

Partnering Opportunity

Profile status : Published

Research Development Request

Horizon Europe - TWIN TRANSITION-01-07: A Pan-European consortium is looking for additional partners to engineer a Circular Manufacturing Ecosystem (CME) with assembly lines as subjects of the circular economy

Summary

A European consortium led by a Technical University in Southern Germany is applying for the Horizon Europe call TWIN-TRANSITION-01-07 Digital tools to support the engineering of a Circular Economy. The goal of this project is to engineer a CME with assembly lines as subjects of the circular economy. The consortium is looking for additional partners to strengthen its capabilities in regard to demonstration use cases and standardization. A research cooperation agreement is foreseen.

Creation Date	25 November 2021
Last Update	30 November 2021
Expiration Date	31 January 2022
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Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/a576abf3-cdac-4d21-a100-664737ab8cf4

Details

Description

With applying for the Horizon Europe call TWIN-TRANSITION-01-07 Digital tools to support the engineering of a Circular Economy, the Pan-European consortium has a clear challenge in mind which should be addressed:

Today's assembly lines do not reach their maximal lifetime, which results in premature obsolescence and wasted resources. The main reasons for this state is assembly line under exploitation:

- Shorter product cycles dictate ever shorter usage of assembly lines
- Trend towards product customization requires frequent changes in assembly line set ups (resulting in certain production resources being put out of operation)
- Flexible manufacturing solutions are not yet able to address the under exploitation challenge

To overcome this challenge, the consortium aims to engineer a Circular Manufacturing Ecosystem (CME) with assembly lines as subjects of the circular economy. The idea is to combine different novel Industry 4.0 digital tools (like for example an Artificial Intelligence Matchmaking Engine, Industry 5.0 surveying tools or Marketplaces) in order to build this kind of ecosystem.

The already existing Pan-European consortium is led by a Technical University in Southern Germany. The additional six partners are a further Technical University from Austria, larger companies as well as SMEs (from Germany, France and Austria) with expertise in pioneering technologies and services for sustainable and connected mobility, product and process topics, and digital solutions. The consortium is looking for additional partners to strengthen its capabilities in regard to demonstration use cases and standardization aspects. For this project, a research cooperation agreement is foreseen.

The deadline for submitting proposals is 30 March 2022.

The deadline for Eols is 31 January 2022.

Advantages and innovations

The R&D project has innovation potential in several fields:

- CIRCULARITY: The project will be able to give production resources a second life by trading them in the marketplace, building customized second hand lines and identifying which resources can re-enter the circular economy and which should be recycled.
- RESILIENCE: The outcome of the project will increase the EU manufacturing sector's resilience by decreasing its reliance on newbuilt assembly lines based on resources/components/virgin materials sourced globally. Focus on second hand production resources instead.
- HUMAN-CENTRISM: The project will ensure second hand lines by training and involving human operators in the process.

Stage of development

Project in negotiations - urgent

IPR Status

Other

Keywords

Technology

09006002

Technical Standards

10002007	Environmental Engineering / Technology
10002013	Clean Production / Green Technologies
10002015	Life Cycle Assessment
10003004	Recycling, Recovery

Market

08002003	Process control equipment and systems
08002007	Other industrial automation
08003001	Machine tools, other metal working equipment (excl. numeric control)

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

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Open for EOI: **Yes**

Dissemination

Relevant sector groups

Environment

Client

Type and Size of Organisation Behind the Profile

University

Year Established

0

Already Engaged in Trans-National Cooperation

No

Languages Spoken

English
German

Client Country

Germany

Partner Sought

Type and Role of Partner Sought

The Pan-European consortium is looking for additional partners to strengthen its capabilities in regard to demonstration use cases and standardization aspects within the project for the Horizon Europe call TWIN TRANSITION 01 07 Digital tools to support the engineering of a Circular Economy. Therefore two types of partners are sought:

- Use case partner: Industry partners interested in demonstrating the project's innovation in real industrial environments (e.g. medical, electronics etc.).
- Standardisation partner: Standardization entities interested in accompanying the project to pave the way for future standards in areas of circular economy and manufacturing.

The partnership considered is a research cooperation agreement.

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

Horizon Europe: HORIZON-CL4-2022-TWIN-TRANSITION-01-07 - Digital tools to support the engineering of a Circular Economy (Made in Europe Partnership)

Coordinator required

No

Deadline for EOI

31 Jan 2022

Deadline of the Call

30 Mar 2022

Attachments
