

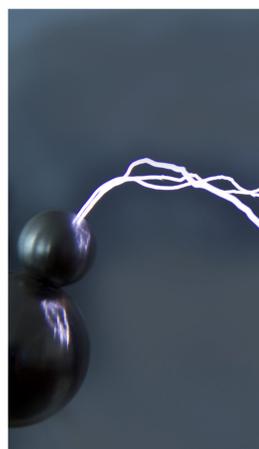
Capacity Building

An overview of the funded projects from the Targeted Programme Research Potential

Towards the propagation of AC quantum voltage standards (14RPT01)

Supporting industry through increased access to AC quantum voltage references

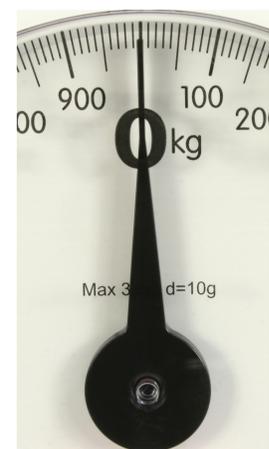
Over the last decade, substantial effort has been devoted to the development of AC quantum voltage references to meet the demand for AC measurements in industry and scientific research. This project will develop European measurement and research capacity by providing European NMIs with access to AC quantum voltage references, where access to such facilities is currently limited.



Traceable calibration of automatic weighing instruments (14RPT02)

New calibration methods to support dynamic weight measurements

Automatic Weighing Instruments (AWIs) are more effective and efficient in the long term than their non-automatic counterparts. This project will develop calibration methods and uncertainty evaluation models for AWIs (including those used for weighing road vehicles in motion) to ensure accurate dynamic weight measurements, reducing costs for industry, providing consumer confidence and increasing metrology research capacity and the expertise of emerging EURAMET member countries.



Matrix reference materials for environmental analysis (14RPT03)

Improving pollution monitoring with new reference materials

There is an increasing need to monitor environmental pollution to assess the impact of industrial emissions, the use of chemicals in agriculture and fossil fuel consumption. This project aims to develop capacity to produce certified reference materials for environmental analysis, providing the necessary tools for reliable analysis of environmental pollutants across Europe and bringing long-term public benefits.



Absorbed dose in water and air (14RPT04)

New calibration services for improved radiotherapy treatment

Radiotherapy aims to kill tumour cells, while minimising damage to surrounding healthy tissue; however, even small variations in the dose can cause complications. This project will decrease uncertainties and harmonise calibration methods for absorbed dose primary standards and provide participating institutes with the knowledge to build their own, leading to better treatment outcomes for patients undergoing radiotherapy.



Developing traceable capabilities in thermal metrology (14RPT05)

Increasing knowledge and facilities for more efficient industrial processes

Over 60% of processes used by Europe's manufacturing industry depend on the accurate measurement of thermal properties of materials. This project will increase knowledge transfer and advance the availability of thermal metrology facilities to emerging European NMIs, improving the efficiency and environmental impact of industrial processes and helping to sustain economic competitiveness across Europe.

