

COOMET REPORT to 6th GA EURAMET

Dr. Pavel Neyezhmakov

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Kharkov, **UKRAINE**

Lyngby, Denmark, 22–23 May 2012



General Information

COOMET – Euro-Asian Cooperation of National Metrological Institutions – is a Regional Metrology Organization with 18 member countries from Central and Eastern Europe, Caucasian Region and Central Asia.

COOMET was founded on 12 June, 1991

COOMET is open for any metrological institutions from other regions to join as associate members.

The participation in COOMET activities gives an opportunity for the metrological tasks of assuring the uniformity of measures to be solved efficiently, promotes the cooperation of national economies and elimination of technical barriers to trade.

COOMET activity is based on the following documents:

- Memorandum of Understanding (MoU);
- Rules of Procedure;
- CONCEPTION of Cooperation;
- COOMET Development Program for 2011 – 2013;
- COOMET Working Program

AREAS of COOPERATION:

- ➡ MEASUREMENT STANDARDS OF PHYSICAL UNITS;
- ➡ LEGAL METROLOGY;
- ➡ QUALITY MANAGEMENT SYSTEMS;
- ➡ INFORMATION AND TRAINING
- ➡ JOINT RESEARCH in METROLOGY

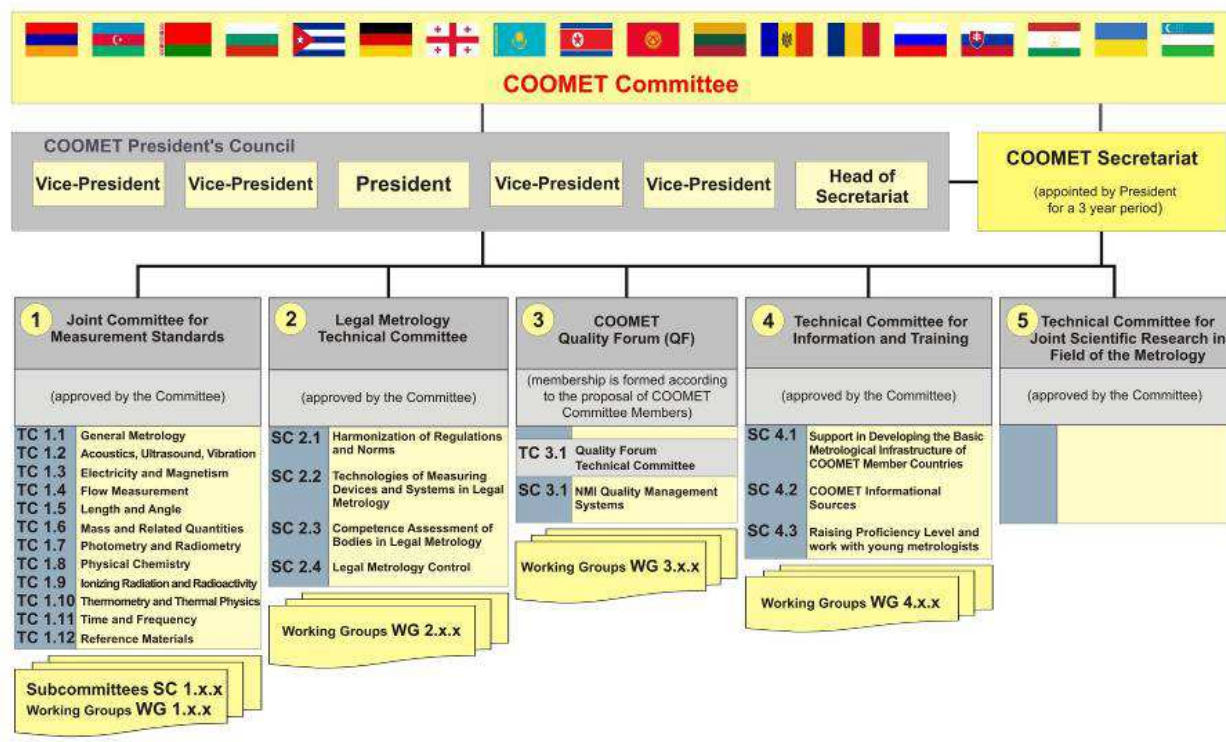
- Full Members – 15
- Associate Members – 3
- Metre Convention (Member States/Assoc CGPM) – 13 (7/6)
- Signatories of CIPM MRA – 12

