



ANNUAL REPORT of TC 4 “Information and Training” for 2020

1 General characteristic of cooperation

During the reporting period the work within TC was conducted on the base of TC 4 Work Program for 2018–2020. There are three subcommittees in TC:

- SC 4.1 “Capacity Building in Training and Knowledge Transfer”;
- SC 4.2 “COOMET Informational Resources”;
- SC 4.3 “Raising Proficiency Level and Work with Young Metrologists”;

2 Results of works:

4 workshops jointly with other TCs, as well as 1 training course within the BIPM CBKT Program are organized and holding:

- BIPM-COOMET training course within BIPM CBKT Programme on the issues, related to the new platform KCDB 2.0, 25–27 May 2020, online;
- COOMET workshop "The new definition of the kilogram and its impact to the mass metrology", 6 October 2020., online, jointly with TC 1.6 "Mass and Related Quantities";
- COOMET workshops on KCDB 2.0 within COOMET TCs, 17 September 2020, online, jointly with TC 1.7 "Photometry and Radiometry"; 8 October 2020, online, jointly with TC 1.3 "Electricity and Magnetism", TC 1.4 "Flow Measurement", TC 1.5 "Length and Angle", TC 1.6 "Mass and Related Quantities";
- COOMET webinar on the exchange of working experience with KCDB 2.0 for the Chairpersons of COOMET TCs, 26 January 2021, online, jointly with JCMS.

3 Survey of implemented projects and their results

The work was conducted on the following registered projects:

543/RU-a/11 Development and administration a database of RM of COOMET

Ongoing joint project of TC 1.12 “Reference Materials” and TC 4 “Information and training”. The aims of the project are to develop a structure of the document, acquisition and examination of data of reference materials of COOMET, their publication on the website as a database, administration the database of reference materials.

731/BY-a/17 Review of national education & training systems for the NMIs and metrologists of the COOMET member countries

Through the completion of this COOMET Project, the system of basic education, the system for training, advanced training and retraining as well as the system for training of top-qualification scientific personnel of the NMIs and of metrology professionals of the COOMET member countries shall be reviewed and analyzed.

811/BY-a/20 Development of the policy and procedures for holding official COOMET meetings and events under the auspices of COOMET in the form of videoconferences/webinars based on the organization and holding of test (pilot) videoconferences involving experts from COOMET member countries

Under the project test (pilot) videoconferences/web-seminars involving members of the working group and other interested participants from different countries were held. On the basis of the test results it is recommended to use Zoom service for holding COOMET online events which provided for the possibility to organize simultaneous interpretation into two languages during online meetings. Zoom also provides an opportunity for voting during meetings of COOMET bodies. Brief instructions were developed for the participants of videoconferences/web-seminars.

4 Results of the TC meeting

17th meeting of TC4 "Information and Training" was held on 10–11 February 2021 online. The objectives of the meeting were to discuss the results of TC 4 activity in 2019–2020 and development tasks for 2021.

The meeting was attended by Chairpersons of TC 4 subcommittees, TC 4 members and their representatives from 11 COOMET member countries (Azerbaijan, Belarus, China, Georgia, Germany, Kazakhstan, Moldova, Russia, Turkey, Uzbekistan and Ukraine), as well as Ch. Kuanbayev, a Officer of International Liaison and Communication Department of International Bureau of Weights and Measures (BIPM), M. Dobre, Chair of Technical Committee for Interdisciplinary Metrology (TC-IM) of European Association of National Metrology Institutes (EURAMET) and T. Tasic, Capacity Building Officer of the EURAMET Secretariat.

16 issues of the agenda have been considered at the meeting, including:

- main results of the activity of COOMET TC 4 in 2019–2020;
- report of realization of the Work Program of COOMET TC 4 for 2018–2020;
- implementation of COOMET projects within TC 4;
- activity of subcommittees of TC 4;
- activity within BIPM Program on capacity building and knowledge transfer (CB&KT);
- cooperation with EURAMET;
- preparation for IX International competition "Best Young Metrologist of COOMET – 2021";
- draft of the Work Program of COOMET TC 4 for 2021–2023.

During the meeting there was presented information on the results of the activities of TC 4 in 2019–2020 and activities carried out within the framework of TC 4. Report of implementation of the TC 4 Work Program for 2018–2020 and Draft of TC 4 Work Program for 2021–2023 were also provided

There was presented information on activities planned for 2021 in Road map for implementation of COOMET Strategy for 2020–2025 and COOMET Development Program for 2020–2022 (within the area of responsibility of TC 4) with further discussion among the meeting participants.

The updated Documents COOMET D5.13/2015 "Regulation on COOMET Technical Committee "Information and Training" (TC 4)" and COOMET D4/2014 "COOMET Publications. Classification, Development, Approval and Registration. General Provisions" were provided to TC 4 members for discussion.

