

Photonics Innovation Hub for Europe

Hugo Thienpont





PHOTONICS PUBLIC PRIVATE PARTNERSHIP

SMEs are the motor of Europe's innovation economy

The SME sector in Europe

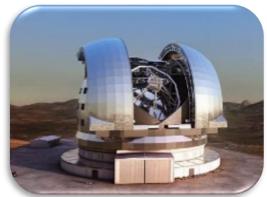




Manufacturing



Agro-food



Safety Security Space Defence



all these industry sectors need innovation and digital transformation



Energy





Digital Infrastructure



Mobility

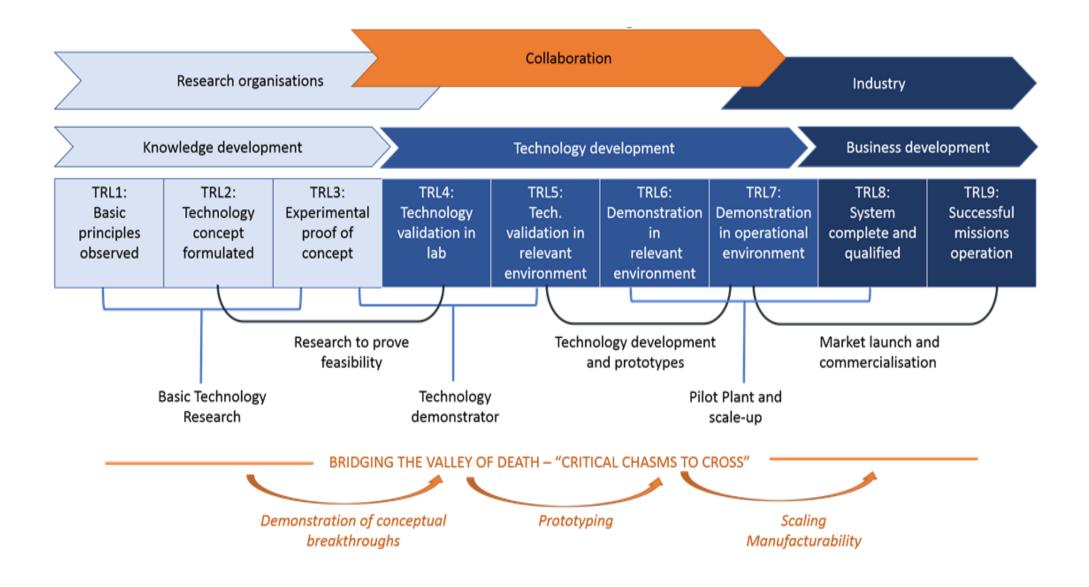
8 key technologies are currently enabling the processes of discovery, innovation, and digitization



Photonics: a key-enabling and key-digital technology



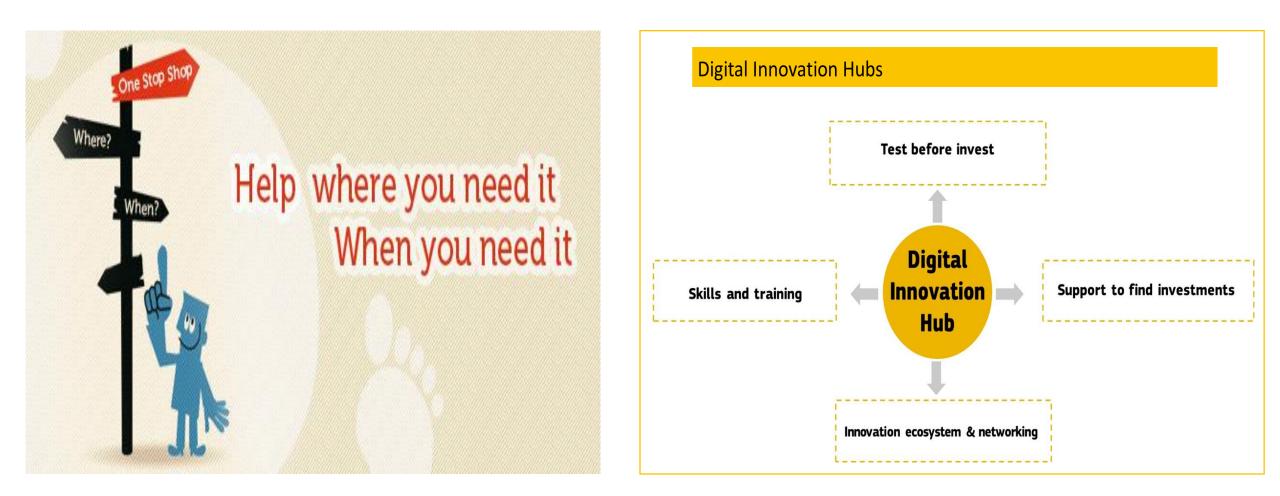
SMEs need support along the entire innovation valley of death