ARMENIA
AZERBAIJAN
BELARUS
BULGARIA
CUBA
GERMANY

GEORGIA
KAZAKHSTAN
DPR of KOREA
KYRGYZSTAN
LITHUANIA
MOLDOVA

ROMANIA
RUSSIA
SLOVAKIA
TAJIKISTAN
UKRAINE
UZBEKISTAN

COOMET STRUCTURE



6th EURAMET GA, Lyngby, Denmark, 22-23 May 2012

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COOMET STRUCTURE

- The supreme body of COOMET is the COOMET Committee.
- The Committee organizes 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, Vice-Presidents and Head of the COOMET Secretariat constitute the COOMET President's Council.
- President's Council decides upon the COOMET policy, coordinates cooperation in the period between the Committee meetings.

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COOMET PRESIDENT'S COUNCIL



• Prof. Vladimir **KRUTIKOV** (Rosstandart, RUSSIA):
COOMET PRESIDENT

• Prof. Nikolai **ZHAGORA** (BelGIM, BELARUS):
COOMET VICE-PRESIDENT



• Prof. Dr.-Ing. Klaus-Dieter **SOMMER** (PTB, GERMANY): **COOMET VICE-PRESIDENT**

• Dr. Martin **HALAJ** (SMU, Slovakia):
COOMET VICE-PRESIDENT



• Dr. Pavel **NEYEZHMAKOV** (NSC "IM", UKRAINE):
COOMET VICE-PRESIDENT

• Mr. Sergey **KOMISSAROV** (VNIIMS, Russia):
HEAD OF COOMET SECRETARIAT



COOMET Chairs, 2012

- | | |
|-----------|---|
| • JCMS | Dr. Anna CHUNOVKINA , VNIIM, RUSSIA |
| • TCGM | Dr. Anna CHUNOVKINA , VNIIM, RUSSIA |
| • TCAUV | Mrs. Valentina POZDEEVA , BelGIM, BELARUS |
| • TCEM | Mrs. Tatyana KOLOMIETS , BelGIM, BELARUS |
| • TCFF | Prof. Vladimir BOLSHAKOV , NSC "IM", UKRAINE |
| • TCL | Dr. Vladimir KUPKO , NSC "IM", UKRAINE |
| • TCM | Mrs. Iryna KOLOZINSKAYA , NSC "IM", Ukraine NEW |
| • TCPR | Mr Boris KHLEVNOY , VNIIOFI, RUSSIA |
| • TCQM | Prof. Dr. Leonid KONOPELKO , VNIIM, RUSSIA |
| • TCRI | Prof. Dr. Vladimir YARINA , VNIIFTRI, RUSSIA |
| • TCT | Prof. Dr. Anatoly POKHODUN , VNIIM, RUSSIA |
| • TCTF | Prof. Dr. Vitaliy PALCHIKOV , VNIIFTRI, RUSSIA |
| • TCRM | Dr. Sergey MEDVEDEVSKIKH , VNIIM, RUSSIA NEW |
| • TCLM | Dr. Olaf KÜHN , LMET, GERMANY |
| • TCQS | Dr. Robert SPURNY , SMU, SLOVAKIA |
| • TCIT TR | Dr. Pavel NEYEZHMAKOV , NSC "IM", UKRAINE |

Meetings of the Structural Bodies of COOMET

The following meetings were held in 2011-2012:

- 16th Meeting of **COOMET President's Council** (16–17 November 2011, Rostov-on-Don, Russia)
- 22 meeting of **COOMET Committee** (18–19 April 2012, Cholpon-Ata, Kyrgyzstan);
- 10 meeting of the **Joint Committee for Measurement Standards** (17 April 2012, Cholpon-Ata, Kyrgyzstan).



