

Environment and Health Romanian research team is offering its research services and the capabilities to create new products and technologies under commercial agreement with technical assistance or research and development cooperation agreements.

Summary

Profile type	Company's country	POD reference
Technology offer	Romania	TORO20240315005
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
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General Information

Short summary

Transylvanian research institute offers its research services (monitoring air, water, and soil quality, health risk assessment and calculation of pollution indices & development of solutions for environmental decontamination and monitoring of decontamination processes) under commercial agreement with technical assistance and also is looking for project partners under research and development cooperation agreement within a consortium (Horizon Europe Cluster 6)

Full description

Located in Transylvania, the Romanian research institute is active in the fundamental and applied research and has decades of experience in applied analytical chemistry in three main directions:

- Environment and Health;
- Bioenergy and Biomass;
- Analytics and Instrumentation.

The Romanian research institute has experienced scientists and researchers, as well as a remarkable endowment, that allow approaching projects from industrial research to stages "prototype realization" and "technology transfer".

In terms of environment, the Romanian researchers approach environmental technologies in order to prevent pollution and to rehabilitate the environmental factors, both natural and anthropic, and work on the elaboration of some modern methods for the assessment and monitoring of environmental factors (soil, air, water, vegetation, etc.); nevertheless, within the Romanian institute, the researchers develop analytical methods for the preservation and management of natural and artificial resources.

Within the Research institute operates the Environment and Health Laboratory, with the main objective being the development of environmental technologies designed to prevent pollution; environmental decontamination and the development of methods for assessing and monitoring environmental factors (soil, water, air). It includes the Laboratory "Environmental Factors" whose service is dedicated to the elaboration and development of processes aiming at the assessment of environmental quality and the development of decontamination technologies. The laboratory service also includes health risk assessment and calculation of pollution indices; thus, a full range of environmental solutions are offered: identification of problems, proposal of technical solutions to solve them and monitoring of decontamination processes.

Exemple of projects results:

Innovative technology for the remediation of hydrocarbon contaminated soils;
Innovative technology for the remediation of contaminated soils by specific activities of the metallurgical industry;
Adsorbent material based on zeolitic material for the retention of ammonium and hydrogen sulphide from contaminated media;
Adsorbent material based on zeolitic material for the adsorption of hydrocarbons from contaminated media;
Zeolite-based filter material for heavy metals and radioactive substances;
Activated zeolite material for soil decontamination;
Automated zeolite-based filter plant for industrial water treatment plants;
Zeolite-based filter plants with internet and mobile phone monitoring and control of filtration processes.

Willing to support environment protection, the Romanian research institute would like to conclude commercial agreement with technical assistance with partners that need research services or research and development cooperation agreement within a consortium (Horizon Europe Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment).

Advantages and innovations

Laboratories and equipment involved:

The main equipment that can be used to provide the service are: Mobile auto lab for air quality determination; Inductively Coupled Plasma Triplex Mass Spectrometer ICP-QQQ-MS (ThermoFisher); X-ray Diffractometer (XRD - Bruker); SEM microscope (Tescan), Gas chromatograph coupled with triple quadrupole mass spectrometer (GC-MS/MS, Thermo Scientific), X-ray fluorescence spectrometer, XRF (Bruker), Inductively coupled plasma optical emission spectrometer, ICP-OES (Perkin Elmer).

Applicable standard methods and procedures:

ICP-QQQ-MS spectrometer - multi-element determination of over 70 elements at ultra-trace level; XRD – identification and quantification of crystalline phases of powder samples; SEM - structural characterisation of solid samples; GC-MS-MS - determination of organic contaminants in water, air, soil; XRF - elemental composition analysis of solid samples; ICP-OES - multi-element determination of over 50 elements at trace level.

Representative parameters and accuracy:

Environmental decontamination solutions - technologies for the remediation of environmental factors: decontamination of soils polluted with heavy metals or organic substances; decontamination of industrial waters polluted with heavy metals, ammonium, nitrites, nitrates, dyes, organic substances; air purification, using filters with adsorbent material.

Technical specification or expertise sought

Stage of development

Already on the market

IPR Status

No IPR applied

IPR Notes

Sustainable Development goals

- **Goal 17: Partnerships to achieve the Goal**
- **Goal 9: Industry, Innovation and Infrastructure**

Partner Sought

Expected role of the partner

Under the commercial agreement with technical assistance the Romanian research institute is looking for foreign partners that require:

- modern analytical methods developed for environmental quality characterization;
- environmental factor quality monitoring reports;
- reports on health risk assessment and pollution index calculation;
- remediation technologies of environmental factors under different projects or contracts.

Under research and development cooperation agreement the Romanian research institute is looking for foreign partners within a consortium (Horizon Europe Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment).

The Romanian research institute will support its foreign partners with the provision of all required documents.

Type of partnership

Commercial agreement with technical assistance

Research and development cooperation agreement

Type and size of the partner

- **SME 11-49**
- **University**
- **Big company**
- **R&D Institution**
- **SME 50 - 249**
- **SME <=10**

Dissemination

Technology keywords

- **10001002 - Assessment of Environmental Risk and Impact**
- **10002007 - Environmental Engineering / Technology**
- **01004006 - Environment Management Systems**

Targeted countries

- **World**

Market keywords

- **09003007 - Other services (not elsewhere classified)**

Sector groups involved

- **Agri-Food**
- **Health**