

EMRP Call Process Guide 2: Submitting a Potential Research Topic

Document: P-CAL-GUI-002
Approved: EMRP Programme Manager

Version: 1.4
2013-01-24



Guide 2: Submitting a Potential Research Topic



CONTENTS

1	Background to the Call	3
1.1	Stage 1: Call for PRTs (This stage of the Call)	3
1.2	Stage 2: Call for Joint Research Projects (Next stage of the Call).....	3
1.3	Stage 3: Researcher Grants	3
2	Eligibility for submitting a PRT	4
2.1	Who is eligible to submit ideas?	4
2.2	Eligibility criteria for a PRT.....	4
3	Completing the PRT template	4
3.1	Section A.1 Targeted Programme (TP).....	5
3.2	Section A.2 Details of submitter	5
3.3	Section A.3 Optional details of co-authors	5
3.4	Section B: Topic description	5
3.5	Section B.1: Title.....	5
3.6	Section B.2: Abstract	5
3.7	Section B.3: Conformity with the Work Programme	5
3.8	Section B.4: Keywords.....	6
3.9	Section B.5: Scientific and technological objectives.....	6
3.10	Section C.1: Justification of need for the proposed objectives.....	6
3.11	Section C.2: Current state-of-the-art	6
3.12	Section D.1: Impact of the proposed research	6
3.13	Section D.2: Impact at the European level	7
3.14	Section E.1: Time-scale (if applicable)	7
3.15	Section E.2: Additional requirements (if applicable).....	7
3.16	Section E.3: Support of stakeholder groups (if applicable)	8
4	Submitting the PRT	8
4.1	When to submit the PRT.....	8
4.2	How to submit the PRT.....	8
4.2.1	Completing the on-line submission form.....	8
4.3	Getting help with your PRT submission.....	9

If you require further help or guidance after reading this document, please contact the helpline

Email: emrpA169@npl.co.uk

Telephone: +44 20 8943 6666.

1 Background to the Call

The European Metrology Research Programme (EMRP) aims, through European integration, to develop new measurement capabilities that have strategic impact for Europe, with the overall goal of accelerating innovation and competitiveness, generating data and knowledge necessary to improve quality of life, and providing better tools for the scientific community.

The “Call for Potential Research Topics” (PRT) is Stage 1 of a three-stage process that enables the EMRP to focus on specifically identified challenges and needs related to metrology research for Europe. This process provides a flexible and efficient approach both to targeting resources towards the most important and/or urgent needs in pursuit of EURAMET’s objectives and in assisting eventual project proposers by ensuring that their efforts are directed towards those challenges and needs.

1.1 Stage 1: Call for PRTs (This stage of the Call)

All interested parties can submit measurement related needs to EURAMET provided those needs are within an area covered by the published Scopes for the Call. Details of the measurement challenge, opportunity or problem must be presented on the **Potential Research Topic** template. (Note that project proposals are submitted at Stage 2 of the Call and must **not** to be made now).

Each submission should identify a single topic only, though this may be quite broad and include connected elements. Any additional unrelated topic/s should be proposed in a separate submission.

The EMRP Committee (or a dedicated sub-committee) will prioritise the ideas received by EURAMET that are within scope. Prioritisation will take account of the EMRP programme priorities, objectives, potential impact and available budget, and the ability of the metrology community to respond effectively. The EMRP Committee may choose to merge, split or amend topics, in order to create a number of **Selected Research Topics (SRTs)** that address the highest priority needs. Each SRT is defined by a supporting document based on the original PRT ideas submitted to this Call. The **supporting document** will not identify the original submitter, and will be published on the website www.emrponline.eu.

Please note that submission of a PRT to this Call acknowledges that any eventual **supporting document** is owned by, and may be amended, or combined by EURAMET.

1.2 Stage 2: Call for Joint Research Projects (Next stage of the Call)

The SRTs will be published in the Stage 2 Call for Joint Research Project (JRP) proposals, to enable eligible, interested parties to prepare and target their proposals in competition.

All eligible parties submitting in response to Stage 2 will be treated equally, regardless of any input to Stage 1.

At Stage 2:

- Proposed JRPs will be subject to independent expert evaluation.
- The eventually selected and contracted JRPs will be delivered primarily by the publicly funded National Metrology Institutes and Designated Institutes from the countries participating in the EMRP.
- External organisations are eligible to participate in the JRPs through unfunded participation as a JRP-Partner, or work with the JRP more loosely as a “collaborator”.
- Individual researchers and organisations from the wider European research community, are eligible to participate through a limited number of funded Researcher Grants.

