ReSoURCE - Refractory Sorting Using Revolutionizing Classification Equipment

(GA 101058310 - Refractory Sorting Using Revolutionising Classification Equipment | ReSoURCE | Project | Fact sheet | HORIZON | CORDIS | European Commission)

ReSoURCE Final Event: Driving Digital Innovation for a Circular and Competitive European Industry

Location: **AT60 "House of Austria"** - Avenue de Cortenbergh 60, 1000 Brussels.

Date: **November 17, 2025**

14:00 – 17:00 – ReSoURCE Final event workshop

17:00 – 19:00 – Networking and aperitivo

About ReSoURCE

The ReSoURCE project (Refractory Sorting Using Revolutionizing Classification Equipment) is a groundbreaking initiative funded by the EU Horizon program and led by RHI Magnesita. Over the past four years, this project has aimed to transform the refractory recycling value chain through innovative technologies.

The ReSoURCE project aims to significantly increase recycling rates in the refractory industry using advanced technologies such as laser-induced breakdown spectroscopy, hyperspectral imaging and artificial intelligence. Given the challenges posed by the diversity of products and raw materials, the project focuses on automation and digitalization to significantly improve the quantity, efficiency and quality of recycled materials. These innovations enable the efficient sorting of previously unusable material fractions and offer advantages in quality control. The developments contribute significantly to reducing the carbon footprint of refractory products and promote a more sustainable production method in the refractory industry and beyond.

Key Highlights:

- **AI-Based Multi-Sensor Sorting Equipment**
- **High Reliability and Robustness:** Ensuring accurate handling of entire breakout, including fines.

- **Mobile Sorting Solutions:** The mobile character of the sorting equipment allows for local sorting at customer sites, making the process more flexible and accessible.
- **Sustainability Benefits:** Proven through Lifetime Cycle Assessment (LCE) by enabling the use of sorted materials for alternative products.

Project Partners:

- RHI Magnesita
- LSA – Laser Analytical Systems & Automation GmbH
- InnoLas Laser GmbH
- Norsk Elektro Optikk AS
- Fraunhofer ILT Institute for Laser Technology
- Montanuniversität Leoben
- SINTEF AS
- CPI Centre for Process Innovation Ltd
- Crowdhelix Ltd

ReSoURCE Final Event: Driving Digital Innovation for a Circular and Competitive European Industry

Agenda

Total Duration: *3 hours*

14:00 – 14:20 | Welcome & Introduction: From Project Achievements to Europe's Circular Transformation (*15 min)*

- Opening remarks and event overview

14:20 – 14:40 | Keynote Speech (*20 min)*
Green and Digital Transformation in Refractory Recycling: Circular Raw Materials as Europe's Competitiveness Lever

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14:40 – 15:25 | Session 1: ReSoURCE Project

Pioneering the Future of Refractory Recycling with AI and Advanced Sensor Technology for a Circular Europe (*45 min)*

- Presentation of key achievements, results & impact (*10 min per topic*)
- Helix presentation (*10 min*)

15:25 – 16:10 | Session 2: Case Studies & Success Stories: Circular Solutions in Practice (*45 min)*

- Selected real-world applications and lessons learned
- Presenters and examples
- Q&A session

16:10 – 16:50 | Session 3: Interactive Panel Discussion

Now What? Future Directions and Policy Opportunities Emerging from ReSoURCE
(40 min)

A dialogue to explore how the project's results can shape future industrial practices, support EU policy priorities on circular economy, decarbonisation, and open new opportunities for collaboration, innovation, and funding.

Key Topics:

- Environmental impact and sustainability
- Future advancements in the refractory industry
- Potential cross-sector applications

16:50 – 17:00 | Wrap-up and final remarks: Key takeaways for a circular and competitive Europe (15 min)

- Summary of key takeaways
- Acknowledgments and next steps

17:00 – 19:00 | Networking and Aperitivo