Towards an AI-native, user-centric air interface for 6G networks

Fact Sheet

Project Information

**CENTRIC**
Grant agreement ID: 101096379

**DOI**
[10.3030/101096379](10.3030/101096379)

**EC signature date**
16 November 2022

**Start date**
1 January 2023

**End date**
30 June 2025

**Funded under**
Digital, Industry and Space

**Total cost**
€ 4,528,534.75

**EU contribution**
€ 4,215,999.00

**Coordinated by**
EURESCOM-EUROPEAN INSTITUTE FOR RESEARCH AND STRATEGIC STUDIES IN TELECOMMUNICATIONS GMBH

Germany

Project description

**Future 6G created by user-centric AI**

5G cellular technology is already up and running, increasing speed and improving flexibility of wireless services. The next step is to design new disruptive technologies enabling mixed-reality, super-physical experiences in 6G systems. This could be made possible using digital twins, seamlessly connecting and controlling physical or biological entities. The EU-funded CENTRIC project proposes to design the future 6G by creating the user-centric AI Air Interface. It will leverage AI techniques to provide a top-down modular approach to wireless connectivity that focuses on users’ communication needs and environmental limitations. CENTRIC will be crucial for
future self-driving vehicles, the internet of nano bio-things or multi-sensory holographic communications.

**Fields of science**

natural sciences  >  computer and information sciences  >  artificial intelligence  
engineering and technology  >  mechanical engineering  >  vehicle engineering  >  automotive engineering  >  autonomous vehicles  
natural sciences  >  computer and information sciences  >  internet

**Keywords**

6G  AI  Air Interface  wireless  waveforms  transceivers  
protocols  semiconductor  digital twin  hardware co-design

**Programme(s)**

HORIZON.2.4 - Digital, Industry and Space

**Topic(s)**

HORIZON-JU-SNS-2022-STREAM-B-01-02 - Wireless Communication Technologies and Signal Processing

**Call for proposal**

HORIZON-JU-SNS-2022

See other projects for this call

**Funding Scheme**

HORIZON-JU-RIA - HORIZON JU Research and Innovation Actions

**Coordinator**
EURESCOM-EUROPEAN INSTITUTE FOR RESEARCH AND STRATEGIC STUDIES IN TELECOMMUNICATIONS GMBH

Net EU contribution
€ 525 375,00

Address
Wieblingweg 19/4
69123 Heidelberg
Germany

Region
Baden-Württemberg > Karlsruhe > Heidelberg, Stadtkreis

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

Other funding
€ 58 375,00

Participants (9)

NOKIA NETWORKS FRANCE

France

Net EU contribution
€ 363 120,75

Address
Site nokia paris saclay 12 rue jean bart
91300 Massy

Region
Ile-de-France > Ile-de-France > Essonne

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

Links
Contact the organisation, Website
Participation in EU R&I programmes
NVIDIA GmbH

Address
Adenauer strasse 20 a4
52146 Wuerselen

Region
Nordrhein-Westfalen > Köln > Städteregion Aachen

Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI

Italy

Net EU contribution

€ 362 500,00

Address

Viale g. p. usberti 181a
43124 Parma

SME

Yes

Region

Nord-Est > Emilia-Romagna > Parma

Activity type

Higher or Secondary Education Establishments

Other funding

€ 0,00

THIRD-PARTY

CONSIGLIO NAZIONALE DELLE RICERCHE

Italy

Net EU contribution

€ 70 691,25

Address
SEQUANS COMMUNICATIONS SA
France
Net EU contribution
€ 364 500,00
Address
15-55 boulevard charles de gaulle les portes de la defense
92700 Colombes
SME
Yes
Region
Île-de-France > Île-de-France > Hauts-de-Seine
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
Other funding
€ 40 500,00
Finland

Net EU contribution

€ 370,000,00

Address

Pentti kaiteran katu 1
90014 Oulu

Region

Manner-Suomi > Pohjois- ja Itä-Suomi > Pohjois-Pohjanmaa

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

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KEYSIGHT TECHNOLOGIES SPAIN SL

Spain

Net EU contribution

€ 524,812,00

Address

Ctra nacional vi km 18,200
28230 Las rozas de madrid

Region

Comunidad de Madrid > Comunidad de Madrid > Madrid

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

€ 58,313,00
NOKIA SOLUTIONS AND NETWORKS GMBH & CO KG

Germany

Net EU contribution

€ 387 000,00

Address

Werinherstrasse 91
81541 Munchen

Region

Bayern ➔ Oberbayern ➔ München, 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

€ 43 000,00

SYNTHARA AG

Switzerland

Net EU contribution

€ 0,00

Address

Dammstrasse 16
6300 Zug

SME

Yes

Region

Schweiz/Suisse/Svizzera ➔ Zentralschweiz ➔ Zug

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)
KING'S COLLEGE LONDON

United Kingdom
Net EU contribution
€ 0,00

Address
Strand
WC2R 2LS London

Region
London > Inner London — West > Westminster

Activity type
Higher or Secondary Education Establishments

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

Other funding
No data

INTERDIGITAL EUROPE LTD

United Kingdom
Net EU contribution
€ 0,00

Address
64 great eastern street
EC2A 3QR London

Region
London > Inner London — East > Hackney and Newham
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
No data

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Permalink: https://cordis.europa.eu/project/id/101096379

European Union, 2023