

REPORT ON THE COOMET ACTIVITIES

Reporting period: from 1 January 2022 to 15 April 2023

The activities of COOMET were performed in all main fields and subject areas of cooperation provided for in the Memorandum of Understanding.

The report was prepared based on the materials submitted by COOMET Committee members, Chairs of structural bodies and national secretariats of the countries, participating in the cooperation.

1. GENERAL CHARACTERISTICS OF THE ACTIVITIES

1.1. COOMET members

Information about the membership of countries in COOMET and participation in the Metre Convention is given in the table below:

No	Country	Membership of the country in COOMET, year of signing of the Memorandum	Participation in the Metre Convention, year of signing
1.	Armenia	Full member, 2007	-
2.	Azerbaijan	Full member, 2007	Associate member of CGPM, 2015
3.	Belarus	Full member, 1992	Member of the Metre Convention, 2020
4.	Bosnia and Herzegovina	Associate member, 2013	Associate member of CGPM, 2011
5.	Bulgaria	Full member, 1991	Member of the Metre Convention, 1911
6.	China	Associate member, 2016	Member of the Metre Convention, 1977
7.	Cuba	Associate member, 1991	Associate member of CGPM, 2000*
8.	Germany	Associate member, 1991	Member of the Metre Convention, 1875
9.	Georgia	Full member, 2006	Associate member of CGPM, 2008
10.	Kazakhstan	Full member, 1998	Member of the Metre Convention, 2008
11.	Kyrgyzstan	Full member, 2000	-
12.	Lithuania	Full member, 1995**	Member of the Metre Convention, 2015
13.	Moldova	Full member, 1997	Associate member of CGPM, 2007
14.	Russia	Full member, 1991	Member of the Metre Convention, 1875
15.	Slovakia	Full member, 1993	Member of the Metre Convention, 1922
16.	Tajikistan	Full member, 2009	-
17.	Turkiye	Associate member, 2014	Member of the Metre Convention, 1875
18.	Ukraine	Full member, 1992***	Member of the Metre Convention, 2018
19.	Uzbekistan	Full member, 2004	Associate member of CGPM, 2018

* Cuba was a CGPM Associate and participated in the implementation of the CIPM MRA since 2000, however Cuba has ceased to be a CGPM Associate since 01.01.2022, and the NMIs/DIs of Cuba have lost the status of signatories to those Arrangements.

** a notification was received from the Ministry of the Economy and Innovation of the Republic of Lithuania (as the legal successor of the signatory to the Memorandum – Lithuanian State Standardization Office) of the termination of participation in COOMET activities (from 05.07.2023).

*** a notification was received from the Ministry of Economy of Ukraine (as the legal successor of the signatory to the Memorandum – State Committee of Ukraine on Standardization, Metrology and Certification (Gosstandart of Ukraine) of the termination of participation in COOMET activities (from 19.10.2023).

Representatives of three COOMET member countries (Germany, China, Ukraine) are members of the International Committee for Weights and Measures (CIPM). The representative of Germany (Prof. J. Ullrich) chairs the CIPM Consultative Committee for Units (CCU), and the representative of China (Dr. Y. Duan) chairs the CIPM Consultative Committee for Thermometry (CCT).

1.2. New COOMET Committee members

During the reporting period, new COOMET Committee members were appointed:

No	Country (date)	Name, position	email
1.	Azerbaijan (17.10.2022)	Mr. Azer Tengiz oğlu GURBANOV Legal Entity of Public Law "Azerbaijan Institute of Metrology" (AzMI) Advisor to Director General	azer.gurbanov@metrology.gov.az
2.	Bulgaria (24.03.2023)	Mr. Paun ILCHEV Bulgarian Institute of Metrology (BIM) President	p.ilchev@bim.government.bg
3.	Bosnia and Herzegovina (15.04.2023)	Ms. Milica RISTOVIĆ KRSTIĆ Institute of Metrology of Bosnia and Herzegovina (IMBIH) Acting Director General	milica.ristovic@met.gov.ba
4.	Kazakhstan (07.03.2023)	Mr. Gabit MUKHAMBETOV RSE "KazStandard" General Director	ceo@ksm.kz
5.	China (03.02.2023)	Dr. Xinhua DAI National Institute of Metrology P. R. China (NIM) Vice Director	daixh@nim.ac.cn
6.	Moldova (09.03.2022)	Mr. Alexei PIANIH Public Institution "National Institute of Metrology" (INM-MD) Director	office@inm.gov.md
7.	Tajikistan (10.02.2022)	Mr. Mansur Hudzhavali SAFARZODA Agency on Standardization, Metrology, Certification and Trade Inspection under the Government of the Republic of Tajikistan (Tajikstandard) Deputy Director	smansur78@mail.ru

1.3. Information on the implementation of the COOMET Work Program (COOMET projects)

There are totally **874** COOMET projects as of 15 April 2023.

23 new projects were proposed during the reporting period: **5** in the field of "Electricity and Magnetism" (EM), **4** of them in each of the fields of "General Metrology" (GM) and "Reference Materials" (RM), **3** in each of the fields of "Improvement of COOMET Performance" (IA) and "Information and Information Technology" (IT), **2** in the field of "Physical Chemistry" (QM) and **1** in each of the fields of "Mass and Related Quantities" (M) and "Thermometry and Thermal Physics" (T).

9 of the proposed projects are related to carrying out COOMET comparisons of measurement standards for physical units (1 of them is a key comparison, 4 are supplementary and 4 are pilot comparisons), **1 project** is aimed at the preparation of COOMET reference materials.

Under 1 project (**867/RU/23**) preparation of a new COOMET recommendation has started on the evaluation of data of COOMET pilot comparisons.

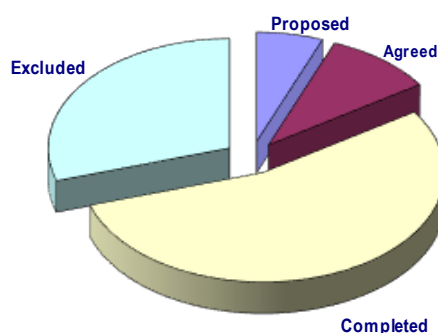
8 projects are aimed at the update of COOMET publications according to the Schedule of updates of COOMET publications for 2021-2024. This work is carried out by COOMET structural bodies.

Launch of the following projects should be highlighted:

- **853/UA/22** "Updating of document COOMET D11/2016 "The Procedure of Using the COOMET Logo": the project was initiated by Ukraine, but the work is now coordinated by the COOMET Secretariat. It is planned to submit the updated version for approval to the COOMET Committee in 2024;
- **870/KZ/23** "Development and implementation of the COOMET Plan of Action to assist CEEMS": see clause 4 of the report;
- **871/RU/23** Establishment of a Task Group on amendments to the fundamental documents of COOMET (TG-DOC): see subclause 2.2 of the report;
- **872/RU/23** "Drawing up of a list of basic documents on metrological issues, developed by international metrology organizations, requiring translation into Russian: the project is implemented within TC 4 "Information and Training". When the list is drawn up, it is planned to translate the documents that are of interest to COOMET member countries under specific COOMET projects.

The list of proposed COOMET projects (over the reporting period) is given in *Annex 1* to the report.

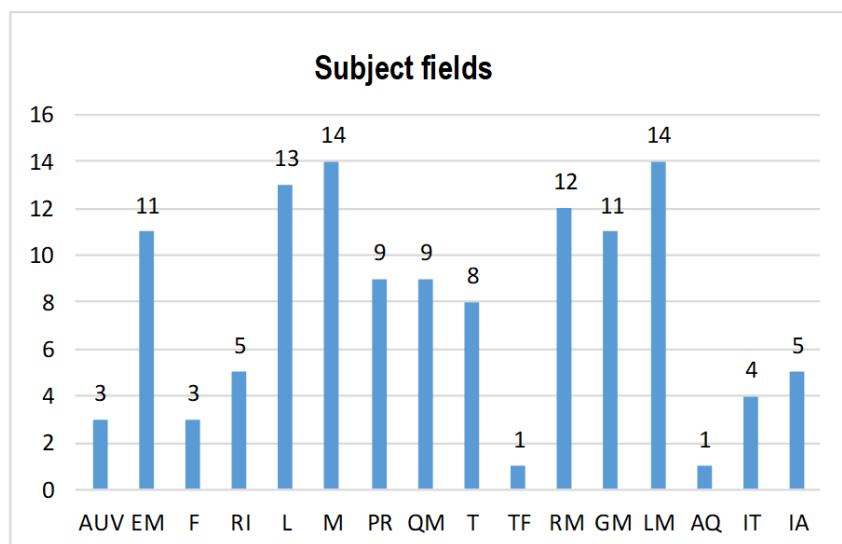
During the reporting period **29 projects** were agreed, **18 completed**, **29 excluded** (complete lists of the projects, the status of which changed during the reporting period, are also given in *Annex 1* to this report).

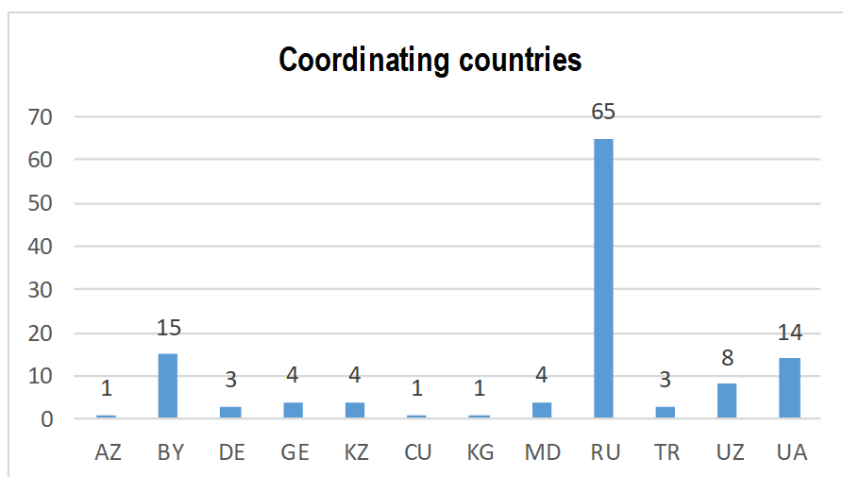


Project status	Number of projects
Proposed	38
Agreed	84
Completed	482
Excluded	270
Total	874

The total number of the projects implemented in COOMET as of 15.04.2023 is 122.

