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***Medio Ambiente:
Tecnologías Ambientales***

Research & Development Request

ERA-NET WaterWorks: Companies and R&D institutions with a strong background on water balance and data analysis

Summary

A Spanish engineering company is coordinating a proposal for the ERA-NET WaterWorks call. The aim of the project is to develop an innovative system that predicts the water balance in the basin taking into account many sources of information. The results of the project will be used in the agriculture and forestry sectors. The partners sought are companies and R&D institutions with a strong background on water balance and data analysis.

Creation Date 10 February 2016
Expiration Date 17 February 2017
Reference RDES20160210002

Details

Description

The hydrological system is potentially very sensitive to changes in climate. Changes in precipitation affect the magnitude and timing of runoff and the frequency and intensity of floods and droughts; changes in temperature result in changes in evapotranspiration, soil moisture, and infiltration. The resulting changes in surface wetness, reflectivity, and vegetation affect evapotranspiration and the formation of clouds, as well as surface net radiation and precipitation. Therefore, many factors should be taken into account.

Many sources of information will be considered in the water balance system. These sources will be acquired and processed using a Big Data architecture to have indicators in real-time.

Advanced and intelligent data analysis techniques will be used as computer vision techniques or artificial intelligence algorithms.

Some of the sources information considered are:

- External services: Weather web services, Gauging stations, local weather stations, etc.

- Installed sensors: pluviometers, wind speed, ambient temperature, soil temperature, environmental humidity, soil moisture, solar radiation, etc.

- Image analysis: satellite imagery analysis, vegetation indexes (NDVI, NDWI, ...), sky images, cloud tracking, cloud coverage, etc.

Framework programme conditions:

http://www.waterjpi.eu/index.php?option=com_content&view=article&id=440&Itemid=1008

Deadline for expressions of interest: 11/03/2016

Call deadline: 19/04/2016

Project duration: 24-36 months

Type and role of the partners sought: Companies and R&D institutions with a strong background on water balance and data analysis.

Stage of Development

Proposal under development

Keywords

Technology

01003008	Data Processing / Data Interchange, Middleware
01003012	Imaging, Image Processing, Pattern Recognition
10002	Environment
10002010	Remote sensing technology
10004	Water Management

Market

02006004	Data processing, analysis and input services
02006005	Big data management
02007017	Expert systems
08002005	Machine vision software and systems
09005	Agriculture, Forestry, Fishing, Animal Husbandry & Related Products

NACE

A.01.6.1	Support activities for crop production
A.02.4.0	Support services to forestry
E.39.0.0	Remediation activities and other waste management services
J.62.0	Computer programming, consultancy and related activities
J.63.1.1	Data processing, hosting and related activities

Open for EOI : **Yes**

Partner Sought

Type and Role of Partner Sought

Partners with a strong background on water balance and data analysis and eligible to participate in the ERA-NET WaterWorks2015

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME <10,>500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Technology Offer

Alternative Bioleaching process of metals from secondary resources (industrial wastes)

Summary

A Belgian Research Centre developed (stage of the development: technology validated in lab TRL 4) a microbial assisted leaching process designed for metal recovery from secondary resources. The technology is based on a new process integrating bacterial cell encapsulation for a higher resistance to dissolved organics and heavy metals. The research center looks for companies and universities for licensing patents, to develop European projects and further applications in other sectors.

Creation Date 19 January 2016
Expiration Date 16 February 2017
Reference TOBE20160118001

Details

Description

A Belgian Research Centre associated to a Brussels-based University of Applied Sciences has developed (stage of the development: TRL 4 - technology validated in lab), an emerging technology designed for metal recovery from secondary resources. Based on well-established know-how for copper-ores refinery and precious metal biomining, the microbial assisted leaching offers new opportunities for heavy and precious metals recovery from electronic wastes, end-of-life vehicles, spent catalysts...

This technology offers :

- recovering opportunities for low metal-content residues which are not economically viable in conventional recycling technologies.
- Economical and environmental sustainable alternative to landfill of series of selected poly-metallic industrial wastes.
- Eco-friendly nature of biohydrometallurgy compared to chemical processes or pyrometallurgy, is supported by mild operating conditions (low-pressure and temperature, reduced chemical input).
- Cell encapsulation offers higher extraction rates by enhanced cell density, biomass protection against harsh medium conditions and facilitated continuous process.
- Good results with copper extraction e.g. from brake-pads manufacturing residues.
- Good performance/return compared to other bioleaching processes.

The process can be applied on polymetallic residues from several industrial activities: metallurgy (anode slags, dusts, speiss,...), catalyst industry, automotive industry,...

