

1st Stakeholder Workshop

21GRD09 MetroPOEM

Metrology for the harmonisation of measurements of environmental pollutants in Europe

Welcome and Introductions

➤ Stakeholders invited for the 1st workshop:

- ✓ Laboratories measuring environmental pollutants
- ✓ International and national regulators responsible for environmental pollution monitoring networks
- ✓ Manufactures of mass spectrometry systems
- ✓ Users of non-SI-traceable isotope reference materials

Welcome and Introductions

➤ Aim of the 1st stakeholder workshop:

- ✓ To inform the stakeholder community about the planned work in the project
- ✓ To receive feedback from the stakeholder community about their needs
- ✓ To create a Stakeholder Committee
- ✓ To establish a two-way information flow between the Stakeholder Committee and the project participants from the very beginning of the project

Workshop Schedule, 28 October 2022

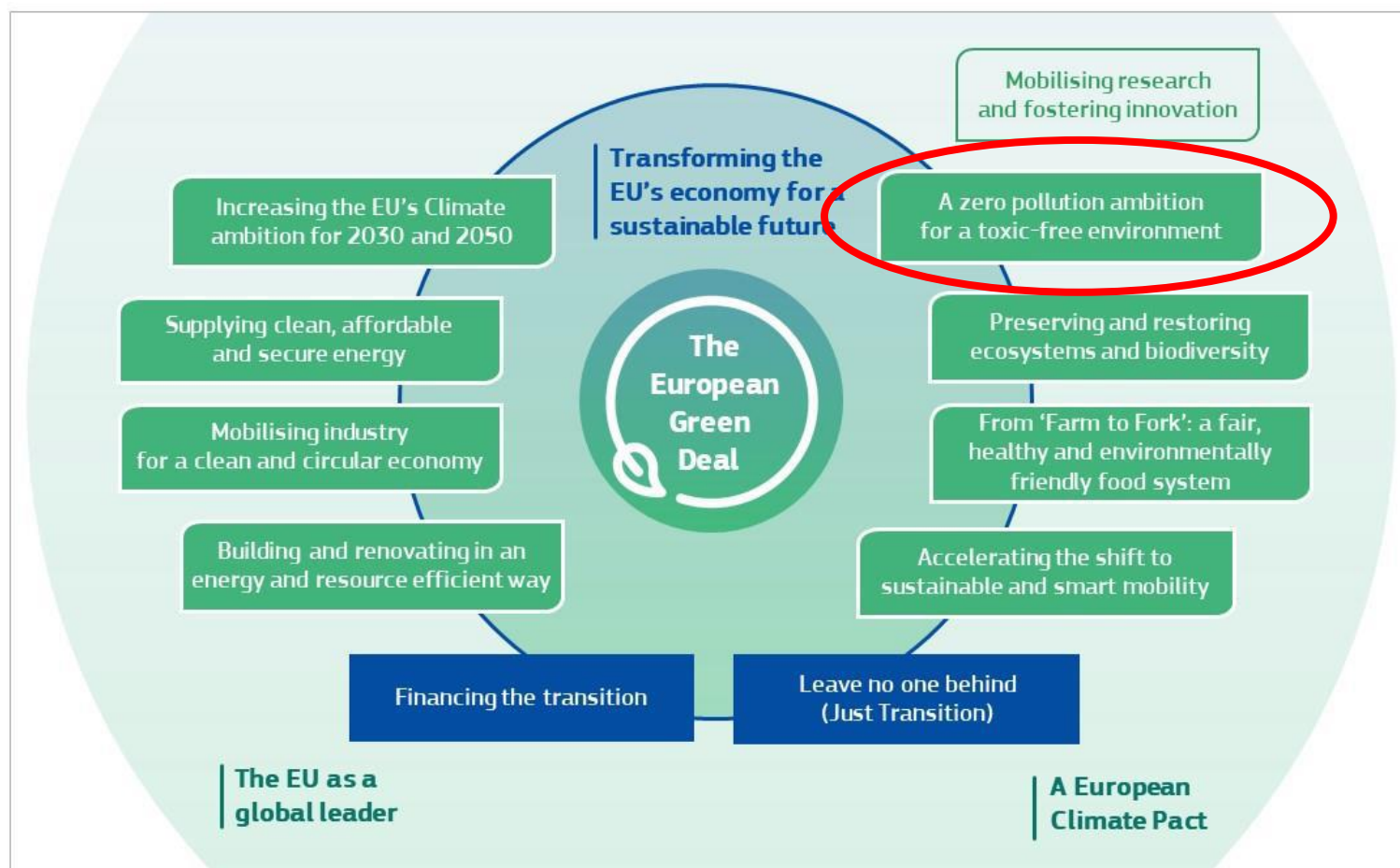
09:00 – 09:10	Welcome and Introductions
09:10 – 09:20	Introduction of MetroPOEM by the Coordinator: Dirk Arnold (PTB)
09:20 – 09:30	Introduction of Work Package 1 by the WP-Leader: Ben Russel (NPL)
09:30 – 09:40	Introduction of Work Package 2 by the WP-Leader: Tea Zuliani (JSI)
09:40 – 09:50	Introduction of Work Package 3 by the WP-Leader: Valérie Lourenço (CEA)
09:50 – 10:00	Introduction of Work Package 4 by the WP-Leader: Betül Ari and Süleyman Can (TUBITAK)
10:00 – 10:10	Introduction of Work Package 5 by the WP-Leader: Simon Jerome (NMBU)
10:10 – 10:15	Introduction of Work Package 6 by the WP-Leader: Dirk Arnold (PTB)
10:15 – 10:45	Coffee break
10:45 – 12:30	Questions and Discussion; moderated by Dirk Arnold and Simon Jerome with support from the other WP leaders
12:30	End of the Stakeholder Workshop

