

# COOMET REPORT to the 8<sup>th</sup> GA EURAMET

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**The COOMET member-countries cooperate in the following areas:**



**MEASUREMENT STANDARDS OF PHYSICAL UNITS**



**LEGAL METROLOGY**



**QUALITY MANAGEMENT SYSTEMS**



**INFORMATION AND TRAINING**



**JOINT RESEARCH in METROLOGY**

## 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.





- Full Members – 15
- Associate Members – 5



ARMENIA  
AZERBAIJAN  
BELARUS  
BULGARIA  
CUBA



BOSNIA AND  
HERZEGOVINA  
GERMANY  
GEORGIA  
DPR OF KOREA  
KAZAKHSTAN



KYRGYZSTAN  
LITHUANIA  
MOLDOVA  
ROMANIA  
RUSSIA



SLOVAKIA  
TAJIKISTAN  
TURKEY  
UKRAINE  
UZBEKISTAN





## COOMET Committee

### COOMET President's Council

Vice-President

Vice-President

President

Vice-President

Vice-President

Head of  
Secretariat

### COOMET Secretariat

(appointed by President  
for a 3 year period)

#### 1 Joint Committee for Measurement Standards

(approved by the Committee)

TC 1.1	General Metrology
TC 1.2	Acoustics, Ultrasound, Vibration
TC 1.3	Electricity and Magnetism
TC 1.4	Flow Measurement
TC 1.5	Length and Angle
TC 1.6	Mass and Related Quantities
TC 1.7	Photometry and Radiometry
TC 1.8	Physical Chemistry
TC 1.9	Ionizing Radiation and Radioactivity
TC 1.10	Thermometry and Thermal Physics
TC 1.11	Time and Frequency
TC 1.12	Reference Materials

Subcommittees SC 1.x.x  
Working Groups WG 1.x.x

#### 2 Legal Metrology Technical Committee

(approved by the Committee)

SC 2.1	Harmonization of Regulations and Norms
SC 2.2	Technologies of Measuring Devices and Systems in Legal Metrology
SC 2.3	Competence Assessment of Bodies in Legal Metrology
SC 2.4	Legal Metrology Control

Working Groups WG 2.x.x

#### 3 COOMET Quality Forum (QF)

(membership is formed according  
to the proposal of COOMET  
Committee Members)

TC 3.1	Quality Forum Technical Committee
SC 3.1	NMI Quality Management Systems

Working Groups WG  
3.x.x

#### 4 Technical Committee for Information and Training

(approved by the Committee)

SC 4.1	Support in Developing the Basic Metrological Infrastructure of COOMET Member Counties
SC 4.2	COOMET Informational sources
SC 4.3	Raising proficiency level and work with young metrologists

Working Groups WG 4.x.x

#### 5 Technical Committee for Joint Scientific Research in Field of the Metrology

(approved by the Committee)

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

↓

To achieve compatibility of national measurement standards

To recognize the national calibration certificates

↓

To evaluate the QMS in COOMET member-countries NMIs

↓

To harmonize legal metrology requirements

To exchange information on the current status of legal metrology development in member-countries

↓

To promote the exchange of metrology knowledge

To collaborate in developing metrology projects

↓

To realize joint research projects



## The following meetings were held in 2013 - 2014



23 meeting of **COOMET Committee**  
(5-6 June 2013, Nizhny Novgorod, Russia);  
11 meeting of the **Joint Committee for  
Measurement Standards**  
(4 June 2013, Nizhny Novgorod, Russia).

18 meeting of **COOMET President's  
Council** (19-20 November 2013,  
Bratislava, Slovakia)

24 meeting of **COOMET Committee**  
(16-17 April 2014, Yekaterinburg,  
Russia);

12 meeting of the **Joint Committee  
for Measurement Standards**  
(15 April 2014, Yekaterinburg, Russia).





During the 23<sup>rd</sup> and 24<sup>th</sup> COOMET Committee meetings  
**Bosnia and Herzegovina** (2013) and  
**Turkey** (2014)  
signed the COOMET MoU and became COOMET Associated members





COOMET President  
Prof. **Vladimir KRUTIKOV**,  
Director VNIIOFI, Russia,  
was re-elected  
at the 24<sup>th</sup> Meeting of COOMET Committee.

