

## EMRP Call 2011 Call Scope – TP SI Broader Scope

V1.0

Approved: EMRP Chair 2011-01-07

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The overall strategic aim of the **Targeted Programme (TP) “SI Broader Scope”** is to underpin the needed development of the SI system through Metrology R&D for fundamental and applied metrology.

The TP SI Fundamental iMERA Plus Call 2007 concentrated on the measurement of constants of nature and basic measurement principles to support the envisaged redefinition of the SI base units, as requested by the General Conference on Weights and Measures (CGPM) under the Metre Convention. The TP SI Broader Scope will go a step beyond and prepare the implementation of the redefinition, which is likely to take place in the next few years, and support developments of practical realisations (“mise en pratique”) of the redefined base units and affected derived units.

Furthermore, this call includes focused R&D advancing the specific metrology disciplines and the individual quantities within the SI with the aim to prepare a coherent European metrology landscape.

Thus, the TP SI Broader Scope addresses metrology R&D needs bridging the scopes of TP SI Fundamental of the 2007 Call and TP Industry 2010. It specifically addresses needs in

- research for the realisation and dissemination of the SI units with focus on the awaited redefinitions of the SI base units and the affected derived units
- the development of new advanced techniques for providing traceability of measurement results to the users of metrology services.

EURAMET wishes to focus on the most pressing challenges whilst exploiting the unique capabilities of the National Metrology Institutes (NMIs) and Designated Institutes (DIs). EURAMET aims to take a global lead in the development of the SI and thus will put emphasis in the 2011 call on the realization of units with respect to the awaited redefinitions. Proposers should be aware of the TP “SI Broader Scope II” in 2012 which will give further opportunity to propose related ideas, especially to support wider dissemination of the units to the users.

This call addresses large-scale approaches that are beyond the capabilities of single NMIs and DIs. To enhance the impact of the R&D work, the involvement of the larger community such as the metrology R&D resources outside Europe, as appropriate, is recommended.

This Call for Potential Research Topics refers to the 2008 edition of the European Metrology Research Programme – the “EMRP Outline 2008”.

