

A large, abstract graphic on the left side of the slide. It features several overlapping, curved blue shapes in various shades of blue, creating a dynamic, organic form that resembles a stylized 'E' or a series of flowing segments.

The European Partnership on Metrology : Opportunities for standardization to collaborate on normative research projects in 2023

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Standardisation support for EURAMET
7 October 2022

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The European Partnership on Metrology - EPM

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The European Partnership on Metrology



- The European Partnership on Metrology EPM is about improving measurement to drive innovation and competitiveness and to support societal challenges and regulation.
- It enables European metrology institutes, industrial organisations, academia, standardization and regulators to collaborate on Joint Research Projects (JRP).
- EPM is a tool of the European Commission's Horizon Europe, the research and innovation programme running from 2021 to 2027.
- It is implemented by EURAMET, the European Association of National Metrology Institutes.
- EPM is the successor of EMPIR *European Metrology Programme For Innovation and Research* (2014-2020) : it has the same process for the annual calls.



Background of Normative Projects in EMPIR



EMPIR : the previous research programme for metrology

- 6 annual Normative Calls launched from 2015 to 2020.
- 37 Normative projects funded (NRM JRPs).
- 16 Normative projects address a need directly coming from the standardization organizations via the STAIR EMPIR process.
- Standardization organisations involved in NRM JRPs are members of CEN/CENELEC/ISO/IEC/CIE TC or WG or SC.
- List of normative projects under EMPIR is available [here](#) .

EPM - *European Partnership on Metrology*

- 7 annual Calls planned during 2021-2027.
- **A NRM Call is planned every year.**
- The first NRM Call in 2021, the second in 2022 still in progress.
- The STAIR EMPIR process is operational by the end of 2022 to collect the research needs from the standardization groups for the 2023 NRM call.

What is the aim of the NRM Projects?



Strategic aim

to develop metrological methods and techniques required for standardisation, regulation and conformity assessment

enable collaborative research going beyond the state of art

generate benefit for European and International Standards Organisations by exploiting the expertise and unique capabilities of the metrology institutes.

2 kind of normative projects

Metrology research for Regulation and Standards
(see the [NRM call scope here](#))

Strand 1 Standardisation

Projects addressing **specific documented demands of European and International Standards Organizations for measurements research, in any area.**

- Expected to develop research activities to contribute to the current standardization work or feed any future standardization work.

Strand 2 European Regulation

Projects addressing **specific documented demands of European Regulators and Conformity Assessment Bodies for metrological research.**

Includes research for standardization in support to European Regulation and for possible future regulation.

Role of the standardization bodies in the NRM projects



- The ESO - European Standardisation Organisations and Regulators will continue the role they have in EMPIR :
 - contributing to the definition of programme calls and being a key exploitation route for the project outputs.
 - play a key role in identifying needs for better measurements.
- For all the projects, EURAMET encourages proposals that include representatives from industry, regulators and standardization bodies for their active participation in the projects.
EPM : around 40% of the budget are dedicated to external partners

Overview of the NRM projects

- Must include at least 3 National Metrology Institutes or Designated Institutes from different countries
- Must be led by a metrologist coordinator
- Has a maximum duration of 3 years, can be 2 years
- Expected to includes external partners (funded or unfunded): industry, research organizations, standardization, regulators..
- Total budget per project in 2022 : 1,2 M€ maximum with around 30% dedicated to the external partners.

What topics in a NRM JRP?



JRPs are metrology research projects.

Must address topics dealing with **traceable measurements** methods or validated data set, as for example :

- The development of :
 - traceable measurement methods for measuring parameters
 - a new reference materials in close collaboration with instruments manufacturers
 - a new calibration method
 - metrological improvements of standardized test methods
 - calculation uncertainties
- The determination of all relevant parameters to design an accurate, robust and stable measuring instrument to elaborate a standardization document.

What topics are not relevant in a NRM JRP?

