

Report of the COOMET Technical Committee for „Acoustics. Ultrasound. Vibration” (TC AUV)

6th meeting of CCAUV, 9 and 10 October 2008, Paris, France

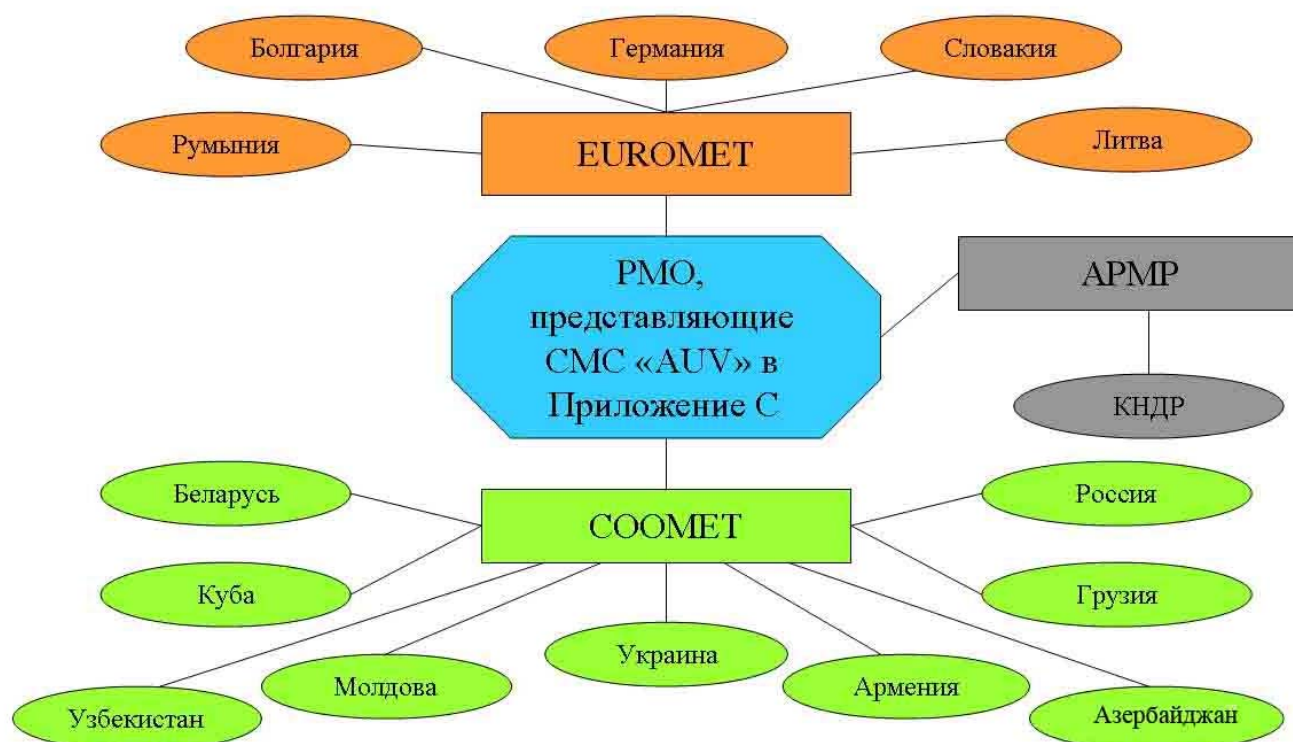
Mrs Valentina Pozdeeva, Chair of COOMET TC AUV

1. Overview of cooperation in the above area

The COOMET Technical Committee for “Acoustics. Ultrasound. Vibration” was established in 2000.

As of today, the TC 1.2 "Acoustics. Ultrasound. Vibration" includes NMIs from 15 COOMET member countries.

The figure below shows the membership of TC 1.2 and RMOs through which COOMET member-countries submit CMCs of their NMIs.



In total, there were 5 TC meetings. The last 5th meeting was held on 29 and 30 May 2008 at the All-Russian D.I. Mendeleev Research Institute for Metrology (VNIIM), St. Petersburg, Russia.

According to the Recommendation COOMET R/GM/11:2005, the TC meeting considered and approved Draft B reports on key comparisons COOMET.AUV.A-K1 and COOMET.AUV.A-K1.1 (piloted by Dr. T. Fedtke, PTB, Germany) which had passed review by

the COOMET Technical Committee TC1.1 "General Metrology" The reports were recommended for submission to the CCAUV.

