

# CCM meeting

## Updates from the BIPM

**B**ureau  
International des  
**P**oids et  
**M**esures

# Martin Milton

BIPM Director  
8-9 March 2023

# Members and Associates *(March 2023)*

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



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.*

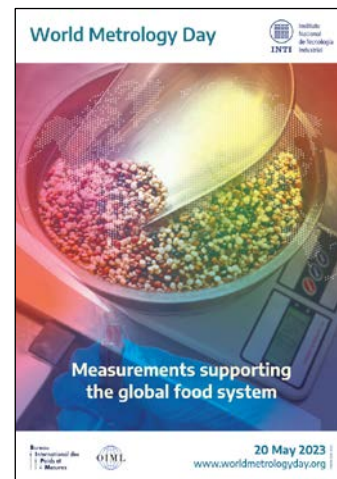
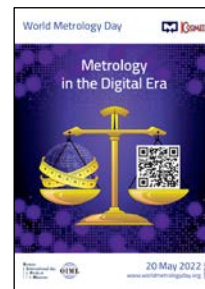
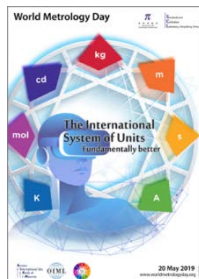
## 251 Institutes participating in the CIPM MRA

- 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

# World Metrology Day



2017

2018

2019

2020

2021

2022

2023

<http://www.worldmetrologyday.org/>



# World Metrology Day

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>



# World Metrology Day: UNESCO initiative



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



## 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/>.

# Digital Transformation

## Digital Transformation

*Joint Statement of Intent On the digital transformation in the international scientific and quality infrastructure*

### Joint Statement of Intent

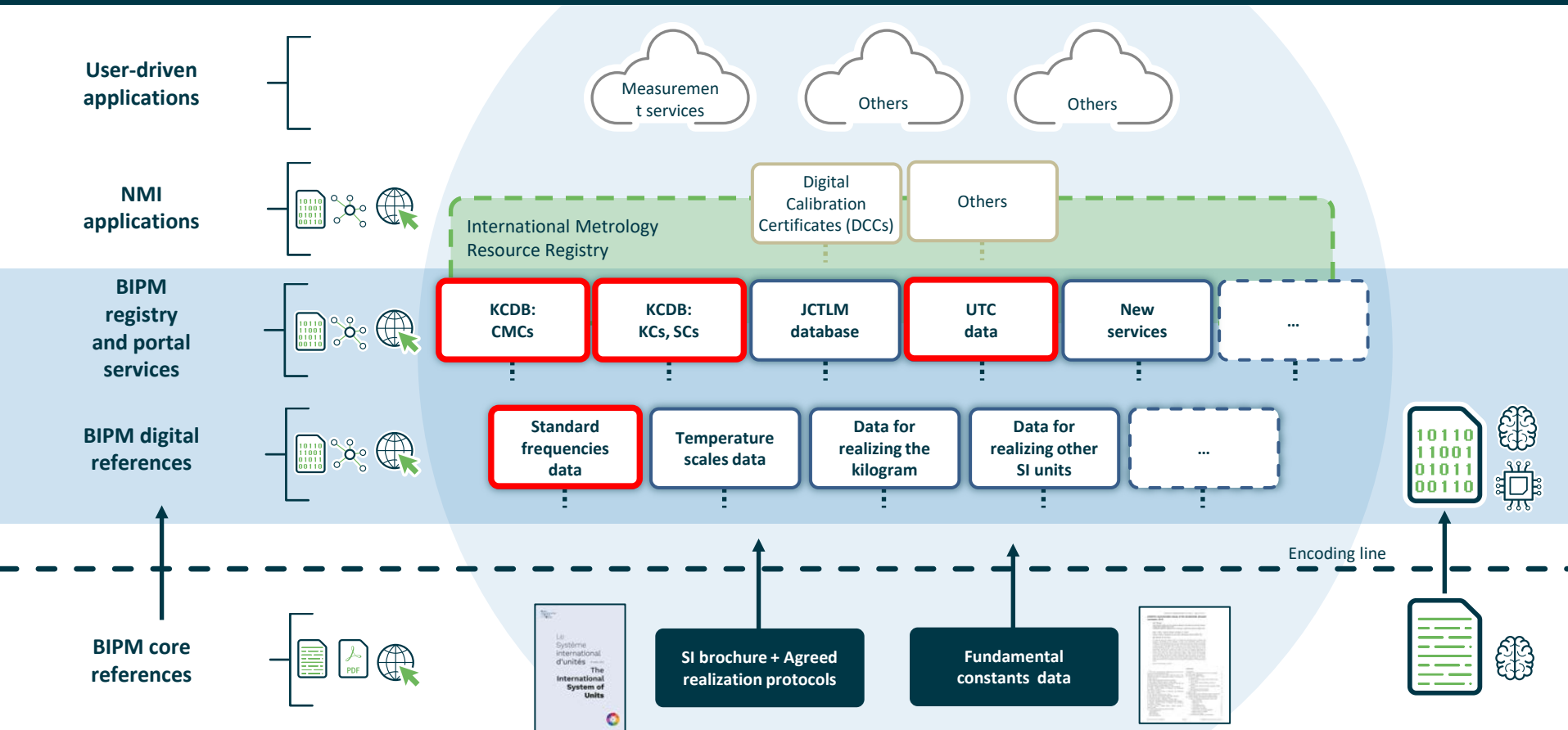
### "On the digital transformation in the international scientific and quality infrastructure"