Introduction of MetroPOEM

➤ Key facts:

- ✓ Start date: 01 October 2022
- ✓ Duration: 36 months
- ✓ 22 partners will contribute with in total 320 months of work!
- ✓ This project was selected for funding from the Green Deal Call 2021 of the European Partnership on Metrology research funding program: <https://www.metpart.eu/>

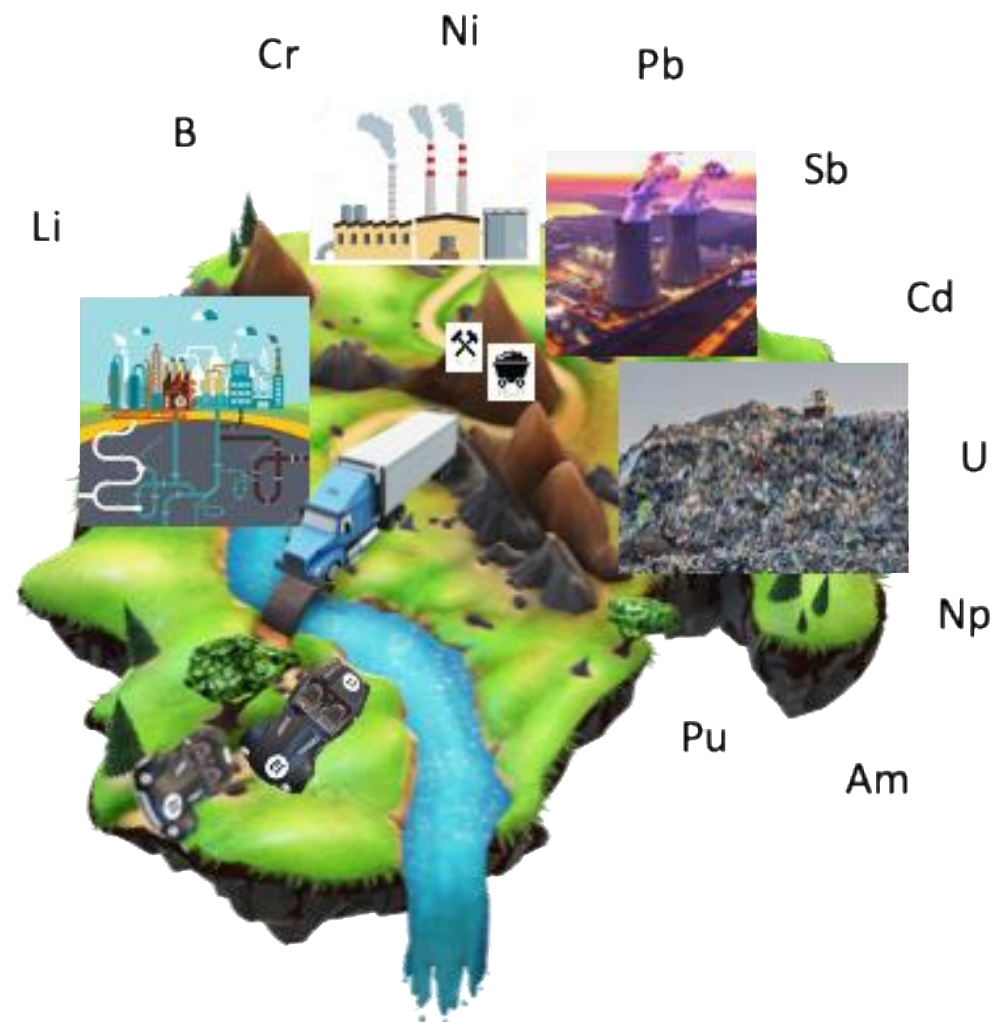
The European Green Deal, Document: “COM/2019/640 final”



