



ЕВРО-АЗИАТСКОЕ СОТРУДНИЧЕСТВО ГОСУДАРСТВЕННЫХ МЕТРОЛОГИЧЕСКИХ УЧРЕЖДЕНИЙ (КООМЕТ)

EURO-ASIAN COOPERATION OF NATIONAL METROLOGICAL INSTITUTIONS (COOMET)

CCAUV/19-13.24

COOMET TC-AUV

Current activities

September 2019

General features of cooperation in the AUV area

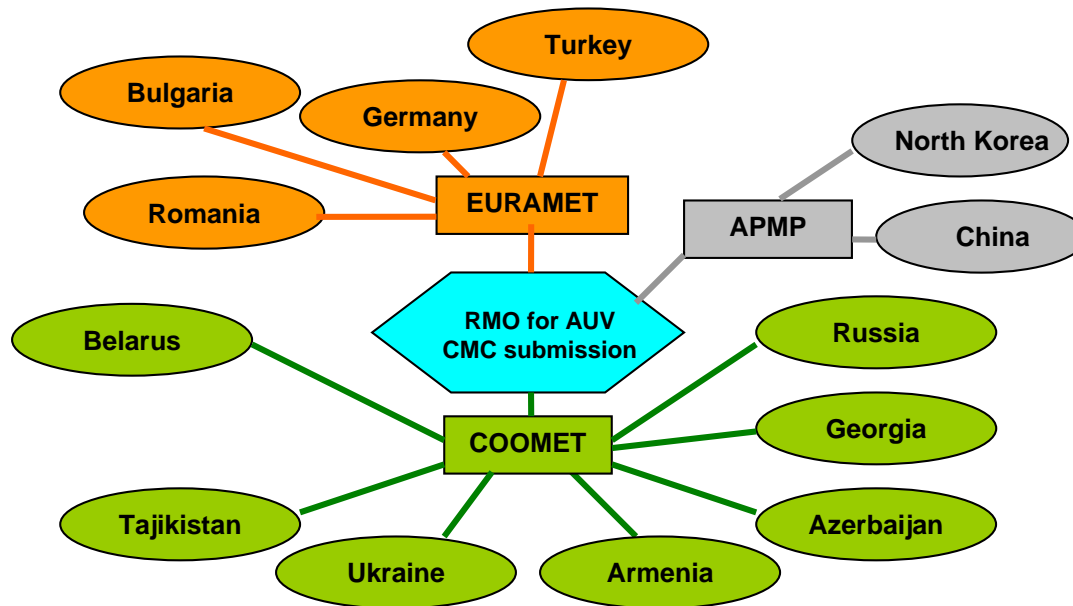
The NMI from **13** COOMET member countries are represented in TC 1.2 “Acoustics. Ultrasound. Vibration”

7 NMIs, i.e.

Azerbaijan, Armenia, Belarus, Georgia, Russia, Tajikistan and Ukraine submit their AUV CMCs via COOMET

6 NMIs, i.e.

Bulgaria, China, Germany, KDPR, Romania and Turkey do this through other RMOs



Meetings:



The **11th** meeting of TC 1.2 was held in BelGIM 20-21 September 2016, Minsk, Belarus.

15 participants from Belarus, Lithuania, Russia and Ukraine.

The **12th** meeting of TC 1.2 was held in Vilnius Metrology Centre 5-6 September 2017, Vilnius, Lithuania.

17 participants from Belarus, China, Georgia, Lithuania, Russia, Turkey and Ukraine.



Meetings:

The **13th** meeting of TC 1.2 was held in Tübitak 17-18 September 2018, Istanbul, Turkey.

19 participants from Belarus, China, Lithuania, Russia, Saudi Arabia, Turkey and Ukraine.

The **14th** meeting of TC 1.2 was held in VNIIFTRI 27-28 August 2019, Moscow region, Russia.

16 participants from Belarus, China, Lithuania, Russia and Uzbekistan.