The Institution is seeking research collaboration, technical transfer, knowhow transfer

Two types of partnerships are sought:

*on the industrial level:

- licencing patent rights regarding a new efficient bioleaching process
- *on the research and development level:
- developing academic and / or industrial collaborations to explore applications in other application sectors;
- participate on an European project regarding circular economy

Advantages and Innovations

- Economical and environmental sustainable alternative to landfill of series of selected poly-metallic industrial wastes.
- Eco-friendly nature of biohydrometallurgy compared to chemical processes or pyrometallurgy, is supported by mild operating conditions (low-pressure and temperature, reduced chemical input).
- Cell encapsulation offers higher extraction rates by enhanced cell density, biomass protection against harsh medium conditions and facilitated continuous process.
- Good results with copper extraction e.g. from brake-pads dust.
- Good performance/return compared to other bioleaching processes

Stage of Development

Under development/lab tested

IPR Status

Patent(s) applied for but not yet granted

Profile Origin

Private (in-house) research

Keywords

Technology

03008	Mining Technologies
06002008	Microbiology
06006	Industrial Biotechnology
10002012	Remediation of Contaminated Sites
10003	Waste Management

Market

04010	Microbiology
08001012	Speciality metals (including processes for working with metals)
08004	Pollution and Recycling Related
08005	Other Industrial Products (not elsewhere classified)

NACE

M.72.1.1	Research and experimental development on biotechnology
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Open for EOI : **Yes**

Partner Sought

Type and Role of Partner Sought

Two types of partnerships are sought:
Industrial partners for licencing patent rights regarding a new efficient bioleaching process
And/or Universities or research centers
- to developing academic and / or industrial collaborations to improve / to explore further applications of these process in other sectors

Type and Size of Partner Sought

SME 11-50, University, Inventor, R&D Institution, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

License agreement
Technical cooperation agreement
Research cooperation agreement

Technology Offer

Novel ultralight folding shelter offered

Summary

A UK company has prototyped a novel ultra light folding shelter which includes electric generation, water collection and waste disposal. The solution can be used for outdoor leisure, humanitarian relief and temporary housing infrastructures. The user is able to assemble the product via simple colour coordinated components in less than 10 minutes. The company is looking to partner with portable housing fabricators through commercial agreements with technical assistance and/or financial agreement.

Creation Date 05 February 2016
Expiration Date 16 February 2017
Reference TOUK20160205001

Details

Description

A UK company has prototyped a novel ultralight folding shelter that uses special folding techniques to create a literal pop-up house. It is about the size of a large motor-home and includes electric generation, water collection and waste disposal. The idea is to make an off-grid, nomadic home, that can be towed by bicycle or fit in the boot of a car. The product opens up new possibilities for outdoors leisure, humanitarian relief and temporary housing infrastructures. The company is looking for technical cooperation agreement in order to transfer the knowledge to portable housing fabricators to carry out the experimental prototype and testing phase. The company is also looking at private investors potentially interested in investing in the product through financial agreements.

Advantages and Innovations

The product brings a number of innovations in light weight structural design, with myriad applications for structures of all kinds. Brings new recycling and storage ideas for energy, heat and waste. It is far more usable and accessible than caravans and motorhomes - opening up new possibilities for outdoors leisure, humanitarian relief and temporary housing infrastructures. The user is able to assemble the product via simple colour coordinated components in a short period of time (less than 10 minutes).

Stage of Development

Prototype available for demonstration

IPR Status

Secret Know-how

Profile Origin

Private (in-house) research

Keywords

Technology

02006001	Materials, components and systems for construction
02006006	Construction engineering (design, simulation)
10002007	Environmental Engineering / Technology
10002009	Natural Disasters
11007	Sports and Leisure

Market

05007005	Hospital and other institutional management
07001007	Other leisure and recreational products and services
09007001	Construction companies
09007004	Engineering and consulting services related to construction

NACE

M.71.1.2	Engineering activities and related technical consultancy
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Open for EOI : **Yes**

Partner Sought

Type and Role of Partner Sought

The company is looking for technical cooperation agreement in order to transfer the knowledge to portable housing fabricators to carry out the experimental prototype and testing phase. The company is also looking at private investors potentially interested in investing in the product through financial agreements.

Type of Partnership Considered

Financial agreement
Technical cooperation agreement

Technology Request

Innovations in waste

Summary

An Italian company working in the waste management sector is looking for innovative technologies for industrial waste reuse or recycling. The company is interested in manufacturing or commercial agreements with technical assistance, or technical cooperation with technology developers.

Creation Date 15 February 2016
Expiration Date 22 February 2017
Reference TRIT20160213001

Details

Description

An Italian company working in the waste management sector is interested in manufacturing and distributing innovative systems for industrial waste reuse or recycling. They include systems for industrial wastewater treatment. Forefront technologies ensuring environment impact as low as possible are sought for the design of such systems. In any case a closed-circuit technology will be preferred, that is without by-products (like sludge from biological treatment, or cleaning solutions). Other technologies resulting in small quantities of waste could be considered just jointly with proper techniques for by product reuse or disposal. The company is interested in manufacturing or commercial agreements with technical assistance, or technical cooperation with technology developers.

