CGPM

Opportunities for Partnership with the BIPM:

More effective delivery of the Work Programme

14 October

Annette Koo, Director of the BIPM

Why Partnerships?

Increase **IMPACT** through

- Growing the effort
- Achieving objectives not possible independently
- Sharing knowledge and capability
- Embedding harmonization

Improve financial **SUSTAINABILITY** by

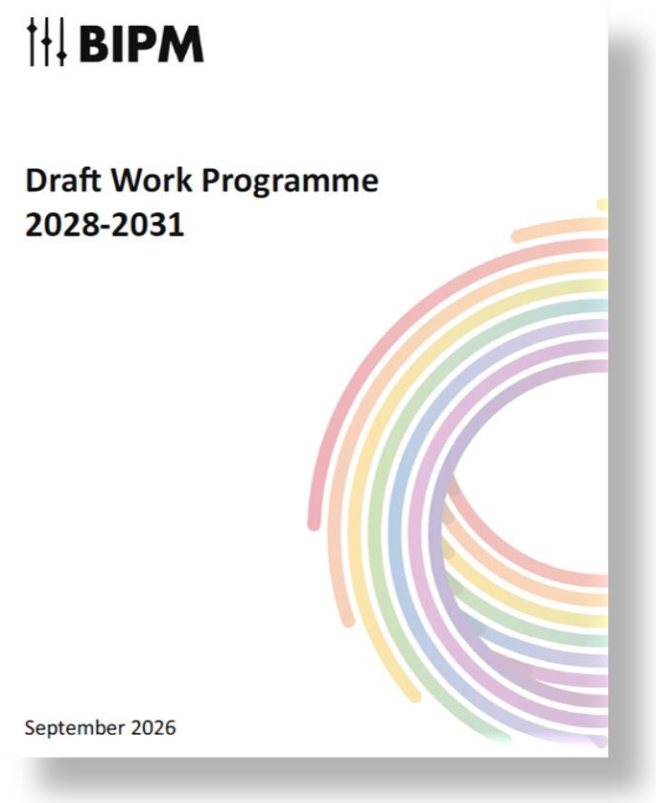
- Sharing costs with those who benefit most
- Reducing duplication of expertise or infrastructure
- Optimizing use of Member State contributions

Introduce **FLEXIBILITY** to

- Respond to stakeholder needs
- Give Member States direct influence on prioritization
- Account for rapid technology development
- Pilot initiatives without long term staff commitment

CGPM

Modes of Partnership Available



Partnership model	The delivery is critically dependent on partnership	The effectiveness and impact of the deliverable will be enhanced if a partnership is formed
Joint projects between the BIPM and NMIs or key stakeholders	✓	✓
Sector specific coordination activities delivered through stakeholder contributions	✓	✓
Use of shared facilities	✓	✓
Involvement of NMI staff in the delivery of the BIPM Work Programme as secondees	✓	✓
Support through the donation of equipment	✓	✓

CGPM

Joint projects between the BIPM and NMIs or key stakeholders

Project placements: So far 9 cycles have supported 76 young metrologists from 30+ countries

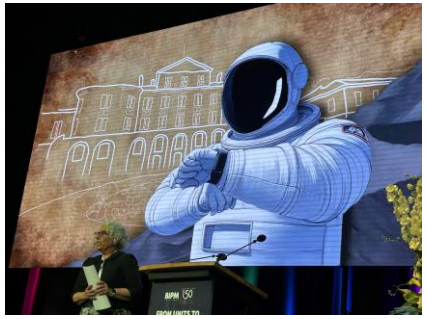
TÜBİTAK UME

中国计量科学研究院
National Institute of Metrology, China

Pesticide standards developed and key comparison launched

CGPM

Feasibility study: BIPM role in coordinating lunar time



Absolute local gravity measurement for the International Kibble Balance at BIPM

g

Investigate extension of Josephson voltage standard beyond 1 kHz

Extend the provision of short-lived radionuclide comparisons via regional networks

^{3}N ^{11}C ^{153}Sm ^{18}F ^{123}I ^{64}Cu ^{56}Mn ^{99m}Tc

Coordination activities delivered through stakeholder contributions

Database of trusted references for clinical medicine co-funded

IFCC International Federation of Clinical Chemistry and Laboratory Medicine

JCTLM Accurate results for patient care

Continued growth in demand for clinical medicine database met through model of membership contributions by NMIs and organizations who benefit

CEEMS Focus: BIPM and OIML produced a brochure and e-learning course to strengthen national metrology systems