Activity in meetings



Noise pollution



Agenda of the 14th Meeting of COOMET/TC1.2:

- current status of comparisons (COOMET and CCAUV);
- propositions to the COOMET Comparisons Program, long-term development plans;
- prospects for preparation of CMCs based on published results of completed comparisons;
- discussion the AUV service categories;
- information on recent meetings of ISO TC 43 and IEC TC 87 and on new standards that are under development or have been proposed for development;
- implementation of the last TC meeting resolutions.

During the meeting the attention was paid to the discussion of the **matrix form of CMC's** presentation and of the **hybrid comparisons** proposed by APMP.

After the meeting the seminar on the current issues of metrology, problems, state and development of measurements in the field of acoustics, ultrasound and vibration in countries/regional centers, represented in COOMET, was held.

STATUS OF COOMET PROJECTS IN THE FIELD OF "AUV"

Comparisons completed in 2018

Project	Title of the Project	Project code in KCDB	Project coordinator	Status
626/BY/13	Comparisons of national measurement standards for the unit of sound pressure in air medium	COOMET. AUV.A-S2	A. Nikolaenko VNIIFTRI, Russia	Metrologia, 2018, 55, Tech. Suppl. 09001
646/RU/14	Comparisons of national measurement standards for the unit of aqueous medium particle velocity	pilot	A. Isaev VNIIFTRI, Russia	
308/UA/04	Key comparison of national standards for vibration parameters (in regard to sinusoidal acceleration) over the frequency range from 20 Hz to 5000 Hz	COOMET. AUV.V-K1 (2008-2009)	A. Yankovsky VNIIM, Russia	Comparison report being prepared for publication Comparison participants: Russia, Belarus, Poland, Ukraine, Romania, Turkey

STATUS OF COOMET PROJECTS IN THE FIELD OF "AUV"

Comparisons in progress

Project	Title of the Project	Project code in KCDB	Project coordinator	Status
706/RU/16	Comparison of longitudinal ultrasonic wave propagation velocity in solid media	pilot	V.A. Lugovoi Far East branch of FGUP «VNIIFTRI»	In progress. Participants: BelGIM, Belarus DVF VNIIFTRI, Russia Ukrmetrteststandart, Ukraine Dneprstandardmetrology, Ukraine NIM, China
757/RU/18	Comparisons of national measurement standards for the unit of sound pressure in the air in the frequency range from 0,1 to 100 Hz	supplementary	A. Nikolaenko VNIIFTRI, Russia	Technical protocol agreed with KCWG. Participants: BelGIM, Belarus VNIIFTRI, Russia DNDI, Ukraine NIM, China TÜBİTAK UME, Turkey

STATUS OF COOMET PROJECTS IN THE FIELD OF "AUV"

Planned comparisons

Project	Title of the Project	Project code in KCDB	Project coordinator	Status
790/TR/19	Calibration of sound calibrators	supplementary	TÜBİTAK UME, Turkey	Participants: TÜBİTAK UME, Turkey BelGIM, Belarus VMC, Lithuania VNIIFTRI, Russia NSAI-NML, Ireland DNDI, Ukraine SASO-NMCC, Saudi Arabia Monitoring of calibrators stability and preparation of a technical protocol
786/RU/19	Comparisons of the results of amplitude-phase calibrations of hydrophones in the frequency range from 10 kHz to 500 kHz	pilot	A. Isaev VNIIFTRI, Russia	Participants of the comparison VNIIFTRI, Russia HAARI, China

*There is arrangement in principle between Turkey and Belarus on organizing supplementary bilateral comparison in the field of **vibration**. The timetable of the comparison is under discussion.*

*There is arrangement in principle between Russia (VNIIFTRI) and China (NIM and HAARI) on organizing pilot comparison in the field of **ultrasound field** parameters (IEC 62127-1). The timetable of the comparison is under discussion.*

