



EURAMET CB update

15th EURAMET General Assembly

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Capacity Building Rationale



Supporting EURAMET Strategic objectives

- Deliver high value to members and associates
- Further develop co-operation in R&D
- Engagement of stakeholders
- Supporting quality infrastructure in Europe and internationally
- Increase influence with European policy makers and National Governments

Bridging the gap between emerging and well-developed members

Assist members in achieving metrological capability where needed, and to provide reliable cross-border services where not.

CB Strategy updating



Main topics:

- Cooperation with the EMNs
- Long term planning of CB activities
- Foster development of the E-Training
- Digitalisation of services

Impact of CB & EMRP/EMPIR



Widening the JRP community

- Countries joined at EMPIR stage: Ireland, Greece, Serbia, Bulgaria, Croatia – new participants in JRP projects,
- New countries coordinating JRPs: Slovenia, Bosnia & Herzegovina, Portugal, Croatia, Ireland
- NMIs from non EMPIR countries (never participating in a JRP before) joining as external partners: Lithuania, North Macedonia, Montenegro, Moldova

Sharing the load

- Emerging institutes started hosting training courses (DMDM, MBM, IMBiH, DPM)
- New institutes started piloting intercomparisons within last 10 years: DMDM, BIM, EIM, HMI, HMI/FSB-LPM, HMI/FSB-LPMD, IMBiH, VINS.

NMI/DI development

- New measurement services and facilities in NMI/DIs
- Many CMCs in preparation, some claims already submitted, some already approved

- **Europe-wide participation (36 countries)**
- **Cooperation** with the **BIPM, COOMET, APMP**
- **EURAMET CB Strategy** prepared (revision in progress)

Success stories: <https://www.euramet.org/knowledge-transfer/focus-topic-capacity-building/>

BoD Working Group for Capacity Building



Giving **strategic advice** on CB activities

Annual meeting 2021: week of 4 October (Tallinn?)

22 Members (**all EURAMET members welcome to join!**)

DPM (AL), BEV (AT), IMBiH (BA), SMD (BE), BIM (BG), FSB-LPM (HR), METROSERT (EE), BoM (FYRM), PTB (DE), MIKES-VTT (FI), NSAI/NML (IE), FMTC (LI), INM (MD), MBM (ME), GUM (PL), DMDM (RS), SMU (SK), MIRS (SI), CEM (ES), METAS (CH), TUBITAK UME (TR), NPL (UK)

Observers

WELMEC

COOMET

BoD-WGCB Convenor

Paul Hetherington, NSAI

BOD-WGCB Guardian

Maria Luisa Rastello, EURAMET Vice-Chairperson (GA)

Update on CB Instruments



	Duration	2019	2020	2021	2022
Training courses and workshops	3d	+	+	+	+
Mentoring Partnership Scheme	3w	-	+	+	+
RMG – researcher mobility grants	3m	+	+	+	+
Small collaborative projects	1.5 y	-	+	+	-
Research Potential Projects (new)	3y	-	-	Green Deal	Health
E-Training platform in development	-	-	+	+	+
Collaboration with EMNs	-		+	+	+

Declaration of countries' strategic priorities may facilitate acceptance in any JRP consortia

Training courses 2021



	Host	Timeframe
EURAMET Workshop: NMI Management in Some Exceptional Situations	online	3-4 March 2021
EURAMET-BIPM Organisation and piloting of intercomparisons in thermometry	online	26-27 April 2021
EURAMET-COOMET training course on small volume comparisons	online	
Online Workshop: 2021 Call for Small Collaborative Projects (SCPs)	online	13 July 2021
Training and workshop on digitalisation activities (a series of TC-IM M4D activities)	online	
Training Course on Calibration of Resistance (Daily Activities on Maintenance of National Resistance Standards)	CMI	
Workshop on Metrological Aspects of "Big Data" (link to MATHMET)*	online	
Workshop on medical devices with measuring function (Practical & Regulatory Aspects)	online	
Training course on pressure (more items) <ul style="list-style-type: none"> - Absolute pressure - Calibration techniques with hydrostatic manometers - On site calibrations of pressure/force sensors - dead weight tester calibration 	RI.SE (tbc)	
Implementation of Standard ISO/IEC 17025/2017 with case studies (tailored for metrology) with focus on risk management (webinar?)	online	
Online workshop in preparation for 2022 Call for Research Potential Projects	online	November/ December 2021

