

# Public Consultation on the Joint Programming on Metrology Research (EMRP and EMPIR)

Fields marked with \* are mandatory.

## Introduction

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Metrology is the science of measurements, and it is a key support to our society and our daily lives. Metrology is needed to ensure quality and safety. It enables technological innovation and progress. We also need metrology for our trade, our health, and our energy supplies. Research in metrology is essential to remain competitive, to define measurements for new and emerging technologies, and to safeguard the quality in any measurement and its application.

The metrology initiatives, set up under Article 185 TFEU, EMRP and its successor EMPIR target joint programming metrology research across Europe. Under these two initiatives the participating states commit to integrate their national metrology programmes into a single joint research programme. The total budget for EMRP is 400M€ and for EMPIR the budget is increased to 600 M€. The European Commission provides half of the funding to the initiatives, while the participating states commit to provide the other half.

The structure of a public-public partnership has allowed EMRP to pool national commitments, and coordinate the research actions, which aims to reduce duplication and reinforce European metrology collaborations. These collaborations have been further integrated in EMPIR, where additional countries have joined as participating states. In addition, EMPIR aims to include participants also outside the metrology community.

The consultation gives the opportunities to provide your view on the state of play of the European metrology research system and the challenges it is facing. It is specifically seeking input to analyse the experiences of their preparation and implementation, identify critical issues that need to be addressed and propose if necessary adjustments, and assess how the instrument can best contribute to the policy developments.

Overall this consultation consists of 5 sections (A through E). It should not take longer than 15 minutes to complete this questionnaire.

## Additional information

Any participant eligible for Horizon 2020 funding can also participate as a funded partner in the metrology initiatives. For more information on participation in Horizon 2020, please go to the [Participant Portal](#).

For information on current and planned calls in EMPIR, please click [here](#).

**Countries participating with a financial commitment in EMRP:** Austria, Belgium, Bosnia & Herzegovina, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom

**Countries participating with a financial commitment in EMPIR:** Austria, Belgium, Bosnia & Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Turkey, United Kingdom

## A. Information about respondent profile

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In this section you are asked to provide information to help us build the profile of respondents, such as their background and affiliation. Please be aware that in accordance with Regulation 45/2001, all personal data collected through this survey will be kept securely and ultimately erased.

\*A.1. Please enter your organisation's name or your personal name (for individuals).

*100 character(s) maximum*

European Association for Chemical and Molecular Sciences (EuCheMS)

A.2. Please enter your address. (optional)

*100 character(s) maximum*

Rue du Trone 62, 1050 Brussels

\*A.3. Please enter your e-mail address

nineta@euchems.eu

\* A.4. Received contributions together with the identity of the contributor may be published on the Commission's website. Do you agree to your contribution being published under your name?

- My contribution can be published under the name indicated
- My contribution can be published anonymously
- I do not agree that my contribution is published

\* A.5. Please enter your current country of residence or where your organisation is based.

Belgium

If other country, please specify:

*100 character(s) maximum*

\* A.6. Whom do you represent?

Other

\* A.7. What aspect of metrology are you/is your organisation involved in?

- Metrology research
- Take-up / use of metrology
- Standardisation / regulatory work
- Other, please specify below.
- No involvement

If other type of involvement, please specify:

*100 character(s) maximum*

As European Assoc we provide platform for research-policy-user knowledge exchange and communication

\* A.8. What is your level of familiarity with the metrology initiatives EMRP and/or EMPIR?

Very good

\* A.9. Have you participated in an action under EMRP and/or EMPIR?

- Yes, under EMRP
- Yes, under EMPIR
- Yes, in projects under both programmes
- No

A.9b. If you are not involved in EMRP/EMPIR projects, how did you find out about the activities within the programmes?

- Through the metrology institutes
- In a conference
- At a scientific workshop, or training event
- In a scientific publication
- Through media (TV, newspapers, magazines, etc.)
- Other (please specify below)

If other, please specify

*100 character(s) maximum*

## B. Relevance of metrology research

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\*B.1. How relevant is the European-wide joint programming (among national metrology institutions with EU co-funding) for strategic metrology research?

B.2-6. In your view, please estimate the impact of metrology research in addressing the following policy topics:

	Very relevant	Relevant	Neutral	Irrelevant	Very irrelevant	No opinion
*B.2. Grand Challenges such as health, energy, climate change, and/or new and emerging technologies	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*B.3. The European economy and industrial competitiveness	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*B.4. Support for European policy development	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*B.5. Support for standardisation and regulatory work	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*B.6. Raising Europe's profile as a knowledge hub for metrology research	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



B.7. Please rate the following aspects of added value of European metrology research in general.

