

## Publishable Summary for 23CBC01 CaBuCo Capacity building coordination

### Overview

The landscape of the European metrology infrastructure is constantly changing with emerging metrology systems or fields of measurements. This project aims to support EURAMET's members and associates to develop a balanced and integrated metrology system in the participating countries. It will provide support and coordination of existing capacity building instruments (Researcher Mobility Support, Mentoring Scheme Award, Training events) to address key metrological challenges and build capacities through knowledge transfer activities.

### Need

The capabilities of EURAMET National Metrology Institutes (NMIs) and Designated Institutes (DIs) vary from country to country. Many European NMIs and DIs represent the cutting edge of global measurement expertise, actively participating in research that develops new measurement technologies and new realisations of SI units. These institutes play a leading role in supporting global competitiveness of the European economy as well as the development of measurement technologies required by modern society. Some institutes however are at an earlier stage of development, focusing more on service-oriented approaches or operating as small entities, and they face the challenge of meeting stakeholders' needs with limited resources. Furthermore, these institutes often need support for European integration, including those from existing EU members (e.g., those from EU-13 or EU-25 countries) or are from countries undergoing the accession process to the EU. The capacities developed will help support free movement of goods, environment protection, health protection of citizens, consumer protection, among other aspects. In addition to supporting those NMIs and DIs with emerging metrology systems or in emerging fields of measurement, there is a demand for specific knowledge across the whole EURAMET landscape e.g., related to international quality infrastructure, the CIPM MRA, operation of a Technical Committee or piloting an interlaboratory comparison.

### Objectives

The overall objective of this coordination project is to assist EURAMET's bodies to achieve impact for the European metrology community by coordinating and managing the capacity building instruments used for and aligned with EURAMET's Capacity Building Strategy.

The specific objectives are:

1. To implement a Researcher mobility support (RMS) capacity building instrument to develop or reinforce EURAMET member NMI/DI research capability, and to award and manage at least 25 RMS during the project implementation period.
2. To implement a Mentoring Scheme Awards (MSA) capacity building instrument to support and enable the integration and active participation of all EURAMET members into EURAMET structures, and to award and manage at least 25 MSAs during the project implementation period.
3. To support building the human and institutional capacity of member NMIs and DIs necessary to respond to the demands of indirect stakeholders by the organisation of and support for at least 25

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training events (courses, workshops and summer schools) during the project implementation period. The topics of these courses and materials to be defined following stakeholder consultation.

4. To facilitate the take up of the capacity building instruments implemented by the project by end users (in particular EURAMET NMIs/DIs), and to maximise the impact and benefits obtained from these instruments.

## Methodology and results

The project will manage and implement 3 capacity building (CB) instruments, namely Researcher Mobility Support (RMS), Mentoring Scheme Award (MSA), and Training events (courses, workshops and summer schools). The RMS supports researchers from EURAMET NMIs and DIs to join an organisation in a different country to their employer for between one to nine months, in order to perform research in the selected metrology related field. The MSA provides a platform for staff from two different metrological institutes (EURAMET NMI or DI), in different countries, to set up a partnership and work together on a relevant topic, such as technical, managerial, comparisons or traceability.

All necessary documents and procedures for running the calls for the RMS, the MSA and the training events, the application process, the evaluation process, and the monitoring process will be developed and made available. This will include establishing a transparent process describing clear rules and eligibility criteria for the various instruments and the applicants, how to conduct the evaluation procedure, including roles of the evaluation panel, and defining the reporting and financial support mechanisms. In addition, a web-based platform will be developed for easy and targeted access for stakeholders to obtain relevant information concerning all the CB instruments, e.g., call documents, call schedule / deadlines etc, and the web platform will allow submission of proposals / applications.

The consortium will seek advice from EURAMET's Bodies and the project's Stakeholder Committee (embracing representatives of bodies involved in Capacity Building) in order to identify specific needs for training events (courses, workshops and summer schools) and will prioritise the proposed topics.

