CCM e-News: October 2019

Implementation of the redefinition of the mass unit



- The <u>mise-en-pratique</u> for the definition of the <u>kilogram</u> and the <u>note on the impact of the redefinition of the kilogram on BIPM mass calibration uncertainties</u> have been published in Appendix 2 of the SI Brochure.
- The final version of the CCM detailed note on the dissemination process after the redefinition of the kilogram is available on the CCM webpage.
- All published Calibration and Measurement Capability (CMC) values in the field of mass standards have been reviewed by the Working Group on Mass. The CMCs of less than 50 μ g (k = 2) were increased and updated on the KCDB to take into account the effect of the new kilogram definition.
- The technical protocol of the first Key Comparison of Realizations of the Kilogram <u>CCM.M-K8.2019</u> has been finalized. Nine NMIs confirmed their participation in the comparison. Seven NMIs will use Kibble balances, and two will use ²⁸Si spheres for the mass measurement of the travelling standards. The travelling standards are expected to arrive at the BIPM between October 2019 and February 2020.

The Last Artifact | Redefining the weight of the world



The world premiere of the film "The Last Artifact" was held on 17 October 2019 at the Sel Art Center in Sèvres. The film will be released soon.

CCM documents

- The minutes of the 17th CCM meeting, held in May 2019, have been published on the CCM website.
- The CCM Working Group on Strategy and MRA coordination has revised the following guidance documents:
 - <u>CCM strategy</u>: update on the realization and dissemination of the mass unit after the redefinition of the kilogram; update of the long-term table of CCM KCs and list of ongoing and planned CCM KCs,
 - CCM Key Comparison report template: addition of "how far the light shines" statement.

CCM members

The INMETRO (Brazil) and the IPQ (Portugal) were granted membership of the CCM by the CIPM at its 108th meeting.

CCM Working Groups

The <u>CCM webpage</u> has been updated following the decisions of the 17th CCM meeting regarding the CCM Working Groups (CCM WGs):

- the chairs and the vice-chairs of the CCM WGs appointed for a period of four years,
- the new Working Group on Mass.

CIPM MRA review, KCDB and JCRB



• The new KCDB is planned to "Go Live" at the end of October 2019. All CMC and comparison data has been migrated to the new database. The initial "Go Live" stage will give access to the search facilities. Following this, each metrology area will successively gain access to the CMC platform and support for comparisons. Information on the transition towards the new system may be found on the BIPM webpage. The new KCDB will be available on https://www.bipm.org/kcdb.

Within the framework of the <u>Capacity Building and Knowledge Transfer</u> programme the course "Optimizing the CIPM MRA - the KCDB 2.0" will be held for RMO TC/WG Chairs and TC/WG members on 4-8 November 2019 at the BIPM.

- The Final Reports of the following comparisons have been published in the KCDB:
 - CCM.F-K3.a
- <u>APMP.M.M-K5</u>
- <u>APMP.M.F-S2</u>
- EURAMET.M.D-S3

- <u>CCM.F-K3.b</u>
- APMP.M.F-K2a
- APMP.M.F-S3
- EURAMET.M.P-K7

- CCM.P-K4.2012
- APMP.M.F-K2b
- COOMET.M.M-S4
- The Final Reports of the comparisons <u>APMP.M.P-K1.c.2</u>, <u>GULFMET.M.M-S1</u> and <u>GULFMET.M.M-S2</u> have been approved by the CCM and will be published after the launch of the KCDB 2.0.
- The Outcomes of the 41st JCRB meeting are available. The next meeting will take place in March 2020 at the BIPM.