METAS

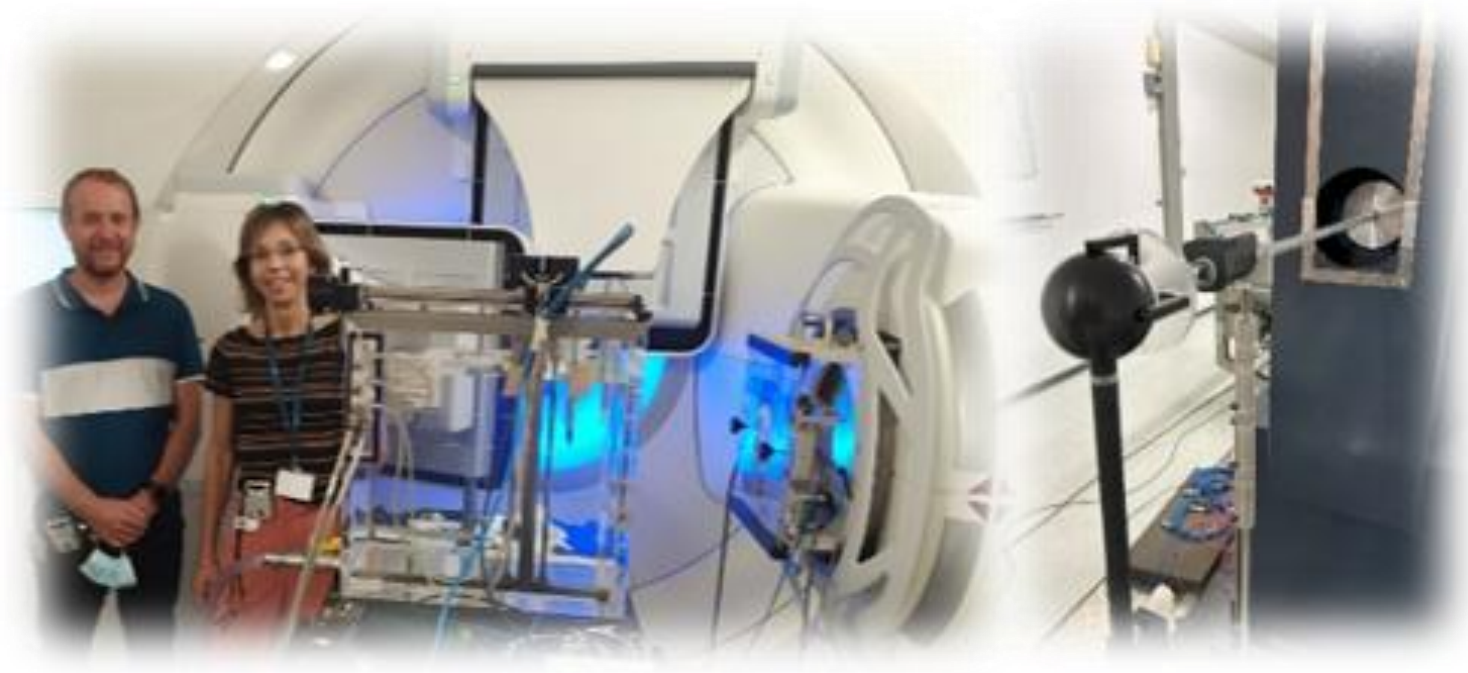
Direct contributions to support programmes for developing countries including potential Observer States

CGPM

Use of shared facilities

Linac at DOSEO in France: delivery of 32 comparisons since 2017

IAEA ^{137}Cs facility in Seibersdorf: 12 comparisons delivered



The continued delivery of these dosimetry services relies on the continued use of this model and partnership with IAEA and DOSEO

CGPM

Involvement of NMI staff in the delivery of the BIPM Work Programme as secondees

Digital platform for radionuclides signal processing





Impurity identification in cyclosporin A for comparison

E-learning modules and interactive software for time and frequency data



UFFC

CGPM

KCDB 3.0: Ensuring this critical database is fully FAIR and continues to meet needs of digital measurement quality infrastructure

KCDB

Digital twin for global ozone standard network

Guidance for integration of optical clocks into UTC

Develop reference methods for DNA/RNA calibrators



Support through the donation of equipment



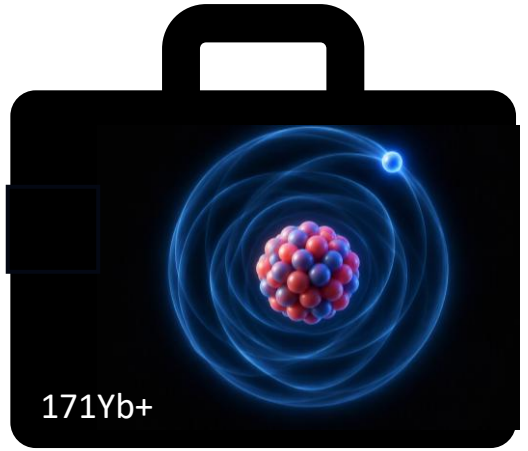
Magnet from Tsinghua University for the BIPM compact Kibble balance

NMR from JEOL:
- 9 qNMR standards
- 12 secondees
- purity determination
- CBKT



©Raphaël Dallaporta

Transportable standard for pilot comparison of optical clocks



CGPM

Anticipated value of contributions to the BIPM

Critical equipment and facilities available to whole community to accelerate achievement of shared goals

150 k€
every year

12+ FTE
every year
1.9+ M€
benefit to BIPM

43
deliverables
16+ FTE
over 4 years
1+ M€
materials and expenses

CGPM

Demonstrated value of contributions to NMI partners

Staff development and expertise growth

- Access to BIPM equipment and staff
- Access to international best practice

Acceleration of the development of new capabilities

Expertise and technology transfer from your institute to the community

International relationship building and profile

CGPM