

Making Metrology More Visible

Leslie Pendrill, EURAMET Chairperson



Metrology has been described on various occasions as somewhat 'invisible'. Despite providing essential support to growth, innovation and sustainability in many areas, some would say that metrology only becomes visible to society at large when something goes 'wrong'. Metrology organisations such as EURAMET therefore have to work hard at promoting the subject, just to get noticed.

EURAMET is now fully engaged in implementing the major European Metrology Research Programme (EMRP) with the participation of the European Community¹. What are the signs that the EMRP is starting to make an impact? I personally recently experienced an indication – albeit slight, as follows: Arriving in Paris one summer's evening ahead of a meeting next day, and having checked in at my hotel, I chose at random a bar-restaurant close to the Place de la Bastille and took a table on the pavement to enjoy a quiet interlude. Behind me was a group of enthusiastic young people having a lively discussion but they didn't disturb particularly. Suddenly, I couldn't avoid overhearing one of the group saying 'JRP'² – but I ascribed this to exhaustion on my part from too much work! But several seconds later, when someone said 'EURAMET', I just couldn't restrain myself any longer, announced my presence and then joined the group – which happened to be having the kick-off meeting for their EMRP project as one of the first resulting from last year's Article 185 (169) Metrology for Energy Call.

Another, more serious event was a pleasant occasion in Brussels (in fact earlier that same day), when EURAMET signed a Collaboration Agreement with the European standards organisations CEN-CENELEC. One aim expressed in that Agreement is to make more visible the impact of metrology and standardization – see separate article in this Newsletter.

Metrology and Standardization in Europe: Cooperation Agreement between CEN-CENELEC and EURAMET

A Cooperation Agreement has been signed between EURAMET, the European Association of National Metrology Institutes, and CEN, the European Committee for Standardization and CENELEC, the European Committee for Electrotechnical Standardization. This Cooperation Agreement will increase the opportunities for bridging standardization and European-funded research in the field of metrology.

In this Cooperation Agreement CEN-CENELEC and EURAMET agree to pursue strategic goals and projects of common interest in the fields of metrology and standardization in support of scientific advancement and technological innovation, so that societal challenges which impact on the economy and the quality of lives within Europe can be met.

Innovation is at the heart of standardization activities and of strategic importance to CEN and CENELEC. It is of equal importance to EURAMET, which seeks to accelerate the development of measurement research capabilities in innovative areas such as healthcare, energy, environmental and advanced technology sectors – all of which are areas in which CEN and CENELEC have current relevant standardization activities.

Within the CEN and CENELEC standardization processes, CEN-CENELEC and EURAMET seek co-operation in the field of activities of EURAMET, such as research in metrology, knowledge exchange & infrastructural support in metrology and international recognition of national measurement standards and of Calibration and Measurement Capabilities (CMC).



Signing the Cooperation Agreement: Mrs Elena Santiago (Director General CEN-CENELEC) and Prof. Leslie Pendrill (Chairperson, EURAMET)

¹ EMRP 2009 Official Journal of the European Union, L2009:257 Vol 52, pp 12 - 25 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:257:0012:0025:EN:PDF>

² 'JRP' = EMRP-speak for 'Joint Research Project'

EURAMET General Assembly 2010

The 2010 EURAMET General Assembly was held in Lisbon, Portugal on 25th and 26th May 2010, hosted by IPQ. The meeting addressed some significant challenges facing EURAMET. Decisions were made on a number of significant matters, including election of Board of Directors, new Technical Committee Chairs and the 2011 budget.

Long-serving BoD member of EURAMET Arnold Leitner, retired from the position of Vice-Chairperson of the organisation to be replaced by Janko Drnovšek of Slovenia. There were also two new members elected to the Board of Directors, Beat Jeckelmann (METAS, CH) and Albert Dalhuijsen (VSL, NL). Heikki Isotalo (MIKES, FI) completed his term as BoD member.

The EURAMET Chairperson expressed his gratitude to both Arnold and Heikki for their contribution to the organisation during their time on the BoD.

Two new TC Chairs were elected; Andrea Perruzzi (VSL, NL) takes over as TC Chair for Thermometry and Maguelonne Chambon (LNE, FR) takes charge of the TC-IM.

EURAMET expressed its gratitude for the retiring chairs from these two positions, Wolfgang Buck and Attilio Sacconi.

General Assembly 2011

The 5th EURAMET General Assembly will be held from 6 to 10 June 2011 in Sarajevo, Bosnia and Herzegovina. The programme for the 2011 GA will be presented on the EURAMET website as soon as available.



