



# Programmable Reconfigurable Optical Transport for Efficiently offering Unconstrained Services in 6G

## Fact Sheet

### Project Information

#### PROTEUS-6G

Grant agreement ID: 101139134

#### DOI

[10.3030/101139134](https://doi.org/10.3030/101139134)

#### EC signature date

8 December 2023

#### Start date

1 January 2024

#### End date

31 December 2026

#### Funded under

Digital, Industry and Space

#### Total cost

€ 4 182 601,25

#### EU contribution

€ 3 967 251,25

#### Coordinated by

PANEPISTIMIO PATRON

 Greece

## Project description

### Calling on cellular networks to shape Europe's 6G future

As the demand for ultra-high capacity, low-latency, and energy-efficient 6G cellular networks rises, the EU-funded PROTEUS-6G project aims to address the challenge. Through advanced packet-optical x-haul networking infrastructure, PROTEUS-6G leverages novel software-programmable, photonic-integrated-circuit based subsystems. These are operated under an intelligent software management system, streamlining network operations. By enabling flexible functional splits and adapting to dynamic network demands, PROTEUS-6G ensures the efficient use of resources. The consortium's focus spans from academia to industry, promising groundbreaking solutions in wireless-optical connectivity. With its collective expertise, PROTEUS-6G

will reinforce European leadership in 6G networks and foster economic and societal prosperity.

## Fields of science (EuroSciVoc)

[natural sciences](#) > [computer and information sciences](#) > **[software](#)**

[natural sciences](#) > [physical sciences](#) > [optics](#) > **[laser physics](#)**



## Keywords

[6G Fronthaul](#)

[Flexible functional split](#)

[Optical enabled radio systems](#)

[Programmable optical transceivers](#)

[Optical Switching](#)

[Intelligent control](#)

[Energy efficiency](#)

## Programme(s)

[HORIZON.2.4 - Digital, Industry and Space](#)

MAIN PROGRAMME

## Topic(s)

[HORIZON-JU-SNS-2023-STREAM-B-01-03 - Communication Infrastructure Technologies and Devices](#)

## Call for proposal

[HORIZON-JU-SNS-2023](#)

[See other projects for this call](#)

## Funding Scheme

[HORIZON-JU-RIA - HORIZON JU Research and Innovation Actions](#)

# Coordinator



## PANEPISTIMIO PATRON

Net EU contribution

€ 495 625,00

Total cost

€ 495 625,00

Address

**UNIVERSITY CAMPUS RIO PATRAS**

265 04 Rio Patras

 Greece 

Region

Κεντρική Ελλάδα > Δυτική Ελλάδα > Αχαΐα

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

## Participants (11)

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## CONSORZIO NAZIONALE INTERUNIVERSITARIO PER LE TELECOMUNICAZIONI

 Italy

Net EU contribution

€ 270 000,00

Address

**VIALE G. P. USBERTI 181A**

43124 Parma 

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

**€ 270 000,00**

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## CENTRE TECNOLOGIC DE TELECOMUNICACIONS DE CATALUNYA

 Spain

Net EU contribution

**€ 461 875,00**

Address

**AVINGUDA CARL FRIEDRICH GAUSS 7 PARC MEDITERRANI DE TECNOLOGIA**

**08860 Castelldefels Barcelona** 

Region

**Este > Cataluña > Barcelona**

Activity type

**Research Organisations**

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**€ 461 875,00**

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## FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV

 Germany

Net EU contribution

**€ 341 726,25**

Address

**HANSASTRASSE 27C**

**80686 Munchen** 

Region

Activity type

## Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 341 726,25



## THE HEBREW UNIVERSITY OF JERUSALEM

 Israel

Net EU contribution

€ 289 875,00

Address

**EDMOND J SAFRA CAMPUS GIVAT RAM**

**91904 Jerusalem** 

Activity type

## Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

€ 289 875,00



## LIONIX INTERNATIONAL BV

 Netherlands

Net EU contribution

€ 470 250,00

Address

**HENGELOSESTRAAT 500**

**7521 AN Enschede** 

SME 

Yes

Region

**Oost-Nederland > Overijssel > Twente**

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

**€ 522 500,00**



## **OPSYS SENSING TECHNOLOGIES LTD**

 Israel

Net EU contribution

**€ 239 625,00**

Address

**26 HAROKMIM STREET  
5885849 HOLON** 

SME 

Yes

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

**€ 266 250,00**



## **PICADVANCED, SA**

 Portugal

Net EU contribution

**€ 503 437,50**

Address

**UNIVERSIDADE DE AVEIRO INCUBATOR PCI, CREATIVE SCI VIA DO CONHECIMENTO S/N  
3830 352 Ilhavo** 

SME 

**Yes**

Activity type

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

Links

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[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

**€ 559 375,00**

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## **TELEFONICA INNOVACION DIGITAL SL**

 Spain

Net EU contribution

**€ 266 906,25**

Address

**RONDA DE LA COMUNICACION S/N EDIFICO CENTRAL  
28050 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](#) 

Total cost

**€ 296 562,50**

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## **GIOUMPITEK MELETI SCHEDIASMOS YLOPOIISI KAI POLISI ERGON PLIROFORIKIS ETAIREIA PERIORISMENIS EFTHYNIS**

 Greece

Net EU contribution

**€ 257 906,25**

Address

**MITHRIDATOU 36-38**

**11632 Athina** 

SME 

**Yes**

Region

**Αττική > Αττική > Κεντρικός Τομέας Αθηνών**

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

**€ 286 562,50**



**CORIAN T R&D GMBH**

 Germany

Net EU contribution

**€ 200 025,00**

Address

**ST MARTIN STRASSE 76**

**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](#) 

Total cost

**€ 222 250,00**





## UNIVERSIDAD CARLOS III DE MADRID

Spain

Net EU contribution

€ 170 000,00

Address

**CALLE MADRID 126**  
**28903 Getafe (Madrid)**

Region

**Comunidad de Madrid > Comunidad de Madrid > Madrid**

Activity type

**Higher or Secondary Education Establishments**

Links

[Contact the organisation](#) [Website](#)

[Participation in EU R&I programmes](#)

[HORIZON collaboration network](#)

Total cost

€ 170 000,00

## Partners (2)



**PARTNER**

## EIDGENOESSISCHE TECHNISCHE HOCHSCHULE ZUERICH

Switzerland

Net EU contribution

€ 0,00

Address

**Raemistrasse 101**  
**8092 Zuerich**

Region

**Schweiz/Suisse/Svizzera > Zürich > Zürich**

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**



**PARTNER** 

**POLARITON TECHNOLOGIES AG**

 Switzerland

Net EU contribution

**€ 0,00**

Address

**Soodstrasse 52**

**8134 Adliswil** 

SME 

**Yes**

Region

**Schweiz/Suisse/Svizzera > Zürich > Zürich**

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

**No data**

**Last update:** 8 January 2024

**Permalink:** <https://cordis.europa.eu/project/id/101139134>

European Union, 2025