

Explanatory note

Calculation of the individual contributions to the BIPM dotation for Member States
and other adjustments that may appear on the annual Notification to Member States

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Executive Summary

Towards the end of each calendar year the International Bureau of Weights and Measures (BIPM) sends out the statutory [Notification](#)¹ to Member States* and Associate States and Economies of the General Conference on Weights and Measures (CGPM). The *Notification* informs Member States of their contributions and Associate States and Economies of the CGPM of their subscriptions due for the following year.

This document explains in detail how the contributions are calculated for Member States. A companion document “Calculation of the Subscriptions for Associate States and Economies of the CGPM” explains how the subscriptions are calculated.

Establishing the contributions requested from Member States involves three main steps:

1. [Establishing the BIPM “dotation”](#), that is the total sum paid to the BIPM by the Member States for each year of the forthcoming period.
2. [Partitioning the BIPM dotation amongst the Member States](#), which is based on the partitioning in the UN Scale (*‘Scale of assessments for the apportionment of the expenses of the United Nations’*) but adjusted to take account of the differing membership of the two organizations (BIPM and UN), and of the caps adopted by the CGPM for the maximum and minimum contributions of Member States.
3. [Application of adjustments](#) (if any) arising from retrospective scale changes and/or advances or reimbursements resulting from any Member States being in arrears.

A detailed explanation of each step is given in this document.

**The official term is “State Parties to the Metre Convention”; the term “Member States” is its synonym and used for easy reference.*

¹ Full French title: *“Notification des parts contributives dues par les gouvernements des hautes parties contractantes pour l’entretien du Bureau international des poids et mesures et des souscriptions des États et Entités économiques associés à la Conférence générale”*

English translation: *“Notification of the Contributive Parts due by Governments of the High Contracting Parties for the maintenance of the Bureau International des Poids et Mesures and of Subscriptions due by Associate States or Economies of the CGPM”.*

1. Establishing the BIPM “dotation”

The BIPM dotation is adopted by Resolution voted at each meeting of the CGPM. The dotation is set to correspond to the activities proposed and agreed for the forthcoming BIPM Work Programme (taking into account income from other sources such as the subscriptions from Associates of the CGPM, other minor incomes etc.). The dotation covers the next period, usually a four-year period which is sometimes referred to as a quadrennium². The dotation takes effect as from January of the second year after the meeting of the CGPM at which it was adopted.

The BIPM Work Programme 2020 - 2023 and corresponding dotation was adopted by the CGPM in November 2018 ([Resolution 4](#)) and took effect from January 2020.

A new BIPM Work Programme 2024-2027 and corresponding dotation is expected to be adopted by the CGPM in November 2022 and will take effect from January 2024.

2. Partitioning the BIPM dotation amongst the Member States

The dotation is funded collectively by the Member States, each Member State paying a yearly contribution (or “contributive part”), as indicated in the *Notification*. The starting point for the calculation of the individual contributions is the “*Scale of assessments for the apportionment of the expenses of the United Nations*”, which is adopted by Resolution of the UN General Assembly and published by the UN. This scale is revised every three years (though it is usually not available until after the start of the applicable three-year period).

The period 2019-2021 was covered by the UN Scale available online: [“73/271 Scale of assessments for the apportionment of the expenses of the United Nations”](#).

The period 2022-2024 is covered by the UN Scale available online: [“76/238 Scale of assessments for the apportionment of the expenses of the United Nations”](#).

Having established the individual percentages allocated from the UN Scale, a number of further sub steps need to be considered to arrive at the individual contribution of each Member State to the BIPM dotation.

2.1: The first point to note is that the partition in the UN Scale is based on the UN membership, which includes a much larger number of countries than there are Member States. The UN Scale partition - the fraction due by each country - is given in percent such that they sum to 100 % for the all the UN members. So the coefficients of the UN members that are not Member States are removed from the calculation, and then the remaining coefficients are renormalized such that they again sum to 100 % exactly.

² In 2014 the BIPM Work Programme and corresponding dotation was adopted for 2016-2019, and in 2018 the BIPM Work Programme and corresponding dotation was adopted for 2020 – 2023, *i.e.*, in each case a four-year period.

In the UN Scale 2019-2021 there are 193 states listed, whilst at the time of the preparation of the BIPM [Notification for 2022](#) the BIPM had 63 Member States. However, the correction for participation depends on the number of the Member States (which was 59) who agreed and adopted the dotation at the 26th meeting of the CGPM in November 2018.

Four states – Morocco, Ecuador, Belarus and Estonia acceded after the 26th meeting of the CGPM in November 2018. They were not part of the dotation decision, and will be addressed separately until the 27th meeting of the CGPM.

Thus for the calculation of the 2022 *Notification* the coefficients for 134 UN members (193 – 59) were removed from the calculation. In practice the effect is far less dramatic than it might seem. Summing up the UN coefficients for the remaining 59 Member States (at that time) gives more than 95 % of the UN total because all the major UN contributing members are also Member States.

