

# **EURAMET Report for 50th CIML meeting October 2015**

Pavel Klenovsky  
General Director  
Czech Metrology Institute

EURAMET Board Member

- **General update**
- Progress on strategic development
- European Metrology Research Programmes
- CIPM MRA
- Cooperation with EA

# EURAMET Membership



European Association of National Metrology Institutes

- bilateral co-operations since  $\approx$  1900
- EUROMET since 1990
- EURAMET e.V. since 2007

- ❑ **Members:**  
37 European NMIs
- ❑ **Associates:**  
IRMM (EC)  
76 DIs
- ❑ **Liaison Organisations:**  
4 RMOs & BIPM  
3 NMIs beyond Europe: DSSU, INPL, NIS  
KMA (Kosovo under UNSCR 1244)  
6 regional/international Organisations



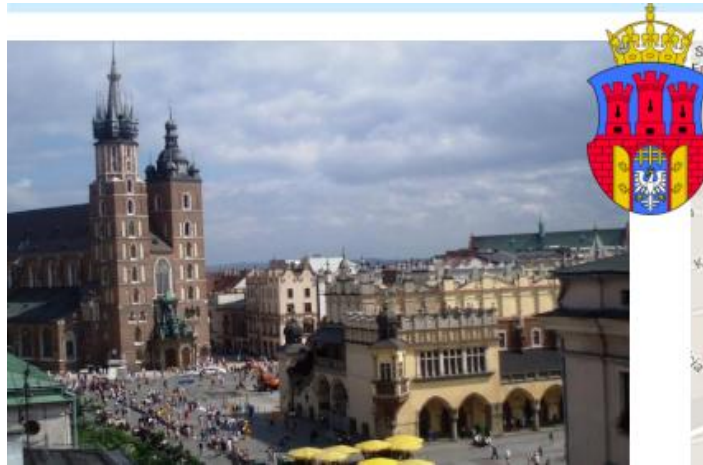
# 9th EURAMET General Assembly



## 9th EURAMET General Assembly

POLAND KRAKÓW  
1-5 JUNE 2015

Under honorary patronage of  
Deputy Prime Minister,  
Minister of Economy  
Mr. Janusz Piechociński



# 9th EURAMET General Assembly



- More than 100 participants
- 4 BoD-Members re-elected for a further term:
  - Zijad Dzemic (Bosnia-Herzegovina)
  - Jan Petersen (Denmark)
  - Maria-Luisa Rastello (Italy)
  - Jose Angel Robles (Spain)
- 3 TC-Chairs re-elected for a further term:
  - TC-AUV     Richard Barham (UK)
  - TC-IR       Lena Johansson (UK)
  - TC-TF       Ramiz Hamid (Turkey)
- Revised version of byelaws approved (incl. EMPIR, General Secretary)
- Establishment of an Internal Audit Committee
- Relaunch of EURAMET website
- 10th EURAMET GA: Oslo, Norway, 23<sup>rd</sup> to 27<sup>th</sup> May 2016



# Chairpersons



## CHAIRPERSON

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# Board of Directors



Name	Position
Beat Jeckelmann, (METAS, Switzerland)	Chairperson
Kamal Hossain (NPL, UK)	Past-Chairperson
Janko Drnovsek (MIRS, Slovenia)	Vice-Chairperson (GA)
Jörn Stenger (PTB, Germany)	Vice-Chairperson (EMPIR)
Pavel Klenovsky (CMI, Czech Republic)	Member
Zijad Dzemic (IMBiH, Bosnia and Herzegovina)	Member
Maguelonne Chambon (LNE, France)	Member
Jan Petersen (DFM, Denmark)	Member
Maria Luisa Rastello (INRIM, Italy)	Member
José Robles (CEM, Spain)	Member

# Technical Committee Chairs



Technical Committee	Name
Acoustics, Ultrasound and Vibration	Richard Barham (NPL, UK)
Electricity and Magnetism	Luca Callegaro (INRIM, Italy)
Flow	Petra Milota (BEV, Austria)
Interdisciplinary Metrology	Robert Edelmaier (BEV, Austria)
Ionising Radiation	Lena Johansson (NPL, UK)
Length	Harald Bosse (PTB, Germany)
Mass and Related Quantities	Isabel Spohr (IPQ, Portugal)
Metrology in Chemistry	Hanspeter Andres (METAS, Switzerland)
Photometry and Radiometry	Jarle Gran (JV, Norway)
Quality	Enver Sadikoglu (UME, Turkey)
Thermometry	Graham Machin (NPL, UK)
Time and Frequency	Ramiz Hamid (UME, Turkey)



