Compendium

of main rules and practices applicable to the BIPM

October 2018





This compendium has been developed by the BIPM's Legal Adviser. Although not exhaustive, it compiles the main rules and practices applicable to the BIPM and its organs. For any question or request for information on BIPM institutional or legal matters, please contact the BIPM Legal Adviser.

<u>Note</u>: All provisions of the Metre Convention, its annexed Regulations (hereinafter "Regulations annexed to the Metre Convention" or "Annexed Regulations") as well as all BIPM publications such as the Proceedings of the CGPM meetings or Minutes of the CIPM meetings are presented in this document in English for easy reference; however the authoritative version of these documents is the French version.

References to the applicable provisions are emphasized at the end of the paragraph detailing the said provisions.

Compendium

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1 The BIPM, a world-wide scientific intergovernmental organization

The Metre Convention was signed on 20 May 1875. The law of intergovernmental organizations was only developed later as a result of the multiplication of such organizations in the 20th century. This explains why some of the terms and expressions used in the Metre Convention are not as clearly defined as they may be, for example, in the United Nations Charter of 1945.

The 1875 Convention, referred to in practice as the Metre Convention, although the authoritative text includes no reference to this expression, has the following preamble: "(List of Heads of State), wishing to assure the international unification and improvement of the metric system, have chosen to conclude a Convention to this effect and have appointed as their Plenipotentiaries: (List of names) who, having communicated to each other their full powers, found to be in good and due form, have decided upon the following provisions".

Articles 6, 19 and 20 of the Regulations annexed to the Convention were modified by unanimity at the 5th meeting of the CGPM.

Articles 7 and 8 of the Metre Convention and Articles 6, 8, 9, 10, 11, 12, 15, 17, 18 and 20 of the Annexed Regulations were modified by a Convention adopted in 1921 during the 6th meeting of the CGPM. The Convention also introduced a procedure for accession (Article III). This Convention has the following preamble: "The Undersigned, plenipotentiaries of the Governments of the above-mentioned Countries, having met as a Conference in Paris, have agreed as follows".

1.1 The BIPM, an intergovernmental organization

1.1.1 Characteristics of an intergovernmental organization

There is no general conventional or jurisprudential definition of an intergovernmental or international organization, however public international law specialists define it as follows "international organizations are defined as forms of cooperation founded on an international agreement usually creating a new legal person having at least one organ with a will of its own, established under international law".

Another comparable definition is a "collectivity of States established by treaty, with a constitution and common organs, having a personality distinct from that of its Member States and being a subject of international law with treaty-making capacity"².

¹ Henry G. Schermers & Niels M. Blokker, International Institutional Law, 4th Revised Edition, Martinus Nijhoff Publishers, 2003.

² Sir Gerald Fitzmaurice's definition, *Ann. ILC*. 1956-II, p. 108.

Consequently, it can be considered that the characteristics of an intergovernmental organization are the following:

- Intergovernmental basis;
- Conventional basis: a treaty is an "international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation". There may be different titles for a treaty (Convention, Agreement, Charter, etc.);
- Permanent organs;
- Autonomy/capacity;
- International cooperation, as defined in the founding treaty or at a later stage.

The term "intergovernmental organization" is a synonym for "international organization". As mentioned in the Vienna Conventions, an "international organization' means an intergovernmental organization".

1.1.2 Characteristics of the BIPM

The signatories of the Metre Convention did not use the term "international organization", as it was not commonly used when the Metre Convention — one of the first constituent treaties — was drafted⁵. However, the text of the Metre Convention is focused on the creation of an international organization: the BIPM. With the exception of the bureau of the CIPM, which is clearly identified, the expression *Bureau international des poids et mesures* (or *Bureau international* or *Bureau*) in the Metre Convention and its Annexed Regulations refers to the whole organization. The entire text of the Convention and its Annexed Regulations can be read consistently with the name BIPM as the whole organization. All the legal components of such an organization can indeed be found in the Metre Convention:

Metre Convention

- The First Article (1875) of the Metre Convention, which provides that: "[t]he High Contracting Parties undertake to create and maintain, at their common expense, a scientific and permanent International Bureau of Weights and Measures with its headquarters in Paris", is uniquely concerned with the creation of the BIPM and establishes its intergovernmental multilateral basis and its permanent nature;

Metre Convention, First Article (1875)

Article 3 (1875) of the Metre Convention, which provides that "[t]he International Bureau shall operate under the exclusive direction and supervision of an International Committee for Weights and Measures, itself placed under the authority of a General Conference on Weights and Measures, consisting of the delegates of all contracting Governments" establishes the BIPM's organs; and

Metre Convention, Article 3 (1875)

Nijhoff Publishers, 2003.

³ Vienna Convention on the Law of Treaties, Article 2, 23 May 1969.

See Articles 2 (i) of the Vienna Convention on the Law of Treaties (1969) and of the Vienna Convention on the Law of Treaties between States and international organizations and between international organizations (1986).
 Henry G. Schermers & Niels M. Blokker, International Institutional Law, 4th Revised Edition, Martinus

Articles 6 (1875) and 7 (1921) of the Metre Convention provide for the international mission attributed to the BIPM.

Metre Convention, Articles 6 (1875) and 7 (1921)

Therefore, by virtue of the Metre Convention, the BIPM is an intergovernmental organization. States which ratified the Metre Convention in accordance with their national procedures are States Parties to the Metre Convention and therefore Member States of the BIPM. States from any part of the world can accede to the Metre Convention, therefore the BIPM is a world-wide intergovernmental organization.

1.2 Participation

Only States can be Members *as per* the Metre Convention. In addition to Member status, the General Conference on Weights and Measures (CGPM) created in 1999 the status of Associate of the CGPM open to States and Economic Entities to enable them to participate in some activities of the BIPM through their NMI.

1.2.1 Member status

1.2.1.1 How to acquire Member status

Signature and ratification of the Metre Convention

The Metre Convention provides that it "shall be ratified in accordance with the specific constitutional laws of each State; the ratifications shall be exchanged in Paris within a period of six months and sooner if possible. It will take effect from 1 January 1876."

Metre Convention, Article 14 (1875)

Sixteen States⁶ followed this procedure and the Metre Convention entered into force on 1 January 1876. Brazil was also an original signatory of the Convention but ratified it, and therefore acceded to the Metre Convention, in 1921.

Accession to the Metre Convention

To become a Member of the BIPM, a State must notify its intention to accede to the Metre Convention to the French Ministry for Europe and Foreign Affairs.

Metre Convention, Article III (1921)

In practice, this usually takes place following informal contacts between the acceding State and the BIPM.

During the first year, two financial contributions must be paid by an acceding State: an annual contribution and an entry contribution which is determined by the CIPM under the conditions established in Article 9 of the Metre Convention and which is allocated for the improvement of the scientific equipment of the BIPM.

Metre Convention, Article 11 (1921)

Since 1 January 1962, the contribution (entry contribution) mentioned in Article 11 has been equal to the amount of the first annual contribution.

CIPM (1960), Minutes

An Associate State which accedes to the Metre Convention will pay an entry contribution, from which its subscriptions paid as Associate of the CGPM will be deducted, up to a maximum of five years' subscriptions.

CGPM (2007), Resolution 5

⁶ Argentina, Austria-Hungary, Belgium, Denmark, France, Germany, Italy, Peru, Portugal, Russia, Spain, Sweden-Norway, Switzerland, Turkey, the United States of America, and Venezuela.

An excluded Member State or a Member State that has withdrawn may only again accede to the Metre Convention if its remaining arrears, if any, have been paid. Article 11 (1875) of the Metre Convention also applies to such a State, which must pay an entry contribution equal to its first annual contribution when re-acceding.

CGPM (2007), Resolution 8

1.2.1.2 Situation of Members within the BIPM

Obligations

The fundamental principles of free consent and of good faith and the *pacta sunt servanda* rule, which is defined by Article 26 of the Vienna Convention on the Law of Treaties (1969) and which provides that "every treaty in force is binding upon the parties to it and must be performed by them in good faith", are universally recognized as rules of international customary law.