	Very positive	Positive	Neutral	Negative	Very negative	No opinion
*Leverage effect (1)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Societal impact	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Cooperation in Europe	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Scientific outreach /excellence (2)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Public outreach	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



(1) By leverage effect it is meant the return of additional investment beyond the public funding in the research programmes.

(2) Scientific outreach relates to the scientific uptake of technology and knowledge developed in the metrology programmes by other scientific sectors.

## C. Objectives - EMRP

C.1. In your view, how well did EMRP address the following thematic topics through the selected projects and grants?

	Very well	Well	Neutral	Not well	No opinion
*Environment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Health	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Industry	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Energy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*SI Broader Scope (1)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
*New Technologies (2)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Open Excellence (3)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(1) SI Broader Scope are developing the SI system of measurement units. The projects focus on preparations for the implementation of the redefinition of the kilogram and support developments of practical realisations of the redefined base units and affected derived units.

(2) New Technology projects support new scientific and technical developments with a suitable measurement infrastructure, stimulate technological innovation and improve the data needed for policy making and regulation.

(3) Open Excellence projects are developing the measurement methods of future and emerging technologies. The projects have no specific strategic theme but targets new techniques that have not yet been applied in measurement science.

\*C.2 In your opinion, how successful was EMRP on the objective of increasing participation from the wider European research community through Researcher Grants?

Remotely successful

\*C.3. In your view, how efficient has EMRP been in contributing to metrology training and capacity building through the Researcher (Mobility) Grants?

- Very efficient
- Efficient
- Neutral
- Not efficient
- No opinion

C.4. In your view, has EMRP contributed to the following societal topics on a European and/or regional level?

	Very well	Well	Neutral	Not well	No opinion
*Competitiveness	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Growth	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Innovation Capacity	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Employment	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Development of human capital /training	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\*C.5. What are the key achievements/strengths of EMRP?

*500 character(s) maximum*

EMRP made the first step towards very much needed collaboration in metrology at European level. Its strength is involving most of NMIs, clearly defined governance and links to European stakeholders.

C.6. Are there any shortcomings in EMRP that you think should be corrected?

*500 character(s) maximum*

The programme was not open enough. Funding aspects should be considered for improvement.

C.6b. According to your experience have these shortcomings already been addressed to in the Horizon 2020 Programme EMPIR?

500 character(s) maximum

To some extent yes.

## D. Objectives - EMPIR

D.1. In your view, please estimate the effectiveness of EMPIR in contributing to the following thematic topics:

	Very efficient	Efficient	Neutral	Inefficient	Very inefficient	No opinion
Fundamental metrology (Call planned in 2017) (1)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Broadening of SI (2)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy (Call currently open)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Health	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environment (Call currently open)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Industry	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(1) The Fundamental Metrology topic aims for a close collaboration between the European metrology institutes, and universities and other research institutions, to bring European measurement science to an internationally leading position through basic research.

(2) SI Broadening is continuing the work of the *EMRP SI Broader Scope* in developing the SI system of measurement units. The projects focus on preparations for the implementation of the redefinition of the kilogram and support developments of practical realisations of the redefined base units and affected derived units.

D.2. In your view, please estimate the effectiveness of EMPIR in contributing to the following goals:

	Very efficient	Efficient	Neutral	Inefficient	Very inefficient	No opinion
*Supporting innovation and industrial competitiveness	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Structuring the interaction between the metrology and science communities across Europe	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Promoting global metrology cooperation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*Encouraging open access to scientific publications and research data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

\*D.3. Does the opening of participation in EMPIR to external partners outside the metrology community contribute effectively to the programme objectives?

Yes

\*D.4. The aim of “Pre- and co-normative research” is to develop metrological methods and techniques required for standardisation. Do the pre- and co-normative calls in EMPIR support standardisation activities effectively?

Yes

\*D.5. How effective is EMPIR in its contribution to capacity building actions in the Participating states (in particular within the Research Potential calls), within the objective of developing their scientific and technical capabilities in metrology?

Neutral

\*D.6. What are the key achievements/strengths of EMPIR? Should any of the strengths be reinforced?

*500 character(s) maximum*

To reinforce outreach to external partners outside the metrology community, at institutional as well as on individual level.

D.7. According to you, what are the shortcomings in EMPIR?

*500 character(s) maximum*

EU diversity in metrology needs to be better taken into account and managed accordingly (capacity building actions).

## E. Final questions

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E.1. Would you be in favour of future European-wide research programmes in metrology?

Yes

E.2. Do you have any further comments?

*500 character(s) maximum*

### Contact

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