Meetings of the **Technical Committees** of COOMET:

- **TC 1.3** "Electricity and Magnetism" (18–19 October 2011, Baku, Azerbaijan);
- **TC 1.4** "Flow Measurement" (23–26 October 2011, Ivano-Frankivsk, Ukraine);
- **TC 1.5** "Length and angle" (30–31 January 2012, Dolgoprudny, Moscow region, Russia);
- **TC 1.6** "Mass and Related Quantities" (27–30 September 2011, Saint-Petersburg, Russia);
- **TC 1.7** "Photometry and Radiometry" (6–7 April 2011, Kharkov, Ukraine);
- **TC 1.8** "Physical Chemistry" (25–26 May 2011, Saint-Petersburg, Russia);
- **TC 1.10** "Thermometry and Thermal Physics" (21–22 September 2011, Minsk, Belarus);
- **TC 1.12** "Reference Materials" (3–5 October 2011, Kharkov, Ukraine);
- **TC 2** "Legal Metrology" (6–7 September 2011, Yerevan, Armenia);
- **Quality Forum (QF) and TC 3.1** "Technical Committee for Quality Forum" (19–20 May 2011, Kyiv, Ukraine);
- **Quality Forum (QF) and TC 3.1** "Technical Committee for Quality Forum" (14–15 March 2012, Bratislava, Slovakia);
- **TC 4** "Information and Training" (28–29 September 2011, Astana, Kazakhstan).

22nd COOMET Committee Meeting

18–19 April 2012, Cholpon-Ata, Kyrgyzstan

57 participants from 13 COOMET member-countries,
as well as the representatives of BIPM, BIML,
EURAMET, APMP



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22nd COOMET Committee Meeting

21 issues of the agenda were discussed at the meeting, in particular:

- The main results of COOMET activities in 2011;
- About the changes in COOMET Memorandum of Understanding;
- A number of issues with regard to the realization of the CIPM MRA;
- Status of review of Quality Management Systems (QMS) of COOMET NMIs and prospects in the activity of the COOMET Quality Forum;
- Status and perspectives of informational assurance of the COOMET activity;
- Elections of COOMET President

The following new publications were approved:

- **COOMET D9:2012** "Programme of Comparisons of the Measurement Standards of COOMET NMIs";
- **COOMET D5.4:2012** "Regulation on COOMET Technical Committee "Length and angle" (TC 1.5)";
- **COOMET D5.9:2012** "Regulation on COOMET Technical Committee "Mass and Related Quantities" (TC 1.6)";
- **COOMET D5.12:2012** "Regulation on COOMET Technical Committee "Legal metrology" (TC 2)";
- **COOMET D5.13:2012** "Regulation on COOMET Technical Committee "Information and Training" (TC 4)".

6th EURAMET GA, Lyngby, Denmark, 22-23 May 2012

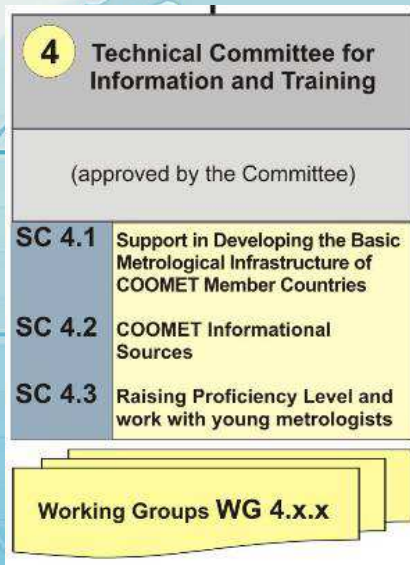
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22nd COOMET Committee Meeting

The main decisions of the meeting were:

- **22nd COOMET Committee Meeting:**
 - 1) taking note of the Resolution 1 of 24th CGPM, appeals to NMIs of COOMET Member Countries:
 - to continue works on the improvement of fundamental constants h , e , k , N_A and on the redefinition of basic SI units;
 - to inform the scientific community and governmental institutions of its countries about the forthcoming redefinitions of SI units;
 - 2) taking note of the Resolution 4 of 24th CGPM, appeals to the CGPM Associate Members participating in the COOMET activities to change the status of Associate Members to the status of Member Countries of the Metre Convention as it will assist in strengthening the international system of measurements and in broadening COOMET capabilities regarding CIPM MRA implementation
- To accept the results of the voting conducted among the COOMET Committee Members and to consider Vladimir Krutikov, Russia, as the **COOMET President**.
- To appoint as the **COOMET Vice-presidents**:
 Nikolai Zhagora, BelGIM, Belarus;
 Klaus-Dieter Sommer, PTB, Germany;
 Martin Halaj, SMU, Slovakia;
 Pavel Neyezhmakov, NSC "Institute of Metrology", Ukraine.
- To approve the new structure of TC 4 "Information and Training"

TC4 new structure



Tasks:

SC 4.1

- (1) Realization of projects directed on the deepening of regional cooperation of COOMET member-countries;
- (2) Support in developing the basic of metrological infrastructures in the context of development of global metrology of Central Asia and Caucasus;
- (3) Organization and holding of educational seminars and trainings.