Consequently, as Parties to an international convention, Member States of the BIPM are bound by the Metre Convention and must execute it in good faith. In addition, the Member States have the obligation to execute in good faith binding decisions adopted by the CGPM.

Member States must fulfil their financial obligations; namely all the costs of the establishment and installation of the BIPM, as well as the annual expenses for its maintenance and those of the CIPM, are covered by the contributions of the Member States.

Member States contributions are to be paid at the beginning of each year.

The Member States also have the obligation to pay any supplementary sums to make up the Dotation due to the default of Member States which advantages and prerogatives are suspended. These sums are considered as advances made to such State(s).

For contributions in arrears see §1.2.1.3.

Metre Convention, Article 9 (1875)

Metre Convention, Article 10 (1875) Annexed Regulations, Article 6 (1921)

Rights

The status of Member State accords a number of rights, including the right to participate in the activities of the BIPM, such as:

- the right to attend and vote at the meetings of the CGPM;
- the right to obtain internationally recognized measurement traceability through the BIPM calibration services, at no additional cost;
- the opportunity to participate in international comparisons of national measurement standards.

Metre Convention,
Article 3 (1875) and Annexed
Regulations, Article 7 (1875)
Metre Convention,
Articles 6 (1875) and 7
(1921) and Annexed Regulations,
Article 15 (1921)
Metre Convention,
Articles 6 (1875) and 7 (1921)

Each Member State also derives the following rights pursuant to CIPM decisions:

- the right to purchase, at cost, a calibrated platinum-iridium kilogram;
- the potential opportunity for its experts to participate in the Consultative Committees created by the CIPM;
- the opportunity to have its national calibration and measurement capabilities (CMCs) internationally recognized in the framework of the Arrangement on Mutual Recognition of national measurement standards and of calibration and measurement certificates issued by National Metrology Institutes (CIPM MRA);

- the right to have its internationally recognized CMCs listed in the BIPM key comparison database (KCDB), publicly available on the internet;
- the right to designate multiple national metrology laboratories for participation in the activities of the BIPM provided they hold national measurement standards;
- a possible opportunity for its scientists to participate in various scientific programmes run by the BIPM;
- the right for the Director of its National Metrology Institute (NMI)⁷ to attend the meetings of NMI Directors, organized by the BIPM;
- the right to access restricted areas of the BIPM website, where policy information is contained.

In addition, if a Member State previously in arrears by more than three years pays its arrears of contributions, then the advances made by the other Member States are reimbursed to them.

Annexed Regulations, Article 6 (1921)

1.2.1.3 Suspension of advantages and prerogatives conferred by accession

If a State remains three years without paying its contribution, the said contribution is distributed among the other States *pro rata* to their own contributions. The supplementary sums thus paid by these States to make up the dotation of the BIPM are considered as advances made to the State in arrears and are reimbursed to them in the event that it repays its arrears of contributions. The advantages and prerogatives conferred by accession to the Metre Convention are suspended for those States in arrears for three years.

Annexed Regulations, Article 6 (1921)

In the case of a suspension of the advantages and prerogatives conferred by accession to the Metre Convention, the Member State in default has the right to conclude a rescheduling agreement with the CIPM for the payment of its arrears.

CGPM (2007), Resolution 8

The contributions in arrears are recovered in accordance with Article 6 (1921) of the Annexed Regulations to the Metre Convention and Resolution 8 (2007) on financial arrears of Member States.

The defaulting State may again benefit from the said advantages and prerogatives after a rescheduling agreement has been concluded and on payment of the first settlement pursuant to the rescheduling agreement.

CGPM (2011), Resolution 7

1.2.1.4 Loss of membership status

Withdrawal

The Metre Convention may be denounced by a Member State, which has the consequence of that State's withdrawal from the BIPM. In such case, the State must officially notify its intention to withdraw one year in advance. By doing so, the State gives up all its joint ownership rights on the international prototypes.

Metre Convention, Article 13 (1875)

 $^{^7}$ In most Member States, the National Metrology Institute (NMI) is the official authority in charge of the national measurement standards.

By parallelism of procedure with Article III (1921) of the Convention modifying the Metre Convention, such notification should be addressed to the French Ministry for Europe and Foreign Affairs.

A Member State that withdraws may only again accede to the Metre Convention if its remaining arrears, if any, have been paid. Pursuant to Article 11 of the Metre Convention, that returning Member State must pay an entry contribution equal to its first annual contribution.

CGPM (2007), Resolution 8

Exclusion

If a State remains three years without paying its contribution following the suspension of its advantages and prerogatives conferred by accession to the Metre Convention, this State is excluded and the calculation of contributions is re-established in accordance with the provisions of Article 20 of the Annexed Regulations.

Annexed Regulations, Article 6 (1921)

Such exclusion is not automatic as the CGPM takes the decisions on this matter.

CGPM (2007), Resolution 8

Indeed, the decision-making process and the procedure to be followed with regard to exclusion were defined in 2007 by the CGPM. When a Member State has not paid its contributions for six years, the CIPM sends to the defaulting Member State a formal notification inviting it to fulfil its financial obligations and reminding it of the procedure governing the recovery of arrears and exclusion. Such a notification is sent no later than nine months before the next meeting of the CGPM.

CGPM (2007), Resolution 8

If, further to the said notification, a Member State persists in its failure to fulfil its financial obligations or does not perform its obligations under a rescheduling agreement with the CIPM, the latter shall recommend to the CGPM to take a decision with regard to the exclusion of that State in accordance with Article 6 of the Annexed Regulations.

CGPM (2007), Resolution 8

The exclusion is notified to that Member State through the French Ministry for Europe and Foreign Affairs, which shall accordingly inform all Member States.

CGPM (2007), Resolution 8 and CGPM (2011), Resolution 6

At its 24th meeting (2011), the CGPM granted a period of 12 months to the four Member States in arrears for more than 6 years to conclude a rescheduling agreement with the CIPM. The CGPM decided that if, at the expiry of this period, a rescheduling agreement has not been concluded, each of those States will automatically be excluded.

CGPM (2011), Resolution 6

In accordance with customary Law of Treaties, a material breach of a multilateral treaty by one of the parties entitles the other parties by unanimous agreement to suspend the operation of the treaty in whole or in part, or to terminate it either in the relations between themselves and the State that committed the breach or between all the parties⁸.

De facto exclusion is also considered an implied power of an international organization if it is necessary to protect itself against a situation that would prevent it from functioning.

⁸ Vienna Convention on the Law of Treaties (1969), Article 60.

1.2.2 Associate status

1.2.2.1 Associate State

How to acquire Associate State status

A State wishing to become an Associate may do so by application to the Director of the BIPM, either directly or through its Embassy in Paris, and by the payment of the first annual subscription.

CGPM (1999), Resolution 3

In practice, such application usually follows informal contacts with the BIPM.

An application to become an Associate of the CGPM is not considered from a State that was previously Party to the Metre Convention.

CGPM (2007), Resolution 5

Situation of Associate States within the BIPM

Obligations

Associate States must pay an annual subscription to the BIPM to meet the cost of providing the services that the BIPM makes available to them; the annual subscription of each Associate State is determined from its United Nations' contribution, as for Member States but with a minimum equal to a percentage presently set at 0.1 % of the annual dotation of the BIPM.

CGPM (1999), Resolution 3

The method of calculation of the subscriptions of Associate States is defined by the CGPM and detailed below, see section 2.1.2.3 'Associates'.

CGPM (2011), Resolution 4

Rights

When a State becomes an Associate of the CGPM, it has the opportunity to enjoy a number of advantages that include:

- the right to attend meetings of the CGPM
- the opportunity to have its national calibration and measurement capabilities (CMCs) internationally recognized in the framework of the CIPM MRA;
- the right to have its internationally recognized CMCs listed in the BIPM key comparison database (KCDB), publicly available on the internet;
- the opportunity to participate in international comparisons of national measurement standards;
- the right to designate multiple national metrology laboratories for participation in the activities of the BIPM provided they hold national measurement standards;
- a possible opportunity for its scientists to participate in various scientific technical programmes run by the BIPM;
- the right for the Director of its National Metrology Institute (NMI) to attend the meetings of NMI Directors, organized by the BIPM;
- the right to access restricted areas of the BIPM website, where policy information is contained.

