Seeking partner to provide sensor components for small scale anaerobic digestion technology

Summary

A Scottish (UK) SME in the waste-to-energy sector is seeking technology partners to support the development of an ultra small scale anaerobic digestion technology for on-site food waste treatment. The company is interested in commercial, research and technical partnerships to support development of the prototype into a commercial product. Specifically, the company seeks industrial, academic or research organisations that are producing sensors that can be used in the anaerobic digestion process.

Creation Date	27 January 2017
Last Update	30 January 2017
Expiration Date	30 January 2018
Reference	TRUK20170126001

Details

Description

A UK SME in the waste-to-energy sector is developing an ultra-small scale anaerobic digester for immediate treatment of food waste within the restaurant premises (on-site). By converting waste where it is generated, the technology eliminates the need for storage and transportation of food waste to an anaerobic digestion center. This will enable the complete capture of the total energy content in food waste, of which up to 70% is currently lost in transit.

The product is at technology readiness level 4 (TRL 4) having completed the basic and technology feasibility study. The company is currently developing the prototype for testing in a real/relevant environment such as a restaurant.

The company needs a partner to produce micro-sensors that are resilient enough to withstand the anaerobic digestion process. These sensors will be integrated into the prototype as a component part.

The company is interested in the following types of partnership:

- Commercial agreement with technical assistance: to support the engineering and construction of the required sensor-components

- Research/ Technical cooperation agreement: to contribute to the development of the required sensor-components

Technical Specification or Expertise Sought

The partner should be able to produce micro sensors that are resilient enough to withstand the harsh environment of the anaerobic digestion process for a minimum of 5 years.

The partner should be able to supply specific components for the development of the prototype, including;
1. Automated gas monitoring of atmospheric concentration to ascertain the following levels; <19.5% by volume of oxygen, > 5% by volume of Methane, > 100 ppm of Hydrogen Sulphide, 300 ppm of Ammonia and 40,000 ppm of Carbon dioxide.
2. Automated sensors to determine concentration of basic feed and digester characteristics such as; Volatile fatty acid, ammonia, carbohydrate, protein and lipid.

The ability to effectively apply the result generated from the sensor by a programmable Logic controller will be critical.

Stage of Development

Under development/lab tested

Keywords

Technology

04002010	Combined heat and power (CHP) engines
04002011	Micro-generation and grid connection
04005006	Solid biomass
04005012	Waste to energy - other
04006	Biogas and anaerobic digestion (AD)

Market

02003	Specialised Turnkey Systems
03007002	Other measuring devices
03007003	Other analytical and scientific instrumentation
06003009	Biomass and Biofuels
06003010	Distributed power and grid connection

NACE

E.38	Waste collection, treatment and disposal activities; materials recovery
E.38.2	Waste treatment and disposal
E.38.2.1	Treatment and disposal of non-hazardous waste
E.39	Remediation activities and other waste management services

Network Contact

Issuing Partner

CONSELL GENERAL DE LES CAMBRES OFICIALS DE COMERC INDUSTRIA I NAVEGACIO DE CATALUNYA

Contact Person

Montse Monedero

Phone Number

+34 934169255

Email

cateen@cambrescat.org

Open for EOI : Yes

Dissemination

Send to Sector Group

Environment

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

United Kingdom

Partner Sought

Type and Role of Partner Sought

The SME is seeking industrial, academic or research organisations currently operating in the waste to energy sector producing sensors used in the anaerobic digestion process.

The partner should have the ability to produce micro-sensor components for the prototype that

are resilient enough to withstand the anaerobic digestion process for at least 5 years.

The desired outcome of a partnership will be to supply specific components for the development of the prototype as detailed in the Technical specifications.

The company is interested in the following types of partnership:

- Commercial agreement with technical assistance: to support the engineering and construction of the required sensor-components

- Research/ Technical cooperation agreement: to contribute to the development of the required sensor-components

Type of Partnership Considered

Commercial agreement with technical assistance
Technical cooperation agreement
Research cooperation agreement

Attachments