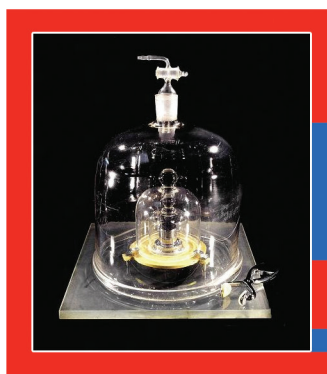




Каталог КООМЕТ

Евро-Азиатское сотрудничество государственных метрологических учреждений



Euro-Asian Cooperation of National Metrological Institutions

COOMET Directory

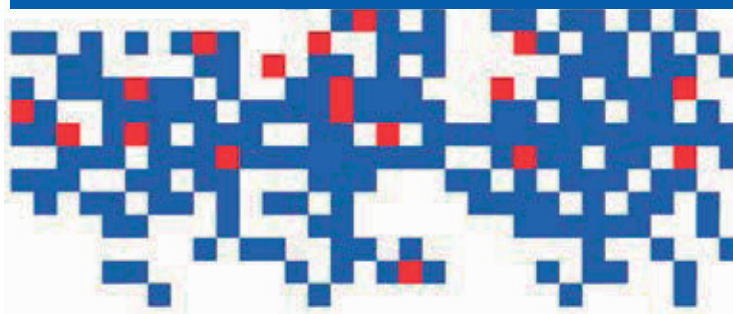
2013



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COOMET DIRECTORY 2013

(as of 30 April, 2013)



Moscow

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Your questions or remarks concerning the material given in the Directory are welcome to coomet@vniims.ru

The electronic version of the COOMET Directory is available on the COOMET web-portal at www.coomet.net and COOMET website at www.coomet.org.

The COOMET Secretariat address

46 Ozernaya Str.
119361 Moscow
RUSSIA

Telephone	+7495 781 90 81 +7495 437 99 59
Fax	+7495 437 56 66
E-mail	coomet@vniims.ru

Editor of the Russian version
Sergey Zhdankin
Editor of the English version
Dmitry Zhahora
Page layout by
Sergey Zhdankin
Dmitry Zhahora

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COOMET is a regional organisation originally establishing cooperation of national metrology institutions of the countries of Central and Eastern Europe. It was founded in June, 1991 and renamed in *Euro-Asian Cooperation of National Metrological Institutions* in May, 2000. COOMET is open for any metrology institutions from other regions to join as associate members.

Now the members of COOMET are metrology institutions from *Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Germany* (Associate Member), *Kazakhstan, Kyrgyzstan, DPR of Korea* (Associate Member), *Cuba* (Associate Member), *Lithuania, Moldova, Russia, Romania, Slovakia, Tajikistan, Uzbekistan* and *Ukraine*.

The basic activity of COOMET is cooperation in the following areas: measurement standards of physical quantities, legal metrology, quality management systems, information and training.

The objectives of COOMET are as follows:

- assistance in effectively addressing the problems relating to uniformity of measures, uniformity of measurements and the required accuracy of their results;
- assistance in promoting cooperation of national economies and eliminating technical barriers in international trade;
- harmonisation of activities of metrology services of Euro-Asian countries with similar activities in other regions.

COOMET strictly adheres to the Memorandum of Understanding (MoU) and Rules of Procedure in any of its activities.

COOMET countries cooperate in the following subject fields: acoustics, ultrasound, vibration; electricity and magnetism; flow measurement; ionising radiation and radioactivity; length and angle; mass and related quantities; photometry and radiometry; physical chemistry; thermometry and thermal physics; time and frequency; reference materials; general questions concerning measurements (general metrology); legal metrology; quality management systems; information and information technology; training and raising proficiency level of experts.

The supreme body of COOMET is *the COOMET Committee* consisting of heads of national

metrology institutions from COOMET Member Countries. The Committee organises and promotes cooperation. The Committee meets at least once a year.

The COOMET President is elected by the Committee from among its Members for a three year period with an option of one more term of office. The President provides *the COOMET Secretariat* by using resources of his/her own institution.

The President proposes candidates of *COOMET Vice-Presidents* from among the Members of the Committee for further approval by the Committee. The President, Vice-Presidents and Head of the COOMET Secretariat constitute *the COOMET President's Council*, which decides upon the COOMET policy, interacts with international and regional metrology organisations, coordinates cooperation in the period between the Committee meetings and distinguishes problems to be discussed at these meetings.

Organisation of work in the basic fields and directions of cooperation is the major task of *the Structural Bodies of COOMET (the Joint Committee, Technical Committees, and Quality Forum)*.

The Committee Members appoint their representatives to the Structural Bodies of COOMET (*Correspondents*) from among candidates in their countries. The Correspondents propose a candidate for the position of *the Chairperson of a Structural Body* for its further approval by the COOMET Committee.

The Structural Bodies can establish *Subcommittees (SCs)* for working on routine tasks of cooperation and *Working Groups (WGs)* within corresponding SCs/TCs for carrying out specific work on COOMET projects.

The official languages for the COOMET meetings and documents are Russian and English.

COOMET has no financial assets of its own.

By its scope of cooperation COOMET belongs to organisations of a multi-purpose type.

The activities of COOMET are carried out in line with *the Conception of Cooperation and Related Activities of COOMET* approved in 2005 and

COOMET Development Programmes for a period of two or three years approved by the COOMET Committee.

An important prerequisite of COOMET effectiveness is the collaboration in all fields of activities. Jointly realised projects are the core elements of the COOMET Working Programme.

Nowadays the main attention is paid to the cooperation in the field of measurement standards, in particular to the implementation of the CIPM Arrangement on Mutual Recognition of National Measurement Standards and Calibration and Measurement Certificates Issued by National Metrology Institutes (CIPM MRA). Therefore, the majority of the COOMET projects are dedicated to the preparation of information on calibration and measurement capabilities (CMC), participation in key comparisons of national measurement standards organised by CIPM and organisation of regional comparisons of measurement standards, as well as creation and implementation of Quality Management Systems of the National Metrology Institutes of COOMET Member Countries.

The subjects of cooperation of COOMET Member Countries in the field of legal metrology encompasses a broad range of problems, starting with harmonisation of the national requirements in the area of legal metrology in the Member Countries and finishing with such applied problems as testing of software for measuring instruments, control of prepackages.

COOMET activities in the field of information support and training are also substantially related to the implementation of the CIPM MRA (e.g. in developing software for the CMC database and comparisons of measurement standards of the NMIs of COOMET Member Countries). It is also aimed at the exchange

of training programmes for experts in the area of metrology, development of exchange programmes for experts in COOMET countries, determination of criteria for assessing scientific papers of young metrologists, etc.

COOMET is a member of the Joint Committee of the Regional Metrology Organisations and the BIPM (JCRB), as well as keeps close relations with OIML according to the Agreement with the International Bureau of Legal Metrology (BIML) signed in 1993.

Based on mutual interests, COOMET also cooperates with Regional Metrology Organisations such as

- European Association of National Metrology Institutes (EURAMET),
- European Cooperation in Legal Metrology (WELMEC),
- European Cooperation for Accreditation (EA),
- Asia-Pacific Metrology Programme (APMP),
- Asia-Pacific Legal Metrology Forum (APLMF),
- Asia Pacific Laboratory Accreditation Cooperation (APLAC),
- National Conference of Standards Laboratories International (NCSLI),
- Scientific & Technical Commission on Metrology (STC Metr) of Euro Asian Council for Standardization, Metrology and Certification (EASC),
- Intra-African Metrology System (AFRIMETS),
- Inter-American Metrology System (SIM), etc.

COOMET is a joint forum of metrologists of Euro-Asian region, effectively working regional metrology organisation which successfully fulfils its tasks according to approved long term programmes. Cooperation within COOMET and its results allow its Member Countries to successfully solve metrological issues the national economies face under the conditions of market globalisation.

MEMORANDUM OF UNDERSTANDING

The National Metrology Institutions on behalf of which this Memorandum has been signed considering

- the territorial proximity of the Countries and their mutual economic relations;
- the need to permanently improve metrological services for the benefit of economic and scientific relations;
- the similarity of their structures and the operational principles of their National Metrology Services;
- their combined experience and the results of their previous bilateral and multilateral cooperation;
- their willingness to more closely cooperate with international and regional metrology organisations declare their intention to cooperate in the field of measurement standards of physical units, calibration, legal metrology, quality management systems, information technology and training in the field of metrology within the COOMET organisation given below.

SECTION 1 – COOMET MEMBERS

COOMET is an organisation for the Euro-Asian cooperation of National Metrology Institutions (from the countries of Central and Eastern Europe, Asia and nearby countries) and is open to the National Metrology Institutions of countries from other regions to join it.

SECTION 2 – COOMET OBJECTIVES

The objectives of COOMET are as follows:

1. To contribute to effectively solving problems of the uniformity of measures, uniformity and required accuracy of measurements.
2. To contribute to establishing closer cooperation between the national economies and removing technical barriers to international trade.
3. To harmonise the activities of Metrology Services on the basis of international arrangements.

SECTION 3 – COOMET TASKS

The tasks of COOMET are to strengthen the links between the National Metrology Institutions interested in solving common problems and to create effective mechanisms in order to:

- achieve compatibility of measurement standards and harmonise the requirements imposed on measuring instruments and methods for their metrological control;

- recognise the equivalence of national certificates authenticating the results of metrological activities;
- exchange information on the current status of National Metrology Services and their development;
- collaborate in developing metrological projects;
- promote the exchange of metrological services.

SECTION 4 – PRINCIPAL FIELDS OF COOPERATION WITHIN COOMET

The principal fields of cooperation within COOMET include:

- realisation of the CIPM Arrangement on Mutual Recognition of National Measurement Standards and Calibration and Measurement Certificates Issued by National Metrology Institutes (CIPM MRA);
- establishment and maintenance of primary standards of units and scales of physical quantities;
- dissemination of units from primary standards to working measuring instruments;
- participation in the CIPM key comparisons of national measurement standards and carrying out of regional comparisons of measurement standards;
- development of new measurement methods and new types of high accuracy measuring instruments;
- solution of problems of general metrology, including problems of the theory of measurement and uncertainties, system of units, terminology;
- establishment of a system of gathering and dissemination of information on metrology and measurement techniques, information technology;
- definition, collection, evaluation and certification of reference data used in metrology;
- creation and use of reference materials of composition and properties of substances and materials;
- harmonisation of requirements for measuring instruments subject to metrological control, as well as methods for their testing taking into consideration international recommendations;
- preparation of conditions for mutual recognition of results of metrological control and metrological supervision;
- implementation of calibration and recognition of its results according to the rules and procedures set up by international organisations;
- creation and implementation of Quality Management Systems of National Metrology Institutes;
- training and raising proficiency level of experts;
- improvement of the activities of the Organisation and its structural bodies.

SECTION 5 – STRUCTURE OF COOMET AND WORKING PROCEDURES

1. The COOMET body initiating and supporting cooperation is the Committee. It consists of the Heads of National Metrology Institutions of the COOMET Member Countries or persons appointed by them, one representative from each institution. The Committee ensures that the activity of COOMET is pursued in accordance with its objectives and contributes to accomplishing its tasks.
2. The Committee elects the President from among its Members, for a period of three years, with the eligibility to be re-elected for one subsequent term of office.
3. Each Committee Member accompanied by experts may take part in its meetings. Only Committee Members may vote.
4. The Committee may invite observers from other international or regional organisations to take part in their meetings.
5. The Committee meets as often as required but at least once per year.
6. At the suggestion of the President, the Committee approves nominees for the positions of Vice-Presidents from among its Members. The President, Vice-Presidents and Head of the COOMET Secretariat form the President's Council, which develops the policy of cooperation within COOMET, interacts with international and regional metrology organisations, organises cooperation between the Committee meetings and prepares questions to be considered at these meetings.
7. A year before scheduled election of a new COOMET President the COOMET Committee nominates a candidate which after mutual approval becomes a Member of the President's Council having a status of President Elect. After the expiry of a three year period of presidency the COOMET President keeps the status of Former President for one more year. At the end of this year the President Elect becomes an active COOMET President.
8. The Committee decides on its own Rules of Procedure and on those of other COOMET bodies.
9. As a rule the COOMET Secretariat is provided by the National Metrology Institute of the COOMET President.
10. The Secretariat assists the President and the President's Council in the management of COOMET and ensures contacts between the Committee Members, as well as between the Committee, structural and working bodies of COOMET.
11. Following the decision of the COOMET

Committee the following COOMET Structural Bodies are established for the purpose of initiating work in the major fields and directions of cooperation: Joint Committees (JC), Technical committees (TC), Councils, Forums, etc.

The scope of their objectives, tasks and working and collaboration procedures is specified in relevant Provisions approved by the COOMET Committee.

Each COOMET Structural Body is headed by a chairperson appointed by the COOMET Committee for a period of 4 years with the possibility to prolong this period.

12. Structural Bodies may establish:

- Subcommittees (SCs) in order to address the permanent tasks of collaboration;
- Working Groups (WGs) within relevant SCs/TCs in order to carry out routine work on COOMET projects.

13. Terms of reference, head and staff of a SC are defined by the corresponding Technical Committee and approved by the COOMET Committee for a period of 3 years with possible prolongation of this period.

14. Organizational and financial matters are managed by structural and working bodies individually taking into account the hierarchy of the COOMET bodies.

15. National Metrological Institutions that are Members of COOMET may invite other institutions in their countries to cooperation, at their own discretion, for working on a project.

SECTION 6 – LANGUAGES

1. The languages of the Committee meetings are English and/or Russian.
2. Documents of wide dissemination to be received and sent by the Secretariat must be edited both in English and Russian.
3. Final reports written after completion of projects may be in English, French, German or Russian. The authors of the report are given the choice of a language sufficiently understood by those to whom they wish to convey their information or considerations.
4. In other cases, any language the cooperating partners consider adequate for their communication may be used.

SECTION 7 – RIGHTS

In order to achieve the objectives of COOMET, each Member of the Organisation will have the following rights:

MEMORANDUM OF UNDERSTANDING

- to have access, upon agreement, to national standards of other Members of COOMET;
- to seek cooperation and assistance in solving metrological problems;
- to propose projects for joint work and participate in their implementation;
- to receive information on the results of activities of COOMET Bodies.

SECTION 8 – OBLIGATIONS

In order to achieve the objectives of COOMET, each Member of the Organisation will accept the following obligations:

- to provide the Committee, upon its request and within reasonable limits, with information on projects carried out and planned in accordance with the scope of the COOMET activities;
- to provide COOMET Members with assistance and services upon mutual agreement;
- to participate in joint COOMET projects depending on its financial and technical resources, as well as its interest and competence;
- to maintain the confidentiality of any information on the results of type tests, verifications and calibrations of measuring instruments submitted by cooperating partners;
- to take into consideration the COOMET recommendations in the activity of its National Metrology Institutions and to promote the implementation of the results of COOMET projects in its country.

SECTION 9 – COOPERATION WITH INTERNATIONAL AND REGIONAL ORGANISATIONS

1. COOMET will make best use of the results of work of international metrology organisations:

- International Organisations within Metre Convention: General Conference on Weights and Measures (CGPM), International Committee for Weights and Measures (CIPM) and International Bureau of Weights and Measures (BIPM);
- International Organisation of Legal Metrology (OIML), International Committee for Legal Metrology (CML) and International Bureau of Legal Metrology (BIML);
- International Laboratory Accreditation Cooperation (ILAC);
- International Accreditation Forum (IAF);
- International Measurement Confederation (IMEKO), etc.,

as well as other organisations of interest to metrology such as ISO, IEC, CODATA, and will follow their recommendations in its activities.

2. COOMET intends to cooperate, as far as there is mutual interest, with regional metrology organisations:

- European Association of National Metrology Institutes (EURAMET),
- European Cooperation in Legal Metrology (WELMEC),
- European Cooperation for Accreditation (EA),
- Asia-Pacific Metrology Programme (APMP),
- Asia-Pacific Legal Metrology Forum (APLMF),
- Asia Pacific Laboratory Accreditation Cooperation (APLAC),
- Scientific & Technical Commission on Metrology (STCMetr) of Euro Asian Council for Standardization, Metrology and Certification (EASC),
- Intra-African Metrology System (AFRIMETS),
- Inter-American Metrology System (SIM), etc.

SECTION 10 – VALIDITY OF MEMORANDUM

1. This Memorandum will come into operation on the date of its signing by at least four Signatories and remain open for further participants.

2. This Memorandum may be amended at any time by written agreement between at least three quarters of the Signatories.

3. If a Member on behalf of which this Memorandum has been signed, for any reason whatever, intends to terminate its participation in COOMET, it will notify the President of the COOMET Committee of this intention not later than six months in advance.

4. This Memorandum is concluded for a term of five years. Unless within this five year period revision or termination is proposed to the COOMET Committee by at least one third of the Signatories this Memorandum of Understanding will remain in effect for another five year period.

SECTION 11 – LIMITATIONS

1. Decisions of COOMET have an exclusively recommendatory nature.

2. The Secretariat's activities are financed at the expenses of the Party presiding in the COOMET Committee. On a voluntary basis, other COOMET Members can render financial support to the Secretariat, the President's Council and other COOMET bodies for the implementation of specific tasks.

3. This Memorandum does not limit the rights and obligations of the COOMET Members arising

MEMORANDUM OF UNDERSTANDING

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from other bilateral or multilateral cooperation agreements.

Done in Warsaw on 12 June 1991 in English and Russian,
updated and amended at the 10th COOMET Committee Meeting
in Almaty, Kazakhstan, on 25–26 May, 2000;
at the 12th COOMET Committee Meeting

in Havana, Cuba, on 6–7 May, 2002;
at the 15th COOMET Committee Meeting
in Vilnius, Lithuania, on 8–9 September, 2005,
at the 16th COOMET Committee Meeting
in Braunschweig, Germany, on 4–5 September, 2006, and
at the 19th COOMET Committee Meeting
in Baku, Azerbaijan, on 20–21 May, 2009
at the 22th COOMET Committee Meeting
in Cholpon-Ata, Kyrgyzstan, on 18–19 April, 2012



Rules of Procedure presented below were agreed at the first COOMET Committee Meeting held in Warsaw on 13–14 November, 1991 and updated and amended at the 10th COOMET Committee Meeting (25–26 May, 2000, Almaty, Kazakhstan), at the 12th COOMET Committee Meeting (6–7 May, 2002, Havana, Cuba), at the 15th COOMET Committee Meeting (8–9 September, 2005, Vilnius, Lithuania), at the 16th COOMET Committee Meeting (4–5 September, 2006, Braunschweig, Germany), at the 18th COOMET Committee Meeting (15–16 May, 2008, Kharkov, Ukraine), at the 19th COOMET Committee Meeting (20–21 May, 2009, Baku, Azerbaijan) and at the 20th COOMET Committee Meeting (21–22 April 2010, Astana, Kazakhstan).

They amend the description of the COOMET structure and activities which are part of the Memorandum of Understanding and were adopted in accordance with Article 8 Section 5 of the Memorandum and should promote the effective solution of cooperation problems in the shortest time possible according to established procedures using modern information technology and communication facilities.

1. MEMBERS OF COOMET AND MEMBERS OF COOMET COMMITTEE

1.1. From each State only one National Metrology Institution on behalf of which the Memorandum of Understanding has been signed, may be a Member of COOMET.

1.2. Each COOMET Member must inform the President about the name and address of its appointed Committee Member.

1.3. The Committee shall elect its President by secret ballot, by a simple majority of votes.

1.4. A COOMET Member not represented at two consecutive Committee meetings without giving the reasons for its absence shall be considered as having terminated its participation in COOMET.

Decision on the termination of participation of a COOMET Member in COOMET is to be made by open voting based on a simple majority of votes at the next COOMET Committee meeting.

2. COOMET PROJECTS

2.1. GENERAL

For each collaborative project a COOMET Project Form must be completed and sent to the Secretariat, which will arrange for its distribution to all Committee Members and to the head of the relevant SC/TC. This will enable all COOMET Members to keep themselves informed of areas of possible cooperation providing them with an opportunity to join cooperation.

Three separate forms are available¹:

- PROPOSED COOMET PROJECT FORM
- AGREED COOMET PROJECT FORM
- COOMET PROJECT PROGRESS/
FINAL REPORT FORM

Proposals for COOMET collaboration projects may be presented at any time. The collection of Agreed COOMET Projects will represent the working programme of COOMET.

The Committee Members will monitor the COOMET projects to ensure they are in agreement with COOMET aims and tasks and are conducted in accordance with the adopted procedures. The COOMET cooperation can be extended to involve institutions from non-member countries in the projects provided the participants of the cooperation agree.

2.2. SUBJECT FIELDS

The project should belong to one of the following subject fields:

- Acoustics, ultrasound, vibration;
- Electricity and magnetism;
- Flow measurement;
- Ionising radiation and radioactivity;
- Length and angle;
- Mass and related quantities;
- Photometry and radiometry;
- Physical chemistry;
- Thermometry and thermal physics;
- Time and frequency;
- Reference materials;
- General questions concerning measurements (General metrology);
- Legal metrology;
- Quality management systems;
- Information and information technology.

¹ Notes for the completion of the Forms are given in Annexes 1-3 on pages 132-137.

2.3. PROPOSED COOMET PROJECT

The Proposer of a project shall fill in the form (Annex 1, see page 132), and send it to the COOMET Secretariat through the COOMET Committee Member of his/her country. The COOMET Secretariat shall register the project and distribute the form to the head of the relevant SC/TC, as well as to all COOMET Committee Members who will inform the Proposer and the COOMET Secretariat of their interest within a period of three months.

In case if COOMET Members show no interest in the fulfilment of the proposed project, it can remain in the list of proposed projects for up to one year.

2.4. AGREED COOMET PROJECT

Agreed COOMET Project Forms, Annex 2 (see page 134), is used when agreement has already been reached between a certain number of partners to undertake a specific collaborative project. It is only through the completion of this Form that COOMET Members will be advised of the agreement in question.

The Working Group set up for accomplishing the project shall be composed of the persons stated in the Form. The Coordinator of the Working Group shall be responsible for keeping the relevant SC/TC informed of the progress of the project.

Once completed the Agreed COOMET Project Form should be sent by the Coordinator to the head of the relevant SC/TC and to the COOMET Secretariat for distribution among the Committee Members and also for inclusion of the project in the COOMET Working Programme and data base. Should any modification, e.g. of the composition of the Working Group or the scope of the project, be decided later, a revised Agreed Project Form shall be circulated.

In case of realising projects concerning the carrying out of comparisons related with the implementation of the CIPM MRA, the information in Box 6 in the form of the Agreed Project shall contain the following data in addition: comparison type, supported CMC, piloting NMI of the comparison, registration in the KCDB (except for the pilot ones).

2.5. COOMET PROJECT PROGRESS/ FINAL REPORT

This Form, Annex 3 (see page 136), is used by Coordinators for reporting the progress on Agreed COOMET Projects, once a year.

A Final Report must be prepared when a Project has been completed.

In this Report the results obtained should be presented and possible applications stated. It is desirable to indicate the advantages of undertaking the work collaboratively through COOMET.

The Final Report is not deemed as a publication of the work.

Collaborators are encouraged to publish their work through usual channels, mentioning that it was undertaken within COOMET.

The Coordinator shall send the completed Final Report Form to the head of the relevant SC/TC and the COOMET Secretariat.

2.6. CANCELLATION OF COOMET PROJECTS

According to suggestions of the heads of SCs/TCs the COOMET Secretariat excludes the projects recognised as unpromising and obsolete from the Working Programme, however retaining the information about these projects.

3. ANNUAL REPORTS

ON THE ACTIVITIES OF COOMET BODIES

3.1. A Coordinator of the WG dealing with the agreed COOMET projects sends annually the intermediate progress report on the project to the head of the relevant SC/TC by 15 January.

The head of the SC/TC can address the Coordinator of the WG with a request to submit information on the progress with the project in a month time before the meeting of the SC/TC.

3.2. The head of the SC/TC prepares Annual Progress Report of the SC/TC and forwards it to the Chairperson of the relevant COOMET Structural Body 31 January.

3.3. Based on the reports of the SCs/TCs the Chairpersons of the COOMET Structural Bodies prepare reports on the activities of their COOMET bodies and forward them annually by 15 February to the COOMET Secretariat and represent them at the COOMET Committee meeting.

3.4. Annual reports of the Chairpersons of the COOMET Structural Bodies established to fulfil specific tasks within COOMET, should have the following Sections,

- general characteristic of the cooperation in the corresponding field including information on specific activities and projects being carried out and on the participants involved in cooperation;
- results of the last meetings of the COOMET Structural Bodies and subordinated SCs/TCs;

- review of the projects completed and information on the use of the results obtained;
- problems of cooperation with international and regional organisations in the corresponding field of cooperation;
- activities for the implementation of international agreements (e.g., the Arrangement on Mutual Recognition of National Measurement Standards and Calibration and Measurement Certificates Issued by National Metrology Institutes, etc.);
- information on the prospective place and date for the following meetings of the COOMET Structural Bodies and subordinated SCs/TCs;
- proposals for the resolutions of the COOMET Committee meeting.

The total volume of the report should not exceed three to five pages.

3.5. The COOMET Secretariat prepares Annual Report on COOMET activities based on the reports submitted by the Structural Bodies, and distributes it to the Committee Members annually by 15 March.

4. COMMITTEE MEETINGS / CONVOCATION AND PROCEDURE

4.1. The President will decide on the place and date of the meeting, taking into consideration the proposals formulated by the Committee Members during their last meeting.

4.2. The President shall notify about the meeting at least ten weeks in advance and also send the preliminary draft agenda with the request to inform the President about their amendments and more precise definitions within a three week period.

4.3. The draft agenda is distributed among the delegates at least four weeks in advance of the meeting.

4.4. The agenda shall be approved by the Committee at the beginning of the meeting.

4.5. A quorum will be constituted by more than half of the Committee Members.

4.6. The Committee will attempt to reach conclusions by consensus, whenever possible. If a compromise cannot be reached, the different points of view shall be recorded in the minutes.

4.7. A draft report of the Committee meeting shall be circulated by the Secretariat to all Committee Members within 3 months of the meeting. In order to speed up the realisation of the resolutions adopted at the Committee meeting, it is recommended to the COOMET Secretariat to prepare and distribute to the Committee Members the list of drafts of such resolutions at the end of the meeting. The approval of the minutes of the corresponding Committee meeting is performed through e-mail during 1 month after they were received from the COOMET Secretariat.

