Project Start: 01 May 2026
Duration: 48 months
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CL4-INDUSTRY-2025-01-MATERIALS-63

Turning Waste into Europe's Future Semiconductor Materials

WISER develops innovative solutions to recover antimony, silicon and silver from industrial and renewable-energy waste streams and transform them into high-value semiconductor materials for European industry.

Key Actions

- Recovering critical raw materials from three waste streams
- Strengthening European supply security
- Demonstrating eight technologies at TRL 6–7
- Enabling circular semiconductor value chains

Waste Streams: Photovoltaic Waste • Asbestos Mining Waste • Geothermal Water Residues

Why WISER?

Europe's semiconductor industry relies heavily on critical raw materials that face increasing supply risks. WISER develops circular and traceable value chains to recover antimony, silicon and silver from secondary resources and convert them into semiconductor-grade materials.



Impact

- Up to 75% of Europe's future demand covered.
- Up to 50% lower production costs.
- €4 billion annual production cost savings.
- 15 million tonnes of CO_2 emissions avoided.
- 350 new jobs created.

Objectives

- Recover critical semiconductor raw materials from waste.
- Develop advanced purification technologies.
- Produce semiconductor-grade feedstocks and wafers.
- Improve traceability across the value chain.
- Reduce environmental impacts while increasing resource security.

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