Partnering Opportunity

Profile Status: Published

Research & Development Request

SME-Instrument phase 2 – A French SME is looking for partners in microbiology and urban agriculture for the development of an innovative dry-vermicomposting toilet

Summary

A French SME, which is pioneer in the field of public toilets with vermicomposting method, is preparing a SME Instrument phase 2 proposal. The project is aiming at developing dry toilets integrated into storey buildings with the possibility to transform waste into agricultural resources. To achieve this project, partners in the field of microbiology and urban agriculture with skills in agronomy are sought for a Research & Development cooperation agreement.

Creation Date	22 January 2019
Last Update	05 February 2019
Expiration Date	20 March 2019
Reference	RDFR20181220001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/a1ad0dc7-e310-49c4-b633-3bafd561cc2d

Details

Description

The French company is pioneer in the field of public toilets with vermicomposting method. This method is characterized by a technology without water and chemical, and another technology consisting in transformation of feces and toilet paper into stabilized organic matter (humus) ready to be used wherever needed.

The company is working on an innovative and disruptive project, with the aim to develop dry toilets without nuisance (odors), well integrated into storey buildings, no matter the number of levels. Moreover, the SME's goal is to develop dry toilet with a technology consisting in transforming waste (faecal matter, urine) into resources for urban agriculture and gardening, avoiding the use of chemical fertilizers.

The company plans to submit a proposal related to the development of innovative dry-vermicomposting toilets in the frame of SME Instrument Phase 2.
The goal of the phase 2 is to find the technical and design solutions and to make a full-scale prototype.

To complete the skills and technologies required by the project development, the SME needs different partners as:
- A company with skills in mechanical engineering to work on the transfer of faecal matter to basement building (identified)
- A cooperative housing habitats to test the project (to be identified in a second time)
- A private laboratory or a company with skills in microbiology to work on the valorization of faecal matter;
- A company in the field of urban agriculture with skills in agronomy to work on health issues, conservation and nutritional quality related to the valorization of faecal matter
The two last partners are currently unidentified, but necessary for the development of the project.

To reach the project, the SME is looking for skills in microbiology and in urban agriculture in the frame of a Research & Development cooperation agreement.

Call Deadline : 3 April 2019
EOI Deadline: 20 March 2019
Project duration: 24 months.

Advantages and Innovations

The SME has a strong activity in Innovation and Development and experiences in European projects.

In the frame of this project, the SME has won a SME Intrument Phase 1.

Several patents on different technologies, which are based on:
- the separation of feces and urine
- the transformation of feces and toilet paper into stabilized organic matter (humus)
- the conveying system of the feces to the building downpipe

There are many technologies on dry toilets on the market, as dry toilets integrated to storey buildings with three levels in Switzerland and in Sweden. The technology in dry toilets related to the evacuation system in the basement thanks to conveying system integrated to a storey building with more than four levels does not exist.

System without odors (thanks to the ventilation system) and does not require maintenance, which is important for the final user.

This new technology is environmental friendly and meets the challenges related to Global Warming and water scarcity, in particular in urban area. Indeed, these innovative toilets don't use water, artificial chemical, and are energy saving (a very few power is needed).
Moreover, this technology meets the challenges related to waste management: faecal matters are transformed into resources for urban agriculture and gardening, avoiding the use of chemical fertilizers.

Technical Specification or Expertise Sought

The first ideal partner is a private laboratory or company with skills and a deep experience in microbiology to work on the destruction of hazardous molecules while maintening nutritional qualities of faecal matter.

The second ideal partner is a company in the field urban agriculture with skills in agronomy . In the field of this partnership, the company will have to work on health issues, conservation and nutritional quality related to the valorization of faecal matter.

IPR Status

Patent(s) applied for but not yet granted

Keywords

Technology

02003006	Prototypes, trials and pilot schemes
03003	Apparatus Engineering
06002008	Microbiology

Market

09007001	Construction companies
09007003	Distribution of building products and systems

NACE

C.32.9.9	Other manufacturing n.e.c.

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

Contact Person

Pawel Zebrowski

Phone Number

+48 91 449 43 64

Email

pzebrowski@zut.edu.pl

Open for EOI : Yes

Dissemination

Relevant Sector Groups

Environment
Sustainable Construction

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

1991

Turnover

1 - 10M

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English
French

Client Country

France

Partner Sought

Type and Role of Partner Sought

The first ideal partner is a private laboratory or company with skills and a deep experience in microbiology to raise current technological bolts in the field of the valorization of faecal matter.

The second ideal partner is a company in the field urban agriculture with skills in agronomy to work on health issues, conservation and nutritional quality related to the valorization of faecal matter.

Type and Size of Partner Sought

SME 11-50,SME <10,SME 51-250

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

Industrial leadership

Call title and identifier

SME Instrument Phase 2

Coordinator Required

No

Deadline for EOI

20 Mar 2019

Deadline of the Call

03 Apr 2019

Project Duration

96 week(s)