1.3 Stage 3: Researcher Grants

At stage 3, the EMRP funds several Researcher Grant schemes that complement the funded JRPs in order to increase and diversify capacities in metrology.

2 Eligibility for submitting a PRT

2.1 Who is eligible to submit ideas?

Anyone, from any country worldwide, may suggest ideas in this “Call for Potential Research Topics”.

Stakeholders beyond the metrology research community such as industry, regulators, policy makers and standardisation bodies together with end users of the metrology system in Europe are particularly encouraged to submit their needs and ideas.

Please note that where ideas have been discussed within a stakeholder group, this should be stated specifically in the “Section E.3: Support of Stakeholder Groups”, and multiple authorship can be listed in the “Section A.3 Co-authors”. Multiple submissions of the same idea from that community will not increase the chance of the topic being included in Stage 2 of the Call, and are therefore discouraged.

2.2 Eligibility criteria for a PRT

- All submissions must be in English
- The PRT must be for activities within the Call Scope
- The PRT must follow the template provided on the Call website.
- The PRT must be a Microsoft Word document of less than 1 MB
- Sections B to E of the PRT must not exceed 5 pages in total (of typical text size Arial 10pt or similar)
- The proposed research must not already be funded by the European Union

Submissions that do not meet these eligibility criteria, or which have been superseded, will not be reviewed, and therefore will not be included as part of an SRT in the Stage 2 Call.

3 Completing the PRT template

Each PRT submission should identify a single topic only, though this may be quite broad and include connected elements. Any additional unrelated topic/s should be proposed in a separate submission.

A submitted **PRT** has to fulfil two requirements:

1. To provide sufficient information to enable EURAMET to evaluate the merit and priority of the proposed topic. Proposers should note that the decision of whether to include the topic in the dedicated call for JRP proposals will be primarily based on the information provided in these PRTs, particularly:
 - a. Has a clearly specified scientific or technological challenge / problem / opportunity been identified? Is this justified? What is the scale of this need?
 - b. What is the likelihood of the European metrology research community effectively addressing the challenge / problem / opportunity taking due account of the progress required beyond the current state of the art?
 - c. How significant would the impact be for stakeholders if the proposed topic were successfully addressed?
2. Be suitable for incorporation into the supporting document of the Stage 2 of the Call. This means that:
 - a. The sections B, C, D and E must remain anonymous (i.e. no references to the submitter, submitter’s organisation, co-authors and/or affiliations),
 - b. The text should be clear and concise.

Please ensure that all instructional text is removed from the template prior to submission of the PRT.

The PRT must be a Microsoft Word document of less than 1MB (note that pdfs are not acceptable).

3.1 Section A.1 Targeted Programme (TP)

Select the TP and classification appropriate for the PRT. The classifications within each TP are given on www.emrponline.eu.

3.2 Section A.2 Details of submitter

This section is for PRT Call administrative purposes only and will not form part of any “supporting documents” at Stage 2.

- Name of Submitter:** The name of the submitting person in the form *Firstname FAMILYNAME*.
- Organisation/ affiliation:** The full name of the organisation and/or their affiliation (a shortened form may be used if easily recognisable)
- Country:** A single country must be selected. This is usually the country of the organisation, or where the submitter is mainly based.

3.3 Section A.3 Optional details of co-authors

This section is for PRT Call administrative purposes only and will not form part of any “supporting documents” at Stage 2.

- Co-Author:** These can be individual or organisations, and should be added in the form *Firstname FAMILYNAME*.
- Organisation/ affiliation:** The full name of the organisation and/or their affiliation (a shortened form may be used if easily recognisable)
- Country:** Usually the country of the organisation. However in the case where the co-author is an international organisation, the countries represented by the organisation can be written individually, or by a regional grouping e.g. European, Worldwide, Asia, etc

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.

3.4 Section B: Topic description

Section B is typically 1 page with a maximum of 2 pages. This section must not be a project proposal, and no information on potential consortia and/or allocation of resources should be included.

3.5 Section B.1: Title

Choose a self-explanatory title, up to 150 characters including spaces. This must be copied into the online submission form.

3.6 Section B.2: Abstract

This abstract should provide a stand alone summary of the proposed research topic, up to 750 characters including spaces. This must be copied into the online submission form.

