

EMRP Call 2011 Call Scope – TP Health

V1.0

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The overall strategic aim of the **Targeted Programme (TP) “Metrology for Health”** is to support – through metrological research and development – the more reliable and efficient exploitation of diagnostic and therapeutic techniques and the development of new technologies to improve healthcare and patient protection, to limit costs and foster the competitiveness of related European industries and services.

Metrology for healthcare is a horizontal underpinning activity providing innovation and confidence in the development, testing and application of new technologies for patient diagnostics and therapy that improve reliability and comparability of results and reduce patient risk. In order to provide a consistent basis for the assessment of these properties it is necessary to define measurands that properly describe the relevant biological effects that allow traceability to appropriate standards.

TP Health addresses metrology needs for the health sector, such as:

- Physiological, chemical measurements and testing techniques to support traceability of medical data, allowing the comparability of diagnostic and treatment information
- Improved measurement and imaging at the molecular and cellular level to support innovation in pharmaceuticals, regenerative medicine and targeted drug delivery
- Quantitative diagnostics including imaging and multimodal measurement processes supporting the development of patient care, preventative medicine and screening including point of care testing and telemedicine
- To support innovation to deliver real-time, non-invasive measurements and individually optimised therapy to improve quality, reliability and comparability of measurements to ensure safety and efficacy of treatments

The priority areas for research reflect those of the 7th Framework Programme to address major health-related societal challenges including **lifestyle-related health issues** such as cancers, diabetes/obesity, cardiovascular disease, neurodegenerative diseases associated with changing demographics and social determinants of health as well as **global health issues** with topics on combating anti-microbial resistance and to address emerging epidemics.

EURAMET wishes to focus on the most pressing challenges whilst exploiting the unique capabilities of the National Measurement Institutes (NMIs) and Designated Institutes (DIs). EURAMET aims to support European industries providing healthcare products and devices with reliable metrology and testing regimes that provide help in meeting regulatory requirements and reduce time and cost of bringing products to market without increasing risks to patients.

This call especially addresses large-scale approaches that are beyond the capabilities of single NMIs and DIs and it is expected that multidisciplinary teams will be required. To enhance the impact of the R&D work, the involvement of the user community such as medical practitioners and industry, as appropriate, is strongly recommended.

This Call for Potential Research Topics refers to the 2008 edition of the European Metrology Research Programme – the “EMRP Outline 2008” (cp. section I.1.1 and II.5 Grand Challenges – Health, in addition sections I.1.2 and II.6.2 Ionising Radiation and R&D for emerging metrology areas - Biotechnologies).