CGPM (1999), Resolution 3 and CIPM (2005), document CIPM 2005/05

Loss of Associate State status

Withdrawal from Associate State status

There is no specific provision concerning withdrawal of Associate States. However, such withdrawal is automatic through accession to the Metre Convention.

As per parallelism of procedure, withdrawal is also possible by notification of the Associate State's intention to withdraw to the Director of the BIPM either directly or through its Embassy in Paris.

Removal of Associate State status

An Associate State three years in arrears with its subscription ceases to be an Associate; it may be reinstated on payment of these arrears.

In addition, de facto exclusion of an Associate State can take place.

1.2.2.2 Associate Economy

How to acquire Associate Economy status

The status of Associate Economy is not automatically acquired, but is granted by the CGPM unanimously and on a case-by-case basis. The decision of the CGPM to grant the status of Associate Economy is based on the following criteria:

CGPM (2011), Resolution 5

CGPM (1999),

Resolution 3

- an Associate Economy must be a Territorial Entity,
- the Territorial Entity must possess its own Metrology Institute within its territory,
- the participation of the Territorial Entity in the activities of the BIPM must be considered beneficial for the strengthening of the world's measurement system.

Intergovernmental Organizations are not considered as "Territorial Entities", however, the CGPM decided that CARICOM, a regional intergovernmental organization, having acceded to the status of Associate Economy of the CGPM prior to the adoption of these criteria, may continue to enjoy this status despite its not fulfilling them.

CGPM (2011), Resolution 5

An Economy wishing to become an Associate may do so by application to the Director of the BIPM through official channels.

CGPM (1999), Resolution 3

The Director will then duly transmit this application to the CIPM which, in turn, will submit it to the CGPM for decision.

CGPM (2011), Resolution 5

If such application is accepted by the CGPM, the said Economy must proceed to the payment of the first annual subscription to complete the acquisition of the Associate Economy status.

CGPM (1999), Resolution 3

Situation of Associate Economies within the BIPM

Obligations

Associate Economies must pay an annual subscription to the BIPM to meet the cost of providing the services that the BIPM makes available to them.

CGPM (1999), Resolution 3

The method of calculation of the subscriptions of Associate Economies is defined by the CGPM, see section 2.1.2.3 'Associates'.

Rights

When an Economy becomes an Associate of the CGPM, it has the opportunity to enjoy a number of advantages that include:

CGPM (1999).
Resolution 3 and
CIPM (2005), document
CIPM 2005/05

- the right to attend meetings of the CGPM;
- the opportunity to have its calibration and measurement capabilities (CMCs) internationally recognized in the framework of the CIPM MRA. In the case of CARICOM, each CARICOM Member State may have its own CMCs and can designate its own NMIs or DIs. CARICOM is however the channel through which such national designations are notified to the Director of the BIPM;
- the right to have its internationally recognized CMCs listed in the BIPM key comparison database (KCDB), publicly available on the internet;
- the opportunity to participate in international comparisons of national measurement standards;
- the right to designate multiple metrology laboratories for participation in the activities of the BIPM provided they hold the Economy's measurement standards;
- a possible opportunity for its scientists to participate in various scientific technical programmes run by the BIPM;
- the right for the Director of its Metrology Institute to attend the meetings of NMI Directors, organized by the BIPM;
- the right to access the restricted areas of the BIPM website, where policy information is contained.

Loss of Associate Economy status

Withdrawal from Associate Economy status

There is no specific provision concerning withdrawal of Associate Economies. However, such withdrawal is possible, as per parallelism of procedure, by notification of the Associate Economy's intention to withdraw to the Director of the BIPM either directly or through its Embassy in Paris.

Exclusion from Associate Economy status

An Associate Economy three years in arrears with its subscription ceases to be an Associate; it may be reinstated on payment of these arrears.

CGPM (1999), Resolution 3

In addition, *de facto* exclusion of an Associate Economy is considered an implied power of an international organization if it is necessary to protect itself against a situation that would prevent it from functioning.

1.3 Acts of the BIPM

The BIPM as an intergovernmental organization produces unilateral and multilateral acts. It produces these acts through the CGPM, the CIPM and the Director.

1.3.1 Bilateral and multilateral acts

Bilateral acts involve two parties; multilateral acts involve more than two parties.

1.3.1.1 Treaties

Treaties⁹ can be bilateral or multilateral. The BIPM has concluded two bilateral treaties with its Host State, France:

- the Agreement on the Headquarters of the BIPM and its privileges and immunities on the French territory, concluded with the Government of the French Republic on 25 April 1969, amended by the Agreement of 7 June 2005 and by exchange of letters of 6 and 23 July 2007; and

Headquarters Agreement

- the Concession Convention, concluded with France on 4 October 1875, concerning the granting of the Pavillon de Breteuil and its surroundings for the installation of the BIPM Headquarters.

Concession Convention

These two agreements were signed by the CIPM in application of Article 2 of the Annexed Regulations.

Annexed Regulations, Article 2 (1875)

1.3.1.2 Other agreements

Other agreements may be concluded with various entities such as other intergovernmental organizations (e.g. Agreement concluded by the CIPM with the UNESCO in 1949 concerning general facilitation of mutual activities pursuant to the authorization granted by the CGPM in 1948, Memorandum of Understanding concluded with the World Meteorological Organization, national public entities such as Ministries or National Metrology Institutes (e.g. for the provision of BIPM services such as calibration), individuals which become staff members of the BIPM or private entities for the provision of goods and services necessary for the operation of the BIPM (suppliers, etc.).

CIPM (1952), Minutes

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⁹ See definition of a treaty at: section 1.1.1.

Regardless of their title (e.g. contract, MoU, agreement etc.), these agreements benefit and bind only the parties to those agreements. They do not create obligations for third parties. For example, an agreement entered into by the BIPM (or the CIPM on its behalf) does not bind a Member State or a NMI that is not also a party to this agreement.

1.3.2 Unilateral acts

A unilateral act is an act produced by a single party. There are various types of unilateral acts of the BIPM:

- Resolutions of the CGPM: texts formally adopted as such by the CGPM, which may concern scientific or institutional matters;
- Decisions of the CGPM and of the CIPM: can also be on scientific or institutional matters;
- Publications of the BIPM: The Director of the BIPM presents to the CIPM at each meeting a financial report of the accounts of the previous exercise for which, after verification, he is given quittance; a report on the state of the equipment and a general report on the work accomplished since the last session.

Annexed Regulations, Article 19 (1907)

The bureau of the CIPM presents to the Member States an Annual Report on the financial and administrative situation of the Bureau, and containing previsions for the expenses of the forthcoming exercise as well as a Table of the contributive parts of the Member States.

Annexed Regulations, Article 19 (1907)

The President of the CIPM gives an account to the CGPM of the work accomplished since the time of its previous meeting. Annexed Regulations, Article 19 (1907)

The reports and publications of the BIPM (e.g. Proceedings of the meetings of the CGPM or Minutes of the meetings of the CIPM and the Director's report) are written in French and communicated to all Member States.

Annexed Regulations, Article 19 (1907)

• Statutory documents such as the Regulations, Rules, and Instructions applicable to staff members of the BIPM (RRI) adopted by the CIPM pursuant to Articles 17 (1921) of the Annexed Regulations, the Regulations and Rules of the BIPM Pension and Provident Fund, the Financial Regulations, etc.

Annexed Regulations, Article 17 (1921)

Financial Regulations

The CIPM MRA: is a unilateral act of the BIPM drawn up by the CIPM under the
authority given to it in the Metre Convention, open for signature by Directors of the
NMIs of Member States and Associates and by representatives of intergovernmental
and international organizations designated by the CIPM and wishing to participate in
the CIPM MRA.

2 Organs of the BIPM

The Metre Convention of 20 May 1875 in its First Article created the International Bureau of Weights and Measures as a scientific and permanent intergovernmental organization, in charge of fulfilling the mission provided for in the said Convention

The name International Bureau of Weights and Measures is used to designate both the International Organization created by the Convention and, in practice, the scientific and administrative institute located at the Pavillon de Breteuil.

