Semantic Low-code Programming Tools for Edge Intelligence

Fact Sheet

Project Information

SMARTEDGE
Grant agreement ID: 101092908

DOI
10.3030/101092908

EC signature date
23 November 2022

Funded under
Digital, Industry and Space

Total cost
€ 7 353 640,00

EU contribution
€ 7 353 640,00

Coordinated by
CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI
Italy

Start date
1 January 2023

End date
31 December 2025

Project description

Harnessing the power of swarm intelligence in AI

Swarm intelligence consists of a network of endpoint devices that are able to generate and process data at source. An entire network becomes more intelligent and flexible when individual edge devices can identify and share vital information with peers. From healthcare systems to self-driving vehicles, sharing this information must be done without compromising reliability, security, privacy and scalability. The EU-funded SMARTEDGE project will provide a solution in a low-code programming environment using three tools: continuous semantic integration, a dynamic swarm
network and a low-code toolchain for edge intelligence. The solution will be demonstrated in the automotive and health sectors, among others.

**Fields of science**

- **engineering and technology**  >  **electrical engineering, electronic engineering, information engineering**  >  **information engineering**  >  **telecommunications**  >  **telecommunications networks**  >  **data networks**
- **natural sciences**  >  **computer and information sciences**

**Keywords**

- continuous semantic integration
- Dynamic Swarm Networking
- Low-code Programming Tools for Edge Intelligence

**Programme(s)**

- **HORIZON.2.4 - Digital, Industry and Space**  
  MAIN PROGRAMME
- **HORIZON.2.4.7 - Advanced Computing and Big Data**

**Topic(s)**

- **HORIZON-CL4-2022-DATA-01-03 - Programming tools for decentralised intelligence and swarms (RIA)**

**Call for proposal**

- **HORIZON-CL4-2022-DATA-01**
  
  See other projects for this call

**Funding Scheme**

- **HORIZON-RIA - HORIZON Research and Innovation Actions**

**Coordinator**
CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI

Net EU contribution
€ 555 000,00

Address
VIALE G. P. USBERTI 181A
43124 Parma
Italy

SME
Yes

Region
Nord-Est > Emilia-Romagna > Parma

Activity type
Higher or Secondary Education Establishments

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

Total cost
€ 555 000,00

Participants (11)

TECHNISCHE UNIVERSITAT BERLIN

Germany
Net EU contribution
€ 1 097 579,75

Address
STRASSE DES 17 JUNI 135
10623 Berlin

Region
Berlin > Berlin

Activity type
Higher or Secondary Education Establishments
AALTO KORKEAKOULUSAATIO SR
Finland
Net EU contribution
€ 458 750,00
Address
OTAKAARI 1
02150 Espoo
Region
Manner-Suomi > Helsinki-Uusimaa
Activity type
Higher or Secondary Education Establishments

Conveqs Oy
Finland
Net EU contribution
€ 602 500,00
Address
Punavuorenkatu 23 G 154
00150 Helsinki
SME
Yes
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Manner-Suomi > Helsinki-Uusimaa > Helsinki-Uusimaa

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

Total cost
€ 602 500,00

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ROBERT BOSCH GMBH
Germany

Net EU contribution
€ 618 275,00

Address
ROBERT-BOSCH-PLATZ 1
70839 Gerlingen-Schillerhoehe

Region
Baden-Württemberg > Stuttgart > Ludwigsburg

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

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

Total cost
€ 618 275,00

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SIEMENS AKTIENGESELLSCHAFT
Germany

Net EU contribution
€ 835 410,25

Address
GEIE ERCIM

France

Net EU contribution
€ 458 750,00

Address
ROUTE DES LUCIOLES 2004 SOPHIA ANTIPOLIS
06410 Biot
SME
Yes
Region
Provence-Alpes-Côte d’Azur > Provence-Alpes-Côte d’Azur > Alpes-Maritimes
Activity type
Other
Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network
Total cost
€ 458 750,00
Ireland

Net EU contribution
€ 827 750,00

Address
IDA INDUSTRIAL SITE
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Region
Ireland > Southern > South-West

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

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

Total cost
€ 827 750,00

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CEFRIEL SOCIETA CONSORTILE A RESPONSABILITA LIMITATA SOCIETA' BENEFIT

Italy

Net EU contribution
€ 329 500,00

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SME
Yes

Region
Nord-Ovest > Lombardia > Milano

Activity type
Research Organisations

Links
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Participation in EU R&I programmes
HORIZON collaboration network
MELLANOX TECHNOLOGIES LTD - MLNX
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€ 515 625,00
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YOKNEAM ILIT INDUSTRIAL ZONE - HERMON BUILDING
20692 Yokneam
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Links
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HORIZON collaboration network

IMC- INDUSTRIAL MANAGEMENT CONSULTING SLOVAKIA, S.R.O.
Slovakia
Net EU contribution
€ 288 250,00
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Yes
Region
Slovensko > Bratislavský kraj > Bratislavský kraj
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Links
FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV

Germany

Net EU contribution
€ 766 250,00

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HANSASTRASSE 27C
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Region
Bayern > Oberbayern > München, Kreisfreie Stadt

Activity type
Research Organisations

Total cost
€ 766 250,00

Partners (3)

UNIVERSITE DE FRIBOURG

Switzerland

Net EU contribution
€ 0,00

Address
HAUTE ECOLE SPECIALISEE DE SUISSE OCCIDENTALE
Switzerland
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€ 0,00
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Activity type
Higher or Secondary Education Establishments
Links
Contact the organisation  Website  Participation in EU R&I programmes  HORIZON collaboration network
Total cost
No data

THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD
United Kingdom
Net EU contribution
€ 0,00

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WELLINGTON SQUARE UNIVERSITY OFFICES
OX1 2JD Oxford

Region
South East (England) > Berkshire, Buckinghamshire and Oxfordshire > Oxfordshire

Activity type
Higher or Secondary Education Establishments

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

Total cost
No data

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European Union, 2024