Photonics Innovation Hub for Europe

Hugo Thienpont
SMEs are the motor of Europe’s innovation economy

The SME sector in Europe

24 million
There are more than 24 million SMEs in Europe.

50%+
They contribute more than half of all business turnover.

260,000
2/3 are classified as Innovative Enterprises by the EC.

They make up more than 99% of all the region’s businesses.

They account for two thirds of all employment.
SMEs are active in a variety of industry sectors. All these industry sectors need innovation and digital transformation.
8 key technologies are currently enabling the processes of discovery, innovation, and digitization.

- Photonics
- Advanced Manufacturing
- Biotechnology
- Advanced Materials
- Nanotechnology
- Nanoelectronics
- Artificial Intelligence
- Cyber Security
Photonics: a key-enabling and key-digital technology
SMEs need support along the entire innovation valley of death
To successfully innovate with photonics SMEs need support

- Orienteering
- Training and Reskilling
- Deep Innovation Support TRL 3 - 8
- Business Coaching
- Investment Coaching
- Regional Support
All these photonics innovation support services are best made accessible through a single one-stop-shop.
Two possibilities for the budget

- a range of photonics technologies: contribution from the EU of up to EUR 9.5 million
- the greatest possible range of photonics technologies: contribution of the EU of up to EUR 19 million
Mission: Creating and Operating a sustainable Photonics Innovation Hub

- to support European SMEs
- in particular first time users and early adopters
- built on previous initiatives and existing European infrastructure

- with photonics prototyping, pilot-line, and manufacturing support
- along the entire valley of death TRL 3-8
- with IP, business, finance, and training coaching

- foster a European ecosystem of local digital photonics hubs
- with strong links to the local government for co-funding
- with links to other digital innovation hubs supporting other KETs
15 years of EU-wide networking, integration, access and pilot line efforts create a solid basis for a photonics DIH.
Key-role players of PhotonHub Europe

Nathalie Debaes - Outreach
Peter O’Brien - Training
Coord. Hugo Thienpont - Innovation Support
Ewit Roos - Innovation Support
Jose Pozo - Innovation Support
Mayte Carracedo - Investment coaching
Peter Doyle - Business Plan
Ziga Valic - Regions
Roberto Pini - Regions
54 partners
500+ experts
15 member states
Orienteering

Training and Reskilling

Deep Innovation Support TRL 3 - 8

Business Coaching

Investment Coaching

Regional Support

A Pan-European One-Stop-Shop Photonics Innovation Hub
Outreach and Orienteering as a one-stop-shop

Targeted Outreach Campaigns to Industry Brokerage events

Orienteering the High-Quality Leads

Targeted Outreach Campaigns to Industry Exhibitions

Front Office Gateway in Brussels
European Photonics Innovation Academy: Skills and Training

Online General Intro to Photonics for SMEs
First users and Early Adopters

Online Catalogue of Existing Training Offerings

Onsite Training Programmes for SMEs
at Demo Centres and Experience Centres

Train-the-Trainers Programme for
Professional and Vocational Training Centres

Training and Reskilling
Innovation Support: Prototyping-Upscaling-Manufacturing

Scouting of Potential Innovation Projects
Assessment of Business Plans

Accelerating Prototyping through
Innovation Projects with Companies TRL3-4

Accelerating Upscaling involving
EU Pilot-Line Facilities TRL5-6

Accelerating Manufacturing in Europe
Through Brokerage Supports TRL7-8
Prototyping Innovation Support Offered by 8 Platforms

- free-space optics
- polymer-based optics
- specialty fibers
- MOEMS
- Si–PICs
- SiN PICS
- InP–PICs
- Laser-based manufacturing
Gateway to EU Pilot Lines for upscaling financially supported for first users and early adopters.
Support European Companies to Find Investment

**Investment Readiness Program**

First-Level Investment-Readiness Coaching for Companies Deploying Photonics Technologies

Intensive Investor Pitching and Matchmaking Support for High-Potential Start-Ups and Scale-Ups

- Running the “European Photonics Venture Forum” for photonics start-ups and scale-ups
- Running the “Investor Days” for photonics-enabled start-ups and scale-ups
Sustainability, Regional Collaboration, Pan-EU Ecosystem

- Fine-Tuning the Business Plan for Sustainability of PhotonHub Association 2024+

- Implementing with the “Lighthouse Regions” financial mechanisms for cross-border innovation support

- Creating New Local Photonics Innovation Hubs Covering Most Regions of Europe

- Connecting the PhotonHub Network with complementary DIHs
Key Principles of PhotonHub Europe

- support European SMEs with photonics innovation **driven by their business needs**
- local support where possible, **local innovation projects funded by local means**
- cross-border support where needed, **cross-border projects funded by PhotonHub**
- access to pilot-line facilities for first-time users funded through **cascading funds**
- team up and co-fund as much as possible with existing programs: **EEN brokerage events, EPVF, Innovation Days, Trainings**
- be complementary to BestPhorm21 and join forces
A QUANTITATIVE IMPACT
100,000+ European companies with raised awareness of photonics innovation potential

5,800 companies visiting the Demo and Experience Centres

€742M new company revenues directly linked to innovation support

€93M new venture capital raised by EU start-ups directly linked to photonics prototyping and investor matchmaking supports

90% of the companies benefiting from expert personalised orienteering are SMEs

170 new photonics-enhanced products developed and manufactured in the EU directly linked to innovation support

€100M new business for EU photonics manufacturers directly linked to innovation support

€36M new growth capital raised by EU scale-ups directly linked to photonics upscaling / manufacturing

1,080 new high-tech EU jobs directly linked to innovation support

TARGETED ECONOMIC IMPACT
TARGETED ECOSYSTEM IMPACT

€75M allocated in regional grants for local photonics innovation support to 100 companies directly linked to PhotonHub coaching and scouting support

7 EU regions each commit €500K annually from 2025 onwards for the financial support of cross-border photonics innovation projects

40 founding partners establish the PhotonHub Europe Association by 2024 that seamlessly and durably continues the photonics innovation support offerings of PhotonHub

5 new local photonics innovation hubs created across the European regions by 2025

Business plan that underpins the long-term sustainability of PhotonHub Europe with breakeven status already in Y1

€75M allocated in regional grants for local photonics innovation support to 100 companies directly linked to PhotonHub coaching and scouting support

7 EU regions each commit €500K annually from 2025 onwards for the financial support of cross-border photonics innovation projects

40 founding partners establish the PhotonHub Europe Association by 2024 that seamlessly and durably continues the photonics innovation support offerings of PhotonHub

5 new local photonics innovation hubs created across the European regions by 2025

Business plan that underpins the long-term sustainability of PhotonHub Europe with breakeven status already in Y1