Update on CB Instruments

Mentoring Partnership Scheme



	Duration	2019	2020	2021	2022
Training courses and workshops			+	+	+
Mentoring Partnership Scheme	3w	-	+	+	+
RMG – researcher mobility grants	3m	+	+	+	+
Small collaborative projects	1.5 y	-	+	+	-
Research Potential Projects (new)	3y	-	-	Green Deal	Health
E-Training platform in development	-	-	+	+	+
Collaboration with EMNs	-		+	+	+

to be launched soon

Declaration of countries' strategic priorities may facilitate acceptance in any JRP consortia

Mentoring Partnership Award



- The **Mentoring Partnership Award** provides a platform for people from **two different metrological organisations**, in **different countries**, to **set up a partnership and work** on a relevant topic, such as technical, managerial, comparisons and traceability.
- The award will **provide funding for travel, accommodation and subsistence**, enabling **people from a NMI or a DI, from a EURAMET member or associate country**, to spend between **2 and 6 weeks** (not necessarily consecutive) in a different country (from their own).
- *Instrument development in finalisation*

Update on CB Instruments

Research Mobility Grants (RMGs)



	Duration	2019	2020	2021	2022
Training courses and workshops	2d		+	+	+
Mentoring Partnership				+	+
RMG – researcher mobility grants	3m	+	+	+	+
Small collaborative projects	1.5 y	-	+	+	-
Research Potential Projects (new)	3y	-	-	Green Deal	Health
E-Training platform in development	-	-	+	+	+
Collaboration with EMNs	-		+	+	+

Preparations ongoing

Declaration of countries' strategic priorities may facilitate acceptance in any JRP consortia

Update on CB Instruments

Small Collaborative Projects (SCPs)



	Duration	2019	2020	2021	2022
Training courses and workshops	3d	+	+	+	+
Mentoring Partnerships			+	+	+
RMG – researcher				+	+
Small collaborative projects	1.5 y	-	+	+	-
Research Potential Projects (new)	3y	-	-	Green Deal	Health
E-Training platform in development	-	-	+	+	+
Collaboration with EMNs	-		+	+	+

**Call in summer
(6 July to 7 September 2021)**

Declaration of countries' strategic priorities may facilitate acceptance in any JRP consortia

2021 SCP Call

(extract from the draft scope)



The overall strategic aim for capacity building by EURAMET in the form of **small collaborative projects with limited budgets of 150 k€ and up to 18 months duration** is to fund support activities targeted at emerging EURAMET NMIs/DIs.

Proposals should address one of the following topics:

- to support **smart-specialisation** through the coordination and sharing of resources and services across national borders,
- to build stronger links with stakeholders with the aim of determining needs for metrology services and cooperatively developing solutions for meeting them,
- to transfer knowledge to non-NMI/DI actors by building networks with **stakeholders** in metrology services,

Sharply targeted, ideally with one specific objective, clear work and budget plan and well-defined, objective-oriented deliverables (maximum 4). At least 2 (ideally 3) emerging NMIs/DIs and 1 highly developed NMI/DIs as partners.

Update on CB Instruments

Research Potential Projects



	Duration	2019	2020	2021	2022
Training courses and workshops	3d				+
RMG – researcher mobility grants	3m	+	+		+
Mentoring Partnership Scheme			+	+	+
Research potential projects (EMPIR)			-	-	-
Small collaborative projects	1.5 y		+	+	-
Research Potential Projects (new)	3y	-	-	Green Deal	Health tbc
E-Training platform in development	-	-	+	+	+
Collaboration with EMNs	-		+	+	+

Scope to be approved at BoD WG Partnership in Metrology, June 2021

Decision at EMPIR Committee, June 2021

Declaration of countries' strategic priorities may facilitate acceptance in any JRP consortia

E-Training platform

Rationale



A **web training platform** which embraces various **metrology-related training materials** developed (and owned) by EURAMET, EURAMET NMI/DIs, BIPM, other RMOs, EMRP/EMPIR projects and external institutions (e.g. universities) who would grant **controlled free access**.