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).

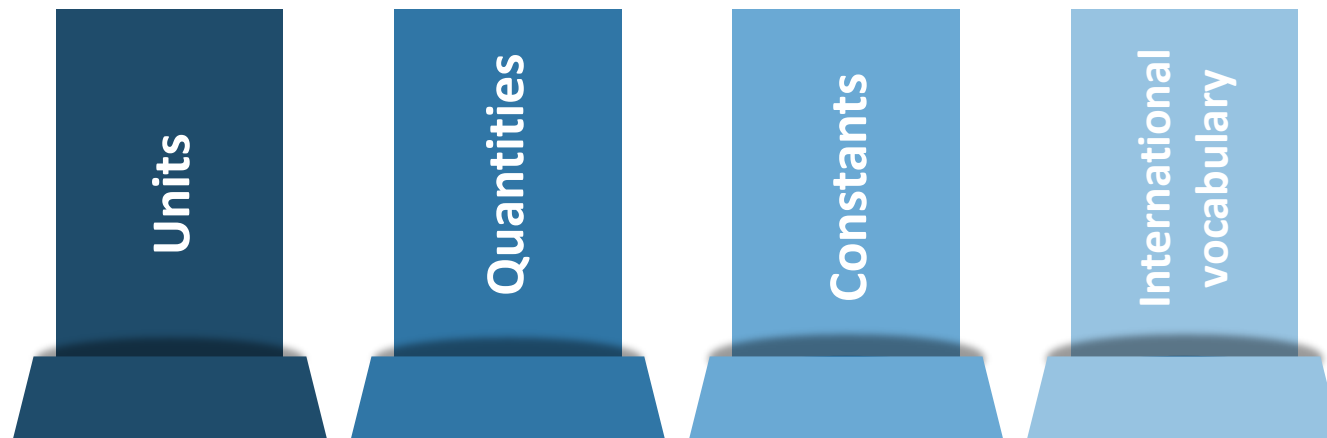
Signed by: CIE, CODATA, IEC, ILAC, IMEKO, ISC, ISO, OIML, NCSLI

