COOMET Important Developments

OOMET

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

National Scientific Centre "Institute of Metrology", Kharkov, UKRAINE

GOMET GENERAL INFORMATION

The COOMET member-countries cooperate in the following areas:



Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

GENERAL INFORMATION

The main tasks of COOMET are the following:

Provide assistance in the uniformity of measures, uniformity of measurements and the required accuracy of their results;

Provide assistance in promoting cooperation between national economies and eliminating technical barriers for international trade;

Harmonize activities of metrology services of the Euro-Asian countries with similar activities in other regions.

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

COOMET MEMBERS AND THEIR RELATION TO THE METRE CONVENTION AND CIPM MRA

CIPM MRA

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orirmenista

CUBA

GERMANY

GEORGIA

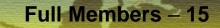
DPR OF KOREA

KAZAKHSTAN

CIPM

+ +

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- Associate Members 6
- Metre Convention (Member States/Assoc CGPM) 8

KYRGYZSTAN

LITHUANIA

MOLDOVA

ROMANIA

RUSSIA

C*

Signatories of CIPM MRA – 15



Cuba

CIPM

(*

CIPM

CIPM

CIPM

CIPM

ARMENIA

BELARUS

AZERBAIJAN

BOSNIA AND

BULGARIA

CHINA

HERZEGOVINA

CIPM

CIPM MRA

COOMET Important Developments

28 May – 1 June 2018 Bucharest, Romania

SLOVAKIA

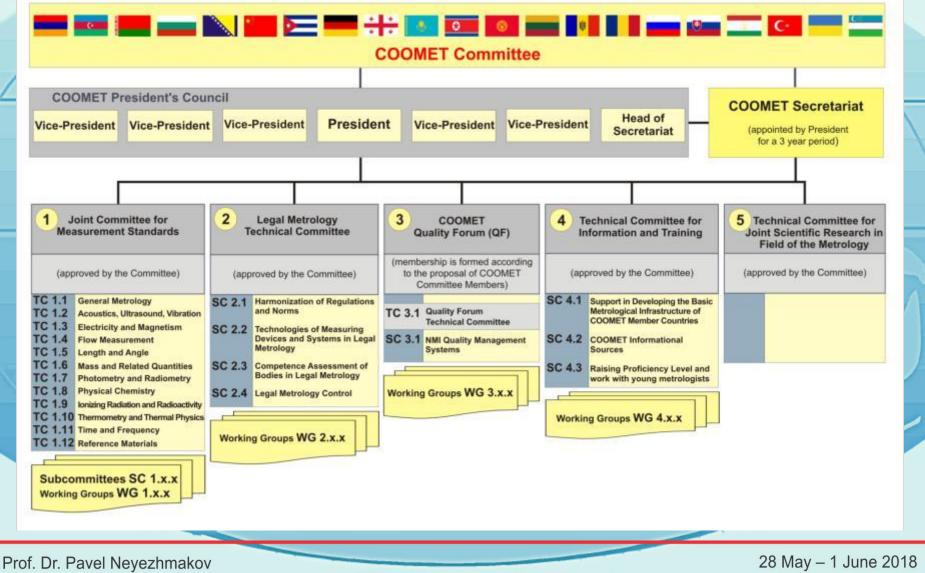
TAJIKISTAN

TURKEY

UKRAINE

UZBEKISTAN

COOMET STRUCTURE



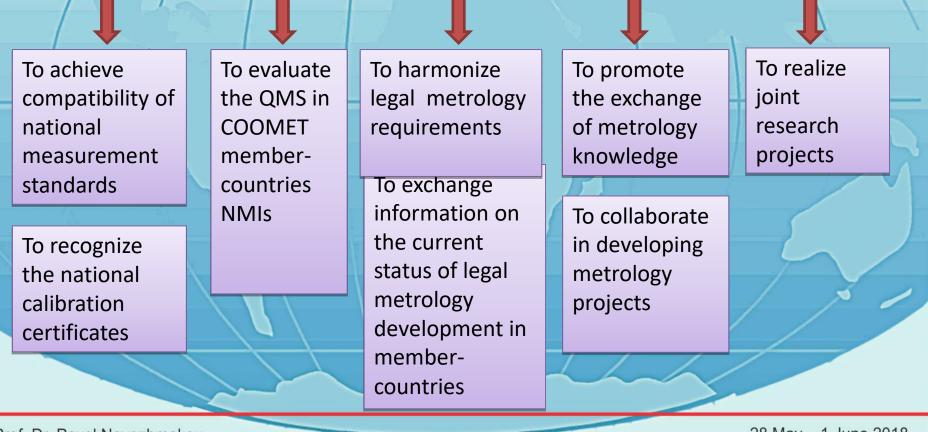
COOMET Vice-President

COOMET Important Developments

Bucharest, Romania

COOMET COOMET STRUCTURE

Thereby for the purpose to solve common problems **COOMET** created effective mechanisms that reach the following **goals**:



Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

COMET COOMET EVENTS

22nd meeting of COOMET President's Council (29–30 November 2017, Braunschweig, Germany)

Members of the COOMET President's Council, Chairpersons of COOMET Quality Forum and TC 3.1 "Quality Forum Technical Committee", representatives of National Secretariats of COOMET and other invited guests took part in the work of the meeting.