		Areas of responsibility
	COOMET President <b>Prof. Dr. Vladimir Krutikov</b>	General coordination of COOMET activities, Cooperation with Metre Convention institutions and EASC
COOMET Vice-President <b>Prof. Dr. Nikolai Zhagora</b>		Legal metrology cooperation
	COOMET Vice-President <b>Mr. Arpad Gonda</b>	QMS cooperation
COOMET Vice-President <b>Dr. Pavel Neyezhmakov</b>		Metrological infrastructure and knowledge transfer, Cooperation with RMOs, COOMET official representative in JCRB
	COOMET Vice-President <b>Prof. Dr. Klaus-Dieter Sommer</b>	Joint scientific research
Head of COOMET Secretariat <b>Mr. Sergey KOMISSAROV</b>		



JCMS	Anna <b>CHUNOVKINA</b> , VNIIM, RUSSIA
TC1.1 GM	Anna <b>CHUNOVKINA</b> , VNIIM, RUSSIA
TC1.2 AUV	Valentina <b>POZDEEVA</b> , BelGIM, BELARUS
TC1.3 EM	Tatyana <b>KOLOMIETS</b> , BelGIM, BELARUS
TC1.4 FF	<i>nominee to be specified</i>
TC1.5 L	Vladimir <b>KUPKO</b> , NSC "IM", UKRAINE
TC1.6 M	Iryna <b>KOLOZINSKAYA</b> , NSC "IM", UKRAINE
TC1.7 PR	Boris <b>KHLEVNOY</b> , VNIIOFI, RUSSIA
TC1.8 QM	Leonid <b>KONOPELKO</b> , VNIIM, RUSSIA
TC1.9 RI	Vladimir <b>YARINA</b> , VNIIFTRI, RUSSIA
TC1.10 T	Anatoly <b>POKHODUN</b> , VNIIM, RUSSIA
TC1.11 TF	Vitaliy <b>PALCHIKOV</b> , VNIIFTRI, RUSSIA
TC1.12 RM	Sergey <b>MEDVEDEVSKIKH</b> , VNIIM, RUSSIA
TC2 LM	Peter <b>ULBIG</b> , PTB, GERMANY
QF	Andreas <b>ODIN</b> , PTB, Germany
TC3.1 QF	Natalya <b>MURAVSKAYA</b> , VNIIOFI, RUSSIA
TC4 ITTR	Pavel <b>NEYEZHMAKOV</b> , NSC "IM", UKRAINE
TC5	Klaus-Dieter <b>SOMMER</b> , PTB, GERMANY

## **Meetings of the Technical Committees of COOMET in 2013-2014 :**

- TC 1.2** “Acoustics, Ultrasound, Vibration” (September 10-11, 2013, Bratislava, Slovakia)
- TC 1.4** “Flow Measurement” (September 9-13, 2013, Kazan, Russia)
- TC 1.5** “Length and Angle” (15–16 May, Braunschweig, Germany);
- TC 1.6** “Mass and Related Quantities” (16-17 October, 2013, Chisinau, Moldova)
- TC 1.7** “Photometry and Radiometry” (13-14 May, 2014, Moscow, Russia)
- TC 1.8** “Physical Chemistry” (23-24 May, Saint-Petersburg, Russia)
- TC 1.9** “Ionizing Radiation and Radioactivity” (28-29 April, 2014, “Uzstandard” Agency, Uzbekistan, Tashkent)
- TC 1.10** “Thermometry and Thermal Physics” (12-13 November, 2013, Baku, Azerbaijan)
- TC 1.11** “Time and Frequency” (10-11 October, 2013, Mendeleevo, Russia)
- TC 1.12** “Reference Materials” (9-11 September, 2013, Yekaterinburg, Russia)
- TC 2** “Legal Metrology” (17-19 September, 2013, Chisinau, Moldova)
- QF&TC 3.1** “Technical Committee of Quality Forum” (February 11 – 12, 2014, Minsk, Belarus)
- TC 4** “Information and training” (22–23 October 2013, Baku, Azerbaijan )



The QMS of **GEOSTM** (Georgia) was recognized 11 February 2014.  
It received the Certificate valid for 5 years.