To successfully innovate with photonics SMEs need support



All these photonics innovation support services are best made accessible through a single one-stop-shop





Photonics calls in ICT Workprogramme 2020

DT-ICT-04-2020 Photonics Innovation Hubs Innovation Actions PO: Eddy Corthals

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



2004-2009



Photonics Innovation Hub for Europe

info@photonhub.eu www.photonhub.eu





PHOTONICS PUBLIC PRIVATE PARTNERSHIP

Key-role players of PhotonHub Europe



Nathalie Debaes Outreach



Mayte Carracedo Investment coaching



Peter O'Brien Training



Peter Doyle Business Plan



Coord. Hugo Thienpont Innovation Support



Ewit Roos Innovation Support



Jose Pozo Innovation Support



Ziga Valic Regions



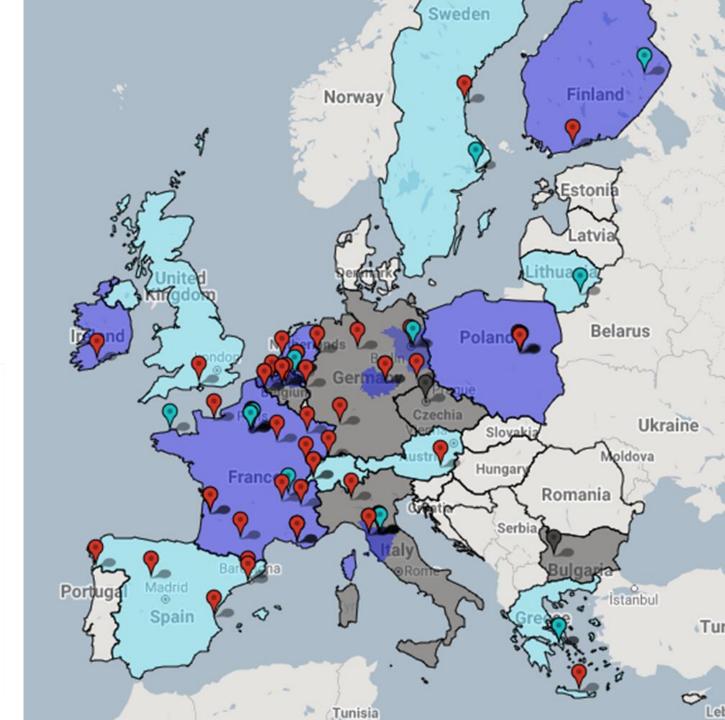
Roberto Pini Regions





54 partners 500+ experts 15 member states







A Pan-European One-Stop-Shop Photonics Innovation Hub



Orienteering



Outreach and Orienteering as a one-stop-shop



Targeted Outreach Campaigns to Industry Brokerage events



Orienteering the High-Quality Leads

europe network



EPIC

uropean Photonics

Targeted Outreach Campaigns to Industry Exhibitions



Front Office Gateway in Brussels

European Photonics Innovation Academy: Skills and Training



Training and Reskilling





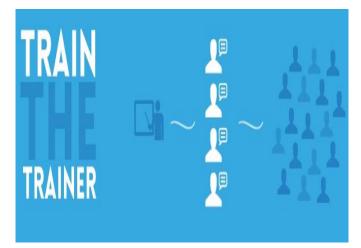
Online General Intro to Photonics for SMEs First users and Early Adopters



Online Catalogue of Existing Training Offerings

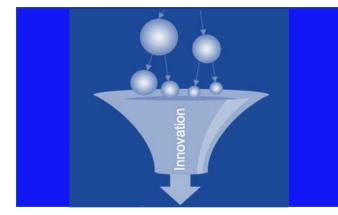


Onsite Training Programmes for SMEs at Demo Centres and Experience Centres



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

Innovation Support: Prototyping-Upscaling-Manufacturing



Scouting of Potential Innovation Projects Assessment of Business Plans

Deep Innovation Support TRL 3-8

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Accelerating Upscaling involving EU Pilot-Line Facilities TRL5-6