SC 4.2

- (1) Development and support of informational COOMET sources: web-site, web-portal and database;
- (2) Presentation of COOMET in Internet;
- (3) Preparation and publication of informational materials about COOMET.

SC 4.3

- (1) Development of training programs, including remote training;
- (2) Development of recommendations on the content of training programs and trainings abroad of specialists within COOMET;
- (3) Work with young COOMET metrologists. Holding of International competition "The best young COOMET metrologist".

Some other activities related to the CIPM MRA implementation



In compliance with **COOMET project 528/KZ/11** the training workshop on “Pilot comparison in the field of mass” was held on 24–26 May 2011 in Astana, Kazakhstan.

19 metrologists from 13 COOMET member countries took part in the workshop.

The aims of the workshop were:

- preparation for conducting COOMET pilot comparison in the field of mass (submultiply and multiply units of kilogram)
- practical exercise on measurement in the mass laboratory of KazInMetr;
- practical exercises on uncertainty calculation of mass measurements;
- necessary steps on CMC preparation for publishing in KCDB;
- increasing and expansion of technical possibilities of national institutes on the example of mass laboratory of KazInMetr.

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Some other activities related to the CIPM MRA implementation



In compliance with the **COOMET project 445/DE/08** the training workshop on preparation of the supplementary comparison in the field of ionizing radiation was held on 23–25 May 2011 in PTB.

21 metrologists from 15 COOMET member countries took part in the workshop.

The goal of the Workshop was to prepare the participants for the procedure to get entrances into the CMC list in the area of Ionizing Radiation, Section I, X and gamma rays.

Topics of the Workshop were a review on the current status of air kerma standards, reference X radiation qualities used in radiation therapy, diagnostic radiology and radiation protection, calibration procedures and their uncertainties, procedures of regional key- and supplementary comparisons in ionizing radiation (X and gamma rays).

During the Workshop there was a practical demonstration of the calibration of an ionization chamber in terms of air kerma at the X rays and Cs-137 irradiation facilities of the PTB.

6th EURAMET GA, Lyngby, Denmark, 22-23 May 2012

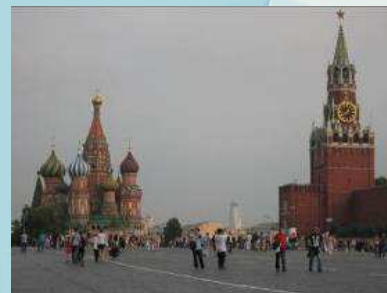
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Coordination of work with young metrologists

Such area as work with young metrologists is being developed in COOMET since 2005. Since 2005 the competition "The Best Young Metrologist of COOMET" is held every two years in different COOMET countries.

The first two competitions took place at the NSC "Institute of Metrology" (Ukraine) in 2005 and 2007, the third competition took place in BelGIM (Belarus) in 2009, and the fourth was held in Russia on 15–17 June 2011.

During these years 100 young metrologists from almost all COOMET Member Countries took part in the competition.



The scope of presented scientific papers of competitors can be divided into three main groups of metrological works:

- metrological assurance of modern technologies;
- creation and improvement of measurement standards, instruments and methods of quality unit transfer;
- metrological assurance of the main problems of economy and social sphere.

The next competition will be held in PTB, Germany, in Spring 2013.

6th EURAMET GA, Lyngby, Denmark, 22-23 May 2012

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Some activities related to the Developing Economies

Training workshop "Experience and achievements in legal metrology" (7–8 September 2011, Yerevan, Armenia). 10 representatives from 10 COOMET member-countries took part in the workshop.

Such topics as: European Directives and principles of mutual recognition, Law on metrology OIML D1, market surveillance on service putting into market etc.