3.7 Section B.3: Conformity with the Work Programme

The topic must be related to the EMRP Outline 2008 or other reference documents identified in the Call Scope(s).

The activity(ies) to which the proposed topic is linked should be clearly indicated and referenced.

3.8 Section B.4: Keywords

Chose 5 to 10 keywords linked to the proposed topic, these should reflect both the objectives and technical/scientific fields.

3.9 Section B.5: Scientific and technological objectives

The objectives should be stated wherever possible in quantitative terms. These should be very clear both to enable a proper and fair prioritisation of the “Proposed Research Topic” and to provide an appropriate basis for the evaluation of any eventual project proposals at Stage 2. Thus, vague statements, which could lead to either a misinterpretation of the requirements or to an inappropriate work plan, should be avoided.

3.10 Section C.1: Justification of need for the proposed objectives

Briefly describe the need for the proposed research, explaining the problem rather than the solution, and the reasons leading to this need. Consider the needs of end-users, existing markets, and potential markets.

Support the claims for the need with quoted and referenced authoritative external sources; e.g. European Directives, documentary standards bodies, published European or government policy, industrial bodies, key international organisations, market analysis or relevant documents or studies. All documents needed to develop the proposed topic must be referenced, and available to all Consortia who wish to propose a Joint Research Project at Stage 2 of the Call (but should not be submitted with the PRT).

Focus on existing evidence for the need or idea (that can be quoted and referenced) rather than support for the PRT. If the PRT has the support of a community (i.e. support for this specific submission), for example from a stakeholder group or a EURAMET Technical Committee, include this in section E.3 and not here.

3.11 Section C.2: Current state-of-the-art

Describe the current state-of-the-art relating to the need, ensuring you address the full range of sectors and potential beneficiaries identified in section C1 and clearly explain why the current state-of-the-art is incapable of addressing the needs identified.

3.12 Section D.1: Impact of the proposed research

So that EURAMET can assess the relative priority of PRTs please clearly state the potential impact of successfully addressing the proposed topic i.e. if the proposed research topic was successfully completed, what benefits would this bring? Remember the impact is the effect of the project results on the wider world – not the project results themselves. See the example below (numerical figures are fictitious to illustrate the example).

Describe the impact scientifically, metrologically and in socio-economic terms (appropriate for the Call area). The magnitude of the foreseen impact should be properly estimated.

Where applicable, the potential benefits relating to the following areas should be detailed; health, safety, the environment, employment, and documentary standards

Weak example	Improved example	Full Example in 3 areas (note numbers are made up)
<p>Problem: Measurement of small structures such as fuel injectors of combustion engines with a diameter <0.1 mm</p> <p>Solution: Development of an opto-tactile micro-sensor – spherical feeler element located at the end of a glass fibre – position is recorded by a CCD camera</p>	<p>Currently coordinate measurement machines cannot accurately measure small structures such as fuel injectors of combustion engines with diameters of less than 0.1 mm. This leads to variation in the nozzle size and therefore the fuel burning efficiency cannot be optimised.</p> <p>The development of a novel micro-sensor using optical fibre will facilitate more accurate machining of fuel injectors.</p> <p>Currently the fuel efficiency of two nominally identical engines can vary by over 10 % due largely to the random variation in fuel injector nozzle sizes, by optimising this process the average engine fuel efficiency will increase by 5 %</p>	<p>Environmental impact: Currently the fuel efficiency of two nominally identical engines can vary by over 10 % due largely to the random variation in fuel injector nozzle sizes, by optimising this process the average engine fuel efficiency will increase by 5 %. If all European cars were fitted with optimised injector nozzles, carbon emissions would be reduced by 2 %</p> <p>Social impact: Asthma affects 2 % of the European population and has been linked to vehicle emissions. A new technique to optimise the nozzle shape used in fuel-injection engines claims to reduce vehicle fuel consumption by 5 %, which, if successful could reduce city pollution by 5 %. Projections suggest this would reduce serious asthma attacks by around 50 000 per year, saving health services around 50 M€ a year.</p> <p>Financial Impact: A new technique to optimise the nozzle shape used in fuel-injection engines claims to reduce vehicle fuel consumption by 5 %. If all vehicles across Europe were fitted with optimised nozzles the saving would reach around 8 B€</p>
<p><i>This does not describe why this research is needed, or the impact of achieving the aim</i></p>	<p><i>This describes exactly why the research is needed & the benefit it brings (improved fuel burning efficiency). However this still doesn't explain the impact on the general population. This would be suitable for a specialist reader</i></p>	<p><i>The impact of the single scientific project has been assessed for 3 areas (environmental social and financial) there are clearly further impact statements that could be used here too.</i></p>