2.2: The CGPM decided at its 11th meeting (1960) to adopt maximum and minimum percentages for the individual contributions from Member States (see for the CGPM, 11th meeting, 1960, "[Comptes Rendus](#)" page 74). At that time the maximum and minimum contributions were set at 10 % and 0.5 % of the BIPM dotation respectively.

The CGPM at its 16th meeting (1979) established the principle addressing accession of new Member States (embodied in [Resolution 7](#)) that has been followed since that time:

- a) Since new Member States bring additional work to the BIPM, in order to ensure that support/services to existing Member States are not degraded, and the overall budget of the BIPM should rise accordingly when a new Member State accedes, but**
- b) the contribution of existing Member States should not rise as a result of a new Member State acceding.**

This is addressed at each meeting of the CGPM by starting discussion for the forthcoming period from a "base line" set by considering the dotation for the final year of the previous period plus the Contribution(s) for new Member State(s) having acceded during the previous period. In this way the CGPM may agree a BIPM dotation that has increased when a new Member State accedes, but it is distributed between an increased number of Member States such that there should be no change for all existing Member States. In order to achieve this for those Member States that are either maximum or minimum contributors a correction is necessary, since such states pay a fixed percentage of the total dotation. A mechanism to achieve this was introduced by [Resolution 7](#) (1979). This works by re-evaluating the maximum and minimum percentages for contributions 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 since 1977³.

For the period 2019 to 2021, taking account of accessions from 1977 until the 26th meeting of the CGPM in 2018, the maximum and minimum contributions have reduced from 10 % to 9.254 % and from 0.5 % to 0.463 % of the BIPM dotation respectively.

³ The CGPM at its 16th meeting in 1979 took into account the accession of the People's Republic of China in 1977.

2.3: Fixing the percentage of the dotation paid by maximum-paying and minimum-paying Member States fixes the corresponding contribution from these states. The net effect (with the current BIPM membership) is that the sum of contributions of all maximum and minimum contributing Member States is less than they would be if their contributions were simply left at the BIPM normalized scale. The consequence for the non-maximum and non-minimum contributors is that their contribution must be re-normalised by whatever factor is needed to restore the total contribution to 100 percent and match the agreed BIPM dotation⁴.

A final multiplication factor, arrived at by combining both renormalization of the UN Scale for Member States (described in 2.1) and the factor to account for the fixing of the maximum and minimum contributors, is quoted in the *Notification*.

3. Application of adjustments

Depending on circumstances two further types of adjustments may appear on the “*Notification*”.

3.1: Adjustment related to the periodic revision by the UN of its Scale of assessments. Every three years the UN establishes and publishes a new Scale of assessments, the basis for the BIPM calculation. However, the Scale is not generally published ahead of the start of the three-year period to which it applies. Article 10 of the Metre Convention requires that “*the contributive parts of each of the contracting states shall be paid at the beginning of each year*”. Consequently, the BIPM sends the *Notification* to Member States no later than mid-December of the preceding year. For the first year of a new UN Scale the *Notification* is based on the “old” UN Scale (the new one not yet being available) and a note is included indicating that a correction will be included in the *Notification* for the following year. Whilst it would be simpler to wait for the publication of the new UN Scale before calculating the dotation, many countries wish to pay for the following year from uncommitted national budget, and need to do so in December.

The 2019-2021 UN Scale was not published until 4 January 2019 so the [2019 Notification](#), distributed to Member States in December 2018, was based on the 2016-2018 UN Scale. A correction was applied to the [2020 Notification](#). Consequently the 2020 BIPM *Notification* included an adjustment for each Member State following recalculation of their contribution for 2019 using the correct UN Scale as the basis.

As the 2022-2024 UN Scale was not published until 4 January 2022, the [2022 Notification](#), distributed to Member States in December 2021, was based on the 2019-2021 UN Scale, an adjustment will be included in the 2023 BIPM *Notification*.

⁴ When calculating, iteration may be needed because initial assumptions of which states are on the maximum or minimum need to be revisited when the multiplication factor is first calculated and applied, as application of this factor can, theoretically, lift a country onto the maximum or out of the minimum.

3.2: Adjustment related to advances or reimbursements resulting from some Member States being in arrears. The second possible adjustment relates to the provisions of the Annexed Regulations of the Metre Convention (Article 6 paragraph 6) which reads:

“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 Bureau 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.”

Thus adjustments increasing the amount requested or decreasing the amount requested are both possible. When one or more Member State(s) is in arrears for more than three years the amounts requested from other Member States will include an increasing adjustment to include a *pro rata* amount to cover the contribution of the defaulting State(s) in the form of an advance. Equivalently, when a defaulting state (which has been subject to an advance by the other Member States) pays arrears to the BIPM, those monies are reimbursed to the Member States that have previously made the advance. This appears as a deduction from their next annual contribution. The adjustments in either direction are included explicitly in the *Notification*⁵.

⁵ The practice is that the oldest advances are reimbursed first, taking due account of the amounts received and which states paid what advances. Reimbursements appear as pro rata downward adjustments in the Notification for the following year. Clearly an adjustment is only needed when at least one Member State is in arrears for more than 3 years, and/or when at least one Member State that has been in arrears for more than 3 years repays some or all of its arrears.