ZERo-carbon building enabling Adaptive opaque Facade technology

Fact Sheet

Project Information

ZERAF
Grant agreement ID: 101098490

DOI
10.3030/101098490

Funded under
The European Innovation Council (EIC)

Total cost
€ 2 565 836,25

EU contribution
€ 2 565 836,25

Coordinated by
ACCADEMIA EUROPEA DI BOLZANO
Italy

Project description

Novel materials for energy efficient building facades

Building facades are a critical element of building design. Beyond aesthetics, they are the interface between the indoor and outdoor environment. Controlling heat gain and loss, and allowing for natural light and ventilation, building facades have a significant impact on occupant health and wellbeing. The EU-funded ZERAF project will propose a new approach. By using novel materials, including smart shape memory alloys and bio-based polyurethanes, and taking inspiration from industries such as aerospace, biomedicine and nanomaterials, ZERAF aims to create an adaptive opaque facade that can control heat transfer mechanisms to a significant
degree. The project will manufacture prototypes and subject them to rigorous testing, while also quantifying sustainability parameters throughout the building lifecycle.

**Fields of science**

natural sciences > computer and information sciences > internet > internet of things
engineering and technology > mechanical engineering > thermodynamic engineering > heat engineering
natural sciences > chemical sciences > polymer sciences > polyurethane
engineering and technology > nanotechnology > nano-materials

**Programme(s)**

HORIZON.3.1 - The European Innovation Council (EIC)  
MAIN PROGRAMME

**Topic(s)**

HORIZON-EIC-2022-PATHFINDEROPEN-01-01 - EIC Pathfinder Open 2022

**Call for proposal**

HORIZON-EIC-2022-PATHFINDEROPEN-01

See other projects for this call

**Funding Scheme**

EIC - EIC

**Coordinator**

ACCADEMIA EUROPEA DI BOLZANO
Net EU contribution
€ 889 437,50
Address
Participants (4)

TECHNISCHE UNIVERSITEIT EINDHOVEN

Netherlands

Net EU contribution
€ 440,722,50

Address
Groene loper 3
5612 AE Eindhoven

Region
Zuid-Nederland > Noord-Brabant > Zuidoost-Noord-Brabant

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation  
Website  
Participation in EU R&I programmes  
HORIZON collaboration network

Other funding
€ 0,00
INGPULS SMART SHADINGS GMBH
Germany
Net EU contribution
€ 681,918.75
Address
Von-waldthausen-str. 77
44894 Bochum
Region
Nordrhein-Westfalen > Arnsberg > Bochum, Kreisfreie Stadt
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Links
Contact the organisation
Participation in EU R&I programmes
HORIZON collaboration network
Other funding
€ 0.00

INDRESMAT SL
Spain
Net EU contribution
€ 429,887.50
Address
Carretera del mig, 75
08907 L’hospitalet de llobregat
SME
Yes
Region
Este > Cataluña > Barcelona
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Links
Contact the organisation
Participation in EU R&I programmes
HORIZON collaboration network
ACTIVE INSULATION SYSTEMS B.V.
Netherlands
Net EU contribution
€ 123,870,00
Address
Locht 15
5504 KA Veldhoven
SME
Yes
Region
Zuid-Nederland > Noord-Brabant > Zuidoost-Noord-Brabant
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Links
Contact the organisation
Participation in EU R&I programmes
HORIZON collaboration network
Other funding
€ 0,00

EC signature date 16 December 2022
Last update: 24 May 2023

Permalink: https://cordis.europa.eu/project/id/101098490

European Union, 2023