# The Data Plane: Findable and Accessible





# The Interoperability Plane: Interoperability and Reusability



BIPM core  
references



VIM

SI  
brochure

GUM



# e-Learning –courses



<https://e-learning.bipm.org/>

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

**e-learning.bipm.org**

Home / Courses

...accessible around the clock and on any device

DASHBOARD COURSE CATALOGUE ABOUT US YOUTUBE

PROVIDER

- ☐ BIPM
- ☐ COOMET
- ☐ EURAMET
- ☐ GULFMET
- ☐ APMP

TOPIC AREA

- ☐ Quality infrastructure
- ☐ CIPM MRA
- ☐ Miscellaneous
- ☐ Mass and Related Quantities
- ☐ Chemistry and Biology
- ☐ Ionizing Radiation
- ☐ Thermometry
- ☐ Time and Frequency
- ☐ Measurement uncertainty

COURSE ACCESS








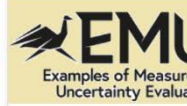




- ☐ Open
- ☐ Restricted


LANGUAGE

- ☐ English
- ☐ Russian

Search courses

18 results

 <p>FTIR Analysis for Gas Standards</p> <p>BIPM</p> <p>MORE DETAILS</p>	 <p>SSDL and ISO/IEC 17025:2017</p> <p>GULFMET</p> <p>MORE DETAILS</p>	 <p>Annual Reporting within EURAMET TC-Q</p> <p>EURAMET</p> <p>MORE DETAILS</p>	 <p>APMP - Coming Soon!</p> <p>APMP</p> <p>MORE DETAILS</p>
 <p>CIPM MRA</p> <p>BIPM</p> <p>MORE DETAILS</p>	 <p>Dissemination of the kilogram following its redefinition</p> <p>BIPM</p> <p>MORE DETAILS</p>	 <p>Estimation of Measurement Uncertainty in Chemical Analysis University of Turku</p> <p>EURAMET</p> <p>MORE DETAILS</p>	 <p>Examples of Measure Uncertainty Evaluat</p> <p>Good practice in evaluating measurement uncertainty: EMPiR Project EMUE 17/RMOS</p> <p>EURAMET</p> <p>MORE DETAILS</p>
 <p>COOMET</p> <p>COOMET</p> <p>MORE DETAILS</p>	 <p>COOMET</p> <p>COOMET</p> <p>MORE DETAILS</p>	 <p>COOMET</p> <p>COOMET</p> <p>MORE DETAILS</p>	 <p>COOMET</p> <p>COOMET</p> <p>MORE DETAILS</p>



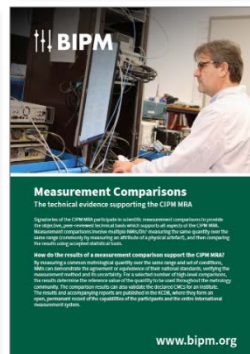
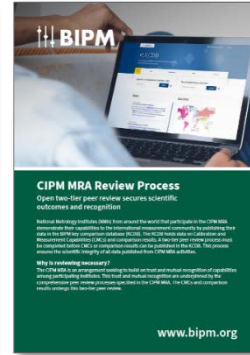
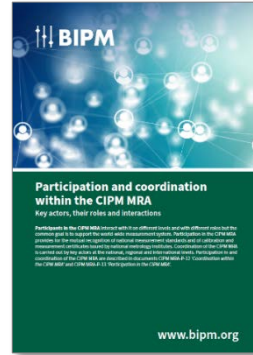
**BIPM**

# The CIPM MRA

## Demonstrating trust and confidence in the international measurement system

Critical national and international goals, such as economic growth, innovation, energy and the environment, good health, and a safe and plentiful food supply depend on accurate and trusted measurements of physical, chemical, and biological quantities. The CIPM MRA is a platform that provides the institutional and technical framework for National Metrology Institutes around the world to recognize each other's measurement standards and calibration certificates, its supporting data, representation of measurement capabilities, and quality infrastructure are rigorously validated by NMIs and other participants in the international measurement system.