The charts for the distribution of projects by the subject fields and coordinating countries are given below.





1.4 Holding of COOMET bodies meetings

Due to the force majeure situation, almost all COOMET events during the reporting period were held online using the Zoom platform.

During the reporting period, the following meetings of **COOMET steering bodies** were held:

- 33rd meeting of the **COOMET Committee** (25 to 27 October 2022, online);
- 29th meeting of the **COOMET Presidential Council** (13 June 2022, online);
- 30th meeting of the **COOMET Presidential Council** (30 June 2022, online);
- 31st meeting of the **COOMET Presidential Council** (28 September 2022, online);
- 32nd meeting of the **COOMET Presidential Council** (17 October 2022, online);
- 33rd meeting of the **COOMET Presidential Council** (22 December 2022, online);
- 34th meeting of the **COOMET Presidential Council** (13 to 14 March 2023, online);

In 2022-2023 meetings of the following **COOMET structural bodies** have been held:

- 21st meeting of the Joint Committee for Measurement Standards (10 February 2022, online);
- 22nd meeting of the JCMS (22 September 2022, online);
- 23rd meeting of the JCMS (28 February 2023, online);
- 24th meeting of the JCMS (13 April 2023, online);
- **TC 1.1** "General Metrology" (17 October 2022, online);
- **TC 1.3** "Electricity and Magnetism" (8 to 10 November 2022, online);
- **TC 1.4** "Flow Measurement" (15 December 2022, online; 20 April 2023, online);
- **TC 1.5** "Length and Angle" (28 to 29 November 2022, combined format: BelGIM, Belarus and online);
- **TC 1.6** "Mass and Related Quantities" (8 December 2022, online);
- **TC 1.7** "Photometry and Radiometry" (30 March 2023, online);
- **TC 1.9** "Ionizing Radiation and Radioactivity" (7 February 2023, online);
- **TC 1.10** "Thermometry and Thermal Physics" (15 to 16 November 2022, online);
- **TC 1.11** "Time and Frequency" (19 January 2023, online);
- **TC 1.12** "Reference Materials" (12 September 2022, combined format: Yekaterinburg, Russia and online);
- **TC 2** "Legal Metrology" (24 November 2022, online);
- **TC 3.1** "Quality Forum Technical Committee" (21 July 2022, online; 9 December 2022, online; 10 March 2023, combined format: UzNIM, Uzbekistan and online);
- **Quality Forum** (21 July 2022, online; 9 December 2022, online);
- **TC 4** "Information and Training" (1 December 2022, online).

COOMET Secretariat maintains the Schedule of meetings of COOMET bodies on an ongoing basis. The information is posted and regularly updated on the COOMET website (www.coomet.org) and COOMET web portal (www.coomet.net).

The Schedule of meetings of COOMET bodies for 2023 and the List of planned training events under the auspices of COOMET for 2023 are given *Annex 2*.

Note: owing to the current force-majeure situation, information about the dates, format (or venues) of a number of TC meetings is being specified.

1.5 Holding of events under the auspices of COOMET

1) During the reporting period, the **following online events** were held under the auspices of COOMET:

- webinar "Approaches to processing inconsistent data of comparisons" (10 November 2022); participants – AM, AZ, BY, BA, GE, KG, KZ, MD, RU, TR, UZ;
- webinar "National time scales, calibration of measuring instruments" (19 January 2023); participants – AM, AZ, BY, KG, KZ, MD, RU, UZ;
- webinar " Training in the general principles of work with KCDB 2.0 (for technical experts on CMC review and candidates for TEs)" (12 April 2023); participants – AM, AZ, BY, GE, KG, KZ, MD, RU, TJ, UZ.

More detailed information about the held events is available on the COOMET portal:

<https://www.coomet.net/activities/information-and-training/information-about-past-training-activities/>

2) The preparations were carried out for **the X International Competition "Best Young Metrologist of COOMET"** (16 June 2023, Yekaterinburg, Russia).

Applications for participation were submitted from 16 candidates, representing such countries as Armenia, Belarus, Kazakhstan, Russia and Uzbekistan.

More detailed information about the competition is available on the COOMET webportal:

<https://www.coomet.net/activities/international-competition-the-best-young-metrologist-of-coomet/>

2. STRATEGY AND DEVELOPMENT PROGRAM OF COOMET. AMENDMENTS TO THE FUNDAMENTAL DOCUMENTS

2.1 COOMET Strategy and Development Program

According to the resolution of the 33rd COOMET Committee meeting (25 to 27 October 2023), the activities of the COOMET WG for Strategy were suspended, given the lack of consensus among WG members on the ways to implement task 1.2.3 "Making proposals on the organizational and legal form of COOMET, including financing mechanisms", as well as the force majeure situation in the COOMET region that blocks decision making on the reforming of COOMET activities.

According to the resolution of the 34th COOMET Presidential Council meeting, it is suggested that the name of Task F of the COOMET Strategy for 2020-2025 should be refined (to read as follows: "Conduct of research in the field of metrology"), and a new task H "Digitalization in Metrology" should be added.

COOMET Secretariat prepared a draft COOMET Development Program for 2023-2025 (program COOMET P1) endorsed by the Presidential Council and preliminarily approved by CSB Chairs and COOMET Committee members.

The above proposals and documents are submitted for approval at the 34th COOMET Committee meeting.

2.2 Amendments to the fundamental documents of COOMET

1) According to the resolution of the 33rd COOMET Committee meeting (25 to 27 October 2023) amendments were made to document COOMET D1 "COOMET Memorandum of Understanding" (in terms of refining the preamble, objectives, tasks and fields of cooperation of COOMET, and creating task groups). The document was approved as COOMET D1/2023 and published on the COOMET information resources.

2) According to the resolution of the 33rd COOMET Committee meeting (25 to 27 October 2023) and at the initiative of the COOMET Vice-President E.Lazarenko (Russia), a COOMET Task Group for the Issues of Making Amendments to the Fundamental COOMET Documents (TG-Doc) was established; its Chair is E.Lazarenko (Russia); the TG-Doc lifespan: 2022-2024.

Under proposed COOMET project 871/RU/23 formation of the TG-Doc membership continues. The Presidential Council recommended that the TG-Doc Chair should organize a TG-Doc meeting (when the formation of its membership is completed) in order to specify its tasks and the schedule of work.

According to project 871/RU/23, the TG-Doc sets the following tasks (in view of the working practice of other regional organizations): making of proposals to the COOMET Committee on changing the criteria of membership in COOMET, rights and obligations of full and associated members of COOMET; changing the procedure for admitting new members to COOMET; refining the procedure for the termination of membership or exclusion from the organization; funding of COOMET activities etc.

The proposals of the TG-Doc on the update of documents COOMET D1, COOMET D2, COOMET D8 (subject to consensus among TG members) will be submitted for discussion and endorsement by the Presidential Council and approval by the COOMET Committee.

3) In 2022-2023 discussion of a draft Regulation on the COOMET Presidential Council continued owing to the appropriateness of dividing management functions and actions between the COOMET Committee and COOMET Presidential Council. The draft document prepared by the COOMET Secretariat will further be discussed within the TG-Doc. The agreed amendments are further intended to be reflected in the fundamental documents of COOMET.

3. CHANGES IN THE COOMET STRUCTURE. ESTABLISHMENT OF COOMET STRUCTURAL BODIES

3.1 Changes in the COOMET structure

1) According to the resolutions of the 33rd COOMET Committee meeting (25 to 27 October 2022):

- the following SCs were established within TC 1.7 "Photometry and Radiometry": SC 1.7.1 "Optical Properties of Materials" (Chair - Gennadiy Vishnyakov, VNIIOFI, Russia) and SC 1.7.2 "Fiber Optics" (Chair - Aleksey Mityurev, VNIIOFI, Russia);
- within TC 1.8 "Physical Chemistry":
 - the following SCs were established: SC 1.8.7 "Particle Characterization" (Chair - Vladimir Dobrovolskiy (VNIIFTRI, Russia) and SC 1.8.8 "Isotope analysis" (Chair - Yan Chubchenko, VNIIM, Russia);
 - the names of two SCs were changed: SC 1.8.3 "Non-organic Analysis" (instead of "Pure non-organic substances") and SC 1.8.5 "Organic Analysis" (instead of "Organic and non-organic analysis").
- a field "General Principles of Metrological Control and Supervision" was identified within TC 2 "Legal Metrology" (coordinator – Ruf Genkina, VNIIMS, Russia);
- TC 5 "Joint Scientific Research in the Field of Metrology" was reactivated.

Note: see also 3.1.2

2) According to the initiative of the COOMET Vice-President Evgeny Lazarenko and with the endorsement of the COOMET Presidential Council, it is suggested that the name of TC 5 should be changed to "Prospective Research Areas". See also clause 8 of the report.

The issue is submitted for approval at the 34th COOMET Committee meeting.

3.2 Establishment of COOMET structural bodies and their performance evaluation

1) In 2022-2023 work on update of the current memberships of COOMET structural bodies and on the formation of the TC 5 membership was performed under ongoing COOMET project 274/BY-a/03 "Establishment and organisation of work of COOMET structural and working bodies"

2) A notification letter was received from the Ministry of Economy of Ukraine stating the fact of suspension of participation of Ukraine in COOMET structural bodies (ref. 3413-12/68300-07 dated 04.10.2022).

A number of COOMET structural bodies (TC 1.2, TC 1.5, TC 1.6, TC 2, TC 4) and subcommittees that function within those CSBs (SC 1.6.1, SC 1.6.2, SC 4.1) have been previously headed by the representatives of Ukraine.

The decision to suspend participation of Ukraine in COOMET structural bodies implies making decisions on the appointment of Acting CSBs Chairs according to 5.2.3.9 of document COOMET D5/2021 "Model Regulations for COOMET Structural Bodies" and elections of new Chairs.

The Presidential Council appointed the Acting Chairs of TC 1.2, TC 1.6, TC 2, TC 4 (term of office – from 15.10.2022), who organized CSB meetings and/or election of new Chairs among the members of their CSBs (the results are given in the table below).

