

MINUTES of the 8th meeting of COOMET Technical Committee TC 4 "Information and Training"

The 8th meeting of TC 4 "Information and Training" was held on 28–29 September 2011 at RSE "KazInMetr", Astana, Kazakhstan.

21 persons from 11 countries, Chairpersons and members of TC 4 and their representatives participated in the meeting:

Representatives of national metrology organisations of COOMET Member Countries		
Country	Name	Status in COOMET, NMI
ARMENIA	1. Narine OGANYAN	Member of TC 4, NIM
BELARUS	2. Vladimir LOBKO	Chairperson of SC 4.4, BelGIM
	3. Nadezda LYAKHOVA	Member of SC 4.2, BelGIM
GEORGIA	4. Nino MIKANADZE	Member of SC 4.5, GEOSTM
GERMANY	5. Annette KÖGLER	Member of TC 4, SC 4.5, PTB
	6. Karl-Christian GOETHNER	PTB Consultant
KAZAKHSTAN	7. Vassilliy MIKHALCHENKO	COOMET Committee Member, General Director of RSE "KazInMetr"
	8. Tokatabek TOKANOV	Deputy General Director of RSE "KazInMetr"
	9. Nurlan DZHUMASHEV	Deputy General Director of RSE "KazInMetr"
	10. Dauren SHARIPOV	Chairperson of SC 4.5, RSE "KazInMetr"
	11. Karligash SATTIBAYEVA	Member of TC 4, RSE "KazInMetr"
	12. Lubov GALITSYNA	Member of SC 4.1, SC 4.2, SC 4.3, RSE "KazInMetr"
	13. Zhanar YELEUSSIZOVA	National COOMET Secretariat in Kazakhstan, RSE "KazInMetr"
KYRGYZSTAN	14. Nurlanbek YSAKOV	Representative of TC 4 Member, CSM
MOLDOVA	15. Teodor BIRSA	Member of SC 4.5, INSM

Representatives of national metrology organisations of COOMET Member Countries		
Country	Name	Status in COOMET, NMI
RUSSIA	16. Vitaly BUGAEV	Chairperson of SC 4.2, Administrator of COOMET web-site, VNIIFTRI
	17. Ekaterina KOZMINA	Representative of SC 4.3 Chairperson, VNIIMS
TAJIKISTAN	18. Said MAVLONOV	Member of TC 4, SC 4.1, SC 4.2, Tajikstandart
UZBEKISTAN	19. Ortagoli HAKIMOV	Member of SC 4.1, SRI SMC
UKRAINE	20. Pavlo NEYEZHMAKOV	Head of COOMET Secretariat, Chairperson of TC 4, NSC "Institute of Metrology"
	21. Yuliya BUNYAYEVA	COOMET Secretariat, Secretary of TC 4, Member of SC 4.4, 4.5, NSC "Institute of Metrology"
	22. Elena RAMAZANOVA- STEPKINA	Director of International School of Technical Legislation and Quality Management

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The following AGENDA was approved:

- 1. Approval of the minutes of the 7th TC 4 meeting
- 2. Report on the activity of TC 4 in 2010 2011
- 3. Information on the results of the 15th meeting of the COOMET President's Council and the 21st meeting of the COOMET Committee
- 4. Updating the TC 4 Work Program for 2009–2011
- 5. Information of the participants of the meeting on the activity of NMIs of Member Countries in the area of training experts-metrologist in 2010 2011
- 6. Discussion of progress in COOMET projects
 - 6.1 Procedure for preparing and posting on the COOMET web-site data on measurement capabilities of NMIs, metrological centers and accredited metrology agencies of legal entities of COOMET countries not published on the BIPM web-site. Taking into account the discussion at the 15th meeting of COOMET President's Council about possibility of prolonging or closing the project (COOMET 404/RU/07)
 - 6.2 Current state and action lines on the COOMET web-portal (COOMET 478/UA/09)
 - 6.3 Development of COOMET Document "COOMET Web-Portal. General Provisions. Procedure for Maintaining and Submitting Information" (COOMET 500/UA/10)
 - 6.4 Finding out the needs of COOMET member-countries in training and probations (COOMET 510/KZ/10)
 - 6.5 Training of specialists of measuring, calibration and testing laboratories. Module approach in training the specialists of calibration and testing laboratories: problems and ways out (COOMET 518/UZ/11)
 - 6.6 Development of recommendations on the content of training programs and practices of specialists within COOMET (COOMET 541/RU/11)
- 7. Forming the membership and activity of subcommittees in TC 4. Reports of SC chairpersons
 - 7.1 SC 4.1"COOMET development based on analysis of international experience"
 - 7.2 SC 4.2 "Information and Information Technology"
 - 7.3 SC 4.3 "Training and raising proficiency level of experts"
 - 7.4 SC 4.4 "Coordination of work with young metrologists of COOMET Member Countries".
- 8 Possible changes in the structure of TC 4. Revision of COOMET Document D5.13/2004 "Regulation of TC 4"
- 9 Clarifying the procedure of the International Competition "The Best Young Metrologist of COOMET"
- 10 Conception and realization of COOMET data server
- 11 About the results of the events within TC 4
 - 11.1 Training workshop on preparation of pilot supplementary comparison in the field of ionizing radiation (23–25 May 2011, Braunschweig, Germany)
 - 11.2 IV International competition "Best young metrologist of COOMET 2011" (15–17 June 2011, Moscow, Russia)