[www.bipm.org](http://www.bipm.org)



<https://www.bipm.org/en/committees/cb/cbkt/cipm-mra-brochures>

# Knowledge Transfer through *Metrologia*



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

## METROLOGIA REVIEW - OPEN ACCESS

**The irony of the magnet system for Kibble balances - a review**

### Authors:

Li S., Schlamminger S.

→ [Metrologia 59 \(2022\) 022001](#)

SPONSORED BY: NIST (US)

## METROLOGIA REVIEW - OPEN ACCESS

**The new *mise en pratique* for the metre – a review of approaches for the practical realization of traceable length metrology from  $10^{-11}$  m to  $10^{13}$  m**

### Authors:

Schödel R., Yacoot A., Lewis A.

→ [Metrologia 58 \(2021\) 052002](#)

SPONSORED BY: PTB (DE)

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 20<sup>th</sup> May 2025.

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

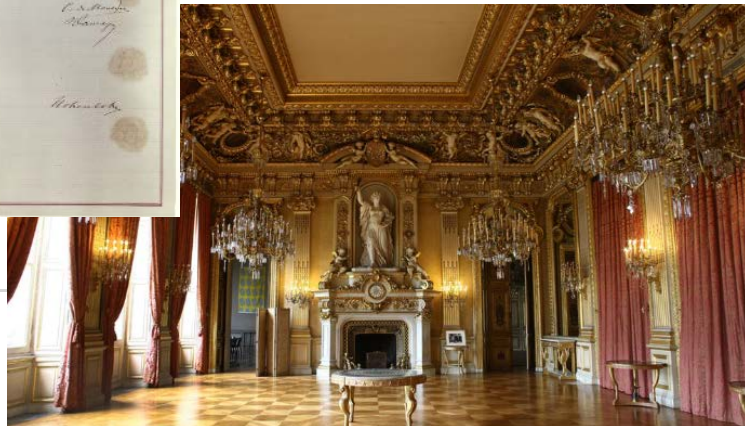
To present a new vision and strategy for the BIPM for 2030 and beyond developed by the CIPM.

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 ...

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The CGPM ... invites the CIPM

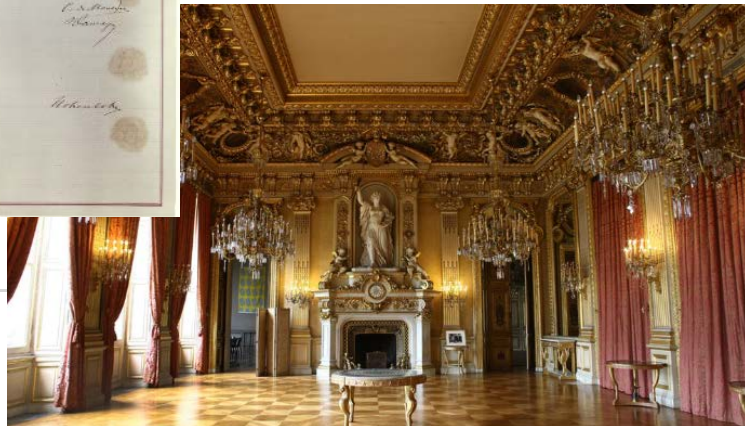
“to examine the current application of Article III of the Metre Convention and report to the CGPM at its 28th meeting on how ... to facilitate lasting and universal adherence to the Convention”

27<sup>th</sup> CGPM, 2022

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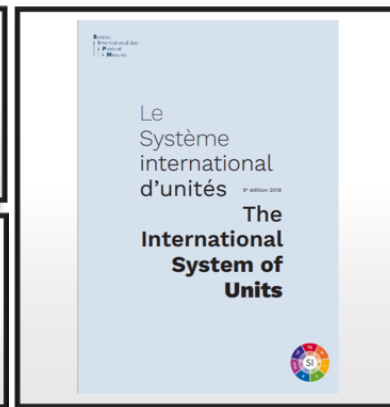


