CCEM meeting
Updates from the BIPM

Martin Milton
BIPM Director
8-9 March 2023
The Republic of Zimbabwe was reinstated as an Associate of the CGPM on 8 February 2022.

- **63 Member States** and
- **38 Associates of the CGPM**
  (States and Economies)

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

**251 Institutes participating in the CIPM MRA**
- 97 National Metrology Institutes + 3 Ministries
  - 64 Member States
  - 36 Associates
- 4 International organizations
  (ESA, IAEA, JRC, WMO)
- plus 150 Designated Institutes

**1 814 comparisons**
1143 KCs, 671 SCs

**25 821 CMCs**
Peer-reviewed declarations

The Republic of Costa Rica, which had been an Associate since 2004, became a Member State on 5 September 2022.
World Metrology Day

http://www.worldmetrologyday.org/
The theme of World Metrology Day in 2023 is “Measurements supporting the global food system”

Partner RMO is SIM

[https://www.worldmetrologyday.org/index.html](https://www.worldmetrologyday.org/index.html)

- *translations* into 7 *local* poster versions, next to French and English
- Listing of events open to countries/institutions
The UNESCO Executive Board took a key step towards recognizing 20 May - World Metrology Day at their session on 13 October 2022, following the proposal presented by Kazakhstan (prepared by the BIPM and the OIML) and supported by 42 UNESCO Member States.

The decision will need to be ratified by the 42nd session of the UNESCO General Conference to be held in November 2023.

If all goes to plan, UNESCO will proclaim 20 May of each year as a UNESCO world day which will then be celebrated every year from 20 May 2024.
International rulemaking for the future
The BIPM participated in the OECD event "International organizations: Supporting Countries to Anticipate, React and Rebuild in the Face of Global Disruptions" for the heads of Secretariats of international organizations (IOs) on 5 December 2022.

The BIPM future plans for universal adherence to the Metre Convention was highlighted.

More information on the partnership can be found at https://www.oecd.org/governance/better-international-rulemaking/.
Joint Statement of Intent
"On the digital transformation in the international scientific and quality infrastructure"

The joint statement provides a platform for the signatory organizations to come together to indicate their support, in a way appropriate to their particular organization, to the development, implementation, and promotion of the SI Digital Framework as part of a wider digital transformation of the international scientific and quality infrastructure.

The joint statement is part of an ongoing initiative by the CIPM and its Task Group on the Digital SI (CIPM-TG-DSI) to develop and establish a world-wide uniform and secure data exchange format based on the International System of Units (SI).

Signed by: CIE, CODATA, IEC, ILAC, IMEKO, ISC, ISO, OIML
The Data Plane: Findable and Accessible

- User-driven applications
- NMI applications
- BIPM registry and portal services
- BIPM digital references
- BIPM core references

International Metrology Resource Registry

- Digital Calibration Certificates (DCCs)
- KCDB: CMCs
- KCDB: KCs, SCs
- JCTLM database
- UTC data
- New services

- Standard frequencies data
- Temperature scales data
- Data for realizing the kilogram
- Data for realizing other SI units

- SI brochure + Agreed realization protocols
- Fundamental constants data

Encoding line
The Interoperability Plane: Interoperability and Reusability

- Units
- Quantities
- Constants
- International vocabulary

BIPM core references

- VIM
- SI brochure
- GUM
e-Learning – courses

A “training platform” operated by the BIPM, able to host both BIPM and RMO e-learning material.

- **Bespoke e-learning solution** based on the Moodle - Open-Source software
- **840 users** in the platform
- **4 RMOs** have joined the initiative: APMP, COOMET, EURAMET, GULFMET
- **17 courses** from BIPM and participating RMOs are available today
- **Self-registration** system

[https://e-learning.bipm.org/](https://e-learning.bipm.org/)

...accessible around the clock and on any device
Technical exchanges

KCDB 2.0 - Online technical exchanges – CMC Writers and Reviewers

This webinar is designed to support the KCDB CMC Writers and Reviewers from General Physics, Ionizing Radiation and Chemistry and Biology fields.

Two 2-hour sessions (morning and repeated in the afternoon)

Programme highlights:
- Introduction to KCDB 2.0
- CMC Writer user account
- Creation of new CMCs
- Update existing CMCs
- Reviewer dashboard
- CIPM MRA requirements
- Machine-readable links to CMCs

23rd March 2023:
Morning session: 08:00 UTC - registration
Afternoon session: 15:00 UTC - registration
The CIPM MRA brochures

The brochures have been written in an accessible way for both metrologists and non-experts alike.

Knowledge Transfer through Metrologia

Knowledge Transfer initiative through funding the open-access publication of selected review papers in *Metrologia*

This initiative highlights the service rendered to the world-wide metrology community by senior scientists devoting time to publishing review papers on topics of interest and these papers being made openly available to all through Open Access publication in *Metrologia*.

Authors interested in proposing a review paper for open-access publication are invited to contact the Editor of *Metrologia*.

The Metre Convention was signed in Paris by 17 nations on 20 May 1875.

We are planning a number of events in Paris in the week of 20th May 2025.

To celebrate the achievements of 150 years of metrology by the BIPM since the signature of the Metre Convention.

To present a new vision and strategy for the BIPM for 2030 and beyond developed by the CIPM.

To promote metrology to the widest possible global audience.

“to assure the international unification and perfection of the metric system”
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“**Enlargement**”

The heading for the Metre Convention states that

“The High Contracting Parties ... wishing to assure the international unification and perfection of the metric system ...”

- **63 Member States** and
- **38 Associates of the CGPM**

The CGPM ... invites the CIPM

“To examine the current application of Article III of the Metre Convention and report to the CGPM at its 28th meeting on how ... to facilitate lasting and universal adherence to the Convention”

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“to assure the international unification and perfection of the metric system”

“Digital transformation”

“The Unique SI Reference Point”

“Enlargement”

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27th CGPM, 2022