Includes existing **training material**; new ones developed when needed.

Practical benefits for users

- Available 24/7, 365 days in a year, despite travel restrictions (very important these days)
- Once travel is possible again – very suitable for short training courses
- For preparation of training course with presence
- For refreshment of knowledge

E-Training platform

Supporting CB needs



This training platform will support CB needs of:

- a) EURAMET (e.g. CIPM MRA operation and operation of TCs);
- b) EURAMET members (basic training courses for NMI/DIs staff);
- c) Future EURAMET members' staff (different degrees of university curricula on metrology);
- d) Institutional partners and members of associates / LO participating in or contributing to the training platform.

E-Training platform

Stakeholder involvement



Development based on:

- Wide consultation among EURAMET stakeholders
- E-training Advisory board
 - Miruna Dobre, SDM, TC-IM Chair
 - Maria Luisa Rastello, INRIM, EURAMET Vicechair
 - Robert Gunn, NPL International Relations
 - Paul Hetherington, NSAI, BOD-WGCB Convenor
 - Lauri Lillepea, METROSERT
 - Rainer Stoch, PTB, Chair of the EMN Traceability in Laboratory Medicine
- Expert groups for development of training materials
- Small Secretariat group for practical implementation

EURAMET E-Training platform (prototype)



Finding the course of YOUR interest

A screenshot of a SharePoint web page for a site named "Silvie-test". The page features a blue header with the SharePoint logo and a search bar. The left sidebar shows navigation options like Home, Documents, Pages, e-training courses, Recycle bin, and Edit. The main content area is divided into three columns. The first column has a heading "Welcome to EURAMET (prototype) E-Training platform." and an image of a bookshelf. The second column is titled "Management Courses" and features an image of a hand placing a puzzle piece. The third column is titled "Courses by fields" and shows a keyboard with various scientific icons. At the bottom left, there is a "PROTOTYPE" label and a globe icon with the text "EURAMET".

➔ Hosted on SharePoint platform

EURAMET E-Training platform (prototype)



Finding the course of YOUR interest

SharePoint Search this site

EURAMET Silvie-test Private group 4 members

Home + New Page details Analytics

Welcome to EURAMET (prototype) E-Training platform.

Management Courses

Courses by fields

PROTOTYPE EURAMET

Free search

Prepared programmes for specific situations (roles), e.g.:

- New NMI/DI director
- New TC-Chair
- New contact person in TC-Q
- New intercomparison pilot
- New colleague in contact temperature lab
- New JRP Coordinator

Managerial
("soft" skills)