- 11.3 Seminar "Experiences and Developments in Legal Metrology" (7-8 September 2011, Yerevan, Armenia)
- 12 Results of the work within SC 4.5
 - 12.1 Information about the activities of SC 4.5 "Support in developing the basic metrological infrastructure of COOMET Member Countries"
 - 12.2 Training workshop "Efficient presentations and intercultural awareness" (28–30 September 2010, Minsk, Belarus)
 - 12.3 Training workshop "Measurement uncertainty in the field of mass metrology" (5–6 October 2010, Tbilisi, Georgia)
 - 12.4 Training workshop on preparation of pilot comparison in the field of mass measurement (23–25 May 2011, Astana, Kazakhstan)
 - 12.5 Inter-RMO Workshop on activities in support of small, emerging and developing economy NMIs (29 June 1 July 2011, Ulan-Bator, Mongolia)
 - 12.6 Planning SC 4.5 activity for 2012-2014
- 13 Miscellaneous
- 14 Date and venue of the next meeting
- 15 Adoption of resolutions

RESULTS OF THE MEETING

1. Approval of the minutes of the 7th TC 4 meeting

TC 4 Chairperson P. Neyezhmakov informed that the minutes of the 7th meeting of TC 4 were approved by the members of TC 4 and participants of the previous meeting via electronic voting.

Actions and decisions:

• to approve the Minutes of the 7^{th} meeting of TC 4;

2. Report on the activity of TC 4 in 2010 – 2011

TC 4 Chairperson P. Neyezhmakov informed on the main areas of the TC activity and decisions made by the COOMET Committee and President's Council. In the reporting period the activity within the TC was performed based on the TC 4 Program of Work for 2009–2011 in five subcommittees:

• SC 4.1 "COOMET Development Based on the Analysis of International Experience";

- SC 4.2 "Information and Information Technology ";
- SC 4.3 "Training and Raising Proficiency Level of Experts ";

• SC 4.4 "Coordination of Work with Young Metrologists of COOMET Member Countries";

• SC 4.5 "Support in Developing the Basic Metrological Infrastructure of COOMET Member Countries".

3. Information on the results of the 15th meeting of the COOMET President's Council and the 21st meeting of the COOMET Committee

Head of COOMET, Chairperson of TC 4 P. Neyezhmakov informed shortly the participants of the meeting about the results of 15^{th} COOMET President's Council and 21^{st} COOMET Committee meeting.

4. Updating the TC 4 Work Program for 2009–2011

Chairperson of TC 4 P. Neyezhmakov informed shortly the participants of the meeting about the results of implementation of Work Program of TC 4 for 2009-2011. The participants of the meeting decided to update the Program and to change its terms.

Decisions and actions:

• to ask the Chairperson of TC 4 P. Neyezhmakov to prepare the draft Work Program of TC 4 "Information and training" for 2012-2014 and to distribute it among the Chairpersons of subcommittees and TC 4 members for approval by <u>5 December 2011</u>;

• to ask the Chairpersons of subcommittees and TC 4 members to send their proposals and notes to the Secretariat of TC 4 not later than <u>20 December 2011.</u>

5. Information of the participants of the meeting on the activity of NMIs of Member Countries in the area of training metrologists in 2010 – 2011

The participants of the meeting exchanged with information about the state of works, carried out in the field of training of metrologists in their countries.

