

Introduction Objectives 9th Committee Meeting President's report Presented by Mr. V. Belotserkovsky COOMET President

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Introduction to COOMET

Established in Warsaw in June 1991, COOMET (from *Coopération Métrologique*) is an organization made up of the national metrological institutions of a number of Central and Eastern European States, including CIS countries (presently Bulgaria, Belarus, Germany, Kazakhstan, Cuba, Lithuania, Moldavia, Poland, Romania, Russia, Slovakia and Ukraine). It is open to the national metrological institutions of countries of other regions, which may join as Associate Members.

The basis for COOMET was its Members' declared intention to cooperate in the fields of measurement standards, legal metrology and calibration services. COOMET offers a forum for discussing cooperative projects in these fields.

Two main metrological tasks at international level are:

• to establish a world-wide system of measurement standards based on the SI, sufficiently complete and generally recognized; and

 to assure traceability to this system of all measuring instruments used everywhere to determine various physical quantities to a known degree of accuracy.

International metrology organizations such as the Metre Convention and the OIML contribute directly to accomplishing these tasks and stimulate and coordinate the activities of the national metrology institutes and of calibration and verification laboratories throughout the world. The scope of this task is immense.

Regional metrology organizations such as COOMET bring together the national metrology institutions of states located in a particular region and which cooperate in their economic activities. Over a relatively short period of existence these regional organizations have proved to be useful partners of international and national bodies in ensuring the uniformity of measurements. Many problems defined by international organizations can be solved more easily within smaller groups of states acting in harmony after an internationally agreed distribution of tasks.

COOMET's objectives

- to contribute to effective problem solving concerning the uniformity of measurements and the required accuracy of same;
- to encourage closer cooperation between national economies and the elimination of technical barriers to international trade; and
- to establish closer interaction between the activities of the metrology services of Central and Eastern European States and the activities of corresponding services in Western Europe and in particular to cooperate with EUROMET, EA and WELMEC in as far as both sides are interested in such cooperation.

The principles of collaboration within COOMET are similar to those developed in Western European organizations. The Memorandum of Understanding expresses in principle the same ideas as EUROMET's Memorandum, and the Rules of Procedure are practically a replica of the Western original. It has been assumed that the analogy of principles and forms may facilitate possible common actions, bring the partners from the two European regions closer together and contribute to the desired integration. The formal difference is that COOMET's field of activity also includes some areas handled in Western Europe by WELMEC and EA.

The COOMET Committee consists of the Directors of the national metrological institutions (members of COOMET); it is responsible for organizing and supporting mutual cooperation. The Committee meets at least annually and its President is elected for a three-year period with the possibility of only one additional consecutive term of office. The Secretariat is provided by the Institution of the President.

In their respective countries, Committee Members appoint Contact Persons for the specified subject fields. In each subject field the Contact Persons propose candidates for Rapporteur, which the Committee then appoints.

A collaborative project may be placed in one of the following subject fields:

- Mass;
- Force and pressure;
- Electricity;
- Length and angle;
- Time and frequency;
- Thermometry and calorimetry;
- Ionizing radiation and radioactivity;
- Photometry and radiometry;
- Flow measurements;
- Acoustics and vibration;
- Physical chemistry; and
- Reference materials.

General metrology, Legal metrology and Calibration procedures are included in a unique subject field.

Most of COOMET's projects concern comparisons of measurement standards, the establishing of new standards and an improvement of the mechanisms for the dissemination of the units realized by the standards to the field instruments.

COOMET is prepared to conduct some key comparisons indicated in the BIPM program and is a member of the Joint Committee of the Regional Metrology Organizations and the BIPM. COOMET maintains liaisons with OIML, as outlined in the Agreement signed with the BIML in 1993, and since 1992 has enjoyed the status of an Observer in WELMEC, which EUROMET considers as its "sister organization".

Recently, some COOMET members also became associated members of EUROMET, WELMEC or EA. Such multiple cooperative ties will contribute to mutual understanding and to confidence in the opinions formulated by the partners.

COOMET Committee meetings are conducted in English and Russian; the same applies to documents received and sent out by the Secretariat. COOMET has no financial means of its own.