EURAMET welcomes "new" members'

The General Directorate of Metrology of Albania (DPM) and the Bureau of Metrology of FYR Macedonia (BoM) become 35th and 36th Members of EURAMET respectively.

EURAMET Board of Directors and Technical Committees Chairs for the next term

Board of Directors

Bartolo, Joseph	MSA-NMS - Malta Standards Authority - National Metrology Services
Dalhuijsen, Albert	VSL - VSL
Drnovšek, Janko	MIRS - Ministry of Higher Education, Science and Technology Metrology Institute of the Republic of Slovenia
Hetherington, Paul	NSAI - National Metrology Laboratory
Hossain, Kamal	NPL - National Physical Laboratory
Jeckelmann, Beat	METAS - Federal Office of Metrology METAS
Klenovský, Pavel	CMI - Czech Metrology Institute
Pendrill, Leslie	SP - SP Technical Research Institute of Sweden
Stenger, Jörn	PTB - Physikalisch-Technische Bundesanstalt

TC Chairpersons

TC-AUV :	Salvador Barrera-Figueroa, DANIAMet-DFM, Denmark sbf@dfm.dtu.dk
TC-EM :	Beat Jeckelmann, METAS, CH beat.jeckelmann@metas.ch
TC-F:	Richard Paton, NEL, UK rpaton@tuvnel.com
TC-IM:	Maguelonne Chambon, LNE, France maguelonne.chambon@lne.fr
TC-IR:	Hans Bjerke, NRPA, Norway hans.bjerke@nrpa.no
TC-L :	Michael Matus, BEV, Austria michael.matus@bev.gv.at
TC-M:	Walter Bich, INRIM, Italy w.bich@inrim.it
TC-MC:	Bernd Güttler, PTB, Germany bernd.guettler@ptb.de
TC-PR:	Peter Blattner, METAS, Switzerland peter.blattner@metas.ch
TC-Q:	Pavel Klenovsky, CMI, Czech Republic pklenovsky@cmi.cz
TC-T:	Andrea Peruzzi (VSL, Netherlands) aperuzzi@vsl.nl
TC-TF:	Andreas Bauch, PTB, Germany andreas.bauch@ptb.de

EURAMET COMPARISON

EUROMET.T-K6 – a success in showing the equivalence of humidity standards

The final report of the first European regional key comparison in the field of humidity was published in the Technical Supplement of Metrologia in September 2010. In this comparison, national dew-point temperature standards in 24 national metrology institutes were compared to each other. The investigated range was between -50°C and $+20^{\circ}\text{C}$. Pilot laboratories of three parallel loops, the supplier of six highly sophisticated instruments and all participating laboratories worked four years in this project resulting in high quality outcomes: the results demonstrate the equivalence between the laboratories at an uncertainty level that is better than achieved in other multilateral humidity comparisons to date.

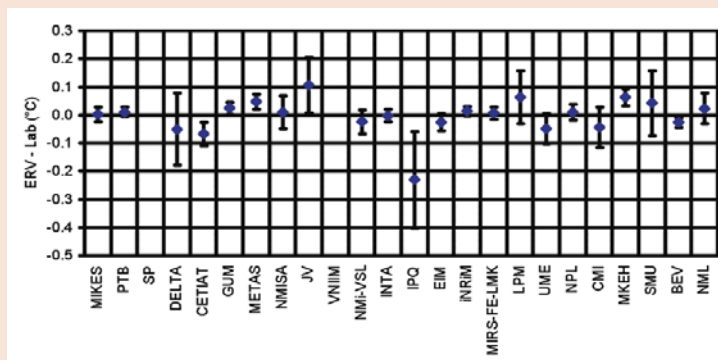


Fig. The result of the laboratories at $+20^{\circ}\text{C}$ in terms of the deviation from the calculated EUROMET Reference Value (ERV).

EURAMET Focus Group - Mass Comparison for South East European NMIs

The successful participation in international comparisons is a crucial element for the international recognition of national standards and calibration and measurement capabilities within the CIPM MRA. In addition it is one of the criteria for EURAMET membership. Hence it is one of the tasks of the EURAMET "Focus Group on Facilitating National Metrology Infrastructure Development" to organize appropriate comparisons for its member NMIs. As several of these NMI's have little or no experience in comparisons, these activities are organised in a two-step approach: Starting with a training module for the non-experienced NMIs, consisting of workshops and a "training-comparison", followed in a second step by a "true" comparison according to internationally recognised protocols thus providing the link to the key comparison system of the CIPM MRA.