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Some activities related to the Developing Economies

1. The First Inter-RMO Workshop on Activities in Support of Small, Emerging and Developing Economy NMIs (29th June - 1st July 2011, Ulaan Baatar, Mongolia)



2. Follow-up meeting of the Inter-RMO Working Group in Support of Small, Emerging and Developing NMIs (29th March, 2012, PTB, Braunschweig, Germany)

Implementation of COOMET projects

The cooperation in scientific metrology was successfully coordinated within almost 20 years period based on COOMET MoU. However, the intensity of this cooperation required new forms, that is why for the purpose development of a concept of joint research was proposed **project COOMET 492/DE/10 "Development of a concept for joint metrological research in COOMET member countries"**

Within the project there was created a working group. Three Questionnaires have been prepared. These Questionnaires are being filled in by COOMET member countries at the moment.

This issue was discussed at the 22nd COOMET Committee meeting. The workshop on this issue is planned to be held in late June 2012 in Kharkov, Ukraine.

PROPOSED PROJECT COOMET		
1 Reference No.: 492/DE/10	2 Subject Field: TC 5, Research and Development	
3 Field of cooperation: Joint metrological research and development of the COOMET member countries		
4 Partners: Interested member countries		
5 Subject: Development of a concept for joint metrological research in COOMET member countries		
6 Description: <ul style="list-style-type: none"> State-of-art analysis Research need of participating countries Structuring and prioritizing of potential research projects Identification of research subjects of common interest (e.g. metrology for energy, for environment, for health, security and safety etc. – grand challenges in the field of metrology) Expected social and economical impact of the research and development outcome Proposed operational and organisational structure of a joint research programme Proposed funding of a joint metrological research programme 		
7 Additional remarks: <ul style="list-style-type: none"> 20.04.2010 – first meeting of country representatives in Astana, Kazakhstan Presentation of the project results: 21. COOMET Committee Meeting, 2011 		
8 Proposer's Name: Prof. Dr.-Ing. Klaus-Dieter Sommer Address: 38116 Braunschweig, Bundesallee 100, Germany Phone: +49-(0)531-592-3010 Fax: +49-(0)531-592-3015 E-mail: Klaus-Dieter.Sommer@ptb.de		
9 Proposer's signature: 	10 Date: 2010-02-17	11 Proposed starting date: 20. COOMET Committee meeting, 2010
12 Signature of the COOMET Committee Member: Name: Prof. Dr. Klaus-Dieter Sommer Signature: 		



Implementation of COOMET projects

According to the results of the analysis the following will be proposed:

- operational and organizational **structure** of a joint research programme;
- **funding sources** of a joint metrological research programme.

The project will be able to produce a dynamic impact on all participating member countries, establishing a network of new contacts and connections between the technical staff and the institutions themselves.

The development and implementation of joint research projects in COOMET will have a considerable contribution to science and will stimulate innovations to solve metrology problems in COOMET member countries.

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3 Field of cooperation: Joint metrological research and development of the COOMET member countries		
4 Partners: Interested member countries		
5 Subject: Development of a concept for joint metrological research in COOMET member countries		
6 Description: <ul style="list-style-type: none"> • State-of-art analysis • Research need of participating countries • Structuring and prioritizing of potential research projects • Identification of research subjects of common interest (e.g. metrology for energy, for environment, for health, security and safety etc. – grand challenges in the field of metrology) • Expected social and economical impact of the research and development outcome • Proposed operational and organisational structure of a joint research programme • Proposed funding of a joint metrological research programme 		
7 Additional remarks: <ul style="list-style-type: none"> • 20.04.2010 – first meeting of country representatives in Astana, Kazakhstan • Presentation of the project results: 21. COOMET Committee Meeting, 2011 		
8 Proposer's Name: Prof. Dr.-Ing. Klaus-Dieter Sommer Address: 38116 Braunschweig, Bundesallee 100, Germany Phone: +49-(0)531-592-3010 Fax: +49-(0)531-592-3015 E-mail: Klaus-Dieter.Sommer@ptb.de		
9 Proposer's signature: 	10 Date: 2010-02-17	11 Proposed starting date: 20. COOMET Committee meeting, 2010
12 Signature of the COOMET Committee Member: Name: Prof. Dr. Klaus-Dieter Sommer Signature: 		

NEXT COOMET MEETING

COOMET invites EURAMET
to take part in the
23rd COOMET Committee Meeting
which will be held in May – June 2013 in Russia

Thank you for your attention!

www.coomet.net

www.coomet.org

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