Introduction of MetroPOEM

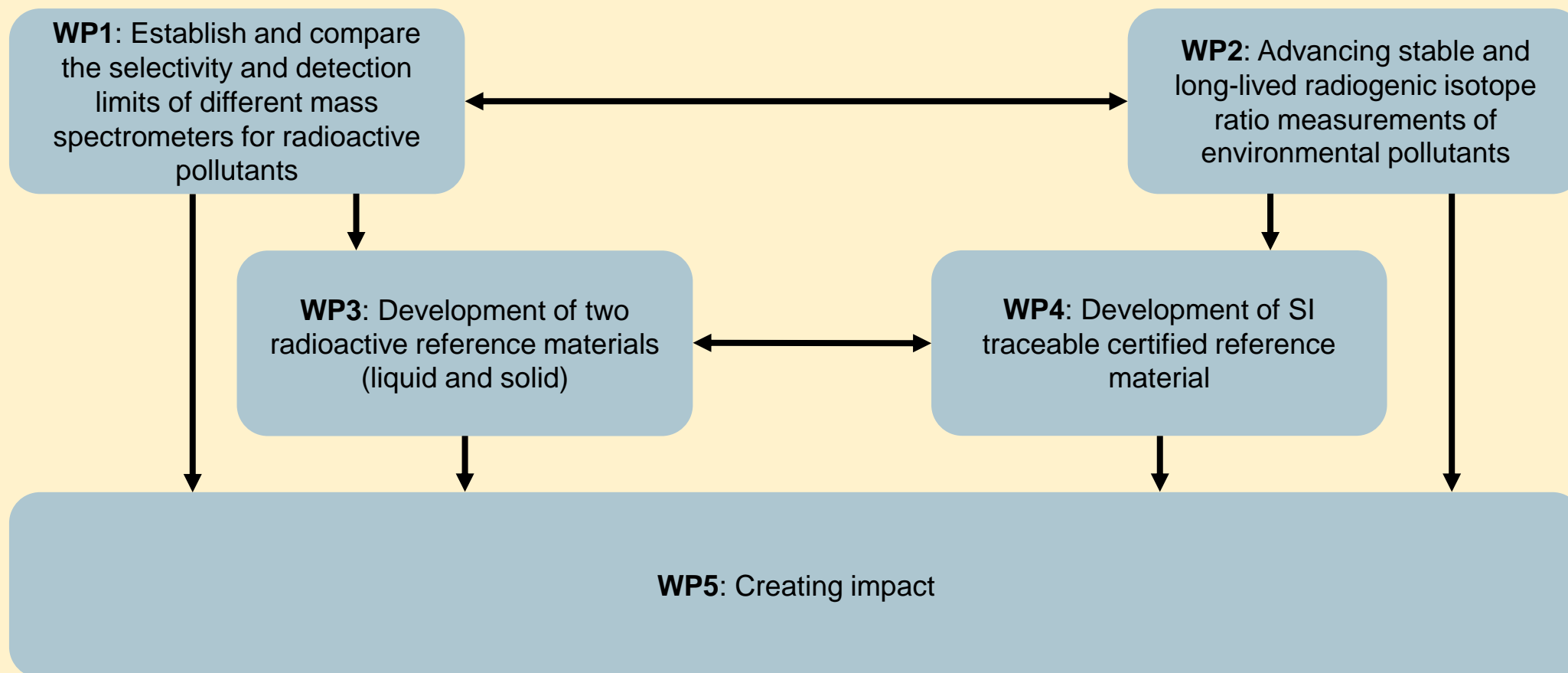
➤ Key Aspects:

- **The zero-pollution ambition promoted by the European Green Deal**, requires highly sensitive and state-of-the-art detection techniques for the measurement of ultra-low amounts of pollutants.
- **Mass spectrometry** is a key method,
 - ✓ with high potential for reducing measurement uncertainties and detection limits,
 - ✓ but there is no existing traceability chain for **radioactive elements**,
 - ✓ and there is a lack of SI-traceable isotope reference materials for **stable isotopes**.