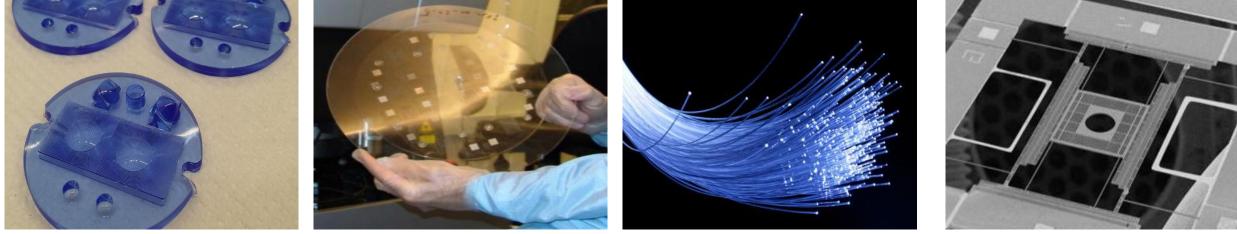
Accelerating Prototyping through Innovation Projects with Companies TRL3-4

EPIC



Accelerating Manufacturing in Europe Through Brokerage Supports TRL7-8

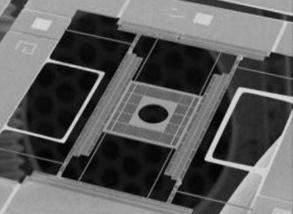
PHOTONHUB® EUROPE **Prototyping Innovation Support Offered by 8 Platforms**



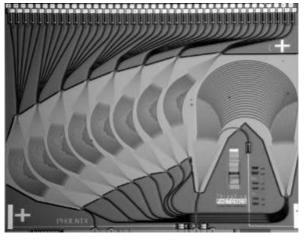
free-space optics

polymer-based optics

specialty fibers







MOEMS



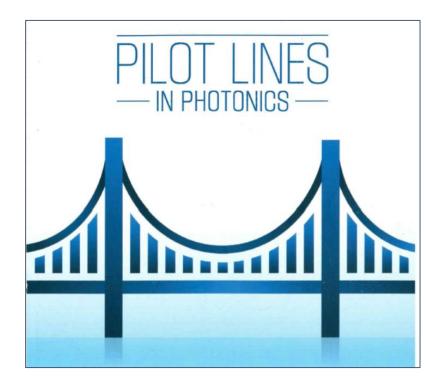
Si –PICs



InP –PICs

Laser-based manufacturing









Investment Coaching



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

FundingBox

COTECNIOUR EPVEL European Photonics Venture Forum

Running the "European Photonics Venture Forum" for photonics start-ups and scale-ups

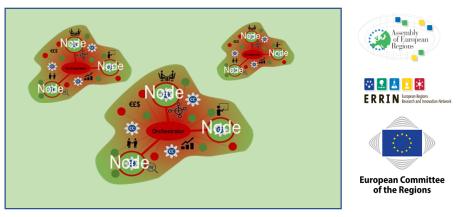


Running the "Investor Days" for photonics-enabled start-ups and scale-ups

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



PHOTONHUB[®] EUROPE



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



TARGETED ECONOMIC 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 startups directly linked to photonics prototyping and investor matchmaking supports



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



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



TARGETED ECOSYSTEM IMPACT



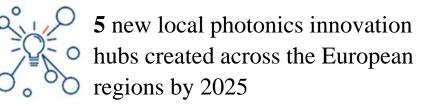
€75M allocated in regional grants for local photonics innovation support to 100 companies directly linked to PhotonHub coaching and scouting support



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

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





Business plan that underpins the long-term sustainability of PhotonHub Europe with **breakeven** status already in **Y1** of Science, IQOQI • Austrian Institute of Technology • Carinthia University of Applied Sciences • Carinthian Tech Research AG • Crystalline



Wien, Photonics Institute • TU Vienna • UAR GmbH • Universität Innsbruck • University of Graz • University of Graz



VISION BELGIUM . V of Chemical Techno 1

of Gent • University of Leuven

Physical Biology, University of South

b, CROAT

iLab MODULIGHT de ot l ster • ALPhANO