# EURAMET Task Groups



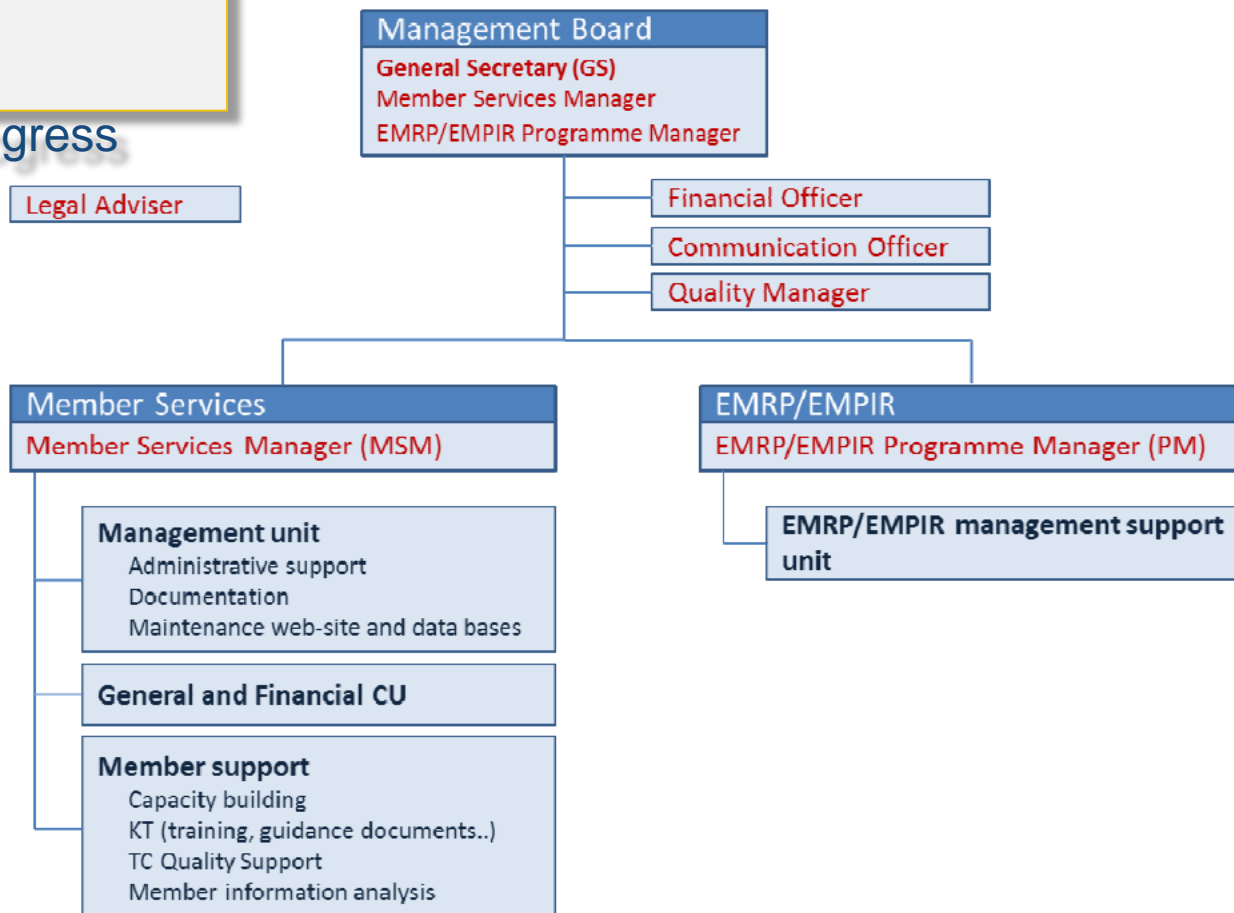
- Energy – Convenor : Gert Rietveld ( VSL)
- Environment – Convenor : Andrea Merlone ( INRIM)
- Health – Convenor: Hans Koch (PTB) – a new convenor to be appointed shortly

# New Structure of EURAMET Secretariat



General Assembly approved a new Secretariat structure and a new post of a **General Secretary** (Feb. 2015)

Implementation is in progress



# EURAMET Guides

## **New guide:**

“Role of Designated Institutes within the CIPM MRA”

