

This document was approved by the CIPM in July 2018.

It cancels and replaces CIPM/2005-10, CIPM/2009-66 and CIPM/2012-03 adopted by the CIPM in 2005, 2009 and 2012.

CIPM-D-01 Version 3

# Bureau International des Poids et Mesures

#### CIPM-D-01

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#### **Introduction**

- 1.1 The CIPM has set up a number of Consultative Committees (CCs) whose Members nominate delegates and experts in their specified fields as advisers on scientific and technical matters.
- 1.2 The full list of CCs and their working groups is given on the BIPM website.
- 1.3 This document describes the organization and rules under which the CCs operate. It gives guidance on the work of the CCs and how they may work with other organizations which have interests in the relevant field of metrology or which represent a specific user community or other specialist group.
- 1.4 It also describes the generic organization and rules for the working groups (WGs) of the CCs and how related workshops should be organized.
- 1.5 It does not describe the procedure for conducting CC comparisons as this is contained in a separate document, CIPM MRA-D-05.

#### 2 Objectives and Responsibilities of the Consultative Committees (CCs)

- 2.1 In order to be informed of technical developments and evolving stakeholder needs in different areas of metrology, the CIPM has Consultative Committees with agreed scopes and the following three objectives:
  - to progress the state-of-the-art by providing a global forum for NMIs to exchange information about the state-of-the art and best practices,
  - to define new possibilities for metrology to have an impact on global measurement challenges by facilitating dialogue between the NMIs and new and established stakeholders, and
  - to demonstrate and improve the global comparability of measurements.
     Particularly by working with the RMOs in the context of the CIPM MRA to
    - plan, execute and monitor KCs, and to
    - support the process of CMC review.

[ref Decision CIPM/106-16]

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- 2.2 The responsibilities of the Consultative Committees are 1:
  - a. to advise the CIPM on all scientific matters that influence metrology, including any BIPM scientific programme activities in the field covered by the CC;
  - b. to establish global compatibility of measurements through promoting traceability to the SI, and where traceability to the SI is not yet feasible, to other internationally agreed references (for example, hardness scales and reference standards established by the WHO);
  - c. to contribute to the establishment of a globally recognized system of national measurement standards, methods and facilities;
  - d. to contribute to the implementation and maintenance of the CIPM MRA;
  - e. to review and advise the CIPM on the uncertainties of the BIPM calibration and measurements services as published on the BIPM website;
  - f. to act as a forum for the exchange of information about the activities of the CC members and observers; and
  - g. to create opportunities for collaboration.

#### 3 Activities of the CCs

- 3.1 The following activities are undertaken by each CC as appropriate:
  - a. meeting as a committee;
  - b. creating appropriate working groups;
  - c. making recommendations to the CIPM;
  - d. reporting to the CIPM on the work of the CC by its President;
  - e. soliciting reports to the CC from Members and Observers on their technical activities;
  - f. developing and reviewing a strategic plan, including a plan for future key comparisons;
  - g. fostering the development, improvement and validation of measurement standards and methods traceable to the SI or, if this is not yet feasible, to other internationally agreed references;
  - h. fostering the development of certified reference materials, where appropriate;
  - i. harmonizing measurement uncertainty calculations based on the GUM;

<sup>&</sup>lt;sup>1</sup> Note that the mission of the CCU is slightly different as it focuses on matters related to the International System of Units (SI) and advises the CIPM on matters concerning units of measurement.

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j. harmonizing terminology (vocabulary) based on the VIM;

- k. organizing symposia or workshops on topics related to the work of the CC;
- establishing an operational liaison with other intergovernmental organizations and international bodies as well as other CCs which have interests in the field concerned;
- m. promoting and fostering collaborations between NMIs;
- n. publishing reports of meetings and other appropriate documents on the open BIPM website, noting that recommendations to the CIPM, although normally drafted in English, must have a French translation (see 5.11);
- o. continuing to comply with CC duties as now required by the CIPM MRA including:
  - identifying CIPM key comparisons;
  - approving the organization of CC key comparisons, specific CC supplementary comparisons and pilot studies, approving the technical protocols, approving the results and final reports;
  - approving the BIPM ongoing comparisons, their results and final reports;
  - approving the RMO key comparisons, their technical protocols, results and linkage procedure and final reports;
  - facilitating the inter-regional CMC review through the appropriate CC working group.

