

#### **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

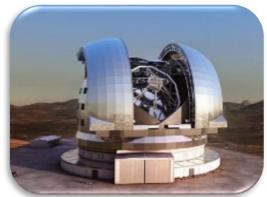




Manufacturing



Agro-food



#### Safety Security Space Defence



all these industry sectors need innovation and digital transformation



Energy





**Digital Infrastructure** 



Mobility

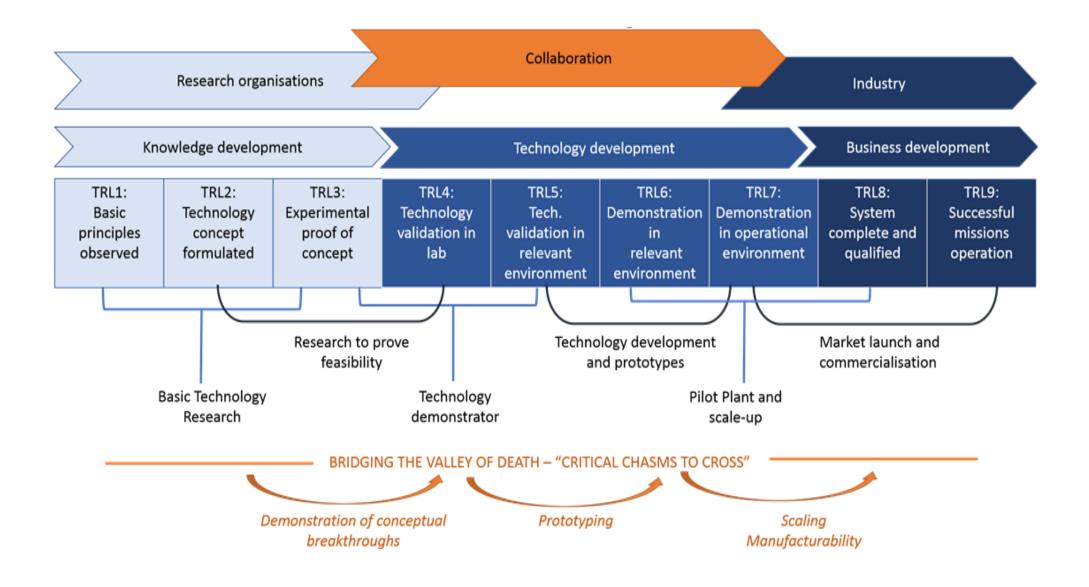
8 key technologies are currently enabling the processes of discovery, innovation, and digitization



#### Photonics: a key-enabling and key-digital technology



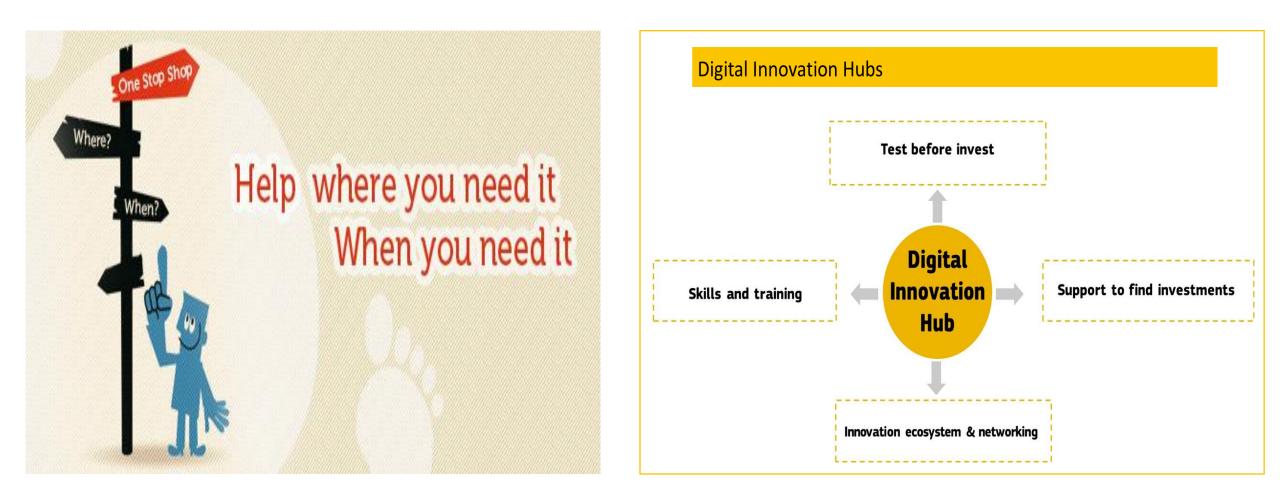
#### SMEs need support along the entire innovation valley of death