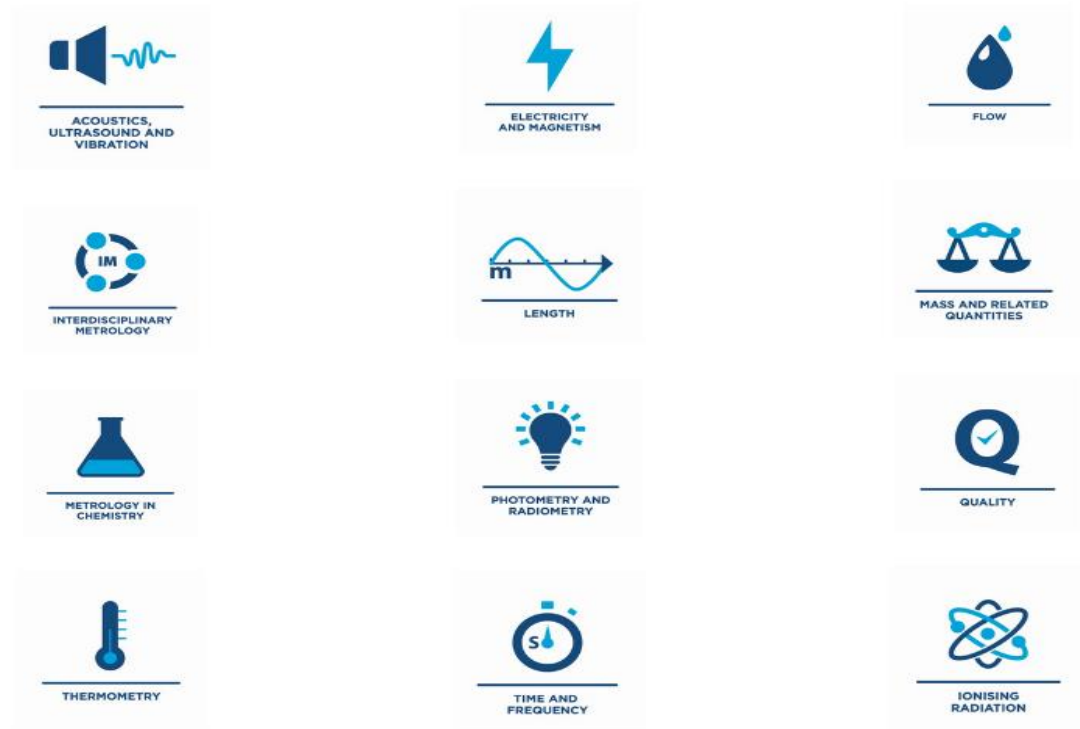
EURAMET E-Training platform (prototype)



Finding the course of YOUR interest



By
browsing
through a
technical
field

A large, yellow, 3D-style arrow pointing to the right, positioned to the left of the course grid.

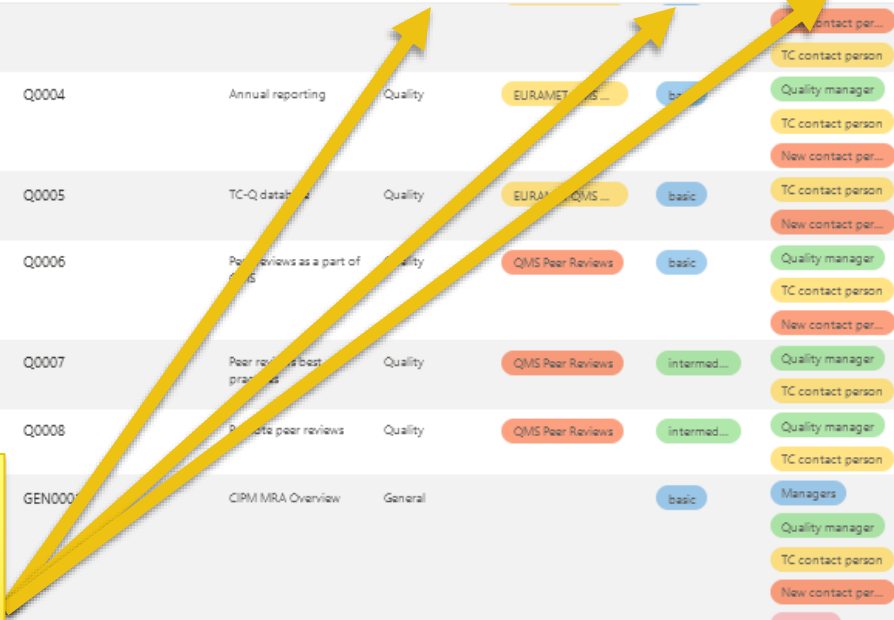
- Home
- Documents
- Pages
- Shared with us
- e-training courses**
- Recycle bin
- Edit

+ New Edit in grid view Share Export Automate Integrate ...