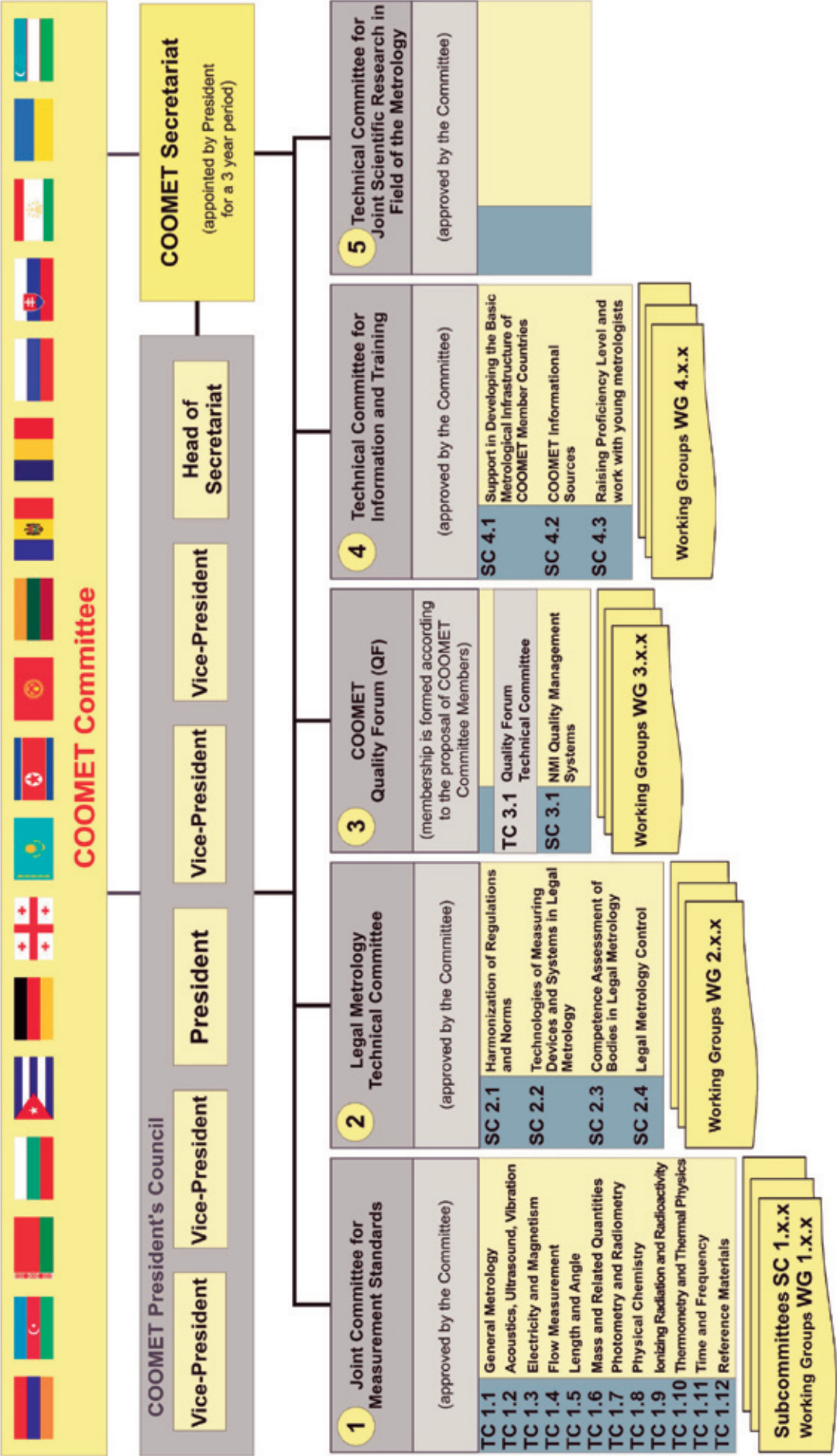
4.8. Between the meetings the Committee can discuss any questions by correspondence involving all Committee Members as well as solve problems of cooperation at the President's Council, the meetings of which are convened by the President as required, but not less than once a year between the COOMET Committee meetings.

4.9. Similar rules may be followed by all structural and working bodies of COOMET.

5. AMENDMENT OF RULES OF PROCEDURE

These Rules of Procedure can be amended only by the consent of at least half of the Committee Members.





COOMET PRESIDENT



Prof. Vladimir KRUTIKOV

All-Russian Scientific Research Institute of
Optical and Physical Measurements (VNIIOFI)

46 Ozernaya Str., 119361 Moscow, Russia

Tel: +7 499 236 75 60

+7 495 437 56 33

Fax: +7 499 230 75 07

E-mail: krutkov@vniiofi.ru, secretar@vniiofi.ru

COOMET SECRETARIAT

All-Russian Scientific Research Institute
of Metrological Service (VNIIMS)

46 Ozernaya Str., 119361, Moscow, Russian Federation



HEAD OF SECRETARIAT

Sergey KOMISSAROV

Tel: +7 495 781 90 81

Fax: +7 495 437 56 66

E-mail: coomet@vniims.ru

ASSISTANTS

Natalia SEDOVA

Tel: +7 495 437 99 59

Fax: +7 495 437 56 66

E-mail: coomet@vniims.ru



Sergey ZHDANKIN

Tel: +7 495 781 90 81

Fax: +7 495 437 56 66

E-mail: coomet@vniims.ru



COOMET VICE-PRESIDENTS



Prof., Dr. Nikolai ZHAGORA

Vice-President,
responsible for cooperation
with international and regional
legal metrology organisations

Tel: +375 17 233 55 01

Fax: +375 17 288 09 38

E-mail: coomet@belgim.by



Dr. Pavlo NEYEZHMAKOV

Vice-President,
responsible for coordination of COOMET activity in the field
of measurement standards and interrelations, COOMET
representative to the JCRB and NCSLI

Tel: +38057 700 34 23

Fax: +38057 700 34 47

E-mail: pavel.neyezhmakov@metrology.kharkov.ua

Vice-President,
responsible for coordination of COOMET activity
in the field of Quality Management Systems

Tel:

Fax:

E-mail:



Prof. Dr.-Ing. Klaus-Dieter SOMMER

Vice-President,
responsible for coordination
of joint research

Tel: +49 531 592 3010

Fax: +49 531 592 3015

E-mail: Klaus-Dieter.Sommer@ptb.de

COOMET COMMITTEE MEMBERS

Azerbaijan

AZ

Mr. Oktay ABBASOV

Chief

State Metrology Service under the State Committee
for Standardization, Metrology and Patent of the Republic
of Azerbaijan (AzSMS)

124 Mardanov gardashlary str., AZ 1147, BAKU

Tel: +994 12 449 99 59 metrology@azstand.gov.az

+994 12 440 63 16



Armenia

AM

Mr. Vahan SAHAKYAN

General Director

CJSC "National Institute of Metrology" (CJSC "NIM")

49/2 Komitasi Ave., 051 YEREVAN

ул. Комитаса 49/2, 051, ЕРЕВАН

Tel: +374 10 23 26 00 metrology@metrology.am

+374 10 23 54 78



Belarus

BY

Prof., Dr. Nikolai ZHAGORA

Director

Belarussian State Institute of Metrology (BelGIM)

93 Starovilensky Trakt, 220053 MINSK

Tel: +375 17 233 55 01 coomet@belgim.by

+375 17 288 09 38



Bulgaria

BG

Mrs. Dimka IVANOVA

Acting President

Bulgarian Institute of Metrology (BIM)

52 B, Blvd G.M.Dimitrov 1040 SOFI

Tel: +359 2 873 52 77 d.ivanova@bim.government.bg

+359 2 970 27 29



Germany

DE

Prof. Dr.-Ing. Klaus-Dieter SOMMER

Head of Chemical Physics and Explosion Protection

Physikalisch-Technische Bundesanstalt (PTB)

Bundesallee 100, 38116 BRAUNSCHWEIG

Tel: +49 531 592 3010 Klaus-Dieter.Sommer@ptb.de

+49 531 592 3015





DPR of Korea
Mr. Myong Il JANG

Director

Central Institute of Metrology

Sonsin 1 Dong, Sadong District, PYONGYANG

Tel: +850 2 381 44 10 pdk0301@163.com

+850 2 381 44 80

KP



Georgia

Mr. Promete SHEVARDNADZE

Director General

Georgian National

Agency for Standards,

Technical Regulations and Metrology (GEOSTM)

67 Chargali Str., 0178 TBILISI

Tel: +995 32 261 35 00 p.shevardnadze@geostm.ge

+995 32 261 35 00

GE



Cuba

Dr. Nancy FERNÁNDEZ RODRÍGUEZ

General Director

Cuban National Bureau of Standards (NC)

Calle E No. 261 entre 11 y 13 Vedado, LA HABANA 10400

Tel: +537 830 08 79 / +537 30 00 2 / +537 836 80 48

nc@ncnorma.cu

CU



Kazakhstan

Mr. Vasily MIKHALCHENKO

General Director

Kazakhstan Institute of Metrology (RSE "KazInMetr")

Center of Measurement Standards, Left bank of the River Ishim,

Orynbor Str., 11, 010000, ASTANA

kazinmetr@mail.ru Tel: +007 (7172) 24 09 15

legal@kazinmetr.org Tel: +007 (7172) 79 32 99

KZ

Kyrgyzstan

Mr. Sultan AHMETOV

Director

Center for Standardization and Metrology under

the Ministry of Economy of the Kyrgyz Republic (CSM)

197 Panfilov Str., 720040 BISHKEK

Tel: +996 312 62 37 90

nism@nism.gov.kg и kyrgyzstandard@rambler.ru

KG



Lithuania

Mr. Daivis ZABULIONIS

Director

State Metrology Service (VMT)

31 Algirdo Str., LT-03219 VILNIUS

Tel: +370 5 213 33 49 info@lvmt.lt
+370 5 216 34 69 daivis.zabulionis@lvmt.lt

LT



Moldova

Mr. Octavian CALMÎC

Deputy Minister

Ministry of Economy of the Republic of Moldova

1, Piata Marii Adunari Nationale, MD-2033 CHISINAU

Tel: +373 22 25 05 91 calmac@mec.gov.md
+373 22 23 40 64

MD

Romania

Dr. Mirella BUZOIANU

Director

National Institute of Metrology

11 Vitin-Barzesti Rd., 75669 BUCHAREST

Tel: +40 21 334 55 20 mirella.buzoianu@inm.ro

RO



Russia

Prof. Vladimir KRUTIKOV

Acting Director

All-Russian Scientific Research Institute of

Optical and Physical Measurements (VNIIOFI)

46 Ozernaya Str., 119361 MOSCOW

Tel: +7 495 437 56 33 krutikov@vniiofi.ru

RU



Slovakia

Mr. Arpad Gonda

General Director

Slovak Institute of Metrology (SMU)

Karľovská 63, 84255 BRATISLAVA

Tel: +421 2 602 94 491 gonda@smu.gov.sk
+421 2 654 29 592

SK



Tajikistan

Mr. Bahtiyor SHUKUROV

Director

Agency on Standardization, Metrology,
Certification and Trade Inspection
under the Government of the Republic of Tajikistan
(Tajikstandard)

42/2 N. Karabaev Str., 734018, DUSHANBE

Tel: +992 37 233 68 69 info@standard.tj, al.st.71@mail.ru
+992 37 234 19 33

TJ



Ukraine

Dr. Pavel NEYEZHMAKOV

First Deputy General Director

National Scientific Centre "Institute of Metrology" (NSC "IM")

42 Mironositskaya Str., 61002 KHARKOV

Tel: +38 057 700 34 22

+38 057 700 34 23

pavel.neyezhnikov@metrology.kharkov.ua

UA



Uzbekistan

Prof. Ortagoli HAKIMOV

Head of Department

Scientific Research Institute for Standardization, Metrology and
Certification (SRISMC)

9 "B", Chopon Ota str., 100059 TASHKENT

Tel: +998-71 253 80 83 metrologuz@mail.ru

+998-71 253 71 34

UZ



COOMET STRUCTURAL BODIES AND THEIR HEADS

Structural Body	Chairperson	Telephone, Fax, E-mail
Joint Committee for Measurement Standards (JCMS)	DR. ANNA CHUNOVKINA All-Russian Scientific Research Institute of Metrology named after D.I. Mendeleev (VNIIM) 19 Moscovsky Prospect 198005 SANKT-PETERSBURG RUSSIA	+7 812 251 83 07 +7 812 713 01 14 A.G.Chunovkina@vniim.ru
TC 1.1 General Questions Concerning Measurements (General Metrology)	DR. ANNA CHUNOVKINA All-Russian Scientific Research Institute of Metrology named after D.I. Mendeleev (VNIIM) 19 Moscovsky Prospect 198005 SANKT-PETERSBURG RUSSIA	+7 812 251 83 07 +7 812 713 01 14 A.G.Chunovkina@vniim.ru
TC 1.2 Acoustics, Ultrasound, Vibration	MRS. VALENTINA POZDEEVA Belarusian State Institute of Metrology (BelGIM) 93 Starovilensky Trakt 220053 MINSK BELARUS	+375 17 288 07 35 +375 17 288 09 38 pozdeeva@belgim.by coomet@belgim.by
TC 1.3 Electricity and Magnetism	MRS. TATYANA KOLOMIETS Belarusian State Institute of Metrology (BelGIM) 93 Starovilensky Trakt 220053 MINSK BELARUS	+375 17 233 24 24 +375 17 288 09 38 kolomiets@belgim.by coomet@belgim.by
TC 1.4 Flow Measurement	PROF. VLADIMIR BOLSHAKOV National Scientific Centre "Institute of Metrology" (NSC "IM") 42 Mironositskaya Str. 61002 KHARKOV UKRAINE	+38 057 704 98 36 +38 057 700 34 47 bvb@metrology.kharkov.ua
TC 1.5 Length and Angle	DR. VLADIMIR KUPKO National Scientific Centre "Institute of Metrology" (NSC "IM") 42 Mironositskaya Str. 61002 KHARKOV UKRAINE	+38 057 704 98 54 +38 057 700 34 47 kupko@metrology.kharkov.ua
TC 1.6 Mass and Related Quantities	MRS. IRYNA KOLOZINSKA National Scientific Centre "Institute of Metrology" (NSC "IM") 42 Mironositskaya Str. 61002 KHARKOV UKRAINE	+38 057 704 97 22 +38 057 700 34 47 iren_kolozinsky@ukr.net
TC 1.7 Photometry and Radiometry	DR. BORIS KHLEVNOY All-Russian Scientific Research Institute of Optical and Physical Measurements (VNIIOFI) 46 Ozernaya Str. 119361 MOSCOW RUSSIA	+7 495 437 29 88 +7 495 437 29 92 khlevnoy-m4@vniiofi.ru

Structural Body	Chairperson	Telephone, Fax, E-mail
TC 1.8 Physical Chemistry	Prof. Dr. Leonid KONOPELKO All-Russian Scientific Research Institute of Metrology named after D.I. Mendeleev (VNIIM) 19 Moscovsky Prospect 198005 SANKT-PETERSBURG RUSSIA	+7 812 315 11 45 +7 812 327 97 76 lkonop@b10.vniim.ru
TC 1.9 Ionising Radiation and Radioactivity	PROF. DR. VLADIMIR YARINA All-Russian Scientific Research Institute of Physico-Technical Measurements (VNIIFTRI) 141570 MENDELEEVO, Moscow Region RUSSIA	+7 495 546 25 76 +7 495 744 81 75 yarina@vniiftri.ru
TC 1.10 Thermometry and Thermal Physics	PROF. DR. ANATOLY POKHODUN All-Russian Scientific Research Institute of Metrology named after D.I. Mendeleev (VNIIM) 19 Moscovsky Prospect 198005 SANKT-PETERSBURG RUSSIA	+7 812 315 52 07 +7 812 713 01 14 A.I.Pokhodun@vniim.ru
TC 1.11 Time and Frequency	PROF. DR. VITALIY PALCHIKOV All-Russian Scientific Research Institute of Physico-Technical Measurements (VNIIFTRI) 141570 MENDELEEVO, Moscow Region RUSSIA	+7 495 660 57 24 palchikov@vniiftri.ru
TC 1.12 Reference Materials	DR. SERGEY MEDVEDEVSKIKH Urals Scientific Research Institute of Metrology (UNIIM) 4 Krasnoarmeiskaya Str. 620000 EKATERINBURG RUSSIA	+7 343 350 26 18 +7 343 350 20 39 uniim@uniim.ru
TC 2 Legal Metrology	DR. PETER ULBIG Physikalisch-Technische Bundesanstalt (PTB) Bundesallee 100 38116 BRAUNSCHWEIG GERMANY	+49 531 592 8010 +49 531 592 8015 Peter.Ulbig@ptb.de
Quality Forum (QF)	DR. ROBERT SPURNY Slovak Institute of Metrology (SMU) 63 Karloveská Str. 84255 BRATISLAVA SLOVAKIA	+421 2 602 94 350 +421 2 654 29 592 spurny@smu.gov.sk
TC 3.1 Quality Forum Technical Committee	DR. ROBERT SPURNY Slovak Institute of Metrology (SMU) 63 Karloveská Str. 84255 BRATISLAVA SLOVAKIA	+421 2 602 94 350 +421 2 654 29 592 spurny@smu.gov.sk
TC 4 Information and Training	DR. PAVLO NEYEZHMAKOV National Scientific Centre "Institute of Metrology" (NSC "IM") 42 Mironositskaya Str. 61002 KHARKOV UKRAINE	+38 057 700 34 22 +38 057 700 34 47 pavel.neyezhnikov@metrology.kharkov.ua
TC 5 Joint Scientific Research in Field of the Metrology	PROF., DR. KLAUS-DIETER SOMMER Physikalisch-Technische Bundesanstalt (PTB) Bundesallee, 100 D-38116 Braunschweig	+49 531 592 3010 +49 531 592 3015 Klaus-Dieter.Sommer@ptb.de

NATIONAL COOMET SECRETARIATS

Country & Code		Name, NMI	Telephone, E-mail
ARMENIA	AZ	Mrs. Narine OGANYAN CJSC "National Institute of Metrology" (CJSC "NIM")	+99 412 449 99 59 /127 metrology@azstand.gov.az
AZERBAIJAN	AM	Mr. Azer BAGHIROV State Metrology Service under the State Committee for Standardization, Metrology and Patent of the Republic of Azerbaijan (AzSMS)	+ 374 10 23 46 34 ohanyan@metrology.am
BELARUS	BY	Ms. Nadezda LYAKHOVA Belarussian State Institute of Metrology (BelGIM)	+375 17 334 75 40 coomet@belgim.by
BULGARIA	BG	Mrs. Iglia Nikolova Bulgarian Institute of Metrology (BIM)	+359 2 970 27 18 i.nikolova@bim.government.bg
		Mrs. Elena DIMITROVA State Agency for Metrological and Technical Surveillance (SAMTS)	+359 2 9396 719 elena.dimitrova@damtn. government.bg
CUBA	DE	Mr. Eduardo Pérez González National Research Institute of Metrology (INIMET)	+49 531 592 8213 annette.koegler@ptb.de
DPR of KOREA		Mr. Li Man HO Mr. Jin Kyong MAN State Administration for Quality Management (SAQM)	+49 531 592 8216 olga.krasota@ptb.de
GERMANY	GE	Mrs. Annette KÖGLER Physikalisch-Technische Bundesanstalt (PTB)	+995 32 261 77 57 nino_mikanadze@yahoo.com
	KZ	Ms. Olga KRASOTA Physikalisch-Technische Bundesanstalt (PTB)	+7172 79 32 77 +7172 79 33 84 kazinmetr@mail.ru
GEORGIA	KP	Ms. Nino MIKANADZE Georgian National Agency for Standards, Technical Regulations and Metrology (GEOSTM)	+850 2 18111 (ext. 3818989) +850 2 3814410 saqm@co.chesin.com pdk0301@163.com
KAZAKHSTAN	CU	Ms. Lubov GALITSYNA Mrs. Zhanar YELEUSSIZOVA Kazakhstan Institute of Metrology (KazInMetr)	+537 862 05 36 +537 863 90 62 +537 863 88 02 coomet@inimet.cu
KYRGYZSTAN	KG	Mrs. Liliya DIKAMBAEVA Center for Standardization and Metrology under the Ministry of Economy and Antimo- nopoly Policy of the Kyrgyz Republic (CSM)	+996 312 62 57 34 metrolog@nism.gov.kg metr_kg@mail.ru
LITHUANIA	LT	Mrs. Gerda KRUKONIENE State Metrology Service (VMT)	+370 5 213 3338 +370 5 216 3469 gerda.krukoniene@lvmt.lt
MOLDOVA	MD	Mrs. Elena HANGANU Ministry of Economy of the Republic of Moldova, Direction of Metrology	+373 22 234037 elena.hanganu@mec.gov.md

Country & Code		Name, NMI	Telephone, E-mail
RUSSIA	RU	Mr. Sergey Komissarov Russian Scientific Research Institute of Metrological Service (VNIIMS)	+7 495 781 90 81 komissarov@vniims.ru
SLOVAKIA	SK	Mrs. Ekaterina KROMKOVA Slovak Institute of Metrology (SMU)	+421 2 602 94 503 kromkova@smu.gov.sk
TAJIKISTAN	TJ	Mr. Jurakhon RAKHIMOV Agency on Standardization, Metrology, Certification and Trade Inspection under the Government of the Republic of Tajikistan (Tajikstandard)	+992 37 234 48 84 +992 37 234 19 33 jurahon_st@mail.ru
UKRAINE	UZ	Mrs. Yuliya Bunyayeva National Scientific Centre "Institute of Metrology" (NSC "IM")	+998 71 253 80 83 metrologuz@mail.ru gazievgayrat@mail.ru
UZBEKISTAN	UA	Mr. Gayratjon GAZIEV Scientific Research Institute for Standardiza- tion, Metrology and Certification (SRISMC)	+38 057 704 98 31 coomet@metrology.kharkov.ua



COOMET PROJECTS

(Notes for the completion of COOMET Project Forms)

Annex 1

PROPOSED COOMET PROJECT

Box 1 Reference No.

It will be given by the COOMET Secretariat.

Box 2 Subject Field

The subject field should be chosen from the list in item 2.2 of the Rules of Procedure.

Box 3 Field of cooperation

The field of cooperation should conform to one of the following

- comparisons;
- research;
- advice and training;
- traceability and calibration.

Box 4 Partners

Members of COOMET, who have already expressed their willingness to participate in the proposed cooperation, should be indicated by their initials. If specific institutions are involved, they should be indicated by full names together with the letters signifying their country (see ISO 3166-1981, code Alpha-2), e.g. BG, CS, DE, HU, PL, RO, SU, etc.

Box 5 Subject

The specific subject of the proposed cooperation should be defined in not more than 60 characters (including spaces).

Box 6 Description

Within the space provided a brief description of the proposed project should be given. Sufficient details should be provided for experts from other institutions so that they can assess their capabilities to join cooperation.

Box 7 Additional remarks

This box provides an opportunity for adding any additional remarks relevant to the proposed collaborative project, e.g. previous cooperation, advantages of implementation, etc.

Box 8 Proposer's name

The name, full postal address, fax numbers and e-mail of the person proposing the cooperation should be given.

Box 10 Date

The Form should be dated the day of signature.

Box 11 Proposed starting date

A proposed starting date should be given.



COOMET PROJECTS

(Notes for the completion of COOMET
Project Forms)

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PROPOSED PROJECT COOMET

1 Reference No.:

2 Subject Field:

3 Field of cooperation:

4 Partners:

5 Subject:

6 Description:

7 Additional remarks:

8 Proposer's Name:
Address:

Telephone:

Fax:

E-mail:

9 Proposer's signature:

10 Date:

11 Proposed starting
date:

12 Signature of the COOMET Committee Member:

Name:

Signature:

COOMET PROJECTS

(Notes for the completion of COOMET Project Forms)

Annex 2

AGREED COOMET PROJECT

Guidance on completion of **boxes 1, 2, 3 and 5, 6, 7** of the Agreed COOMET Project Form is the same as that on completion of the corresponding Boxes in the Proposed COOMET Project Form.

Box 4 Working Group

Names of experts forming the Working Group and names (or initials) of their institutions, as well as letters signifying their countries should be given.

Box 8 Coordinator's name, address, etc.

The person nominated by the Working Group as its Coordinator should be indicated.

Box 9 Date project agreed Ref. No. of proposal

Date on which an agreement was reached and the Reference No. of the Proposed COOMET Project should be given.

Box 10 Starting date

The date it has been agreed to start the project.

Box 11 Expected completion date

An expected completion date must be given. For permanent agreement (e.g. time service) "ON-GOING" should be entered.

Box 13 Date

The Form should be dated the day of signature.

FOR PROJECTS RELATED WITH COMPARISONS

Box 6 Description

A short description of the comparison with compulsory indication of the type of comparison, calibration and measurement capabilities (CMC) supported by the comparisons, as well as the piloting NMI of the comparison and registration in the KCDB (except for the pilot ones) should be given in this box.



COOMET PROJECTS

(Notes for the completion of COOMET
Project Forms)

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AGREED PROJECT COOMET		
1 Reference No.:		2 Subject Field:
3 Field of cooperation:		
4 Working Group:		
5 Subject:		
6 Description:		
7 Additional remarks:		
8 Coordinator's name: Address: Telephone: Fax: E-mail:		
9 Date project agreed:	10 Starting date:	11 Expected completion date:
12 Coordinator's signature:		13 Date:

COOMET PROJECTS

(Notes for the completion of COOMET Project Forms)

Annex 3

COOMET PROJECT PROGRESS/ FINAL REPORT

Boxes 1-5

The content of the corresponding Boxes in the Agreed COOMET Project Form should be reproduced.

Box 6 Progress

A brief description of the progress up to date should be entered in the space provided.

Box 7 Coordinator's name, address, etc.

As in the Agreed COOMET Project Form.

Box 8 Completion date

If the progress of the project is being reported then an estimated completion date should be given.

If the project has now been completed then the actual date of completion should be given.

For permanent agreements "ON-GOING" should be entered.

Box 10 Date

The Form should be dated the day of signature.



