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WP6 Innovation in Solid Organic Waste treatment and conditioning

WP6 WEBINAR

MENNECART THIERRY & WP6 PARTNERS

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 945098.

Overview of WP6 Objectives

- Perform a **gap analysis** during the first project year.
- **Demonstrate the reliability** of alkaline binders for conditioning of residues and secondary wastes stemming from treatment of RSOW.
- **Verify the matrix performance** of conditioned final / ultimate wastes according to a set of uniformed Waste Acceptance Criteria (WAC).
- **Improve understanding** of materials inventory before the thermal treatment and of the reconditioned wastes once the conversion and immobilization has been achieved.
- Demonstrate **thermal treatment** methods leading to a significant **volume reduction** and to **safe reconditioned waste packages**.
- Deploy results for safe utilization by end users for **mathematical calculations** avoiding systematic experimental studies of the reconditioned wastes.

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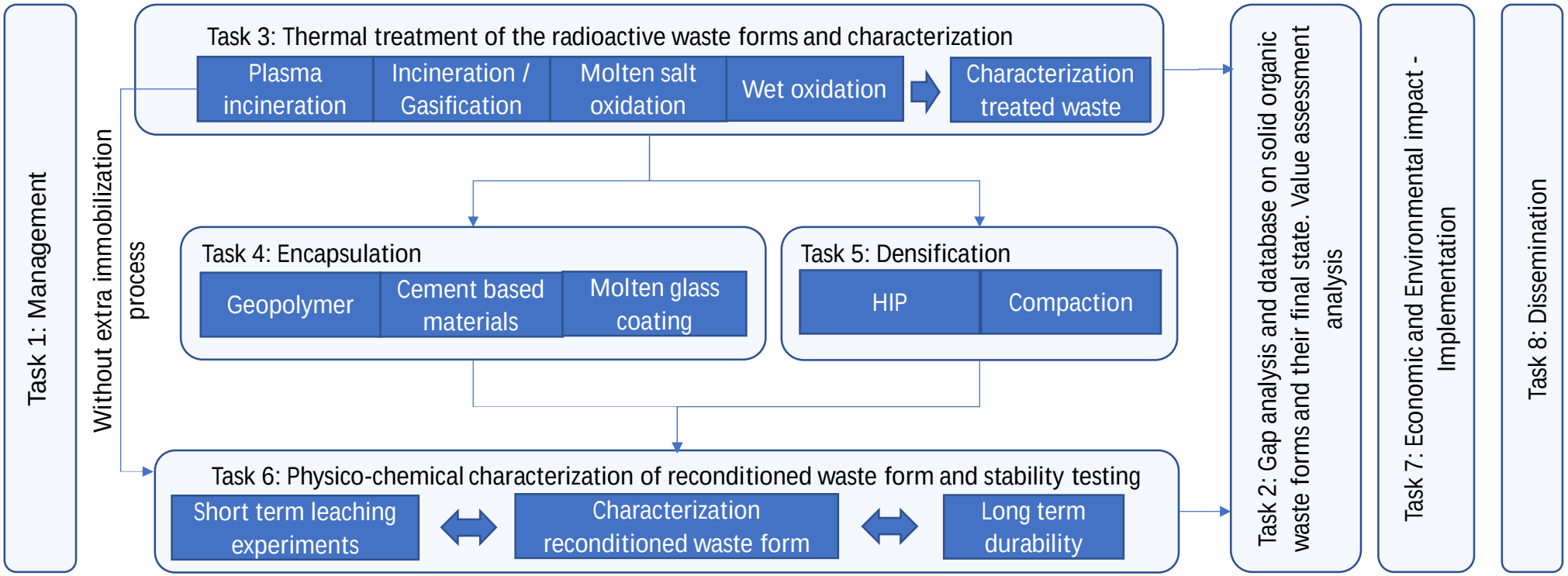
Work Package 6 Structure