Technical Specification or Expertise Sought

Technical requirements depend on the specific waste to be managed (water, solid mass, etc.).

Stage of Development

Available for demonstration

IPR Status

Patents granted

Keywords

Technology

03004001	Agro chemicals
04005009	Energy from wastewater
10002007	Environmental Engineering / Technology

10003007 Waste to Energy /Resource

Market

06003006 Combined heat and power (co-generation)

NACE

E.39.0.0 Remediation activities and other waste management services

Open for EOI : **Yes**

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Any developer of the technology are sought.
- Specific area of activity of the partner: Industrial waste management - Task to be performed by the partner sought: If the technology is not fully developed the partner should make its know-how available in order to allow the company to manufacture a system based on the proposed technology; in the opposite case (technology completely developed), the partner should supply the technology and provide the needed technical assistance for its use.

Type and Size of Partner Sought

SME 51-250

Type of Partnership Considered

Manufacturing agreement
Commercial agreement with technical assistance
Technical cooperation agreement



***Medio Ambiente:
Agua y Residuos***

Technology Offer

French research and development center of plastics and composite materials seeks research cooperation agreements.

Summary

A French R&D centre specialised in plastics and composite materials offers its 30 years old expertise to industry and research. The R&D centre is offering a wide range of services in terms of applied or fundamental research in processes and materials in plastics, polymers and composites. The center is interested in research cooperation agreements, technical cooperation agreements and license agreements.

Creation Date	26 January 2016
Expiration Date	11 February 2017
Reference	TOFR20160126001

Details

Description

A French research institute specialized in plastics and composite materials offers its expertise, design assistance and consulting to industry and research. The French research and development centre's research focuses on four main technical sectors.

First, research focuses on surface and interface phenomena through a patented method of metalizing a non-conductive plastic substrate. Expertise also includes the development of polymer mixtures and formulation allowing performance and lightweight of thermoplastic materials for transport. The centre is also specialised in materials for energy efficiency in transports.

Other priority of the centre is research on the relationship between the materials development and final properties; it focuses on the substitution of Virgin material by recycled material from end-of-life vehicle (ELV).

The R&D centre finally develops bio-sourced and recycled materials focusing on recycling of polymers, on development of multi-layer bio-sourced films or bio-sourced films using blends, on processing of PLA (polylactic acid) -improvement of thermo-mechanical properties and on study of aging of PLA and surface treatment of PLA.

In practice, the institute can offer the following services to industry:

- Compounding,
- Formulation of thermoplastics
- Optimization of thermoplastic material processing, improvement of material physical properties;

- Development of formulations, hybrid materials (hollow glass microspheres, metal);
- Formulation and processing of bio-sourced materials;
- Design and rapid prototyping;
- Chemical Analyses;
- Component analyses;
- Physical and chemical analyses;
- Behaviour studies;
- Mechanical and rheological analyses.

The R&D center is equipped with a BUSS mixer, a twin-screw extruder fitted with two side feeders, liquid injection systems, a twin-screw extruder of laboratory (450°C maxi), haake mixer, Injection presses, extrusion lines, an extrusion blow-moulding machine, a blown film machine, an extrusion sheet line and thermoforming machines.

This laboratory works in close collaboration with the technology transfer center; this is the reason why all the research topics are directly linked to industrials' needs.

The R&D centre proposes services to industrials coming mainly from automotive, transport and aeronautics sectors but also from food packaging and construction materials sectors and needing to integrate R&D into their products and projects development processes. They are interested in research cooperation agreements with industry but also with research institutes. They are also open to collaborate in the frame of EU projects such as Horizon 2020 projects.

Advantages and Innovations

The R&D centre's key strength lies in its capacity to bridge the gap between formulating polymer materials and their final processing and end-product.

Stage of Development

Under development/lab tested

IPR Status

Other

Profile Origin

Other

Keywords

Technology

02007005	Composite materials
02007014	Plastics, Polymers
02007019	Lightweight materials
09001002	Analyses / Test Facilities and Methods
10003004	Recycling, Recovery

Market

08001004	Fibre-reinforced (plastic) composites
08001006	Processes for working with plastics
08001018	Polymer (plastics) materials

08004002 Chemical and solid material recycling
09003001 Engineering services

NACE

M.72.1.1 Research and experimental development on biotechnology
M.72.1.9 Other research and experimental development on natural sciences and engineering

Open for EOI : **Yes**

Partner Sought

Type and Role of Partner Sought

The R&D centre would like to collaborate with industrials (mainly coming from the automotive, aeronautics, food packaging and construction materials sectors) wanting to develop projects and products including new polymers materials such as composite or thermoplastics materials.