COOMET PROJECTS

(Notes for the completion of COOMET
Project Forms)

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COOMET PROJECT PROGRESS/FINAL REPORT

1 Reference No.:

2 Subject Field:

3 Field of cooperation:

4 Working Group:

5 Subject:

6 Progress:

7 Coordinator's name:

Address:

Telephone:

Fax:

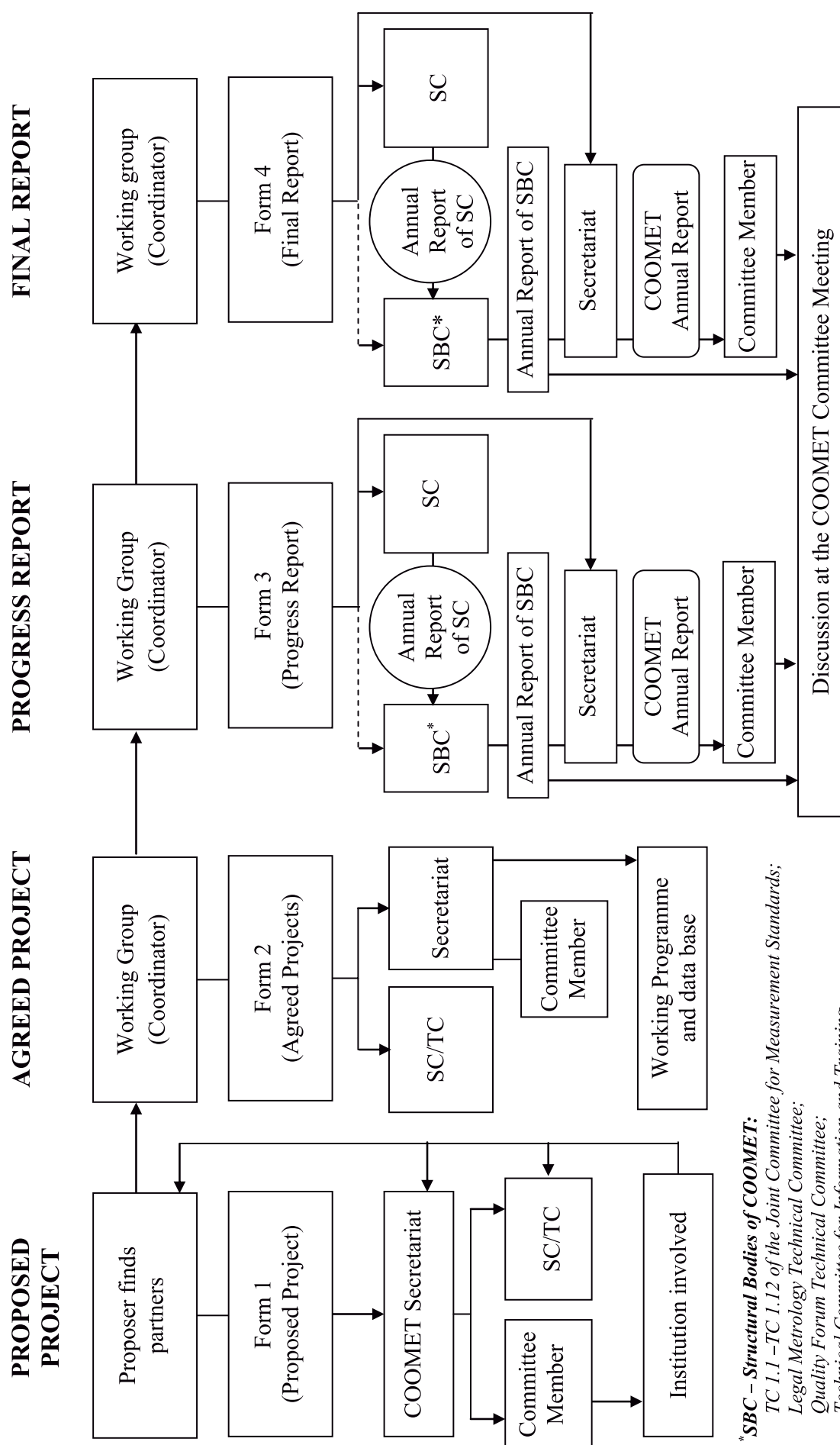
E-mail:

8 Completion date:

9 Coordinator's signature:

10 Date:

ORGANIZATIONAL SCHEME OF COOMET PROJECTS



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

147

ARMENIA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Ms. Anna Sahakyan	+374 10 23 54 78 asahakyan@metrology.am	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. Ararat Bagdasaryan	+374 10 23 84 41 movsisyan@metrology.am	1
TC 1.3 Electricity and Magnetism	EM	Mr. Vahan Madoyan	+374 10 23 84 41 movsisyan@metrology.am	1
TC 1.4 Flow Measurement	F	Mr. Karapet Sargisyan	+374 10 23 54 52 movsisyan@metrology.am	1
TC 1.5 Length and Angle	L	Mr. Eduard Rustamyan	+374 10 23 97 90 movsisyan@metrology.am	1
TC 1.6 Mass and Related Quantities	M	Mr. Eduard Rustamyan	+374 10 23 97 90 movsisyan@metrology.am	1
TC 1.7 Photometry and Radiometry	PR	Mr. Kamo Movsisyan	+374 10 24 45 54 movsisyan@metrology.am	1
TC 1.8 Physical Chemistry	QM	Mr. Garik Martirosyan	+374 10 24 45 54 movsisyan@metrology.am	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. Karapet Oganyan	+374 10 23 46 34 ohanyan@metrology.am	1
TC 1.10 Thermometry and Thermal Physics	T	Mr. Kamo Movsisyan	+374 10 24 45 54 movsisyan@metrology.am	1
TC 1.11 Time and Frequency	TF	Mr. Vahan Madoyan	+374 10 23 84 41 movsisyan@metrology.am	1
TC 1.12 Reference Materials	RM	Ms. Narine Oganyan	+374 10 23 46 34 ohanyan@metrology.am	1
TC 2 Legal Metrology	LM	Mr. Vahan Sahakyan	+374 10 23 26 00 metrology@metrology.am	1
TC 3.1 Quality Forum Technical Committee	AQ	Ms. Narine Oganyan	+374 10 23 46 34 ohanyan@metrology.am	1
TC 4 Information and Training	IT TR	Ms. Narine Oganyan	+374 10 23 46 34 ohanyan@metrology.am	1
TC 5 Joint Scientific Research in Field of the Metrology		Ms. Narine Oganyan	+374 10 23 46 34 ohanyan@metrology.am	1

ADDRESS OF ORGANISATION

- Ministry of Economy of the Republic of Armenia
Closed Joint-Stock Company "National Institute of Metrology"

49/2 Komitasi Ave.

0051 Yerevan

Republic of Armenia

Tel: +374 10 23 26 00

Fax: +374 10 23 54 78

E-mail: metrology@metrology.am

Website: http://metrology.am

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

AZERBAIJAN

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mr. Sardar Aslanov	+99412 449-99-59 /188	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. Arif Huseynov	+99412 449-99-59 /161	1
TC 1.3 Electricity and Magnetism	EM	Mr. Maarif Zeynalov	+99412 449-99-59 /248	1
TC 1.4 Flow Measurement	F	Mr. Emin Mammadov	+99412 449-99-59 /162	1
TC 1.5 Length and Angle	L	Mr. Yagub Novruzaliyev	+99412 449-99-59 /163	1
TC 1.6 Mass and Related Quantities	M	Ms. Tamilla Shabiyeva Mr. Elchin Babayev Mrs. Emma Nabiyeva	+99412 449-99-59 /186/188/187	1
TC 1.7 Photometry and Radiometry	PR	Ms. Shahla Musayeva	+99412 449-99-59 /155	1
TC 1.8 Physical Chemistry	QM	Mr. Nazim Sattarzadeh	+99412 449-99-59 /188	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. Elmar Shahverdiyev	+99412 449-99-59 /155	1
TC 1.10 Thermometry and Thermal Physics	T	Mr. Azer Baghirov	+99412 449-99-59 /189	1
TC 1.11 Time and Frequency	TF	Mrs. Olqa Arnautova	+99412 449-99-59 /248	1
TC 1.12 Reference Materials	RM	Mr. Nazim Sattarzadeh	+99412 449-99-59 /189	1
TC 2 Legal Metrology	LM	Mr. Oktay Abbasov Mr. Azer Gurbanov	+99412440-63-16 +99412 449-99-59 /255 +99412 449-99-59 /127	1
TC 3.1 Quality Forum Technical Committee	AQ	Mr. Azer Gurbanov	+99412 449-99-59 /127	1
TC 4 Information and Training	IT TR	Mr. Rafiq Kafarli	+99412 449-99-59 /248	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

ADDRESS OF ORGANIZATION

- State Metrology Service under the State Committee for Standardization, Metrology and Patent of the Republic of Azerbaijan**

124 Mardanov gardashlary str.

AZ 1147, Baku

Republic of Azerbaijan

Tel: +99412 449-99-59

Fax: +99412 440-52-24

E-mail: metrology@azstand.gov.az

Website: www.azstand.gov.az

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

149

BELARUS

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mrs. Svetlana Miranovich-Kachur	+375 17 233 58 39 kachur@belgim.by	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mrs. Valentina Pozdeeva	+375 17 288 07 35 pozdeeva@belgim.by	1
TC 1.3 Electricity and Magnetism	EM	Mrs. Tatiyana Kolomiets	+375 17 233 24 24 kolomiets@belgim.by	1
TC 1.4 Flow Measurement	F	Mr. Nikolay Martynov	+375 17 233 03 92 martynov@belgim.by	1
TC 1.5 Length and Angle	L	Mr. Vladimir Makarevich	+375 17 233 35 82 makarevich@belgim.by	1
TC 1.6 Mass and Related Quantities	M	Mrs. Natalya Kamkova	+375 17 288 08 77 kamkova@belgim.by	1
TC 1.7 Photometry and Radiometry	PR	Mrs. Olga Tarasova	+375 17 334 98 20 optic@belgim.by	1
TC 1.8 Physical Chemistry	QM	Mr. Nikolai Bakovets Mr. Alexander Klutchits	+375 17 334 98 20 optic@belgim.by	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. Valery Milevsky	+375 17 233 65 04 milevski@belgim.by	1
TC 1.10 Thermometry and Thermal Physics	T	Mr. Petr Krivonos	+375 17 335 04 68 krivonos@belgim.by	1
TC 1.11 Time and Frequency	TF	Mr. Alexander Galygo	+375 17 233 62 73 galygo@belgim.by	1
TC 1.12 Reference Materials	RM	Mr. Valery Makarevich	+375 17 233 62 70 mac@belgim.by	1
TC 2 Legal Metrology	LM	Prof. Nikolai Zhagora	+375 17 233 55 01 coomet@belgim.by	1
TC 3.1 Quality Forum Technical Committee	AQ	Mrs. Irina Voitek	+375 17 233 57 99 voitek@belgim.by	1
TC 4 Information and Training	IT TR	Mrs. Lidia Astafjeva	+375 17 239 23 37 coomet@belgim.by	1
TC 5 Joint Scientific Research in Field of the Metrology		Mr. Nikolai Bakovets	+375 17 334 98 20 optic@belgim.by	1

ADDRESS OF ORGANISATION

1. Belarussian State Institute of Metrology (BelGIM)

93 Starovilensky Trakt
220053 Minsk
Republic of Belarus

Tel: +375 17 233 55 01
Fax: +375 17 288 09 38

E-mail: coomet@belgim.by
info@belgim.by
Website: www.belgim.by

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

BULGARIA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mrs. Petya Aladzhem	+359 2 873 52 88 p.aladzhem @bim.government.bg	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. Marin Chushkov	+359 2 974 08 96 m.chushkov @bim.government.bg	1
TC 1.3 Electricity and Magnetism	EM	Mrs. Antoaneta Yovcheva	+359 2 970 27 47 a.yovcheva @bim.government.bg	1
TC 1.4 Flow Measurement	F	Mrs. Nikolina Ovcharova	+359 2 970 27 79 n.ovcharo- va@bim.government.bg	1
TC 1.5 Length and Angle	L	Mr. Vesselin Gavaliugov	+359 2 970 27 60 v.gavalyugov @bim.government.bg	1
TC 1.6 Mass and Related Quantities	M	Mr. Vladimir Dikov	+359 2 970 27 49 v.dikov @bim.government.bg	1
TC 1.7 Photometry and Radiometry	PR	Mr. Nikolay Aleksandrov	+359 2 974 31 61 n.aleksandrov @bim.government.bg	1
TC 1.8 Physical Chemistry	QM	Mrs. Rossitsa Chipanova	+359 2 970 27 20 r.chipanova @bim.government.bg	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. Rosen Ivanov	+359 68 603 348 r.ivanov @bim.government.bg	1
TC 1.10 Thermometry and Thermal Physics	T	Mr. Sasho Nedialkov	+359 2 970 27 30 s.nedialkov @bim.government.bg	1
TC 1.11 Time and Frequency	TF	Mrs. Natasha Tosheva	+359 2 970 27 95 n.tosheva @bim.government.bg	1
TC 1.12 Reference Materials	RM	Mrs. Ljudmila Dimitrova	+359 2 970 27 24 l.dimitrova @bim.government.bg	1
TC 2 Legal Metrology	LM	Mrs. Hristina Sokolova	+359 2 970 27 99 h.sokolova@bim.government.bg	1
		Mrs. Pavlina Danailova	+359 2 986 22 66 mn.dir@sasm.orbitel.bg Pavlina.Danailova @damtn.government.bg	2
TC 3.1 Quality Forum Technical Committee	AQ	Mrs. Svetlana Dimitrova	+359 2 970 27 70 sv.dimitrova @bim.government.bg	1
TC 4 Information and Training	IT TR	Mrs. Svetla Mirkova-Grozdanova	+359 2 970 27 37 s.mirkova @bim.government.bg	1
TC 5 Joint Scientific Research in Field of the Metrology		Mr. Nikolay Aleksandrov	+359 2 974 31 61 n.aleksandrov @bim.government.bg	1

ADDRESSES OF ORGANISATIONS

1. **Bulgarian Institute of Metrology (BIM)**
General Directorate "National Centre of Metrology" (DG NCM)
General Directorate "Measures and Measuring Instruments" (DG MMI)

52-b, G. M. Dimitrov Blvd.

1040 Sofia

Bulgaria

Tel: +359 2 873 52 88

+359 2 873 52 98

Fax: +359 2 970 27 35

+359 2 873 52 98

E-mail: GD_NCM@bim.government.bg

GD_MIU@bim.government.bg

Website: www.bim.government.bg

2. **State Agency for Metrological and Technical Surveillance (SAMTS)**
Directorate General "Metrological Supervision" (DG MSv)

13, Lachezar Stanchev St..

1797 Sofia

Bulgaria

Tel: +359 2 986 22 66

Fax: +359 2 986 17 07

+359 2 939 67 01

E-mail: mn.dir@sasm.orbitel.bg,

mesdevdiv@sasm.orbitel.bg,

Pavlina.Danailova@damtn.government.bg

Website: www.damtn.government.bg



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

CUBA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	г-н Эдуардо Перез	+537 863 90 62 eduardo@inimet.cu	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	–	–	–
TC 1.3 Electricity and Magnetism	EM	г-жа Мирта Наварро	+537 862 30 41 mirta@inimet.cu	1
TC 1.4 Flow Measurement	F	г-н Густаво Эспиноза	+537 862 30 41 gustavoh@inimet.cu	1
TC 1.5 Length and Angle	L	г-жа Алехандра Хернандес	+537 862 30 41 alehl@inimet.cu	1
TC 1.6 Mass and Related Quantities	M	г-н Глейбер Акоста	+537 862 30 41 gleiber@inimet.cu	1
TC 1.7 Photometry and Radiometry	PR	г-жа Сандра Педро Валдес	+537 862 30 41 44 sandra@inimet.cu	1
TC 1.8 Physical Chemistry	QM	г-жа Сандра Педро Валдес	+537 862 30 41 44 sandra@inimet.cu	1
TC 1.9 Ionising Radiation and Radioactivity	RI	д-р Пилар Оропеса	+537 682 95 24 poropesa@centis.edu.cu	2
TC 1.10 Thermometry and Thermal Physics	T	г-н Марио Мартинес	+537 862 30 41 mario@inimet.cu	1
TC 1.11 Time and Frequency	TF	–	–	1
TC 1.12 Reference Materials	RM	г-жа Сандра Педро	+537 862 30 41 sandra@inimet.cu	1
TC 2 Legal Metrology	LM	г-н Фернандо Аруса	+537 830 07 96 arruza@ncnorma.cu	3
TC 3.1 Quality Forum Technical Committee	AQ	г-н Антонио Майдике	+537 862 05 36 maidique@inimet.cu	1
TC 4 Information and Training	IT TR	г-н Антонио Майдике	+537 862 05 36 maidique@inimet.cu	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

ADDRESSES OF ORGANISATIONS

1. National Research Institute on Metrology (INIMET)

Consulado No.206
e/ Animas y Trocadero
Centro Habana
CP 10200 La Habana
Republic of Cuba
Tel: +537 862 05 36
Fax: +537 867 69 66
E-mail: coomet@inimet.cu
Website: <http://www.inimet.cubaindustria.cu>

2. Center of Isotopes (CENTIS)

Ave. Monumental y Carretera La Rada, Km 3
CP 3415 San José de las Lajas
Republic of Cuba
Tel: +537 682 95 24
Fax: +537 682 78 50
E-mail: poropesa@centis.edu.cu
Website: <http://www.centis.cu>

3. Cuban National Bureau of Standards (NC)

Calle E No 261 entre 11 y 13- Vedado
10400 La Habana
Republic of Cuba
Tel: +537 830 07 96
Fax: +537 836 80 48
E-mail: nc@ncnorma.cu
Website: <http://www.nc.cubaindustria.cu>



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

DPR OF KOREA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Dr. Chang Myong Il	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. Chong Tae Ho	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.3 Electricity and Magnetism	EM	Mr. Jo Song Chol	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.4 Flow Measurement	F	Dr. Choe Yong Chol	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.5 Length and Angle	L	Dr. Kim Jin Ju	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.6 Mass and Related Quantities	M	Dr. Pak Jin	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.7 Photometry and Radiometry	PR	Dr. Choe Il	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.8 Physical Chemistry	QM	Dr. Chong Yun Gyo	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Dr. Chang Myong Il	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.10 Thermometry and Thermal Physics	T	Mr. Kim Dong Myong	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.11 Time and Frequency	TF	Dr. Hong Chol Ho	+ 850 2 381 44 10 pdk0301@163.com	1
TC 1.12 Reference Materials	RM	Mr. Chong Ryong Sok	+ 850 2 381 44 10 pdk0301@163.com	1
TC 2 Legal Metrology	LM	Mr. Li Song Han	+ 850 2 381 44 10 pdk0301@163.com	1
TC 3.1 Quality Forum Technical Committee	AQ	Mr. Seung Myong Song	+ 850 2 381 44 10 pdk0301@163.com	1
TC 4 Information and Training	IT TR	Mr. Jin Kyong Man	+ 850 2 381 44 10 pdk0301@163.com	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

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ADDRESS OF ORGANISATION

1. Central Institute of Metrology (CIM)

Sonsin-Dong No.1, Sadong District
Pyongyang
DPR of Korea

Tel: +850 2 381 86 49

Fax: +850 2 381 44 80

E-mail: pdk0301@163.com

Website:



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

GEORGIA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mr. Revaz Jvania	+995 32 260 66 29 dep_mechanics@yahoo.com	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. Guram Tsiklauri	+995 32 260 66 29 dep_mechanics@yahoo.com	1
TC 1.3 Electricity and Magnetism	EM	Mr. Nikolay Lobjanidze	+995 32 260 66 53 elmetrology@yahoo.com	1
TC 1.4 Flow Measurement	F	Mr. Soso Rogava	+995 32 260 66 29 dep_mechanics@yahoo.com	1
TC 1.5 Length and Angle	L	Mr. Vazha Sikharulidze	+995 32 261 30 21 vazhasikharulidze@yahoo.com	1
TC 1.6 Mass and Related Quantities	M	Ms. Irma Rurua	+995 32 260 66 29 irmarurua@yahoo.com	1
TC 1.7 Photometry and Radiometry	PR	Ms. Maia Zardiashvili	+995 32 260 66 53 m.zardia@yahoo.com	1
TC 1.8 Physical Chemistry	QM	Ms. Izolda Garsevanishvili	+995 32 261 30 90 i.garsevanishvili@gtu.ge	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. Simon Sukhishvili	+995 32 261 73 22 s.sukhishvili@gmail.com	1
TC 1.10 Thermometry and Thermal Physics	T	Mr. Yuri Chelidze	+995 32 260 66 29 dep_mechanics@yahoo.com	1
TC 1.11 Time and Frequency	TF	Mr. Guram Tatishvili	+995 32 261 73 22 m.zardia@gmail.com	1
TC 1.12 Reference Materials	RM	Mr. Tengiz Philishvili	+995 32 261 53 39 temoexpert@yahoo.com	1
TC 2 Legal Metrology	LM	Mr. Paata Metreveli	+995 32 223 63 53 metrevelipaata@gmail.com	1
TC 3.1 Quality Forum Technical Committee	AQ	Ms. Nino Mikanadze	+995 32 261 77 57 nino_mikanadze@yahoo.com	1
TC 4 Information and Training	IT TR	Ms. Nino Mikanadze	+995 32 261 77 57 nino_mikanadze@yahoo.com	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

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ADDRESS OF ORGANISATION

1. Georgian National Agency for Standards,
Technical Regulations and Metrology (GEOSTM)

67 Chargali Str.

0178 Tbilisi

Georgia

Tel: +995 32 261 35 00

E-mail: geostm@geostm.ge

Fax: +995 32 261 35 00

Website: www.geostm.ge



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

GERMANY

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Prof. Dr. Manfred Kochsiek	+49 531 592 2005 +49 531 592 2002 Manfred.Kochsiek@ptb.de	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Dr. Thomas Fedtke	+49 531 592 1511 +49 531 592 69 1511 Thomas.Fedtke@ptb.de	1
TC 1.3 Electricity and Magnetism	EM	Dr. Hans Bachmair	+49 531 592 2012 +49 531 592 2015 Hans.Bachmair@ptb.de	1
TC 1.4 Flow Measurement	F	Dr. Gudrun Wendt	+49 531 592 1500 +49 531 592 1505 Gudrun.Wendt@ptb.de	1
TC 1.5 Length and Angle	L	Thomas Ahbe	+49 531 592 5143 +49 531 592 5205 Thomas.Ahbe@ptb.de	1
TC 1.6 Mass and Related Quantities	M	Dr. Wladimir Sabuga	+49 531 592 3230 +49 531 592 69 3230 Wladimir.Sabuga@ptb.de	1
TC 1.7 Photometry and Radiometry	PR	Dr. Stefan Kück	+49 531 592 4500 +49 531 592 4505 Stefan.Kueck@ptb.de	1
TC 1.8 Physical Chemistry	QM	Dr. Bernd Güttler	+49 531 592 3100 +49 531 592 3015 Bernd.Guettler@ptb.de	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Dr. Ludwig Büermann	+49 531 592 6250 +49 531 592 6205 Ludwig.Bueermann@ptb.de	1
TC 1.10 Thermometry and Thermal Physics	T	Dr. Steffen Rudtsch	+49 30 3481 7650 +49 30 3481 7504 Steffen.Rudtsch@ptb.de	2
TC 1.11 Time and Frequency	TF	Dr. Andreas Bauch	+49 531 592 4420 +49 531 592 4479 Andreas.Bauch@ptb.de	1
TC 1.12 Reference Materials	RM	Dr. Wolfram Bremser	+49 30 8104 5802 +49 30 8104 5577 Wolfram.Bremser@bam.de	3
TC 2 Legal Metrology	LM	Dr. Peter Ulbig	+49 531 592 8010 +49 531 592 8015 Peter.Ulbig@ptb.de	1
TC 3.1 Quality Forum Technical Committee	AQ	Dr. Andreas Odin	+49 531 592 8330 +49 531 592 69 8330 Andreas.Odin@ptb.de	1
TC 4 Information and Training	IT TR	Mrs. Annette Kögler	+49 531 592 8213 +49 531 592 8225 Annette.Koegler@ptb.de	1
TC 5 Joint Scientific Research in Field of the Metrology		Dr. Klaus-Dieter Sommer	+49 531 592 3010 Klaus-Dieter.Sommer@ptb.de	1

ADDRESSES OF ORGANISATIONS

1. Physikalisch-Technische Bundesanstalt (PTB)

Bundesallee 100
38116 Braunschweig
Germany
Fax: +49 531 592 9292
Website: www.ptb.de

2. Physikalisch-Technische Bundesanstalt (PTB) Berlin - Charlottenburg

Abbestrasse 2-12
10587 Berlin
Germany
Fax: +49 30 348 7490
Website: www.ptb.de

3. Federal Institute for Material Research and Testing (BAM), Department 1

Richard-Willstätter-Straße 11
12489 Berlin
Germany
Fax: +49 30 8112 029
Website: www.bam.de



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

KAZAKHSTAN

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1 Measurement Standards		Mr. Baurzhan Mukhamedzhanov	+7172 79 32 72 bake_kz@bk.ru	1
TC 1.1 General Metrology	GM	Mrs. Svetlana Tagayeva	+7172 79 32 78 legal_07@mail.ru	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	-	-	-
TC 1.3 Electricity and Magnetism	EM	Mrs. Nagima Tuymekulova	+7172 79 32 73 nagimakaz@mail.ru	1
		Mr. Nesipbay Sultanbayev	+ 7(7273)03 91 26 metrollogy@mail.ru	2
TC 1.4 Flow Measurement	F	Mr. Reshat Sabirgaliev	+7112 21 11 20 zkfinmetr@mail.ru	3
TC 1.5 Length and Angle	L	Mr. Aidar Dauletbayev	+7172 79 33 63 aydar1982@mail.ru	1
		Mr. Dulat Moldybayev	+7172 79 32 75 dulat_83@mail.ru	
TC 1.6 Mass and Related Quantities	M	Mrs. Dinara Mukasheva	+7172 79 33 73 dinara_north@mail.ru	1
TC 1.7 Photometry and Radiometry	PR	Mr. Baurzhan Mukhamedzhanov	+7172 79 32 72 bake_kz@bk.ru	1
		Mrs. Gulaikhan Suyeubayeva	+7172 79 34 02 kazinmetr@inbox.ru	
TC 1.8 Physical Chemistry	QM	Mrs. Bibinur Janasbayeva	+7172 79 32 76 Bibinur15@mail.ru	1
TC 1.9 Ionising Radiation and Radioactivity	RI	-	-	-
TC 1.10 Thermometry and Thermal Physics	T	Mrs. Kuralay Duysebaeva	+7273 03 91 36 kuralay_12@mail.ru	2
TC 1.11 Time and Frequency	TF	Mr. Marat Konkanov	+7172 79 32 59 marconzenti@bk.ru	1
		Mrs. Aygul Islamova	+7727 3038854 priemnay_ukf@mail.ru	2
TC 1.12 Reference Materials	RM	Mrs. Vera Donbaeva	+7172 79 32 91 donbaeva@mail.ru	1
TC 2 Legal Metrology	LM	Mrs. Lubov Galitsyna	+7172 79 32 77 kazinmetr@mail.ru	1
TC 3.1 Quality Forum Technical Committee	AQ	Mrs. Aigerym Raissova	+7172 79 33 74 smk@kazinmetr.org	1
TC 4 Information and Training	IT TR	Mrs. Karlygash Sattybayeva	+7172 79 32 83 karlygash_sat@mail.ru	1
TC 5 Joint Scientific Research in Field of the Metrology		Mr. Nikita Veretelnikov	+7 7172 79 33 59 nikveretelnikov@mail.ru	1