Structural body	Chair (NMI, country)	Current situation and suggestion
TC 1.2 "Acoustics, Ultrasound, Vibration"	Aleksandr Kosterov (DP NDI "Systema", Ukraine) Notification of the Ministry of Economy of Ukraine	In connection with the receipt of the notification, the Presidential Council appointed the Acting Chair of TC 1.2 (from 15.10.2022): Aleksandr Isaev (VNIIFTRI, Russia), TC 1.2 member. E-voting was held among TC 1.2 members in March 2023. TC members supported the candidature of Aleksandr Isaev for the position of the TC 1.2 Chair. The candidature of the new Chair is submitted to the Committee for approval in 2023.
TC 1.6 "Mass and Related Quantities"	Irina Kolozinskaya (NSC "Institute of Metrology", Ukraine) Notification of the Ministry of Economy of Ukraine	In connection with the receipt of the notification, the Presidential Council appointed the Acting Chair of TC 1.6 (from 15.10.2022): Viktoriya Bogdanova (VNIIM, Russia), Deputy Chair of TC 1.6. At the TC 1.6 meeting (07.12.2022), a new Chair was elected. TC members supported the candidature of Ilya Shmigelskiy (VNIIM, Russia) for the position of the TC 1.6 Chair. The Presidential Council appointed Ilya Shmigelskiy (VNIIM, Russia) the Acting TC 1.6 Chair (from 01.01.2023). The candidature of the new Chair is submitted to the Committee for approval in 2023.
TC 2 "Legal Metrology"	Yuriy Kuzmenko (SE "Ukrmetrteststandrt", Ukraine) Notification of the Ministry of Economy of Ukraine	In connection with the receipt of the notification, the Presidential Council appointed Nadezhda Liakhova the Acting Chair of TC 2. At the TC 2 meeting (24.11.2022), a new Chair was elected. TC members supported the candidature of Marat Yunusov (UzNIM, Uzbekistan) for the position of the TC 2 Chair. The Presidential Council appointed Marat Yunusov the Acting TC 2 Chair (from 01.01.2023). The candidature of the new Chair is submitted to the Committee for approval in 2023.
TC 4 "Information and Training"	Pavel Neyezhnikov (NSC "Institute of Metrology", Ukraine) Notification of the Ministry of Economy of Ukraine	In connection with the receipt of the notification, the Presidential Council appointed Head of COOMET Secretariat Nadezhda Liakhova the Acting Chair of TC 4. At the TC 4 meeting (01.12.2022), a new Chair was not elected (owing to the lack of proposals from the TC members). The Presidential Council extended the term of office of N.Liakhova until the end of 2023. New election will be held in autumn 2023. The candidature of the new Chair will be submitted to the Committee for approval in 2024.

3) In addition to the Chairs of TC 1.2, TC 1.6, TC 2, the candidatures of the new Chairs of some TCs are also suggested for approval to the COOMET Committee in 2023 (for the TC 1.1 and TC 1.9 Chairs the extension of the terms of office is suggested) - see the table below.

Structural body	Chair (NMI, country), basis	Suggestion to the Committee
Joint Committee for Measurement Standards	Anna Chunovkina (VNIIM, Russia) Expiration of the first term of office is in 2023. The initiative to resign. A new JCMS Chair was elected (13.04.2023)	It is suggested that the candidature of the new JCMS Chair be approved (Nikita Zviagin, VNIIM, Russia) Term of office: 2023 – 2027 (maximum possible period in view of a ONE-TIME extension of the term of office is until 2031)
TC 1.1 "General Questions Concerning Measurements (General Metrology)"	Anna Chunovkina (VNIIM, Russia) Expiration of the first term of office is in 2023. E-voting on the extension of the term of office was held within the TC	It is suggested that the term of office be extended for 4 years. (maximum possible period in view of a ONE-TIME extension of the term of office is until 2027)
TK 1.9 "Ionizing Radiation and Radioactivity"	Nikolay Moiseev (VNIIM, Russia) Expiration of the first term of office is in 2023. Voting on the extension of the term of office was held within the TC.	It is suggested that the term of office be extended for 4 years. (maximum possible period in view of a ONE-TIME extension of the term of office is until 2027)
TC 1.11 "Time and Frequency"	Vitaliy Palchikov (VNIIFTRI, Russia) Expiration of the first term of office is in 2022. The initiative to resign. A new TC Chair was elected (19.01.2023)	The COOMET Committee has previously extended the term of office of V.Palchikov until the end of 2022. It is suggested that the candidature of the new TC 1.11 Chair be approved (Igor Norets, VNIIFTRI, Russia) Term of office: 2023 – 2027 (maximum possible period in view of a ONE-TIME extension of the term of office is until 2031)
TC 3.1 "Quality Forum Technical Committee"	Nino Mikanadze (GEOSTM, Georgia) The Acting Chair by the decision of the Presidential Council (from January 2022). A new TC Chair was elected (10.03.2023)	It is suggested that the candidature of the new TC 3.1 Chair be approved (Dina Chepurnaya, VNIIFTRI, Russia) Term of office: 2023 – 2027 (maximum possible period in view of a ONE-TIME extension of the term of office is until 2031)

3) The candidatures of the new Chairs of some SCs are also suggested to the COOMET Committee for approval in 2023 – see the table below.

Subcommittee	Chair (NMI, country), basis	Suggestion
SC 1.6.1 "Mass"	Irina Kolozinskaya (NSC "Institute of Metrology", Ukraine) Notification of the Ministry of Economy of Ukraine A new SC Chair was elected (07.12.2022)	It is suggested that the candidature of the new SC 1.6.1 Chair be approved (Viktoriya Bogdanova, VNIIM, Russia) Term of office: 2023 – 2027 (maximum possible period in view of a ONE-TIME extension of the term of office is until 2031)
SC 1.6.2 "Force"	Aleksandr Tsiporenko (Ukrmetrteststandart, Ukraine) Notification of the Ministry of Economy of Ukraine A new SC Chair was elected (07.12.2022)	It is suggested that the candidature of the new SC 1.6.2 Chair be approved (Ilya Shmigelskiy, VNIIM, Russia) Term of office: 2023 – 2027 (maximum possible period in view of a ONE-TIME extension of the term of office is until 2031)
SC 4.2 "COOMET Informational Resources"	Aleksandr Ivanov (VNIIFTRI, Russia) Transfer of administration of the COOMET website to VNIIMS, Russia. A new SC Chair was elected (24.11.2022)	It is suggested that the candidature of the new SC 4.2 Chair be approved (Ilya Krasavin, VNIIMS, Russia) Term of office: 2023 – 2027 (maximum possible period in view of a ONE-TIME extension of the term of office is until 2031)

Note: A new Chair of SC 4.1 "Capacity building in training and knowledge transfer" (instead of Yuliya Bunyayeva, NSC "Institute of Metrology", Ukraine) was not elected, owing to the lack of proposals from the TC members. New election will be held in autumn 2023. The candidature of the new Chair will be submitted to the Committee for approval in 2024.

5) In 2022-2023 work on the update of the Regulations on CSBs has continued (in view of the updated document COOMET D5/2021) continued. The following documents were submitted to the COOMET Committee for approval in 2022:

- document COOMET D5.1/2022 "Regulation on the COOMET Joint Committee for Measurement Standards (JCMS)" (replacing COOMET D5.1/2018);
- document COOMET D5.2/2022 "Regulation on the COOMET Technical Committee "Acoustics, Ultrasound, Vibration" (TC 1.2)" (replacing COOMET D5.2/2003);
- document COOMET D5.15/2022 "Regulation on the COOMET Technical Committee "Electricity and Magnetism" (TC 1.3)" (replacing COOMET D5.15/2006);
- document COOMET D5.4/2022 "Regulation on the COOMET Technical Committee "Length and Angle" (TC 1.5)" (replacing COOMET D5.4/2012);
- document COOMET D5.5/2022 "Regulation on the COOMET Technical Committee "Photometry and Radiometry" (TC 1.7)" (replacing COOMET D5.5/2003);
- document COOMET D5.6/2022 "Regulation on the COOMET Technical Committee "Physical Chemistry" (TC 1.8)" (replacing COOMET D5.6/2014);
- document COOMET D5.10/2022 "Regulation on the COOMET Technical Committee "Thermometry and Thermal Physics" (TC 1.10)" (replacing COOMET D5.10/2004);
- document COOMET D5.11/2022 "Regulation on the COOMET Technical Committee "Time and Frequency" (TC 1.11)" (replacing COOMET D5.11/2006);
- document COOMET D5.7/2022 "Regulation on the COOMET Technical Committee "Reference Materials" (TC 1.12)" (replacing COOMET D5.7/2013);
- document COOMET D5.12/2022 "Regulation on the COOMET Technical Committee "Legal Metrology" (TC 2)" (replacing COOMET D5.12/2013).

At the COOMET Committee meeting in 2023, the following documents are submitted for approval:

- document COOMET D5.1/2023 "Regulation on the Joint Committee for Measurement Standards (JCMS)" (replacing COOMET D5.1/2022);
- document COOMET D5.17/2023 "Regulation on the COOMET Appeal Board on Comparisons of National Measurement Standards and CMC Review" (replacing COOMET D5.17/2016).

4. DEVELOPMENT OF COOPERATION WITH CEEMS

1) On 11 February 2022 an online working COOMET meeting was held to discuss possible ways to support CEEMS. COOMET President, Vice-Presidents, Head of Secretariat, as well as delegations of COOMET member countries that decided to be classified as CEEMS (Armenia, Kyrgyzstan, Tajikistan and Uzbekistan) took part in the meeting.

During the meeting the following issues were discussed: technical assistance, training and information support for CEEMS, cooperation under external projects, as well as proposals on enhancing the participation of CEEMS in the work of COOMET structural bodies and on the organization of further COOMET cooperation activities with CEEMS in general.

2) In the 3rd quarter of 2022 a survey was conducted to identify the needs of CEEMS in terms of carrying out comparisons and calibrations of measurement standards, holding of training seminars and traineeships.

