the statistics can be downloaded. C. Thomas also stressed the importance of registering comparisons, noting the example of COOMET, who has registered many comparisons since the last JCRB meeting.

C. Thomas announced the 14th International Congress of Metrology (22-25 June 2009), organized by the LNE, will include a session on the 10th anniversary of the CIPM MRA. The Chairman asked the RMOs if they could provide success histories about how the use of the KCDB has improved their capabilities or has helped resolve a trade dispute to be presented during the upcoming congress. C. Thomas thanked L. Mussio for his cooperation with the KCDB office.

6. Problems arising from JCRB Resolutions and Recommendations concerning traceability and re-review period of CMCs

L. Mussio presented document JCRB 21.06, showing the problems due to:

- previous resolutions on traceability and the different criteria accepted for traceability;
- the way traceability is expressed in the corresponding column of the submitted and published CMCs.

He also showed examples of CMCs that should be reviewed due to errors in the values.

The Chairman suggested that the JCRB first discuss its Resolutions on traceability. M. Kühne expressed the view that all the CIPM MRA participants have learned as a consequence of the implementation process, and the last resolution is based in the experience gained over the last ten years. He proposed that the last Resolution on this subject (Resolution JCRB 19/4) be maintained. A. Steele supported this position. He also proposed that the traceability statements on the CMCs be reviewed during the five-yearly QS review. R. Kaarls also supported this position, noting that this is also what is stated in the CIPM MRA itself. He gave the example of Chemistry, where it is extremely important to assure traceability and this is not possible through accredited laboratories.

L. Erard proposed to have a clear guide on how to express traceability. M. Kühne stated that the traceability mentioned in JCRB Resolution 19/4 should be direct to an NMI with approved CMCs. S. Korostin asked for opinions on how the traceability should be demonstrated and how it should be expressed in the corresponding columns of the CMC files. M. Kühne said that the requirement is that traceability be established by a calibration certificate for the reference standard issued by an NMI with approved CMCs. A. Steele agreed and pointed out that the Resolution 19/4 is explicit in this requirement.

A short discussion followed about clause number 3 of the Resolution. The Chairman commented that by maintaining this Resolution, the JCRB may be imposing a burden

particularly in small NMIs. The Executive Secretary asked what should be done about the CMCs that are already in the KCDB. W. Anderson proposed to maintain them and resolve the problem during the periodical QS review. R. Kaarls agreed with the proposal. A. Charoensook requested that a clear statement be made about the contents needed for a declaration of traceability.

Concerning the technical review of CMCs, L. Mussio commented that some CCs are already taking action on this. A. Steele commented that asking the CCs to carry out the re-review of all CMCs would be an impossible task, and proposed to leave the task to the QS review. He noted that there should also be actions due to “external” discoveries of potential mistakes. M. Kühne expressed the view that this work should be done in the RMOs and it is up to the RMOs to tailor their own processes. R. Kaarls expressed the view that it is not clear who does what, whether the RMOs or the CCs will carry out the re-reviews. A. Steele proposed to consult the CC groups that are working on this subject.

The following Resolutions and Actions were approved.

Action 21/2 The BIPM will consult the CCs on the particular procedures used, or proposed, for the re-review of CMCs and report to the next JCRB meeting. *Responsible: Executive Secretary*

Action 21/3 Prepare a guideline with instructions for the declarations of traceability in the CMC submissions. This guideline will be included in a future version of the document “Calibration and Measurement Capabilities in the Context of the CIPM MRA” (CIPM MRA – D- 04). *Responsible: BIPM*

Resolution 21/1 CMCs that do not comply with JCRB Resolution 19/4 will not be greyed-out. The review of the traceability statements of CMCs will be performed by the RMOs in the periodical review of CMCs and QS.

7. Documents to be submitted to the CIPM

7.1 Guide for the implementation of the CIPM MRA (CIPM MRA-G-01)

Recommended with comments.

7.2 Calibration and Measurement Capabilities in the Context of the CIPM MRA (CIPM MRA-D-04)

Recommended with comments.

7.3 JCRB Rules of Procedure (CIPM MRA-D-01)

Recommended.

The recommended documents will be modified following the comments made by the Joint Committee, and will be presented to the CIPM for approval.

Recommendation 21/1 The JCRB recommends that the CIPM approve document CIPM MRA-G-01, “Guide to the implementation of the CIPM MRA”.

Recommendation 21/2 The JCRB recommends that the CIPM approve document CIPM MRA D 04, “CMCs in the context of the CIPM MRA”.