ADDRESSES OF ORGANISATIONS

1. **Republic State Enterprise "Kazakhstan Institute of Metrology" (RSE "KazInMetr")
Center of Measurement Standards**

Left bank of the river Ishim
Orynbor Str., 11
010000 Astana
Republic of Kazakhstan
Tel: +7172 79-32-52
Fax: +7172 79-32-99
E-mail: info@kazinmetr.org, kazinmetr@mail.ru, ruben83@list.ru
Website: <http://www.kazinmetr.kz>

2. **South-Kazakhstan Subsidiary of Republic State
Enterprise "Kazakhstan Institute of Metrology"
(SKS RSE "KazInMetr")**

83 Altynsarina Str.
050035 Almaty
Republic of Kazakhstan
Tel: +7272 21 65 59
Fax: +7272 21 65 59
E-mail: expert-metrolog@mail.ru
Website: <http://www.kazinmetr.kz>

3. **Western-Kazakhstan Subsidiary of Republic State
Enterprise "Kazakhstan Institute of Metrology"
(WKS RSE "KazInMetr")**

59 3rd Zavokzalny Tupik Str.
090003 Uralsk
Republic of Kazakhstan
Tel: +7112 21 11 20
Fax: +7112 21 56 35
E-mail: zkfinmetr@mail.ru
Website: <http://www.kazinmetr.kz>

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

KYRGYZSTAN

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mr. Talaibek Omurzakov	+996 312 62 57 34 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	–	–	–
TC 1.3 Electricity and Magnetism	EM	Mr. Mukan Moldobaev	+996 312 62 58 09 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.4 Flow Measurement	F	Mrs. Marina Denisova	+996 312 66 22 80 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.5 Length and Angle	L	Mrs. Galina Devyatova	+996 312 66 26 20 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.6 Mass and Related Quantities	M	Mrs. Ekaterina Kotova	+996 312 66 26 20 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.7 Photometry and Radiometry	PR	–	–	–
TC 1.8 Physical Chemistry	QM	Mrs. Tamara Savina	+996 312 66 22 80 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. Igor Ershov	+996 3133 2 11 78 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.10 Thermometry and Thermal Physics	T	Mrs. Marina Denisova	+996 312 66 22 80 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.11 Time and Frequency	TF	Mr. Nurlan Ysakov	+996 312 62 58 09 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 1.12 Reference Materials	RM	Mrs. Liliya Dikambaeva	+996 312 62 57 34 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 2 Legal Metrology	LM	Mr. Bakyt Shabdanov Mrs. Ainura Ahmedzhanova	+996 312 62 05 35 (50 52) +996 312 62 57 15 bakyt2021@mail.ru metrologkg@inbox.ru	1
TC 3.1 Quality Forum Technical Committee	AQ	Mrs. Liliya Dikambaeva	+996 312 62 57 34 metrolog@nism.gov.kg metr_kg@mail.ru	1
TC 4 Information and Training	IT TR	Mrs. Kyialzat Mambetalieva	+996 312 62 57 34 metr_kg@mail.ru kyialzat@mail.ru	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

163

ADDRESS OF ORGANISATION

1. Center for Standardization and Metrology under the Ministry of Economy and Antimonopoly Policy of the Kyrgyz Republic (CSM)

197 Panfilov Str.

720040 Bishkek

Kyrgyz Republic

Tel: +996 312 62 68 70, +996 312 62 57 34

Fax: +996 312 66 13 67

E-mail: metrolog@nism.gov.kg, nism@nism.gov.kg, metr_kg@mail.ru

Website: www.nism.gov.kg



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

LITHUANIA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mrs. Gerda Krukoniene	+370 5 213 3338 +370 5 216 3469 gerda.krukoniene@lvmt.lt	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mrs. Tatiana Zaploskene	+370 5 230 6387 +370 5 230 6364 t.zapolskene@vmc.lt	2
TC 1.3 Electricity and Magnetism	EM	Dr. Gintautas Ambrazevicius	+370 5 261 8065 +370 5 262 7123 ambra@pfi.lt	4.2
TC 1.4 Flow Measurement	F	Dr. Gediminas Zygmantas	+370 3 740 1861 +370 3 735 1271 zygmanta@mail.lei.lt	3
TC 1.5 Length and Angle	L	Dr. Lilijana Gaidamovičiūtė	+370 5 216 5045 +370 5 230 6364 vmc@vmc.lt l.gaidamoviciute@vmc.lt	2
TC 1.6 Mass and Related Quantities	M	Mrs. Ilona Milkamanavičienė Mrs. Ksaverija Dapkevičienė	+370 5 230 6388 +370 5 230 6364 i.milkamanaviciene@vmc.lt +370 230 6538 +370 230 6364 k.dapkeviciene@vmc.lt	2
TC 1.7 Photometry and Radiometry	PR	Mrs. Ilona Milkamanavičienė	+370 5 230 6388 +370 5 230 6364 i.milkamanaviciene@vmc.lt	2
TC 1.8 Physical Chemistry	QM	Dr. Evaldas Naujalis	+370 5 261 2758 +370 5 262 7123 naujalis@pfi.lt	4.2
TC 1.9 Ionising Radiation and Radioactivity	RI	Dr. Arunas Gudelis	+370 5 266 1643 +370 5 260 2317 gudelis@ktl.mii.lt	4.1
TC 1.10 Thermometry and Thermal Physics	T	Mr. Kazys Mikalauskas	+370 5 262 6736 +370 5 262 7123 mik@pfi.lt	4.2
TC 1.11 Time and Frequency	TF	Dr. Rimantas Miškinis	+370 5 262 0194 +370 5 262 7123 miskinis@pfi.lt	4.2
TC 1.12 Reference Materials	RM	Dr. Audrius Misiūnas	+370 5 261 2758 +370 5 262 7123 audrius_misiunas@yahoo.com	4.2
TC 2 Legal Metrology	LM	Mrs. Gerda Krukoniene	+370 5 213 3338 +370 5 216 3469 gerda.krukoniene@lvmt.lt	1
TC 3.1 Quality Forum Technical Committee	AQ	Mrs. Irena Lazdauskaitė	+370 5 213 6331 +370 5 216 3469 irena.lazdauskaite@lvmt.lt	1
TC 4 Information and Training	IT TR	Mrs. Gerda Krukoniene	+370 5 213 3338 +370 5 216 3469 gerda.krukoniene@lvmt.lt	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

ADDRESSES OF ORGANISATIONS

1. State Metrology Service (VMT)

Algirdo str. 31
LT-03219 Vilnius
Lithuania
Tel: +370 5 213 3349
Fax: +370 5 216 3469
E-mail: info@lvmt.lt
Website: <http://www.lvmt.lt>

2. Vilnius Metrology Centre (VMC)

S. Dariaus ir S. Girėno Str. 23
LT – 02189 Vilnius
Lithuania
Tel: +370 5 230 6276
Fax: +370 5 216 4309
E-mail: vmc@vmc.lt
Website: <http://www.vmc.lt>

3. Lithuanian Energy Institute (LEI)

Breslaujos Str. 3
LT- 44403 Kaunas
Lithuania
Tel: +370 37 401 863
Fax: +370 37 351 271
E-mail: testlab@isag.lei.lt
Website: <http://www.lei.lt>

4. State Scientific Research Institute Center for Physical Sciences and Technology (FTMC)

Savanoriu ave. 231
LT-02300, Vilnius
Lithuania
Tel: +370 5 266 1640,
+370 5 266 1643
Факс : +370 260 2317
E-mail: info@ftmc.lt
Website: <http://www.ftmc.lt>

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

MOLDOVA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mr. Serghei Ceapa	+373 22 218 519 ceapa@standard.md	3
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mrs. Iulia Ciubara	+373 231 2 61 24 csm-bl@mtc-bl.md csmb@mail.ru	4
TC 1.3 Electricity and Magnetism	EM	Mrs. Stella Straistari	+373 22 218 515 marimi_electrice@standard.md	3
TC 1.4 Flow Measurement	F	Mr. Alexander Ciorba	+373 22 218 502 debite@standard.md	3
TC 1.5 Length and Angle	L	Mrs. Nadejda Gorina	+373 22 218 486 lungimi@standard.md	3
		Mrs. Galina Vatamaniuc	+373 231 2 50 93 csmb@mail.ru	4
TC 1.6 Mass and Related Quantities	M	Mrs. Marina Varvasi	+373 22 218 484 mase_mici@standard.md	3
		Mrs. Zinaida Melnic	+373 231 2 50 93 csmb@mail.ru	4
TC 1.7 Photometry and Radiometry	PR	–	–	–
TC 1.8 Physical Chemistry	QM	Mrs. Galina Madan	+373 22 218 506 fiz_chim@standard.md	3
TC 1.9 Ionising Radiation and Radioactivity	RI	Ms. Ion Ginga	+373 22 218 446 ionizate@standard.md	3
TC 1.10 Thermometry and Thermal Physics	T	Mr. Constantin Bordianu	+373 22 218 507 metrologie@standard.md costeab@mail.ru	3
TC 1.11 Time and Frequency	TF	Mr. Anatolie Voda	+373 22 218 435 frecventa_timp@standard.md	3
TC 1.12 Reference Materials	RM	Mrs. Adelaida Andriesh	+373 22 250 679 adelaida.andries@mec.gov.md	1
TC 2 Legal Metrology	LM	Mrs. Elena Hanganu	+373 22 234 037 elena.hanganu@mec.gov.md	1
TC 3.1 Quality Forum Technical Committee	AQ	Mr. Serghei Ceapa	+373 22 218 519; ceapa@standard.md	3
TC 4 Information and Training	IT TR	Mrs. Adelaida Andriesh	+373 22 250 679; adelaida.andries@mec.gov.md	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

ADDRESSES OF ORGANISATIONS

1. The Ministry of Economy of the Republic of Moldova (Direction of Metrology) Central Metrology Authority

1, Piata Marii Adunari Nationale
MD-2033 Chişinău
Republic of Moldova
Tel: +373 22 25-01-07
+373 22 25-05-91
Fax: +373-22-23 40 64
E-mail: mineconcom@mec.gov.md
Website: www.mec.gov.md

2. Agency for Consumer's Protection

28, E. Coca Str.
MD 2064 Chişinău
Republic of Moldova
Tel: +373 22 21-85-10
Fax: +373 22 21-85-22
E-mail: inspectorat_metrologic@mail.ru

3. National Institute of Standardization and Metrology (INSM)

28, E. Coca Str.
MD 2064 Chişinău
Republic of Moldova
Tel: +373 22 21 84 17
Fax: +373 22 24 54 14
E-mail: office@standard.md
Website: www.standard.md

4. Center of Standardization and Metrology mun. Bălţi

13, Decebal Str.
MD 3100Bălţi
Republic of Moldova
Tel: +373 231 2 61 24
Fax: +373 231 2 51 41
E-mail: csm-bl@mtc-bl.md, csmb1@mail.ru

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

ROMANIA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Dr. A. Millea	+40 21 6343520 office@inm.ro	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. A. Popescu	+40 21 6344030 / 146 office@inm.ro	1
TC 1.3 Electricity and Magnetism	EM	Mr. R. Soviany	+40 21 6344030/177 office@inm.ro	1
TC 1.4 Flow Measurement	F	Mr. A. Oncescu	+40 21 6344030 / 173 office@inm.ro	1
TC 1.5 Length and Angle	L	Mr. Dragos Boiciuc	+40 21 6343520 office@inm.ro	1
TC 1.6 Mass and Related Quantities	M	Mr. V. Petrescu	+40 21 6344030 / 146 office@inm.ro	1
TC 1.7 Photometry and Radiometry	PR	Mr. M. Simionescu	+40 21 6344030 / 141 simionescum@inm.ro	1
TC 1.8 Physical Chemistry	QM	Mr. P. König-Georgescu	+40 21 6344030 / 187 office@inm.ro	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. A. Druker	+40 21 6344030 / 156 office@inm.ro	1
TC 1.10 Thermometry and Thermal Physics	T	Dr. I. Asavinei	+40 21 6344030/123 office@inm.ro	1
TC 1.11 Time and Frequency	TF	Dr. F. Cretu	+40 21 6344030/120 office@inm.ro	1
TC 1.12 Reference Materials	RM	Mr. C. Botgros	+40 21 6344030/116 office@inm.ro	1
TC 2 Legal Metrology	LM	Mr. D. Dinu	+40 21 6134563 office@brml.ro	2
TC 3.1 Quality Forum Technical Committee	AQ	Mr. Dragos Boiciuc	+40 21 6343520 office@inm.ro	1
TC 4 Information and Training	IT TR	-	-	-
TC 5 Joint Scientific Research in Field of the Metrology		-	-	-

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

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ADDRESSES OF ORGANISATIONS

1. National Institute of Metrology (INM)

11 Sos. Vitan Bârzesti
75669 Bucharest
Romania

Tel: +40 21 634 35 20 Fax: +40 21 334 15 33
+40 21 634 33 45 E-mail: office@inm.ro

2. Romanian Bureau of Legal Metrology (BRML)

11 Sos. Vitan Bârzesti
75669 Bucharest
Romania

Tel: +40 21 613 16 05 Fax: +40 21 332 06 15
+40 21 613 45 63 E-mail: office@brml.ro



CONTACT PERSONS OF COOMET MEMBER COUNTRIES

RUSSIA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Dr. Anna Chunovkina	+7 812 251 83 07 +7 812 713 01 14 a.g.chunovkina@vniim.ru	2
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Dr. Alexander Enyakov	+7 495 660 21 65 enyakov@vniiftri.ru	4
TC 1.3 Electricity and Magnetism	EM	Dr. Sergey Kolotygin	+7 495 744 81 30 +7 495 744 81 30 lab202@vniiftri.ru	4
TC 1.4 Flow Measurement	F	Mr. Albert Tukhvatullyn	+7 843 272 12 02 +7 843 272 00 32 nio1@vniir.org	8
TC 1.5 Length and Angle	L	Dr. Konstantin Chekirda	+7 812 323 96 64 +7 812 323 96 64 k.v.chekirda@vniim.ru	2
TC 1.6 Mass and Related Quantities	M	Dr. Natalya Domostroeveva	+7 812 323 96 05 +7 812 323 96 71 n.g.domostroeveva@vniim.ru	2
TC 1.7 Photometry and Radiometry	PR	Dr. Boris Khlevnoy	+7 495 437 29 88 +7 495 437 29 92 khlevnoy-m4@vniiofi.ru	5
TC 1.8 Physical Chemistry	QM	Prof. Dr. Leonid Konopelko	+7 812 315 11 45 +7 812 713 01 14 lkonop@b10.vniim.ru	2
TC 1.9 Ionising Radiation and Radioactivity	RI	Prof. Dr. Vladimir Yarina	+7 495 546 25 76 +7 495 744 81 75 yarina@vniiftri.ru	4
TC 1.10 Thermometry and Thermal Physics	T	Prof. Anatoly Pokhodun	+7 812 315 52 07 +7 812 713 01 14 a.i.pokhodun@vniim.ru	2
TC 1.11 Time and Frequency	TF	Prof. Vitally Palchikov	+7 495 660 57 24 palchikov@vniiftri.ru	4
TC 1.12 Reference Materials	RM	Dr. Sergey Medvedevskikh	+7 343 3 50 26 18 +7 343 3 50 20 39 uniim@uniim.ru	6
TC 2 Legal Metrology	LM	Mr. Dmitry Korneev	+7 495 781 48 99 +7 495 437 56 66 ferster-vm@vniims.ru	3
TC 3.1 Quality Forum Technical Committee	AQ	Dr. Natalya Muravskaya	+7 495 437 33 56 +7 495 437 31 47 muravskaya-d4@vniiofi.ru	5
TC 4 Information and Training	IT TR	Mr. Viktor Ivanov	+7 495 437 40 61 +7 495 437 56 66 vivanov@vniims.ru	3
TC 5 Joint Scientific Research in Field of the Metrology		Mr. Sergey Golubev	+7 499 236 30 42 metrol@gost.ru	1

ADDRESSES OF ORGANISATIONS

1. **Federal Agency on Technical Regulating and Metrology (ROSSTANDART)**
9, Leninsky Prospect
119991, Moscow
Russia
Telephone: +7 499 236 03 00
Fax: +7 499 236 62 31
Website: <http://gost.ru>
2. **All-Russian Scientific Research Institute of Metrology named after D.I. Mendeleev (VNIIM)**
19 Moscovsky Prospect
190005 Sankt-Petersburg
Russia
Telephone: +7 812 251 76 01
Fax: +7 812 713 01 14
E-mail: info@vniim.ru
Website: www.vniim.ru
3. **All-Russian Scientific Research Institute of Metrological Service (VNIIMS)**
46 Ozernaya Str.
119361 Moscow
Russia
Telephone: +7 495 437 55 77
Fax: +7 495 437 56 66
E-mail: office@vniims.ru
Website: www.vniims.ru
4. **All-Russian Scientific Research Institute of Physico-Technical Measurements (VNIIFTRI)**
141570 Mendeleevo
Solnechnogorsky District,
Moscow Region
Russia
Telephone: +7 495 744 81 12
Fax: +7 495 944 52 68
E-mail: director@vniiftri.ru
Website: www.vniiftri.ru
5. **All-Russian Scientific Research Institute of Optical and Physical Measurements (VNIIOFI)**
46 Ozernaya Str.
119361 Moscow
Russia
Telephone: +7 495 437 56 33
Fax: +7 495 437 31 47
E-mail: vniofi@vniofi.ru
Website: www.vniofi.ru
6. **Urals Scientific Research Institute of Metrology (UNIIM)**
4 Krasnoarmeiskaya
620000 Ekaterinburg
Russia
Telephone: +7 3433 50 26 18
Fax: +7 3433 50 20 39
E-mail: uniim@uniim.ru
Website: www.uniim.ru
7. **Siberian State Research Metrology Institute of Labor Red Banner Order (SNIIM)**
4, Dimitrov pr.
630004, Novosibirsk
Russia
Telephone: +7 383 210 08 14
Fax: +7 383 210 13 60
E-mail: director@sniim.nsk.ru
Website: www.sniim.nsk.ru
8. **All-Russian Scientific Research Institute of Flowrate Measurement (VNIIR)**
7a, 2 Azinskaya Str.
420088 Kazan
Russia
Telephone: +7 843 272 70 62
Fax: +7 843 272 00 32
E-mail: office@vniir.ru
Website: www.vniir.org

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

SLOVAKIA

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Dr. Robert Spurný	+421 2 602 94 350 spurny@smu.gov.sk	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. Ján Šebok	+421 2 602 94 720 sebok@smu.gov.sk	1
TC 1.3 Electricity and Magnetism	EM	Dr. Peter Vrabček	+421 2 602 94 360 vrabcek@smu.gov.sk	1
TC 1.4 Flow Measurement	F	Mr. Viliam Mazúr	+421 2 602 94 337 mazur@smu.gov.sk	1
TC 1.5 Length and Angle	L	Mr. Roman Fíra	+421 2 602 94 284 fira@smu.gov.sk	1
TC 1.6 Mass and Related Quantities	M	Dr. Robert Spurný	+421 2 602 94 350 spurny@smu.gov.sk	1
TC 1.7 Photometry and Radiometry	PR	Dr. Peter Nemeček	+421 2 602 94 278 nemecek@smu.gov.sk	1
TC 1.8 Physical Chemistry	QM	Dr. Viliam Pätoprstý	+421 2 602 94 285 patoprsty@smu.gov.sk	1
TC 1.9 Ionising Radiation and Radioactivity	RI	Mr. Jozef Dobrovodský	+421 2 602 94 671 dobrovodsky@smu.gov.sk	1
TC 1.10 Thermometry and Thermal Physics	T	Dr. Stanislav Ďuriš	+421 2 602 94 299 duris@smu.gov.sk	1
TC 1.11 Time and Frequency	TF	Mr. Pavol Doršic	+421 2 602 94 359 dorsic@smu.gov.sk	1
TC 1.12 Reference Materials	RM	Mrs. Anna Mathiasová	+421 2 602 94 226 mathiasova@smu.gov.sk	1
TC 2 Legal Metrology	LM	Mrs. Anna Nemečková	+421 2 602 94 380 nemeckova@smu.gov.sk	1
TC 3.1 Quality Forum Technical Committee	AQ	Dr. Robert Spurný	+421 2 602 94 350 spurny@smu.gov.sk	1
TC 4 Information and Training	IT TR	Dr. Stanislav Ďuriš	+421 2 602 94 277 duris@smu.gov.sk	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

ADDRESS OF ORGANISATION

1. Slovak Institute of Metrology (SMU)

63 Karloveská
842 55 Bratislava
Slovak Republic
Tel: +421 2 602 945 03
Fax: +421 2 654 295 92
E-mail: kromkova@smu.gov.sk
Website: www.smu.gov.sk

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

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TAJIKISTAN

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mr. T.Shakirjanov	+992 37 600 81 27 +992 37 234 19 33 tt-st@mail.ru	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	–	–	–
TC 1.3 Electricity and Magnetism	EM	–	–	–
TC 1.4 Flow Measurement	F	–	–	–
TC 1.5 Length and Angle	L	–	–	–
TC 1.6 Mass and Related Quantities	M	Mr. D.Rakhimov	+992 37 234 48 84 +992 37 600 81 15 +992 37 234 19 33 jurahon_st@mail.ru	1
TC 1.7 Photometry and Radiometry	PR	–	–	–
TC 1.8 Physical Chemistry	QM	–	–	–
TC 1.9 Ionising Radiation and Radioactivity	RI	–	–	–
TC 1.10 Thermometry and Thermal Physics	T	–	–	–
TC 1.11 Time and Frequency	TF	–	–	–
TC 1.12 Reference Materials	RM	–	–	–
TC 2 Legal Metrology	LM	Mr. D.Rakhimov Mr. T.Shakirjanov	+992 37 234 48 84 +992 37 600 81 15 +992 37 234 19 33 jurahon_st@mail.ru +992 37 600 81 27 +992 37 234 19 33 tt-st@mail.ru	1
TC 3.1 Quality Forum Technical Committee	AQ	–	–	–
TC 4 Information and Training	IT TR	Mr. S.Mavlonov	+992 37 233 34 91 +992 44 600 81 11 +992 37 234 19 33 saidtojiddin@mail.ru	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

ADDRESS OF ORGANISATION

1. Agency on Standardization, Metrology, Certification and Trade Inspection under the Government of the Republic of Tajikistan (Tajikstandard)

N. Karabaev street, 42/2
734018, Dushanbe
Tajikistan

Tel: +992 37 233 68 69
Fax: +992 37 234 19 33

E-mail: info@standard.tj
Website: www.standard.tj

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

UKRAINE

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Dr. Alexander Prokopov	+38 057 704 97 06 +38 057 700 34 23 coomet@metrology.kharkov.ua	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Dr. Volodymyr Chalyy	+38 0322 39 92 23 +38 0322 35 84 49 v-chalyy@dndi-systema.lviv.ua	3
TC 1.3 Electricity and Magnetism	EM	Dr. Oleh Velychko	+38 044 526 03 35 +38 044 526 42 60 Velychko@ukrcsm.kiev.ua	2
TC 1.4 Flow Measurement	F	Prof. Vladimir Bolshakov	+38 057 704 98 36 +38 057 700 34 47 bvb@metrology.kharkov.ua	1
TC 1.5 Length and Angle	L	Dr. Vladimir Kupko	+38 057 704 98 54 +38 057 700 34 47 kupko@metrology.kharkov.ua	1
TC 1.6 Mass and Related Quantities	M	Mrs. Iryna Kolozyńska	+38 057 704 97 22 +38 057 700 34 47 iren_kolozinsky@ukr.net metrology_mass@ukr.net	1
TC 1.7 Photometry and Radiometry	PR	Mr. Leonid Grishchenko	+38 057 704 97 43 +38 057 700 34 47 optolas@metrology.kharkov.ua	1
TC 1.8 Physical Chemistry	QM	Dr. Mikhail Rozhnov	+38 044 526 52 98 +38 044 526 64 60 molar@ukrcsm.kiev.ua	2
TC 1.9 Ionising Radiation and Radioactivity	RI	Dr. Vladimir Evseyev	+38 057 704 98 93 ev@metrology.kharkov.ua	1
TC 1.10 Thermometry and Thermal Physics	T	Dr. Rimma Sergiyenko	+38 057 704 98 00 +38 057 700 34 47 Rymma.Sergiyenko@metrology.kharkov.ua	1
TC 1.11 Time and Frequency	TF	Mr. Alexander Grichaniuk	+ 38 057 704 97 96 + 38 066 240 28 99 sc2@metrology.kharkov.ua	1
TC 1.12 Reference Materials	RM	Mr. Andrey Ivkov	+38 057 704 97 45 +38 057 700 34 47 standard@metrology.kharkov.ua	1
TC 2 Legal Metrology	LM	Dr. Olga Malets-kaya	+38 057 704 97 79 +38 057 700 34 47 moe@metrology.kharkov.ua	1
TC 3.1 Quality Forum Technical Committee	AQ	Mrs. Viktoriya Postnikova	+38 057 704 98 49 +38 057 700 34 47 os_096@metrology.kharkov.ua	1
TC 4 Information and Training	IT TR	Dr. Pavel Neyezhmakov	+38 057 700 34 22 +38 057 700 34 47 pavel.neyezhmakov@metrology.kharkov.ua	1
TC 5 Joint Scientific Research in Field of the Metrology		Dr. Vladimir Sklyarov	+38 067 970 21 31 +38 057 700 34 47 swv@metrology.kharkov.ua	1