The QMS of **AzStandart** (Azerbaijan) was presented;  
the preliminary peer review is planned for autumn 2014 together with  
presentations of the following QMSs: **VNIIMS, VNIIOFI, VNIIFTRI, VNIIM**  
(Russia) and **KazInMetr** (Kazakhstan).

Peer reviews will be conducted not earlier than 2015 (Russian institutes  
in spring and KazInMetr in September).

**2177** CMC lines declared by NMIs of COOMET member countries were published in the KCDB as of 5 May 2014.

Country	Total	AUV	L	TF	T	PR	M	EM	RI	QM
Belarus	196	8	13	31	37	3	3	39	51	11
Georgia	9				9					
Kazakhstan	23		6	4	5		8			
Cuba	96				8		12		76	
Moldova	40				40					
Russia	1606	72	20	36	137	108	63	325	329	516
Ukraine	207	23	25	30	35		5	53	15	21



1. V International Competition “Best Young Metrologist of COOMET 2013” (11–13 June 2013, Braunschweig, Germany).
2. 1<sup>st</sup> International scientific conference “Reference materials in measurement and technology” (10–14 September 2013, Yekaterinburg, Russia).
3. Workshop “Inspection and market surveillance (as regards metrology)” (18–19 September 2013, Chisinau, Moldova).
4. Workshop for technical administrators of COOMET web-portal (3–4 December 2013, Braunschweig, Germany).
5. Joint Seminar of COOMET/BIPM “Efficient Management of Comparisons and CMC Review Processes in COOMET” (15 April 2014, Yekaterinburg, Russia).



## V International COOMET competition «Best Young Metrologist»

11–13 June, 2013 at PTB, Braunschweig, Germany.

For the first time COOMET invited other RMOs to take part in the competition and proposed them to select three participants and one official representative for the judging panel.

25 young scientists from 13 countries (Australia, Belarus, Bulgaria, Bosnia and Herzegovina, Ghana, Germany, Denmark, Italy; Kazakhstan, Moldova, Russia, Uzbekistan, Ukraine) and 16 NMIs participated in the competition.






The judging panel consisted of 11 members coming from Germany, Belarus, Slovakia, Russia, France and Ukraine. They evaluated the oral reports and posters prepared by the participants of the competition.

Subject reports were divided on 5 sections:

- General Metrology, Special Topics;
- Chemical Medical Measurements;
- Electric and Optical Measurements;
- Mechanical Measurements;
- Reference Materials.



	<b>COOMET Recommendation</b>  <b>PROCEDURE</b> <b>for the International Competition "The Best Young Metrologist of COOMET"</b>	<b>COOMET</b> <b>R/GM/18:2013</b>
<i>Approved at the 18<sup>th</sup> COOMET Committee Meeting (Kharkov, Ukraine, 15–16 May 2008)</i> <i>Updated and amended at the 20<sup>th</sup> COOMET Committee Meeting (Astana, Kazakhstan, 21–22 April 2010),</i> <i>at the 20<sup>th</sup> COOMET President's Council Meeting (Lvov, Ukraine, 14–15 November 2012) and</i> <i>at the 17<sup>th</sup> COOMET Committee Meeting (Nizhny Novgorod, Russia, on June 5–6, 2013)</i>		

This document determines the procedure for the competition of young metrologists (CMY) of National Metrology Institutes (NMIs) and other organizations operating in the field of metrology in COOMET Member Countries and the criteria for evaluating their submitted scientific papers and presentations.

## 1 TERMS AND DEFINITIONS

A young metrologist is an expert under the age of 35 who works in the field of scientific and applied metrology at NMIs or other metrological institutions of COOMET Member

The competition was carried out according to the Recommendation COOMET R/GM/18:2013 Rules of procedure for the COOMET competition "Best young metrologist".





**First prize winner**  
Mrs. E. Ermakova (VNIIM,  
Russia).

«Improving the system of  
metrological assurance in  
bomb calorimetry».



**Second prize winner**

Mr. L. Klaus (PTB, Germany).

«Dynamic torque calibration  
– Necessity and outline for a  
model based approach».

**Third prize winner**  
Mrs. Q. C. Zhu (NMIA,  
Australia). «Characterization  
and time domain analysis of  
coaxial connections».