STATUS OF AUV CMCs OF COOMET NMIs

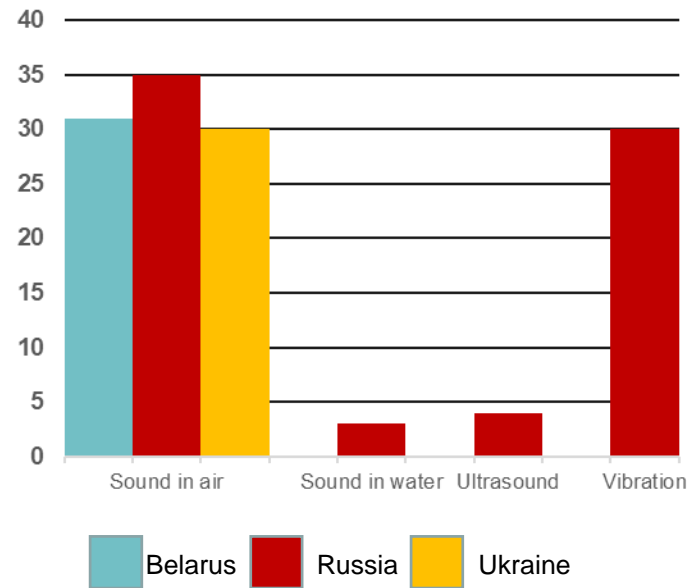
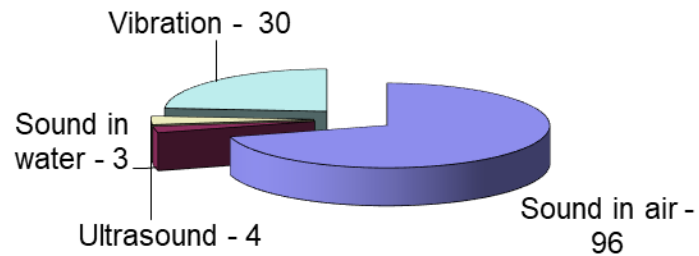
Information on AUV CMCs of COOMET National Metrology Institutes published in KCDB

AUV CMC	Date of publication in KCDB	NMI	Number of published entries
COOMET.AUV.1.2001 COOMET.AUV.5.2009	2002-06-07 2009-09-18	VNIIFTRI, VNIIM, Russia	72
COOMET.AUV.2.2003 COOMET.AUV.7.2014 COOMET.AUV.9.2017	2004-04-07 2015-01-27 2018-01-17	BelGIM, Belarus	31
COOMET.AUV.3.2005 COOMET.AUV.4.2007 COOMET.AUV.6.2011 COOMET.AUV.7.2014 COOMET.AUV.8.2017	2005-08-31 2008-01-09 2011-10-05 2015-01-27 2017.09.21	DP NDI «Systema», Ukraine	30