SC 4.5 member (NISM, Moldova) Teodor Birsa proposed Kishinev for holding training workshops.

6. Discussion of progress in COOMET projects

6.1 Procedure for preparing and posting on the COOMET web-site data on measurement capabilities of NMIs, metrological centers and accredited metrology agencies of legal entities of COOMET countries not published on the BIPM web-site. Taking into account the discussion at the 15th meeting of COOMET President's Council about possibility of prolonging or closing the project (COOMET 404/RU/07)

Project coordinator V. Bugaev presented his report.

The implementation of the Project was discussed at the meetings of President's Council and COOMET Committee. For posting the data base at COOMET web-site and providing an open interactive access to it of organizations which can be provided by the appropriate metrological service, the draft of COOMET Recommendation was developed, where the order and publication conditions of such data and also technology of peer review at COOMET web-site are regulated.

Project coordinator V. Bugaev presented the developed project of CMS data base using the example of Russia.

During the discussion there was a number of critical notes, however the participants of the meeting agreed, that such information will be useful for NMIs – SC 4.5 members and for those countries, which were still studying to held comparisons and wanted to sign CIPM MRA. It was decided to overwork and to simplify the procedure content, leaving at this stage only CMS NMI of COOMET member-countries.

Decisions and actions:

• to ask coordinators of the COOMET Project 404/RU/07 V. Ivanov and V. Bugaev to change the name of the draft Recommendation for "Procedure of forming and publishing at COOMET web-sources informational data about calibration and measurement service of NMI laboratories of COOMET member-countries" and also to make appropriate changes in the name of the Project COOMET 404/RU/07;

• to ask coordinators of Project COOMET 404/RU/07to simplify the content of draft Recommendation in accordance with the new name and taking into account the proposals and notes, expressed during the discussion.

• the results of work should be presented for electronic discussion by 9th meeting of TC 4 "Information and training" in 2012.

6.2 Current state and action lines on the COOMET web-portal (COOMET 478/UA/09)

Chairperson of TC 4 P. Neyezhmakov informed shortly the participants about filling in the COOMET web-portal and paid attention to the most common mistakes.

Decisions and actions:

• to ask on-line editors of pages of countries and technical committees of COOMET web-portal to eliminate mistakes and to update all information concerning their pages in two languages;

• to consider the possibility of holding and additional training workshop for online editors of those countries which didn't have trainings and also for newly appointed online editors of pages of countries and technical committees.

6.3 Development of COOMET Document "COOMET Web-Portal. General Provisions. Procedure for Maintaining and Submitting Information" (COOMET 500/UA/10)

Chairperson of TC 4 P.Neyezhmakov presented to the participants of the meeting the COOMET Project "Web-portal of COOMET. Main statements. Order of maintaining and presenting the information", developed within the COOMET Project 500/UÀ/10, and also proposals and notes on the draft document, expressed by the Members of COOMET Committee and TC 4 members.

Decisions and actions:

• to ask the coordinator of COOMET Project COOMET 500/UA/10 P. Neyezhmakov to make changes in draft Document "Web-Portal of COOMET. Main statements. Order of maintaining and presenting information" and to distribute the 2nd edition of draft document and also comments to them between COOMET Committee Members and TC 4 members for approval by <u>15 December 2011</u>;

• to ask COOMET Committee Members and TC 4 members to send their proposals and notes to the Secretariat of TC 4 by <u>25 January 2012</u>.

6.4 Finding out the needs of COOMET member-countries in training and trainings abroad (COOMET 510/KZ/10)

Coordinators of COOMET Project 510/KZ/10 K. Satybbaeva and V. Lobko presented to the participants of the meeting the results of activity within this project.

The Project was opened for determining the basic thematic directions on trainings and trainings abroad for further planning and organization of training events within COOMET. There was developed the questionnaire to find out the interests of NMIs of COOMET member-countries in trainings and trainings abroad, taking into account the discussions at the 7th TC 4 meeting and the results of workshop "Evaluation of PTB-COOMET Project and planning the second stage" within SC 4.5 and was sent to NMIs for filling in.

In May 2011 there was prepared a form of agreed Project. The form includes new training topics and also according to the proposal of Chairperson of TC 4.4 Lobko V.P. and agreement with the Chairperson of TC 4 Neyezhmakov P.I. it was proposed to fill in the form separately for young metrologists and for specialists having working experience.