e-training courses

Název	Course Title	Field	Subfield	Level	Audience/trainee	Material	Author	Author's organiz...	Date of publishing
Q0004	Annual reporting	Quality	EURAMET QMS...	basic	TC contact person Quality manager TC contact person New contact per...		TC-Q	EURAMET	
Q0005	TC-Q datab...	Quality	EURAMET QMS...	basic	TC contact person New contact per...		TC-Q	EURAMET	
Q0006	Peer reviews as a part of QMS	Quality	QMS Peer Reviews	basic	Quality manager TC contact person New contact per...		TC-Q	EURAMET	
Q0007	Peer reviews best practices	Quality	QMS Peer Reviews	intermed...	Quality manager TC contact person		TC-Q	EURAMET	
Q0008	Peer reports peer reviews	Quality	QMS Peer Reviews	intermed...	Quality manager TC contact person		TC-Q	EURAMET	
GEN0001	CIPM MRA Overview	General		basic	Managers Quality manager TC contact person New contact per... TC chairs Metrologist	GEN0001 CIPM MRA Overview	BIPM	BIPM	2/3/2021
GEN0002	Operation_of_EURAMET_as_RMO	General		basic	Managers Quality manager TC contact person New contact per... TC chairs Metrologist	https://euramet.sharepoint.com/bu/r/si...	EURAMET Secretariat	EURAMET	2/3/2021
GEN0003	Role of RMO TCs within the CIPM MRA	General		basic	Managers Quality manager TC chairs Metrologist	https://euramet.sharepoint.com/bu/r/si...	BIPM	BIPM	2/3/2021
CIPM0002	KCDB 2.0: Home page	General		basic	TC chairs TC contact person Metrologist	https://www.youtube.com/watch?v=jL...	BIPM	BIPM	2/3/2021
T0001	T0001 What the temperature is?	Thermometry		basic	Metrologist	https://euramet.sharepoint.com/bu/r/si...	Michael de Podesta	NPL	2/3/2021

By selection of your field of interest, level, target audience...



EURAMET E-Training platform

Next steps



- draft Licencing agreement (legal aspects for institutions contributing with their materials)
- Process of registration of participants
- Processes for confirmation of quality of materials before uploading
- Invitation for further NMIs and DIs to share their materials
- Discuss access to the E-Training for representatives from other RMOs (opinion of EURAMET members)
- Testing the platform with first test users

Thank you for your attention!

**And thanks again to all colleagues
who are making EURAMET CB successful !!!**

ANNEXE



Update on CB Instruments

	Duration	2019	2020	2021	2022
Training courses and workshops	3d	+	+	+	+

Some examples

- EURAMET **Summer School** on thermometry:
- EURAMET Workshop: **NMI Management** in Some Exceptional Situations
- EURAMET Insights in Calibration **Automation** and **Digitalisation**
- EURAMET-BIPM Training Course on Organisation and **Piloting** of **Intercomparisons** in Ionising Radiation, Thermometry
- EURAMET-BIPM Training on **review of QMS**

.....

- 200 participants per year
- Significant in-kind contribution of EURAMET members (lecturers)



EMPIR Researcher mobility grants



Researchers from a EURAMET NMI/DI join internal partners (NMIs or DIs only) in a running EMPIR project for **1 to 18 months**, performing research closely related to the EMPIR project but additional to the project objectives.

Opportunity to **build links between NMIs/DIs, work with world leading scientists, produce joint papers and develop their own research skills.**

Up to **100 person-months** (e.g. 20 x 5 months) within a call.

Many good experiences until now.

RMG Calls 2016-2020

71 RMG contracts for researchers from **25 institutions** in **19 countries** to visit **18 institutions** in **10 countries**. The total duration of these Grants is **315 months**, working alongside **35 EMPIR projects**.

Researcher Mobility Grants (RMG) 2021 Call



Timeline – preparation of 2021 RMG call

20 May: interested researchers and guestworking institutions should send information to the EURAMET CBO;

15 June: research topics and timelines defined (for the adverts);

6 July to 7 September 2021: the call is open (researchers have to apply);

Oct to Dec 2021:

- eligibility check of the proposals by MSU,
- evaluation of the proposals by the referees,
- evaluation of the proposals by the EMPIR projects consortia,
- outcome of evaluations and results announced,
- negotiation of the contracts (with the employers, the guestworking institutions and the researchers),
- drafting the RMG contracts,
- signature of the contracts.

Beginning of 2022: earliest start of the RMGs.