



Photonics Funding Opportunities EU Programmes and Policy Priorities

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Photonics Partnership Annual Meeting – 16 May 2025*

Photonics in Europe

Driving Future Markets



- Market growing 6-7% annually
- Broad range of application areas
- EU strengths: automation, lasers, components & materials, healthcare
- R&D intensity often exceeds 10% of annual turnover
- Over 80% of companies are SMEs (<250 employees)

EU share is about 15% in 2023 - Significant efforts are necessary to stay competitive

Photonics Partnership

Strengthen EU's R&I leadership

Instrument



In **Horizon Europe (2021-2027)** the partnership focuses on supporting core technologies.

Outcome

- For the entire Horizon Europe cycle a budget of **€340 million** is foreseen.
- Alongside **€140 million** for joint calls with other partnerships
- From 2021 to 2025 a total of **54 projects** have been funded with an EC contribution of over **€290 million**.

Photonics Partnership

Active Projects

- Currently 64 active projects within the Photonics Partnership
- Five of them results from 2024

2024 RIA



Smart photonics for joint communication & sensing - EUR 18M

HORIZON-CL4-2024-DIGITAL-EMERGING-01-54

- ECSTATIC / ICON / GASPOF / SENSEI

2024 IA



Photonics Innovation Factory for Europe - EUR 15M

HORIZON-CL4-2024-DIGITAL-EMERGING-01-55 IA

- PHACTORY

HE Topics 2025

Advanced Sensor Technologies and Multimodal Sensor Integration



Overview

- **Call:** HORIZON-CL4-2025-04-DIGITAL-EMERGING-01
- **Budget:** EUR 25M total; EUR 4-6M expected per project
- **Type:** Innovation Action (IA)
- **TRL:** From TRL 3 to TRL 7

Expected Outcome

- Advance photonic sensor efficiency, precision, and energy performance
- Reduce sensor size, cost, and power consumption while enhancing reliability
- Enable multimodal sensing systems for diverse real-world use cases
- Support EU strategic autonomy and technological sovereignty
- Accelerate green and digital transitions through sustainable sensing solutions
- Strengthen Europe's leadership in photonics via industrial uptake and innovation

HE Topics 2025

Core Technologies for Virtual Worlds (w. Virtual Worlds)



Overview

- **Call:** HORIZON-CL4-2025-03-HUMAN-14
- **Type:** Research and Innovation Action (RIA)
- **Budget:** EUR 43M total; EUR 5-6M expected per project
- **TRL:** From TRL 3 to TRL 5

Expected Outcome

- **Area A** (Multimodal Interaction)
 - Realistic XR immersion via multimodal sensory integration.
 - Enhance multimodal immersive experiences by integrating advanced XR technologies.
- **Area B** (Photonics Technologies)
 - Enhanced microdisplay performance (resolution, efficiency, power).
 - Improved accuracy of photonic sensing devices.
- Ethical, inclusive, secure Virtual Worlds solutions.
- Cross-sector uptake via transdisciplinary research.