This reflects the time at which the Metre Convention and its Annexed Regulations were concluded, as well as that of the amendments which were brought to them. Indeed, the law of international organizations was only developed and systematized with the multiplication of these organizations in the 20th century.

In the 1875 version of the Convention, the scientific and administrative organ of the BIPM was referred to as "*Personnel*" and composed of the Director and a few staff members (expected to be reduced once the scientific work defined in the 1875 version of the Convention had been carried out).

Article 7 of the 1875 Convention reads as follows:

"The personnel of the Bureau shall be composed of a Director, two assistants and the necessary number of employees.

As from the time when the comparisons of the new prototypes will have been carried out and when these prototypes will have been distributed among the various States, the personnel of the Bureau shall be reduced to a proportion considered suitable.

The appointments of the personnel of the Bureau shall be notified by the International Committee to the Governments of the High Contracting Parties".

Article 7 was amended in 1921.

The expression "Service international des poids et mesures", (or "Service international") started to be used to refer to the scientific and administrative organ of the BIPM at the end of the 19th century by the CGPM (1889 until 1948) and by the CIPM (e.g. decision of 15 October 1887 on the "échelle thermométrique normale pour le service international des Poids et Mesures"). It was formalized at Treaty level in 1907 when the expression "Service" was introduced at Article 19 of the Annexed Regulations to the Metre convention.

Indeed, the expression "Service international des poids et mesures" or "Service international", or a contrario, reference to national services of weights and measures or national metrology services, were used to refer to the staff members and their work as reported in the proceedings of those meetings and as stipulated in the Pension Regulations adopted by the CGPM in 1901. The expression "Service international des poids et mesures" was last used in 1948. In the period 1933 to 1971, the expression "Services nationaux des poids et mesures" came into use, reflecting the development of the expression "National Metrology Institutes", as it is used today.

The three organs of the BIPM are the CGPM, the CIPM and the scientific and administrative organ, referred to as *Service* in Article 19 of the Annexed Regulations and, in practice, is usually called "the BIPM".

2.1 General Conference on Weights and Measures (CGPM)

2.1.1 Composition

The CGPM is the plenary organ of the BIPM which consists of the delegates of all the contracting Governments.

Metre Convention, Article 3 (1875)

In practice, the delegates receive variably precise instructions from their Government to be conveyed at the CGPM meeting on issues addressed by the CGPM.

The composition and attributions of the CGPM are determined by the Regulations annexed to the Metre Convention.

Each CGPM meeting is chaired by the then current President of the Paris Academy of Sciences.

Metre Convention, Article 5 (1875) and Annexed Regulations, Article 7 (1875) Metre Convention, Article 4 (1875)

2.1.2 Attributions

The CGPM is the organ under the authority of which is placed the International Committee for Weights and Measures (CIPM), which itself is the organ of the BIPM that exerts the exclusive direction and supervision of the BIPM.

Metre Convention, Article 3 (1875)

2.1.2.1 Metrological work

The CGPM's mission is to discuss and instigate measures necessary for the propagation and improvement of the metric system as well as to approve new fundamental metrological determinations that might have been made in the interval between its meetings.

Annexed Regulations, Article 7 (1875)

The CGPM decides all metrological work to have carried out in common.

The CGPM defines the guidelines and general orientation under which the CIPM and the BIPM carry out their work.

Annexed Regulations, Article 10 (1921) Annexed Regulations, Article 10 (1921)

In practice, the CGPM may also define specific tasks for the CIPM and the BIPM to carry out or make decisions on the organization of the work and of the BIPM¹⁰.

2.1.2.2 Institutional matters

The CGPM provides guidance to the CIPM where necessary¹¹.

It receives the Report of the CIPM on work accomplished since the time of its previous meeting.

It proceeds by secret ballot to the election of the International Committee. It is assisted in this task by the Committee for CIPM Election.

The CGPM can invoke, on an institutional basis, the responsibility of the CIPM, but not that of the individual CIPM members when they act collectively within the CIPM (or CCs).

Annexed Regulations, Articles 7 (1875) and 19 (1907)

Annexed Regulations, Article 7 (1875)

CGPM (2014), Resolution 2

¹⁰ E.g. Proceedings of the 11th meeting of the CGPM

¹¹ E.g. Proceedings of the 23rd meeting of the CGPM

2.1.2.3 Financial matters

Member States

The CGPM adopts the re-evaluated annual dotation of the BIPM.

The CGPM decides upon the method for the calculation of the Member States' contributions.

Annexed Regulations, Article 6 (1921) Annexed Regulations, Article 6 (1921)

The Dotation is distributed among Member States according to Article 20 (1921) of the Annexed Regulations and the decisions adopted by the CGPM at its 11th, 16th and 18th meetings.

The contribution of each Member State for the financial period is determined following the method approved by the CGPM, based upon the *Scale of Assessments for the apportionment of the expenses of the United Nations* adopted by the United Nations (UN) in force at the time of the calculation of the Table of the contributive parts and for the period mentioned in the *Scale of Assessments* of the UN. If such a *Scale of Assessments* is not yet available from the UN for the period in question, the previous *Scale of Assessments* is maintained until such time that the new *Scale of Assessments* is available when the contribution will be re-calculated using the new *Scale of Assessments* and appropriate adjustments made in the next *Notification Des Parts Contributives Dues Par Les Gouvernements des Hautes Parties Contractantes*.

The contribution of each State cannot be less than a minimum nor higher than a maximum value set by the CGPM.

Since the 16th meeting of the CGPM, these maximum and minimum values have been re-evaluated at the beginning of each quadrennium by multiplying them by a factor of 100/(100 + x), where x is equal to the sum of percentages of repartition corresponding to Member States having acceded to the Metre Convention during the previous quadrennium.

It defines the procedure applicable for States that have failed to fulfil their financial obligations.

CGPM (2007), Resolution 8

The CGPM decides on the exclusion of a Member State in arrears.

CGPM (2007), Resolution 8

For more on rescheduling agreements, see section 1.2.1.4.

Associates

The CGPM also decides upon the method for the calculation of the Associates' subscriptions; the annual subscription of each Associate State or Economy was determined with a minimum equal to 0.05 % of the annual dotation of the BIPM.

CGPM (1999), Resolution 3

In 2011, the CGPM decided that during an initial 5-year period following their accession to the status of Associate of the CGPM, Associate States will pay an annual subscription determined from their contributions to the United Nations, as for States Parties to the Metre Convention, with a minimum equal to 0.1 % of the annual *dotation* of the BIPM. This decision will be applicable to current Associate States for the calculation of their subscriptions starting for the year 2013.

CGPM (2011), Resolution 4

After the end of this period of 5 years, the CIPM decides, on the basis of the three criteria it adopted during its 98th and 99th meetings, if it would be appropriate for an Associate State to accede to the Metre Convention.

CGPM (2011), Resolution 4

These criteria are the following:

- Signature of the CIPM MRA by the Associate State's NMI;
- Publication of comparison results in the key comparison database (KCDB),
- Having one or more Calibration and Measurement Capabilities (CMCs) listed in the KCDB.

CIPM (2009 and 2010),

Once the CIPM has decided that an Associate State fulfils these criteria, its subscription will increase progressively every year to reach in five years an amount equivalent to 90 % of the annual contribution it would pay as a State Party to the Metre Convention. This progressive and irreversible increase will be applicable starting on 1 January of the second year following the CIPM decision to encourage an Associate State to accede to the Metre Convention.

Minutes

The CIPM review of the situation of Associate States in 2011 is used in application of Resolution 4 (2011) and the first increase of the subscriptions was effective in 2013.

CGPM (2011), Resolution 4

CGPM (2011), Resolution 4

As long as an Associate State does not fulfil the criteria, it continues to benefit from the advantages of Associate status, as provided for in Resolution 3 (1999), and from the BIPM services that the CIPM made available to them, and its subscription continues to be determined as during the initial 5-year period.

CGPM (2011), Resolution 4

The CGPM determines the annual subscription of such Associate Economies on a caseby-case basis.