#### 4 Participation in the CCs

#### **The President**

4.1 The CCs operate under the authority of the CIPM. The CIPM appoints the President of each CC who is expected to chair each CC meeting and report to the CIPM. The President is normally chosen from amongst the members of the CIPM.

#### **Member status**

4.2 Membership of the CCs is decided by the CIPM in accordance with the following established criteria.

Membership of a Consultative Committee is open to institutions of Member States that are recognized internationally as most expert in the field. This normally requires that they:

- be national laboratories charged with establishing national standards in the field;
- be active in research and have a record of recent publications in research journals of international repute;

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 have demonstrated competence by a record of participation in international comparisons organized either by the Consultative Committee, the BIPM or a regional metrology organization.

Any NMI or DI<sup>2</sup> from a Member State with an interest in the particular scientific field may apply for membership by writing to the Director of the BIPM and presenting its case for membership. The Director will then normally consult the CC President who in turn may consult the CC and may request an oral presentation on the institute's relevant activities at the next CC meeting. If deemed appropriate, at the next meeting of the CIPM the CC President, with the support of the Director of the BIPM, will ask the CIPM to approve Member status.

#### **Observer status**

- 4.3 Observer status on a CC may be granted to those institutes of Member States that participate actively in the activities organized under the auspices of the CC and its working groups but do not yet fulfil all the criteria for membership. Observer status is decided by the CIPM. Observers qualified under this paragraph may send one delegate who may be accompanied by one expert.
- 4.4 Observer Status on a CC may also be granted to those institutes of an Associate of the CGPM that is not eligible to become a Member State when those institutes participate actively in the activities organized under the auspices of the CC and its working groups. Observer status is decided by the CIPM. Observers qualified under this paragraph may send one delegate who may be accompanied by one expert.
- 4.5 Member States have the right for one national laboratory charged with establishing national standards in the field to be an Observer at the applicable CC and to send one person (only) and following their request to the BIPM Director for each meeting.

[ref Decision CIPM/105-26]

#### Liaison organizations and Organizations in cooperation

- 4.6 Liaison Status on a CC may be granted to international organizations by the CIPM based on the extent to which they meet the following criteria:
  - being international in structure and scope of activity, and representative of the specialized field of interest in which they operate;
  - being concerned with matters covering a part, or all, of the field of activity of the CC;
  - having aims and purposes in conformity with the Vision, Mission and Objectives of the BIPM; having a permanent directing body and secretariat, authorized representatives and systematic procedures and machinery for communicating with their membership in various countries;

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<sup>&</sup>lt;sup>2</sup> NMI and DI: In the context of the CIPM MRA, national metrology institute (NMI) or other designated institute (DI)

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- allowing their members to exercise voting rights in relation to their policies or actions or having other appropriate mechanisms to express their views; and having been established at least three years before they apply for liaison status.
- Organizations that are not offered liaison status within the context of the Consultative Committees will be known as "organizations in cooperation".

[ref Decision CIPM/106-17]

#### **The Executive Secretary and the BIPM Director**

4.7 The Director of the BIPM is a member *ex officio* of each CC and there is usually at least one other BIPM staff member, the CC Executive Secretary (see 10), present at each meeting.

#### **Chairs of the Regional Technical Committees**

4.8 The Chairs of Regional Technical Committees should be present at the plenary session of the relevant Consultative Committee. When any Chair is not from a Member or Observer organization of the relevant Consultative Committee then he/she will be formally invited to participate as a guest of the President of the Consultative Committee.