The tasks of the meeting were the discussion of the measures on improvement of activities of the regional metrological organization COOMET and implementation of the Arrangement "Mutual Recognition of National Standards, Calibration and Measurements Certificates issued by National Metrology Institutes" (CIPM MRA).



Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

COOMET COOMET EVENTS

28th meeting of COOMET Committee and 16th meeting of the JCMS (10–12 April 2018, Sarajevo, Bosnia and Herzegovina)



17 COOMET member-countries (Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, China, Cuba, Georgia, Germany, Kazakhstan, Kyrgyzstan, Lithuania, Moldova, Russia, Slovakia, Turkey, Uzbekistan and Ukraine) took part in the 28th COOMET Committee meeting

During the 28th meeting of the COOMET Committee, an official delegation of authority to the new COOMET President **Valery Hurevich** (BelGIM, Belarus) from the previous President **Vladimir Krutikov** (VNIIOFI, Russia) took place. A new membership of COOMET President's Council was formed. The following members were elected as Vice-presidents:

> Pavel Neyezhmakov (NSC "Institute of Metrology", Ukraine) – responsible for cooperation with regional metrology organizations as well as for training and knowledge transfer;

> Peter Ulbig (PTB, Germany) - responsible for legal metrology;

> Nino Mikanadze (GEOSTM, Georgia) – responsible for the quality management system and accreditation;

> Sergey Golubev (Rosstandart, Russia) – responsible for cooperation in the field of measurement standards and joint scientific research



Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

COOMET PRESIDENT'S COUNCIL

	Areas of responsibility
COOMET President Dr. Valery HUREVICH	General coordination of COOMET activities, coordination of cooperation between COOMET and international metrology organizations.
COOMET Vice-President Prof. Dr. Pavel NEYEZHMAKOV	Information and knowledge transfer, cooperation with RMOs, COOMET official representative in JCRB and BoD NCSLI
COOMET Vice-President Dr. Sergey GOLUBEV	Coordination of COOMET cooperation in the field of measurement standards, joint scientific research
COOMET Vice-President NEW	Development of quality management systems and collaboration in the field of accreditation
COOMET Vice-President Dr. Peter ULBIG	Cooperation in the field of legal metrology
Head of COOMET Secretariaten	