(approved in Sep. 2014)

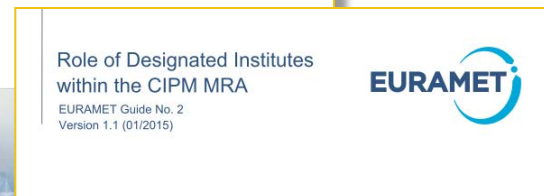
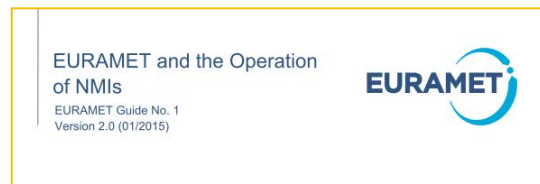
## **New Corporate Design:**

Existing guides are published in new CD and were re-numbered

## **EURAMET documents:**

See website:

[www.euramet.org](http://www.euramet.org)



# EURAMET

## Technical and Calibration Guides



- Free download from EURAMET website
  - 19 Calibration Guides
  - 2 Technical Guides
- New technical guide: No. 2 EURAMET Guide on Lifetime and Drift/Stability Assessment of Industrial Thermocouples
- New versions calibration guide:
  - No. 13: Calibration of Temperature Block Calibrators
  - No. 15: Calibration of Digital Multimeters
  - No. 18: Calibration of non-automatic weighing instruments
  - No. 20: Calibration of Temperature and / or Humidity Enclosures



- General update
- **Progress on strategic development**
- European Metrology Research Programmes
- CIPM MRA
- Cooperation with EA

To be the leader in the  
development and application  
of measurement enabling  
Europe to be competitive,  
healthy and sustainable  
through innovation





## Engage Key Stakeholders

- Close working with CEN/CENELEC; MoU signed with ETSI and collaborative project with ISO
- IAEA, WMO, EC Directorates and JRC, WELMEC.....
- Corporate design for all our publications and promotional material
- New Website launched at the GA
- Growing engagement through EMRP/EMPIR with industry, RTOs and academia – many opportunities

<b>Increase Influence With Policy Makers</b>	
	<ul style="list-style-type: none"><li>• <b>Requires a review as it continues to be a difficult area</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>Working with Standards, Accreditation bodies and the JRC may help</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>TCs and TGs have relevant expertise and have a vital role</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>A clear role of the new General Secretary</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>Opportunities to use EMRP/EMPIR results to influence policy formulation and implementation</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>Co-ordinate and align with EURAMET member activities</b></li></ul>

Further Develop R&D Collaboration	
	<ul style="list-style-type: none"><li>• <b>Great success in securing EMPIR funding including Delegation Agreement – a long and complex process completed</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>Several of the first set of contracts already issued by MSU</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>Steady progress towards effective Capacity Building, Innovation, and pre-normative R&amp;D</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>Major effort on the preparation of Strategic Research Agenda – publication expected in early autumn</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>Impact analysis and case studies will provide attraction for further work with industrial and academic stakeholders</b></li></ul>
	<ul style="list-style-type: none"><li>• <b>TCs and Task Groups continue to explore opportunities outside EMPIR</b></li></ul>

Deliver High Value to Members	
	<ul style="list-style-type: none"><li>• Focus Group is working well to take forward ideas to support to emerging NMIs</li></ul>
	<ul style="list-style-type: none"><li>• EMPIR providing support through RPot and other CB projects</li></ul>
	<ul style="list-style-type: none"><li>• Secretariat strengthened through extended appointment of CB officer</li></ul>
	<ul style="list-style-type: none"><li>• To reflect the key role of the Focus Group , the Group will report directly to the BoD</li></ul>
	<ul style="list-style-type: none"><li>• Need to provide support for members to access EU structural funds and other international funds</li></ul>

Support European Quality Infrastructure	
	<ul style="list-style-type: none"><li>• Major review of CMC work under CIPM MRA completed by TC-IM and submitted to JCRB</li></ul>
	<ul style="list-style-type: none"><li>• EURAMET Guide 2 on DIs published. Work well received by other RMOs and BIPM</li></ul>
	<ul style="list-style-type: none"><li>• DI Workshop being planned</li></ul>
	<ul style="list-style-type: none"><li>• EURAMET providing leadership amongst RMOs</li></ul>
	<ul style="list-style-type: none"><li>• Need to develop closer co-operation at the top level with CEN/CENELEC and EA</li></ul>



