

Partnering Opportunity

Profile Status: Published

Research & Development Request

LC-EEB-04-2020: Construction research institute is looking for industrial partners with expertise on smart windows or adhesive technologies

Summary

A Spanish construction research institute is seeking industrial designers and/or manufacturers of smart windows and industrial developers of construction adhesive technologies to enter into a research cooperation agreement for a H2020 project proposal on industrialisation of building envelope kits for the renovation market.

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| Creation Date | 29 November 2019 |
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Details

Description

A Spanish construction research institute, with a highly specialised multidisciplinary team and superior equipment, is devoted to improve the competitiveness of companies of the sector through R&D and innovation activities. In particular, the areas of expertise of the centre are: sustainability and energy efficiency, reuse and re-evaluation of waste, smart structures and virtual simulation, historical heritage, water and architectural, environmental and industrial acoustics.

The research institute facilities include a complete laboratory to analyse all types of new construction materials such as macro-structural characterization for physical-mechanical tests, nano and micro-structural characterization for advanced analysis and experimental study and production of concrete and other composite materials. In addition, the institute manages two experimental buildings that include energy efficient systems (solar, geothermic pump, eolic,

biomass pump...) and a complete monitoring system for testing innovative solutions or components. The two pilots are identical and allow quantifying the performance improvement in real time.

The research institute is preparing a project proposal for the H2020 topic LC-EEB-04-2020 - Industrialisation of building envelope kits for the renovation market. The project's main objective is to develop a new plug&play modular system for building refurbishment which cuts its actual price in half. This system will consist of panels with highly insulating and lightweight materials, such as aerogel, heating and cooling elements, ventilation, as well as intelligent windows and, possibly, energy production. The project will install the whole system in three real buildings in different climatic zones to test all its performance aspects in situ. In addition, a complete Life Cycle Assessment (LCA) of the whole system will be conducted, where a comparison of environmental impact of the product with other renovation solutions will be carried out. Regarding market outreach, an exhaustive analysis of cost effectiveness and marketing possibilities, meeting eco-production and eco-construction standards will be run to verify the financial viability of the product.

The research institute has already built an almost complete consortium that includes SMEs, industrial partners, technology centres and other third parties from Spain, Finland, Germany, France, Ireland, Italy and Romania.

In order to complete the consortium, the research institute is looking for, on the one hand, industrial designers and/or manufacturers of smart windows and, on the other hand, industrial designers and/or developers of construction adhesive technologies. In particular, the smart window system should prove all or almost all of the following features: quick and easy installation, force air ventilation if necessary, produce electricity (by itself or by an added element) to power and storage the remaining energy, autonomous control system, act as a server for the monitoring data and the decision support tool, and include sensors to measure environmental indoor and outdoor conditions (temperature, humidity and CO2). Integration and/or adaptation of existing technologies might be needed.

Likewise, the sought wall fixing system for advanced cement-based panels should be easy to install and long lasting, prove an aesthetic integration in the buildings and be easy to remove. Recyclability and maintenance aspects will be also observed.

Deadline for EoIs: 13/12/2019

Deadline of the call: 05/02/2020

Anticipated duration of the project: 24 months

Stage of Development

Proposal under development

Keywords

Technology

| | |
|----------|--|
| 02006001 | Materials, components and systems for construction |
| 02007001 | Adhesives |
| 04001001 | Heat storage |

Ref: RDES20191129001

Market

| | |
|----------|---|
| 09007001 | Construction companies |
| 09007002 | Manufacture of construction materials, components and systems |
| 09007005 | Facility management companies |

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

Contact Person

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Open for EOI : **Yes**

Dissemination

Relevant Sector Groups

Sustainable Construction

Restrict Dissemination to Specific Countries

Austria, Bulgaria, Croatia, Czechia, Greece, Hungary, Latvia,
Lithuania, Norway, Portugal, Slovakia, Slovenia, Sweden,
UnitedKingdom,

Client

Type and Size of Organisation Behind the Profile

R&D Institution

Year Established

0

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Spanish

Client Country

Spain

Partner Sought

Type and Role of Partner Sought

- Type of partner sought:

Smart window designer and/or manufacturer and adhesive technologies designer and/or manufacturer (either SME or large company).

- Specific area of activity of the partner:

Construction or aerospace sectors.

- Task to be performed:

The industrial designer and/or manufacturer of smart windows would test the functionality and performance of its smart window in a plug&play system.

The industrial designer and/or manufacturer of adhesive technologies would be in charge of installing and testing its adhesive in the panel system.

- EU / International project experience:

It will be considered an asset.

Type and Size of Partner Sought

SME 11-50, SME <10, >500 MNE, 251-500, SME 51-250, >500

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

LC-EEB-04-2020 - Industrialisation of building envelope kits for the renovation market (IA)

Submission and evaluation scheme

Single-stage

Coordinator Required

No

Deadline for EOI

13 Dec 2019

Deadline of the Call

05 Feb 2020

Project Duration

104 week(s)

Weblink to the Call

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-eeb-04-2020>