

Romanian SME is seeking partners for the development and application of green nanotechnology-based solutions for cleaning petrochemically contaminated industrial land

Summary

Profile type

Technology request

Company's country

Romania

POD reference

TRRO20250828014

Profile status

PUBLISHED

Type of partnership

Research and development cooperation agreement

Targeted countries

• World

Contact Person

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Term of validity

2 Sep 2025
2 Sep 2026

Last update

2 Sep 2025

General Information

Short summary

Romanian partner seeks international collaboration to scale up a nanotechnology-based solution (nZVI and metal oxide catalysts) for cleaning large industrial lands contaminated with petrochemicals. The Romanian side will provide site data and validation, while the partner should bring patented technology and expertise in adapting it from lab/pilot to large-scale applications.

Full description

The Romanian partner is an SME specialized in design, engineering and research for environmental challenges, with expertise in characterization, monitoring and development of solutions for the conversion of brownfields into productive or safe areas, offering integrated solutions that combine technical design, engineering know-how, and applied research. It can provide site-specific data, feasibility assessments, and validation under real conditions for innovative remediation technologies.

Comments regarding Stage of Development: A technology demonstrated for small scale is expected with real chances to be extended to large scale (land area. 1 ha).

Advantages and innovations

The solution integrates nZVI and metal oxide catalysts to deliver an efficient and eco-friendly method for cleaning petrochemically contaminated industrial land.

The innovation comes from combining catalytic nanomaterials with real site validation, enabling the transition from lab-scale research to large-scale practical use.

Technical specification or expertise sought

The partner should provide a patented nanotechnology remediation solution and expertise in scaling from pilot to industrial applications, while the Romanian side ensures site data and validation.

Stage of development

Available for demonstration

IPR Status

IPR Notes

Sustainable Development goals

- **Goal 11: Sustainable Cities and Communities**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 17: Partnerships to achieve the Goal**

Partner Sought

Expected role of the partner

The partner is expected to provide a patented nanotechnology-based remediation solution and the expertise to scale it up from laboratory or pilot level to large-scale industrial applications. They should also support technology transfer, adaptation to site-specific conditions, and implementation strategy

Type of partnership

Type and size of the partner

Research and development cooperation agreement

- SME 11-49
- University
- R&D Institution
- SME 50 - 249

Dissemination

Technology keywords

- 03001001 - Cleaning Technology
- 010002008 - Soil Pollution
- 10002007 - Environmental Engineering / Technology
- 10003003 - Land and Sea Disposal

Targeted countries

- World

Market keywords

- 04017 - Micro- and Nanotechnology related to Biological sciences
- 09003001 - Engineering services
- 09007004 - Engineering and consulting services related to construction
- 08004004 - Other pollution and recycling related

Sector groups involved