5 Results of the BIPM-COOMET training course within CBKT BIPM Programme on the issues, related to the new platform KCDB 2.0

An online BIPM-COOMET course on the issues, related to the new platform KCDB 2.0, was held on 25–27 May 2020 within the BIPM Capacity Building & Knowledge Transfer Programme (CBKT).

The following persons spoke at the seminar:

- Andy Henson - BIPM ILC Department Director;
- Susanne Picard - KCDB Coordinator;
- Sten Bergstrand - JCRB Executive Secretary;
- Stephanie Maniguet - KCDB Assistant;
- Chingis Kuanbayev - CBKT Manager.

The online course was held for the Chairpersons of Technical Committees and technical experts of COOMET on the review of calibration and measurement capabilities (CMCs), working within COOMET.

The number of registered participants, representing NMIs/DIs of Belarus, Georgia, Kazakhstan, Moldova, Russian Federation, Turkey, Uzbekistan and Ukraine, exceeded 100 persons. Experts from a number of institutes of COOMET member countries (BelGIM, Belarus; NSC "Institute of Metrology", Ukraine, INM, Moldova) took part in the webinar both in the format of in-person online participation and in the format of group presentation watching.

During the webinar the issues, related to the capabilities of KCDB 2.0, creation of users' accounts, generation and review of CMCs, registration of measurement standards comparisons, as well as possibility of information retrieval and KCDB statistics, were considered. A mechanism of online surveys and discussion of the received replies with the speakers were used as a feedback from the participants.

COOMET has become the first RMO, with which the BIPM organized the event of such a kind. COOMET expresses its gratitude to the BIPM for the provided opportunity of participation for a wide range of experts

from COOMET NMIs/DIs in the short online course on the KCDB 2.0 issues and to all speakers for their interesting reports.

6 Results of the COOMET workshop "The new definition of the kilogram and its impact to the mass metrology"

A COOMET webinar "The new definition of the kilogram and its impact to the mass metrology" was held within TC 1.6 "Mass and Related Quantities" on 6 October 2020 on Zoom platform, where more than 50 participants from 17 COOMET and EURAMET member countries took part, as well as BIPM representatives.

The program of the webinar comprised the following presentations:

- Fundamental physical constants and kilogram from a perspective of fundamental physics (speaker - Andrey Surzhykov, PTB, Germany);
- Mass measurements traceability in the new SI (speaker – Nieves Medina Martin, CEM, Spain);
- Future impact of the new kilogram definition on NMIs and the BIPM (speaker – Michael Stock, BIPM, France).

This seminar is one of the events, provided for in the Roadmap for implementation of the decisions, related to the redefinition of the SI base units.

7 Results of the COOMET workshops on KCDB 2.0 within COOMET TCs

A COOMET workshops on KCDB 2.0 was held on 17 September 2020 for TC 1.7 and 8 October 2020 for TCs 1.2, 1.4, 1.5, 1.6.

The workshops was aimed at providing information and training in the use of the new KCDB 2.0 platform, including practical skills.

Under the seminar program the following issues were considered:

- General information about KCDB 2.0;
- Searching in the system;
- Types of accounts. Registration in KCDB 2.0;
- Registration and maintenance of comparisons (Role "Pilot");
- Creation, submission and revision of CMC (Role "Writer");
- Intra- and interregional CMC review (Role "Expert").

Specialists of COOMET NMIs/DIs, acting as COOMET technical experts on CMC review and/or coordinators of the current and planned comparisons, as well as CMC writers, took part in the workshops.

8 Results of the COOMET webinar on the exchange of working experience with KCDB 2.0 for the Chairpersons of COOMET TCs

COOMET webinar, at which Chairs of COOMET TCs exchanged their working experience with KCDB 2.0 was held on 26 January 2021 online. Nikita Zviagin, Deputy Head of the Joint Committee for Measurement Standards (JCMS), presented news about KCDB 2.0, as well as a brief analysis of COOMET activities within the framework of KCDB 2.0 in view of the published statistics.

The Chairpersons of TC 1.2 – TC 1.11 shared the experience of work of their TCs with the database, described the identified problems and challenges. The participants discussed the main issues and problems in operation of KCDB 2.0 and the ways to address them.

9 Work on information support of the CIPM MRA

Information about the CIPM MRA realization in COOMET member-countries is posted on the pages of www.coomet.net and www.coomet.org. Posting the information at online resources is conducted by COOMET Secretariat and by on-line editors of countries and COOMET Technical Committees.

10 Next TC 4 meeting

Next 18th meeting of TC 4 will be held in Uzbekistan in late October – early November 2021 in case of a favorable situation in the world.

Pavel Neyezhnikov

Chair of TC 4