They are also interested in collaborating with universities or labs looking for skills in polymers characterization, formulation or processing.

The centre is interested in research cooperation agreements and technical cooperation agreements. They are also open to collaboration under EU projects.

Type and Size of Partner Sought

University,R&D Institution,251-500,SME 51-250,>500

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement

Technology Request

Antibacterial coating service sought for lever handles to be used for sanitary applications

Summary

A Lithuanian company specialized in design and manufacturing of a wide range of lever handles that are also used for sanitary applications is looking for new coating services on their final products that could guarantee strong antibacterial effect for a longest period of time possible. Novel as well as already-on-the-market services are sought for a commercial agreement with technical assistance or manufacturing agreement.

Creation Date 19 February 2016
Expiration Date 20 February 2017
Reference TRLT20160219001

Details

Description

The Lithuania SME is currently active in designing and manufacturing wide range of lever handles that are also used for sanitary applications. The SME is looking for a high-performance and cost effective coating services to guarantee strong antibacterial effect for a longest period of time possible.

Current challenges related to the coatings used are related to the limited antibacterial properties as well as limited lifetime due to heavy use of the product.

Further details are included in the technical specifications section.

Developers of such antibacterial coating technologies should be able to offer the full service that is sought under commercial agreement with technical assistance or manufacturing agreement.

Technical Specification or Expertise Sought

The Lithuanian SME is looking for :

- Antibacterial coating that could have as many as possible effects (for instance a set of antimicrobial , antivirotic and antimycotic effects);
- The perfect coating should be as neutral/transparent as possible in order to maintain the visual properties of lever handles unchanged.
- The perfect coating should be wear resistant and should guarantee strong antibacterial effect for a longest period possible
- It should be possible to coat different in quantities of lever handles, the production happens in various batches (10 - 3000 units).
- The coating service should be economically feasible and shouldn't last for more than 2 weeks.

Expertise to be sought regards :

- Antibacterial coating service

- Tests of coating performance on the SME specific application
- Technical integration of the antibacterial coating service in the SME production process

Stage of Development

Already on the market

Keywords

Technology

02002002	Coatings
02002015	Surface treatment (painting, galvano, polishing, CVD, ..)
03001001	Cleaning Technology
06001018	Virus, Virology/Antibiotics/Bacteriology
10003001	Biotreatment / Compost / Bioconversion

Market

07004005	Furnishing and Furniture
07004008	Other consumer products
08005	Other Industrial Products (not elsewhere classified)

NACE

C.25.1.1	Manufacture of metal structures and parts of structures
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Open for EOI : **Yes**

Partner Sought

Type and Role of Partner Sought

The partner sought is expected to provide the SME with expertise and service on antibacterial coating service

The partner is expected to work closely with the SME in order to introduce new antibacterial effects to the lever handles

Type of Partnership Considered

Manufacturing agreement
Commercial agreement with technical assistance

Technology Request

Innovations in waste

Summary

An Italian company working in the waste management sector is looking for innovative technologies for industrial waste reuse or recycling. The company is interested in manufacturing or commercial agreements with technical assistance, or technical cooperation with technology developers.

Creation Date 15 February 2016
Expiration Date 22 February 2017
Reference TRIT20160213001

Details

Description

An Italian company working in the waste management sector is interested in manufacturing and distributing innovative systems for industrial waste reuse or recycling. They include systems for industrial wastewater treatment. Forefront technologies ensuring environment impact as low as possible are sought for the design of such systems. In any case a closed-circuit technology will be preferred, that is without by-products (like sludge from biological treatment, or cleaning solutions). Other technologies resulting in small quantities of waste could be considered just jointly with proper techniques for by product reuse or disposal. The company is interested in manufacturing or commercial agreements with technical assistance, or technical cooperation with technology developers.

Technical Specification or Expertise Sought

Technical requirements depend on the specific waste to be managed (water, solid mass, etc.).

Stage of Development

Available for demonstration

IPR Status

Patents granted

Keywords

Technology

03004001	Agro chemicals
04005009	Energy from wastewater
10002007	Environmental Engineering / Technology

10003007 Waste to Energy /Resource

Market

06003006 Combined heat and power (co-generation)

NACE

E.39.0.0 Remediation activities and other waste management services

Open for EOI : **Yes**

Partner Sought

Type and Role of Partner Sought

- Type of partner sought: Any developer of the technology are sought.
- Specific area of activity of the partner: Industrial waste management - Task to be performed by the partner sought: If the technology is not fully developed the partner should make its know-how available in order to allow the company to manufacture a system based on the proposed technology; in the opposite case (technology completely developed), the partner should supply the technology and provide the needed technical assistance for its use.

Type and Size of Partner Sought

SME 51-250

Type of Partnership Considered

Manufacturing agreement
Commercial agreement with technical assistance
Technical cooperation agreement