Program (agenda) of the 9th COOMET Committee Meeting

- 1 Opening of the meeting, approval of the agenda
- 2 Approval of the Protocol of the 8th COOMET Committee Meeting
- 3 Information on COOMET Member Organizations (new members, changes in Committee membership)
- 4 COOMET activity in the period between meetings and its work on increasing the efficiency of cooperation
- 5 Information on COOMET Member Organizations (current problems encountered in the metrological activity in their countries)
- 6 Results of the analysis on *The COOMET 1999 Work Program* (objective of the work, meetings, information measures, etc.)
- 7 Reports of COOMET Rapporteurs on work accomplished (taking into account the results of the analysis on COOMET carried out by its Secretariat)
- 8 Reports of the representatives of the international and regional organizations (CIPM, OIML, EUROMET, WELMEC, MGS, APLMF, etc.)
- 9 Information on COOMET's relations with other international and regional organizations (COOMET Committee President's report, Committee Members' and Rapporteurs' reports)
- 10 Draft of UN/ECE Procedures of Measurements Guide
- 11 International and national metrological developments in 1999 of interest to COOMET
- 12 Participation of COOMET Member Organizations in key comparisons
- 13 Coordination of the principles of the quotation of COOMET Members' fees for maintaining the International Secretariat
- 14 Information about work on the preparation of the COOMET Booklet
- 15 Date and place of the next Committee Meeting
- 16 Visits to VNIIMS, VNIIOFI and VNIIFTRI laboratories

9th COOMET Committee Meeting 12–13 May 1999, Moscow

COOMET (Cooperation in Metrology of the Countries of Central and Eastern Europe and of the Community of Independent States (CIS)) held its Ninth Committee Meeting on 12–13th May, 1999 in Moscow under the presidency of Dr. Belotserkovsky, Russia.

The meeting was opened by Prof. G. Voronin, Gosstandart of Russia President. Almost 40 people attended, representing Belarus, Bulgaria, Germany, Kazakhstan, Lithuania, Moldova, Poland, Russia, Slovakia and Ukraine.

A new member of the COOMET Committee was introduced to participants: Dr. A. Orynbasarov, representing the Gosstandart of the Republic of Kazakhstan (which was admitted to COOMET at the end of 1998).

Then COOMET President Dr. V. Belotserkovsky made his report (see below), presenting the main immediate tasks of this regional metrological organization (RMO). The Committee Members approved these targets and exchanged information on current metrological activities in their countries.

COOMET Secretary Dr. B. Gorshkov (Gosstandart of Russia) presented the results of the analysis on the subject of COOMET and the 1999 Work Program activities. He also described the Plan of Arrangements directed at increasing the efficiency of COOMET's activity. In its work the COOMET Secretariat will be using the PCBIRS database management system, developed by Dr. V. Bugaev (Gosstandart of Russia) and which was demonstrated to participants, who found it of great interest.

Following the accounts of COOMET Rapporteurs, several reports were given on behalf of international and regional organizations in liaison.

On behalf of the OIML, Prof. M. Kochsiek (PTB) set out the main objectives of regional and national metrological organizations and gave information on the latest outcomes of cooperation in the framework of EUROMET.

Prof. L. Issaev (Gosstandart of Russia) as CIPM Member reported on BIPM/RMO collaboration and Dr. N. Zhagora (Gosstandart of the Republic of Belarus) spoke about the results of metrological cooperation between CIS countries.

Dr. B. Zemskov (Gosstandart of Russia) gave details on the activities of the Working Party on Technical Harmonization and Standardization Policies (UN/ECE Trade Division) and about the Draft of the *Procedures of Measurements* Guide.

COOMET Committee Members agreed that in 1999 the questions of the quotation of fees for maintaining the COOMET Secretariat should be settled. They appreciated the PTB's initiative to publish the COOMET Booklet in September, 1999.

The Committee approved the suggestion of representatives of the Gosstandart of Russia to organize various concrete actions in COOMET countries in honor of the 125th anniversary of the Metre Convention and to ask the BIPM and the OIML to consider the possibility of establishing an *International Metrological Day* on 20th May.

Participants had the opportunity to visit VNIIOFI, VNIIMS and VNIIFTRI laboratories and to familiarize themselves with these laboratories' research activities.

It was decided to hold the 10th COOMET Committee Meeting in May 2000 in Kazakhstan on the invitation of the Gosstandart of the Republic Kazakhstan.

