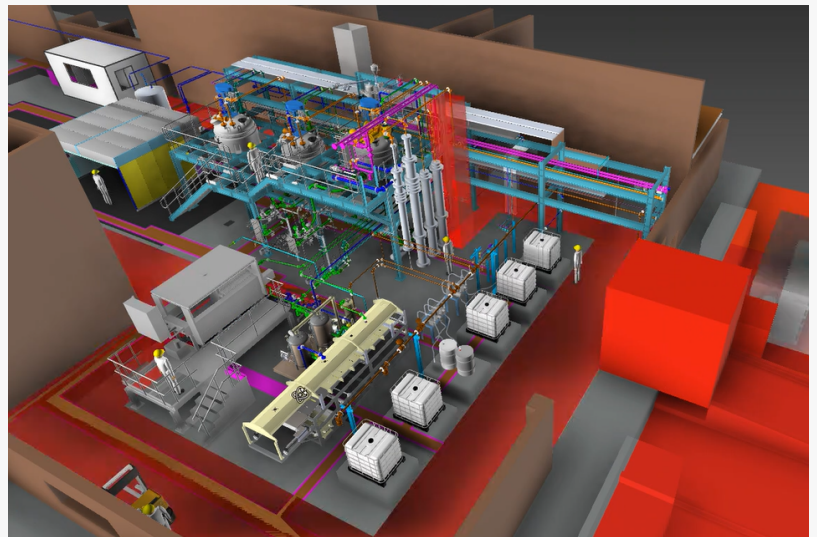


New Partnership to transform e-waste into strategic & circular EU supply of critical raw materials

RETURN project launches to turn Europe's e-waste into a secure, circular source of critical raw materials, driving sustainability and resilience.

LONDON, UNITED KINGDOM,
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EINPresswire.com/ -- A new European consortium today announced the official launch of [RETURN](#), a research and innovation project co-funded by the European Union's Horizon Europe program and the Swiss State Secretariat for Education, Research and Innovation (SERI). The project will pioneer a sustainable, digitally-enabled system to recover valuable materials from complex electronic waste (e-waste, a.k.a WEEE), significantly reducing Europe's reliance on traditional, energy-intensive extraction methods.



The RETURN Process Schema is used for gold and precious metal extraction from e-waste.

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The RETURN project represents a significant step towards reshoring Europe's critical raw material supply chains and transition to a circular economy.”

Leo Howden

The RETURN project addresses the critical challenge of e-waste, one of the world's fastest-growing waste streams, yet conventional recycling often fails to recover its full value, leaving critical raw materials untapped and perpetuating Europe's dependence on carbon-intensive imports. RETURN aims to overcome these barriers by developing an integrated process that is scalable, environmentally sound, and economically viable.

By combining a breakthrough, low-impact chemical process with advanced digital technologies, RETURN aims to enable selective, high-yield recovery of critical metals from e-waste. Key innovations include:

- An eco-friendly chemical recovery process replacing traditional, energy-intensive smelting

- Automated sorting systems to improve efficiency and material purity.
- Digital Product Passports (DPPs) to track materials throughout their lifecycle.
- A Dynamic Digital Marketplace (DDM) to facilitate trade of recovered materials and components.



RETURN Consortium Logo

The RETURN project represents a significant step towards reshoring Europe’s critical raw material supply chains and transition to a circular economy,” said the CEO of the project coordinator, DEScycle. “By transforming e-waste from an environmental liability into a valuable circular resource, we’re creating a secure, sustainable supply of critical materials, supporting Europe’s green and digital transitions and creating green jobs within the EU. Our collaborative approach brings together leaders in chemical engineering, digital technology, industrial automation and sustainability to build a model that can be scaled across the industry, directly supporting the goals of the EU Critical Raw Materials Act.”

Over its 36-month duration, the project will move from laboratory-scale validation to pre-commercial demonstration, proving the effectiveness and scalability of the RETURN model. The consortium will actively engage with industry stakeholders, policymakers, and the public through a series of workshops, publications, and outreach activities to ensure the project's results have a wide-reaching impact.

About the RETURN Project:

The RETURN consortium is a partnership of leading European companies and research institutions, each bringing unique expertise to the project.

RETURN – Recovering Electronics Parts and Materials for Maximum Resource Efficiency – is a Horizon Europe project running from 2025 to 2028. It aims to develop and demonstrate a circular, cost-effective system for recovering valuable materials and components from electronic waste by combining innovative chemical processes with cutting-edge digital solutions.

The consortium partners include: DEScycle (United Kingdom), Minespider (Germany), GAP Group (United Kingdom), Cycleco (France), MoreThanDigital (Switzerland), Iconiq Innovation Ltd (United Kingdom), PX Group (Switzerland), OSAI Automation Systems (Italy), Jean Monnet University (France).

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