Summary form on the results of polling is prepared by COOMET Secretariat.

Maybe in future it will be necessary to clarify the statements of topics in accordance with the given kinds of measurements and thematic specializations and also to determine the NMIs, which can carry out the trainings on these topics, conditions of training and to form programs etc.

Decisiona and actions:

• to ask the coordinators of Project COOMET 510/KZ/10 K. Sattybaeva and V. Lobko to form the concrete topics of workshops and trainings abroad (on the base of the got information from member-countries during the polling) and to prepare the proposals and to determine the order of training and financing by <u>31 January 2012</u>;

• to ask the coordinators of the COOMET Project 510/KZ/10 to prepare the questionnaire to find out the possibilities of NMIs for holding the workshops and trainings abroad by <u>30 November 2011</u>;

• to ask the member of TC 4 from Germany A. Kögler to open a new COOMET Project on development of the methods of organization and holding interactive workshops with the help of COOMET web-sources.

6.5 Training of specialists of measuring, calibration and testing laboratories. Module approach in training the specialists of calibration and testing laboratories: problems and ways out (COOMET 518/UZ/11)

Coordinator of the Project O. Hakimov presented the report of the member of working group on the topic of E. Ramazanova –Stepkina, Director of International school of technical legislation and quality management (ISTL), Kiev, Ukraine, "Practice of implementation of uncertainty conception: application of module approach in training of specialists of testing and calibration laboratories".

It is proposed to apply module approach in training on the base of step-by-step implementation of uncertainty conception in laboratory practice.

4 modules are considered and system approach in distributing functional module load is created. Such approach allows to train specialists of laboratory of any qualification and to include into the training program practical aspects of work of testing and calibration laboratories.

The participants of the meeting expressed their interest in cooperation on this project.

Decisions and actions:

• to recommend to the coordinator of COOMET Project 518/UZ/11 O. Hakimovy to continue the works on development of module approach in training of specialists of measurement, calibration and testing laboratories;

• to ask the coordinator of COOMET Project 518/UZ/11 O. Hakimov to formulate the works, which will be carried out on this project;

• to ask the coordinator of COOMET Project COOMET 518/UZ/11to maintain the form of agreed COOMET Project and to send it to the address of COOMET Secretariat for further distribution between interested persons.

6.6 Development of recommendations on the content of training programs and practices of specialists within COOMET (COOMET 541/RU/11)

The representative of SC 4.3 E. Kozmina informed the participants of the meeting that according to the decision of the 7th meeting of TC 4 it was proposed to open a new project on development of recommendations on the content of training programs and trainings abroad of specialists within COOMET.

Chairperson of SC 4.3 V. Ivanov sent to TC 4 members the proposals on realization of new project, i.e. about the development of 2 COOMET recommendations within the new project:

1) on the program content of trainings and trainings abroad in the field of standard comparisons, calibration of measuring instruments, implementation, support and effectiveness evaluation of quality management system;

2) on the order of planning, organizing and holding the trainings and trainings abroad of NMI specialists of COOMET member-countries in the field of metrology.

Decisions and actions:

• to ask the coordinator of COOMET Project 541/RU/11 V. Ivanov to make changes in project form (item 7 "Additional notes"), excluding the development of the second recommendation, and also to maintain the form of the agreed COOMET Project and to send it to the address of COOMET Secretariat for further distribution among the interested persons.

7. Forming the membership and activity of subcommittees in TC 4. Reports of SC Chairpersons

7.1 SC 4.1"COOMET development based on analysis of international experience"

7.2 SC 4.2 "Information and Information Technology"

7.3 SC 4.3 "Training and raising proficiency level of experts"

7.4 SC 4.4 "Coordination of work with young metrologists of COOMET Member Countries"

Chairpersons of SC 4.1, 4.2, 4.4 and the representative of Chairperson of SC 4.3 informed about the activity and membership of TC 4.

