Report from the BIPM to the 18th Meeting of the CCM
Members and Associates (March 2021)

- 63 Member States* and
- 39 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.

260 Institutes participating in the CIPM MRA
- 102 National Metrology Institutes
  - 63 Member States
  - 39 Associates
- 4 International organizations
  (ESA, IAEA, JRC, WMO)
- 154 Designated Institutes =152 (national) + 2 (IO)

1 710 comparisons
1082 KCs, 628 SCs

25 728 CMCs
Peer-reviewed declarations

Estonia, which has been an Associate since 2005, became a Member State on 19 January 2021.

The Kingdom of Cambodia became an Associate of the CGPM on 1 January 2021.
...launched on 26th April.
BIPM Laboratory knowledge transfer

Launch of on-line programs

Metrology for Safe Food:
• Mycotoxin Standards
• Pesticides and Residues (2021)


Metrology for Clean Air:
• FTIR operation for accurate gas analysis
• Dynamic gas standard generation (2022)


Metrology for Laboratory Medicine:
• Peptide standards (2023)
The BIPM is...

- the international organization established by the Metre Convention, through which Member States act together on matters related to measurement science and measurement standards.

- the home of the International System of Units (SI) and the international reference time scale (UTC).
CIPM initiative to provide a Digital SI Framework

The CIPM has launched a Task Group on the “Digital SI Framework”

- To enable SI-based digital communication in industry
- To support the digital science and open-science paradigms
- To get metrological services ready for artificial intelligence
The Key Comparison Database (KCDB)

262 Institutes (August 2019)

- 102 National Metrology Institutes
  - 61 Member States
  - 41 Associates
- 4 International organizations (ESA, IAEA, JRC, WMO)
- plus 156 Designated Institutes

6 RMOs

Playing an important role to support mutual confidence in the validity of calibration and measurement certificates issued by participating institutes

Machine readable access to the KCDB

1,613 comparisons
1039 key, 574 supplementary comparisons

25,242 CMCs
regionally and internationally peer-reviewed CMC declarations

www.bipm.org
### Work in progress - machine-readable products

**Approved by the CIPM. Work in progress.**

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<thead>
<tr>
<th>KCDB</th>
<th>JCTLM</th>
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<tr>
<td>+ Time Dept database</td>
<td>+ The annotated VIM</td>
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**API access**

Real-time **validation of traceability and scope of recognition** for digital calibration certificates.

**xml versions**

The authoritative reference data defining the SI and how to use it.

**Future work**

**Findable and Accessible** data submitted to support key comparisons and publications.
The theme of World Metrology Day in 2021 is "Measurement for Health"

Partner RMO is GULFMET

https://www.worldmetrologyday.org/index.html