Topics that:

- do not deal with traceable measurements (not be selected at the first stage)
- do not need research (for example restricted to a simple interlaboratory survey)
- address specific needs of a single industrial (JRPs are collaborative research project)
- are limited to a national concern (JRPs are expected to have an European dimension)
- are urgent and need to be finalized within 3 years : the EMP process required 18 months between the knowledge of the initial problem (PRT) and the start of JRP work (not suitable for some industrial users).

The process of the EPM calls

CEN and CENELEC TCs can submit a metrology research need that assist their standardisation and can be taken up in a PRT



- Input from CEN-CENELEC
through STAIR EMPIR

- Stage 1 : Submission of ideas
PRT = Potential Research Topic

- Selection of the best ideas (Euramet)
SRT = Selected Research Topic

- Stage 2 : Call for proposals for the SRT
Consortia write the project proposals

- Review of proposals (referee)

- Start of work

December Year – 1

Jan – Feb

Apr-May

Jun – Sept

Nov

Year+1/1st Semester



Stage 1 : Submission of ideas in a PRT



PRT Template

- Anyone can submit a **Potential Research Topic (PRT)**
- **PRT Template** : 5 pages maximum : the submitters, the scientific objectives, the stakeholder needs and the potential impact of the proposed research.
- **What helps the selection of the PRT :**
 - Early discussion between metrologist and standardisation experts
 - CEN-CENELEC co-authoring the PRT
 - Need from the CEN STAIR consultation
 - 3 metrology institutes with a potential budget.
- It does not imply any commitment of submitters even when the PRT is selected.
- *Call 2023 : PRT to be submitted by 20 February 2023*

European Partnership on Metrology
Potential Research Topics

**European Partnership on Metrology
Potential Research Topic**

<Type title of Potential Research Topic here>

A. KEY DATA FOR THIS PRT

A.1. Targeted Programme
Type the Targeted Programme and the topic classification here.

A.2. Details of submitter

Name	Organisation / Affiliation	Country
Name of Submitter	XXXXXXXXXXXXXXXXXXXX	

A.3. Optional details of co-authors

Co-author	Name	Organisation / Affiliation	Country
1	XXXXXXXXXXXXXXXXXXXX		
2			
3			
4			
5			
6			
7			
8			

Note: Anyone named in this section must have given explicit permission to the submitter for their name to be included in support of this submission. EURAMET may attempt to contact anyone named here.

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Template 2 PRT template v1.1.docx

Available at <http://www.metpart.eu/applicants>

Stage 2 : Preparing the project proposal



- **Selected Research Topics are public – Include the objectives**
- Forming the consortium, writing and costing the proposal
- Partners and Stakeholders decide how much they want to be involved and contribute to the works :
 - Have valid contributions and deliver tasks that can be funded.
Standardization representatives can be leader of the impact Work Package. Funded and unfunded partners sign an agreement with EURAMET.
 - Offer guidance/support without any tasks to deliver and don't sign an agreement (collaborator or member of the stakeholder group).
- The standardisation group generally provides a letter of support joined to the project proposal to demonstrate the support of the standardisation.
- *Call 2023 : JRP proposals to be submitted by 2 October 2023.*

What is STAIR EMPIR?



EURAMET considers important to get some potential needs from industries and society via the standardisation organisations.



To enable that discussion, the common platform STAIR EMPIR (STAndards Innovation & Research) between EURAMET and CEN-CENELEC was created.



Since 2014, via this platform, the CEN/CENELEC has consulted its Technical Committees about the emerging research and measurement needs related to standardization and has collected around 15 needs each year.



In addition, metrologists contribute to many standardisation committees on national, European and international level. They are in the best position to identify measurement needs that can generate normative projects.



The research needs coming from the standardization and collected by STAIR EMPIR are considered by the metrology community to develop normative projects.

This process will be continued in the Partnership calls.

How can standardisation submit research needs for the 2023 call?



- Each year, all CEN and CENELEC TC/SCs are invited to submit their needs for metrology research to STAIR EMPIR.

Oct 2022: an email sent by CEN STAIR to all CEN and CENELEC TC/SCs. The Response Form has to be sent to empir@nen.nl by 14 December 2022.

