

Partnering Opportunity

Profile status : Published

Research Development Request

Searching for university or firm, which works with shipyard, manufacturer of underwater robots to participate in the Horizon 2020 project (use of underwater welding robots)

Summary

A Ukrainian Institute is looking for partners to participate in a Horizon 2020 project - Improved production and maintenance processes in shipyards, ID: MG-3-7-2020 (use of underwater welding robots).

The idea of this project is the design of a robotic wet underwater welding complex for shipyards of Europe.

The institute is looking for partners from the EU to jointly participate in the project as part of the international consortium, including manufacturers of underwater robots.

Creation Date 23 January 2020

Last Update 10 February 2020

Expiration Date 12 April 2020

Reference RDU20200117001

Public Link <https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/74944139-7d40-4190-9828-8cce81a5c206>

Details

Description

The project can be aimed at creating a robotic welding complex for surface and underwater welding, using underwater welding robots. In this case, the condition of the Industry 4.0 organizational system must be fulfilled:

Ref: RDU20200117001

the digital transformation of production, using 3D-modeling with automatic control. Elements of artificial intelligence should also be applied in the production of welding processes.

The institute has modern technology of underwater "met" welding (welding without the use of barocamers, welding equipment is directly in the sea) and produces the underwater welding semiautomatic device. In the past few years, work is underway to upgrade it to work in a pulsed mode, which gives a big gain in welding quality, especially in the upright position.

All following aspects should be addressed:

The development of innovative technologies and systems to enhance the competitiveness of production and maintenance processes within European shipbuilders and shipyards. Where appropriate, technologies transfer from outside of the marine industry shipbuilding, ship maintenance and ship modification sectors, particularly those with potential to reduce CO2 and/or other polluting emissions.

Identification of the necessary related skills development needs and strategies to address these in order to maximise the value from innovative production technologies and practices.

Testing and physical demonstration of the developed technologies to at least TRL 5, including the benchmarking of existing practices, consideration of the environmental impacts and quantification of the additional value from the technology and/or system developed.

Development of business plans and roll-out strategies.

IPR and or other measures to reduce leakage of the developed innovations outside of Europe.

Whilst not excluding very large shipyards, an emphasis on the competitive needs of smaller and medium-size shipyards across Europe would be welcome in cases where the incremental benefits from Research and Innovation maybe higher.

The commission considers that proposals requesting a contribution from the EU of up to between EUR 4 and 6 million would allow the specific challenge to be addressed appropriately

Expected Impact:

With an emphasis on smaller and mediums sized European shipyards and shipbuilders, to increase competitiveness and growth of the European sector, particularly within international markets. Reinforce and grow European employment and the necessary skills development for the successful uptake of innovative production processes and technologies. Improve the environmental performance of shipyards and shipbuilders. Support a multiplication effect within Europe beyond the immediate participants. Maximize EU added value by appropriate means of minimizing knowledge and technology leakage.

Currently, the management of the institute is looking for partners from the European Union to jointly participate in the project as part of the international consortium, including manufacturers of underwater robots.

The organization invites partners to consider the project and decide on joint participation in it. The main problem is to find a company producing underwater robots and teach them how to weld underwater. The institute is also searching for project coordinator - a ship manufacturer company or a ship repair service.

The official deadline for the call: 21 of April 2020

Deadline for the EoI: 12 of April 2020

Stage of development

Available for demonstration

Keywords

Technology

02009001

Design of Vehicles

02009005

Shipbuilding

Market

09004008

Other manufacturing (not elsewhere classified)

NACE

M.71.1.2

Engineering activities and related technical consultancy

M.71.2.0

Technical testing and analysis

M.72.1.9

Other research and experimental development on natural sciences and engin

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

Contact Person

Zebrowski Pawel

Phone number

+48 91 449 43 64

Email

pzebrowski@zut.edu.pl

Open for EOI: **Yes**

Dissemination

Relevant sector groups

Maritime Industry and Services

Client

Type and Size of Organisation Behind the Profile

R&D Institution

Year Established

1959

Turnover

1 - 10M

Already Engaged in Trans-National Cooperation

Yes

Languages Spoken

English
Russian

Client Country

Ukraine

Experience

The Institute is the participant of project Horizon 2020 "Integration of advanced experiments, computation and data for Duplex Stainless Steel joining innovation"

Partner Sought

Type and Role of Partner Sought

Partners should make an underwater robot and use it for welding with the use of the welding apparat made by the institute.
Partners should design digital twin technology of all processing welding and cut. Partners also should give their own workplace in his shipyard for testing equipment and further use in the manufacture and repair of ships offshore.

Type and Size of Partner Sought

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

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

Improved Production and Maintenance Processes in Shipyards ID: MG-3-7-2020

Anticipated Project Budget

15 million euros

Coordinator required

Yes

Deadline for EOI

12 Apr 2020

Deadline of the Call

21 Apr 2020

Weblink to the call

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/mg-3-7-2020>

Attachments