2 Participation in implementation of the Mutual Recognition Agreement for national standards

2.1 COOMET Projects in "AUV".

Project No	Description	KCDB code	Pilot of project	Status
234/BY-/01	Establishment of a working group for COOMET participation in the AUV CMCs review		V. Pozdeeva, BelGIM, Belarus	Working Group of experts from COOMET NMIs is active in this field since January 2002.
323/UA/04	Comparison for primary method of pressure calibration of laboratory standard microphones in the frequency range from 20 Hz to 20 kHz	COOMET. AUV.A-K3	Dr. K. Rasmussen, DPLA, Denmark	Results are published in 2006 Participants of comparison: Denmark, Ukraine, Russia, Poland, Romania
226/DE-/01	Comparison of calibrations of laboratory standard microphones (63 Hz – 10 kHz)	COOMET. AUV.A-K1	Dr. T. Fedtke, PTB, Germany	Draft B (v 2) is available since April 2008 Participants of comparison: Ukraine, Russia, Germany, Poland, Turkey
316/UA/04	Bilateral comparison by calibration of microphones type LS1P	COOMET. AUV.A-K1.1	Dr. T. Fedtke, PTB, Germany	Draft B (v 2) is available since April 2008 Participants of comparison: Ukraine – Germany
308/UA/04	Key comparison of national standards for vibration parameters (in regard to sinusoidal acceleration) in the frequency range from 20 Hz to 5000 Hz	COOMET. AUV.V-K1	Dr. V. Smirnov, VNIIM, Russia	Measurements are underway since 01.2007 Participants of comparison: Russia, Belarus, Poland, Ukraine, Romania, Turkey
369/BY/06	Bilateral comparison of the national sound pressure standards	Pilot comparison	V. Pozdeeva, BelGIM, Belarus	Comparison is finished Draft B is available Participants of comparison: Russia - Belarus
392/UA/07	Comparison of the national standards for sound pressure in air in the low frequency range from 2 Hz to 125 Hz	Pilot comparison	Dr. V. Chaly DP „NDI "Systema", Ukraine	Draft B is available Participants of comparison: Ukraine – Russia

405/RU/07	Comparison of the national standards for sound pressure in water in the infrasonic and low audio frequency range (2 Hz to 4 kHz)	Pilot comparison	Dr. A. Isaev, VNIIFTRI, Russia	Draft A is available Participants of comparison: Ukraine – Russia
Planned comparisons				
431/UA/08	Comparison of the national standards for sound pressure in air in the low frequency range	Key comparison	Proposed by Dr. V. Chaly DP „NDI "Systema", Ukraine	Comparison is under preparation Russia, Ukraine <i>The list of participants may be extended</i>
434/BY/08	Comparison of national standards for sound pressure (Pa) in air using calibration of working standard microphones to IEC 61094-5 and IEC 61094-6	Supplementary comparison	Proposed by V. Pozdeeva, BelGIM, Belarus	Comparison is under preparation Participants of comparison: Belarus, Russia, Ukraine, Slovakia
	Comparison of measurements of velocity of longitudinal ultrasonic wave propagation in solid media	Pilot comparison	Dr. V. Lugovoi Far East office of VNIIFTRI, Khabarovsk	Comparison is under preparation Participants of comparison: Russia - Belarus

In total, there are 6 complete projects as 275/RU/03, 309/UA/04, 300/BY/04, 323/UA/04, 337/BY/05, 369/BY/06, 5 on-going projects as 226/DE/01; 316/UA/04; 308/UA/04; 405/U/07; 392/UA/07, 1 continuous project 234/BY/01 launched during the 1st meeting of TC and 3 planned projects

2.2 Status of the AUV CMCs of COOMET NMIs

The AUV CMCs of Russia (COOMET.AUV.1.2001), Belarus (COOMET.AUV.2.2003) and Ukraine (COOMET.AUV.3.2005 and COOMET.AUV.4.2007) are published in BIPM KCDB.

The Belarusian and Ukrainian CMCs in vibration passed intra-RMO review. The COOMET key comparison in vibration identified in KCDB as COOMET.AUV.V-K1 will help to fulfil one of the basic conditions for publication of these CMCs in Appendix C.

At present, the revised Ukrainian CMCs (COOMET.AUV.5.2008) and Russian CMCs (COOMET.AUV.6.2008) are under intra-RMO review.

The Belarusian CMCs will be revised on the basis of the results of COOMET supplementary comparison.

2.3 Status of NMI QMS

The year 2004 saw the end of the MRA transition period which requires that the NMIs wishing to publish their CMCs into the BIPM data base shall support these CMCs not just by the international comparisons but by the approved QMS as well.

The Quality Management Systems of the Belarusian, Russian and Ukrainian National Metrological Institutes with AUV CMCs published in the International Database were subjected to external assessment according to the schedule of the COOMET Quality Forum.

As of today, COOMET QMS approvals were granted to the following NMIs

NMI	QMS status	Approval date
VNIIM (Russia)	Approved	20.09.2005
VNIIFTRI (Russia)	Approved	20.12.2005
BelGIM (Belarus)	Approved	20.12.2005
DP „NDI "Systema" (Ukraine)	Approved	30.03.2007

3 COOMET participation in interregional review of CMCs

Over the period in question COOMET performed interregional review of EUROMET.AUV.7 (Denmark, Germany, Italy, Poland and Portugal).

At present, COOMET is involved in interregional review of CMC APMP.AUV.4.2008 and EUROMET.AUV.8.2008.

September, 2008, BelGIM, Minsk, Belarus