Spanish company seeks innovative solutions for large-scale valorization of engineered stone manufacturing sludge

Summary

Profile type	Company's country	POD reference
Technology request	**Spain**	**TRES20250709007**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Commercial agreement with technical assistance** **Research and development cooperation agreement**	**• World**
Contact Person	**Term of validity**	**Last update**
Enrico FRANZIN	**9 Jul 2025** **9 Jul 2026**	**9 Jul 2025**

General Information

Short summary

A Spanish company is looking for innovative technologies, industrial processes, or commercial applications to reuse or repurpose around 100,000 tons/year of waste generated in the production of mineral-polymer composite surfaces. Proposals should consider high value-added applications compared to producing construction materials (concrete, asphalt…), be scalable, and demonstrate technical and economic feasibility.
Partners with expertise in waste valorisation or industrial symbiosis are welcome.

Full description

A Spanish company dedicated to the production of engineered mineral-polymer composite surfaces seeks new solutions to valorise the waste generated during manufacturing.
The waste is a sludge composed of silicate minerals (feldspar, quartz, glass), approximately 10% polyester resin, traces of paper (<1%), pigments, flocculant, and around 30% humidity. The annual volume exceeds 100,000 tons.

Previous studies have explored its use in construction materials (concrete, asphalt, etc.), but these options are limited by its low added value and high transport costs. The company is now seeking innovative, scalable alternatives that can reuse significant volumes of this waste and offer improved business cases or new industrial applications.

Key requirements and constraints:

• Proposals should reuse or repurpose at least 10,000–40,000 tons/year of sludge.
• The sludge is heterogeneous in colour and composition, with very fine particle size and high surface area.
• The content of resin and paper, as well as the presence of flocculant and crystalline silica, must be considered for process compatibility and safety.
• The solution must be technically and economically viable, with evidence of industrial applicability or a clear path to commercialization.
• Applications in construction and agriculture have already been extensively studied; proposals in these areas should demonstrate clear added value or commercial viability.
• The company is open to existing applications or technologies coming from other industries, innovative processes, or new product developments.

Evaluation criteria:
• Technical feasibility and maturity of the solution.
• Potential volume of sludge reused.
• Business case: investment, operational costs, and expected value.
• Evidence of commercial viability and, if possible, identification of interested industrial users.

Advantages and innovations

• Opportunity to transform a high-volume industrial waste into valuable products or raw materials.
• Potential for circular economy integration and industrial symbiosis.
• Stable, chemically inert material with low heavy metal content and good reactivity for certain processes.
• Possibility of developing new business lines or entering new markets for both the provider and the client.

Technical specification or expertise sought

• Experience in industrial waste valorisation, upcycling, or by-product utilization.
• Ability to demonstrate technical feasibility and scalability.
• Knowledge of silicate chemistry, composite materials, or related industrial processes.
• Capacity to propose or participate in pilot testing and industrial implementation.

Stage of development

Available for demonstration

Sustainable Development goals

- **Goal 13: Climate Action**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 12: Responsible Consumption and Production**
- **Goal 17: Partnerships to achieve the Goal**
- **Goal 8: Decent Work and Economic Growth**

IPR Status

No IPR applied

IPR Notes

IPR Notes

Partner Sought

Expected role of the partner

Technology providers, industrial companies, or R&D centers with proven solutions or innovative ideas for large-scale waste valorization. The objective is to find partners that are able to co-develop, pilot, or industrialize proposed solutions by:
• Proposing and adapting the technology or process for the specific sludge characteristics.
• Participating in pilot testing and business case development.
• Collaborating in scaling up and commercializing the solution.

Type of partnership

Commercial agreement with technical assistance

Research and development cooperation agreement

Type and size of the partner

• University

• SME 50 - 249

• R&D Institution

• SME 11-49

• Big company

• Other

• SME <=10

Dissemination

Technology keywords

• 10003004 - Recycling, Recovery

Market keywords

• 08004004 - Other pollution and recycling related

• 08001018 - Polymer (plastics) materials

• 08004002 - Chemical and solid material recycling

• 09008002 - Water, sewerage, chemical and solid waste treatment plants

• 08004003 - Water treatment equipment and waste disposal systems

Targeted countries

- **World**

Sector groups involved