COOMET activity in the period between meetings and tasks relating to the increase in the effectiveness of cooperation

(Report by the COOMET President)

Dear Colleagues,

Allow me to begin by informing you about the work that we have accomplished together with the Secretariat since I was elected as President of the COOMET Committee exactly one year ago.

First of all, we have received the archives of the COOMET basic documents and foregoing correspondence from the Secretariat in Bratislava. After accepting these documents, practical work has begun on drawing up a status report for each ongoing project and updating the Work Program. As of July 1, 1998 the Secretariat has registered 168 ongoing projects. It was necessary to understand:

• in which projects cooperation is continuing and therefore whether it is justified to retain them in the Work Program;

- which projects are on the list in our catalogue but for which no work is being carried out, for whatever reason;
- which projects are finished and how their results are being implemented;
- simultaneously we had to attend to some routine questions (acquisition of missing cards relating to projects, more precise definition of project numbers, etc.). Now this work is practically completed and the Secretariat will report on its results.

At the same time as drawing up status reports, work has been carried out to form a database according to COOMET's fields of interest using the PCBIRS analytical information retrieval system developed at VNIIFTRI. This software allows simultaneous operation with large data arrays both with structured and full-text databases, information analysis and data retrieval for inclusion in the decision-making processes; this system will be shown to you today.

In 1998 the Secretariat carried out a project entitled *The analysis of the results of international cooperation in the field of metrology and development of measures aimed at increasing its effectiveness.* Committee Members have made proposals as far as the increase in the effectiveness of COOMET activity is concerned and it is planned to complete and approve these proposals, taking into account their comments.

During this period a new COOMET Member was accepted: the Gosstandart of the Republic of Kazakhstan, which attaches great importance to international cooperation, being a member of the Interstate Council on standardization, metrology and certification of the CIS countries and of the OIML.

As you already know, the Minutes of the 8th COOMET Committee meeting were prepared with the active assistance of our Belarussian colleagues.

The Secretariat was created and the meeting schedule of the COOMET authorities and working bodies, as well as the information index of measures to be taken at international and national levels in the metrology field, were compiled and submitted to Committee Members.

During the period under review COOMET's relations with international and regional metrological bodies have become closer. Our representatives took part in some important meetings organized by the BIPM and the OIML (such as the second meeting of the Joint Committee of Regional Metrological Organizations and the BIPM). The Secretariat and the Rapporteur in the field of General and Legal Metrology Dr. Apel has acquainted the bodies concerned with a number of draft documents and it is planned to consider some of them at this meeting.

Information received regularly from EUROMET made it possible for the COOMET metrological centers concerned to join forces with the managers of some Western European projects.

Before considering the main tasks facing us in connection with the increase in effectiveness of COOMET cooperation, it is appropriate to go into detail concerning certain prerequisites we have, namely:

1 Close economic relations between countries which are geographically close to each other to predefine the necessity for metrological assurance, and improve mutual commodity exchange and scientific-technical cooperation. This is typical for any regional organization.

- 2 Lately the international metrological organizations the BIPM and the OIML - have undertaken effective measures aimed at increasing the role of regional metrological organizations, drawn their attention to a number of important tasks and actively facilitated their accomplishment. For example, the Mutual Recognition Agreement developed under the aegis of the BIPM states that a national metrological institute wishing to take part in work within this Agreement should be a member of some regional metrological organization. Of course, it is insufficient to take part in a regional metrological organization formally since information about the best measurement capabilities of each participating agreement is introduced into the BIPM database and is made available to the whole world. Each country should become a participant of the above Agreement if it does not want to be left outside the international metrological community.
- 3 For most countries' legal metrology services that cooperate within COOMET, transition to a market economy is a characteristic process. This calls for infrastructural harmonization of these services and implementation of new documents of the international metrological organizations. For this purpose as well as for different measurement standard comparisons, considerable funds are needed, but the budget allotted for these purposes is generally insufficient. Cooperation within regional organizations allows such objectives to be achieved at a lower cost to each partner.
- 4 Most COOMET partners take an active part in the other regional metrological organizations: Germany, Poland and Slovakia are involved in EUROMET and in other Western European metrological organizations; Belarus, Kazakhstan, Moldova, Russia and the Ukraine are involved in the Interstate Council on standardization, metrology and certification of the CIS countries. Besides, Russia is a member of the Asia-Pacific Legal Metrology Forum. This brings together partners from different regions, permits the positive experience of other regional metrological organizations to be put to good use and favors an effective increase in cooperation.
- 5 COOMET integrates 12 countries having different levels of economic development and varying metrological potential. As a result, besides having common objectives each COOMET member has its own objectives and seeks to draw advantage from multilateral cooperation. Some of them pursue market expansion of their metrological services as an objective, others want to achieve quick recognition of their national measurement system and standards by the world community and others try to market their countries' production to foreign markets and so forth. In the third case (according to the information on our State Register of approved measuring instrument types) some partners of Russia have achieved a certain success. For instance, over many years Germany has become the main supplier of measuring instruments; this is hardly surprising, but the