**Best poster winner** Mrs. N.  
Burmistrova (VNIIM,  
Russia).

«Algorithm for obtaining  
metrological compatibility of  
measurement results for key  
comparison data».



**Special prize winner**

Mr. N. Huntemann (PTB,  
Germany). «Optical clock  
with a generalized Ramsey  
scheme».





# Efficient Management of Comparisons and CMC Review Processes in COOMET



The topics of the seminar were :

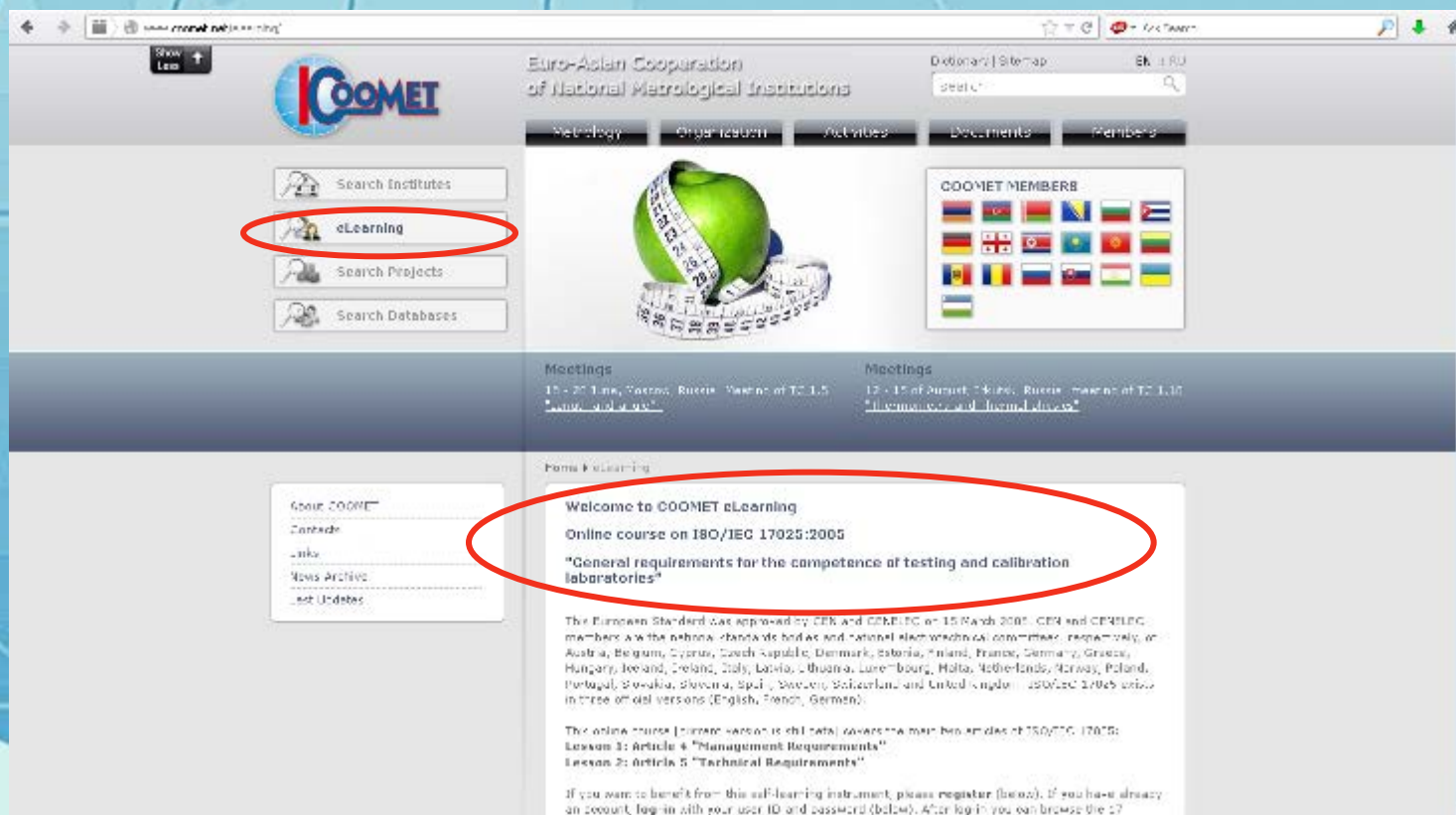
- an introduction into the history and tasks of the CIPM MRA (Dr. Michael Kühne);
- a report on the present situation within COOMET (Prof. Anna Chunovkina);
- a new requirements regarding CMC reviewing (Mr. Dzhingis Kuanbayev).