CGPM (2011), Resolution 5

2.1.3 Meetings

2.1.3.1 Convocation

The CGPM meets on the convocation of the CIPM at least once every 6 years.

Annexed Regulations, Article 7 (1875)

In practice, the CGPM has met every 4 years since its 14th meeting (1971); on an exceptional basis, the 25th meeting of the CGPM took place 3 years after the 24th meeting as decided by the CGPM in 2011.

2.1.3.2 Right to attend the meeting: presentation of credentials by delegates

Delegates at the CGPM meetings must present evidence that they are representatives of their State. In practice, this evidence is given in the form of official written credentials from the Head of State, the Head of Government or the Minister of Foreign Affairs, establishing the composition of its delegation and produced prior to the first session of the meeting.

Delegates of Associate Economies must also present evidence that they are representatives of their Economy. In practice, this evidence is given by the official written credentials establishing the composition of the delegation and produced prior to the first session of the meeting.

There is no obligation related to the composition of the delegation or required skills of the delegates.

2.1.3.3 Participation

The CIPM members have a seat as of right at meetings of the CGPM. They may, at the same time, be delegates of their Governments.

Annexed Regulations, Article 7 (1875)

The opinions expressed by CIPM members, in their capacity as CIPM members, should not be under the undue influence of any State (as a member of the CIPM "is not a representative of a Government or of an institution"). Of course, as delegates of their Governments, they must, on the contrary, express the official views of their Governments. In this case, their opinions and votes are only made as delegates and not in their capacity as members of the CIPM.

The Director of the BIPM also always attends the meetings of the CGPM.

In practice, the meetings of the CGPM may also be attended by guests, such as Ministers of the French government.

2.1.3.4 Conduct of the meetings

CGPM meetings are chaired by the current President of the Paris Academy of Sciences.

Metre Convention, Article 4 (1875)

In practice, the Secretary of the CIPM is often appointed as Secretary of the meeting of the CGPM, by acclamation or by vote.

Credentials are verified by the BIPM services, under the supervision of the Secretary of the CGPM, who establishes the list of delegates entitled to vote. He also welcomes the participants to the meeting.

The meetings traditionally begin with addresses of the President of the CGPM meeting and of the French Ministry for Europe and Foreign Affairs, as well as the response of the President of the CIPM. The provisional agenda is then approved, with modifications if need be, and becomes the agenda of the meeting.

The President of the CIPM presents his report of the work accomplished since the previous meeting of the CGPM.

Annexed Regulations, Article 7 (1875)

2.1.3.5 Quorum and votes

There is no set quorum for meetings of the CGPM.

Votes at the meetings of the CGPM are made by Member States, each State having the right to one vote.

This includes cases of succession of States where one vote is attributed to each succeeding Member State (e.g. Austria-Hungary, Sweden-Norway).

<u>Annexed Regulations,</u> <u>Article 7 (1875)</u>

CGPM (1889), Proceedings

When a State is represented by several individuals, one of them is designated to the CGPM as having the power to exercise the State's right to vote.

CGPM (1889), Proceedings

In case of absence, a delegate may delegate his/her vote to the delegate of another Member State.

CGPM (1995), Proceedings

The President of the CGPM does not take part in the votes.

CGPM (1895), Proceedings

The general majority rule at the meetings of the CGPM is that of absolute majority of represented voting States.

CGPM (1889), Proceedings

Concerning the increase of the dotation and the modification of the calculation of the contributions: the CGPM decision shall be valid only in the case that there was no objection by a Member State.

Annexed Regulations, Article 6 (1921)

In 2011, the CGPM decided to take a decision by consensus on the question of the situation of the four Member States in arrears for more than six years and their possible exclusion.

In practice, the voting method at the CGPM is roll-call vote.

The CGPM proceeds by secret ballot to the election of the CIPM.

Annexed Regulations, Article 7 (1875)

2.1.3.6 Acts adopted by the CGPM

The CGPM adopts Resolutions and decisions on all matters within its attributions. The CGPM may formulate recommendations to governments ¹².

It may give mandate to the CIPM on specific tasks or missions¹³.

2.1.4 Pension and Provident Fund

The Pension and Provident Fund was established by the CGPM at its 3rd meeting (1901) for the staff of the BIPM.

CGPM (1901), Proceedings

Responsibility for the administration of the Pension and Provident Fund was entrusted to the CIPM by the CGPM at its 10th meeting (1954), as reaffirmed in Resolution 3 adopted by the CGPM at its 25th meeting.

CGPM (1954), Proceedings

The purpose of the BIPM Pension and Provident Fund is the payment to BIPM staff members of pensions and other benefits payable under the Rules of the BIPM Pension and Provident Fund as decided by the CGPM in 1901.

2.1.5 Subsidiary organs

The CGPM has created different types of subsidiary organs in the form of *ad hoc* working groups.

 A working group on the dotation (named ad hoc commission until 1968) has been created at all meetings of the CGPM since 1964, with the exception of 1971, to study the proposed dotation corresponding to the proposed work programme. Such working groups meet during the week of the CGPM meeting.

¹² E.g. Proceedings of the 2nd meeting of the CGPM

¹³ E.g. Proceedings of the 8th meeting of the CGPM

Its composition is determined by the CGPM itself, and generally includes representation from States having the maximum, minimum and intermediate contributions; the number of participants is kept limited so as to preserve efficiency. The CIPM President or one of the Vice-Presidents, the CIPM Secretary and the BIPM Director usually attend its meetings. These working groups are generally chaired by the Secretary of the meeting of the CGPM or by the CIPM President.

• The creation of a working group on the modification of the Metre Convention: the creation of such working groups is much less frequent: such groups had been constituted when a question about the modification of the Metre Convention has been raised (i.e. in 1960 and 1979). Their role was to study the propositions of modification made by Member States or by the CIPM. The working groups created in 1960 and 1979 presented their Reports to the CGPM.

Reports of the ad hoc Working groups (<u>1960</u> and <u>1979</u>)

In 2011, the CGPM did not itself create an *ad hoc* working group but it invited the CIPM to do so with the aim of reviewing the role, mission, objectives, long-term financial stability, strategic direction and governance of the BIPM (see below, section 2.2.6.3).

CGPM (2011), Resolution 10

2.2 CIPM

2.2.1 Composition and election

2.2.1.1 Composition

The CIPM is composed of 18 members, each of a different nationality.

Among the 18 members of the CIPM, there are a President and a Secretary.

There is no replacement procedure in case of incapacity of the CIPM President.

In case of double-nationality of a member, the CIPM decided in 2000 that the CIPM should decide which nationality will be considered, in particular for the implementation of Articles 8 and 9 of the Regulations annexed to the Metre Convention.

The Director is not a member of the CIPM. Indeed, he is not specifically nominated as such by the CGPM or by the CIPM. Moreover, he could not be a member of the CIPM, in his capacity as Director of the BIPM which is directed and supervised by the CIPM.

The President, the Secretary of the CIPM and the Director of the BIPM shall not have the same nationality.

CIPM members are fully independent from all Member States and do not represent them in their capacity as CIPM members. ¹⁴

In 1950 and 1999, the CIPM reasserted that a member of the CIPM "is not a representative of a Government or of an institution".

Only nationals of Member States are considered for Membership.

Candidates from Member States three or more years in financial arrears are not considered for membership.

Annexed Regulations, Article 8 (1921)

Annexed Regulations, Article 9 (1921)

CIPM (1979), Minutes

Annexed Regulations, Articles 8 and 9 (1921) and CIPM (2000), Minutes

Annexed Regulations, Article 9 (1921)

Annexed Regulations, Article 12 (1921)

Annexed Regulations, Article 8 (1921) CIPM (1950), Minutes CGPM (1999), Proceedings

Criteria and Process for Election of CIPM Members (September 2014)

¹⁴ This article is illustrative in that regard, as it provides that the absent members have the right to delegate their votes to members present. This would be impossible if the members of the CIPM were to represent their national States.

CIPM members must all be of different nationalities, this is aimed at promoting a wide representation of the scientific community.