Prof. Dr. Pavel Neyezhmakov **COOMET Vice-President**

COOMET Important Developments

COMET COOMET CHAIRPERSONS, 2018

JCMS TC1.1 GM TC1.2 AUV TC1.3 EM TC1.4 FF TC1.5 L TC1.6 M TC1.7 PR TC1.8 QM TC1.9 RI TC1.10 T TC1.11 TF TC1.12 RM TC2 LM QF TC3.1 QF TC4 1&TR Anna CHUNOVKINA, VNIIM, RUSSIA Anna CHUNOVKINA, VNIIM, RUSSIA Valentina POZDEEVA, BelGIM, BELARUS Tatyana KOLOMIETS, BelGIM, BELARUS Viktor FAFURIN, VNIIR, RUSSIA Aleksandr KOSTRIKOV, NSC "IM", UKRAINE, new Iryna KOLOZINSKAYA, NSC "IM", UKRAINE Anatolii BESCUPSCHII, INM, MOLDOVA, new Leonid KONOPELKO, VNIIM, RUSSIA Nikolay MOISEEV, VNIIM, RUSSIA Anatoly POKHODUN, VNIIM, RUSSIA Vitaliy PALCHIKOV, VNIIFTRI, RUSSIA, new term Sergey MEDVEDEVSKIKH, UNIIM, RUSSIA Peter ULBIG, PTB, GERMANY Andreas ODIN, PTB, GERMANY, new term Natalya MURAVSKAYA, VNIIOFI, RUSSIA, new term Pavel NEYEZHMAKOV, NSC "IM", UKRAINE

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

COMET MOU between COOMET and EURAMET

During the 28th COOMET Committee meeting the **Memorandum of Understanding between COOMET and EURAMET** was signed by new COOMET President Valery Hurevich and Chairperson of EURAMET Beat Jeckelmann.

This MoU was agreed at the meeting of EURAMET–COOMET delegations, which was held on 12 September 2017 in METAS, Bern-Wabern, Switzerland Forms of cooperation within MoU include, but are not limited to areas of mutual interest as:

research in metrology; traceability of measurements to the SI units; inter-laboratory comparisons; knowledge exchange; joint publications.

Cooperative Activities are as follows:



- (1) Joint activities under this Memorandum of Understanding are subject to the applicable rules of each Party, as well as the funds and personnel available to the Parties or their members respectively.
- (2) Delegations of EURAMET and COOMET will meet on an annual basis. e. g. aside the JCRB meeting, to discuss actual matters and strategic orientation of the cooperation.
- (3) EURAMET and COOMET will mutually invite their TC-Chairs to the annual meetings of the TC in their organisation, this applies to the meetings of the Technical Committees for Quality, Information and Training and Interdisciplinary Metrology particularly.
- (4) EURAMET and COOMET will cooperate in the field of Capacity Building, e. g. by
- mutual invitation to, or joint organisation of Capacity Building events, where appropriate,
- exploring opportunities to hold joint workshops within the BIPM Capacity Building and Knowledge Transfer Programme (CBKT).
- (5) EURAMET and COOMET may arrange joint promotional, educational, technical, or scientific initiatives, such as conferences, seminars, workshops, training courses, joint publications and other pertinent activities.
- (6) The Parties will each appoint a person responsible for the coordination of the activities.

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments



The VII International Competition of COOMET "The Best Young Metrologist" was held on 17–18 May 2017 in Astana, Kazakhstan. It was the second time when the Competition was held with the participation of young metrologists from other RMOs and only in English.

36 works of young metrologists from 10 countries (Belarus, Columbia, Germany, Kazakhstan, Moldova, Peru, Russia, Slovakia, Spain and Ukraine) of 3 RMOs (COOMET, EURAMET and SIM) were submitted for the Competition







The winner became **Edyta Beyer** (PTB, Germany). The 2nd place – **Mikhail Aleynikov** (VNIIFTRI, Russia). The 3rd place – **Anna Villevalde** (VNIIM, Russia). The Scientific Committee of the Competition included leading metrologists of Belarus, France, Germany, Kazakhstan, Russia, South Africa, Ukraine and USA from international (BIPM, BIML) and regional (AFRIMETS, COOMET, EURAMET, SIM) metrology organizations.