In the 4th quarter of 2022 a survey was conducted among other COOMET member countries to identify their possibilities of providing assistance to CEEMS (in view of their needs); preliminary results of the survey to identify the possibilities of providing assistance to CEEMS were presented at the COOMET Presidential Council meeting (on 13 to 14 March 2023).

Countries' proposals on the organization of comparisons were studied and refined by TC 1.2 – TC 1.11, the proposals on specific projects on comparisons will be further included in the COOMET Program of Comparisons.

3) At the decision of the 33rd COOMET Committee meeting (25 to 27 October 2023) a Task Group for CEEMS support (TG-CEEMS) was created; its Chair is B.Mukhamedzhanov (Kazakhstan); the TG-CEEMS lifespan: 2022-2026.

Formation of the TG-CEEMS membership continues under COOMET project 870/KZ/23.

The TG-CEEMS sets the task of drawing up an Action Program of assistance to CEEMS with the indication of the timeframes for implementation (and to provide for its annual update), and organizing the implementation of actions of the above Program.

Possible external sources of funding for working programs and projects for CEEMS countries will also be sought.

The Presidential Council recommended that the TG-CEEMS Chair should organize the first TG-CEEMS meeting (when the formation of its membership is completed) **by August-September 2023 at the latest** (a draft COOMET Program of assistance to CEEMS will be presented to the Presidential Council for review in November 2023).

Information about the work progress will be presented at the COOMET Committee meeting in 2024 and beyond.

5. IMPLEMENTATION OF THE CIPM MRA

5.1 Preparation and publication of CMCs, including comparisons

1) **7307** CMC entries of COOMET member countries were published in the KCDB as of 15 May 2023, including those by countries:

Country	CMCs
Azerbaijan	32
Belarus	296
Bulgaria	232
Bosnia and Herzegovina	82
Germany	1436
Georgia	65
Kazakhstan	93
China	1866

Country	CMCs
Cuba	0
Lithuania	57
Moldova	76
Russia	1775
Slovakia	377
Turkey	612
Uzbekistan	0
Ukraine	308

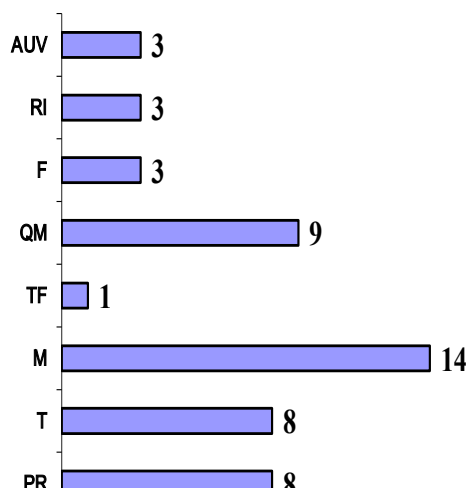
2) A notification was received from the JCRB of the transfer of activities of the NMIs/DIs of Georgia and Ukraine on the implementation of the CIPM MRA to EURAMET from 01.02.2023.

Azerbaijan, Belarus, Kazakhstan, Cuba*, Russia, Uzbekistan declare their CMCs through COOMET– a total of **2 196 CMCs** were published. Other countries submit their CMCs through EURAMET or APMP.

*Cuba has previously been a CGPM Associate and participated in the implementation of the CIPM MRA since 2000, however Cuban NMIs/DIs have lost the status of signatories to those Arrangements since 01.01.2022, hence the CMCs of Cuban NMIs/DIs were deleted from the KCDB.

3) All COOMET comparisons are given in **program COOMET P2/2023** "COOMET Program of Comparisons" (approved as of 14 March 2023). All changes are made to the Program in real time through the DB of COOMET projects and are reflected on the COOMET website http://coomet.org/tc_prij/2023/D9_RU.htm.

The COOMET Program of comparisons for year 2023 (as of 15.05.2023) contains **73 current projects**. Distribution of COOMET projects by the fields of cooperation is shown in the chart.



4) In 2022-2023 the COOMET Secretariat in conjunction with the Chairs of TC 1.2 – TC 1.11 has carried out work on the update of the list of COOMET technical experts on CMC review (under ongoing project 234/BY-a/01). The information was published on the pages of JCMS and TC 1.2 – TC 1.11.

5) Based on the proposals of the Joint Committee for Measurement Standards, an updated membership of the COOMET Appeal Board on Comparisons of National Measurement Standards and CMC Review is submitted for approval to the COOMET Committee in 2023.

6) In 2022 - 2023 the Joint Committee for Measurement Standards has monitored COOMET comparisons, lasting over 5 years. The results will be presented under item 5 of the agenda of the Plenary Session of the 34th COOMET Committee meeting.

5.2 Review and recognition of the QMS of COOMET NMIs/DIs

1) In 2022 peer review of the QMS of KazStandard (Kazakhstan) was conducted according to ISO/IEC 17025 (based on the decision to hold peer review with a visit to the NMI following the online peer review in 2021; the validity period of the COOMET Confirmation of Recognition has not changed), and according to ISO 17034 in order to extend the validity period of the COOMET Confirmation of Recognition.

In February 2023 peer review of the QMS of AzMI (Azerbaijan) was conducted according to ISO/IEC 17025 in order to extend the validity period of the Confirmation of Recognition, and initial peer review of the QMS of UzNIM (Uzbekistan) was conducted according to ISO/IEC 17025 in order to issue a COOMET Confirmation of Recognition for 5 years.

In 2023 INIMET, CENTIS and CPHR (Cuba) submitted written and oral presentations of their QMS according to ISO/IEC 17025 (peer reviews of the above institutes are scheduled for autumn 2023, provided that the status of a CGPM associate is resumed).

2) A notification was received from the JCRB of the transfer of activities of the NMIs/DIs of Georgia and Ukraine on the implementation of the CIPM MRA to EURAMET from 01.02.2023.

Information about the COOMET Confirmations of Recognition for the QMS of COOMET NMIs/DIs for compliance with the requirements of ISO/IEC 17025 is given below.

NMI/DI	Confirmation of Recognition	Date of issue	Period of validity	Types of measurements
VNIIM (Russia)	QSF-R79	04.03.2021	04.03.2026	AUV, EM, L, RI, T, M, QM
VNIOFI (Russia)	QSF-R76	04.03.2021	04.03.2026	PR, QM
VNIIFTRI (Russia)	QSF-R78	04.03.2021	04.03.2026	AUV, EM, RI, T, M, QM, TF

NMI/DI	Confirmation of Recognition	Date of issue	Period of validity	Types of measurements
VNIIMS (Russia)	QSF-R75	04.03.2021	04.03.2026	L, EM
BelGIM (Belarus)	QSF-R82	30.09.2021	30.09.2026	AUV, EM, RI, T, M, QM, TF, L, PR
NSC "IM" (Ukraine)	QSF-R86*	30.09.2021	30.09.2026	EM, RI, T, M, TF, L, PR
SE "Ukrmetrteststandart" (Ukraine)	QSF-R84*	30.09.2021	30.09.2026	AUV, EM, M, L, PR, QM
SE "NDI Systema" (Ukraine)	QSF-R72*	20.11.2020	15.02.2022 (extended until 01.06.2023)	AUV
INIMET (Cuba)	QSF-R67	20.11.2020	04.10.2023	M, L, QM, T, TF
CENTIS-DMR (Cuba)	QSF-R66	20.11.2020	04.10.2023	RI
CPHR (Cuba)	QSF-R65	20.11.2020	04.10.2023	RI
SE "Ivano-Frankivsktsndartmetrologia" (Ukraine)	QSF-R73*	20.11.2020	04.10.2023	M
KazStandard (Kazakhstan)	QSF-R81	12.04.2021	12.04.2026	EM, M, L, PR, QM, T, TF
GeoSTM (Georgia)	QSF-R74*	28.01.2021	04.10.2023	EM, M, T, RI, L
AzMI(Azerbaijan)	QSF-R88	10.03.2023	10.03.2028	T, RI, EM, M
UzNIM (Uzbekistan)	QSF – R89	10.03.2023	10.03.2028	EM, L, M, PR, RI, T

**Note: Given that the NMIs/DIs of Georgia and Ukraine have transferred the activities on the implementation of the CIPM MRA to EURAMET, it is not planned to extend the validity periods of their COOMET Confirmations of Recognitions.*

Information about the COOMET Confirmations of Recognition for the QMS of COOMET NMIs/DIs for compliance with the requirements of ISO 17034 is given below.

NMI/DI	Confirmation of Recognition	Date of issue	Period of validity	Types of measurements
VNIIM (Russia)	QSF-R80	04.03.2021	04.03.2026	Gases, Non-organic solutions, Organic solutions, Electrolytic conductivity, High purity chemicals, Food, Advanced materials, Surfaces, Films and Nanomaterials
VNIOFI (Russia)	QSF-R77	04.03.2021	04.03.2026	Non-organic solutions, Metals and alloys, Biological fluids and materials
BelGIM (Belarus)	QSF-R83	30.09.2021	30.09.2026	Gases, pH, Electrolytic conductivity, radionuclides
SE "Ukrmetrteststandart" (Ukraine)	QSF-R85*	30.09.2021	30.09.2026	Gases, pH, Electrolytic conductivity, High purity chemicals, Food, Organic solutions
KazStandard (Kazakhstan)	QSF-R87	09.12.2022	09.12.2027	Gases, pH

**Note: Given that the NMIs of Ukraine have transferred the activities on the implementation of the CIPM MRA to EURAMET, it is not planned to extend the validity period of their COOMET Confirmation of Recognitions.*

3) At the 33rd COOMET Committee meeting in 2022 (25 to 27 October) a candidature of a new COOMET auditor on peer review of QMS of COOMET NMIs/DIs was approved (Kseniya Kashirina, VNIIOFI, Russia).

4) In 2022-2023 the COOMET Secretariat in conjunction with the Chairs of TC 1.2 – TC 1.12 and TC 3.1 updated the list of COOMET technical experts on peer review of QMS of COOMET NMIs/DIs (under ongoing project 234/BY-a/01). The information will be published on the pages of the Quality Forum/TC 3.1.

In 2023 a COOMET seminar/webinar is planned for COOMET auditors and TEs on peer review of QMS of COOMET NMIs/DIs.