Calls for all instruments will be announced on a dedicated web platform. After passing eligibility requirements, the proposals will be evaluated by the Stakeholder committee in line with the objectives and envisaged impact with a go/no go conclusion. Once applicants have been informed of the outcome of the evaluation and the contractual process has been completed for successful applications, the coordinator will distribute funds to participants/hosts of the activities, either through the cascade funding (financial support to third parties) mechanism or through reimbursement of costs. Information about the activities performed will be available at the project web platform and further news and articles will be prepared e.g., for the EURAMET and BIPM web pages, and social media. EURAMET bodies, such as the BoD WGCB, will also be briefed. Recipients of capacity building funding will collect and submit case studies or news stories to CMI for review and capturing the impact of CB instruments.

## Outcomes and impact

### Outcomes for user communities

The early project outcomes will be with the National Metrology Institutes and Designated Institutes of EURAMET. They will benefit from training courses, workshops, summers schools, research mobility support and mentoring scheme awards by:

- Building the human and institutional capacities (as technical or managerial knowledge related to measurement techniques, CIPM MRA or operation of an institute, research project management, administration and reporting);
- Implementing new measurement techniques or calibration or verification procedures;
- Establishing new calibration and measurement services;
- Starting activities needed for international recognition of particular calibration and measurement services;
- Starting activities needed to foster integration in CIPM MRA processes and mechanisms plus integration into EURAMET structures and activities (e.g., participation in a TC or EMN, participation

and piloting a international comparison, taking on the TC chair position, evaluation of a comparison, evaluation of a CMC claim);

- Starting/fostering research in particular field;
- Improving an NMI's/DI's capabilities needed to address the current and emerging needs of stakeholders e.g. calibration laboratories and conformity assessment bodies, industry, legal metrology, healthcare services, environmental protection agencies, regulatory bodies, including consumer protection, national quality infrastructure bodies and academia;
- Improvement of the NMI/DI management;
- Widening employers' professional networks which will enable future collaboration in various forms.
- Preparing and presenting scientific papers and posters (e.g. at workshops, conferences);

*Wider, longer-term economic, social, and environmental impacts*

The NMIs and DIs will benefit as direct user of project activities. Having sustainable metrological capacity building on a European level with long term planning will benefit all European NMIs and DIs because they will be able to coordinate and optimise their resources (both time and money) for that and plan staff training on the long term. Coordinated capacity building will save resources for all NMIs and the final effect will be much higher e.g., a summer school on a specific topic, with concentrated knowledge transfer from peer European experts covering a complete portfolio from that field.

The international metrology community will benefit both from the establishment of the equivalence of measurements and from the fact that more NMIs and DIs will be able to take on CIPM MRA tasks, which will distribute the workload between NMIs and DIs (e.g., piloting international comparisons, review of CMCs, hosting the CB activities).

Wider impact will be through the support provided to NMIs' and DIs' customers and stakeholders. NMIs and DIs will be able to provide the metrological services needed by industry, pharmaceuticals, food production, the energy sector as well as secondary calibration laboratories and various conformity assessment bodies (e.g., laboratories for legal metrology, health, environmental and consumer protection).

The availability of internationally comparable and recognised measurements results for many areas will have a Europe wide impact. The wider benefits include (i) new internationally recognised services of calibration laboratories and conformity assessment bodies, (ii) reducing barriers for trade (through recognition of the national quality infrastructures of the countries involved), (iii) supporting widening countries in their accession to EU, (iv) improved reliability and international recognition of national (health protection agencies and environment protection agencies, (v) strengthening of local bodies, e.g. national consumer protection agencies thus providing benefit to local consumers, and (vi) supporting European competitiveness in metrological areas which will help meet overall aims as smart concepts, environmental goals etc.

Project activities will be regularly communicated and disseminated via the project web page, the EURAMET and BIPM web pages, and possibly social media (e.g., LinkedIn, Instagram, Facebook). At least 2 case studies and success stories will be prepared based on project outcomes.

In the long term the project will help support a wide range of European aims, e.g. Including industry, circular economy, waste reduction directive, and energy directives.

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| Project start date and duration:           | 1 June 2024, 48 months                    |                           |
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| Project website address: n/a yet           |   |                           |
| Internal Beneficiaries:<br>1. CMI, Czechia | External Beneficiaries: -                 | Unfunded Beneficiaries: - |