JRP EPM 21GRD09 MetroPOEM
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21GRD09 MetroPOEM impact pathways

SPECIFIC NEEDS	EXPECTED RESULTS	DCE MEASURES
What are the specific needs that triggered this project?	*What do you expect to generate by the end of the project?*	*What dissemination, communication and exploitation measures will you apply to the results?*
European Green Deal's ambition for zero pollution requires the detection of ultra-low amounts of pollutants and determination their isotope ratios. Many pollutants in the environment exist at extremely low concentrations, which are below contemporary detection limits. Extremely sensitive mass spectrometry techniques are now within the grasp of many routine monitoring laboratories. However, these novel methods are often not traceable nor validated, particularly for the elements / pollutants concerned, and hence need to be compared and harmonised on the European scale.	New measurement techniques for the characterisation and detection of radioactive and stable polluting elements that provide harmonised data, traceable to national and international standards. Closure of the traceability gap arising from lack of definitive knowledge of how isotope fractionation effects impact measurement quality and traceability. Reference materials that support the measurement of very low levels of elemental pollutants.	*Dissemination* of the project outcomes via peer reviewed publications, conference presentations, user workshops, engagement in measurement networks and provision of project data to suitable databases. Development and publication of a GPG that draws together best practice for environmental measurements of elemental pollutants. *Communication* of the project outcomes via a range of dissemination routes to the general public, academia, governmental agencies and industry. *Exploitation* will be realised by the uptake of project outcomes, such as traceable isotope ratio measurements and improved analytical performance by pollutant monitoring laboratories.
TARGET GROUPS	**OUTCOMES**	**IMPACTS**
Who will use or further up-take the results of the project? Who will benefit from the results of the project?	*What change do you expect to see after successful dissemination and exploitation of project results to the target group(s)?*	*What are the expected wider scientific, economic and societal effects of the project contributing to the expected impacts outlined in the work programme and call scope?*
Scientific community: Measurement and calibration laboratories. Stakeholder and end users: Instrument and material manufacturers: Including Agilent, Nu Instruments, Shimadzu UK, TrisKem.	Uptake of the scientific work of the project through more specific measurements, lower achievable detection limits, traceable measurements below the mBq/µBq and pg/fg activity and mass ranges.	Scientific: General improvement in monitoring capabilities. Economic: Better pollution control through attribution and targeted remediation. Support for European Green Deal's ambition for zero pollution. Societal: Reduction in pollutant impact on the environment from a range of industrial sectors.

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