ADDRESSES OF ORGANISATIONS

1. National Scientific Centre "Institute of Metrology" (NSC "IM")

42 Mironositskaya Str.
61002 Kharkov
Ukraine
Tel: +38 057 700 34 09
Fax: +38 057 700 34 47
E-mail: info@metrology.kharkov.ua
Website: www.metrology.kharkov.ua

2. State Enterprise "All-Ukrainian State Scientific and Research Centre of Standardization, Metrology, Certification and Consumer Protection" (DP "Ukrmetrteststandard")

4 Metrologichna Str.
03143 Kyiv
Ukraine
Tel: +38 044 526 52 29
Fax: +38 044 526 42 60
E-mail: ukrcsm@ukrcsm.kiev.ua
Website: www.ukrcsm.kiev.ua

3. State Enterprise "Scientific-Research Institute for Metrology of Measurement and Control Systems" (DP NDI "Systema")

6 Kryvonis Str.
79008 Lviv
Ukraine
Tel: +38 032 272 89 39
Fax: +38 032 235 84 49
E-mail: office@dndi-systema.lviv.ua
Website: www.dndi-systema.lviv.ua

4. State Enterprise "Ivano- Frankivsk Research-and-Production Center for Standardization, Metrology and Certification" (DP "Ivano-Frankivskstandartmetrologija")

127, Vovchynetska Str.
76007 Ivano-Frankivsk
Ukraine
Tel: +38 03422 6 68 84
Fax: +38 03422 3 02 00
E-mail: dcsms@if.ukrtel.net
Website: <http://www.ifdcsms.com.ua>

CONTACT PERSONS OF COOMET MEMBER COUNTRIES

UZBEKISTAN

Structural Body & Subject Field		Contact Person	Telephone, E-mail	Address
TC 1.1 General Metrology	GM	Mr. Normurod Boymatov	+998 71 253 80 83 metrologuz@mail.ru	1
TC 1.2 Acoustics, Ultrasound, Vibration	AUV	Mr. Marat Rafikov	+998 71 253 80 83 metrologuz@mail.ru	2
TC 1.3 Electricity and Magnetism	EM	Mr. Aziz Kadirov	+998 71 253 80 83 metrologuz@mail.ru	2
TC 1.4 Flow Measurement	F	Mr. Alisher Ubaydullaev	+998 71 253 80 83 metrologuz@mail.ru	1
TC 1.5 Length and Angle	L	Mr. Shukrullo Mirsadikov	+998 71 253 80 83 metrologuz@mail.ru	2
TC 1.6 Mass and Related Quantities	M	Mr. Makhmud Kayumov	+998 71 253 80 83 +998 71 150 35 08 metrologuz@mail.ru nscenter@standart.uz	3
TC 1.7 Photometry and Radiometry	PR	Mr. Husan Hidoyatov	+998 71 253 80 83 metrologuz@mail.ru	2
TC 1.8 Physical Chemistry	QM	Mr. Abdubori Mavlan-Kariev	+998 71 253 80 83 metrologuz@mail.ru	2
TC 1.9 Ionising Radiation and Radioactivity	RI	Dr. Hikmat Mahmudov	+998 71 253 80 83 metrologuz@mail.ru	2
TC 1.10 Thermometry and Thermal Physics	T	Mr. Alisher Ubaydullaev	+998 71 253 80 83 metrologuz@mail.ru	1
TC 1.11 Time and Frequency	TF	Dr. Nodir Ochilov	+998 71 253 80 83 metrologuz@mail.ru	2
TC 1.12 Reference Materials	RM	Dr. Larisa Kim	+998 71 253 80 83 metrologuz@mail.ru	1
TC 2 Legal Metrology	LM	Mr. Gayratjon Gaziev	+998 71 253 80 83 metrologuz@mail.ru	1
TC 3.1 Quality Forum Technical Committee	AQ	Dr. Karim Utaev	+998 71 253 80 83 metrologuz@mail.ru	1
TC 4 Information and Training	IT TR	Dr. Rustam Djabbarov	+998 71 253 80 83 metrologuz@mail.ru	1
TC 5 Joint Scientific Research in Field of the Metrology		–	–	–

ADDRESSES OF ORGANISATIONS

1. Research Institute of Standardization, Metrology and Certification (SRISMC)

9 "B", Chopon Ota Str.
100059, Tashkent
Republic of Uzbekistan
Tel: 998 71 253 85 67
Fax: 998 71 253 71 34
E-mail: smsiti@mail.ru, metrologuz@mail.ru
Website: www.smsiti.ilim.uz

2. Center for Rendering of Metrological Services (CRMS)

333 "B", Farobiy Str.
100049, Tashkent
Republic of Uzbekistan
Tel: 998-71 150 26 01
Fax: 998-71 150 26 15
E-mail: metrolog@inbox.uz
Website: www.standart.uz

3. The State Institution "Centre of National Standards of Republic of Uzbekistan (SI "CNS Uz")

333 "B", Farobiy Str.
100049, Tashkent
Republic of Uzbekistan
Tel: 998-71 246 70 06
Fax: 998-71 150 35 08
E-mail: nscenter@standart.uz
Website: www.standart.uz

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES



ARMENIA

Area: 29.74 thousand km²

Population: 3.2 million

Capital: Yerevan

Time zone: UTC+4

National currency: dram

The legal basis of the system for assuring the uniformity of measurements of the Republic of Armenia was laid down in 2004 in the Law on Assuring the Uniformity of Measurements and in the Regulation of the Government of the Republic of Armenia.

Organizational structure of the national metrological system includes a national metrology body and a National Metrology Institute.

The national metrology body is **the Ministry of Economy of the Republic of Armenia**.

Management: Mr. Tigran Davtyan

Address: 5 Mkrtchyan Str., 0010 Yerevan, Republic of Armenia

Telephone: +374 10 52 61 34

Fax: +374 10 52 65 77

E-mail: minister@minted.am

Major activities are as follows:

- development of public policy in the field of uniformity of measurements;
 - coordination of activities of the National Metrology Institute;
 - development of legal and other acts regarding uniformity of measurements;
 - organisation of development and approval of national standards;
 - type approval of measuring instruments imported into Armenia and domestically produced;
 - accreditation of laboratories that calibrate measuring instruments;
 - organisation and carrying out of state metrological inspection of measuring instruments and control over compliance with metrological rules and regulations;
 - licensing of organisations and individuals who produce and repair measuring instruments;
 - maintenance of the register of approved measuring instruments and reference materials.
- 56 units of reference measuring instruments rep-

resent the technical basis of the system for assuring uniformity of measurements of the Republic of Armenia.

The duties of the Armenian National Metrology Institute are performed by **the Closed Joint-Stock Company "National Institute of Metrology"**

Management: Dr. Vahan Sahakyan

Address: 49/2 Komitasi Ave., 0051 Yerevan, Republic of Armenia

Telephone: +374 10 23 26 00

Fax: +374 10 23 54 78

E-mail: metrology@metrology.am

Major activities:

According to the Law on Assuring the Uniformity of Measurements of the Republic of Armenia of 26 May, 2004, the National Institute of Metrology under authority of the Ministry of Economy of the Republic of Armenia was established on the basis of the Closed Joint-Stock Company "Metrologist".

The National Institute of Metrology within its lawful competence is responsible for implementing state policy in the field of metrology. **The Institute fulfils its responsibilities through the following constituent laboratories, departments and services:**

- service of reference materials and scientific research of the use and maintenance of measurement standards, which includes optical-physical, physical-chemical, thermotechnical, radiation and reference material laboratories;
- department of development of normative documents in metrology;
- department of state type approval testing of measuring instruments;
- department of technical maintenance of measuring instruments;
- territorially organised verification laboratories;
- laboratory of mechanical and dimensional measurements;

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES

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- laboratory of time and frequency, as well as radio-electronic measurements;
- laboratory of gas and liquid flow measurements;
- laboratory of force, strength and pressure measurements.

Major activities of the Institute are:

- development of normative and methodical documents in metrology;
- provision of reproducibility of units of measurements and their dissemination to the working measuring instruments used by metrological services of organisations, as well as by testing and measuring laboratories accredited by it;

- carrying out of research with the purpose of assuring the uniformity of measurements;
- performance of state tests, verification and metrological attestation of measuring instruments and testing equipment;
- provision of comparisons of national standards with intergovernmental and international standards;
- carrying out metrological attestation of measurement techniques, metrological examination of normative documents in metrology;
- performance of other functions stipulated by the legislation and the Statute of the Institute.



МЕТРОЛОГИЧЕСКИЕ ИНФРАСТРУКТУРЫ СТРАН-УЧАСТНИЦ КООМЕТ

AZERBAIJAN

Area: 86 600 km²

Population: about 9.357 million for 01.01.2013

Capital: Baku

Time zone: UTC+4

National currency: manat



State Metrology Service under the State Committee for Standardization, Metrology and Patent of the Republic of Azerbaijan is the national metrology body in this country.

The State Committee for Standardization, Metrology and Patent of the Republic of Azerbaijan (Committee) established on the basis of the Decree of the President of the Republic of Azerbaijan No. 53 of 19 November, 2008, is the state body which carries out the state policy in the fields of standardization, metrology, certification, accreditation and protection of the industrial and intellectual proprietary rights.

Chairman: Mr. Hasanov Ramiz Ayvaz oghly

Address: 124 Mardanov gardashlary str., AZ 1147 Baku, Republic of Azerbaijan

Telephone: +99412 449 99 59

Fax: +99412 440 52 24

E-mail: azs@azstand.gov.az;

Website: www.azstand.gov.az

The legislative base for the functioning of the state body in the field metrology is the Law of the Republic of Azerbaijan "On Provision of the Unanimity of Measurements", Regulations and Orders of the Cabinet of Ministries of the Republic of Azerbaijan, Statute of the Committee and State Metrology Service.

The goals of the state body in the field metrology in Azerbaijan are as follows:

- protection of the rights and legitimate interests of the citizens, the established law, order and economy of the Republic of Azerbaijan from negative consequences of doubtful measurement results;
- assistance to scientific and technical and economic progress on the basis of application of the state standards of units and use of measurement results of high and guaranteed accuracy expressed in the units admitted for application in the country;

- creation of favourable conditions for international and inter-regional relations;
- regulation of relations of the state bodies of the Republic of Azerbaijan with legal and physical persons in the field of development, manufacture, checking, test, operation, repair, sale, import and export of measuring instruments;
- creation of conditions for mutual recognition of results of tests, verifications and calibrations with a view of elimination of technical barriers in bilateral and multilateral external economic relations.

In the field of metrology, according to the legislation, the State Committee for Standardization, Metrology and Patents of the Republic of Azerbaijan is assigned the following functions:

- definition of the general metrological requirements to measuring instruments, measurement methods and results;
- development and carrying out of the state policy in the field of maintaining the uniformity of measurements;
- state metrological control and supervision;
- establishment of the rules of creation, approval, storage and application of measurement standards;
- approval of the state standards; carrying out of intergovernmental comparison of state measurement standards;
- establishment of the rules of certifications of measurement procedures;
- organisation of the elaboration and approval of national standards in the field of metrology;
- accreditation of testing centres;
- approval the list of measuring instruments subject to calibration and checking;
- organisation and coordination of activities of the state inspectors on maintenance of the uniformity of measurements;
- approval of the type of measuring instruments;
- maintenance of the state register of measuring instruments;

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- organisation of the activity and accreditation of metrological services of legal and physical entities for the right of carrying out calibration work;
- approval of normative documents on measurement assurance;
- realisation of other functions stipulated by the legislation of the country and the Statute about the Committee.

In the field of metrology the Committee implements its authorities through Metrology department of Central Administration, State Metrology Service under the Committee, Metrology Control Department of the State Control Service for Technical Regulation and Standardization under the Committee, Experimental-Testing Center (AzTEST) and relevant divisions in the regional of the country.

State Metrology Service under the Committee represents Azerbaijan as a member of COOMET.

Chief: Mr. Abbasov Oktay Abbas oghly

Address: 124 Mardanov gardashlary str.,
AZ 1147 Baku, Republic of Azerbaijan

Telephone: +99412 440 63 16
+99412 449 99 59

Fax: +99412 440 52 24

E-mail: metrology@azstand.gov.az

The following structural divisions are included in the structure of the State Metrology Service:

- division of the design and development of standards;
- division of legal metrology;
- division of the national standards of force and pressure;
- division of the national standards of density and viscosity;
- division of the national standards of temperature;
- division of the national standards of mass;
- division of the national standards of electric quantities;
- division of the national standards of frequency and time;
- division of the national dosimeter standards
- division of the standard samples of gaseous mixtures;
- financial-administrative division.

During 2012, about 883 714 measuring instruments have been verified by the employees of the State Metrological Service under the State Committee for Standardization, Metrology and Patent of the Republic of Azerbaijan.



METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES



BELARUS

Area: 207.6 thousand km²

Population: 9,483 million

Capital: Minsk

Time zone: UTC+3

National currency: belarusian ruble

The legal basis of the system for assuring the uniformity of measurements of the Republic of Belarus (SAUM) is the Law on Assuring the Uniformity of Measurements and the Directives of the Government of the Republic of Belarus and the State Committee for Standardization of the Republic of Belarus.

The state metrology service is headed by a national metrology body – **State Committee for Standardization of the Republic of Belarus (Gosstandart of Belarus)**.

Chairperson: Mr. Viktor Nazarenko

Address: 93 Starovilensky Trakt, 220053 Minsk, Republic of Belarus

Telephone: +375 17 233 52 13

Fax: +375 17 233 25 88

E-mail: belst@anitex.by
metrol_belst@anitex.by

The major activities are as follows:

- maintenance of the common policy on the matters regarding measurement assurance, as well as coordination of the implementation and development of the SAUM of the Republic of Belarus;
- establishment and maintenance of the state metrological service;
- submitting of proposals for application of units of measurement in the Republic of Belarus to the Council of Ministers of the Republic of Belarus;
- development of legal and other directives aiming at assuring the uniformity of measurements; determination of priorities in metrology development;
- organisation of the development and approval of national standards and other normative documents regulating the implementation of the SAUM;
- organisation of the publication and dissemination of technical standards and scientific-technical information in the field of metrology including reference data;

- setting requirements for national measurement standards and measurement standard, as well as rules of their development, approval, maintenance and use;
- type approval of imported and domestically produced measuring instruments;
- organisation and performance of metrological surveillance;
- coordination of the cooperation in the field of metrology at the international level; representation of the Republic of Belarus in the international metrology organisations and collaboration with national metrology of other countries.

Gosstandart coordinates the activity of the following:

- Interindustry Commission of time and frequency and determination of the Earth rotation parameters,
- Interindustry Commission of reference substances and materials of composition and properties;
- Interindustry Commission of reference data of physical constants and properties of substances and materials.

Technical basis of the SAUM is represented by 39 national and primary measurement standards of the Republic of Belarus and about 3 500 reference measuring instruments.

The leading organisation in the field of developing and maintaining measurement standards is the National Metrology Institute – Belarussian State Institute of Metrology (BelGIM).

Director: Prof. Nikolai Zhagora

Address: 93 Starovilensky Trakt, 220053 Minsk, Republic of Belarus

Telephone: + 375 17 233 55 01

Fax: + 375 17 288 09 38

E-mail: info@belgim.by
coomet@belgim.by

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES

The major activities of BelGIM are as follows:

- development of scientific-methodological and procedural basis of the SAUM;
- coordination and performance of fundamental and practical research;
- development, maintenance and comparison of national measurement standards with the international measurement standards or national measurement standards of other countries;
- recognition of national measurement standards by other countries;
- reproduction of measurement units and their dissemination to the measurement standards at the level of metrology services of enterprises and accredited laboratories;
- development of a uniform scientific-technical policy in the field of metrology and assurance of the uniformity of measurements;
- development of normative methodological document, measurement procedures and methodological documents in the field of metrology;
- development of the criteria for classification of devices as measuring instruments;
- carrying out of state type approval tests, verification, calibration and metrological evaluation of measuring instruments and other metrology related work;

- maintenance of the state register of national measurement standards of the Republic of Belarus and the state register of approved measuring instruments;
- carrying out of metrological evaluation of measurement procedures and calibration of test equipment;
- participation in the cooperation projects in the field of metrology at regional and international levels as a National Metrology Institute (NMI);
- participation in training and improving the professional skills of personnel engaged in metrology.

The State Metrology Service includes **15 regional metrology bodies of Gosstandart**.

Besides collaboration within COOMET there are good relations in the field of metrology with the following organisations:

- International Organisation of Legal Metrology (OIML);
- International Bureau of Weights and Measures (BIPM);
- Interstate Council on Standardisation, Metrology and Certification (EASC).



METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES



BULGARIA

Area: 111 thousand km²

Population: 7.365 million

Capital: Sofia

Time zone: UTC+2

National currency: lev

The first Law on Measures and Weights was adopted by the Bulgarian Parliament in 1888 and thus the Bulgarian metrological service was established.

At present **the Bulgarian Institute of Metrology (BIM) and the State Agency for Metrological and Technical Surveillance (SAMTS)** are the institutions responsible for the implementation of the governmental policy in the field of metrology. These two institutions carry out the activities in the field of metrology for providing traceability, accuracy and reliability of measurements in Bulgaria. Their responsibilities are laid down in the new Law on Measurements in 2002 and its amendments of 2005, 2008, 2009, and 2011.

1) Bulgarian Institute of Metrology (BIM)

Acting President: Mrs. Dimka Ivanova

Address: 52-B, Blvd G.M.Dimitrov 1040
Sofia, Bulgaria

Telephone: +359 2 873 52 77

Fax: +359 2 970 27 29

E-mail: d.ivanova@bim.government.bg

The major objectives of BIM are focused on promoting the governmental policy in the field of metrology and on providing traceability, accuracy and reliability of measurements in Bulgaria. The main BIM activities are performed by the General Directorate "National Centre of Metrology" and General Directorate "Measures and Measuring Instruments".

The General Directorate "National Centre of Metrology" (DG NCM) realises the BIM policy in the field of fundamental metrology

General Director: Petya Aladzhem

Address: 52-b G.M. Dimitrov Blvd.,
1040 Sofia, Bulgaria

Telephone: +359 2 873 52 88

Fax: +359 2 970 27 35

E-mail: p.aladzhem@bim.government.bg

The major activities of DG NCM include:

- developing long-term programme on elaboration and improvement of the national measurement standards;
- development, maintenance and improvement of national measurement standards;
- providing traceability of national measurement standards to international standards or to the standards of the Signatories of the Metre Convention;
- taking measures on assuring traceability of measurements in case if there is no approved national measurement standard or this standard is out of service;
- organisation and participation in international comparisons in order to determine the level of equivalence of national standards;
- dissemination of units from the national measurement standards to the standards of lower level through calibration;
- coordinating the activities of measurement standards' keepers;
- keeping the register of approved national measurement standards;
- carrying out approval of software for processing measurement data;
- certification of reference materials and coordination of implementation of the long-term policy on developing and maintaining certified reference materials;
- keeping the register of certified reference materials and publishing this register in a special edition;
- carrying out the activities on creating the conditions for mutual recognition of measurement standards in the framework of the Agreement (MRA) initiated by the CIPM;
- participation in the work of CIPM, EUROMET and COOMET technical committees.

The General Directorate "Measures and Measuring Instruments" (DG MMI) realises the BIM policy in the field of legal metrology

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General Director: Mrs. Stefka Hristova

Address: 52-b G.M. Dimitrov Blvd.,
1040 Sofia, Bulgaria

Telephone: +359 2 873 52 98

Fax: +359 2 873 52 98

E-mail: st.hristova@bim.government.bg

The major activities of DG MMI include:

- carrying out type approval of legally controlled measuring instruments;
- keeping the register of approved types of measuring instruments;
- carrying out initial and subsequent verification of measuring instruments;
- carrying out metrological review of measuring instruments;
- participation in the work of OIML, WELMEC and COOMET technical committees;
- carrying out calibration of measuring instruments;
- carrying out type approval and initial and subsequent verification of gambling machines;
- carrying out type approval and review of fiscal devices;
- keeping the register of approved types of fiscal devices.

The General Directorate “Measures and Measuring Instruments” includes the Control and Methodology Department and 6 regional departments.

2) State Agency for Metrological and Technical Surveillance (SAMTS)

President: Mr. Angel Angelov

Address: 52A “G.M.Dimitrov” Blvd.,
1797 Sofia, Bulgaria

Telephone: +359 2 980 89 20
+359 2 892 97 42

Fax: +359 2 986 17 07

E-mail: damtn@damtn.government.bg
Angel.Angelov@damtn.government.bg

The major objectives of SAMTS are focused on promoting the state policy in the field of legal metrology –metrological supervision; market surveillance of technical products (including measuring instruments) placed on the market and/or put into use subject to essential requirements;

technical inspection of high risk equipment; quality control of liquid fuels and designation of conformity assessment bodies.

The Directorate General “Metrological Supervision” (DG MSv) realises the SAMTS policy on metrological supervision in the field of legal metrology:

Director General: Mrs. Pavlina Danailova

Address: 13, “Lachezar Stanchev” Str.,
1797 Sofia, Bulgaria

Telephone: +359 2 986 22 66

Fax: +359 2 939 67 01

E-mail: mn.dir@sasm.orbitel.bg
mesdevdiv@sasm.orbitel.bg
Pavlina.Danailova@damtn.government.bg

The major activities of the Directorate General “Metrological Supervision” include:

- observing the utilisation of the measurement units under the Law on Measurements;
- supervision of manufacturers, importers, repairers and users of measuring instruments subject to legal control under the Law on Measurements;
- authorisation and supervision of persons performing verification of measuring instruments;
- restricting actions on putting measuring instruments not complying with the requirements of the Law on Measurements and respective directives on the market and/or into service;
- control of persons producing or importing pre-packages or measuring container bottles;
- restricting action on putting prepackages or measuring container bottles not complying with the requirements of the Law on Measurements and respective directives on the market and/or into service;
- market surveillance of measuring instruments;
- registration of repairers of fiscal devices;
- registration and control of installers and repairers of tachographs;
- licensing repairers of electronic taximeters with fiscal memory.

The Directorate General “Metrological Supervision” of SAMTS includes Department “Metrological Supervision”, Department “Registration, licensing and control” and regional departments.

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES

Gulf of Mexico



JAMAICA

Caribbean Sea

CUBA

Area: 110,86 thousand km²

Population: 11.1 million

Capital: Havana

Time zone: UTC-5

National currency: cuban peso

The National Research Institute on Metrology (INIMET) of Cuban National Bureau of Standards as NMI, is the institution responsible for measurement standards and scientific metrology. **It is in charge of the following main activities:**

- to implement, improve, maintain and compare, at the international level, the Cuban national measurement standards and transfer their values to secondary standards;
- to carry out research and scientific-technical development in the field of metrology;
- to calibrate working standards and instruments of secondary laboratories;
- to carry out pattern evaluation of measurement instruments;
- to participate in the elaboration of standards and technical regulations for verification and calibration of measuring instruments;
- to educate and train specialists for legal metrology and industrial calibration laboratories.

See note 1 for quality system.

Director: Mr. Antonio Lopez Maidique

Address: Consulado No.206, e/ Animas y Trocadero, Centro Habana

La Habana, CP 10200, Republic of Cuba

Telephone: +537 862 05 36

+537 863 90 62

Fax: +537 867 69 66

E-mail: maidique@inimet.cu

The Centro de Isótopos (CENTIS) is the designated laboratory in the field of Radioactivity. CENTIS belongs to the Agency of Nuclear Energy and Advanced Technologies of the Ministry for Science, Technology and Environment (CITMA). The main objective of this center is the production and R&D of radiopharmaceuticals, RIA kits and radioactive labelled compounds for the Cuban Health System as well as to perform specialized technical services and application of Nuclear Techniques to solve economical national problems, including those re-

lated to metrology of ionizing radiation. The Department of Radionuclides Metrology of the Centro de Isótopos, the CENTIS-DMR, is responsible for the establishment, developing, conservation, custody and diffusion of National Standards of Radionuclide Activity units (Becquerel). CENTIS-DMR is the scientific and methodological warrantor for achieving the traceability to these standards of the radioactivity measurements performed at national level.

See note 1 for quality system.

Director: MSc. Saúl Pérez Pijuán

Address: Ave. Monumental

y Carretera La Rada, Km 31/2

Guanabacoa, CP 11100, Ciudad Habana, Cuba

Telephone: +537 682 95 24

Fax: +537 866 98 21

E-mail: saul@centis.edu.cu

The Centro de Protección e Higiene de las Radiaciones (CPHR) is a designated laboratory mainly responsible for the dosimetry standards in the field of ionizing radiation. The Dosimetry Laboratory of the CPHR performs the following obligations:

- to maintain traceability in Cuba to the international measurement system through implementing and improving national standards and calibrating measuring instruments;
- to participate in comparison exercises of the standards at international level;
- to carry out research and scientific-technical development in the field of ionizing radiation metrology;
- to provide education to specialists and users in the field of radiation measurements.

See note 1 for quality system.

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**Director: MSc. Gladys Mercedes
López Bejerano**

Address: Calle 20 No4113, e/41 y 47, Playa
La Habana, CP 11300, Republic of Cuba

Telephone: +537 6829681
+537 2030165

Fax: +537 6829573

Note 1:

INIMET, CENTIS and CPHR have established a quality system in correspondence with the ISO/IEC 17025 and the Mutual Recognition Arrangement for national measurement standards and for calibration and measurement certificates issued by National Metrology Institutes. In 2008, this system was accredited by the National Accreditation Body (ONARC) of the Republic of Cuba and recognized by the Regional Metrology Organization COOMET, in accordance with the above-mentioned international standard.

The institutions responsible for Legal Metrology are:

a) **Cuban National Bureau of Standards (NC)** that is responsible for the development of metrology and legal metrology and performs the functions of the central steering body of state administration in the field of metrology.

The main tasks and activities of the NC in the field of metrology are:

- elaboration and realisation of state policy in metrology;
- preparation of laws and decrees referring to metrology;
- steering of metrology in the state in the scope given by the Law on Metrology, including subordinate metrological institutions and Legal Metrology Service;

- methodical activity and supervision of activities in metrology;
 - representation of the Republic of Cuba in the international metrological associations.
-

General Director:

Dr. Nancy Fernández Rodríguez

Director of Metrology:

Mr. Fernando Arruza Rodríguez

Address: Calle E No 261 entre 11 y 13- Vedado
La Habana 10400, Republic of Cuba

Telephone: +537 682 95 24

Fax: +537 682 78 50

E-mail: nc@ncnorma.cu, arruza@ncnorma.cu

b) **Territorial Centres of Metrology (TCM)** which are subordinate institutions of NC. These institutions are charged with the following main activities:

- to verify the legal measurement instruments;
- to calibrate the working standards of measurement units (for industry);
- to calibrate the ordinary measuring instruments for customers;
- to carry out the pattern evaluation of measuring instruments.