## 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



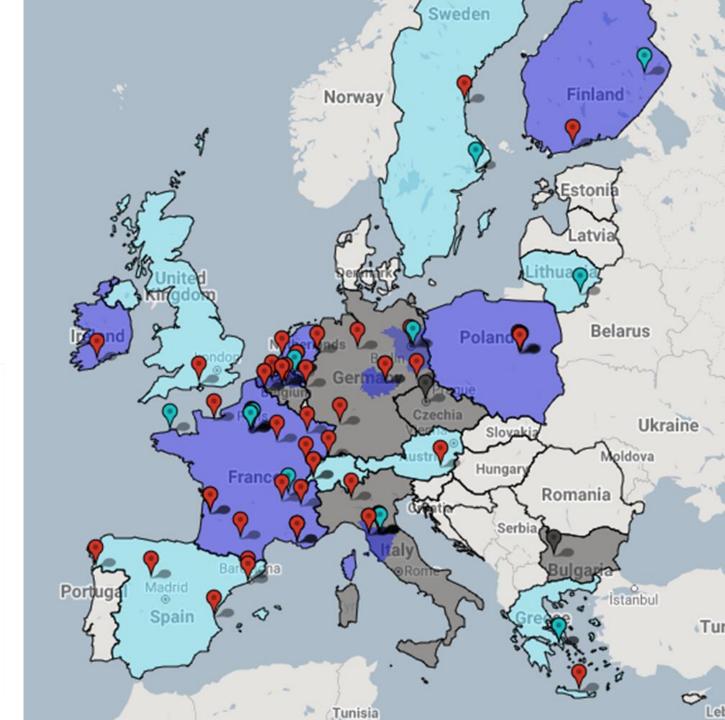
Roberto Pini Regions





#### 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



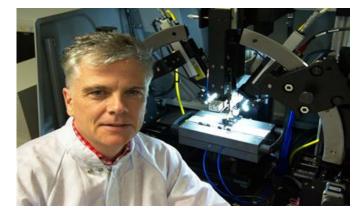
**Front Office Gateway in Brussels** 

#### **European Photonics Innovation Academy: Skills and Training**



Training and Reskilling





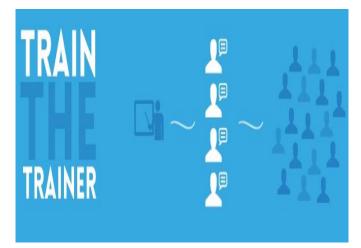
Online General Intro to Photonics for SMEs First users and Early Adopters



**Online Catalogue of Existing Training Offerings** 

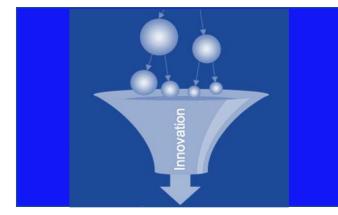


**Onsite Training Programmes for SMEs at Demo Centres and Experience Centres** 



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

ORT





Accelerating Upscaling involving EU Pilot-Line Facilities TRL5-6



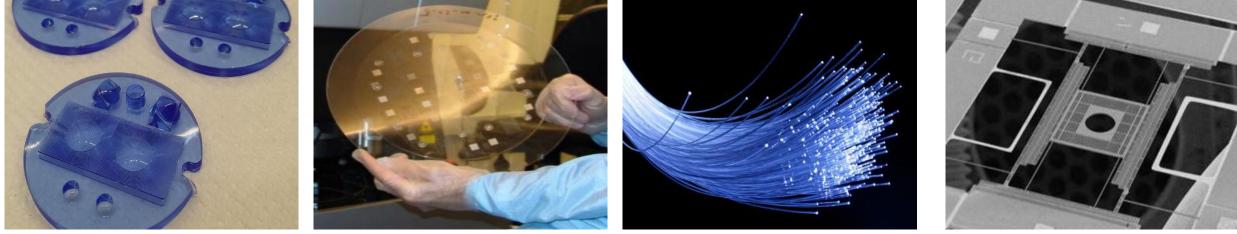
Accelerating Prototyping through Innovation Projects with Companies TRL3-4

EPIC



Accelerating Manufacturing in Europe Through Brokerage Supports TRL7-8

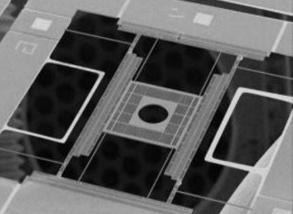
#### PHOTONHUB® EUROPE **Prototyping Innovation Support Offered by 8 Platforms**



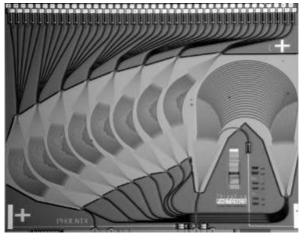
#### free-space optics

#### polymer-based optics

#### specialty fibers







MOEMS



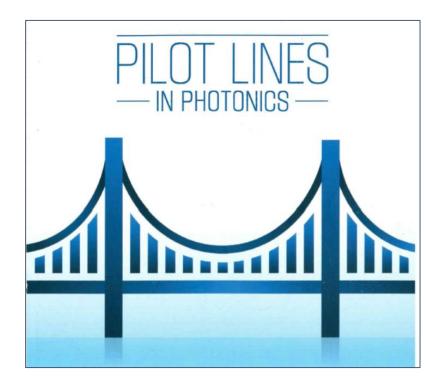
Si –PICs



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

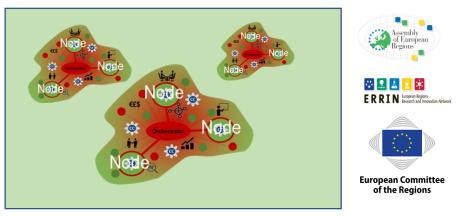


Running the "Investor Days" for photonics-enabled start-ups and scale-ups

#### 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<sup>®</sup> 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



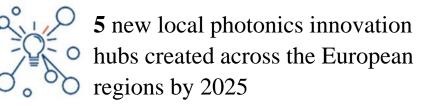
€75M allocated in regional grants for local photonics innovation support to 100 companies directly linked to PhotonHub coaching and scouting support



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