6. OTHER ISSUES OF COOPERATION IN THE FIELD OF MEASUREMENT STANDARDS

1) In 2022-2023 program COOMET P6 "COOMET Roadmap for the Implementation of Decisions Related to the Redefinition of the Basic Units of the International System of Units (SI) for 2020-2025" was updated. Given that it has been previously decided that the Roadmap should be updated every six month, it was refined in early 2023. The updated version of program COOMET P6/2023 is submitted to the COOMET Committee for approval in 2023.

2) In 2022-2023 work was performed on the implementation of program COOMET P5/2022 "Program of joint CRM development within COOMET" (CRMs are developed under proposed and agreed COOMET projects); more detailed information is given in the Annual Report of TC 1.12 "Reference Materials" .

At the 34th COOMET Committee meeting, proposals on the update of information material COOMET//RM/2 "Register of Certified Reference Materials of Composition and Properties of Substances and Materials, Developed within COOMET" (in terms of refinement of the timeframes for 4 COOMET RM types) will be submitted.

A new COOMET project 858/RU/22 "Recognition (registration) of RMs included in Annex C of the CIPM MRA (in the BIPM KCDB Database) as COOMET CRMs" was proposed. Under that project, the types of COOMET CRMs were included in the Register of COOMET CRMs in 2022.

7. DIGITALIZATION IN METROLOGY

1) At the decision of the 33rd COOMET Committee (25 to 27 October 2023) a Working Group for project 825/RU-a/21 "Development of a COOMET concept for digitalization in metrology" was transformed into a COOMET **Task Group for the Issues of Digital Transformation in Metrology (TG-DigTr)**; its Chair is Andrey Pankov (Russia); the TG-DigTr lifespan: 2021-2025.

Within the TG-DigTr a draft **COOMET Concept for the Issues of Digital Transformation in Metrology** is being discussed, which covers the following aspects:

- review of electronic documents in metrology and formulation of requirements to their formats and structure;
- use of FAIR+T data;
- use of digital technology in COOMET activities;
- use of cloud and grid technology in metrology in COOMET member countries;
- preparation of recommendations on the structure of and requirements for digital objects that are constituent parts of the digital platforms of COOMET member countries;
- development of common approaches to the creation and maintenance of national information funds in the field of ensuring the uniformity of measurements in COOMET member countries,

as well as discussion of a Roadmap for the Concept implementation.

The draft COOMET Concept and Roadmap were discussed within the JCMS and COOMET Presidential Council. The finalized versions were sent for review to COOMET Committee members and CSB Chairs and will be submitted for approval to the COOMET Committee in 2023.

The Roadmap provides for launching COOMET projects on preparation of COOMET recommendations for such objects of digitalization as:

- repositories of digital documents;
- digital directories (codifiers, rubricators etc.);
- digital MI group card descriptions;
- digital calibration and verification certificates for MIs;

- digital certificates and type descriptions for MIs, digital certificates for RMs;

as well as for description of requirements for information and communication e-infrastructure of NMIs of member countries to ensure information security when transferring data to the COOMET digital platform.

8. JOINT RESEARCH

- 1) At the decision of the 33rd COOMET Committee meeting (25 to 27 October 2022) TC 5 "Innovative Research in Metrology" was reactivated and chaired by the COOMET Vice-President Evgeny Lazarenko (Russia). The TC 5 membership was formed.
- 2) The COOMET Development Program for 2020-2022 provided for the preparation of a Concept of innovative research in metrology within COOMET (item 60 (Ind-f.1.5)) and assessment of potential funding sources and requirements of internal/external donors for innovative scientific projects of COOMET (item 61 (Ind-f.1.6)) for the implementation of Task F of the COOMET Strategy for 2020-2025. The works were not performed.
- 3) At the 34th COOMET Presidential Council meeting (13 to 14 March 2023) Evgeny Lazarenko stated the suspension of work on the implementation of task F due to the lack of COOMET own financial resources and proposed changing the name of task F to "Conduct of research in the field of metrology" (the former Task F name was "Organization of innovative scientific research in the field of metrology") and the name of TC 5 to "Prospective Research Areas".

The proposal was supported by the Presidential Council and is submitted for approval to the COOMET Committee in 2023. At the same time, the Presidential Council highlighted the appropriateness of resuming work on the implementation of task F in preparing a draft COOMET Strategy for 2026-2031.

9. LEGAL METROLOGY

- 1) In 2022 discussion was finalized on the optimization of the structure of TC 2 "Legal Metrology". It was decided to organize interaction within TC 2 on a number of fields of activities instead of subcommittees (see 3.1 of the report), namely:

- 2.1 "Measuring devices and systems in legal metrology";
- 2.2 "Medical equipment with measuring functions";
- 2.3 "Conformity assessment of measuring instruments";
- 2.4 "Digitalization in legal metrology";
- 2.5 "General Principles of Metrological Control and Supervision"

- 2) Actions of the TC 2 Work Program for 2021-2023 (program COOMET P3/2021) were carried out – information about the implementation is given in the Annual Report of TC 2.

- 3) Implementation of the COOMET Plan for translation of OIML publications into Russian continues (the activities were taken into account in the Work Program of TC 2 for 2021-2023 (COOMET P3/2021). In 2023 translations of five OIML publications were finalized (OIML D1, OIML D30, OIML D31, OIML D32, OIML G14).

A special page was created on the COOMET web portal, where translations of OIML publications are posted (see 10.6 of the report).

- 4) A list of publications of regional legal metrology organizations with summaries was posted on the COOMET web portal in 2023.

<https://www.coomet.net/publications/translations-into-russian-of-documents-of-regional-organizations/>

At the TC 2 meeting in 2023, it will be discussed, translations of what RLMO documents would be useful for COOMET countries.

- 5) Discussion was completed in 2022 within the WG for Strategy and COOMET Presidential Council regarding the refinement of tasks and fields of cooperation in legal metrology (in the form of amendments and supplements to the COOMET Memorandum of Understanding) – the proposals were supported by the COOMET Committee; document COOMET D1/2022 was prepared and posted on the COOMET web resources.

10. INFORMATION ACTIVITIES

10.1. Preparation and publication of the COOMET Directory

During 2022-2023 the Secretariat has updated information in the COOMET Directory on an ongoing basis. The current version of the Directory (as of 30 April 2023) can be found on www.coomet.net and www.coomet.org.

10.2. Preparation and registration of COOMET publications

1) According to the **resolutions of the 33rd COOMET Committee meeting** (25 to 27 October 2022) the Secretariat registered and published the updated versions of the following publications:

- Document COOMET D1/2022 "COOMET Memorandum of Understanding" (replacing D1/2020);
- Document COOMET D4/2022 "COOMET publications. Classification, procedure for development, approval, registration and update" (replacing D4/2014);
- Program COOMET P5/2022 "Program of joint CRM development within COOMET for 2022-2024";
- Recommendation COOMET R/GM/35:2022 "Expression of expanded measurement uncertainty (kurtosis method)" (new, project 796/UA/19);
- Recommendation COOMET R/GM/18:2022 "Procedure of the International Competition "The Best Young Metrologist of COOMET" (replacing COOMET R/GM/18:2020);
- Information material COOMET I/TR/12:2022 "Education & training systems for metrologists of COOMET member countries" (new, project 731/BY-a/17);
- Document COOMET D5.1 "Regulation on the COOMET Joint Committee for Measurement Standards (JCMS)" (replacing COOMET D5.1/2018);
- Document COOMET D5.2 "Regulation on the COOMET Technical Committee "Acoustics, Ultrasound, Vibration" (TC 1.2)" (replacing COOMET D5.2/2003);
- Document COOMET D5.15 "Regulation on the COOMET Technical Committee "Electricity and Magnetism" (TC 1.3)" (replacing COOMET D5.15/2006);
- Document COOMET D5.4 "Regulation on the COOMET Technical Committee "Length and Angle" (TC 1.5)" (replacing COOMET D5.4/2012);
- Document COOMET D5.5 "Regulation on the COOMET Technical Committee "Photometry and Radiometry" (TC 1.7)" (replacing COOMET D5.5/2003);
- Document COOMET D5.6 "Regulation on the COOMET Technical Committee "Physical Chemistry" (TC 1.8)" (replacing COOMET D5.6/2014);
- Document COOMET D5.10 "Regulation on the COOMET Technical Committee "Thermometry and Thermal Physics" (TC 1.10)" (replacing COOMET D5.10/2004);
- Document COOMET D5.11 "Regulation on the COOMET Technical Committee "Time and Frequency" (TC 1.11)" (replacing COOMET D5.11/2006);
- Document COOMET D5.7 "Regulation on the COOMET Technical Committee "Reference Materials" (TC 1.12)" (replacing COOMET D5.7/2013);
- Document COOMET D5.12 "Regulation on the COOMET Technical Committee "Legal Metrology" (TC 2)" (replacing COOMET D5.12/2013).

2) The following COOMET publications (new and updated) were prepared by the Secretariat and CSBs along with the COOMET publications, mentioned in subclauses 2.1, 3.2, 6 of the report, which are submitted to the COOMET Committee for approval in 2023:

No	Title	COOMET project status/number	Developer
1.	Document COOMET D7/2019 "Regulation on Awarding the Distinguished Title "Honorary Metrologist of COOMET"	Replacing COOMET D7/2019	Secretariat
2.	Recommendation COOMET R/RM/4:2023 "Procedure of Joint Development, Recognition and Registration of Reference Materials within COOMET" (with the title refined)	replacing COOMET R/RM/4:2008 (COOMET project 857/RU/22)	TC 1.12
3.	Recommendation COOMET R/TR/XX:2023 "Rules for creation, approval and update of COOMET courses on the BIPM e-learning platform. Monitoring and satisfaction assessment for participation in COOMET courses"	new	TC 4
4.	Recommendation COOMET R/TR/27:2023 "Procedure for preparing certificates issued based on the results of trainings within COOMET" (refinement of the name and designation of the subject field)	Replacing COOMET R/IT/27:2015 (COOMET project 861/BY/22)	TC 4

3) The works continue in accordance with the Schedule of updates of COOMET publications for 2021-2024, approved by the COOMET Committee in 2021.