[ref Decision CIPM/107-14]

#### **Delegates and Experts**

- 4.9 Members and Observers are generally laboratories, institutes, or organizations, each of which may send one delegate of their choice to each meeting of the CC.
- 4.10 In addition, the convocation will state the number of experts that may accompany each delegate. Unless agreed otherwise by the CC President, one or two experts will be permitted for each Member and one expert for each Observer. Liaison organizations and Member State Observers (see para 4.5) will not generally be invited to send experts with their delegate.

#### Guests

4.11 The President of a CC may invite named individuals to attend a meeting of the CC as Guests. They have the same status as Observers for the meeting to which they are invited. Such an invitation may be repeated.

#### Review by the CIPM

- 4.12 The CIPM will carry out a formal review of the eligibility of all participants at the CCs every four years The President of a CC may propose changes to any meeting of the CIPM.
- 4.13 The list of CC Members, Observers, Liaisons and Organizations in cooperation is given on the BIPM website.

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#### 5 Operation of the CCs

#### **Organization of CC Meetings**

- 5.1 The CCs meet at the BIPM site in Sèvres.
- 5.2 The CCs should meet at least once every 4 years. The CCs may decide to meet more frequently depending on their particular requirements.
- 5.3 All attendees at the previous CC meeting, as well as new Members and Observers, are informed of the next meeting date as soon as it is known. The date is also posted on the BIPM website.
- 5.4 Convocations for the CC meetings are distributed electronically by the BIPM Meetings Office to the directors of member and observer institutes and to the attendees of the previous meeting normally 6 months, but at least 3 months, before the meeting and include a draft agenda prepared on behalf of the President by the Executive Secretary and approved by the President.
- 5.5 The draft agenda and the working documents for each meeting are posted in a protected area of the CC webpages within the BIPM website.
- 5.6 Working documents will normally include written reports from each Member, Observer and Liaison. They may also include reports from Guests. They will include reports of relevant activities in the BIPM laboratories and may also include draft comparison reports that need to be discussed by the CC, documents that the CIPM wish the CC to discuss, and any other relevant documents. Chairpersons of working groups (see Section 6) are expected to provide a written report. Working documents may be revised at any time, even after the meeting.
- 5.7 After the meeting, the working documents that are not confidential may be made openly available for the benefit of others. Confidential documents include draft comparison reports, draft documents under discussion, and any papers that have been or will be submitted for publication.

#### **Procedure at CC Meetings**

- 5.8 Each CC appoints a rapporteur who is expected to produce a succinct draft report of the meeting, including all decisions and actions, within one month.
- 5.9 Members, Observers, Liaisons, Organizations in cooperation and Guests participate freely in debates at CC meetings. They may be called upon by the CC President to express a view or make a presentation.

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5.10 The operation of the CC is by consensus amongst all present at the meeting which is understood to be:

"General agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. Consensus need not imply unanimity<sup>3</sup>"

If no consensus is reached on a substantial issue, the CC President will refer the issue to the CIPM and report the differing views.

5.11 Any formal recommendations from the CC to be presented to the CIPM must be expressed clearly. In general, draft recommendations should be made available before the meeting. After approval, they will be translated into French to enable the CIPM to incorporate them into their proceedings.

### **6 Consultative Committee Working Groups and Task groups**

#### **The roles of Working Groups and Task Groups**

- 6.1 The CC decides on the establishment of CC working groups, defines their membership, scope and terms of reference. These details are available from the CC President or Executive Secretary and are submitted to the CIPM for subsequent approval.
- 6.2 The structure of the working groups differs among the CCs and even within a CC depending on the nature of the work to be done. For example, in some working groups the members are laboratories while in others the members are named individuals. Some working groups are long standing and relatively formal.
- 6.3 Task groups are set up for a particular task, such as running an international comparison or preparing a document, and are dissolved as soon as the work is completed. This is detailed in their scope and terms of reference.
- 6.4 The following paragraphs apply to Working Groups and Task groups.

#### The Working Group Chairperson

6.5 The working group chairperson, normally drawn from those attending the CC, is appointed by the President of the CC, with the agreement of the CC. The chairperson must be from a Member State or from an Associate Economy that is not eligible to become a Member State. The term of office is not more than 4 years unless reappointed officially. If a chairperson retires or resigns between two CC meetings, the CC President may appoint an interim chairperson.

