

EMPIR Work Programme

Call Scope – Metrology for Environment (2019)



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The strategic aim of the Targeted Programme “Metrology for the Environment” (TP Environment) under the EMPIR call 2019 is to develop metrological solutions required in response to the associated European policies and strategies. Those are documented e.g. in the Europe 2020 strategy or the Paris Agreement on Climate, and are also documented in a number of EU regulations.

Metrology research develops the ability to measure physical and chemical quantities and parameters in our environment. It delivers methods, reference data, and technologies that allow for correct, reliable and precise measurements. These are needed to monitor and quantify climate change, the status of the oceans, pollution of air, water and soil, and risks due to radioactivity in the environment.

The TP “Metrology for the Environment” addresses both global metrological challenges for climate control such as those related to:

- the essential climate variables of the atmosphere, land and water, including their constituents, atmospheric contaminations, transport and other parameters, and their time evolution and comparability
- remote sensing methods for environmental and climate monitoring

and local environmental challenges such as those related to:

- pollution¹ of air, water and soil
- measurement of emissions and immissions
- radioactivity in the environment

It is the overarching strategy of EURAMET to establish and develop a joint, sustainable metrological infrastructure in Europe. This requires both distributed networks to provide the coherent availability of metrological services across Europe, such as required by several related regulations, and the establishment of pooled, combined competences that bring European metrological research into an internationally leading and recognised position. Climate-related research in particular, must have an international dimension in order to deliver impact. Therefore, proposers shall describe, how the research will lead or contribute to a sustainable metrological infrastructure.

This Targeted Programme will enable collaborative research for large and transnational monitoring systems. EURAMET wishes to put a focus on reliable climate data and especially welcomes proposals enabling the establishment of a long-term European NMI/DI network coordinating the measurement infrastructure in this area and links to global networks in collaboration with user communities.

This Targeted Programme is related to the previous calls on Metrology for Environment in EMRP and EMPIR and welcomes project proposals that build on previous projects. By contributions to measure and control emissions this call complements the call within TP Energy – launched in parallel – which includes metrological R&D on environment-related subjects such as metrological contributions to reduce harmful emissions.

To enhance the impact of the R&D work, the involvement of the user community such as industry, academia, meteorology and climate research, standardisation and regulatory bodies, as appropriate, is strongly recommended.

An overarching objective of this Targeted Programme is to stimulate collaborative research and development of a coordinated European landscape of environmental metrology capabilities,

¹ Pollution can take the form of chemical substances or energy, such as noise, heat or light.

especially on challenges where an interdisciplinary approach is required, beyond the capabilities of single NMIs and DIs. It strongly encourages the establishment of links with other Horizon 2020 programmes and the collaboration with user communities, especially in new areas with limited metrology effort so far.