In 1983 the CGPM accepted the report of the working group established by it in 1979 to examine proposals for changing the Metre Convention. The latter recommended that "the CIPM – in general – takes all the steps possible to ensure that each of its members is acceptable to his or her government, either through the Embassy or through the metrology laboratory concerned". Whilst CIPM members are elected on the basis of personal merit, it is important that they have some connection to the national measurement systems in their respective States and the support of their governments to serve in this capacity.

CGPM (1983), Proceedings

The CIPM members have a seat as of right at meetings of the CGPM. They may, at the same time, be delegates of their Governments.

Annexed Regulations, Article 7 (1875)

The opinions expressed by CIPM members, in their capacity as CIPM members, should not be under the undue influence of any State (see above). Of course, as delegates of their Governments, they must, on the contrary, express the official views of their Governments. In application of Article 3 (1875) of the Metre Convention, the responsibility of CIPM members cannot be invoked when they act collectively within the CIPM (or CCs), even if the responsibility of the CIPM itself can be invoked, on an institutional basis, by the CGPM.

However, where an individual member of the CIPM acts *ultra vires* (beyond his/her powers) and the BIPM is injured by this wrongful act, the responsibility of that individual member may be invoked.

The CIPM has established a number of criteria which it follows when filling vacancies in accordance with Article 14 of the Annexed Regulations. The CIPM members are elected according to a number of general considerations (global coverage, contribution of Member States of which the candidate is a national, Host State, and complementary aggregate skills and competencies) as well as personal attributes and qualifications (scientific expertise, ability to understand general scientific concepts, leadership capabilities, teamwork and communication, personal commitment, and government support and relationship).

<u>Criteria and Process for</u> <u>Election of CIPM Members</u> (September 2014)

2.2.1.2 Election

Members are elected to a term that begins at the first CIPM meeting to take place no later than six months after the CGPM meeting at which they are elected, and ends at the beginning of the CIPM meeting that follows the next CGPM meeting. The term of a provisionally elected Member terminates six months after the election of a new CIPM by the CGPM.

CGPM (2014), Resolution 2

Provisional elections

Step 1: the CIPM President notifies CIPM members and the Committee for CIPM Election (CEC) following any CIPM resignation(s). The CIPM reviews the list of qualified candidates from the previous election cycle and determines if new nominations are required. Nomination packages received are distributed to current CIPM members and the CEC.

<u>Criteria and Process for</u> <u>Election of CIPM Members</u> (September 2014) **Step 2:** candidates for the vacancy(ies) are taken from the "list of qualified candidates" from the previous CGPM meeting together with new nominations. Provisional appointments are agreed at the next CIPM meeting, with consideration of input from the CEC.

Step 3: the CIPM provisionally elects CIPM Members. Any such appointments are valid until the next meeting of the CGPM.

Elections by the CGPM

Step 1: nominations for membership are sought. Nomination packages received are distributed to CIPM members.

Step 2: the CIPM compiles a complete listing of qualified candidates and recommends a List of candidates. Both are transmitted to the CEC with supporting documentation of all nominated candidates.

Step 3: the CEC makes a recommendation for a slate of candidates and submits this to the Member States along with a list of all candidates assessed as qualified.

Step 4: during the CGPM meeting, each Member State delegation can vote for 18 persons out of the list of all qualified candidates.

Step 5: the newly-elected CIPM begins its term at its first meeting (no later than six months after the CGPM meeting). Members of the new CIPM bureau (President, Secretary, First Vice President, Second Vice President) are elected during this meeting.

The CIPM members are elected by secret ballot by the CGPM at its meetings.

Election by the CGPM is made by an absolute majority ballot.

Two nationals of the same State cannot take a seat simultaneously at the CIPM.

The counting of votes during the CGPM meeting is carried out by two or three scrutineers on a voluntary basis; they are generally government delegates.

Once it is constituted, the CIPM cannot proceed to new elections or nominations until three months after all members have been informed of the vacancy giving rise to a vote.

Article 12 (1921) of the Annexed Regulations, on quorum, does not apply to election of CIPM Members by correspondence as this provision refers only to the meetings.

In practice, the votes are counted by the President or the Secretary of the CIPM, in the presence of the Director of the BIPM.

2.2.2 Attributions

The CIPM is the organ that exerts the exclusive direction and supervision of the BIPM. It is placed under the authority of the General Conference on Weights and Measures (CGPM), consisting of all Member States.

Consequently, even though the CIPM is an independent body, its decisions cannot be in contradiction with the resolutions and decisions adopted by the CGPM.

Annexed Regulations, Article 7 (1875) CGPM (1927), Proceedings Annexed Regulations, Article 8 (1921)

Annexed Regulations, Article 7 (1921) CGPM (1995), Proceedings §19

<u>Annexed Regulations,</u> <u>Article 9 (1921)</u>

Metre Convention, Article 3 (1875)

2.2.2.1 Headquarters

The CIPM is responsible for the acquisition and appropriation or construction of the premises as well as the installation of the services for which they are destined.

Annexed Regulations, Article 2 (1875)

Access to the depository of international prototypes and their official copies is authorized solely to the CIPM. The Director of the BIPM shall have access to the depository by virtue of a resolution of the CIPM and in the presence of at least one of its members. The President of the CIPM holds one key; the two others are held by the Director of the archives of France and by the Director of the BIPM respectively.

Metre Convention, Article 8 (1921) and Annexed Regulations Article 18 (1921)

2.2.2.2 Supervision and direction

The CIPM decides and supervises all metrological work decided by the CGPM. It is charged with supervising the conservation of the prototypes and international standards. The CIPM also initiates the cooperation of specialists in metrological matters and coordinates the results of their work.

Annexed Regulations, Article 10 (1921)

It supervises the construction of the necessary instruments.

The CIPM also supervises the work of its Consultative Committees¹⁵ and draws up the detailed regulations for the organization and the work of the BIPM.

Annexed Regulations, Article 4 (1875) Annexed Regulations, Article 15 (1921)

As the supervisory organ of the BIPM, the CIPM adopts regulatory provisions of the BIPM such as the Financial Regulations and the *Regulations*, *Rules*, *and Instructions* applicable to staff members of the BIPM (RRI).

It also approves the annual accounts of the BIPM.

Annexed Regulations, Article 19 (1907)

The CIPM appoints the President of each Consultative Committee who is expected to chair each Consultative Committee meeting and report to the CIPM. The President is normally chosen amongst the members of the CIPM.

2.2.2.3 Work Programme and Budget of the BIPM

The CIPM approves the text of the *Convocation* of the CGPM, including all draft resolutions, prepared by the Director of the BIPM, and circulates the Convocation to Member States 9 months in advance of the meeting of the CGPM.

CGPM (1927), Proceedings

It also approves the draft *Work Programme and Budget* to be submitted for consideration and approval of the CGPM and circulates it to the Member States 6 months in advance of the meeting.

Annexed Regulations, Article 6 (1921) Financial Regulations, Article 4.31

In 2011, the CGPM decided that the time limits for submission of the convocation and proposals by delegates as well as the circulation of the latter would exceptionally be reduced to 6 months and 4 months respectively (with a circulation of the proposals 2 months in advance) given that its decision that the period between its 24th and 25th meetings would be three years, as opposed to the usual four years.

The CIPM also reports on the work accomplished to the CGPM at each meeting, through the President's report.

Annexed Regulations, Articles 7 (1875) and 19 (1907)

¹⁵ Minutes of the CIPM, 1937, 1952, 1969, 1981, 1988 and proceedings of the CGPM, 1999

It submits to the Member States, through the bureau of the CIPM, the Annual Report on the financial and administrative situation of the BIPM, and containing previsions for the expenses of the forthcoming exercise as well as a Table of the contributive parts of the Member States. Annexed Regulations, Article 19 (1907)

The CIPM draws up the annual budget of the BIPM, based on a proposal from the Director. This budget is made known each year by the CIPM (through the bureau of the CIPM) to the Member States in a special financial report, together with the annual report.

<u>Annexed Regulations,</u> <u>Article 6 (1921)</u>

2.2.2.4 BIPM Pension and Provident Fund

Responsibility for the administration of the Pension and Provident Fund was entrusted to the CIPM by the CGPM at its 10th meeting (1954), as reaffirmed in Resolution 3 adopted by the CGPM at its 25th meeting.