Response form is available at [CEN/CENELEC website](#)

- From now, it is recommended to have early exchanges between TC/WG and metrology experts to ensure to collect relevant metrology research topics and a higher quality of the PRT :
 - *Discuss with metrology institutes involved in your TC/WG*
 - *Contact STAIR EMPIR to organize an exchange with EURAMET experts.*
- Standardisation needs are published on EURAMET website in January for a wider dissemination.

How can standardisation submit research needs for the 2023 call?



RESPONSE FORM for Standardisation groups

Available at [CEN/CENELEC website](https://cen.cenelec.eu/standards-and-metrology)
["Standards and metrology"](https://cen.cenelec.eu/standards-and-metrology)

All standardization needs will not result in a PRT :

- depending on the metrology institutes interested
- at least 3 for the JRP- their internal strategy,
- their budget....



Version 9 – 5 October 2022¶



RESEARCH AND STANDARDISATION¶

RESPONSE FORM for Standardisation groups¶

Opportunity for standardisation to contribute to the European Partnership on Metrology EPM under Horizon Europe¶

Objective: to collect standardization needs and suggestions to develop research projects in testing and measurements for the upcoming European Partnership on Metrology (EMP) calls in 2023¶

In the frame of the cooperation agreement between CEN-CENELEC and EURAMET, CEN and CENELEC have been invited by the EURAMET Management to put forward their testing and measurement needs in research for consideration by metrology institutes for future calls under EPM.¶

Relevant technical groups (sector fora, advisory boards, coordination groups, TCs, WGs...) are invited to contribute with:¶

- a short introduction or an overview paper of their unaddressed standardization needs for testing and measurement, and¶
- a contact person (secretary, chair, convenor, liaison officer, etc.) whom proposers for the Potential Research Topics can contact.¶

by using this Response Form and send it to the STAIR-EMPIR secretariat hosted by NEN at: empir@nen.nl with a copy to research@cenelec.eu¶

Deadline for the consultation: 14 December 2022¶

Source of the identified need ¶ (identification of TC, WG, etc. incl. title)¶	<input type="checkbox"/> CEN/TC 0/WG 0 - <input type="checkbox"/> CLC/TC 0/WG 0¶ <input type="checkbox"/> ISO/TC 0/SC 0 - <input type="checkbox"/> WG 0 - <input type="checkbox"/> IEC/TC 0/SC 0 - <input type="checkbox"/> WG 0¶ <input type="checkbox"/> Other, namely identification, Title¶
European entity responsible for submission of the need ¶	CEN/CLC-TC #, or National Standardization Organization¶ Title¶
Person that can be contacted for more detail ¶	First name and family name¶ E-mail¶ Telephone¶ Country¶
Title¶	Title and short scope/description of the need as such¶
Unaddressed need ¶	Short description of the need as such¶
Further explanation of need ¶ (TC business plan, road map, formal decision, work item, etc.) ¶	Further explanation on the need, why it shall be filled and why specifically related to standard¶ Estimated time frame that need shall be fulfilled¶
Proof of the need by the TC/SC ¶	Indication by the standardization group of its support to use the effective research result is strongly recommended. Indicate a decision or attached minutes that underline that support.¶
Enclosures¶	<input type="checkbox"/> Yes¶ <input type="checkbox"/> No¶

¶ See more information at: [EPM 2021 website](https://epm2021.eu)¶

This year's opportunity - recap



- Submission of metrology research needs by standardisation by 14 December 2022.
- Recommended prior discussion between metrology researchers and standardizers to qualify relevant topics.
- Contacts at CEN-CENELEC :
 - ❑ Luc Van den Berghe (CCMC) : lvandenberghe@cencenelec.eu
 - ❑ Arnoud Muizer (NEN) - empir@nen.nl
- Contacts at EURAMET:
 - ❑ Eveline Domini : Eveline.domini@lne.fr

More information:

EURAMET Website :

- <https://www.euramet.org/>
- [EUROPEAN PARTNERSHIP ON METROLOGY](#)

PARTICIPANT PORTAL

Metrology Partnership website - the portal for participants and applications:

<https://www.metpart.eu/>

