Coordination within the CIPM MRA

Consultative Committees, Regional Metrology Organizations, JCRB

CIPM MRA-P-12

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Acronyms used in this document are listed in CIPM MRA-P-11.

1. Introduction

This policy document (CIPM MRA-P-12) describes the coordination role of Consultative Committees of the CIPM, RMOs and JCRB within the framework of the CIPM MRA. It supersedes CIPM MRA-D-01, CIPM MRA-P-01, and together with CIPM MRA-P-12 supersedes CIPM MRA-G-01.

The overall coordination is by the BIPM under the authority of the CIPM. The Consultative Committees of the CIPM, the RMOs and the BIPM are responsible for carrying out the key and supplementary comparisons. The Joint Committee of the Regional Metrology Organizations and the BIPM (JCRB) is charged with coordinating the activities among the RMOs.

2. Joint Committee of the Regional Metrology Organizations and the BIPM

The JCRB operates under the auspices of the CIPM and comprises representatives of the RMOs. The BIPM Director chairs the JCRB, supported by the JCRB Executive Secretary.

The terms of reference of the JCRB are defined in Appendix E of the CIPM MRA, and are currently interpreted as:

- a) coordinating the activities among the RMOs in establishing confidence for the recognition of calibration and measurement certificates, according to the terms of the CIPM MRA;
- making policy suggestions to the RMOs and to the CIPM on the operation of the CIPM MRA;
- c) analysing the application by each RMO of the criteria of the CIPM MRA;
- d) reporting the activities of the Joint Committee to the CIPM and to the signatories of the CIPM MRA.
- e) overseeing the requests from any new RMO to enter the JCRB.
- f) review any CIPM MRA related requests from RMOs.

Details of the JCRB meeting procedures are given in Appendix A to this document.

3. Consultative Committees

The CIPM Consultative Committees have wide range of responsibilities in their metrological fields that are described on their dedicated webpages. Within the framework of the CIPM MRA, the Consultative Committees are charged with planning and execution of key comparisons, and affirming the validity of the results. Particularly, these responsibilities are:

- a) to identify the key comparisons in each field;
- b) to initiate and organize, with the collaboration of the BIPM, the execution of key comparisons at intervals to be decided individually for each comparison;
- to review the results of CIPM key comparisons and determine the reference values and degrees of equivalence on the basis of the proposals of the appropriate working groups;
- d) to approve the final report of CIPM key comparisons for publication by the BIPM;
- e) to examine and confirm the results of RMO key and supplementary comparisons and incorporate them in the KCDB;
- f) to examine and confirm the results of bilateral key comparisons for entry into the KCDB.

3.1 Consultative Committees' working groups on the CIPM MRA

In order to improve efficiency and the impact of the CIPM MRA, the Consultative Committees established dedicated working groups on the CIPM MRA activities with the following objectives:

- a) to establish and maintain lists of service categories, and where necessary rules for the preparation of CMC entries;
- b) to agree on detailed technical review criteria;
- c) to coordinate and where possible conduct inter-regional reviews (JCRB reviews) of CMCs submitted by RMOs for posting in the KCDB;
- d) to provide guidance on the range of CMCs supported by particular key and supplementary comparisons;
- e) to identify areas where additional key and supplementary comparisons are needed; and
- f) to coordinate the review of existing CMCs in the context of new results of key and supplementary comparisons.

These working groups should include representation from all RMOs that have institutes active in the relevant technical area. Consultative Committee working group membership is expected to come from the relevant RMO technical committee/working group (TC/WGs) involved in CMC reviews; appropriate experts being chosen depending upon the particular field under review.

RMO TC/WG Chairs who require information on these Consultative Committee working groups should contact the Executive Secretary of the relevant Consultative Committees.

Rules of procedure for the Consultative Committees, working groups and workshops are described in the CIPM-D-01 document.

4. Regional Metrology Organizations

The RMOs are regional associations of National Metrology Institutes (NMIs) and Designated Institutes (DIs) with wide-ranging activities including to:

- a) make proposals to the Consultative Committees on the choice of key comparisons;
- b) carry out the RMO key comparisons, corresponding to the CIPM key comparisons, and pilot studies;
- c) participate in the JCRB as described in Appendix A of this document;
- d) carry out supplementary comparisons;
- e) conduct intra-regional review of CMCs submitted by their member institutes;
- f) participate in the JCRB review of CMCs organized by other RMOs;
- g) monitor and review the quality management systems of each of their members in order to ensure the mutual confidence in the validity of calibration and measurement certificates issued by participating institutes.

The RMOs report to the JCRB on the activities related to the CIPM MRA. The content of the RMO report to the JCRB is described in Appendix A of this document.