4) The cancellation of the following COOMET publications is submitted for consideration to the COOMET Committee in 2023:

- recommendation COOMET R/TF/2:1995 "Interstate Hierarchical Chain for Time and Frequency Measuring Instruments" (based on the decision of TC 1.11);
- recommendation COOMET R/TF/3:1995 "Requirements to Time and Frequency Measuring Equipment Produced by the COOMET Member Countries Required for Mutual Recognition of the Results of National Metrological Verifications and Certifications" (based on the decision of TC 1.11).

10.3. COOMET web resources

1) Before May 2022 the COOMET website (www.coomet.org) was maintained by specialists of VNIIFTRI (administrator – Aleksandr Ivanov). In May 2022 the COOMET website (www.coomet.org) was transferred to the information and technology platform of VNIIMS (Russia) and its administration was handed over to specialists of the mentioned institute. Ilya Krasavin, Head of the Monitoring and Forecasting Center of VNIIMS (admin_coomet@vniims.ru), was appointed a new administrator of the COOMET website.

2) Maintenance of the COOMET webportal (www.coomet.net) is carried out by the COOMET Secretariat and online editors of the pages of COOMET technical committees.

In view of the changes in CSB chairpersonship, a webinar was held for online editors of the pages of technical committees (TC 1.2, TC 1.5, TC 1.6, TC 1.8, TC 1.10, TC 2) on the COOMET web portal to train how to work on the typo3 platform (on 28 and 30 March 2023).

3) In 2022-2023 ongoing update of the information has been carried out, which is provided on the COOMET web resources (information about COOMET Committee members, Chairs of CSBs and SCs, COOMET publications, newsfeed, COOMET data server: database of COOMET projects, DB of COOMET comparisons, DB of COOMET CRMs, COOMET Program of Comparisons etc.).

4) Discussion continues within the WG-Web (Chair – Aleksandr Kuzin, VNIIMS, Russia) regarding the terms of reference for the creation of a new single web resource of COOMET, inter alia involving TG-DigTr representatives (in view of the need to synchronize actions and ideas of the WG-Web and TG-DigTr on the creation of a COOMET digital platform).

Description of the architectural model of a new COOMET web resource, including proposals on the structure of the external and internal web portal, will be submitted to COOMET Committee members and CSB Chairs for review in early June 2023 (the website (www.coomet.org) and web portal (www.coomet.net) will function until a new web resource of COOMET is created).

10.4. Reports and information about COOMET activities

1) In 2022-2023 **presentations and reports on COOMET activities were prepared** to the following meetings:

- 45th JCRB meeting (16 to 17 March 2022, online);
- 46th JCRB meeting (15 to 16 March 2023, Paris, France & online);
- Round table of Regional Legal Metrology Organizations (27 September 2022, online);
- 38th APMP General Assembly (1 December 2022, online);
- 13th SIM General Assembly (4 November 2022, online);
- 23rd GULFMET General Assembly (20 June 2022, online);
- 15th AFRIMETS General Assembly (19 July 2022, online).

10.5. WMD-2022, WMD-2023

The specialists of NSC "Institute of Metrology" (Ukraine) prepared a COOMET poster to the World Metrology Day 2022 (tagline: "Metrology in the digital era").

In 2023 posters were prepared for WMD-2023 with a COOMET logo, which were published on the WMD website and sent to COOMET member countries.

10.6. Translations

1) In 2022 the CIPM MRA Brochures by the BIPM were translated into Russian. The translation is available on the COOMET web portal:

<https://www.coomet.net/ru/publikacii/perevody-na-russkii-jazyk/mkmv/mbmv/>

The original brochures in English and their translation were sent to COOMET countries.

2) In 2022 pages were created on the COOMET web portal, where the existing translations of documents of international and regional metrology organizations were posted (and are planned to be posted in the future):

2.1) *Translations into Russian of documents of international organizations*

<https://www.coomet.net/publications/translations-into-russian-of-documents-of-international-organizations/>

COOMET Secretariat arranged negotiations and received confirmation from the BIPM and BIPM regarding the possibility of posting of translations of OIML publications on the COOMET information resources (taking into account the rules and procedures given in OIML B11:2007), as well as documents of CIPM, BIPM, CIPM CC, published on website www.bipm.org in open access, correspondingly.

2.2) *Translations into Russian of documents of regional organizations*

<https://www.coomet.net/publications/translations-into-russian-of-documents-of-regional-organizations/>

In 2023 a list of documents of WELMEC, SIM, APLMF with summaries was posted on the webpage (the information was prepared by TC2), as well as translation of WELMEC Guide 7.2 (version 2019) in view of the previously received permission from that RMO. Posting of translations of other documents from the list, which are of interest to COOMET member countries, is also planned (for documents of SIM, APLMF subject to official permission).

11. PARTICIPATION OF COOMET REPRESENTATIVES IN INTERNATIONAL METROLOGICAL EVENTS

1) In 2022-2023 official representatives of COOMET **took part in the meetings of the following international and regional organizations**, working in the field of metrology, **where they presented information about COOMET activities**:

- 45th JCRB meeting (16 to 17 March 2022, online):
COOMET representatives – V.Hurevich, COOMET President (Belarus), P. Neyezhmakov, COOMET Vice-President (Ukraine), E.Lazarenko, COOMET Vice-President (Russia), N. Mikanadze, COOMET Vice-President (Georgia), A. Chunovkina, Chair of JCMS (Russia); N.Zviagin, Deputy Chair of JCMS (Russia), N.Liakhova, Head of COOMET Secretariat (Belarus);

- 46th JCRB meeting (15 to 16 March 2023, Paris, France & online):
COOMET representatives – V.Hurevich, COOMET President (Belarus), E.Lazarenko, COOMET Vice-President (Russia), N. Mikanadze, COOMET Vice-President (Georgia), A. Chunovkina, Chair of JCMS (Russia); N.Zviagin, Deputy Chair of JCMS (Russia) – the COOMET delegation participated online.
- Round table of Regional Legal Metrology Organizations (27 September 2022, online);
COOMET representatives – V.Hurevich, COOMET President (Belarus), A.Pankov (Russia);
- 38th APMP General Assembly (1 December 2022, online);
COOMET representative – L.Saidoripov (Uzbekistan);
- 13th SIM General Assembly (4 November 2022, online);
COOMET representative – V.Hurevich, COOMET President (Belarus);
- 23th GULFMET General Assembly (20 June 2022, online);
COOMET representative – V.Hurevich, COOMET President (Belarus);
- 15th AFRIMETS General Assembly (19 July 2022, online);
COOMET representative – N.Mikanadze, COOMET Vice-President (Georgia).

2) Representatives of metrological institutions of COOMET member countries participated in the following **meetings of international and regional organizations**, as well as events under the auspices of those organizations:

- 27th General Conference on Weights and Measures (15 to 18 November 2022, physically & online);
- 111th CIPM meeting (22 to 24 March 2022, 21 to 22 June 2022, online);
- 112th CIPM meeting, session 1 (21 to 23 March 2023, online);
- meeting of Working Group 2: International vocabulary of metrology of the Joint Committee for Guides in Metrology (JCGM-WG2: VIM);
- meetings of CIPM Consultative Committees and related Working Groups, and webinars under the auspices of CIPM CCs;
- 57th meeting of the International Committee of Legal Metrology (18,19, 22 October 2022, online);
- 7th meeting of the OIML Certification System Management Committee (22 to 23 March 2022, online); 8th meeting of the OIML Certification System Management Committee (6 to 17 March 2023, Switzerland);
- 61th meeting of the Euro-Asian Council for Standardization, Metrology and Certification (EASC) (13 to 14 July 2023, Tashkent, Uzbekistan) and 62nd meeting of the Euro-Asian Council for Standardization, Metrology and Certification (13 December 2023, online);
- 55th meeting of STCMetr (8 June 2022, online); 56th meeting of STCMetr (11 November 2022, online) and different WGs of STCMetr;
- meetings of the EURAMET General Assembly, Board of Directors and TCs;
- meetings of the APMP General Assembly, Board of Directors and TCs (in 2022 representatives of the NIM of China completed their terms of office for fulfilling the duties of the RMO Chair and running the Secretariat; currently the representatives of China chair 6 TCs and Focus Groups within the APMP);
- meetings of WGs and TCs of ISO and IEC;
- CIPM-ILAC joint Webinar: Digital Transformation in the context of Accreditation (2022) etc.

3) Representatives of metrological institutions of COOMET member countries took part in a number of important international conferences, including CIM 2023 (International Congress on Metrology), on 7 to 10 March 2023, Lyon, France.

12. ACTIVITIES TO PROVIDE TRAINING AND ADVANCED TRAINING FOR SPECIALISTS IN METROLOGY

1) During the reporting period, representatives of CSBs and NMIs of COOMET member countries participated in various training international and national seminars/programs, as well as in a number of training events under the CBKT, namely:

- KCDB 2.0 - TC Chairs in Chemistry and Biology - 26 January 2022, online (participants - RU);
- KCDB 2.0 - Comparisons - 8 February 2022, online (participants - AZ, GE, KG, KZ, RU, UA, UZ);
- KCDB 2.0 - CMC-Writers-GP - 15 March 2022, online (participants - AZ, GE, KG, KZ, RU, UZ);
- KCDB 2.0 - CMC-Writers-IR - 18 March 2022, online (participants - AZ, GE, KG, UZ);
- KCDB 2.0 - TC Chairs - 16 June 2022, online (participants – RU, UA);
- KCDB 2.0 - CMC Writers in Chemistry and Biology – 10 October 2022, online (participants – AZ, BY, KZ, RU, UZ);
- GULFMET, 6-9 June 2022 (participants – UZ);
- TÜBİTAK UME Project Placement, September-November 2022 (participants – Dr Milica Krajišnik (IMBIH, BA), Mr Zhuldyz Saden (KazStandart), KZ);
- KCDB 2.0 – TC Chairs in Chemistry and Biology, 19 January 2023, online (participants - RU);
- KCDB 2.0 – CBKT-BIPM-KCDB-2.0-comparisons, 8 February 2023, online (participants – RU, UZ);
- KCDB 2.0 – CMC Writers/Reviewers, 23 March 2023, online.

2) According to the COOMET Development Program for 2020-2022 preparation of the internal procedure to assess the training needs and to plan training events within COOMET continued in 2022 under COOMET project 829/BY-a/21 (preparation of a COOMET recommendation is suggested). Earlier NSC "IM", Ukraine, was the coordinator, and the work was suspended.