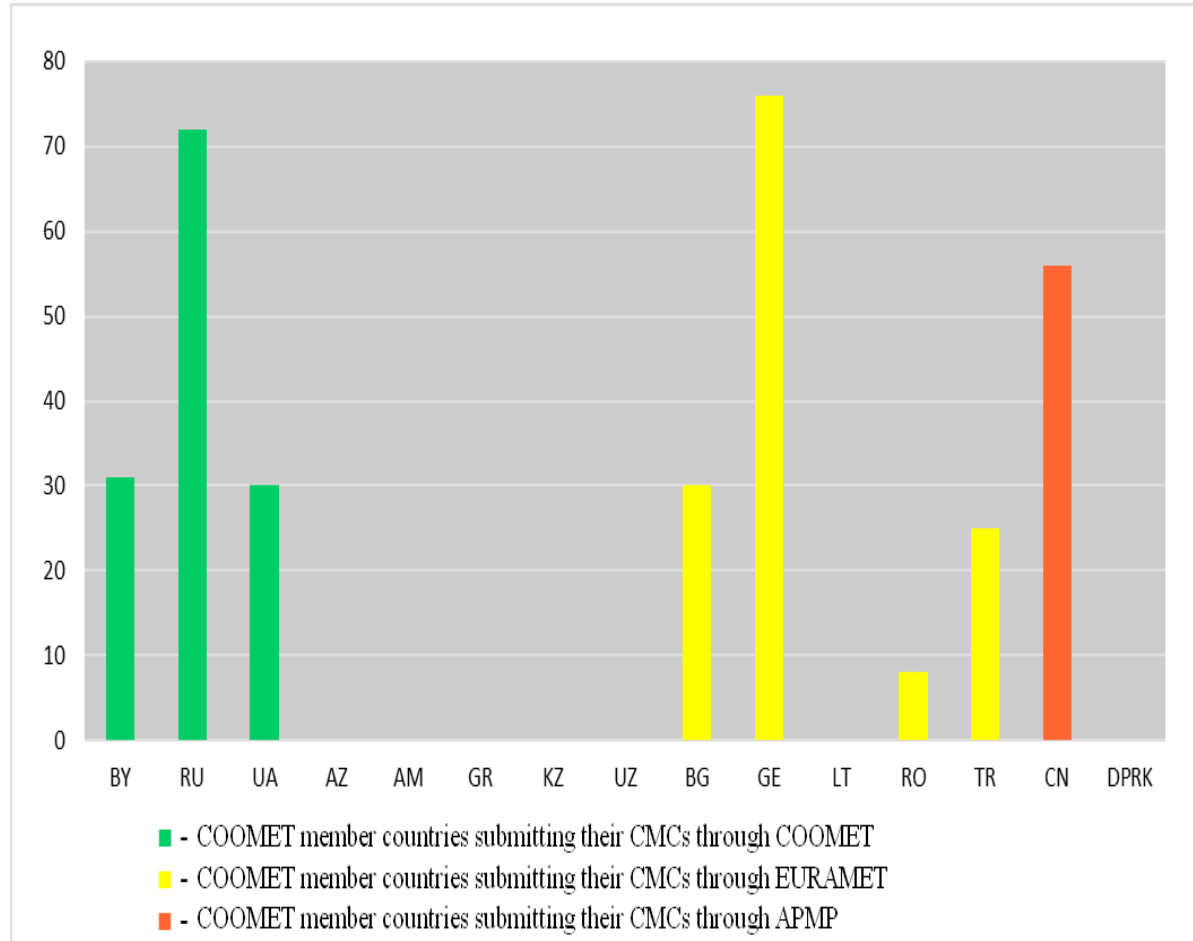
STATUS OF AUV CMCs OF COOMET NMIs

Only **3 countries**: Belarus, Russia and Ukraine have published their CMCs in AUV by now

133 CMC entries on BIPM KCDB



STATUS OF AUV CMCs OF COOMET NMIs



PARTICIPATION OF COOMET IN INTERREGIONAL REVIEW OF CMCs

During the reported period the TC took part in the interregional review of the following CMCs:

AFRIMETS.AUV.5.2017 (published on 2018.04.27);

AFRIMETS.AUV.6.2018 (published on 2018.09.28);

EURAMET.AUV.17.2017 (published on 2018.02.08);

EURAMET.AUV.18.2018 (published on 2019.04.30);

EURAMET.AUV.19.2018 (published on 2018.07.31);

APMP.AUV.14.2018 (published on 2019-05-09);

EURAMET.AUV.20.2019 (under consideration);

EURAMET.AUV.21.2019 (under consideration).

COOPERATION WITH INTERNATIONAL AND REGIONAL ORGANIZATIONS IN THE FIELD OF AUV

TC representatives participate constantly in the meetings of IEC TC87, ISO TC 43, and CCAUV WGs

Participation in international and national conferences:

Seventh International Scientific and Technology Conference “SUDOMETRIKA-2018”, October 2018;

XI International Scientific and Technology Conference “METROLOGY AND MEASUREMENT EQUIPMENT”, Kharkiv, Ukraine (October 2018);

International Scientific and Technology Conference “SYSTEMS 2018”, Lviv, Ukraine (November 2018);

International scientific and practical conference “ENVIRONMENTAL, INDUSTRIAL AND ENERGY SAFETY-2018”, Sevastopol, (Sept. 2018);

Conference and exhibition on underwater acoustics UACE2019, Greece (June 2019)

International scientific and practical conference “ENVIRONMENTAL, INDUSTRIAL AND ENERGY SAFETY-2019”, Sevastopol, (Sept. 2019)

Thank you for attention!

Valentina Pozdeeva
Chair of COOMET TCAUV
September 2019



Alexander Enyakov
TC Deputy chairman