Entry of a new RMO to the JCRB is subject to approval by the CIPM based on recommendations of the JCRB. The procedure for approval is described in the Appendix B of this document.

5. Resources related to the CIPM MRA

CIPM-D-01, Rules of procedure for the Consultative Committees (CCs) created by the CIPM, CC working groups and CC workshops.

CIPM MRA (https://www.bipm.org/en/cipm-mra/cipm-mra-text/)

CIPM MRA-P-11, Overview and implementation of the CIPM MRA

CIPM MRA-P-12, Coordination within the CIPM MRA: Consultative Committees, Regional Metrology Organizations, JCRB

CIPM MRA-P-13, Participation in the CIPM MRA: National Metrology Institutes, Designated Institutes, International organizations

CIPM MRA-G-11, Measurement comparisons in the CIPM MRA: Guidelines for organizing, participating and reporting

CIPM MRA-G-12, Quality management systems in the CIPM MRA: Guidelines for monitoring and reporting

CIPM MRA-G-13, CMCs in the context of the CIPM MRA: Guidelines for their review, acceptance and maintenance

JCGM 100:2008, Evaluation of measurement data – Guide to the expression of uncertainty in measurement (GUM)

ILAC-CIPM guidance on the accreditation of NMIs, Joint ILAC-CIPM Communication regarding the Accreditation of Calibration and Measurement Services of National Metrology Institutes

PG0128E1, *Customs Convention on the temporary importation of scientific equipment* (http://www.wcoomd.org/en/about-us/legal-instruments/conventions.aspx)

JCRB directory (https://www.bipm.org/en/committees/jc/jcrb/)

KCDB web portal (https://www.bipm.org/kcdb)

RMO websites (http://www.apmpweb.org; https://www.coomet.net; https://www.gulfmet.org; https://sim-metrologia.org)

6. Revision History

Document and Version number	Date of Issue/ last review	Summary of change
CIPM MRA-P-12	11 January 2021	New document following
V 1.0		the CIPM MRA review.

Appendix A - Rules of procedures for the JCRB

A1 Membership and meetings of the Joint Committee

- a) each RMO informs the Director of the BIPM of the name of its official representative on the Joint Committee;
- b) at each meeting of the Joint Committee the representatives may be accompanied by appropriate advisors;
- c) the Joint Committee operates by consensus;
- d) the Joint Committee should meet at least once a year.

A2 JCRB Meeting attendance

The following individuals are expected to be present at the meetings of the Joint Committee and their voting rights are as stated:

- 1. The Director of the BIPM chairs the Joint Committee, and may speak and vote on all matters. The Chairperson is responsible for the preparation and presentation of the annual JCRB Report to the CIPM and the signatories of the CIPM MRA.
- 2. <u>Delegations from the RMOs</u> each RMO recognized by the CIPM can be represented at meetings of the Joint Committee by a delegation composed of:
 - the official representative to the Joint Committee of the RMO or his/her nominated substitute;
 - a maximum of four advisors to the official RMO representative who are designated by the RMO.

Members of the RMO delegation may speak on all matters before the Joint Committee but the delegation only has one vote.

- 3. <u>Executive Secretary of the JCRB</u> assists the Chairperson with the administration of the Joint Committee. The Executive Secretary may speak, but not vote, on all matters before the Joint Committee.
- 4. <u>CIPM representative to the Joint Committee</u> the CIPM appoints one of its members to represent the CIPM in the JCRB. The CIPM representative to the Joint Committee may speak, but not vote, on all matters before the Joint Committee.
- 5. <u>Invited Experts</u> as required by the subject matter before the Joint Committee and upon request from the Chairperson, individuals may be

invited to participate in appropriate portions of the meetings of the Joint Committee. Such individuals may speak, but not vote, on the particular matter before the Joint Committee for which their expert advice was requested. Examples of such participants are the KCDB manager and experts from the CIPM Consultative Committees.

6. Observers from other organizations - as required by the subject matter before the Joint Committee, and upon request from the Chairperson with the consensus of the official RMO representatives, individuals from organizations outside the CIPM MRA structure may be invited to participate in appropriate portions of the meetings of the Joint Committee. Such individuals may speak, but not vote, on the matter before the Joint Committee for which their expert advice was requested. Examples of such participants are experts from ILAC, OIML, UNIDO, etc.

A3 Secretarial services

Secretarial support services for the Joint Committee meetings shall be provided by the NMI of the country hosting the meeting, or by the BIPM when meetings are held at the Pavillon de Breteuil. These services are coordinated by the Executive Secretary.