3) TC 4 "Information and Training" in conjunction with the COOMET Secretariat prepared a Plan of training events under the auspices of COOMET for 2023-2024 (the plan has been published and is permanently updated on the homepage of the website www.coomet.org and on the webpage of the web portal (COOMET Activities/Calendar).

<https://www.coomet.net/activities/coomet-events/schedule-of-training-activities/>

The list of the held training activities of COOMET is posted on the COOMET web portal at:

<https://www.coomet.net/activities/information-and-training/list-of-past-training-activities-within-coomet/>

Information about the held training activities of COOMET is posted on the COOMET web portal at:

<https://www.coomet.net/activities/information-and-training/information-about-past-training-activities/>

The COOMET training events that took place in 2022-2023 are listed in subclause 1.4 of the report.

4) Actions of the TC 4 Work Program for 2021-2023 (program COOMET P4/2021) have been implemented – information about the implementation is given in the Annual Report of TC 4. In particular, preparation and update of COOMET publications on the issues of training were performed (two COOMET recommendations R/TR/27:2023 and COOMET R/TR/XX:2023 are submitted to the COOMET Committee for approval in 2023 – see subclause 10.2 of the report).

5) In early 2022 a Practical Arrangement between the BIPM and COOMET was signed on cooperation in delivering capacity building and knowledge transfer activities using the BIPM e-learning platform.

A COOMET page has been launched on the BIPM e-learning platform (<https://e-learning.bipm.org/>) since June 2022, where COOMET courses are made available.

The platform is intended to facilitate the process of e-learning and to enhance cooperation on capacity building and knowledge transfer in metrology.

COOMET Secretariat has published:

- a training course, containing information about COOMET activities (in Russian and in English);
- a training course "Mutual Recognition Arrangement (CIPM MRA) (in Russian)".

See <https://e-learning.bipm.org/course/index.php?categoryid=8> (user pre-authorization on the platform is required).

In view of the above mentioned capabilities of the BIPM e-learning platform, the COOMET Presidential Council supported the initiative of TC 4 "Information and Training" to issue COOMET certificates for the participants of courses, who have successfully passed the tests (in accordance with the form provided for in draft recommendation COOMET R/TR/27:2023). To date 28 certificates have been issued to the participants of the course "CIPM MRA".

The COOMET team is actively working on the creation of other training courses under the auspices of our RMO.

Further details on separate fields of cooperation is provided in the reports of COOMET structural bodies.

CHARACTERIZATION OF THE COOMET WORK PROGRAM

1. List of proposed COOMET projects

(for the period from 1 January 2022 to 15 April 2023)

No	Project number	Field	Project title
	2022		
1.	855/RU/22	EM	Pilot comparisons in the field of high DC current measurements
2.	859/TR/22	EM	Supplementary comparison of high current transformer measuring systems
3.	862/RU/22	EM	Pilot comparisons of reference instruments measuring AC high voltage of power frequency
4.	853/UA/22	IA	Updating of document COOMET D11/2016 "The Procedure of Using the COOMET Logo"
5.	860/RU/22	IT	Update of document COOMET R/IT/24:2014 "Educational programs and practical training programs of experts of National Metrological Institutes cooperating in COOMET"
6.	861/BY/22	IT	Update of Recommendation COOMET R/IT/27:2015 "Update of Recommendation COOMET R/IT/27:2015 "Procedure for preparing certificates of training, study visits and up-skilling within the framework of COOMET"
7.	854/UA/22	M	Supplementary three-party comparisons in the field of mass measurements
8.	864/RU/22	QM	Key comparisons "Automotive exhaust gases"
9.	865/RU/22	QM	Pilot comparisons in the field of sulfur and carbon
10.	856/RU/22	RM	Development of CRM for composition of Siberian pine needles (HSS-1) (<i>Pinus sylvestris</i>)
11.	857/RU/22	RM	Revision of recommendation COOMET R/RM/4:2008 "Procedure for Joint Development, Recognition and Registration of Certified Reference Materials within COOMET"
12.	858/RU/22	RM	Recognition (registration) of RMs included in Annex C of the CIPM MRA (in the BIPM KCDB Database) as COOMET CRMs"
13.	863/BY/22	RM	Update of document COOMET D3:2008 "Memorandum on cooperation in development and application of reference materials of composition and properties of substances and materials within COOMET"
	2023		
14.	874/RU/23	EM	Supplementary comparisons of standards of electrostatic field strength unit
15.	866/RU/23	GM	Update of Recommendation COOMET R/GM/31:2016 "Calibration techniques. General requirements"
16.	867/RU/23	GM	Development of a COOMET Recommendation on the evaluation of COOMET pilot comparison data
17.	868/RU/23	GM	Update of recommendation COOMET R/GM/20:2009 "State system for ensuring the uniformity of measurements. Scales of measurements. Terms and definitions"
18.	869/RU/23	GM	Update of recommendation COOMET R/GM/21:2011 "Use of concepts "error of measurement" and "uncertainty of measurement". General principles".
19.	870/KZ/23	IA	Development and implementation of the COOMET Plan of Action to assist CEEMS
20.	871/RU/23	IA	Establishment of a Task Group on amendments to the fundamental documents of COOMET (TG-Doc)
21.	872/RU/23	IT	Drawing up of a list of basic documents on metrological issues, developed by international metrology organizations, requiring translation into Russian
22.	873/RU/23	T	Comparisons in the field of measuring the combustion energy of pure organic substances
23.	874/RU/23	EM	Supplementary comparisons of standards of electrostatic field strength unit

Total: 23 new projects (4 of them moved to agreed projects, 0 completed)

2. List of agreed COOMET projects
(for the period from 1 January 2022 to 15 April 2023)

No	Project number	Field	Project title
	2022		
1.	813/RU-a/20	EM	Supplementary comparison of measuring current transformers (CTs)
2.	831/UZ-a/21	LM	Update of COOMET Recommendation R/LM/8:2002 "Layout, presentation, drawing up and contents of Measuring instrument type specification for national register of measuring instruments"
3.	831/UZ-a/21	LM	Update of COOMET Recommendation R/LM/8:2002 "Layout, presentation, drawing up and contents of Measuring instrument type specification for national register of measuring instruments".
4.	764/UA-a/18	M	Supplementary comparisons in the field of mass measurements
5.	788/KZ-a/19	M	Pilot comparisons of the unit kinematic viscosity of a liquid at temperatures: 20 °C (250-400 mm ² /s), 25 °C (50-100 mm ² /s), 40 °C (20-70 mm ² /s)
6.	789/KZ-a/19	M	Pilot comparisons of fluid density in the range of from 600 to 1000 kg/m ³
7.	804/UZ-a/20	PR	Pilot comparisons of measurement standards of attenuation and average power of a signal in optical fiber
8.	785/RU-a/19	PR	Supplementary comparisons of laser power responsivity at wavelengths of 0,532; 1,064 and 10,6 μm
9.	815/RU-a/20	RM	Conducting comparison tests of certified characteristics of GSO 10895-2017 for composition and properties of coal, OS rank (SO-42)
10.	816/RU-a/20	RM	Conducting comparison tests of certified characteristics of GSO 11039-2018 for composition of polymetallic ore of the Quartz Hill deposit (SO-45)
11.	817/RU-a/20	RM	Conducting comparison tests of certified characteristics of GSO 10895-2017 for composition and properties of coal, G rank (SO-43)
12.	819/RU-a/20	RM	Approval and implementation of the "RMs" COOMET documents revision plan on the subject of harmonization with newly realized international ISO documents
13.	856/RU-a/22	RM	Development of CRM for composition of Siberian pine needles (HSS-1) (<i>Pinus sylvestris</i>)
14.	857/RU-a/22	RM	Revision of recommendation COOMET R/RM/4:2008 "Procedure for Joint Development, Recognition and Registration of Certified Reference Materials within COOMET"
15.	858/RU-a/22	RM	Recognition (registration) of RMs included in Annex C of the CIPM MRA (in the BIPM KCDB Database) as COOMET CRMs"
	2023		
16.	862/RU-a/22	EM	Pilot comparisons of reference instruments measuring AC high voltage of power frequency
17.	829/BY-a/21	IA	Preparation of an internal procedure for the assessment of training needs and planning of training activities within COOMET
18.	853/BY-a/22	IA	Updating of document COOMET D11/2016 "The Procedure of Using the COOMET Logo
19.	612/BY-a/13	L	Calibration of a 200 mm linear glass scale
20.	746/BY-a/18	L	Calibration of gauge blocks by interference method.
21.	800/BY-a/20	L	Calibration of lengths of reference linear geodetic base lines
22.	844/UZ-a/21	LM	Drawing up and update of the List of adopted rules, guides, recommendations in the field of legal metrology of other RLMOs, which are of interest to COOMET member countries; drawing up and implementation of the COOMET plan for translation of RLMO documents into Russian
23.	735/RU-a/17	PR	Relative reflection density of samples

Total: 23 agreed projects
(0 of them completed)

Ongoing agreed COOMET projects

No	Project number	Field	Project title
24.	230/GE-a/01	AQ	Interpretation, implementation and application of a quality management system by COOMET national metrology institutions in compliance with ISO/IEC 17025 and ISO 17034
25.	234/BY-a/01	AUV	Drawing up and update of the lists of COOMET technical experts on CMC review and COOMET technical experts on evaluation of quality management systems of COOMET NMIs/DIs
26.	302/RU-a/04	GM	Development and update of the COOMET Recommendation "Guideline on COOMET supplementary comparison evaluation" (COOMET R/GM/19)
27.	336/RU-a/05	GM	Development and update of the COOMET Recommendation "Guidelines for Data Evaluation of COOMET Key Comparison" (COOMET R/GM/14)
28.	274/BY-a/03	IT	Establishment and organization of work of COOMET structural and working bodies
29.	168/MD-a/98	PR	The state of the measurement standard base of COOMET member countries in the field of photometry and radiometry
30.	175/RU-a/99	RI	A status of a measurement standard base in the field of ionizing radiation and radioactivity for the countries - members of COOMET
31.	543/RU-a/11	RM	Development and administration a database of RM of COOMET
32.	186/RU-a/99	RM	Development of the Programme of RM joint production within COOMET
33.	398/RU-a/07	TF	Key comparisons of national standards of time and frequency with the Russian UTC (SU) scale