Recommendation 21/3 The JCRB recommends that the CIPM approve document CIPM MRA D 01, “Rules of Procedure for the JCRB”, Version 6.

8. Discussion on the process for approval of new RMOs in the JCRB

Document JCRB 21.09 was tabled for discussion.

It was noted that the term used in section 4, “States that are Members of the BIPM”, is a formal legal term and not “Signatories of the Metre Convention”. Associates are states or economies associated to the CGPM and thus are not considered as Members of the BIPM. The BIPM document prepared by the legal adviser will be made available for the delegates.

The delegates remarked on the importance of the participation of the JCRB in the RMO approval process. It was agreed that the initial application should be presented to the JCRB for consultation before going to the CIPM.

After discussion on the topic, The Chairman moved to endorse the document and recommend its approval to the CIPM. This motion was approved.

The Chairman presented the letter submitted by W. Low requesting consideration of AFRIMETS as the expansion of the existing SADC MET. W. Low reported that AFRIMETS will use the existing structures and the experience of SADC MET will be used in AFRIMETS. Changes in the Working Groups or contact persons will be brought to the attention of the JCRB.

Recommendation 21/4 The JCRB recommends that the CIPM approve document CIPM MRA P 01, “Procedure for approval of a new RMO”.

9. BIPM quality system and publication of services on the BIPM website

The Chairman reported on the causes for the delay in the presentation of the BIPM quality system, and informed the JCRB that the role for the coordination of the BIPM QS has been assumed by M. Streak. The Chairman also announced the BIPM’s intention to present the QS to a panel of experts in March 2009. Invitations will be extended after the next CIPM meeting.

On the publication of the BIPM measurement capabilities, The Chairman reported that alignment of the BIPM uncertainties to the definition of CMC, using $k = 2$, will be considered by the CIPM in October 2008, but BIPM certificates will continue to be issued with $k = 1$.

The Chairman also proposed that the occasion of the presentation of the BIPM QS would be a good opportunity to have a second round of presentations of the different procedures used in the RMOs for the review of their QS.

10. Discussion on the advantages of harmonizing the processes used for the review of NMI quality systems by the RMOs and by accreditation bodies

The Chairman reported on the status of the harmonization of the processes of dealing with CMCs in accreditation and in the CIPM MRA. The main goal is to have consistency between the CMCs in the accreditation scope of an NMI and the data in the KCDB. The BIPM will continue to meet with ILAC to work on the issue but it would be useful to understand the views of the JCRB on this issue.

L. Mussio presented statistics on how many laboratories participating in the CIPM MRA have chosen accreditation. M. Kühne noted the need to establish the equivalence of accreditation and the CIPM MRA peer review process. It is necessary to avoid the idea that the JCRB endorses the accreditation of NMIs. He also indicated the need to establish the difference with matching the CIPM MRA peer review process and accreditation. The CIPM MRA peer review process may use results of the accreditation process but is far stricter.

A. Steele remarked on the high level of technical knowledge involved in the review of the CMCs within the CIPM MRA process, as compared it with that used in accreditation. R. Kaarls pointed out that the differences not only arise from the selection of peer reviewers, but also from the deep discussions that occur after key and supplementary comparisons which do not normally occur in the proficiency tests used by accreditors. M. Kühne asserted that participation in proficiency test schemes is rather loose, while the rigorous system of key and supplementary comparisons and the way that the uncertainty components are discussed in the context of the CIPM MRA is scientifically more significant.

It was agreed that the strategy for the discussion with ILAC should be to show that the requirements of the CIPM MRA process are more stringent than those for accreditation, and so the ILAC process should recognize the results of the CIPM MRACMC technical reviews. M. Kühne pointed out that an agreement with ILAC would not be binding to the individual national accreditation boards (ABs).

It was also noted that confusion existed because of the use of the term “self declaration” in the context of the CIPM MRA. R. Kaarls was of the opinion that the participation in the discussion should be more active on the side of the CIPM MRA, and the BIPM standpoint should not just be defensive but should explain why the CIPM MRA process is good. After discussion it was decided that more work was needed and that the points made will be taken to the joint ILAC/BIPM meetings.

11. Actions to promote participation in the CIPM MRA and its implementation in NMIs

This item was covered in item 3 of the agenda.

12. Report on current CMC inter-regional reviews and matters arising from meetings of the CC working groups on CMCs

L. Mussio presented a summary of items discussed in CC meetings that might be of concern, or are related, to the JCRB (see document JCRB 21.13).