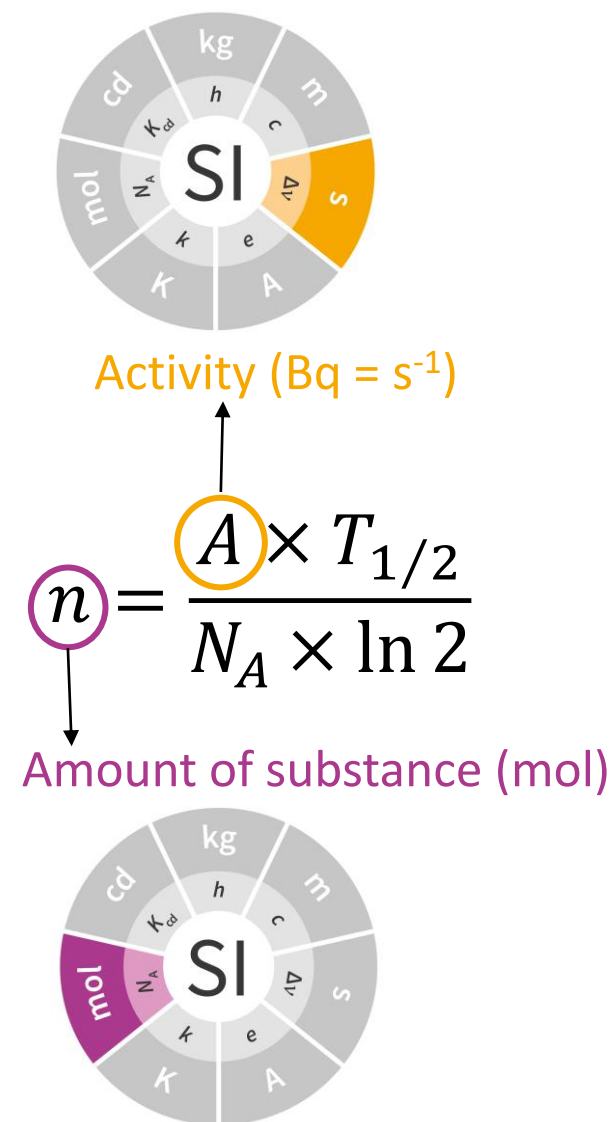
Work packages

WP6: Management and coordination



Impact of MetroPOEM

- **Establish link** between radiometric techniques and mass spectrometry, bridging the gap between the activity (Bq) and the amount of substance (mol) of an isotope
- Close the **traceability gap** for isotope ratio measurement resulting from isotopic fractionation (mass bias)
- Guide on the use of mass spectrometry for **low level radionuclide detection**
- Report of different instrument's **advantages and limitations**
- Three Si-traceable **reference materials**
- Establish Si-traceable **calibration chain** for single collector ICP-MS
- **Harmonized methods** for measurement of polluting elements using mass spectrometric techniques

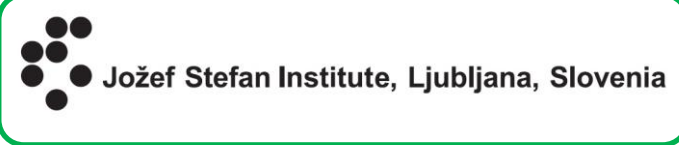




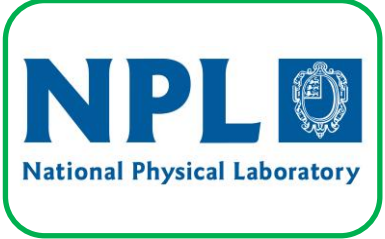
WP6



WP3



WP2



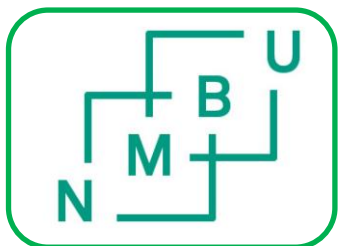
WP1



WP4



Consortium



WP5



Funding Acknowledgement

“The project 21GRD09 MetroPOEM has received funding from the European Partnership on Metrology, co-financed from the European Union’s Horizon Europe Research and Innovation Programme and by the Participating States.”

- Funder name: European Partnership on Metrology
- Funder ID: 10.13039/100019599
- Grant number: 21GRD09 MetroPOEM