fact that Belarus took the third place among countries exporting measuring equipment is worth noting. It is doubtful whether this would have been possible without the active cooperation of Belarussian metrologists with COOMET and the CIS Interstate Council.

Now I would like to try to formulate the main immediate tasks of our cooperation:

- 1 In the current year it is important to continue updating the COOMET Work Program. The efforts of Correspondents, Rapporteurs, Committee Members, the Secretariat and the President should concentrate on including projects that are feasible and practically significant for COOMET's partners. At the last Committee meeting in Minsk some people expressed their concern that there was no cooperation in such important fields as flow measurement, acoustics and vibration, ionizing radiation and radioactivity, general metrology, legal metrology and calibration services. Now the first encouraging signs have appeared in these fields (a number of interesting new projects were announced or are now being registered). It is necessary to support development of cooperation in these fields.
- 2 Within the next few years great attention should be paid to solving problems raised by the BIPM and the OIML concerning regional metrological organizations (which I shall not enumerate since at this meeting a number of relevant presentations will be made). The acquaintance with last draft documents prepared by these organizations confirms that the range of these problems is extremely wide, and solving them will require great efforts by all our partners over several years. The successful solution will be accomplished by realizing projects connected with an analysis of the state of measurement standard bases belonging to the COOMET members within different measurement fields such as 170/UA/98 (electricity), 174/RU/98 (photometry and radiometry), 174/RU/99 (time and frequency) and 75/RU/99 (ionizing radiation and radioactivity). The idea of such projects emanates from our Ukrainian colleague Prof. Ju. Pavlenko.
- 3 A very important key point is intensifying COOMET cooperation with other regional metrological organizations and using their experience. The experience of Western European countries as far as the approach to developing cooperation is concerned is especially useful for us; first of all, I refer to EUROMET experience. Unfortunately, for the time being our proposal about realizing joint projects was

COOMET Members taking part in the projects of other regional metrological organizations should inform our organization about results achieved.

For the time being COOMET develops very few documents on metrology. One of the reasons for this is that too much attention is paid to the determination of the document category. It is not taken into account that most international documents are of an informative nature and their categories are not of great importance. The volume of the documents developed can essentially be increased if documents of the other regional metrological organizations, including the CIS Interstate Council, are used. For instance, CIS-GOST Standard 8.563.2-97 *Measurement of liquids and gases flow rate and quantity by differential pressure method. Measurement procedure by orifice instruments* may be of interest to a COOMET country that obtains gas, oil and oil-based products from CIS countries.

- 4 An effective increase in our cooperation is impossible without improving the information provision based on the use of modern computer technology and new software products. Information exchange should be carried out mainly by using e-mail. It should be taken into account that the information exchange should be expanded not only within COOMET but also with international and regional organizations as well as with the metrological services of those countries that are interested in cooperating with COOMET. It is also necessary to speed up the publishing of the COOMET Booklet and launch our Internet site.
- 5 It seems that it is appropriate to take a number of organizational measures aimed at increasing the effectiveness of COOMET's activity. The Secretariat has prepared the appropriate proposals which, after being finalized according to comments received by and approved by the Committee, will begin to be implemented.

In concluding, I have tried to formulate only the basic tasks of COOMET for the short-term future. It is obvious that in the course of this meeting the range of these tasks will be widened. The Secretariat will include these proposals in the Minutes and will take them into account in other documents of our organization.

Thank you for your attention and may I wish you a successful meeting.

time being our proposal abore not yet supported by the EUROMET President though, for instance, it is logical to consider the EUROMET project now in force (the initiators of which are Finland, a EUROMET member, Poland, a COOMET and EUROMET member and Russia, a COOMET member) as a joint project. But this is not a question of principle. Mainly, it is important that