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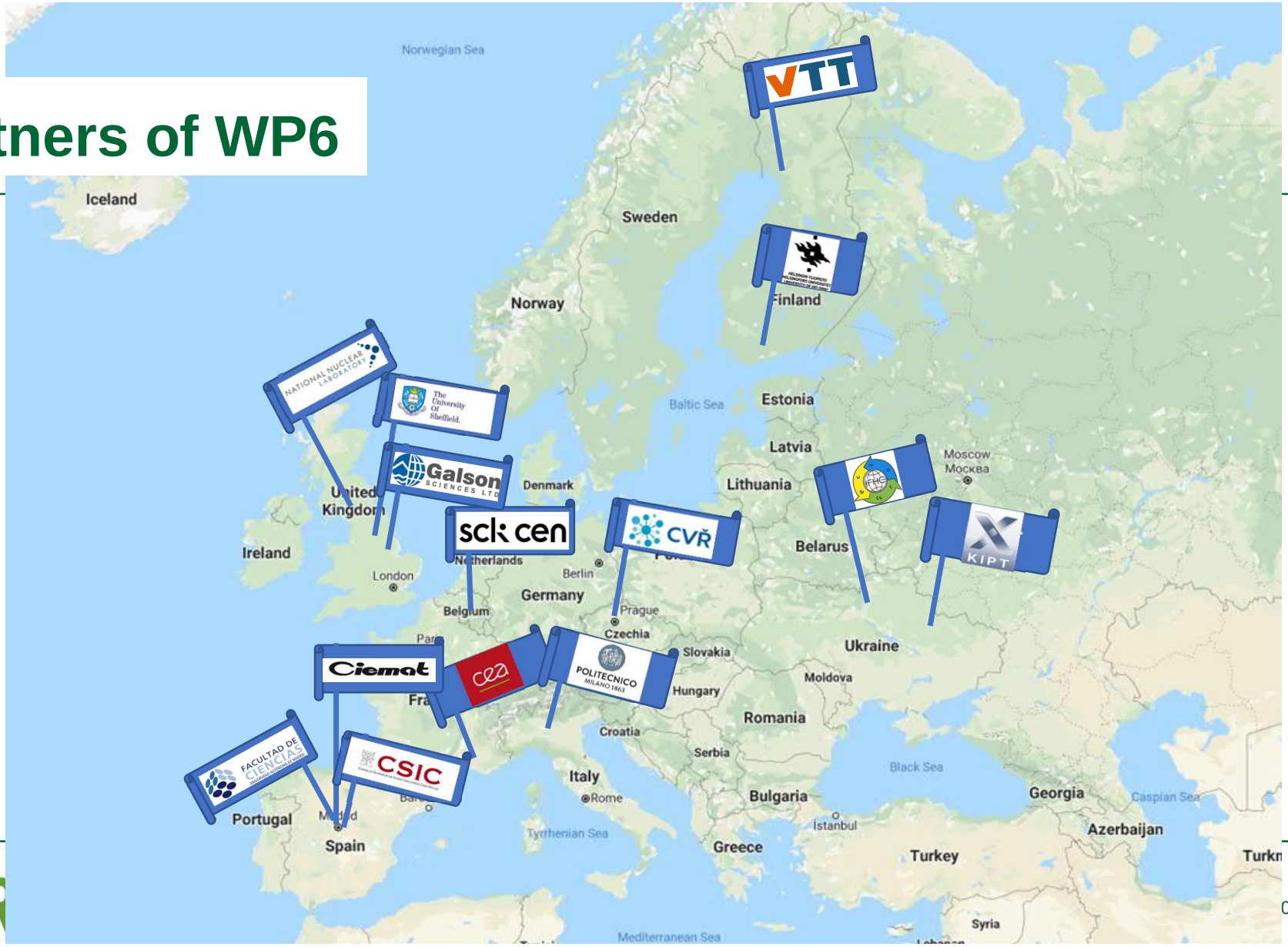
Partners of WP6



Work Package 6 Innovation

- **Closing the cycle** for treatment of RSOW.
- **Development of geopolymers** as alternative binder material to ordinary cement-based systems for conditioning of residues and secondary wastes.
- **Demonstrate robustness** of full treatment cycle for selected RSOW waste streams.
- **Assessment of full treatment cycle** in terms of technology and economical assessment, achieved volume reduction factor, final conditioned matrix performance and related WAC for different primary waste stream physico-chemical characteristics.

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Work Package 6 Impacts

- **Reduce the hazardous radioactive waste forms** stockpile by chemical and physical transformation of RSOW into safe and stable treated waste forms.
- **Increase of the disposability** of the RSOW after the thermal treatment, in some cases coupled with a decrease of the volume and the cost for the interim storage and final disposal.
- **Be in agreement** with the national and / or European **legislation** about the management of ROSW (including the 'historic' wastes).
- **Applicable to other problematic waste streams** (e.g. highly reactive metals, cement-based wastes susceptible to ASR, sulphate attack, and other deterioration).
- **Increase the confidence of all stakeholders** that the radioactive waste industry has at its disposition mature technologies for the treatment and solidification / stabilization of problematic wastes.

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Thank you

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