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

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Username: Password: Login		ings 5-16 <u>, 2018, Moscow, Russia: COOMET</u> ar and COOMET-OIML International Conference
	Home Activities International Competitio Competition 20	017
Calendar International Competition "The Best Young Metrologist of COOMET" Competition 2017 Competition 2015 Competition 2013 Training Conferences/Events Projects Database	 VII International Competition "The Best Your of COOMET" VII International Competition "The Best Young Metrologist of held on 17–18 May 2017 in Astana, Kazakhstan. Based on the assessment results of the works of competitor winner and awardees of the Competition were determined: 1st place – Edyta Beyer (PTB, Germany) for report "Surf and XPS for the Avogadro constant and the realization of th on silicon spheres" – graduate student of PTB from Poland; 2nd place – Mikhail Aleynikov (VNIIFTRI, Russia) for re H-maser with increased power in fountain atomic clocks"; 3rd place – Anna Villevalde (VNIIM, Russia) for report 	of COOMET" was rs, the following ace analysis by XRF e kilogram based eport "Application of
Search NMI Services About COOMET Contacts	Minutes No 1 Minutes No 2 For the first time it was prepared and published in electronic variants the	
Links News Archive	Proceedings of VII International Competition of COOP Young Metrologist – 2017". All papers were assigned the	
Latest Updates	digital object identifier.	
Latest Videos	Program of Competition short	

Program of Competition full

28 May – 1 June 2018 Bucharest, Romania

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

For the first time it was prepared and published in electronic and paper variants the Proceedings of VII International Competition of COOMET "The Best Young Metrologist – 2017". All papers were assigned the DOI index – digital object identifier. This was done by the specialists of the NSC "Institute of Metrology" (Kharkov, Ukraine).



Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments





VOLUME LIX • NUMBER 2 April 2018

Quarterly Journal

Organisation Internationale de Métrologie Légale





7th COOMET International Competition "The Best Young Metrologist"

COOMET COMPETITION

The future of the international metrology community

COOMET International Competition "The Best Young Metrologist"

PROF. DR. PAVEL NEVEZHMAKOV COOMET Vice-President

MRS. YULIYA BUNYAYEVA National COOMET Secretariat in Ukraine

Introduction

COOMET is an organization for the Euro-Asian cooperation of National Metelogy Institutions (from the countries of Central and Eastern Europe, Asia and nearby countries), which is also open to the National Metrology Institutions of countries from other regions to join. The principal fields of cooperation within COOMET include:

- implementation of the CIPM MRA;
- establishment and maintenance of the national primary measurement standards of SI units;
- solution of problems concerning general metrology, including problems related to the theory of measurement and uncertainties, system of units, terminology;
- creation and use of reference materials of composition and properties of substances and materials;
- coordination of issues on legal metrology between member countries;
- creation and implementation of Quality Management Systems in NMIs;
- support in developing the basic metrological infrastructure of COOMET Member Countries; and
- raising proficiency level and work with young metrologists.

The initiative for this extraordinary competition for young metrologists was started more than ten years ago during an annual meeting of the COMET Technical Committee (TC) for Information and Training (TC 4). The members of TC 4 suggested the development of criteria for a better judgment of the skills and knowledge of young metrologists between member state institutions and proposed to organize and hold the International Competition of COOMET. The Best Young Metrologist 'for specialists up to and including the age of 35 who work in the field of scientific and applied metrology at NMS or other metrology institutions of COOMET. Member Countries, independent of his/her academic degree and position.

update

The following tasks and objectives of the competition were defined:

- to encourage young specialists in the field of metrology to introduce their scientific work to the metrological / scientific community;
- to find, support and encourage young metrologists in their achievements in the field of scientific and applied metrological activity that contribute to the development of metrology and cooperation of COOMET Member Countries and in global metrology society scales;
- to introduce one's work to colleagues of other metrology institutions;
- to learn to apply generally accepted methods and techniques for presentations;
- to publish the papers in the Proceedings;
 to publish papers and presentations online and/or on electronic carriers (e.g. CD);
- to inform metrological organizations about the scientific and applied papers submitted for the
- competition, results and winners of the competition; to build awareness among a wider audience about achievements in metrology through mass-media.

It was decided to hold the Competition once every two years in one of the metrology organizations of the COOMET Member Countries, It was also decided that the languages of the papers submitted should be the working languages of COOMET – i.e. Russian and English.

To assess the papers according to the criteria established in the COOMET recommendation Procedure for the International Competition of the COOMET Best Young Metrologist¹⁷, the Scientific Committee (Judging panel) is formed of experienced specialists in metrology.