The Chairman answered the question of why the BIPM capabilities will not be featured in the KCDB, explaining that, unlike NMIs, BIPM services are only available to its Members and the BIPM is not a signatory of the CIPM MRA. A. Steele asked whether the decision that the BIPM will not become a signatory remains valid. The Chairman answered that this decision lies with the CIPM and that currently there is not change. C. Thomas remarked that the BIPM capabilities will not be part of the KCDB.

L. Mussio drew attention to the discussions in a number of CCs about limiting the number of participants in KCs. It was agreed that the choice of participants lies with the CCs, but that this choice should be driven by scientific considerations and the capacity of participating NMIs to act as links for future regional KCs.

13. Other business:

M. Kühne informed the JCRB that EURAMET will undertake the review of INPL's CMCs (Israel) as it did for NIS (Egypt). EURAMET received a similar request from the JISM (Jordan), but it was not accepted on the basis that the JISM is neither a Corresponding NMI of EURAMET nor a Member of the BIPM or Associate of the CGPM. As EURAMET is not currently in a position to accept further countries, further requests will be forwarded to the JCRB. P. Espina reported on the present status of Jordan and Syria.

A. Steele asked if there is a minimum number of countries needed to form an RMO. The Chairman answered that this is a very difficult issue and will be taken to the CIPM for inclusion in their discussion on the approval of new RMOs.

A. Steele informed the JCRB that SIM is reviewing its position with regard to Legal Metrology and may be sending requests for information on how this role is managed in the other RMOs. The Chairman asked if there are any implications foreseen in the process. A. Steele answered that there may be problems because the members of SIM in general are not the legal metrology organizations of the countries.

A discussion followed on the general issue of relations between the Legal Metrology Bodies and the NMIs at both, national and regional levels.

The Chairman raised the point of the letter submitted by W. Louw on the request for the approval of AFRIMETS. A. Steele congratulated AFRIMETS for the work done in the creation of the structure, and moved to recommend the approval of AFRIMETS, considering that is not a new RMO but the expansion of the existing

Author: JCRB Executive Secretary

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SADCMET. C. Thomas asked if the name AFRIMETS will replace the name SADCMET in the KCDB as it will require a considerable amount of work to implement the change.

Recommendation 21/5 The JCRB recommends that the CIPM approve AFRIMET as an expansion of SADCMET.

14. Next meetings:

14.1 JCRB meetings

Next meeting: BIPM, Sèvres, France, 17-18 March 2009

Approved

Second 2009 meeting: On behalf of COOMET, S. Komissarov invited the JCRB to hold the meeting in Kazan, Republic of Tatarstan, Russian Federation.

Approved

14.2 Other meetings

BIPM QS presentation to RMO panel of experts. BIPM, Sèvres, France, 16 March 2009.

Forum on Metrology Programs for States in Development, BIPM, Sèvres, France, 19 - 20 March 2009.

15. Meeting closure

The Chairman thanked the delegations for their participation in the meeting. Having no further issues for discussion, the meeting was adjourned.

16. Summary of Actions, Resolutions and Recommendations.

ACTIONS

- Action 21/1 The RMOs will include the status of their greyed-out CMCs in their reports to the 22nd JCRB. 5
- Action 21/2 The BIPM will consult the CCs on the particular procedures used, or proposed, for the re-review of CMCs and report to the next JCRB meeting. *Responsible: Executive Secretary* 7
- Action 21/3 Prepare a guideline with instructions for the declarations of traceability in the CMC submissions. This guideline will be included in a future version of the document “ Calibration and Measurement Capabilities in the Context of the CIPM MRA” (CIPM MRA – D- 04). *Responsible: BIPM*..... 7

RESOLUTIONS

- Resolution 21/1 CMCs that do not comply with JCRB Resolution 19/4 will not be greyed-out. The review of the traceability statements of CMCs will be performed by the RMOs in the periodical review of CMCs and QS. 7

RECOMMENDATIONS

- Recommendation 21/1 The JCRB recommends that the CIPM approve document CIPM MRA-G-01, “Guide to the implementation of the CIPM MRA” 8
- Recommendation 21/2 The JCRB recommends that the CIPM approve document CIPM MRA D 04, “CMCs in the context of the CIPM MRA” 8
- Recommendation 21/3 The JCRB recommends that the CIPM approve document CIPM MRA D 01, “Rules of Procedure for the JCRB”, Version 6..... 8
- Recommendation 21/4 The JCRB recommends that the CIPM approve document CIPM MRA P 01, “Procedure for approval of a new RMO”. 8
- Recommendation 21/5 The JCRB recommends that the CIPM approve AFRIMET as an expansion of SADC MET. 11