†**|| BIPM**

BIPM update

to the WTO TBT Committee, June 2025

June 2025

Introduction

The International Bureau of Weights and Measures/Bureau International des Poids et Mesures (BIPM) is the intergovernmental organization established by the Metre Convention on 20 May 1875.

It is the home of:

- the International System of Units (SI), the metric system and
- the international reference time scale (UTC).

The BIPM is one of the oldest international organizations in the world and, as of May 2025, has 64 Member States and 37 Associates.

Moving forward, a key objective of the BIPM and its stakeholders is to extend global participation and access to BIPM activities. In answer to this, in 2022 a resolution was adopted by the BIPM's <u>General Conference on Weights and Measures (CGPM)</u>, entitled "Universal adherence to the *Metre Convention*". The aim of this resolution is to expand the categorisations for participation in BIPM activities. Necessary steps are underway to implement this initiative.

International liaison and communication

World Metrology Day 2025: The 150th Anniversary of the BIPM

Every year, World Metrology Day is celebrated in around 50 countries by national metrology institutes, legal metrology entities, regional metrology organizations and other stakeholders who rely on accurate measurements to underpin business, global trade and sustainable development. It commemorates the anniversary of the signing of the Metre Convention (Paris, 1875) and the creation of the BIPM, one of the oldest international organizations in the world.

November 2023 represented a significant milestone for the global metrology community, as – in recognition of the essential role of measurement science in our daily lives - the 42nd Session of the UNESCO General Conference (42 C/Resolution 21) officially proclaimed 20 May as an official UNESCO World Day. As a result, on 14 May 2024, <u>World Metrology Day</u> was marked at UNESCO for the first time. This marked a significant step forward in raising global awareness for metrology's role in everyday life and the importance of BIPM's capacity-building activities around the world.

2025 has been another significant year for those in the measurement community, as it coincides with the 150th anniversary of the signing of the Metre Convention. To celebrate this milestone, the BIPM and UNESCO co-hosted a historic World Metrology Day Symposium at UNESCO on 20 May, comprising of high-level keynote addresses and panel discussions. The event brought together more than 600 participants in person from over 70 countries, along with + 2,000 viewers via the live broadcast. Attendees included representatives from governments, international organizations, national metrology institutes and the broader scientific community—underscoring the global importance and reach of this historic occasion.

On 21-22 May, the celebrations continued with a two-day scientific conference organized by the BIPM in Versailles. Entitled "From units to the universe - future revolutions in metrology," the conference allowed for an exchange of ideas on the strategic areas of metrology. This event was attended by more than 400 members of the metrology community, and comprised of keynote presentations, round-table discussions, posters sessions and networking opportunities. While not livestreamed, the event was recorded and will be available to the public on the BIPM's YouTube account by the end of June 2025.

For more information about Anniversary events, and to access our video, graphic and written resources for the celebration please go to <u>https://www.bipm.org/en/bipm-anniversary</u> and <u>https://www.worldmetrologyday.org/</u>.

Capacity-building activities

<u>The BIPM Capacity Building and Knowledge Transfer Programme (CBKT)</u> aims to increase the effectiveness with which Member States and Associates engage in the world-wide coordinated metrological system. Nowadays, the programme has a highly appreciated portfolio that continues to expand. The CBKT initiatives are delivered through various activities such as workshops, laboratory placements and remote-learning activities, including the BIPM e-learning platform, which also hosts knowledge transfer material from the Regional Metrology Organizations (RMOs).

Around 63 CBKT initiatives, designed to support national and regional metrology activities, were delivered with the involvement of more than 70 lectures and experts from NMIs, RMOs and International Organizations. There have been over 4 500 participations in-person and online from 126 countries, covering all six RMOs. The e-learning platform hosts more than 25 courses and has more than 1 960 registered users.

CBKT initiatives planned for 2025 include two summer schools on UTC, the eighth cycle of a laboratory placement program with the Turkish NMI TÜBITAK/UME and a joint technical training course with GULFMET.

Digital transformation

The BIPM plays a leading role in the digital transformation of metrology and, alongside nine international organizations, has signed a <u>Joint Statement of Intent on the digital transformation in international scientific and quality infrastructure</u>. This statement provides a platform for signatories to indicate their commitment to developing and establishing a world-wide *uniform and secure* data exchange format based on the SI.

In support of this goal, the first meeting of the Forum on Metrology and Digitalization was held in March 2024 and the second in February 2025.

The forum is tasked with advising the CIPM on the SI Digital Framework and the broader implications of global digital transformation for metrology and international Quality Infrastructure (QI). Its mission includes:

- harmonizing digitalization activities between NMIs, Consultative Committees, Regional Metrology Organizations and BIPM headquarters; and
- acting as a platform for exchanging information, fostering collaboration and creating synergies. *This includes liaising with international QI organizations and relevant industry associations.*

The first services made available by the BIPM through the SI Digital Framework include:

- (i) the SI Reference Point a digital reference for the SI;
- (ii) a reference point for kinds of quantity;
- (iii) digital references for the Service Categories defined by the CIPM's Consultative Committees in physics and ionizing radiation; and
- (iv) a reference point for nuclides.

All the services are currently in beta-testing and user feedback is warmly encouraged.