<sup>&</sup>lt;sup>3</sup> By decision CIPM/107-15, the CIPM decided to use this definition for consensus that originates from the ISO/IEC Directives.

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#### **Participation in Working Groups**

- 6.6 Membership of the WG is normally restricted to NMIs and DIs from Member States who participate in the relevant CC as Members, Observers or Liaisons. However, institutes that are not Members or Observers of the CC because of narrow expertise may nevertheless become members of a WG whose terms of reference coincide with their particular expertise.
- 6.7 In addition, the CC WG chairperson may invite guests on a one-off basis from other Member States or Associate States/Economies, and, after consultation with the relevant NMI, the participation of a third-party institute from a Member State when this participation will aid or improve the work of the WG.
- 6.8 In particular circumstances, representatives of industrial groups, or government advisers, may also be invited. The President of the CC and the BIPM Director should be informed in advance. For any invited guest, the chairperson of the WG should normally contact the NMI or DI of the Member State to confirm the participation. Hence working groups are normally comprised of members and guests. NB Industrial or commercial representatives may not be invited to participate unless they represent the institute designated as the holder of the particular national standard.
- An exception to the general rules in the preceding paragraphs may apply to the CC WGs on CMCs, as the members are normally the RMO TC chairpersons.
- 6.10 Associates of the CGPM may be asked to pay for the extra costs incurred by the BIPM for their participation in WGs. NB This does not apply to RMO TC chairpersons.
- 6.11 When comparisons are organized by a CC WG, experts from the participating institutes which are not Members or Observers of the CC may be invited, on a one-off basis, to the meetings of the WG to discuss the results.
- 6.12 The Director of the BIPM, the President of the CC, and the CC Executive Secretary may attend any WG meeting.

#### **Organization of Working Group meetings**

- 6.13 Chairpersons of the CC WGs must inform the CC Executive Secretary of the date and preferred location of any WG meeting. WG meetings may be held anywhere in the world and the chairman is responsible for their smooth operation wherever they are held.
- 6.14 WG meetings to be held at the BIPM must be arranged through the CC Executive Secretary and participants must complete a registration form supplied by the BIPM Meetings Office.
- 6.15 It is the responsibility of the WG chairperson to call meetings as needed but at least two months' notice should be given to members of the WG. The CC Executive Secretary may assist in the organization of a meeting, particularly when it is to be held at the BIPM.
- 6.16 The chairperson is responsible for the preparation and distribution of papers for the meeting. These documents may be placed in a restricted-access website for the WG on

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- the main BIPM website, through the CC Executive Secretary or the BIPM Meetings Office.
- 6.17 The WG chairperson may appoint a rapporteur for each meeting. It is the responsibility of the chairperson to produce a report for the CC summarizing the activities and recommendations of the WG since the last CC meeting. If the chairperson is not normally a participant of the CC, he/she may be invited to the meeting by the President to make his/her report.
- 6.18 The operation of the WG is by consensus following the same principles as the CC. If no consensus is reached, the WG chairperson may decide to refer the issue to the CC and report the differing views.
- 6.19 If the WG wishes to express an opinion or recommendation to an outside body, the prior approval of the CC President must be obtained.

#### 7 Consultative Committee Workshops

- 7.1 The CC, or a WG under the auspices of the CC, may decide that it is appropriate to organize a workshop. This may be to discuss comparison results, measurement uncertainties, new measurement methods or any other relevant scientific topic.
- 7.2 The CC may establish the workshop programme including the speakers or they may use a WG to do this.
- 7.3 The preferred date and location of the workshop should be proposed to the CC Executive Secretary who will make the necessary arrangements or identify the alternative options available.
- 7.4 Attendance at the workshop is by pre-registration and is open to Member States and Associate States/Economies. A registration fee may be charged.
- 7.5 For workshops held at the BIPM, the registration fee is normally waived for workshop chairmen and speakers.
- 7.6 Any recommendations from the workshop are presented to the following CC meeting.