3. List of completed COOMET projects
(for the period from 1 January 2022 to 15 April 2023)

No	Project number	Field	Project title
	2022		
1.	812/RU/20	GM	Development of a COOMET Recommendation on providing the traceability of measurement results/ measurement standards in COOMET
2.	811/BY/20	IT	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
3.	797/BY/19	LM	Review of approaches to the metrological support of medical measuring instruments
4.	560/UA/12	M	The comparison of the national hardness standards of Rockwell scales
5.	366/RU-a/06	PR	Comparison of reference materials of whiteness
6.	688/RU/16	PR	Comparison on Polarization Mode Dispersion in Optical Fiber
7.	689/RU/16	PR	Comparison on Wavelength for Fibre Optic
8.	730/UA-a/17	PR	Comparison of spectral regular transmittance in UV range from 200 nm to 380 nm
	2023		
9.	786/RU-a/19	AUV	Comparisons of the results of amplitude-phase calibrations of hydrophones in the frequency range from 10 kHz to 500 kHz
10.	798/BY-a/19	EM	Pilot comparisons of the volumes of digital information transmitted via the Internet and telephony channels
11.	796/UA/19	GM	Development of COOMET Recommendations on the expression of expanded measurement uncertainty (kurtosis method)
12.	838/BY/21	LM	Translation of Document OIML D 30:2020 "Guide for the application of ISO/IEC 17025 to the assessment of Testing Laboratories involved in legal metrology
13.	839/BY/21	LM	Translation of Document OIML D 32:2018 "Guide for the application of ISO/IEC 17065 to assessment of certification bodies in legal metrology".
14.	743/UA-a/18	PR	Supplementary comparisons by the color of reflection
15.	611/RU-a/13	QM	Pilot comparison in the field of food safety (category 11.2: contaminants): melamine in milk powder
16.	708/RU-a/16	QM	Pilot comparison «Characterization of organic substances for chemical purity by mass balance method. Anthracene»
17.	772/RU-a/18	QM	Key comparison "Carbon dioxide in Air at urban level (480-800) $\mu\text{mol/mol}$ "
18.	605/RU/13	TF	Comparison of time scales of NTP-servers via INTERNET

Total: 18 completed projects

4. List of excluded COOMET projects
(for the period from 1 January 2022 to 15 June 2023)

No	Project number	Field	Project title
	2022		
1.	783/UZ-a/19	EM	Pilot comparisons of the amplitude modulation coefficient of high-frequency oscillations
2.	610/UA-a/13	L	Comparisons of standards of flatness diameter up to 300 mm
3.	842/UA/21	LM	Translation of the OIML publication: OIML R 137-1/2:2012 "Gas meters. Part 1: Metrological and technical requirements. Part 2: Metrological controls and performance tests" and Amendment to OIML R 137-1/2 (2014)
4.	843/UA/21	LM	Translation of the OIML publication: OIML R 137-3:2014 "Gas meters. Part 3: Test report format"
5.	848/UA/21	LM	Development of a COOMET Recommendation "Procedure for establishing reverification intervals for measuring systems used in the field of legal metrology"
6.	830/BY/21	LM	Update of the COOMET Recommendation R/LM/28:2016 "Template procedure for testing of software of measuring instruments"
7.	841/BY/21	LM	Update of the COOMET Recommendation R/LM/26:2015 "General requirements for the competence of verification laboratories"
8.	295/RU/03	M	Mutual Comparisons of the He leaks in range (10-6-1) m ³ . Pa/s
9.	714/UA/17	M	Comparison of standards for the measurement of end measures of length interference method in the range of 200 to 1000 mm
10.	758/CU/18	M	Supplementary bilateral comparison in the field of mass with the aim of detailed values of uncertainty for CMC-entry
11.	769/UA/18	M	Supplementary bilateral comparisons in the field of small volume
12.	614/KG/13	M	Development of methodological recommendations on the theoretical foundations of uncertainty calculation of the mass, conventional mass and their uncertainties in calibration/verification of weights.
13.	758/CU/18	M	Supplementary bilateral comparison in the field of mass with the aim of detailed values of uncertainty for CMC-entry
14.	769/UA/18	M	Supplementary bilateral comparisons in the field of small volume
15.	614/KG/13	M	Development of methodological recommendations on the theoretical foundations of uncertainty calculation of the mass, conventional mass and their uncertainties in calibration/verification of weights
16.	737/UA/17	M	Bilateral comparison of national force standards
17.	762/UA/18	M	Supplementary comparisons in the field of the determination of density (volume) of solid body (weights)
18.	854/UA/22	M	Supplementary three-party comparisons in the field of mass measurements
19.	537/RU/11	RM	Development of CRMs of ultimate temperature of diesel fuel filterability on a cold filter (2 types)
20.	538/RU/11	RM	Development of CRMs of lead concentration in motor petrol (4 types)
21.	539/RU/11	RM	Development of CRMs of iron concentration in motor petrol (4 types)
22.	659/RU/15	RM	Development of CRM for composition of quartz concentrate (KK DODO deposit vein 233) – KK-233
23.	660/RU/15	RM	Development of CRM for composition of quartz concentrate (KK Vyazov deposit vein 5) – KK-5
24.	661/RU/15	RM	Development of CRM for composition of quartz concentrate (KK Karayan deposit vein 17) – KK-17
25.	662/RU/15	RM	Development of CRM for composition of quartz concentrate (KK Kyshtym deposit vein 175) – KK-175
26.	729/RU/17	RM	Development of CRM for composition (agrochemical parameters) of brown heavy-loamy alkali soil SASoP-05
27.	733/RU/17	RM	Development of CRM for composition of refined platinum

No	Project number	Field	Project title
	2023		
28.	693/UA-a/16	GM	Development of the Recommendations on the justification of the measurement model (measurement equation)
29.	805/UA/20	PR	Supplementary comparison on spectrally-selective transmitting material

Total: 29 excluded projects

SCHEDULE OF MEETINGS OF COOMET STEERING AND STRUCTURAL BODIES IN 2023

(as of 15 May 2023)

Event	Date	Venue/format
34th COOMET Committee meeting	23-24 May	Astana, Kazakhstan
34th Presidential Council meeting	13-14 March	held online
35th Presidential Council meeting	22-23 November	being specified
23rd meeting of the Joint Committee for Measurement Standards	28 February	held online
24th meeting of the Joint Committee for Measurement Standards	13 April	held online
17th meeting of TC 1.1 "General Metrology"	October	being specified
17th meeting of TC 1.2 "Acoustics, Ultrasound, Vibration"	11 May	held online
17th meeting of TC 1.3 "Electricity and Magnetism"	October (first decade)	being specified
20th meeting of TC 1.4 "Flow Measurement"	20 April	held online
21th meeting of TC 1.4 "Flow Measurement"	being specified	ONLINE
20th meeting of TC 1.5 "Length and Angle"	September	combined format (VNIIM, Russia & ONLINE)
27th meeting of TC 1.6 "Mass and Related Quantities"	September (second half)	combined format (VNIIM, Russia & ONLINE)
19th meeting of TC 1.7 "Photometry and Radiometry"	30 March	ONLINE
TC 1.8 "Physical Chemistry"	20-21 June	combined format (VNIIM, Russia & ONLINE)
19th meeting of TC 1.9 "Ionizing Radiation and Radioactivity"	7 February	held online
20th meeting of TC 1.9 "Ionizing Radiation and Radioactivity"	autumn	being specified
20th meeting of TC 1.10 "Thermometry and Thermal Physics"	September-October	VNIIFTRI, Irkutsk, Russia or ONLINE
15th meeting of TC 1.11 "Time and Frequency"	19 January	held online
16th meeting of TC 1.11 "Time and Frequency"	October	ONLINE
28th meeting of TC 1.12 "Reference Materials"	September-October	being specified
24th meeting of TC 2 "Legal Metrology"	September-October	being specified
28th meeting of Quality Forum	being specified	being specified
34th meeting of TC 3.1 "Quality Forum Technical Committee"	10 March	held in combined format (UzNIM, Uzbekistan & ONLINE)
35th meeting of TC 3.1 "Quality Forum Technical Committee"	October-November	being specified
20th meeting of TC 4 "Information and Training"	9-13 October	UzNIM, Uzbekistan
<i>Note: Decision on the format of the meetings will be made in view of the international situation.</i>		

PLANNED TRAINING ACTIVITIES OF COOMET IN 2023

No	Proposed subject of the training activity	Venue/format	Timeframe
1.	Calibration of infrared medical thermometers (online course)	ONLINE	1- 2 June 2023
2.	Calibration of gauge blocks, calipers, micrometers and dial indicators (online course)	ONLINE	19-26 June 2023
3.	Metrology in the field of bioanalysis	VNIIM (Saint Petersburg, Russia) or combined format	21 June 2023 (within TC 1.8 meeting)
4.	Uncertainty evaluation in calibration	ONLINE	September 2023
5.	The practice of implementation of the CIPM MRA documents regulating the activities of NMIs on the procedure for CMC preparation and calculation of the uncertainty budget (for TC 1.10)	Combined format or ONLINE	September-October 2023 (within TC 1.10 meeting)
6.	Issues of the metrological ensuring of measurements using smart meters	being specified	October 2023 (within TC 2 meeting)
7.	The practice of implementation of the CIPM MRA documents regulating the activities of NMIs on the procedure for CMC preparation and calculation of the uncertainty budget (for TC 1.7 and TC 1.4)	Combined format or ONLINE	Autumn 2023 (within TC 1.7 meeting)
8.	OIML Certification System	ONLINE	2 nd half of 2023
9.	Metrological ensuring of audiometric equipment	<i>Provided that it is organized offline</i>	2023
10.	Metrological support for gas analyzers	<i>Provided that it is organized offline</i>	2023
11.	The procedure for verification and calibration of medical measuring instruments	ONLINE	2023
12.	COOMET seminar/webinar for COOMET auditors and TEs on peer review of QMS of NMIs/DIs of COOMET member countries	being specified	2023