TCM laboratories were accredited by ONARC according to ISO IEC 17025 standard.

c) The other institutions in the field of legal metrology are **Metrological Laboratories (Industry)**. These institutions (established in factories or other organisation) are calibration laboratories. NC authorises some of them for verification of the specified kinds of legal measuring instruments, if necessary.

The calibration of ordinary measuring instruments is performed by more than 170 calibration laboratories, established in the framework of industry or other organisations.

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES



DPR OF KOREA

Area: 109.89 thousand km²

Population: 22.6 million

Capital: Pyongyang

Time zone: UTC+9

National currency: won

The legal foundation of metrology in DPR Korea is the Law of DPR Korea on Metrology adopted in 1993.

The institution responsible for standards, scientific metrology and calibration service is **Central Institute of Metrology (CIM)**.

Its main tasks are:

- maintenance and management of national standards for the measurement units of physical quantities;
- fundamental research in the field of metrology;
- development of national standards and reference measuring instruments;
- calibration and international comparison of various kinds of reference measuring instruments;
- pattern approval of measuring instruments;
- research for the establishment of law and regulations on metrology;
- train of the experts and dissemination of scientific and technical knowledge on metrology;
- international exchange in the field of metrology.

Director: Mr. Jang Myong Il

Address: Sonsin-Dong No.1, Sadong District, Pyongyang, DPR of Korea

Telephone: +850 2 381 86 49

Fax: +850 2 381 44 80

E-mail: pdk0301@163.com

Institution responsible for legal metrology is **State Administration for Quality Management (SAQM)** responsible for the metrological works in the country.

It is charged with the following main activities:

- to elaborate and realize the state policy in metrology;
- to define and register the measurement standards for the unification of measurement units and maintenance of their accuracy;
- to approve the measuring means;
- to accredit the self-calibration institution;
- to organize and carry out the inspection and supervision in the field of metrology;
- to elaborate the law, regulations and rules on metrology;
- to approve the guidelines to the calibration and pattern evaluation.

Management:

Mr. Pak Song Guk, Acting President

Dr. Jo Hui Kon, Director,

Department of Metrology

Address: Inhung-Dong No.1, Moranbong District, Pyongyang, DPR Korea

Telephone: + 850 2 18111 (ext. 381 8989)

Fax: + 850 2 381 44 10

E-mail: saqm@co.chesin.com

Territorial Institutions of Calibration are the subordinate of SAQM. These institutions are charged with the following main activities:

- to maintain the working standards and reference instruments;
- to calibrate the ordinary measuring instruments belonging to the category of state calibration within the territory;
- to carry out the supervision and control on metrology;
- to give technical and administrative guidance to the self-calibration institutions within the territory.

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GEORGIA

Area: 69,7 thousand km²

Population: 4.5 million

Capital: Tbilisi

Time zone: UTC+4

National currency: lari

The legal basis of the system for ensuring the uniformity of measurements of Georgia (SEUM) was laid down in 1996 in the Law on Assuring the Uniformity of Measurements (amended in 2005) and the Resolutions of the Georgian Government.

The organizational structure of the SEUM is represented by:

- Institute of Metrology under GEOSTM;
- accredited verification, calibration and test laboratories.
- metrological services of state governing bodies and agents of management.

The State Metrology Service is headed by a national metrology body – **Georgian National Agency for Standards, Technical Regulations and Metrology (GEOSTM)**.

Management: Mr. Promete Shevardnadze
Address: 67 Chargali Str, 0178 Tbilisi, Georgia
Telephone: +995 32 261 35 00
Fax: +995 32 261 35 00
E-mail: geostm@geostm.ge

Major branches of activities are the follows:

- participation in maintenance of common policy on the matters regarding the assurance of the uniformity of measurements, as well as coordination of the implementation and development of the SEUM;
- codesign of legal and other directives aiming at the assurance of the uniformity of measurements; determination of priorities in improving metrology;
- taking part in development and approval of national standards, technical regulations and other normative documents regulating the implementation of the SEUM;
- type approval of legal imported and domestically produced measuring instruments;
- performance of verification, calibration and

metrological certification according to metrological directives pertaining to measurements of radioactive pollution of the environment and raw materials and products;

- participation in coordination of the cooperation in the field of metrology at the international level; representation of Georgia in the international metrology organisations and collaboration with national metrology organisations of other countries. The technical basis of the SEUM is represented by national and primary measurement standards of Georgia and also reference measuring instruments.

The leading organisation in the field of developing and maintaining measurement standards is **the Institute of Metrology** under **GEOSTM**.

Director: Ms. Nino Mikanadze
Address: 67 Chargali Str, 0178 Tbilisi, Georgia
Telephone: +995 32 261 77 57
Fax: +995 32 261 35 00
E-mail: nino_mikanadze@yahoo.com

The major activities of GEOSTM are as follows:

- development of scientific-methodological and procedural basis of SEUM;
- coordination and performance of fundamental and practical researches with the purpose to assure uniformity of measurements;
- development, maintenance and comparison of national measurement standards;
- reproduction of units of measurements and their dissemination to the measurement standards at the level of metrology services of enterprises and accredited laboratories;
- development of a uniform scientific-technical policy in the field of metrology and assurance of the uniformity of measurement;
- development of normative and methodological documents in the field of metrology;
- carrying out of type approval, verification, calibration of measuring instruments, as well

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES

as official measurements and other metrology related work;

- maintenance of the state register of approved measuring instruments and reference materials and the register of national and reference measurement standards;
- participation in accreditation of verification, calibration and test laboratories;
- participation in the cooperation projects in the field of metrology at regional and interna-

tional levels as the National Metrology Institute (NMI);

- participation in the training and improving of professional skill of personnel engaged in metrology and accreditation activities.

The State Metrology Service includes regional metrology bodies of GEOSTM.



METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES



GERMANY

Area: 357.021 thousand km²

Population: 82.3 million

Capital: Berlin

Time zone: UTC+1

National currency: mark

1. The institution responsible for measurement standards and scientific metrology in Germany is Physikalisch-Technische Bundesanstalt (PTB).

It is the National Metrology Institute providing scientific and technical services.

PTB's responsibilities are to achieve progress and ensure reliability in the field of metrology for the benefit of society, economy and science with research, measurement and consulting being its main activities.

Areas of PTB's work are:

- realisation, reproduction and dissemination of the SI units;
- development of national measurement standards;
- determination of fundamental constants and exploitation of quantum effects for realising the units;
- provision of traceable reference materials and determination of material properties;
- development of accurate and reliable measurement procedures;
- contribution to standardization and technology transfer by consulting and seminars;
- pattern evaluations, approval and consulting;
- metrology in commercial transactions, environmental, labour and radiation protection, medicine and safety engineering;
- cooperation in European and international metrology organisations as well as with other metrology institutes;
- technical cooperation with developing and newly industrialised countries.

President of the PTB:

Prof. Dr. Joachim Ullrich

Vice-President: Prof. Dr. Manfred Peters

Member of Presidential Board:

Dr. Jörn Stenger

Address: Bundesallee 100,

38116 Braunschweig, Germany

Telephone: +49 531 592 0

Fax: +49 531 592 9292

E-mail: Joachim.Ullrich@ptb.de

Manfred.Peters@ptb.de

Joern.Stenger@ptb.de

2. Institutions responsible for legal metrology

The basic principles of legal metrology are stipulated by the Units Act and the Verification Act, including the relevant implementing ordinances and additional regulations.

The physical and technical basis of the units to be applied in official and commercial transactions is today's International System of Units (SI).

The tasks of legal metrology are distributed between the federal and the state authorities. PTB is responsible for type examination and type approval of measuring instruments and traceability to national standards used by the verification authorities.

The verification authorities of the sixteen states and the officially approved test centres for measuring instruments in the field of electricity, gas, water and heat are responsible for the individual testing of measuring instruments subject to mandatory verification.

Office of Consortium on Metrology and Verification at German Academy of Metrology (DAM)

Address: Franz-Schrank-Str. 9, 80638 München, Germany

Telephone: +49 89 17 901 - 333

Fax: +49 89 17 901 - 386

E-mail: dam@lmg.bayern.de

3. Institutions responsible for calibration service

Calibrations are performed by the calibration laboratories accredited by the **“Deutsche Akkreditierungsstelle GmbH (DAkkS)”** founded by the German Government in Cooperation with the German Federation of Industry (BDI). The basis of the DAkkS (former DKD) accredited calibration laboratories is the traceability of their reference standards to the national standards provided by the National Metrology Institute, the PTB or other National Metrology Institutes. Industrial laboratories and other institutes which, due to their trained personnel and equipment, are able to perform measurements with the required uncertainty and whose standards are traceable to the national standards of the PTB, are accredited as calibration laboratories.

Accreditation is granted by DAkkS after assessment of the laboratories in accordance with the

standard DIN EN ISO/IEC 17025. Membership of DAkkS in the European Cooperation for Accreditation (EA) and the International Laboratory Accreditation Cooperation (ILAC) ensures the recognition of the calibration certificates in all member countries worldwide. At present there are about 440 accredited calibration laboratories for electrical, magnetic, dimensional, mechanical, acoustical, fluid and optical quantities, as well as for chemical analysis, reference materials, time and frequency, ionising radiation and radioactivity, temperature and humidity.

Head of the department Metrology of DAkkS: **Dr. Michael Wolf**

Address: Bundesallee 100,
38116 Braunschweig, Germany

Telephone: +49 531 592 1900

Fax: +49 531 592 1905

E-mail: michael.wolf@dakks.de



METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES



KAZAKHSTAN

Area: 2 717.3 thousand km²

Population: 16,658 million

Capital: Astana

Time zone: UTC+5, UTC+6

National currency: tenge

The activity in the field of metrology in the Republic of Kazakhstan is regulated by the Law on Assuring the Uniformity of Measurements establishing legal, economic and organizational bases of the uniformity of measurements. This Law is directed towards the protection of the rights and legitimate interests of the citizens and economy of the Republic of Kazakhstan from the consequences of invalid measurement results.

The Committee of Technical Regulation and Metrology of the Ministry of Industry and New Technologies of the Republic of Kazakhstan (MEMST) is a national body state administration in charge of activities aimed at ensuring the uniformity of measurements.

Chairperson: Mr. Ryskeldy Satbayev

Address: Center of Measurement Standards, Left bank of the river Ishim, Orynbor Str., 11, 010000, Astana, Republic of Kazakhstan

Telephone: +7172 79 33 01

Fax: +7172 24 02 48

E-mail: sdandart@memst.kz

Website: www.memst.kz

In accordance with the Law of the Republic of Kazakhstan on Assuring the Uniformity of Measurements the main objectives of MEMST are:

- formation and realisation of the state policy on assuring the measurement uniformity;
- coordination of activity of the metrology services of the Republic of Kazakhstan;
- establishment of measurement units admitted for application;
- organisation of the conducting of research activities in the field of metrology;
- establishment of the rules of creation, approval, storage, use and comparisons of state measurement standards, improvement of measurement standard base of measurement units of the Republic of Kazakhstan;
- organisation of comparisons of the results of

verifying and calibrating measuring instruments;

- establishment of a classification of national standards of units used on the territory of the Republic of Kazakhstan;
- determination of the order of developing and approving normative documents on the assurance of measurement uniformity;
- determination of the common metrological requirements to instruments, measurement methods and results, procedures for verifying measuring instruments;
- determination of the order of using, producing and repairing measuring instruments;
- organisation of the maintenance of the register of the state system of assuring measurement uniformity;
- organisation and carrying out of the state metrological control;
- representation of the Republic of Kazakhstan in international and regional metrological organisations;
- organisation of the proficiency development of specialists in the field of metrology.

Republic State Enterprise "Kazakhstan Institute of Metrology" (RSE "KazInMetr") is a state scientific metrological centre.

General Director: Mr. Vasiliy Mikhilchenko

Address: Center of Measurement Standards, Left bank of the river Ishim, Orynbor Str., 11, 010000, Astana, Republic of Kazakhstan

Telephone: +7172 24 09 15

Fax: +7172 79 32 99

E-mail: kazinmetr@mail.ru, legal@kazinmetr.org

Website: www.kazinmetr.kz

RSE "KazInMetr" carries out:

- activity directed towards the development of metrology in the republic;
- scientific-technical, practical, organizational-methodical activities with the purpose of

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improving the bases of the state system of assuring measurement uniformity of the Republic of Kazakhstan;

- creation and improvement of the measurement standards base of measurement units of the Republic of Kazakhstan;
- participation in improving the legal and normative bases of the state system of assuring measurement uniformity; harmonisation of normative documents on metrology with international requirements;
- pattern approval of measuring instruments produced in the Republic of Kazakhstan and imported measuring instruments on type approval;
- information and normative support of organisations in the field of metrology;
- raising of the level of skills and further training of specialists in the field of metrology.

The international cooperation of MEMST in the field of metrology is realised within:

- International Organisation of Legal Metrology (OIML);
- General Conference on Weights and Measures (CGPM);
- Euro-Asian Cooperation of National Metrological Institutions (COOMET);
- Euro-Asian Council for Standardization, Metrology and Certification (EASC);

- Interregional Standardization Association (IRSA);
- International Measurement Confederation (IMEKO);
- Asian-Pacific Metrology Programme (APMP).

In 2006 RSE “KazInMetr” signed The Mutual Recognition Arrangement (MRA) for national measurement standards and for calibration and measurement certificates issued by national metrology institutes, and on December 31, 2008 Republic of Kazakhstan became a full member to Metre Convention.

The state service of reference substances and materials of composition and properties hosted by RSE “KazInMetr” have been performing since 2002; the state service of time and frequency and the state service of reference data of physical constants and properties of substances and materials have been performing since 2005.

Besides the State Metrology Service the national metrology infrastructure includes a number of organisations, accredited for calibration of measuring instruments, evaluation of measurement methods, as well as a number of organisations having licenses for manufacturing and repairing measuring instruments.



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KYRGYZSTAN

Area: 198.5 thousand km²

Population: 5,224 million

Capital: Bishkek

Time zone: UTC+6

National currency: som

State management activities to ensure traceability in the country is regulated by **The Ministry of Economy and Antimonopoly Policy of the Kyrgyz Republic (MEAP KR)** in accordance with the law of the Kyrgyz Republic "On ensuring the Unity of Measurements" and the Government of the Kyrgyz Republic No. 727 from 04.12.09.

The organizational structure of the National Metrology System consists of MERKR, Center for Standardization and Metrology and the State Inspectorate of metrological supervision.

The Ministry of Economy and Antimonopoly Policy of the Kyrgyz Republic

Minister: Mr. Sariev Temir

Address: 106 Chui Avenue, 720002 Bishkek, Kyrgyz Republic

Telephone: +996 312 62 05 90
+996 312 62 37 54

Fax: +996 312 66 18 37

E-mail: mert@mert.kg

Major activities are as follows:

- development and implementation of State Policy on Ensuring Unity of Measurements;
- coordinate the activities of the Center for Standardization and Metrology;
- installation of measurement units permitted for use;
- establishment of procedures for the development and approval of documents to ensure unity of measurements;
- organization and implementation of the state Metrological Supervision of compliance requirements to ensure unity of measurements;
- accreditation of laboratories carrying out the calibration of measuring instruments.

Center for Standardization and Metrology under the Ministry of Economy and Antimonopoly Policy of the of the Kyrgyz Republic (CSM)

Director: Mr. Alimbek Kurmanbaev

Address: 197 Panfilov Str., 720040 Bishkek, Kyrgyz Republic

Telephone: +996 312 62 68 70
+996 312 62 57 34

Fax: +996 312 66 13 67

E-mail: nism@nism.gov.kg
metrolog@nism.gov.kg
metr_kg@mail.ru

The basic activities include:

- establishment and development of a national legal metrology system. The purposes of this system are to maintain traceability of measurement results, secure public interests and encourage fair competitiveness between vendors;
- realisation and dissemination of base and derived units of the International System of Units (SI); development, maintenance and improvement of the national standards of physical quantities;
- rendering of verification (calibration) and measurement services to manufacturers and organisations having different ownership;
- type approval and metrological evaluation of measuring instrument; maintenance of the state register of approved measurement instruments and reference materials;
- participation in comparisons of measurement standards at international, regional and national levels for the purpose of their technical maintenance and worldwide recognition of the resulting calibration and measurements certificates;
- development and evaluation of measurement procedures;
- research in the field of metrology;

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- participation in the activities of regional and international metrology organisations;

- Participation in Training and raising the level of skills of experts in metrology.

At the international level NISM cooperates with:

- International Organisation of Legal Metrology (OIML);

- Interstate Council for Standardization, Metrology and Certification (EASC);

- Interregional Standardization Association (IRSA);

- International Measurement Confederation (IMEKO);

- Euro-Asian Cooperation of National Metrological Institutions (COOMET).

The structure of the state metrological service also includes **9 regional metrological centres**.

National Inspection to **the Metrological Supervision under the Ministry of Economy and Antimonopoly Policy of the of the Kyrgyz Republic (NIMS MEAP KR)**

Department: Mr. Akhmatov Sultan

Address: Panfilov Str., 197

720040, Bishkek, Kyrgyz Republic

Phone: +996 312 66 01 17

+996 312 66 26 21

Fax: +996 312 62 57 15

E-mail: gimn@metronadzor.kg

www.metronadzor.kg

Main activities:

- the implementation in the Kyrgyz Republic a unified state policy in ensuring unity of measurements;

- protecting the interests of the state and citizens from the consequences of incorrect measurements;

- carries out the state metrological supervision:

- the release, condition and use of measuring instruments, including reference materials and properties of substances (materials), compliance regulations in the area of traceability in the sphere of state regulation, which applies:

- health, veterinary medicine, environmental protection;

- to ensure the safety and traffic;

- for trade transactions and mutual settlements between producer and consumer;

- to operate in a mandatory technical regulation;

- for the amount of goods disposed of in the commission trade, in order to determine the actual values of the mass, volume, flow or other variables and compliance with the realized number of these goods;

- a number of packaged goods in packages of any kind in their packaging, sale and import in cases where the contents can't be changed without its breaking or deformation, and the mass, volume, length, area or other value indicating the number contained in the package goods are marked on the package.



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LITHUANIA

Area: 65.2 thousand km²

Population: 3.4 million

Capital: Vilnius

Time zone: UTC+2

National currency: lita

All activities on assuring the uniformity of measurements in Lithuania are based on the Law on Metrology which came into force on 9 July 1996 (amended on 22 June 2006).

Lithuanian metrology system consists of:

- State metrology service (VMT);
- State standard laboratories;
- Bodies appointed for verification of measuring instruments by VMT;
- Notified Bodies carrying conformity assessment activities for measuring instruments according to the EU legislation;
- Lithuanian Metrology Inspectorate.

State Metrology Service (VMT)

Director: Mr. Daivis Zabulionis

Address: Algirdo str. 31, LT-03219 Vilnius, Lithuania

Telephone: +370 5 213 3349

Fax: +370 5 216 3469

E-mail: info@lvmt.lt

A decentralised metrology system exists in Lithuania. State metrology service under the Ministry of Economy, according to the Law on Metrology, is responsible for the formation and organization of measures to implement the metrology policy in Lithuania, coordination of uniformity of measurements, carrying out implementation of legal metrological regulation, as well as for exchange of information on verification of measuring instruments and notification of bodies with the other EU member states.

State Metrology Service performs the functions of a National Metrology Institute together with the state standards laboratories, which are authorised to develop and maintain national measurement standards by the Government of Lithuania.

State standards laboratories create, maintain, use and improve state standards, assure assignment of reproduced measurement quantities, maintain international traceability in the fields allocated to them and repre-

sent Lithuania in the activities of international metrological organisations in the scope of their competence.

According to the Resolution of the Government of Lithuania No. 518 of 1997 (new revision No. 730, 9 June 2003) on the approval, maintenance and use of national measurement standards, and approval of the list of national measurement standards and national standard laboratories, authorised to develop and keep national standards, the development of national measurement standards is being performed in line with the aforementioned Resolution, as well as the needs and economical capabilities of Lithuania.

Verification and calibration of measuring instruments and standards is performed by the state companies – Vilnius, Kaunas, Klaipeda, Siauliai and Panevezys Metrology Centres (MCs) and private accredited laboratories for calibration and testing of certain kinds of measuring instruments, which are appointed by VMT.

Accredited and designated by VMT bodies carries out metrological conformity assessment in respect of pre-packaged goods or measuring containers, affixes respective marks and (or) issue documents ascertaining conformity.

Notified bodies carry out conformity assessment activities according to the EU legislation.

The Lithuanian Metrology Inspectorate was established according to the Law on Metrology of Lithuania and performs the tasks of market surveillance for measuring containers also for quantity of weighted, counted measured and dosed products.

At Kaunas University of Technology established the Institute of Metrology, whose tasks are organization, coordination and execution of research in the field of metrology, as well as training of specialists in metrology.

There is a Technical Committee "Metrology" within the Lithuanian Standards Board. It's main responsibility is to draft written standards in the metrology field.

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MOLDOVA

Area: 33.7 thousand km²

Population: 3.567 million

Capital: Chisinau

Time zone: UTC+2

National currency: leu

In conformity with the law on metrology No. 647-XIII currently in force adopted on the 17th of November 1995 in the Republic of Moldova with the following amendments and addenda implemented by law of the Republic of Moldova No. 222-XVI from the 25th of October 2007 state governance providing the policy adoption in the domain of metrology is performed by **the Ministry of Economy (Direction of metrology) that is the Central Metrology Authority.**

In the domain of metrology the ministry is governed by law "On metrology", enactments of the President of the Republic, dispositions, orders, ordinances of the Government of the Republic of Moldova, international agreements and conventions signed by the Republic of Moldova.

The national system infrastructure of metrology includes:

Central Metrology Authority (CMA) – central public administration branch body under Government, responsible for the quality infrastructure, - the Ministry of Economy

- National Institute of Metrology;
- National Standard System;
- National Technical Council on Metrology;
- territorial metrology centers;
- metrological departments of juridical persons;
- Agency for Consumer's Protection.

In conformity with the entrusted authorities in the domain of metrology the Ministry of Economy performs the following functions:

- elaboration and coordination in realization of state policy in the domain of metrology;
- elaboration of legislative basis and taking part in elaboration and agreement of normative acts projects for the purpose of assurance of measurement results traceability to International System of Units (SI system);

- affirmation of regulations in legislative metrology within the competence;
- maintenance of National Registries of the National System of Metrology (national measurements standards, legal metrology regulations and authorized entities);
- coordination of metrological activity of the central public administration branch bodies, both juridical and natural persons that accomplish activities in the domain of metrology;
- presentation of the Republic of Moldova to regional and international organizations of metrology together with the national metrology body;
- designation of the juridical persons for verification of a legal measuring instruments and for the carrying out of official measurements on the basis of certificate of accreditations issued by the national accreditation body;
- approval of training programs in the field of metrology, including trainings programs for certifications experts in the field of legal metrology, technical experts in metrology and verification officers.

The National Institute of Standardization and Metrology is a legal entity and accomplishes its activity on the basis of regulations affirmed by Central Metrology Authority and by regulations and provisions of current law. The National Institute of Standardization and Metrology performs the following functions:

Functions on legal metrology:

- development of legal metrology regulations harmonized with international and regional practices;
- execution of technical works in the domain of legal metrology (type approval, primary, periodical and expert verifications of measuring instruments, official measurements, metrological examinations of the normative documents projects);
- conduct of state measuring instruments registries, legal methodology of metering, regulations

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in legal metrology and parties registered in National Metrology System;

- participation in work of international and regional forums in the domain of metrology together with CMA;
- realization of agreements on mutual recognition of type approval and verification, technical competence of verification, testing laboratories and laboratories for calibration of measuring instruments and standard samples;
- recognition of the results of metrological tests for EC type approval, EC verifications of measuring instruments, and the relevant certificates, realized in the European Union states – members;
- state registration of juridical persons and natural persons fulfilling activities on repair, sale, rent and assembly of measuring instruments, and juridical and natural persons who manufacture, import or package the products.

Functions on general metrology:

- realization of national policy in the domain of metrology;
- creation, development and maintenance of national and reference standards, storage and transmission of legal units;
- assurance of measuring results traceability through comparison of national database of standards on regional and international levels, maintenance of national and reference standards, storage and transmission of legal units;
- training and professional development of experts in legal metrology, technical experts in metrology and verification officers;
- elaboration and examination of the normative documents projects on assurance of measurements traceability, approved in metrological requirements with international and national documents of other countries.

Territorial centers of metrology are legal entities within the jurisdiction of Central Metrology Authority, authorized to perform the following functions:

- realization of state policy in the domain of metrology in area;
- transmission of legal units through verification and calibration of measuring instruments;

- metrological examinations of normative documents projects and measuring instruments.

Agency for Consumer's Protection

Agency for Consumer's Protection was created in according with Government Decision no 936/31.07.2011, as a result of reorganization of Main State Inspectorate for Market Surveillance Metrology and Consumer Protection. Agency for Consumer's Protection is a legal person having legislative functions of the metrological control and supervision over the national internal market.