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## “Digital transformation”



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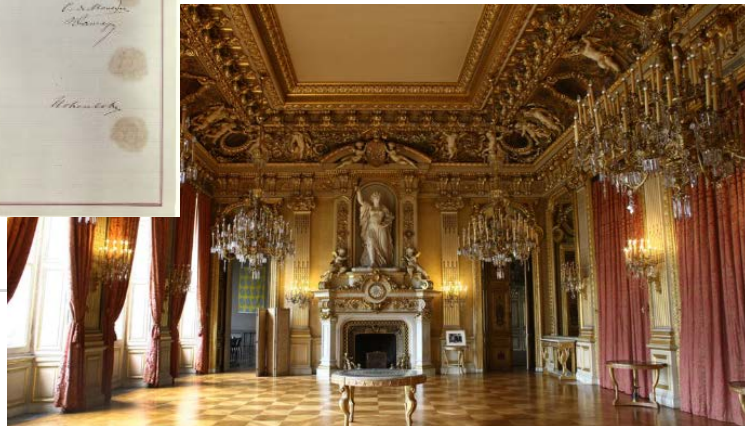


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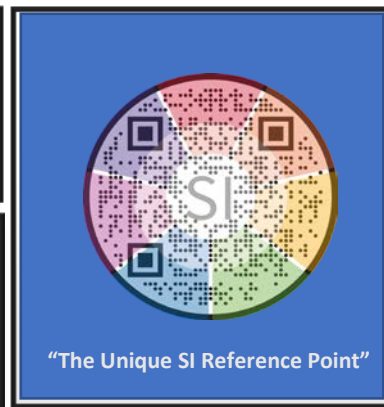
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27th CGPM, 2022

# ILC personnel and changes



## **Anna Cypionka is the new Director of the BIPM International Liaison and Communication Department**

The BIPM welcomes Anna Cypionka as Director of the International Liaison and Communication Department (ILC), from 1 March 2023, following the retirement of Andy Henson.

Having dedicated more than two decades to the international liaison and global coordination of metrology, Andy Henson is proud of having assembled an effective and experienced team, which is able to cover the extended breadth of activity that comes under the scope of the Department: the CIPM MRA and the related KCDB 2.0 platform; the Capacity Building and Knowledge Transfer Programme; intensified collaboration with the other pillars of the International Network of Quality Infrastructure and raising awareness to the importance of investing in metrological infrastructure through policy dialogue with government.

**The BIPM wishes Anna plenty of success in this new role and extends its warmest thanks to Andy for his tireless diligence to the immense benefit of our community.**

# ILC personnel and changes

## ILC Department Director

**Dr Anna CYPIONKA**

## Institutional liaison and membership

**Ms Rahima GULIYEVA**

Institutional liaison and membership  
*Principal Liaison Officer*

## CIPM MRA and CBKT

**Mr Chingis KUANBAYEV**

Head of CBKT and CIPM  
MRA support  
*Principal Liaison Officer*

**Dr Stephanie MANIGUET**

KCDB coordination  
(and JCTLM for Chemistry)  
*Senior Liaison Officer*

**OPEN POSITION**

CBKT Programme and  
CIPM MRA support  
*Liaison Officer*

## Digital transformation

**Dr Janet R. MILES**

Head of digital  
transformation  
*Principal Liaison Officer*

**OPEN POSITION**

Semantic web  
*Liaison Officer*

## Communications

**Dr Dana VLAD**

Head of Communications  
*Principal Communications  
Officer*

**Mr Robert SITTON**

Publications  
*Senior Communications  
Officer*

**Ms Céline PLANCHE**

Web and translation  
*Senior Communications  
Officer*

**NN**

Secondment to start  
June 2023  
*Strategy Development  
and Capacity Building*

**NN**

Secondment to start 15  
July 2023  
*JCRB Executive Secretary*

**Dr Gregor DUDLE**

Secondment  
*Digital transformation*

Thank you