A4 Meeting call

The announcement of a meeting shall be made during the previous meeting, or at least 6 months before the meeting.

A5 Agenda

The Executive Secretary shall send a proposed agenda to the delegates at least 4 weeks prior to the meeting.

A standing item to discuss other matters of mutual interest to the RMOs shall be included in the agenda.

Documents subject to a motion should be circulated at least 4 weeks prior to the meeting.

The last item on the agenda shall be the review of the actions, recommendations and resolutions taken during the meeting.

A6 Quorum

Meetings of the Joint Committee may only be held when the Chairperson and at least 50% of the RMOs are in attendance.

Binding decisions may only be taken at meetings of the Joint Committee when the Chairperson and at least 50% of the RMOs are in attendance.

A7 Coordination of the JCRB meetings

The meetings of the Joint Committee shall be chaired by the Director of the BIPM, with the support of the Executive Secretary of the Joint Committee.

In the absence of the Director of the BIPM, the meeting shall be chaired by the CIPM representative to the Joint Committee. In such cases, the CIPM representative to the Joint Committee shall be vested with all the privileges and responsibilities of the Chair.

A8 Debates

Any member of the Joint Committee may propose a motion. The Chairperson accepts the motion and invites debate by the Joint Committee.

The Chairperson closes the debate when consensus has been achieved. Exceptionally, where consensus cannot be achieved, the Chairperson may call for a vote.

The vote of a motion shall have two parts:

- a) a classification of the motion as action, recommendation or resolution, and
- b) a vote on the action, recommendation or resolution.

The Chairperson records the vote and announces the result.

Approved actions, recommendations and resolutions are read back to the Joint Committee by the Executive Secretary prior to moving on to the next motion.

A9 Actions, Recommendations and Resolutions

The Joint Committee shall consider three types of motions:

 Actions: are motions related to the continued operation of the Joint Committee, the daily implementation of CIPM MRA policy or guidelines, and/or the implementation of Resolutions. Actions are likely to require further intervention from the Joint Committee, or a subgroup of its members, within the next 18 months.

- Recommendations: are motions related to creation of CIPM MRA policy or guidelines and represent issues that have been fully debated and concluded by the Joint Committee. Recommendations require approval by the CIPM prior to implementation.
- Resolutions: are motions related to the implementation of CIPM MRA policy or guidelines and represent issues that have been fully debated and concluded by the Joint Committee.

All actions are taken by consensus of voting members present. All recommendations or resolutions are taken by consensus of voting members.

At least two weeks prior to each meeting, the Executive Secretary shall deliver a written report to the Joint Committee on the current status of all actions, recommendations and resolutions pending from previous meetings. In each meeting, this report shall be considered by the Joint Committee prior to considering new motions.

As the last item on the agenda, the Executive Secretary shall prepare a written version of the actions, recommendations and resolutions taken during the meeting and present it to the delegates. RMOs have two weeks to propose changes to the text of the actions, recommendations and resolutions after the meeting. After the approval of the actions, recommendations and resolutions by the Joint Committee, their text cannot be modified.

The modification of an existing action, recommendation or resolution requires a new motion that shall be debated and voted in subsequent meetings.

The approved actions, recommendations and resolutions shall be listed in the last section of the minutes of the meeting.

A10 Meeting minutes

The minutes of the meeting shall be prepared by the Executive Secretary. The minutes should summarize the discussion that took place during the meeting, but they need not be a transcript of the meeting's debate.

The draft minutes shall be distributed within the six weeks following a meeting. Modifications to the draft minutes can be proposed during the four weeks following their distribution.

Once the minutes are modified, the committee shall have two additional weeks to decide on any portion of the minutes that shall be considered sensitive and thus removed from the public version of the minutes.

After that period is concluded, the minutes are considered final. Formal approval takes place at the next JCRB Meeting. The approved minutes shall be posted within one week on the restricted section of the JCRB website. The approved public minutes shall be posted within one week on the open section of the JCRB website.

A11 Distribution of Actions, Recommendations, Resolutions and Minutes

The distribution of the actions, resolutions, and recommendations shall be made by the Executive Secretary to:

- a) the Chairperson of the Joint Committee;
- b) the official RMO representatives to the Joint Committee;
- c) the CIPM representative to the Joint Committee; and
- d) the presidents and executive secretaries of the CIPM Consultative Committees, and the KCDB manager.

It is the responsibility of the official RMO representatives to distribute the actions, recommendations and resolutions within their RMO.

The distribution of draft minutes shall be made by the Executive Secretary to:

- a) the Chairperson of the Joint Committee;
- b) the delegations from the RMOs (i.e., the official RMO representatives and their advisors);
- c) the CIPM representative to the Joint Committee; and
- d) invited experts and observers (only those portions of the minutes reflecting their participation).