The Ministry of Economy of the Republic of Moldova – Central Metrology Authority

Vice Prime-Minister, Minister: Valeriu LAZĂR

Address: 1, Piata Marii Adunari Nationale, Chisinau, Republic of Moldova MD-2033

Telephone: +3732 2 25 01 07

Fax: +3732 2 23 40 64

E-mail: mineconcom@mec.gov.md

Deputy Minister: Octavian CALMÎC
(supervises activity in the domain of quality infrastructure)

Address: 1, Piata Marii Adunari Nationale, Chisinau, Republic of Moldova MD-2033

Telephone: +373 22 25 05 91

Fax: +3732 2 23 40 64

E-mail: calmac@mec.gov.md

Direction of Metrology

Manager of Direction: Elena HANGANU

Address: 1, Piata Marii Adunari Nationale, Chisinau, Republic of Moldova MD-2033

Telephone: +3732 2 23 41 37

E-mail: elena.hanganu@mec.gov.md

National Institute of Standardization and Metrology (INSM)

General Director: Vitalie DRAGANCEA

Address: 28, E. Coca Str., Chisinau, Republic of Moldova MD-2064

Telephone: +373 22 21 84 17

Fax: +373 22 24 54 14

E-mail: office@standard.md

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES

Director for Science: Serghei CEAPA

Address: 28, E. Coca Str., Chisinau, Republic of Moldova MD-2064

Telephone: +373 22 21 85 19

Fax: +373 22 24 54 14

E-mail: ceapa@standard.md

Agency for Consumer's Protection**Director: Alexander CUZIMUC**

Address: 28, E. Coca Str., Chisinau, Republic of Moldova MD-2064

Telephone: +373 22 21 84 23

Fax: +373 22 21 85 22

E-mail: cuzimuc@rambler.ru

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ROMANIA

Area: 237.5 thousand km²

Population: 2.5 million

Capital: Bucharest

Time zone: UTC+2

National currency: leu

The basic act establishing the national policy in the field of metrology is the Ordinance No. 20/1992 approved by the Law No. 11/1994. This document concerns the use of the units of measurement, the national system of measurement standards and the regime of the measuring instruments subject to the state metrological control.

The official body responsible for metrology in Romania is **the Romanian Bureau of Legal Metrology (BRML)**, a public institution, with non-budgetary financing, subordinated to the Ministry of Industry and Trade. BRML coordinates the metrology activities at the national level and supervises the compliance with the legal metrology regulations throughout the country.

The activity of INM covers the major part of physical quantities (dimensional, mechanical, electromagnetic, thermal, optical, physical-chemical, ionising radiation, etc.). The primary standards realised at INM are assessed by BRML and declared as national standards through governmental decisions.

INM also performs calibrations, metrological verifications, pattern and conformity tests, high accuracy measurements, certification of reference materials, international cooperation; offers consultations, education and training in metrology; prepares calibration/verification procedures and publishes the technical quarterly journal METROLOGIE.

FUNDAMENTAL METROLOGY

The National Institute of Metrology (INM), with laboratories in Bucharest and Timisoara, provides the maintenance and development of the national measurement standards, their comparison with international measurement standards and measurement standards of other countries, dissemination of the measurement units to secondary standards, higher echelon calibration services, scientific research in metrology and other related fields. INM is a research institute, part of the BRML structure, which is financed mainly through services paid by customers, but also through contracts financed by the Ministry of Research and Technology.

National Institute of Metrology (INM)

Director: Dr. Dragos Boiciuc

Address: 11 Sos. Vitan Bârzesti,
75669 Bucharest, Romania

Telephone: +40 1 334 55 20

Fax: +40 1 334 53 45

E-mail: office@inm.ro

APPLIED METROLOGY

The set of activities aimed at assuring traceability of all measurements in industry and other areas – also known as industrial or technical metrology – is carried out mainly in the regional metrology laboratories belonging to BRML and in the laboratories of enterprises and factories.

LEGAL METROLOGY

According to the legislation in force in the field of metrology, the measuring instruments used in areas of public interest, such as trade, health, environment protection, etc. are submitted to the metrological control of the state. This control is exerted mainly through the authorisation of metrology laboratories and their personnel, through pattern approval of measuring instruments manufactured in Romania or imported, through initial and subsequent metrological verifications and through metrological surveillance.

BRML issues orders and regulations in the field of legal metrology, performs inspections and applies sanctions, represents Romania in the international organisations of legal metrology.

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RUSSIA

Area: 17.075 million km²

Population: 145.2 million

Capital: Moscow

Time zone: UTC+3-UTC+12

National currency: ruble

All activity on assuring the uniformity of measurements in Russia is based on the Law of the Russian Federation On Assuring the Uniformity of Measurements issued in 2010

Realisation of this Law, fulfilment of metrological functions and terms of reference are approved by Decrees of the President of the Russian Federation No. 314 of 9 March, 2004 and No. 649 of 20 May, 2004 and Government Directive No. 294 of 17 June, 2004 and are implemented by **the Federal Agency on Technical Regulation and Metrology (Rosstandart)** under the Federal Ministry of Industry and Energy (Minpromtorg of Russia).

Head of the Metrology Department:

Dr. Sergey Golubev

Address: 9 Leninsky Prospect,
117049 Moscow, Russia

Telephone: +7 499236 75 60
+7 499236 30 42

Fax: +7 499236 62 31

E-mail: info@gost.ru, metrol@gost.ru

The State Metrology Service is a subsidiary of Rosstandart, which incorporates state scientific centres (research metrology institutes) and local metrology departments of different regions of Russia.

Rosstandart coordinates the work of the following:

- State Service of Time and Frequency and Determination of the Earth Rotation Parameters (SSTF);
- State Service of Reference Materials of the Composition and Properties of Substances and Materials (SSRM);
- State Service of Standard Reference Data of Physical Constants and Properties of Substances and Materials (SSSRD).

Rosstandart carries out state metrological surveillance and control over measuring instruments.

State regulation in the field of assurance of measurement uniformity is executed in the following forms:

- type approval of reference materials or type of measuring instruments;
- verification of measuring instruments;
- metrological expertise;
- state metrological supervision;
- attestation of measurement procedures (methods);
- accreditation of legal entities and self-employed entrepreneurs to perform work and (or) render services in the field of assurance of measurement uniformity.

The state metrological supervision shall include:

- observance of obligatory requirements in the field of state regulation of assurance of measurement uniformity to measurements, quantity units, and also to measurement standards of quantity units, reference materials, measuring instruments during their release from manufacture, import to the territory of the Russian Federation, sale and application in the territory of the Russian Federation;
- availability and observance of the certified measurement procedures (methods);
- observance of obligatory requirements to deviation of quantity of prepackaged products from the declared value.

International cooperation in the field of metrology is performed with the following organisations:

- International Organisation of Legal Metrology (OIML);
- International Bureau of Weights and Measures (BIPM);
- Euro-Asian Cooperation of National Metrological Institutions (COOMET);
- Asia-Pacific Legal Metrology Forum (APLMF);

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- Interstate Council for Standardisation, Metrology and Certification (EASC);
 - other international and regional organisations.
- Metrology institutes of Russian Federation actively collaborate with national metrology centres of Germany, the USA, the United Kingdom, Slovakia, Japan, France, Korea, China, India, Belarus, Ukraine, Lithuania, etc.

A good deal of activity regarding the development, improvement, maintenance and use of national measurement standards, as well as research in the field of metrology including elaboration of normative documents of GSI is carried out by Metrology Institutes of Rosstandart. The majority of these institutes is specialised in specific fields of measurements and accredited as state test centres of measuring instruments and verification centres, as bodies on voluntary certification of measuring instruments and at the same time authorised to perform accreditation in the Russian System of Calibration (RSC).

All-Russian Scientific Research Institute of Metrology named after D.I. Mendeleev (VNIIM)

General Director: Dr. Nikolay Khanov

Address: 19 Moscovsky Prospect,
190005 Sankt-Petersburg, Russia

Telephone: +7 812 251 76 01

Fax: +7 812 713 01 14

E-mail: info@vniim.ru

The institute is a successor of the Central Chamber of Measures and Weights, which was the first and one of the oldest world metrology institutions. It is also the biggest world research centre of metrology and leading Russian research organisation in the field of metrology that maintains national measurement standards and has an official status of the State Research Centre of the Russian Federation.

All-Russian Scientific Research Institute of Metrological Service (VNIIMS)

Director: Dr. Sergey Kononogov

Address: 46 Ozernaya Str., 119361 Moscow, Russia

Telephone: +7 495 437 55 77

Fax: +7 495 437 56 66

E-mail: office@vniims.ru

VNIIMS is the main centre of the State Metrology Service and a centre of measurement standards in the field of measurements of middle pressures, geometric parameters of machined surfaces and form deviations of rotating objects, high and ultrahigh voltages, etc.

It carries out research and engineering in the field of scientific, applied and legal metrology.

VNIIMS is a scientific-methodological centre of the Russian System of Calibration (RSC) and certification of measuring instruments. It also acts as a head organisation of Rosstandart of Russia in international cooperation and training and information resource in the field of metrology.

All-Russian Scientific Research Institute of Optical and Physical Measurements (VNIIOFI)

Acting Director: Prof. Vladimir Krutikov

Address: 46 Ozernaya Str., 119361
Moscow, Russia

Telephone: +7 495 437 56 33

Fax: +7 495 437 31 47

E-mail: vniiofi@vniiofi.ru

VNIIOFI is a leading organisation on assuring the uniformity of measurements in the fields of photometry; radiometry (including laser radiometry); spectroradiometry and spectrophotometry; colorimetry; radiation pyrometry; sensitometry and densitometry; refractometry and polarimetry; measurements of the parameters of fibre-optics data transmission systems (FOTS); measurements of optical parameters of high-speed processes; measurements of pulse parameters of electric and magnetic fields.

VNIIOFI is designated as:

- head organisation in the field of measurements of optical and physical parameters and parameters of high-speed processes;
- head organisation for assuring the uniformity of measurements in public health and in manufacture of medical equipment;
- head organisation for assuring the uniformity of measurements in the field of non-destructive testing.

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VNIOFI takes part in the work of the Russian Committee on High-Speed Photography and Photonics, which includes leading scientists of Russian Academy of Sciences, experts of higher education system and industry.

The Ural Scientific Research Institute of Metrology (UNIIM)

Director: Dr. Sergey Medvedevskikh

Address: 4 Krasnoarmeyskaya Str.,
620000, Yekaterinburg, Russian Federation

Telephone: +7 3433 50 26 18

Fax: +7 3433 50 20 39

E-mail: uniim@uniim.ru

Scientific and methodological centre of the State Service of Certified Reference Materials for composition and properties of substances and materials, providing scientific and guidance support of the works and coordination of interstate and interbranch activities on the production, testing and implementation of certified reference materials with the aim of ensuring the uniformity of measurements on the basis of their use.

It carries out scientific research, develops measurement standards and certified reference materials for ensuring the uniformity of measurements of temperature and thermo-physical parameters, surface density and thickness of coatings, magnetic and electrical quantities, linear and angular parameters, deformation and force, mass, torque and mechanical power, pressure, humidity of solid substances, physical chemistry composition and properties of substances and materials.

Expert centre for accreditation in the areas of conformity assessment and ensuring the uniformity of measurements, Scientific and methodological centre for organization and holding interlaboratory comparison tests; Centre for testing and verification (calibration) of measurement instruments; Certification body for measurement instruments, certified reference materials and industrial products; Testing centre for nanoindustry substances, materials and products.

Quality Management System was recognized by COOMET Quality Forum as complying with the requirements of ISO/IEC 17025 and ISO Guide 34.

Siberian State Scientific Research Institute of Metrology (SNIIM)

Director: Mr. Vladimir Matveychuk

Address: 4 Dimitrov Prospect, 630004,
Novosibirsk, Russia

Telephone: +7 383 210 08 14

Fax: +7 383 210 13 60

E-mail: director@sniim.nsk.ru

SNIIM is a centre of measurement standards of the parameters of electro-radio circuits at high and ultra high frequencies; electro-magnetic features of materials at high and ultra high frequencies; heavy loads; thermal torrents; minor lengths.

SNIIM maintains reference installation, which is a part of the equipment of the State Service of Time and Frequencies (SSTF) and the determination of the Earth rotation parameters.

All-Russian scientific research institute of flow measurement (VNIIR)

Acting Director: Mr. Vladimir Solovyev

Address: 7a, 2 Azinskaya Str., 420088,
Kazan, Russia

Telephone: + 7 843 272 70 62

Fax: + 7 843 272 00 32

E-mail: office@vniir.org

The institute is the main center in Russia in the field of metrological support of measurements of flow and amount of liquids and gases, the volume and weight (in flow) of liquids and gases, volume (capacity measure) fluids, fluid level and granular media, physico-chemical properties and composition of crude oil and petroleum products. Is the center of the state primary standards. It has the status of the State Scientific Metrological Center of Russia.

National Research Institute of Physicotechnical and Radio Engineering Measurements (VNIIFTRI)

General Director: Dr. Sergey Donchenko

Address: Mendeleevo, Solnechnogorsky District,
141570, Moscow Region, Russia

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Telephone: +7 495 744 81 12
Fax: +7 495 944 52 68
E-mail: director@vniiftri.ru

VNIIFTRI with its regional branches is a national metrology institute, which maintains and operates national primary and secondary standards in various metrology areas such as time and frequency, long distances, positioning, radio frequency measurements, magnetism, low temperature and thermophysical properties, high pressure, hardness of metals, sound in air and water, electrochemistry (pH, ions, electrolytic conductivity), disperse parameters of aerosols, suspensions and powders, ionizing radiation and nuclear constants. The institute also develops acousto-optic methods of measurement and provides metrology solutions to construction industry needs.

VNIIFTRI has the status of a State Scientific Center of the Russian Federation; it serves as the Main Metrology Center for the State Service for Time, Frequency and Earth Orientation Parameters, supporting its operation in cooperation with other institutions.

VNIIFTRI has the following below mentioned branches:

VNIIFTRI East-Siberian branch (ESB)

Director: Dr. Victor Yegorov
Address: 57 Borodina Str., 664056, Irkutsk, Russia
Telephone: +7 3952 46 83 03
Fax: +7 3952 46 38 48
E-mail: director@niiftri.irk.ru, office@niiftri.irk.ru

The East-Siberian Branch is a metrology centre responsible for providing the uniformity of measurements in astro-optical and satellite determinations of Earth Orientation Parameters. It is also a centre for time and frequency standards in the East Siberian region, national primary standards for the dielectric parameters of substances and materials, and the humidity of gases.

VNIIFTRI Far East branch (FEB)

Director: Dr. Yuri Lykov
Address: 65 K. Marks Str., 680000, Khabarovsk, Russia
Telephone: +7 4212 32 92 68
Fax: +7 4212 30 15 66
E-mail: director@dfvniiftri.ru, dalstandart@dst.khv.ru

The Far-Eastern Branch is a regional metrology centre for time and frequency standards in the Far East. It is also involved in providing the uniformity of ultrasonic measurements in solids.

VNIIFTRI Kamchatka branch (KB)

Director: Dr. Vladislav Sobolev
Address: Russian Federation, 683002, Petropavlovsk-Kamchatsky, Severo-Vostochnoye highway, 30, P.O.Box 26
Telephone: +7 4152 49 75 41
Fax: +7 415 2 49 75 48

The Kamchatka Branch is a regional metrology centre, which is part of the State Service for Time, Frequency and Earth Orientation Parameters.

The Central Scientific Metrology Centre of the State Service for Standard Reference Data on Physical Constants and Properties of Substances and Materials (CSMC "SRD") was established on the basis of CSMC "SRD" Department which is a structural unit of Russian Scientific and Technical Centre of Information on Standardization, Metrology and Conformity Assessment (FGUP "Standartinform").

Director of CSMC "SRD" Department: Dr. Yuriy Mamonov

Address: Nakhimovskiy Prospect, 31, Building 2, 117418, Russian Federation, FGUP "Standartinform"
Telephone: +7 (495) 225-61-87, +7 (495) 332-56-14
Fax: +7 (495) 719-78-20
E-mail: mamonov@gostinfo.ru

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CSMC "SRD" carries out:

- development and certification of standard reference data tables (SRD), and maintains a register of SRD tables;
- development and certification of SSSRD procedures and recommended reference data (RRD), and maintains tables of RRD and SSSRD procedures;
- development of software for the implementation of SRD tables and SSSRD procedures;
- development of data bases for the properties of substances and materials;
- information provision with certified reference data on the properties of substances and materials.

Center for Surface and Vacuum Research (NICPV)

Director: Prof. Dr. Pavel Todua

Address: 40/1 Novatorov Str., 119421, Moscow, Russia

Telephone: +7 495 935 97 77

Fax: +7 495 935 96 90

E-mail: fgupnicpv@mail.ru

The major activities of NICPV are as follows:

- complex study of structure, physicochemical and mechanical surface properties of a solid body and thin films, characteristics of processes at the

phase thresholds with the purpose to develop high-accuracy measurement instruments and methods for controlling technological processes aiming at assuring the uniformity of measurements in future technologies including micro- and nanotechnologies;

- research in the field of fundamental metrology directed at the creation and improvement of methods and high-accuracy measuring instruments, development of physical principles and creation of reference base of a new generation;
- development of methods and instruments for disseminating physical units from current measurement standards to working instruments, development of special standards for assuring uniformity of measurement in micro-, opto-, nanoelectronics, nanotechnology, precise machine-building, instrument making, biotechnology and microbiology, genetic engineering, chemistry and chemical technology;
- development of high-accuracy measurement instruments in the field of geometrical, vibro-acoustic and physicochemical measurements.

NICPV carries out tests and quality surveillance of production in science intensive technologies and industries with the purpose of conformity assessment.

The research facilities of NICPV include standards and high-accuracy apparatuses for length measurement in micro- and nano-meter ranges.



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SLOVAKIA

Area: 49.035 thousand km²

Population: 5.42 million

Capital: Bratislava

Time zone: UTC+1

National currency: euro

1. The institution responsible for national and other measurement standards and the scientific metrology in Slovakia is the Slovak Institute of Metrology (SMU) functioning according to the Act on Metrology as a national institute of metrology.

It is charged with the following main activities:

- implementation, improvement, maintenance and comparison of Slovak national standards of quantities and their measurement units at the international level, as well as transfer of their values to secondary standards;
- representation of the Slovak Republic in international metrology organisations;
- carrying out of research and scientific-technical development in the field of metrology;
- calibration of working standards and working instruments;
- verification of the legally controlled measuring instruments;
- carrying out of pattern approval of measuring instruments;
- supervision over the realisation of Slovak Certified Reference Materials;
- elaboration of technical regulations, decrees to the Act on Metrology which determine technical requirements, methods of verification of measuring instruments subject to metrological control;
- education and training of specialists for legal metrology and industrial calibration laboratories;
- certification of personnel for metrology;
- performance of specialised and technical activities in the field of accreditation and certification bodies and other specialists dealing with technical measurements.

Director General: Mr. Arpad Gonda

Address: Karloveská 63, 842 55 Bratislava, Slovak Republic

Telephone: +421 2 602 94 491

Fax: +421 2 654 29 592

E-mail: gonda@smu.gov.sk

2. The institutions responsible for legal metrology are:

Slovak Office of Standards, Metrology and Testing (UNMS) as the central steering body of the state administration in the field of metrology.

The main tasks and activities of the UNMS in the field of metrology are:

- elaboration and realisation of the state policy in metrology;
- preparation of legislative and legal rules (acts and decrees) referring to metrology, standardisation and testing;
- steering of metrology in the state in the scope given by the Act on Metrology, including subordinate metrology institutions (Slovak Institute of Metrology (SMU), Slovak Standards Institute (SUTN), Technical Testing Institute (TSU), Slovak Legal Metrology (SLM), Slovak National Accreditation Service (SNAS) and Slovak Metrology Inspectorate (SMI));
- methodical supervision of metrological activities.

President of UNMS: Ms. Lucia Gocníkova

Address: Štefanovičova 3, P.O. Box 76, 810 05 Bratislava, Slovak Republic

Telephone: +421 2 5249 6847, 8030

Fax: +421 2 5249 1050

E-mail: predseda@normoff.gov.sk

Slovak Legal Metrology, non-profit organisation (SLM, n.o.) is charged with the following main activities:

- verification of legally controlled measuring instruments;
- calibration of reference and working standards for industry;
- calibration of ordinary measuring instruments for customers;
- carrying out of pattern evaluation of measuring instruments;
- carrying out of interlaboratory comparisons.

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Director General: Dr. Jaromír Markovič

Address: 31 Hviezdoslavova, 975 90 Banská Bystrica, Slovak Republic

Telephone: +421 48 4719122
+421 48 4719125

Fax: +421 48 4719158

E-mail: markovic@slm.sk

Slovak Metrology Inspectorate (SMI) – a subordinate institution of the UNMS.

Its main task is to perform the state metrology supervision over the compliance with the Law on Metrology and Decrees and supervision over measuring instruments and measurements in the Slovak Republic.

Director: Mr. Ľudovít Koppan

Address: Štefanovičova 3, 811 04 Bratislava, Slovak Republic

Telephone: +421 2 5262 2722, 2723

Fax: +421 2 455 25 473

E-mail: smi@normoff.sk

Other institutions in the field of legal metrology are authorised bodies. These institutions are authorised by the UNMS SR for verification of specified types of legally controlled measuring instruments.

3. Institutions responsible for calibration service.

Services in calibration of measuring instruments are carried out mainly by stand-alone calibration laboratories, calibration laboratories established in the framework of factories or other organisations. Part of those laboratories is accredited by SNAS according to the ISO/IEC 17025 standard. Both SMU and SLM provide calibration services as well.



METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES



TAJIKISTAN

Area: 143.1 thousand km²

Population: 7 million

Capital: Dushanbe

Time zone: UTC+5

National currency: somoni

Legal basis of maintenance of unity of measurements and the state metrological system is Constitution of Republic of Tajikistan, Law of Republic of Tajikistan "About maintenance of unity of measurements" No. 435 from May, 15th, 1997 (changes and additions No. 321 from July, 30th, 2007, No. 467 from December, 31st, 2008), and also other regulatory legal acts of Republic of Tajikistan.

The metrological service of Republic of Tajikistan consists of the State metrological service and metrological services of legal bodies.

The state metrological service is headed by Agency Tajikstandard and includes in itself:

- Bodies of the State metrological service in Gorno-Badakhshansky autonomous region, republic areas, areas of republican submission and a city of Dushanbe.

The structure of the State metrological service includes 11 regional centers of Tajikstandard.

Activity on maintenance of functioning and development of **the State metrological system carries out by Agency on Standardization, Metrology, Certification and Trade Inspection under the Government of the Republic of Tajikistan (Tajikstandard).**

Director: Mr. Bakhtiyor Shukurov

Address: 734018, Dushanbe,
N. Karabaev Str., 42/2

Phone: +992 37 233 68 69

Fax: +992 37 234 19 33

E-mail: info@standard.tj

The competence of Tajikstandard concern:

- The organization of carrying out of basic researches in the field of metrology;
- The organization of creation and functioning of reference base;
- Definition of the general metrological requirements to means of measuring techniques, methods and results of measurements;
- The statement of types of measuring apparatuses;
- Definition of the general requirements concerning an order of carrying out of calibration and metrological certification of means of measuring techniques, working out of statutory acts, programs etc.;
- Inter-regional and inter-branch coordination of activity on maintenance of unity of measurements;
- Establishment of rules of creation, the statement, storage and application of the state standards of units of sizes;
- Definition of the general metrological requirements to means, methods and results of measurements;
- Realization of the state metrological control and supervision;
- A management of activity of the state metrological service and other metrological services of maintenance of unity of measurements;
- Participation in activity of the international metrological organizations.

The international cooperation of Tajikstandard in the field of metrology is carried out in frameworks:

- International Organization for Legal Metrology (OIML);
- Interstate Council for Standardization, Metrology and Certification (EASC);
- Inter-Regional Association for Standardization (IAS).

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UKRAINE

Area: 603.7 thousand km²

Population: 45.8 million

Capital: Kyiv

Time zone: UTC+2

National currency: hryvnia

The legal basis of the state metrology system of Ukraine is laid down by the Ukrainian Law on Introduction of Changes to the Law of Ukraine on Metrology and Metrological Activities.

The state metrological system consists of the State Metrology Service and metrology services of state departments, manufacturers and organizations.

The state metrological system includes:

- Department of Technical Regulation of the Ministry of Economic Development and Trade of Ukraine and its divisions;
- National Scientific Metrology Centre;
- state scientific metrology centres;
- regional metrology bodies;
- State Service of Time and Reference Frequencies;
- State Service of Reference Materials;
- State Service of Reference Data on Physical Constants and Properties of Substances and Materials.

All the activities on assuring the uniformity of measurements and improvement of the state metrology system are regulated by **the Ministry of Economic Development and Trade of Ukraine**.

Minister of Economic Development and Trade of Ukraine: Mr. Igor Prasolov

Address: 12/2 Grushevskogo Str., Kyiv, 01008, Ukraine

Telephone: +38 044 528 92 27

Fax: +38 044 528 90 14

E-mail: tnv@me.gov.ua, tren@me.gov.ua

Web: www.me.gov.ua

National Secretariat:

pavel.neyezhmakov@metrology.kharkov.ua

The one of objectives of the Ministry of Economic Development and Trade of Ukraine is to provide forming and realization of the state policy in the

field of technical regulation (standardization, metrology, certification, conformity assessment, accreditation of bodies on conformity, quality management), including:

- organization of providing state management of measurements unity in Ukraine, implementation of the state uniform technical policy on providing the unity of measurements;
- coordination of activity on providing functioning and development of the state metrological system;
- coordination of activity of metrological service in Ukraine;
- organization of fundamental research in the field of metrology;
- providing organization of creation and functioning the standard base of Ukraine, development of the creation order, approval, registration, storage and application of standards and their comparison with standards of other states, international standards;
- organization and implementation of the state metrological control and surveillance;
- organization of development of normative legal draft documents in the field of technical regulation;
- providing the coordination of activity on development and review of technical regulations;
- participation in the work of international and regional organizations on metrology.

NATIONAL SCIENTIFIC METROLOGY CENTRE

National Scientific Centre "Institute of Metrology" (NSC "IM")

General Director: Dr. Oleksandr Dudolad

Address: 42 Mironositskaya Str., Kharkiv-2, 61002, Ukraine

Telephone: +38 057 700 34 09

Fax: +38 057 700 34 47

E-mail: info@metrology.kharkov.ua

The NSC "IM" is

- a leading centre for assuring the uniformity of measurements in Ukraine;
- a leading centre of the State Service of Reference Materials;
- a leading centre of the State Service of Time and Reference Frequencies.

The NSC "IM" carries out fundamental and applied research in the field of legal metrology and organises development, maintenance and improvement of national and secondary measurement standards used in traceability schemes. The NSC "IM" also develops normative documents and works out state development programmes in the field of metrology.

It also exerts metrological surveillance and control, as well as provides scientific and methodological basis of state metrology departments.

STATE SCIENTIFIC METROLOGY CENTRES

State scientific metrology centres develop and maintain secondary measurement standards, work out traceability schemes and normative documents in the field of metrology, as well as exert metrological control.