Decisions and actions:

• to take note of information of Chairpersons of SC 4.1, 4.2, SC 4.4 and representative of Chairperson of SC 4.3;

• to ask the administrator of COOMET web-site V. Bugaev to make changes in COOMET Document "Order of maintaining of COOMET web-site. Main statements" taking into account the discussion and to send it to the COOMET Secretariat by <u>15 December 2011</u> for further approval;

• to instruct COOMET Secretariat to include the question about approval of the Document COOMET D6/20 into the agenda of 22nd COOMET Committee meeting;

• to ask the administrator of COOMET web-site to inform in time the COOMET Secretariat about new developments and changes at COOMET web-site;

• to ask administrator of COOMET web-site to create also the chapter "COOMET history".

8 Possible changes in the structure of TC 4. Revision of COOMET Document D5.13/2004 "Regulation of TC 4"

On this question reported the chairperson of TC 4 P. Neyezhmakov. He presented to the participants of the meeting the proposals on the changes of TC 4 structure. There was a discussion on the names of SC and directions of their activity.

It was decided:

to exclude from the membership of TC 4 SC 4.1 "COOMET development on the base of analysis of the use of international experience";

to rename SC 4.2 into "Informational sources of COOMET" (Chairperson – V. Bugaev, VNIIFTRI, Russia);

to join SC 4.3 "Preparation and raising qualification of specialists" and SC 4.4 "Coordination of work with young metrologists of COOMET member-countries" and to create new subcommittee SC 4.3 "Raising Proficiency Level and work with young metrologists" (Chairperson – V. Ivanov, VNIIMS, Russia, Deputy Chairperson V. Lobko, BelGIM, Belarus);

to change the number of SC 4.5 "Support in development of metrological infrastructure of COOMET member-countries" for SC 4.1 with the previous name (Chairperson – D. Sharipov, RGP "KazInMetr", Kazakhstan).

In connection with the change of TC 4 structure it was decided to update the COOMET Document D5.13/2004 "TC 4 Regulation".

Decisions and actions:

• to recommend for approval at the 16^{th} COOMET President's Council meeting and for approval at 22^{nd} COOMET Committee meeting the new structure of TC 4 "Information and training"

- SC 4.1 "Support in Developing the Basic Metrological Infrastructure of COOMET Member Countries" (Chairperson D. Sharipov, RSE "KazInMetr", Kazakhstan);
- SC 4.2 "COOMET Informational Sources" (Chairperson V. Bugaev, VNIIFTRI, Russia);
- SC 4.3 "Raising Proficiency Level and Work with Young Metrologists" (Chairperson – V. Ivanov, VNIIMS, Russia; Deputy Chairperson –V.Lobko, BelGIM, Belarus);

• to instruct COOMET to include this question into the agenda of 16th COOMET President's Council and 22 nd COOMET Committee meeting;

• to ask the Chairperson of TC 4, Head of COOMET Secretariat P. Neyezhmakov to report on the question of the change of TC 4 structure at the 16th COOMET President's Council meeting and 22nd COOMET Committee meeting;

• to ask the Chairperson of TC 4 to make the appropriate changes in the COOMET Document D5.13/2004 "TC 4 Regulation" and to distribute it between the Chairpersons of subcommittees and TC 4 members by <u>20 December 2011</u>;

• to instruct the COOMET Secretariat to include the question about approval of COOMET Document D5.13/20__ "TC 4 Regulation" into the agenda of 22nd COOMET Committee meeting.

9 Clarifying the procedure of the International Competition "The Best Young Metrologist of COOMET"

Chairperson of SC 4.4 V. Lobko and TC 4 member from TC 4 from Germany A. Koegler presented the proposals for the order of holding the International Competition "The best young metrologist of COOMET".

Among the participants of the meeting there was a discussion on this question.

There was discussed the possibility of attracting for participation in the competition of young metrologists from other RMOs during its holding in 2013 in PTB.

It was also proposed to change the criteria of evaluation to give the opportunity of participation in the competition to the metrologists from countries with developing metrological infrastructure.

Decisions and actions:

• to ask V. Lobko, as responsible for the work with young metrologists of COOMET, to make changes in Recommendation COOMET R/GM/18:2010 "Order of holding the International competition "The best young COOMET metrologist" taking into account the discussion and to send it to the address of TC 4 Chairperson by <u>25 December 2011</u>;

• to ask the TC 4 Chairperson P. Neyezhmakov to distribute the changed COOMET Recommendation between TC 4 members for consideration;

• to include the question about agreement of the updated version of COOMET Recommendation COOMET R/GM/18:20 into the agenda of 9th TC 4 meeting.