#### 8 Sponsorship of meetings by a CC or WG

- 8.1 When a CC or WG wishes to co-sponsor a meeting, conference or seminar organized by another body, the CC President must request permission from the Director of the BIPM.
- 8.2 Any use of official logos (BIPM, CIPM MRA, KCDB or others) requires the prior authorization of the Director of the BIPM.

#### 9 Responsibilities of CC Presidents

- 9.1 The President of the CC is expected to lead the activities of the CC and to participate in the definition of its strategic orientation.
- 9.2 The President of the CC is expected to chair each CC meeting and facilitate the proceedings to produce recommendations for the CIPM.
- 9.3 The President reports to the CIPM on the work of the CC and of its working groups. A full presentation is made to the CIPM following the CC meeting and a short update report may be presented in those years that the CC has not met.
- 9.4 The President advises the CIPM on the membership status of the CC and announces the chairmen of each WG and presents the written remit and terms of reference of each working group.
- 9.5 The President produces a written report for the CGPM and makes an oral presentation using slides as appropriate.

#### 10 Responsibilities of CC Executive Secretaries

- 10.1 The CC Executive Secretaries are appointed from BIPM staff members.
- 10.2 The CC Executive Secretary works with the President of the CC and the BIPM Meetings Office to ensure the smooth running of CC meetings.
- 10.3 The CC Executive Secretary makes arrangements with the WG chairperson for WG meetings that are held at the BIPM.
- 10.4 The CC Executive Secretary assists the CC rapporteur by editing the CC report and distributing it in draft form to the CC participants for comment.
- 10.5 The CC Executive Secretary manages the CC working documents.
- 10.6 The CC Executive Secretary assures that comparison reports are submitted to the appropriate CC group for review and that the final approved report is submitted to the KCDB Office for publication, together, when appropriate, with the results file in Excel.
- 10.7 The CC Executive Secretary also ensures that comparison reports comply with the proper use of the SI (units and nomenclature) and the definitions of degrees of equivalence.



#### 11 Storage of personal data and communication

- 11.1 The convocation will be sent by email.
- 11.2 Each Member, Observer and Liaison must complete a registration form supplied by the BIPM Meeting Office for its delegate and expert(s) (when applicable), or may send apologies for absence. The distinction between delegates and expert(s) should be clearly stated by the Member/Observer on the registration form.
- 11.3 Invited guests are also required to complete a registration form supplied by the BIPM Meeting Office.
- 11.4 The name, organization and email address of each participant in a CC or a CC WG will be entered into a database by the BIPM Meeting Office. The BIPM will not make the information on the database available to any third party.
- 11.5 Registered participants should request the codes for access to the dedicated webpages.

#### 12 Related documents

- 12.1 CIPM MRA, 1999, <u>Mutual Recognition of National Measurement Standards and of Calibration and Measurement Certificates issued by National Metrology Institutes</u>, BIPM
- 12.2 CIPM MRA-D-05 Comparisons in the CIPM MRA.

#### 13 Revision History

Version number	Author	Date of Issue/Review	Summary of change
1.0	BIPM	2009-09-15	Presented to the CIPM, October 2009
1.1	BIPM	2009-10-28	Amendments by the CIPM and the BIPM
1.2	BIPM	2009-11-06	Final edits prior to publication on the BIPM website
1.3	BIPM	2009-11-16	Consistency of title, headers and footers
1.4	BIPM	2012-06-07	Open observer status to institutes of an Associate of the CGPM not able to become a State Party to the Metre Convention and allow them to provide a chairperson of a working group



Version number	Author	Date of Issue/Review	Summary of change
2.3	BIPM	2018-01	Incorporation of decisions taken by the CIPM in 2016 and 2017.
2.5	BIPM	2018-04	Incorporation of changes to reflect current practices.
3	BIPM	2018-07	Incorporation of changes agreed by the CIPM in July 2018.