HE Topics

Info Days Cluster 4



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FUNDING OPPORTUNITIES

HORIZON EUROPE

INFO DAYS

Cluster 4
Digital, Industry
& Space

Save the date
13-14 May

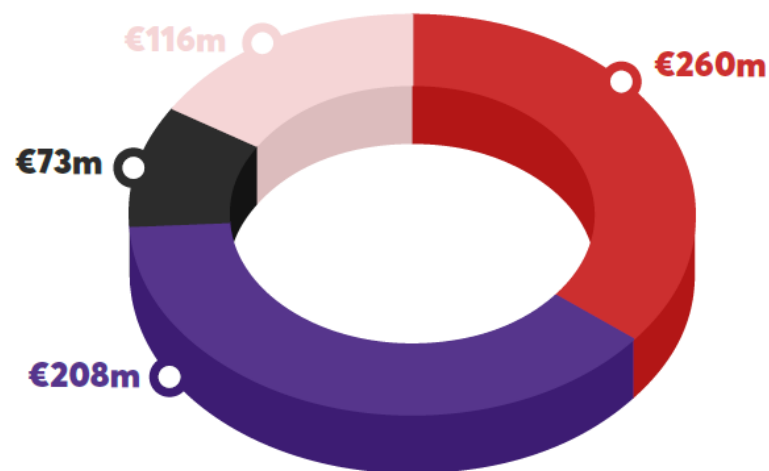
#HaDEA #HorizonEU

 European Commission

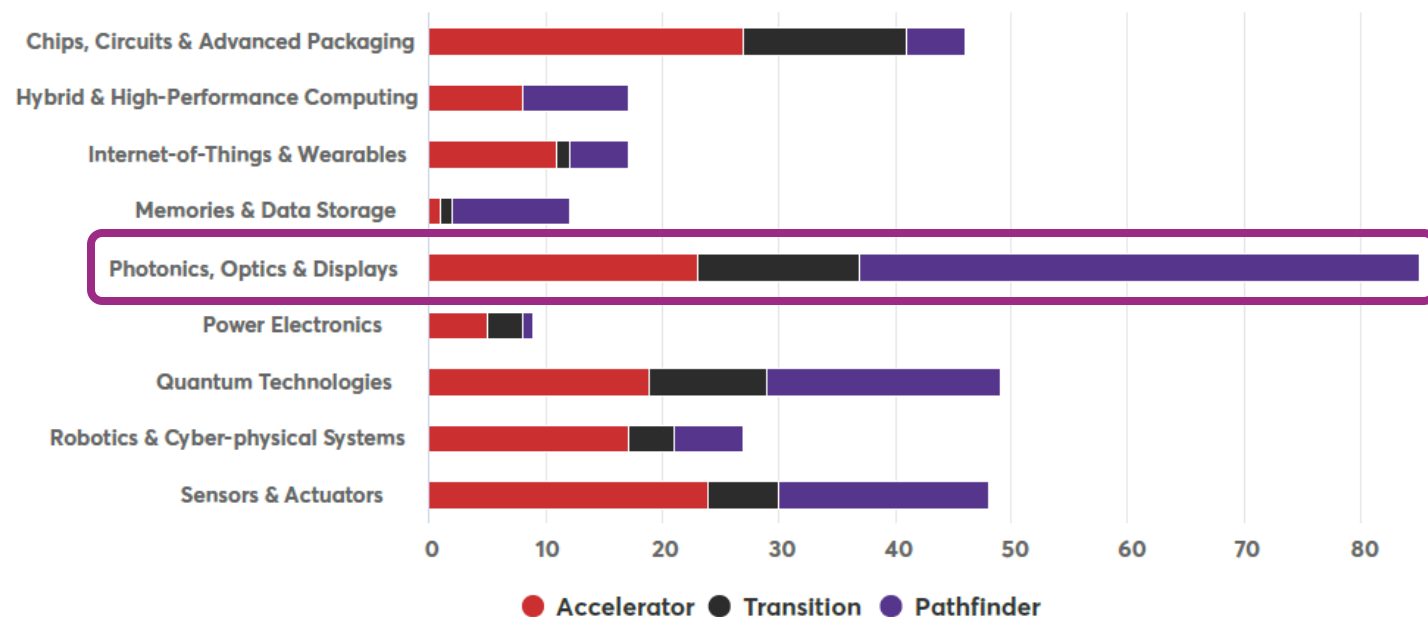
A vibrant, colorful illustration for the Horizon Europe funding opportunities poster. It features a large, 3D 'HORIZON EUROPE' text in the center. Various stylized figures are interacting with the text and the environment. Above the text, a person is skydiving, and a yellow rocket is flying. Below the text, people are sitting on a bench, walking, and one person is pushing a stroller. A small rocket is on the ground to the right. The background is a light blue sky with clouds and a green ground. The overall theme is innovation and research.

Chips Fund

Funding Overview



● Pathfinder ● Accelerator: Proposed Investment
● Transition ● Accelerator Grant



- Nearly 140 projects with over €650 million in funding across all EIC schemes
- Over €250 million for Semiconductors and
- Over €225 million in support for Quantum Technologies

Pillar I – Chips for Europe Initiative

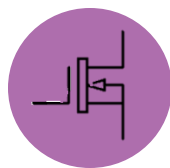
Pilot Lines

IMEC (BE) (€1,485 B)



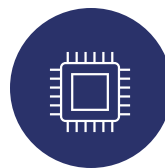
Leading-edge nodes
below 2nm

CEA-Leti (FR) (€831 M)



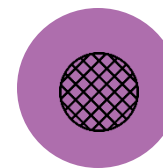
FD-SOI scaling
towards 7nm

Fraunhofer (DE) (€746 M)



Heterogeneous
systems integration
and assembly

CNR (IT) (€320 M)



Wide-bandgap
semiconductors

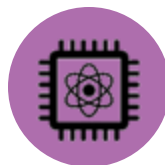
ICFO (ES) (€380 M)



Advanced Photonic
Integrated Circuits

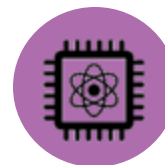
Proposals selected, grants under negotiation

N.N. (€0 M)



Quantum Chip for
Trapped Ions

N.N. (€0 M)



Quantum Chip for
Stability Pilots

Calls closed - six proposals received

IPCEI AST

Advanced Semiconductor Technologies

- During the JEF meeting in November 2024, **15 Member States endorsed the proposal for a 3rd IPCEI** on semiconductors: IPCEI AST - Advanced Semiconductor Technologies.
- The NL is coordinating **Member States activity** for the IPCEI AST design.
- The **Chapeau Text** (including national strategies, envisaged activity, national selection procedure, ...) is targeted to **Q4 2025**.
- **Commission will assess** proposals vs IPCEI Communication notified by Member States likely during 2026.
- The Commission is closely following the design process and the **technology topics** under discussion such as advanced packaging, AI chips and **photonics**.



Summary

Available support tools:

- **HE:** Grants for R&D and Innovation
- **Pilot Lines:** PIXEurope, APECS, PhotonixFAB...
- **Other CfEI:** Competence Centres, Design Platform, Quantum
- **RIA & IA:** bottom-up calls
- **EIC and EIB:** Grants, equity investments, and loans
- **FOAK:** State Aid for 'First of a Kind' facilities
- **IPCEI:** Important Projects of Common European Interest

Thank you