A12 Modification

Modifications of these Rules of Procedure may be made only by the Joint Committee and require a vote.

A13 Suggested Content of RMO Report to the JCRB

- a) general report on activities related to the CIPM MRA (those since the last meeting and those to take place before the next meeting);
- b) RMO contact details including Chairperson, Secretariat and JCRB representatives with their functions;
- c) list of current TC/WG Chairs, contact details, highlighting changes occurring since last report;
- d) list of current RMO members economies, highlighting changes occurring since last report;
- e) status of quality management systems and review process in the RMO according to the CIPM MRA-G-12;
- f) list of RMO key and supplementary comparisons in the region, with number of participants.

The KCDB Manager and the Executive Secretary will cover the CMC statistics and review status in their reports to the JCRB.

Appendix B - Procedure for approval of the entry of a new RMO to the JCRB

B1 Criteria for acceptance of an RMO

In order to enter the JCRB in accordance with paragraph 15 of the CIPM MRA and with the "Rules of Procedure of the JCRB", an RMO shall have:

- a defined structure established with publicly available bylaws or rules of procedure, which regulates its membership and working procedures;
- committees of experts in the technical areas to be found in existing RMOs and with sufficient expertise to participate in the JCRB review processes of CMCs and to be capable of performing intra-regional reviews in those areas;
- a committee with expertise on the review of quality management system based on ISO/IEC 17025 and other relevant standards, and written procedures describing how the review of the quality management system of its NMIs are to be performed in conformity with the requirements of the ICRB;
- 4. at least one state pertaining the RMO, and preferably two or more states of the RMO, shall be a Member State.
- 5. at least one NMI from a state of the RMO, and preferably NMIs from two or more states of the RMO shall have the technical competence required to participate in Consultative Committees activities; and
- 6. the technical capability and expertise to participate in regional key or supplementary comparisons and, preferably, the capacity to organize such comparisons.

B2 Participation in the JCRB

B2.1 Approval of the entry of an RMO into the JCRB

The procedure to be followed by the CIPM for the approval of the entry of a new RMO into the JCRB is as follows:

A request of the RMO shall be submitted to the CIPM through the Chairperson of the JCRB (BIPM Director), establishing the willingness of the RMO to enter the JCRB, to participate in the JCRB meetings, and to support CIPM MRA activities.

This request must document the RMO's established capabilities with regard to the requirements 1 to 6 in section B1 of this Appendix or detail a plan and a timetable through which these requirements will be fulfilled. The JCRB Chairperson will transmit the RMO's documentation to the JCRB members and seek comments which can be forwarded to the CIPM in order to aid it in taking its decision.

After CIPM approval, the RMO shall inform the JCRB Chairperson of its designation of:

- a) a representative to the JCRB, through whom all the official communications are channeled; and
- b) the technical contacts for each metrology area, including a chairperson of the committee who has responsibility for the review of the Quality Systems of the NMIs which are members of the RMO and signatories of the CIPM MRA.

In the event of non-approval by the CIPM, the CIPM will send a report to JCRB Chairperson indicating the reasons for this decision, which in turn will send it to the requesting organization.

B2.2 Participation in the JCRB meetings

Following the approval of the request by the CIPM, the new RMO may participate in JCRB meetings with a voice but without the right to vote. After at least one year, and following a presentation to the JCRB demonstrating that the RMO structures are in place and working, the JCRB will report to the CIPM that the RMO fulfils all the requirements described in Section B1 of this Appendix. The CIPM then may admit the RMO as a full member of the JCRB, with a voice and the right to vote.

B2.3 CMCs submission and review process

After the RMO has demonstrated to the JCRB that its intra-regional technical and QS review process is equivalent to those of the RMOs which are already members of the JCRB, the RMO may submit CMCs for the JCRB review. Representatives of other RMOs should be invited to the meetings of the Technical and QS meetings as observers and the representatives of the new RMO should participate in the other RMOs meetings.

The right to vote for approval of CMCs submitted by other RMOs is granted based on the metrology areas described in the KCDB. The new RMO may participate on the review process of CMCs from other regions as soon as it is granted provisional approval by the CIPM, under Section B2.1of this Appendix, so that it may observe the process and post comments on submitted CMCs. However, the new RMO will not have voting rights until it has its own CMCs approved in that particular area of

metrology or gives proof of scientific expertise in that area, e.g. through the participation of one or more NMIs in relevant activities of the corresponding Consultative Committee.

Flowchart of the acceptance process