10 Conception and realization of COOMET data server

Chairperson of SC 4.2, administrator of COOMET web-site V. Bugaev presented the conception and realization of the server of COOMET database.

The participants of the meeting noted the importance of this work and agreed with the decision to continue the started work on creation of COOMET database server.

Decisions and actions:

• to continue the works on creation the server of COOMET data as system of web document handling organization;

• to recommend to the administrator of COOMET web-site V. Bugaev and to open the new project, devoted to the development of the server of COOMET data base.

11 About the results of the events within TC 4

11.1 Training workshop on preparation of pilot supplementary comparison in the field of ionizing radiation (23–25 May 2011, Braunschweig, Germany)

11.2 IV International competition "Best young metrologist of COOMET – 2011" (15–17 June 2011, Moscow, Russia)

11.3 Seminar "Experiences and Developments in Legal Metrology" (7–8 September 2011, Yerevan, Armenia)

TC 4 member from Germany A. Koegler and PTB consultant K.-Ch. Goethner informed the participants about the results of events, carried out within TC 4.

12 Results of the work within SC 4.5

12.1 Information about the activities of SC 4.5 "Support in developing the basic metrological infrastructure of COOMET Member Countries"

Chairperson of SC 4.4. D. Sharipov informed the participants of the meeting about the activity of SC 4.5 for the reporting period.

12.2 Training workshop "Efficient presentations and intercultural awareness" (28–30 September 2010, Minsk, Belarus)

12.3 Training workshop "Measurement uncertainty in the field of mass metrology" (5–6 October 2010, Tbilisi, Georgia)

12.4 Training workshop on preparation of pilot comparison in the field of mass measurement (23–25 May 2011, Astana, Kazakhstan)

12.5 Inter-RMO Workshop on activities in support of small, emerging and developing economy NMIs (29 June – 1 July 2011, Ulan-Bator, Mongolia)

Chairperson of TC 4 P. Neyezhmakov, TC 4 member from Germany A. Koegler and SC 4.5 from Georgia N. Mikanadze presented the information about the results of workshops within SC 4.5.

12.6 Planning SC 4.5 activity for 2012–2014

PTB consultant K. – Ch. Goethner informed the participants of the meeting about the planned for 2012 - 2014 works within SC 4.5 "Support in development of the bases of metrological infrastructure of COOMET member-countries".

Decisions and actions:

• to approve the project of works of SC 4.5 for 2012-2014 (Annex 1 to the Minutes)

• to ask the chairperson of SC 4.5 D. Sharipov to carry outpolling of NMI laboratories of the countries of Central Asia and Caucasus about their interest of participation in comparisons in the field of thermometry, electrical measurements indicating the information about standards and their metrological characteristics by <u>15 December 2011</u>.

13. Miscellaneous

Member of SC 4.5 from Georgia N. Mikanadze expressed her opinion about the need of preparation of presentation about COOMET with the aim of organization popularization.

The participants of the meeting supported this idea.

It was also noticed that it was necessary to update the information about TC 4 members and TC 4 subcommittees.

Decisions and actions:

to instruct COOMET Secretariat to prepare presentation about COOMET for its use with the aim of COOMET popularization at international and national levels;

to ask COOMET Committee Members to clarify/to appoint the candidates of TC 4 members and members of TC 4 and members of SC 4.1 –SC 4.3 from their countries and to send information (including contact data) to the Chairperson of TC 4 P. Nevezhmakov by 31 January 2012;

to instruct the Secretariat of TC 4 to provide posting of this information at the • *web-portal of COOMET (chapter TC 4).*

14. Date and venue of the next meeting

Deputy Director of BelGIM, Chairperson of SC 4.4 V. Lobko informed the participants of the meeting about the possibility of holding the TC 4 meeting in 2012 in Belarus.

Decisions and actions:

to take note of information of Chairperson of Director of BelGIM V. Lobko about the possibility of holding the 9th TC 4 meeting "Information and training" in Minsk, Belarus, in September 2012.

15. **Adoption of resolutions**

The participants of the meeting exchanged with opinions on the proposed resolutions.

Decisions and actions:

the final formulations of resolutions to agree by electronic mail during the consideration of the draft minutes of 8^{th} TC meeting "Information and training" by *30 November 2011.*

TC 4 Chairperson

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Pavel Nevezhmakov

Yuliya Bunyayeva

TC 4 Secretary