The Scientific Committee analyzes the candidates' full texts, listens to the reports and presentations, and estimates them according to the criteria (see Table 1).

https://www.coomet.net/fileadmin/user_files/DOCUMENTS/ COOMET_Documents/Pecommendations/Recommendation R_GM_18_En_2013.pdf

> > 28 May – 1 June 2018 Bucharest, Romania

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

Seminar on the procedure and conditions of participation in the EMPIR

4 December 2017, Braunschweig, Germany

The Seminar was attended by:

Heads of COOMET National Metrology Institutes and Chairpersons of COOMET TCs from 7 COOMET member-countries (Belarus, Georgia, Germany, Russia, Tajikistan, Ukraine and Uzbekistan) and also representatives of EURAMET and EMPIR Secretariats



The EMPIR initiative is co-funded by the European Union's Horizon 2020 research and innovation programme and the EMPIR Participaling States

The agenda included a number of issues: COOMET introduction course for participants; Summary of the SEMINAR for NMIs Directors of COOMET member-countries and Chairpertant of COOMET Technical Committees bare and conditions of participation in the Programme for Innovation and Research (EMPER) Introduction to EMPIR; Pavel Neverlmakov, COOMET Vice-President concept of EMPIR; On 4 December, a one-day workshop for COOMET member countries on the procedure and nationsis for participations as the Taropens Memology Programme for Janovatous and Research (MPGD) was been did in the Physicalische Technicele Bundesmatrich (972). Benuezehoreng, Germany) da included a number of inner rules for participants; toduction course for participant roduction to EMPER. uncept of EMPER. Roles for participant Contribution and impact of EMPIR Prosect contribution and impact of EMPIR Projects; naticipation in EMPER topics tracture of Projects. samples of external partnersh sects of potential research topics aar wax attended by •participation in EMPIR topics; examination or provide the second structure of Projects; gmar Anerbach, EMRP Programme Manager, mcm. Javin, EURAMET General Secretary, nasko Tauit, EURAMET Capacity Bialding Officer The objectives of the Seminar examples of external partnership; and processes of EMPIR with forms on possih plain the Programme, instrum of COOMET member-countries MAIN RESULTS OF THE SEMINAR projects of potential research topics. nain directions of EMPIR Projects are: Industry, Fundamental Research Health, Environment, Energy, SI-Bonder Scope, Support for Impact and Research

28 May – 1 June 2018 Bucharest, Romania

COOMET Important Developments

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

Workshop within BIPM CB&KT Programme "Sound beginning in the CIPM MRA"

10 April 2018, Sarajevo, Bosnia and Herzegovina

One-day **COOMET-BIPM workshop "Sound beginning in the CIPM MRA**" was held for the Heads of NMIs of COOMET member countries with the developing metrological infrastructure within the BIPM Programme on Capacity Building and Knowledge Transfer (CB&KT)



		COOME T - BIPM Workshop "Sound beginning in the CIPM MRA" 10 April, 2018 Sarajavo, Boznia and Harzegovina		
		PROGRAMME		
Time	Course Topic	Outline of content	Instructors	
99.00		Registration		
09.20	Welcome		Pavel Neyezhmakov	
	100000	Importance of Quality Infrastructure and its key players	Peter Ulbig	
09.30	Global Quality Infrastructure	Metrology/CIPM MRA and its role in the QI	Chingis Kuanbayev	
	intrastructure.	Case study: QI Practical examples & Roles and responsibilities	Peter Ulbig	
11.00		coffee & tea		
	201 230 722	Metre Convention: Interactions with Member States and Associates	Chingis Kuanbayev	
	Introduction to the	CIPM Requirements and documentation	Nikita Zviagin	
11.20	Metre Convention, BIPM and the OPM	COOMET as an RMO and CIPM MRA related activities	Pavel Neyezhmakov	
	MRA requirements	JCRB: inter-regional CMC review process	Nikita Zviagin	
		Case study: Impacts of the CIPM MRA	Pavel Neyeshmakov	
13.00		Lunch		
	Quality management systems	OPM requirements and documentation on QS and RMO approaches	Chingis Kuanbayev	
		COOMET approach in Q5 and specifics	Natalia Muravskaya	
14.00		ISO/IEC 17025 and the new edition	Andreas Odin	
_		Case study: How to establish a Q5 acceptable to RMO	Zijad Ozemic	
16.00		coffee & tea		
16.30	Measurement comparisons and Calibration and measurement capabilities (CMCs)	CIPM Requirements and documentation on comparisons	Chingis Kuanbayev	
		OPM Requirements and documentation on OMCs	Nikita Zvlagin	
		Case study: How to participate effectively in comparisons and declare CMCs	Nino Mikanadze	
	The BIPM key comparison database	Introduction of the KCDB (KCs, SCs, CMCs and statistics)	Nikita Zvlagin	
18.00	Closure of the Workshop			