The seminar was positively assessed by COOMET officials and heads of TCs.

The seminar was supported by PTB–COOMET project “Support of the Regional Cooperation between the Member States of the Regional Metrology Organization COOMET”.

The COOMET web-portal ([www.coomet.net](http://www.coomet.net)) is maintained by COOMET Secretariat and on-line editors of the pages of COOMET member-countries and TCs.

The COOMET website ([www.coomet.org](http://www.coomet.org)) is maintained by the experts of VNIIFTRI, Russia.





This online course [current version is still beta] covers the main two articles of ISO/IEC 17025:

**Lesson 1: Article 4 "Management Requirements"**

**Lesson 2: Article 5 "Technical Requirements"**

The screenshot displays the COOMET eLearning web application. The interface is divided into several sections:

- Left Sidebar:** Contains a navigation menu for Lesson 1 (Management Requirements) and Lesson 2 (Technical Requirements). Lesson 1 includes sub-topics like 1.0 Organization and Management System (I), 1.1 Organization and Management System (II), 1.2 Document Control and Management System, 1.3 Review of Requests, Tenders and Contracts, 1.4 Subcontracting, 1.5 Purchasing Services and Supplies, 1.6 Service to the Customer, 1.7 Complaints and Improvement, Corrective and Preventive Actions, 1.8 Control of Records, and 1.9 Internal Audits and Managements Reviews. Lesson 2 includes sub-topics like 2.1 Organization and Personnel, 2.2 Accommodation and Environmental Conditions, 2.3 Test and Calibration Methods and Methods Validation, 2.4 Equipment, 2.5 Measurement Traceability, 2.6 Sampling and Handling of Test and Calibration Items, and 2.7 Assuring Quality of Results and Reporting.
- Main Content Area:** Displays the selected lesson content. For Lesson 1, it shows a diagram of an organization and management system (1.0) and an overview of the lesson (Number of questions: 10, Maximum points: 20). For Lesson 2, it shows a photo of people's hands stacked together (2.1) and an overview of the lesson (Number of questions: 5, Maximum points: 12).
- Right Sidebar:** Contains a navigation menu for Lesson 2 (Technical Requirements) and Lesson 1 (Management Requirements). Lesson 2 includes sub-topics like 2.1 Organization and Personnel, 2.2 Accommodation and Environmental Conditions, 2.3 Test and Calibration Methods and Methods Validation, 2.4 Equipment, 2.5 Measurement Traceability, 2.6 Sampling and Handling of Test and Calibration Items, and 2.7 Assuring Quality of Results and Reporting. Lesson 1 includes sub-topics like 1.0 Organization and Management System (I), 1.1 Organization and Management System (II), 1.2 Document Control and Management System, 1.3 Review of Requests, Tenders and Contracts, 1.4 Subcontracting, 1.5 Purchasing Services and Supplies, 1.6 Service to the Customer, 1.7 Complaints and Improvement, Corrective and Preventive Actions, 1.8 Control of Records, and 1.9 Internal Audits and Managements Reviews.

## Lesson 1: Management Requirements

- 1.0 Organization and Management System (I)
- 1.1 Organization and Management System (II)
- 1.2 Document Control and Management System
- 1.3 Review of Requests, Tenders and Contracts
- 1.4 Subcontracting
- 1.5 Purchasing Services and Supplies
- 1.6 Service to the Customer
- 1.7 Complaints and Improvement, Corrective and Preventive Actions
- 1.8 Control of Records
- 1.9 Internal Audits and Managements Reviews

## Lesson 2: Technical Requirements

- 2.1 Organization and Personnel
- 2.2 Accommodation and Environmental Conditions
- 2.3 Test and Calibration Methods and Methods Validation
- 2.4 Equipment
- 2.5 Measurement Traceability
- 2.6 Sampling and Handling of Test and Calibration Items
- 2.7 Assuring Quality of Results and Reporting

The 25th COOMET Committee meeting will take place in spring 2015 in Tajikistan





**Thank you for your attention!**

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