# Future Challenges And Opportunities



**EURAMET has gone through a huge change since 2007 – becoming truly professional**

**Funding for Joint Research exceeds 1 billion Euros – change focus from input to outcome ; need a programme strategy?**

**Final Review of EMRP and Mid-term Review of EMPIR soon – start preparing now ; what difference are we making?**

**Content to-day but think for the future – seize & create opportunities**

**Need to serve diverse members in a cohesive way for common good**

- General update
- Progress on strategic development
- **European Metrology Research Programmes**
- CIPM MRA
- Cooperation with EA

# Expanding Membership in European Research

Reach Out  
From 2014



Year	Call
2014	Industry JRPs
	Research Potential JRPs
	Support for Impact
2015	Health JRPs
	SI Broader Scope (SI) JRPs
	Pre-normative JRPs
	Research Potential JRPs
	SIPs
2016	Environment (ENV) JRPs
	Energy (ENG) JRPs
	Pre-normative JRPs
	Research potential JRPs
	SIPs
2017	Fundamental JRPs
	Industry JRPs
	Pre-normative JRPs
	Research Potential JRPs
	SIPs
2018	SI JRPs
	Health JRPs
	Pre-normative JRPs
	SIPs
2019	ENV JRPs
	ENG JRPs
	Pre-normative JRPs
	SIPs
2020	Industry JRPs
	Fundamental JRPs
	Pre-normative JRPs
	SIPs

# EMPIR

## indicative call plan



- Long-term orientation, with room for flexibility at annual updates
- Three-year call intervals for some themes to enable follow-on projects
- Annual calls for “support for impact” actions and standardisation related research (except 2014)
- Calls for research potential focus on first four years



## EMPIR Participant Portal

On this site you will be able to:

- See the current plan for calls in EMPIR
- Submit ideas for metrology research in response to a stage 1 call
- Submit project proposals in response to a stage 2 call
- Register as an expert to assist EURAMET in evaluating proposals
- Read and download guides explaining the call, evaluation, negotiation and reporting processes in EMPIR

The **European Metrology Programme for Innovation and Research** (EMPIR) follows on from the **European Metrology Research Programme** (EMRP). Documents related to proposing and delivering EMPIR projects will be published on this site, the equivalent documents for the EMRP will remain on [www.emrponline.eu](http://www.emrponline.eu) while they are still required.



<http://msu.euramet.org/>

## NEWS

**NEW**

**Stage 2 Call for 2015 is NOW OPEN.**

- For Health click [HERE](#)
- For SI Broader Scope click [HERE](#)
- For Pre-Co Normative click [HERE](#)
- For Research Potential click [HERE](#)

**Call budget and features document** contains significant changes. Click [HERE](#) for latest version

**NEW**

**Location of partnering meetings** has been announced.

**Training for potential coordinators** of JRP's and their assistants will be provided by EURAMET.

- For Health partnering meetings and training for potential coordinators click [HERE](#)
- For SI Broader Scope partnering meetings and training for potential coordinators click [HERE](#)
- For Pre-Co Normative partnering meetings and training for potential coordinators click [HERE](#)
- For Research Potential partnering meetings and training for potential coordinators click [HERE](#)

# Participation in EMPIR



## Four types of participant in EMPIR projects (see Guide 1)

Internal Funded Partner(s)	<ul style="list-style-type: none"><li>• EURAMET NMIs and DIs (within their area of designation) from countries that have made a financial contribution to EMPIR (see List 1a)</li></ul>
External Funded Partner(s)	<ul style="list-style-type: none"><li>• All other legal entities established in: Member States, countries automatically eligible for Horizon 2020 funding, countries associated to Horizon 2020, including non-EMPIR NMIs and DIs plus EMPIR DIs participating outside their field of designation (see List 1b)</li></ul>
Unfunded Partner(s)	<ul style="list-style-type: none"><li>• Any legal entity whose participation adds benefit to the project.</li><li>• Legal entities that are eligible to participate as 'internal' or 'external' may participated as an unfunded partner – they ARE NOT FUNDED!</li></ul>
Linked Third Party(s)	<ul style="list-style-type: none"><li>• Very rare.</li><li>• Please speak to MSU first.</li></ul>

- All types of partner sign the grant agreement, Linked Third Parties do not sign.