Table 1: Example of impact statements

3.13 Section D.2: Impact at the European level

Reasons should be given as to why the activity will benefit from being carried out at the European level. The European added value of the proposed research activities should be identified, including;

- Secondary effects such as economic or structural benefits, competitiveness or innovation,
- Protection of the European citizen or market,
- Protection of products and enterprises against defrauders,
- Security or improvement of essential European infrastructure,
- An improved system of metrology etc, or
- European contribution to global challenges.

3.14 Section E.1: Time-scale (if applicable)

For certain topics, it may only be meaningful to proceed if the solutions are available by a pre-defined date. If this is the case, the date and the reason for the timeframe should be indicated. Any requirements must be realistic and should take into account the period of time needed to complete the call, selection and negotiation procedures in addition to the actual work.

3.15 Section E.2: Additional requirements (if applicable)

For certain topics, there may be other requirements that must be met if the output is to be meaningful. If this is the case, the reason and requirement should be stated. It should be noted that unjustified restrictions will not be accepted.

3.16 Section E.3: Support of stakeholder groups (if applicable)

If the PRT has multiple co-authors include a generic description in this section, for example: “This submission has been jointly authored by a group of 8 NMI and DI laboratories”, but do not name the stakeholders here, list them by name in “Section A.3 Optional details of co-authors”.

It is admissible to demonstrate wider support, for example: “This submission has been discussed within and is supported by, e.g. CEN WG [X]”, / EURAMET TC [Y] / [name of body, say a European trade association]” etc. Note that individual companies should NOT be named, but statements such as “This submission has been discussed with and is supported by 5 major gas distributors in Europe” are acceptable.

By submitting the PRT the submitter declares that any such claims of wider support are true statements of fact.

Please note that where ideas have been discussed within a stakeholder group, multiple submissions of the same idea from that community will not increase the chance of the topic being included in Stage 2 of the Call, and are therefore discouraged.

4 Submitting the PRT

4.1 When to submit the PRT

All PRTs must be received by the deadline specified on www.emrponline.eu.

Please note the EMRP helpline is not manned at weekends.

4.2 How to submit the PRT

All PRTs must be submitted to EURAMET using the web-based form, and attaching the PRT. The online submission area is found here: www.emrponline.eu

Submitted PRTs may be revised by submitting new versions up until the deadline, in this case please ensure that the PRT has a new version number.

Ensure that you receive an acknowledgment email for every submission and resubmission.

4.2.1 Completing the on-line submission form

The information requested during the on-line submission includes;

- Submitting person’s details; name, gender, organisation, country (this is required by the European Commission and EURAMET for statistical purposes and will not affect whether or not the PRT is taken forward to Stage 2 of the Call)
- Identification as to whether the submitter is from an NMI¹ (National Metrology Institute), DI² (Designated Institute) or other (organisation or individual).
- Title of the PRT, and short abstract (copied from the PRT template)
- Identification of the relevant TP and classification of the PRT (from www.emrponline.eu)
- Declaration and details of any similar proposals/projects submitted to or funded by either EURAMET or the European Union (excluding this current EMRP Call)
- Declaration that the submitter acknowledges that any eventual supporting document based on the PRT (or part thereof) is owned by and may be amended or combined by EURAMET, will not identify the original submitter, and will be made available to all.

¹ National Metrology Institute internationally recognised and registered as such by the BIPM and EURAMET e.V.

² Specialist institutes responsible for certain national standards and associated services that are not covered by the activities of the National Metrology Institutes, but where the institute is formally registered with the BIPM as a designated institute under the CIPM Mutual Recognition Arrangement for those technical areas and/or recognised by EURAMET e.V. as part of the national measurement system for specific and defined areas.

Having completed this information, please attach the PRT (Word document) and submit it.

If your submission is successful you will receive confirmation on-line, and an automated acknowledgment by email.

4.3 Getting help with your PRT submission

The EMRP helpline can be contacted by e-mail on emrpA169@npl.co.uk or by phone on +44 20 8943 6666.

The EMRP helpline is not manned at weekends.