State Enterprise "Scientific-Research Institute for Metrology of Measurement and Control Systems" (DP NDI "Systema")

Director: Dr. Vasiliy Parakuda

Address: 6 Kryvonosa Str., Lviv, 79008, Ukraine

Telephone: +38 0322 72 89 39

Fax: +38 0322 35 84 49

E-mail: office@dndi-systema.lviv.ua

The DP NDI "Systema" is the parent organization for:

- acoustics, ultrasound and underwater acoustics;
- metrology and metrological support of measurement and control systems;
- metrological support of technical protection of information.

The DP NDI "Systema" is also the organizational-methodical centre of certification services for short-term accommodation (hotel services). It carries out the functions of secretariat of the national technical committee for standardization in the field of quality management.

The DP NDI "Systema" carries out fundamental and applied research in the field of acoustic, ultrasonic and underwater acoustic measurements associated with the creation, improvement, storing and application of national and secondary measurement standards, the creation of systems for transfer of measurement units. The DP NDI "Systema" also develops normative documents on metrology.

It also provides metrological support of measurement and control systems and technical protection of information.

State Enterprise "All-Ukrainian State Scientific and Research Centre of Standardization, Metrology, Certification and Consumer Protection" (DP "Ukrmetrteststandard")

General Director: Mr. Oleksandr Pichugin

Address: 4 Metrologichna Str., Kyiv, 03143, Ukraine

Telephone: +38 044 526 52 29

Fax: +38 044 526 42 60

E-mail: ukrcsm@ukrcsm.kiev.ua

DP "Ukrmetrteststandard" is designated as:

- senior centre of the State Metrology System of Ukraine;
- senior centre of the State Service of Reference Data.

DP "Ukrmetrteststandard" performs the following:

- development, maintenance and improvement of state, secondary and reference measurement standards of Ukraine;
- maintenance of the National Register of approved types of measuring instruments;
- maintenance of the Register of measurement procedures and mandatory methodological documents.

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State enterprise "Ivano-Frankivsk Research-and-Production Center for Standardization, Metrology and Certification" (DP "Ivano-Frankivskstandartmetrologija")

Director: Dr. Igor Petryshyn

Address: 127, Vovchynetska Str.,
Ivano-Frankivsk, 76007, Ukraine

Telephone: +38 03422 6 68 84

Fax: +38 03422 3 02 00

E-mail: dcsms@if.ukrtel.net

DP "Ivano-Frankivskstandartmetrologija" is main organization of Ukraine in volume and volumetric flow rate measurement by gas meters and flow meters.

DP "Ivano-Frankivskstandartmetrologija" implements fundamental and applied research in field of volume and volume flow measurement, coupled with creation, improvement, storing and application of national primary and secondary standards, creating systems for transmitting size of measurement unit, normative document development in field of gas meters and flow meters volume and volume flow measurement metrology.

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UZBEKISTAN

Area: 447.4 thousand km²

Population: 26.5 million

Capital: Tashkent

Time zone: UTC+5

National currency: sum

The legal basis of the system for assuring the uniformity of measurements of the Republic of Uzbekistan (SAUM) was laid down in 1993 in the Law on Metrology and in the Directive of the Government of the Republic of Uzbekistan.

The organizational structure of the SAUM is represented by:

- the State Metrology Service;
- metrological service of legal persons.

The State Metrology Service is headed by **Uzbek Agency for Standardisation, Metrology and Certification ("UZSTANDARD" Agency)**.

General Director: Dr. Abdukahhar Abduvaliev

Address: 333"A" Farobiy Str., 100049, Republic of Uzbekistan

Telephone: 998 71 244 96 01

Fax: 998 71 244 80 28

E-mail: uzst@standart.uz

The state metrological service headed by "Uzstandard" Agency includes:

- the State Institution "Centre of National Standards of Republic of Uzbekistan";
- the State Enterprise "Centre of Metrological Services";
- Scientific Research Institute of Standardisation, Metrology and Certification;
- the Main Centre of Metrological Service;
- the Main Centre of Reference Materials;
- the Main Centre for Nondestructive Testing;
- territorial (Karakalpak, regional and city) administrations of standardisation and metrology.

Major branches of activities are as follows:

- maintenance of the common policy on the matters regarding the assurance of the uniformity of measurements, as well as coordination of the implementation and development of the SAUM;

- development of legal and other directives aiming at assuring the uniformity of measurements; definition of priorities in improving metrology;
- organisation of the development and approval of national standards and other normative documents regulating the implementation of the SAUM;
- organisation of the publication and dissemination of normative documents and scientific-technical information in the field of metrology;
- type approval of imported and domestically produced measuring instruments;
- organisation and performance of metrological surveillance over measuring instruments and implementation of metrological directives pertaining to measurements in the field of distribution of the state metrological supervision and control;
- coordination of cooperation in the field of metrology and laboratory accreditation at the international level; representation of the Republic of Uzbekistan in the international metrology organisations and collaboration with national metrology of other countries.

The leading organisation in the field of developing and maintaining measurement standards is the State Institution "Centre of National Standards of Republic Uzbekistan".

Director: Mr. Alisher Gulyamov

Address: 333"B" Farobiy Str., 100049, Republic of Uzbekistan

Telephone: 998 71 246 70 06

Fax: 998 71 150 35 08

E-mail: nscenter@standart.uz

The major activities are as follows:

- coordination and performance of fundamental and practical research with the purpose of assuring the uniformity of measurements;
- development, maintenance and comparison of national measurement standards;
- reproduction of measurement units and their

METROLOGY INFRASTRUCTURES OF COOMET MEMBER COUNTRIES

dissemination to measurement standards at the level of metrology services;

- development of a uniform scientific-technical policy in the field of metrology and assurance of the uniformity of measurements;
- development of normative and methodological documents in the field of metrology;
- carrying out of state type approval tests, state verification, calibration and metrological evaluation of measuring instruments and other metrology related work;
- maintenance of the state register of national and primary measurement standards;
- carrying out of metrological evaluation of measurement procedures;
- participation in the cooperation projects in the field of metrology at regional and international levels as a National Metrology Institute;
- participation in training and improving of professional skills of personnel engaged in metrology activities.

The structure of the State Metrology Service includes also metrological departments of **14 territorial administrations of standardisation and metrology and the Republican Centre of Tests and Certification.**

Scientific Research Institute for Standardization, Metrology and Certification (SRISMC)

Director: Mr. Rustam Jabbarov

Address: 9 "B", Chopon Ota str., 100059, Tashkent city, Republic of Uzbekistan

Telephone: 998 71 253 85 67

Fax: 998 71 253 85 55

E-mail: smsiti@uzsci.net

The major activities are as follows:

- rendering of the methodical help to the organization and perfection of metrological services of the enterprises and organizations, analytical laboratories, services of working out of standard samples and nondestructive inspection;
- working out of documents on the pattern approval of metrological attestation, checking of measuring instruments;
- attestation of methods for carrying out measurements, including working out of the necessary documents package;
- preparation of the analytical control services for accreditation;
- rendering of the methodical and practical help in working out and manufacturing of standard samples;
- metrological examination of normative and technical documents;
- examination of documents on imported standard samples for the purpose of their admission to application in Uzbekistan territory;
- marketing researches in the field of standard samples;
- preparation of the nondestructive inspection services for accreditation;
- attestation of nondestructive inspection techniques;
- independent, from the state metrological surveillance services, audit of a condition of metrological maintenance of manufactures and the enterprises.

COOMET PUBLICATIONS

COOMET Documents

No.	Name of Document	Registration Number	Remarks
1	COOMET Memorandum of Understanding	<u>COOMET D1/2012</u>	
2	COOMET Rules of Procedure	<u>COOMET D2/2010</u>	
3	Memorandum on cooperation in development and application of reference materials of composition and properties of substances and materials within COOMET	<u>COOMET D3/2008</u>	Project 381/BY/07
4	Document COOMET Publications. Classification, Development, Approval and Registration. General Provisions	<u>COOMET D4/2003</u>	Project 264/BY-a/02
5	Document Model Regulations for COOMET Structural Bodies	<u>COOMET D5/2010</u>	
6	Document Procedure for Maintaining COOMET Website. General Provisions	<u>COOMET D6/2003</u>	
7	Document Regulation on Awarding the Distinguished Title "Honorary Metrologist of COOMET"	<u>COOMET D7/2010</u>	–
8	Document Criteria and Procedure of Admission for New COOMET Members	<u>COOMET D8/2006</u>	–
9	Document COOMET Programme of Comparisons	<u>COOMET D9/2013</u>	–

COOMET Recommendations

No.	Name of Recommendation	Registration Number	Remarks
1	Recommendation Typical Procedure for Testing Vibration-Measuring Transducers (Vibration Pick-Ups)	<u>COOMET R/AUV/1:1995</u>	Project 49/RU-a/92
2	Recommendation Interstate Hierarchical Chain for Time and Frequency Measuring Instruments	<u>COOMET R/TF/2:1995</u>	Project 16/RU-a/92
3	Recommendation 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	<u>COOMET R/TF/3:1995</u>	Project 16/RU-a/92
4	Recommendation Order of Joint Development, Recognition and Registration of Reference Materials within COOMET	<u>COOMET R/RM/4:2008</u>	Project 132/RU-a/95
5	Recommendation Contents and Rules of Drawing Up Documents for RM Developed within COOMET	<u>COOMET R/RM/5:2010</u>	Project 414/UA/08
6	Recommendation Register of Reference Materials of Composition and Properties of Substances and Materials Developed within COOMET. Fundamentals	<u>COOMET R/RM/6:2010</u>	Project 413/KZ/07

No.	Name of Recommendation	Registration Number	Remarks
7	Recommendation Procedure of Inner Inter-Regional Review of Calibration and Measurement Capabilities of COOMET National Metrology Institutes and Inter-Regional Review of Institutes of Other Regional Metrology Organisations	<u>COOMET R/ GM/7:2006</u>	
8	Recommendation Layout, Presentation, Drawing Up and Contents of Measuring Instrument Type Specifications for National Register of Measuring Instruments	<u>COOMET R/ LM/8:2002</u>	Project 207/BY/00
9	Recommendation Evaluation of Quality Management Systems of National Metrology Institutes Annex 1 Criteria for approval of Quality Management Systems in COOMET NMIs Annex 2 A "Recommendations on carrying out an oral presentation at the COOMET Quality Forum of Quality Management System of National Metrology Institutes (QMS NMI)" Annex 3 B "Recommendations on carrying out a written presentation of Quality Management System of National Metrology Institutes (QMS NMI)" Annex 4 Status of the experts-auditors on the Evaluation of QMS of NMI	<u>COOMET R/ AQ/9:2010</u> <u>Annex 1</u> <u>Annex 2</u> <u>Annex 3</u> <u>Annex 4</u>	Project 230/SK/01
10	Recommendation Software for Measuring Instruments. General Technical Specifications	<u>COOMET R/ LM/10:2004</u>	
11	Recommendation Regulations for Comparison of Measurement Standards from the National Metrology Institutes of COOMET	<u>COOMET R/ GM/11:2010</u>	
12	Recommendation Rules of Maintaining of Foregoing COOMET Programme of Comparisons	<u>COOMET R/ GM/12:2007</u>	
13	Recommendation Rules and Procedure of Assessment of Quality Management Systems of National Metrology Institutes Annex A Recommendations on carrying out an oral presentation at the COOMET Quality Forum of Quality Management System of National Metrology Institutes (QMS NMI) Annex B Recommendations on carrying out a written presentation of Quality Management System of National Metrology Institutes (QMS NMI) Annex 1 Application of the NMI to conduct peer evaluation (Annex 1) Annex 2 Schedule of realization of QMS NMI peer evaluation Annex 3 JCRB Recommendations for selection criteria for peers conducting on-site visits and guide to the need for on-site visits Annex 4 Plan of realization QMS NMI evaluation Annex 5 Protocols of non-conformities Annex 6 Forms of technical expert and auditor reports on QMS NMI evaluation Annex 7 Form of a report on conduction of peer evaluation of QMS NMI Annex 8 Action plan for removing of non-conformities Annex 9 Certificate on recognition of QMS NMI Annex 10 Form of an annual report on the state of QMS NMI Annex 11 Recommendations on a drawing-up an annual report Annex 12 Form of annual report of QMS NMI monitoring Annex 13 A recommended questionnaire of a technical expert on evaluation of QMS NMI Annex 14 A recommended questionnaire of a technical expert on evaluation of QMS NMI on conformity thereof with requirements of ISO/IEC 17025 Annex 15 A recommended questionnaire of a technical expert on evaluation of QMS NMI on conformity thereof with requirements of ISO guide 34	<u>COOMET R/ AQ/13:2010</u> <u>Annexes A</u> <u>Annexes B</u> <u>Annexes 1-15</u>	Project 230/SK/01

ADDITIONAL INFORMATION

No.	Name of Recommendation	Registration Number	Remarks
14	Recommendation Guidelines for Data Evaluation of COOMET Key Comparisons	<u>COOMET R/ GM/14:2006</u>	Project 336/RU/06
15	Recommendation Rules of Completing the Form of Calibration Certificates Issued by National Metrology Institutes within the CIPM MRA	<u>COOMET R/ GM/15:2007</u>	
16	Recommendation Recommendation for Acceptance of Certified Reference Materials into Appendix C of the CIPM MRA	<u>COOMET R/ RM/16:2007</u>	Project 290/RU-a/03
17	Recommendation Guidelines for Issuing Certificate of Participant of COOMET CRM Interlaboratory Certification	<u>COOMET R/ RM/17:2011</u>	Project 349/BY-a/05 496/BY-a/10
18	Recommendation Procedure of the International Competition "The Best Young Metrologist of COOMET"	<u>COOMET R/ GM/18:2010</u>	
19	Recommendation Guideline on COOMET supplementary comparison evaluation	<u>COOMET R/ GM/19:2008</u>	
20	Recommendation State system for ensuring the uniformity of measurements. Scales of Measurements. Terms and Definitions	<u>COOMET R/ GM/20:2009</u>	
21	Recommendation Use of concepts "error of measurement" and "uncertainty of measurement". General principles materials	<u>COOMET R/ GM/21:2011</u>	

COOMET Informational Materials

No.	Name of Informational Material	Registration Number	Remarks
1.	Normative Documents Regulating the Questions of RM Production and Use, Analytical Overview (based on information provided by COOMET contact persons for RM)	<u>COOMET I/ RM/1:2001</u>	Project 185/RU/99
2.	Register of Certified Reference Materials of Composition and Properties of Substances and Materials Developed within COOMET	<u>COOMET I/ RM/2:2011</u>	TC 1.12 Secretariat is maintaining and updating the Register
3.	Survey of Technical Requirements in the Field of Legal Metrology in COOMET Member Countries	<u>COOMET I/ LM/3:2003</u>	
4.	Analysis of the Problem of Introduction of the Guide to the Expression of Uncertainty in Measurement in COOMET Member Countries	<u>COOMET I/ GM/4:2005</u>	
5.	Analysis of Cooperation Projects within APLMF and Preparation of Proposals for Cooperation of COOMET with this RMO in the Field of Legal Metrology	<u>COOMET I/ LM/5:2005</u>	Project 307/RU-a/04
6.	Review National Educational Systems in the Field of Metrology in COOMET Member Countries	<u>COOMET I/ TR/6:2005</u>	

No.	Date	Country and City	Participants (representatives of national, international and regional organisations)
1	13–14 November, 1991	POLAND (Warsaw)	BG, CS, CU, DE, HU, PL, RO, SU
2	2–3 June, 1992	POLAND (Warsaw)	BG, CS, CU, DE, HU, PL, RO, RU, UA
3	17–19 March, 1993	GERMANY (Berlin)	BG, BY, DE, PL, RO, RU, SK, UA, LT BIML, EURAMET
4	19–20 April, 1994	SLOVAKIA (Bratislava)	BG, BY, DE, PL, RO, RU, SK, UA, LT; BIML
5	4–5 April, 1995	SLOVAKIA (Bratislava)	BG, BY, DE, PL, RO, RU, SK, UA, HU, CZ BIPM, EURAMET, BIML
6	10–12 April, 1996	BULGARIA (Sofia)	BG, BY, DE, LT, PL, RO, RU, SK, UA BIPM, BIML, EURAMET, WELMEC
7	23–25 April, 1997	GERMANY (Braunschweig)	BY, BG, DE, LT, PL, RO, RU, SK, UA, MD, EE; BIML, EURAMET, WELMEC
8	12–13 May, 1998	BELARUS (Minsk)	BY, BG, DE, LT, MD, PL, RU, SK, UA BIPM, STC
9	12–13 May, 1999	RUSSIA (Moscow)	BY, BG, DE, KZ, LT, MD, PL, RU, SK, UA
10	25–26 May, 2000	KAZAKHSTAN (Almaty)	BY, DE, KZ, KG, CU, MD, PL, RU, SK, UA, YU, UZ
11	25–26 April, 2001	MOLDOVA (Chisinau)	BY, DE, KZ, KG, LT, CU, MD, RU, RO, SK, UA
12	6–7 May, 2002	CUBA (Havana)	BY, DE, LT, CU, RU, RO, SK, UA; BIML
13	29–30 April, 2003	UKRAINE (Yalta)	BY, BG, DE, KP, LT, CU, MD, RU, SK, UA
14	27–28 May, 2004	BULGARIA (Albena)	BY, BG, DE, KZ, KP, LT, CU, MD, RU, UZ, UA; BIML
15	8–9 September, 2005	LITHUANIA (Vilnius)	BY, BG, DE, LT, MD, RU, SK, UZ, UA
16	4–5 September, 2006	GERMANY (Braunschweig)	BY, BG, CZ, DE, GE, KG, KZ, LT, MD, RU, SK, UA, UZ; CIPM, OIML, BIML, APMP, EURAMET
17	24–25 April, 2007	BELARUS (Minsk)	AM, AZ, BY, BG, DE, GE, KG, KZ, LT, RU, SK, UA, UZ; BIPM, BIML, EURAMET, WELMEC, APMP, MFC
18	15–16 May, 2008	UKRAINE (Kharkov)	AM, AZ, BY, CU, DE, KZ, MD, RU, SK, UA, UZ; BIML, EURAMET
19	20–21 May, 2009	AZERBAIJAN (Baku)	AZ, BY, BG, CU, DE, GE, KG, LT, MD, RU, SK, UA, UZ; BIML, EURAMET, NCSLI, WELMEC
20	21–22 April, 2010	KAZAKHSTAN (Astana)	AZ, AM, BY, KG, KZ, LT, RU, SK, TJ, UA, UZ; APMP
21	27–28 April, 2011	ARMENIA (Yerevan)	AM, BY, CU, DE, GE, KG, KZ, LT, MD, RU, RO, SK, UA, UZ; CIML, BIML, BIPM, WELMEC
22	18–19 April, 2012	KYRGYZSTAN (Cholpon-Ata)	AZ, AR, BY, DE, GE, KZ, KG, LV, RU, SK, TJ, UZ, UA, BIML, BIPM, EURAMET, APMP

COUNTRY CODES

AM – Armenia
AZ – Azerbaijan
BG – Bulgaria
BY – Belarus
CU – Cuba
CS – Czechoslovakia
CZ – Czech Republic
DE – Germany

EE – Estonia
GE – Georgia
HU – Hungary
KG – Kyrgyzstan
KP – DPR of Korea
KZ – Kazakhstan
LT – Lithuania
MD – Moldova

PL – Poland
RO – Romania
RU – Russia
SK – Slovakia
TJ – Tajikistan
UA – Ukraine
UZ – Uzbekistan
YU – Yugoslavia

Acronyms for the names of the NMIs of COOMET Member Countries

Agency "UZSTANDARD"	Uzbekistan	Uzbek Agency for Standardisation, Metrology and Certification
"AZSTANDARD" Committee	Azerbaijan	State Committee for Standardization, Metrology and Patent of the Republic of Azerbaijan
BAM	Germany	Bundesanstalt für Materialforschung und -prüfung
BelGIM	Belarus	Belarusian State Institute of Metrology
BIM	Bulgaria	Bulgarian Institute of Metrology
BRML	Romania	Romanian Bureau of Legal Metrology
CENTIS	Cuba	Center of Isotopes
CJSC "NIM"	Armenia	Closed Joint Stock Company "National Institute of Metrology"
CIM	DPR of Korea	Central Institute of Metrology
CPHR	Cuba	Center for Protection and Hygiene of the Radiations
CRMS	Uzbekistan	Center for Rendering of Metrological Services
CSM	Kyrgyzstan	Center for Standardization and Metrology under the Ministry of Economy and Antimonopoly Policy of the of the Kyrgyz Republic
CSMC "SSSRD"	Russia	Central Scientific Metrological Centre for Standard Reference Data
DAkKS	Germany	Deutsche Akkreditierungsstelle GmbH
DG MMI	Bulgaria	General Directorate "Measures and Measuring Instruments"
DG MSv	Bulgaria	Directorate General "Metrological Supervision"
DG NCM	Bulgaria	General Directorate "National Centre of Metrology"
DKD	Germany	(former) Deutscher Kalibrierdienst
DP "Ivano-Frankivskstandart"	Ukraine	State enterprise "Ivano-Frankivsk Research-and-Production metrologija" Center for Standardization, Metrology and Certification"
DP NDI "Systema"	Ukraine	State Enterprise "Scientific Research Institute for Metrology of Measurement and Control Systems"
DP "Ukrmetrteststandard"	Ukraine	State Enterprise "All-Ukrainian State Scientific and Research Centre of Standardization, Metrology, Certification and Consumer Protection"
FTMC	Lithuania	State Scientific Research Institute Center for Physical Sciences and Technology
GEOSTM	Georgia	Georgian National Agency for Standards, Technical Regulations and Metrology
Gosstandart of Belarus	Belarus	State Committee for Standardization of the Republic of Belarus
INIMET	Cuba	National Research Institute on Metrology
INM	Romania	National Institute of Metrology
INSM	Moldova	National Institute of Standardization and Metrology
KTU MI	Lithuania	Metrology Institute at Kaunas Technology University
LEI	Lithuania	Lithuanian Energy Institute

LMET	Germany	Thuringian State Bureau for Metrology and Verification
MEMST	Kazakhstan	The Committee of Technical Regulation and Metrology of the Ministry of Industry and New Technologies of the Republic of Kazakhstan
NC	Cuba	Cuban National Bureau of Standards
NICPV	Russia	Center for Surface and Vacuum Research
NIMS MEAP KR	Kyrgyzstan	National Inspection to the Metrological Supervision under the Ministry of Economy and Antimonopoly Policy of the of the Kyrgyz Republic
NSC "IM"	Ukraine	National Scientific Centre "Institute of Metrology"
MEAP KR	Kyrgyzstan	The Ministry of Economy and Antimonopoly Policy of the Kyrgyz Republic
PTB	Germany	Physikalisch-Technische Bundesanstalt
Rosstandart	Russia	Federal Agency on Technical Regulation and Metrology of the Russian Federation
RSE "KazInMetr"	Kazakhstan	Republic State Enterprise "Kazakhstan Institute of Metrology"
SAMTS	Bulgaria	State Agency for Metrological and Technical Surveillance
SAQM	DPR of Korea	State Administration for Quality Management
SI "CNS Uz"	Uzbekistan	The State Institution "Centre of National Standards of Republic of Uzbekistan"
SKS RSE "KazInMetr"	Kazakhstan	South-Kazakhstan Subsidiary of Republic State Enterprise "Kazakhstan Institute of Metrology"
SLM	Slovakia	Slovak Legal Metrology
SMI	Slovakia	Slovak Metrology Inspectorate
SMU	Slovakia	Slovak Institute of Metrology
SNAS	Slovakia	Slovak National Accreditation Service
SNIIM	Russia	Siberian State Scientific Research Institute of Metrology
SRISMC	Uzbekistan	Scientific Research Institute of Standardization, Metrology and Certification
SUTN	Slovakia	Slovak Standards Institute
Tajikstandard	Tajikistan	Agency on Standardization, Metrology, Certification and Trade Inspection under the Government of the Republic of Tajikistan
TSU	Slovakia	Technical Testing Institute
UNIIM	Russia	Urals Scientific Research Institute of Metrology
UNMS	Slovakia	Slovak Office of Standards, Metrology and Testing
VMC	Lithuania	Vilnius Metrology Centre
VMT	Lithuania	State Metrology Service
VNIIFTRI	Russia	All-Russian Scientific Research Institute of Physico-Technical Measurements
VNIIFTRI ESB	Russia	East-Siberian branch of the National Research Institute of Physicotechnical and Radio Engineering Measurements
VNIIFTRI FEB	Russia	Far East branch of the National Research Institute of Physicotechnical and Radio Engineering Measurements
VNIIFTRI KB	Russia	Kamchatka branch of the National Research Institute of Physicotechnical and Radio Engineering Measurements

VNIIM	Russia	All-Russian Scientific Research Institute of Metrology named after D.I. Mendeleev
VNIIMS	Russia	All-Russian Scientific Research Institute of Metrological Service
VNIOFI	Russia	All-Russian Scientific Research Institute of Optical and Physical Measurements
VNIIR	Russia	All-Russian Scientific Research Institute of Flowrate Measurement
WKS RSE "KazInMetr"	Kazakhstan	Western-Kazakhstan Subsidiary of Republic State Enterprise "Kazakhstan Institute of Metrology"

Acronyms for the names of international and regional metrology organisations

AFRIMETS	Intra-African Metrology System
APLMF	Asia Pacific Legal Metrology Forum
APMP	Asia Pacific Metrology Programme
BIML	International Bureau of Legal Metrology
BIPM	International Bureau of Weights and Measures
CODATA	Committee on Data for Science and Technology
EA	European Cooperation for Accreditation
EASC	Euro-Asian Council for Standardization, Metrology and Certification
EURAMET	European Association of National Metrology Institutions
IEC	International Electrotechnical Commission
ILAC	International Laboratory Accreditation Cooperation
ISO	International Organisation for Standardization
JCRB	Joint Committee of Regional Metrology Organisations and BIPM
NCSLI	National Conference of Standards Laboratories International
OIML	International Organisation of Legal Metrology
SIM	Inter-American Metrology System
STCMetr	Scientific & Technical Commission on Metrology of Euro-Asian Council for Standardization, Metrology and Certification
WELMEC	Western Europe Legal Metrology Cooperation



www.coomet.net

Россия
119361 Москва
ул. Озерная, 46
Тел: +7 495 781 90 81; +7 495 437 9959
Факс: +7 495 437 9959
E-mail: coomet@vniims.ru

46 Ozernaya str.
119361 Moscow
Russia
Phone: +7 495 781 90 81; +7 495 437 9959
Fax: +7 495 437 9959
E-mail: coomet@vniims.ru