CGPM (1954), Proceedings

The CIPM also adopts the Regulations and Rules of the BIPM Pension and Provident Fund as decided by the CGPM at its 10th meeting (1954). Consequently, it adopts the Financial Regulations of the BIPM Pension and Provident Fund.

The CIPM approves the annual accounts of the BIPM Pension and Provident Fund.

The CIPM informs Member States about the outcome of actuarial studies on the assets and liabilities of the BIPM Pension and Provident Fund in its regular financial publications and at the next meeting of the CGPM.

CGPM (2014), Resolution 3

2.2.2.5 Financing of the BIPM

The CIPM decides the amount of the entry contribution paid by a State which accedes to the Metre Convention.

Metre Convention, Article 11 (1875)

It decides the fees to pay for the extra work foreseen in Articles 6 and 7 (1921) of the Metre Convention, which shall be used for the improvement of scientific instruments.

Annexed Regulations, Article 15 (1921)

It also decides the annual levy in favour of the pension fund to be made from the total fees received by the BIPM.

Annexed Regulations, Article 15 (1921)

The CIPM invites a defaulting Member State to fulfil its financial obligations.

CGPM (2007), Resolution 8 and CGPM (2011), Resolution 6

The CIPM may enter into a rescheduling agreement with a defaulting Member State for the payment of its arrears.

CGPM (2007), Resolution 8 and CGPM(2011), Resolution 7

The CIPM may also recommend to the CGPM to take a decision with regard to the exclusion of a defaulting Member State.

CGPM (2007), Resolution 8

2.2.2.6 Associate States of the CGPM

The CIPM reviews the situation of each Associate State 5 years after its admission, with a view to encouraging it to accede to the Metre Convention. Pursuant to Resolution 5 (2007) it adopts the criteria for the said review.

CGPM (2007), Resolution 5

2.2.2.7 Staff of the BIPM

The CIPM adopts the Staff Regulations and Rules regulating the conditions of employment of the BIPM's staff, and reviews and establishes the maximum number in each category of the BIPM's staff.

Annexed Regulations, Article 17 (1921)

It nominates the Director by secret ballot and notifies such nomination to the Member States.

Annexed Regulations, Article 17 (1921)

It also nominates a Deputy Director when it deems it necessary. In such case, by parallelism of procedure, it nominates the Deputy Director by secret ballot and notifies such nomination to the Member States.

2.2.3 Bureau of the CIPM

The bureau of the CIPM is a restricted collegial organ of the CIPM.

The bureau of the CIPM is composed of the President of the CIPM and the Secretary of the CIPM.

Annexed Regulations, Article 9 (1921)

In 1952, the CIPM created the post of the first Vice-President and in 1979, it created a second post of Vice-President.

CIPM (<u>1952</u> and <u>1979</u>), Minutes

From 1980 to 1991, the position of Assistant Secretary of the CIPM was created and was held by one CIPM Member.

Currently, the bureau of the CIPM is composed of the President of the CIPM, the Secretary and two Vice-presidents.

The CIPM itself elects, by secret ballot, its Bureau. The names are notified to the Member States.

Annexed Regulations, Article 9 (1921)

In practice, the bureau of the CIPM is constituted by the CIPM by secret ballot after each meeting of the CGPM.

The bureau of the CIPM receives the BIPM financial statements from the Director together with the reports on the out-turn of the budget.

Financial Regulations, Article 24.4 (2009)

The bureau of the CIPM presents to the Member States an Annual Report on the financial and administrative situation of the Bureau, containing previsions for the expenses of the forthcoming exercise as well as a Table of the contributive parts of the Member States.

Annexed Regulations, Article 19 (1907)

In addition, pursuant to article 3.1 of the *Regulations, Rules, and Instructions applicable* to staff members of the BIPM (RRI) adopted by the CIPM, the bureau of the CIPM specifies in the letters of appointment of the Director and Deputy Director their conditions of employment and which of the RRI are applicable to them. The decisions related to the conditions of employment of the Director and Deputy Director are taken by the bureau of the CIPM in the framework defined by the CIPM.

The bureau of the CIPM meets several times per year, so it can undertake all necessary preparatory work prior to CIPM meetings. It may also hold liaison meetings with its counterparts from other international organizations (e.g. OIML).

2.2.4 Meetings of the CIPM

In practice the CIPM meets every year, even if it is only under the obligation to meet at least once every 2 years.

Annexed Regulations, Article 11 (1921)

If necessary, the CIPM may hold two sessions per meeting.

2.2.4.1 Convocation

In practice, the CIPM is convened by the Director of the BIPM.

2.2.4.2 Conduct of the meetings

The CIPM meetings generally follow a standard agenda. The President opens the session and checks the quorum.

Annexed Regulations, Article 12 (1921)

The Secretary presents his-her report on all subjects which the bureau of the CIPM deals with.

Honorary CIPM members and emeritus BIPM directors appointed by the CIPM may participate at meetings of the CIPM. At the invitation of the CIPM, guests, presidents of the CCs, and BIPM staff members may also participate at meetings of the CIPM.

2.2.4.3 Quorum and votes

Quorum

The CIPM can only make valid decisions if half of its elected members (i.e. 9 of the 18 elected members) are present.

Annexed Regulations, Article 12 (1921)

The BIPM Director is not an elected member and cannot be included as such for reaching the quorum.

Annexed Regulations, Article 12 (1921)

Votes

Voting in the CIPM meetings is by majority. In the case of a tie, the President has a casting vote Absent members have the right to delegate their votes to members present who should justify this delegation. The BIPM Director has a vote.

Annexed Regulations, Article 12 (1921)

In the interval between two sessions, the CIPM has the right to deliberate by correspondence.

Annexed Regulations, Article 13 (1875)

In this case, for a decision to be valid, all members of the CIPM must have been invited to express their opinion.

Annexed Regulations, Article 13 (1875)

Acts adopted by correspondence have the same legal value as those adopted during the meetings. The CIPM often uses this means of proceeding.

2.2.5 Acts adopted by the CIPM

During its sessions and by correspondence the CIPM adopts scientific and administrative unilateral acts such as decisions or recommendations. Since the CIPM is under the authority of the CGPM pursuant to the Metre Convention, the acts adopted by the CIPM have to comply with the Metre Convention and its Annexed Regulations, CGPM Resolutions and specific tasks or missions mandated by the CGPM.

The CIPM MRA is a unilateral act of the BIPM drawn up by the CIPM under the authority given to it in the Metre Convention, open for signature by Directors of the Member States' and Associates' NMIs and representatives of intergovernmental and international organizations designated by the CIPM and wishing to participate in the CIPM MRA

2.2.6 Subsidiary organs

2.2.6.1 Consultative Committees of the CIPM

The Consultative Committees (CCs) are scientific subsidiary organs of the CIPM which assist it in its scientific work on their respective area. There are currently ten Consultative Committees of the CIPM, the responsibility of which are the following ¹⁶:

- to advise the CIPM on all scientific matters that influence metrology, including any BIPM scientific programme activities in the field covered by the CC;
- 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);
- to contribute to the establishment of a globally recognized system of national measurement standards, methods and facilities;
- to contribute to the implementation and maintenance of the CIPM MRA;
- to review and advise the CIPM on the uncertainties of the BIPM's calibration and measurements services as published on the BIPM website;
- to act as a forum for the exchange of information about the activities of the CC members and observers; and
- to create opportunities for collaboration.

The CCs must follow the Rules of Procedure adopted by the CIPM. The last revision was carried out in 2010. With the exception of the Consultative Committee for Units, which has different membership criteria, membership of the CCs is decided by the CIPM in accordance with the following criteria.

Rules of procedure of the CCs (CIPM-D-01)

¹⁶ 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.

Membership of a Consultative Committee is open to institutions of Member States of the BIPM 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;
- have demonstrated competence by a record of participation in international comparisons organized either by the Consultative Committee, the BIPM or a regional metrology organization.