The workshop was attended by 30 specialists-metrologists – Heads and representatives of NMIs of COOMET membercountries of both countries-signatories and non-signatories of the CIPM MRA from 14 COOMET member-countries (Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Cuba, Germany, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkey, Ukraine and Uzbekistan), as well as representatives of international metrology organizations - Chingis Kuanbayev, specialist of the BIPM department on international liaison, Nikita Zviagin, Executive Secretary of the JCRB, and Ian Dunmill, Assistant Director of the BIML.

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COOMET Important Developments

COMET Workshop within BIPM CB&KT Programme

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COOMET-BIPM Workshop "Sound beinning in the CIPM MRA"

On 10 April 2018 in Sarajevo, Bosnia and Herzegovina, a one-day workshop was held for the Heads of NMIs of COOMET membercountries with the developing metrological infrastructure in the framework of the BIPM Programme on Capacity Building and Knowledge Transfer (CB&KT) and the PTB-COOMET Project "Facilitation of regional trade and support of consumer protection of COOMET membercountries" and SC 4.1 "Support in developing the basic metrological infrastructure of COOMET member-countries".



The workshop was attended by 30 specialists-metrologists – Heads and representatives of NMIs of COOMET member-countries of both countries-signatories and non-signatories of the CIPM MRA from 14 COOMET member-countries (Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Cuba, Germany, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkey, Ukraine and Uzbekistan), as well as representatives of international metrology organizations - Chingis Kuanbayev, specialist of the BIPM department on international liaison, Nikita Zviagin, Executive Secretary of the JCRB, and Ian Dunmill, Assistant Director of the BIML.

The goal of the workshop – effective involvement of COOMET member-countries in the CIPM MRA implementation, exchange of experience in peer review of Quality Management Systems, comparisons, signing of the CIPM MRA.

The agenda of the workshop included 5 sections with the following topics:

- 1. Global quality infrastructure.
- 2. General information on Metre Convention.
- 3. Quality Management System.
- 4. Comparisons and calibraion and measurement capabilities.
- 5. Key comparisons database of the BIPM.

Lecturers:

Chingis Kuanbayev, specialist of BIPM department on international liaison, BIPM, France; Nikita Zviagin, Executive Secretary of the JCRB, BIPM, France; Pavel Neyezhmakov, Vice-President of COOMET, NSC "Institute of Metrology", Ukraine; Peter Ulbig, Vice-President of COOMET, PTB, Germany; Andreas Odin, Chairperson of COOMET Quality Forum, PTB, Germany; Natalia Muravskaya, Chairperson of COOMET TC 3.1, VNIIOFI, Russia; Nino Mikanadze, COOMET Committee member, GEOSTM, Georgia; Zijad Dzemic, COOMET Committee member, IMBIH, Bosnia and Herzegovina

SUMMARY

Prof. Dr. Pavel Neyezhmakov COOMET Vice-President

COOMET Important Developments

28 May – 1 June 2018 Bucharest, Romania

COOMET Committee

TC 1 Joint Committee for Measurement Standards

- TC 2 Legal Metrology
- Quality Forum (QF)
- TC 4 Information and Training
- ▶ News

Meetings

Members

Documents

Projects

SC 4.1 Support in Developing Basic Metrological Infrastructure of COOMET Member Countries

SC 4.2 COOMET Informational Resources

SC 4.3 Raising Proficiency Level and Work with Young Metrologists

TC 5 Joint Research

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Thank you for your attention!

www.coomet.net www.coomet.org e-mail: coomet@belgim.by

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COOMET Important Developments