Following this schedule, a comparison exercise for mass standards of 1 kg and submultiples of the kilogram was initiated in 2008 and registered as EURAMET consultation project 1096. Participants were the NMIs of Albania (DPM), Bosnia-Herzegovina (IMBiH), FYR Macedonia (BoM), Montenegro (MBM) and Kosovo-UNMIK1244 (KDM). The pilot laboratory was EIM (Greece) supported by BEV (Austria). The project started with some training in mass metrology and with a workshop for the preparation of the comparison. After the completion of this 'training' comparison the results were discussed and areas for improvement identified in a follow-up workshop. As an outcome several improvements have been implemented by the participants. The project was formally completed at the end of 2008.

For the same participants a "true" comparison was organized by BEV in the frame of the Focus Group action plan 2009. It started in mid 2009 and was registered as EURAMET comparison project 1120. The measurements have been completed in March 2010, the Draft A Report has been sent out in May 2010. The comparison is linked to both EUROMET.M.M-K4 and EUROMET.M.M-K2 via BEV and EIM, thus providing the connection to the CIPM MRA key comparison system. For the successfully participating NMIs one of the barriers to full EURAMET membership has been removed and a support for their CMC claims is established. The work of the EURAMET Focus group has once more provided efficient assistance for its members in their effort to develop the metrology infrastructure and to be integrated into EURAMET activities.



EURAMET collaborate with DPM, Albania in training activities

One week after becoming a full member of EURAMET, DPM of Albania hosted a training course on measurement uncertainty. The training initiative was developed within the activities of the EURAMET FG on "Facilitating National Metrology Infrastructure Development" in cooperation between the EURAMET Secretariat, PTB and DPM. The translated training material shall be used for

further Knowledge Transfer to industrial laboratories in Albania. This course in Albania is considered as a EURAMET pilot activity and will be repeated in a similar format in other countries participating in the FG. Two metrologists from IMBiH, Bosnia and Herzegovina participated as guests and will prepare the next similar event in their country.



Participants of the training course together with the trainers Stephan Mieke (PTB-Berlin), Wolfgang Schmid (EURAMET) and Majlinda Hoxha (DPM)

EURAMET publish new Calibration Guide

EURAMET is pleased to announce the publication of a new Calibration Guide EURAMET/cg/20/v.01 "Calibration of Climatic Chambers, Requirements for the Accreditation of Calibration Laboratories". The Guide was developed by the EURAMET Technical Committee for Thermometry and can be downloaded from <http://www.euramet.org/index.php?id=calibration-guides>.



The EMRP Review Conference will take place in Budapest (Hungary) from 22 to 25 November 2010

EURAMET and NCSLI 2010 Symposium

"EURAMET was well-represented at this year's NCSLI 2010 Symposium, July 25 - 29 in Providence, RI USA. In addition to the EURAMET exhibition stand the NCSLI kindly provided a "Focus on EURAMET" session including the following presentations:

Global Challenges for Metrology - M. Kamal Hossain - National Physical Laboratory (NPL), United Kingdom

The Launch of the Second Phase of the European Metrology Research Programme Under Article 169 of the European Treaty - Joern Stenger - Physikalisch-Technische Bundesanstalt (PTB), Germany

EURAMET: European Association of National Metrology Institutes - Prof.

Leslie R. Pendrill - SP Technical Research Institute, Sweden

Some presentations are available on the NCSLI website at:

<http://abstract.ncsli.org/abstract/index.cfm/fuseaction/home.speaker_pres_10.cfm>"



BIPM Director Andrew Wallard visiting the EURAMET stand with EURAMET Secretariat Wolfgang Schmid and Kerstin Royss.

Upcoming EURAMET Events

TC-EM Meeting, 28/29 Oct 2010, Espoo, Finland

EMRP Research Council Meeting, 16 Dec 2010

Focus Group annual meeting, Podgorica (Montenegro), 1-2 Dec 2010

15th International Congress of Metrology, Paris, 3 to 6 October 2011, www.metrologie2011.com

AFRIMETS and EURAMET Sign MoU

AFRIMETS – the "Intra Africa Metrology System" – and EURAMET signed a Memorandum of Understanding, 22nd September, at Sharm El Sheikh (Egypt) during the AFRIMETS General Assembly. A more extensive report will be given in the next EURAMET newsletter.

EURAMET Chairperson and Secretariat

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