In addition the CCs may include as Members:

- relevant intergovernmental organizations, international bodies and scientific unions whose participation would advance the work of the CC;
- named individuals when their knowledge and competence are highly valuable to the CC, even if they come from an institute that does not fulfil the membership criteria.

Observer status on a CC may be granted to those institutes of Member States and to intergovernmental organizations and international bodies, and scientific unions that actively participate in the activities organized under the auspices of the CC and its working groups but do not yet fulfil all the criteria for membership.

2.2.6.2 Joint Committees

The CIPM has also created subsidiary organs with other international organizations to undertake particular tasks of common interest. These are: the Joint Committee for Guides in Metrology (JCGM), the Joint Committee of the Regional Metrology Organizations and the BIPM (JCRB), the Joint Committee for Traceability in Laboratory Medicine (JCTLM) and the Network on Metrology, Accreditation and Standardization for Developing Countries (DCMAS Network).

2.2.6.3 Ad hoc Commissions and ad hoc Working Groups

Over time, the CIPM has also created a number of standing Sub-Committees and *ad hoc* Commissions or Working Groups to assist it in the execution of its mission on specific subjects (e.g. Permanent Administrative Commission, Accounts Commission, Instruments Commission, Buildings Commission, Finance, Conditions of employment, Pension Fund, etc.).

In 2011, the CGPM invited the CIPM to create a working group charged with conducting a review of the role, mission, objectives, long-term financial stability, strategic direction and governance of the BIPM under the chairmanship of the President of the CIPM, with representation from the CIPM, States Parties to the Metre Convention (with maximum, intermediary and minimum contributions) and NMIs, properly balanced to represent all regions, and the Director of the BIPM.

CGPM (2011), Resolution 10

2.3 The scientific and administrative organ, referred to, in practice, as BIPM

2.3.1 Director

The Director is the head of the scientific and administrative organ of the BIPM. He must be of different nationality to the President and the Secretary of the CIPM.

Although not a CIPM member, he has a vote in the CIPM.

The Director is nominated by secret ballot by the CIPM. His nomination is notified to the Member States. The Director nominates the other members of the staff within the limits set out by the CIPM.

The Director's conditions of employment are defined by the bureau of the CIPM within the framework set by the CIPM.

The Director has scientific and administrative duties. The Director is responsible to the CIPM for the running of the BIPM. He acts as chief executive of the BIPM in the execution of its activities and carries a major responsibility for initiating and carrying through policy adopted by the CIPM on matters related to international metrology. He participates in the meetings of the ten scientific Consultative Committees of the CIPM and is chairman of the JCRB. The Director also maintains contacts with the NMIs of the Member States and Associates and liaises with other intergovernmental organizations and international bodies sharing interests.

A number of his duties are stated in the Regulations annexed to the Metre Convention. The Director has access to the depository of the international prototypes only by virtue of a resolution of the CIPM and in the presence of at least one of its members. The place of the depository of the prototypes may only be opened by means of three keys, one of which is held by the Director of the Archives of France, the second by the President of the Committee and the third by the Director of the Bureau.

The Director prepares the text of the Convocation of the CGPM.

The Director is also responsible for the financial and administrative running of the BIPM, as provided in various internal regulations of the BIPM adopted by the CIPM such as the Regulations, Rules and Instructions applicable to staff members of the BIPM, the BIPM Financial Regulations or the BIPM Pension and Provident Fund Financial Regulations. He adopts a number of rules and instructions concerning financial management of the BIPM and human resources, such as instructions applicable to staff members and financial rules.

He ensures the effective implementation of the Financial Regulations and of the Financial Rules.

He proposes to the CIPM the annual Budget based on the Dotation.

Approval of the Budget by the CIPM empowers the Director to receive, in addition to the contributions related to the Dotation, any other income included in the Budget.

The approval of the Budget by the CIPM also empowers the Director to enter into obligations in the name of the BIPM during the financial period in question.

Annexed Regulations, Article 9 (1921)

Annexed Regulations, Article 12 (1921)

Annexed Regulations, Article 17 (1921)

<u>Annexed Regulations,</u> <u>Article 18 (1921)</u>

<u>Financial Regulations,</u> <u>Article 1.2</u>

<u>Financial Regulations,</u> Article 6.1

<u>Financial Regulations,</u> <u>Article 6.4</u>

<u>Financial Regulations,</u> <u>Article 6.5</u> The Director is authorized to undertake commitments in a financial period for expenditure to be made after the end of that period in the cases of Employment of staff, Contracts for the preservation and maintenance of the assets as well as for utilities and contracts for the procurement of goods and services.

Financial Regulations, Article 7

He is also responsible for implementing the internal financial and budgetary control system.

Financial Regulations, Article 23

He prepares the BIPM financial statements.

Financial Regulations, Article 24.2

He submits the financial statements and the reports on the out-turn of the budget to the bureau of the CIPM.

Financial Regulations, Article 24.4

The Director is the appointing authority of the staff members.

He presents to the CIPM at each meeting:

Annexed Regulations, Article 19 (1907)

- a financial report of the accounts of the previous exercise for which, after verification, he shall be given quittance;
- a report on the state of the equipment;
- and a general report on the work accomplished since the last meeting.

2.3.2 Deputy Director

When the CIPM deems it necessary, it may also appoint a Deputy Director. In general, the Deputy Director is appointed as Director Designate who will become Director upon retirement of the Director in post.

By parallelism of procedure, the Deputy Director is also nominated by secret ballot by the CIPM and his nomination is notified to the Member States.

The Deputy Director's conditions of employment are defined by the bureau of the CIPM within the framework set by the CIPM.

2.3.3 Departments

There are currently four scientific and one support departments at the BIPM:

- the Physical Metrology Department;
- the Time Department;
- the Ionizing Radiation Department; and
- the Chemistry Department;
- the International Liaison and Communication Department

Each department is headed by a director who supervises the department under the applicable provisions of the BIPM such as the Regulations, Rules and Instructions applicable to Staff members of the BIPM and the BIPM Financial Regulations.

2.3.4 Support services

There are also various support Sections and services at the BIPM, carrying out IT, Quality and Safety, Legal, Finance, Secretariat and Human Resources functions. Additionally, the Workshop and Site Maintenance Section conceives, designs and carries out projects as required to support of the scientific departments and manufactures the platinum-iridium copies of the kilogram prototypes.

2.4 Location of the BIPM headquarters

The BIPM headquarters are situated in the *Parc de Saint-Cloud*, a classified monument, in Sèvres on the western outskirts of Paris.

The BIPM enjoys functional privileges and immunities by virtue of the Agreement on the Headquarters of the BIPM and its privileges and immunities on the French territory, concluded with the Government of the French Republic on 25 April 1969, amended by the Agreement of 7 June 2005 and by exchange of letters of 6 and 23 July 2007. These privileges and immunities facilitate the execution of the BIPM's mission on the French territory. Such privileges and immunities include in particular immunity from jurisdiction and execution (with a few exceptions), inviolability of premises, assets, archives and documents, facilitation of entry and stay on the French territory (for delegates to the CGPM, CIPM members, staff members and other advisers and experts called by the CIPM) and financial provisions. However, the BIPM does not currently enjoy any privileges and immunities on the territory of the other Member States.

The CIPM also concluded a Concession Convention with France on 4 October 1875, concerning the supply of the Pavillon de Breteuil and its surroundings for the implementation of the BIPM Headquarters.

Headquarters Agreement

Concession Convention

List of Acronyms

BIPM: International Bureau of Weights and Measures/Bureau international des

poids et mesures

CC: Consultative Committee

CGPM: General Conference on Weights and Measures/Conférence générale des

poids et mesures

CIPM: International Committee for Weights and Measures/Comité international

des poids et mesures

CIPM MRA: Arrangement on Mutual recognition of national measurement standards and

of calibration and measurement certificates issued by national metrology

institutes

CMC: Calibration and measurement capability

DI: Designated institute

IAEA: International Atomic Energy Agency

KCDB: Key Comparison Database

NMI: National Metrology Institute

RRI: Regulations, Rules, and Instructions applicable to staff members of

the BIPM

UN: United Nations Organization

UNESCO: United Nations Educational, Scientific and Cultural Organization