# Participation of non European NMIs in EMPIR



- EURAMET wants to strengthen international participation in EMPIR
- EMPIR is a programme of Horizon2020
- Countries eligible for receiving funding out of Horizon 2020 can participate as **external funded partner**
- Countries not eligible for Horizon 2020 can participate as **external unfunded partner or collaborator**
- More information on EMPIR webportal: <http://msu.euramet.org/>  
see in particular “List b: Country information”

# Outline



- General update
- Progress on strategic development
- European Metrology Research Programmes
- **CIPM MRA**
- Cooperation with EA

# EURAMET Guide 2: “Role of DIs within the CIPM MRA”



The Guide gives guidance and recommendations to

1. **National authorities**  
on the decision process for the designation of a DI and its sustainable operation.
2. **DIs**  
on their role in the CIPM MRA and EURAMET's expectations to them.
3. **NMIs**  
for an effective cooperation with DIs within the national metrology system.
4. **EURAMET TCs and authorities**  
for the effective integration of DIs to the activities of EURAMET

# Workshop for DIs



**“New challenges for full integration of DIs within EURAMET”**

**Lyngby, Denmark  
18 – 19 February 2016**

## Programme

- Organisation of EURAMET, opportunities and benefits for participation in EURAMET committees and R&D programmes (EMPIR)
- CIPM MRA, CMC processes, QMS, accreditation
- CIPM, EURAMET and national responsibilities and authorities
- Success stories of EURAMET members
- Proposals/ideas/suggestions/observations from the participants



# Review of the CIPM-MRA



- CIPM-MRA workshop  
on 13/14 October 2015 @ BIPM
- RMOs had the opportunity to  
provide input
- **EURAMET Input:**  
“Making the CIPM MRA  
sustainable: An approach for  
CIPM MRA Phase II”  
*(available on EURAMET website,  
TC-project N° 1298)*

1 | Making the MRA sustainable: MRA Phase II

## **Making the CIPM MRA sustainable: An approach for CIPM MRA Phase II**

Ch. Bock, R. Edelmaier, R. Lapuh, M.-L. Rastello, I. Severn, I. Urdea Marcus, R. Wynands

Final report of a working group of the Technical Committee on Interdisciplinary Metrology  
(TC-IM) of EURAMET e. V.

E-Mail: christian.bock@metas.ch

*(17<sup>th</sup> March 2015)*

**Abstract.** Now reaching its 16th year, the Mutual Recognition Arrangement of the CIPM (CIPM MRA) has been a resounding success. It has fostered trust by demonstrating competence among the participating metrological institutions and in this way forms the basis for the quasi-worldwide acceptance of metrological certificates by all relevant authorities. However, the strong growth since its inception has brought the system to a point where it is becoming less practical and difficult to manage. It is therefore the time to take the CIPM MRA forward from its start-up phase into the next phase: maturity. We propose steps to be taken to ensure a successful and sustainable future for the CIPM MRA.

## **Opportunities to simplify the overall system:**

- The number of CMCs is ultimately in the hands of the NMI directors: better use of Directors Meeting and new strategy process of the BIPM
- Improvement of KCDB (data entry, process management, search)
- Streamlining of processes (deadlines, kick-out)
- Improvement of readability of CMCs by grouping in matrices or indicating uncertainties by formulas
- Reduction of number of key comparisons by defining a set of “core competences” or “anchor points”, where comparisons are still performed
- Reduction of the number of participants in KCs

## **Opportunities to improve the efficiency of the processes, procedures and tools:**

We suggest to move from a system where entries are pre-checked to a system with an appeal mechanism:

- Check of new CMCs within RMO of origin
- Appeal mechanism open for all RMOs and signatories of the CIPM MRA against CMC entries (special rules for new participating RMOs/NMIs/DIs possible)
- Appeal decided by body-to-be-defined (e.g. JCRB)
- Alert mechanism (“what is new”) of KCDB

The basis idea is to improve the CIPM MRA and the KCDB that they can handle n entries of CMCs.

# Outline



- General update
- Progress on strategic development
- European Metrology Research Programmes
- CIPM MRA
- **Cooperation with EA**



# Cooperation with EA, legal metrology



- EA-sponsored interlaboratory comparisons mainly operated by NMIs
- regular annual high-level meetings introduced this year
- calibration guides extensively used by accredited labs (but concerns about their practical usefulness)
- discussions about which (paper) standard should be used for various conformity assessment activities in application of European legislation
- sometimes research into matters of legal metrology (watermeters)

**Thank you for your attention**

[www.euramet.org](http://www.euramet.org)