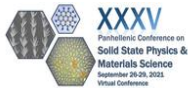


Ελληνική Εταιρεία Φωτονικής

Hellenic Photonics Cluster (HPhos)

**Εθνικές Ερευνητικές Υποδομές:
Materials and Analytical Facilities**

27 Σεπτεμβρίου 2021



ΕΛΛΗΝΙΚΗ ΕΝΩΣΗ ΦΩΤΟΝΙΚΗΣ Αστική Μη Κερδοσκοπική
Εταιρία **H-Phos** (Hellenic Photonics Cluster) **Ίδρυση 2015**

- Εταίροι/μέτοχοι του HPhos
 - ΜΜΕ εταιρίες
 - Δίκτυο ΠΡΑΞΗ/ΙΤΕ
- Συνεργαζόμενα μέλη
 - Ερευνητικά και ακαδημαϊκά ιδρύματα
 - Μεγάλες επιχειρήσεις ή θυγατρικές ξένων εταιριών και επιχειρήσεις χωρίς ελληνικό ΑΦΜ

ΕΛΛΗΝΙΚΗ ΕΝΩΣΗ ΦΩΤΟΝΙΚΗΣ Αστική Μη Κερδοσκοπική Εταιρία **ΗPhos** (Hellenic Photonics Cluster)

- Ιανουάριος 2015 (Ίδρυση)
 - ❑ 16 Εταίροι/μέτοχοι
 - ❑ 3 Συνεργαζόμενα μέλη
- 2016-2017
 - ❑ 11 Εταίροι/μέτοχοι
 - ❑ 4 Συνεργαζόμενα μέλη
- Διεύρυνση 2021
 - ❑ 21 Εταίροι/μέτοχοι
 - ❑ 10 Συνεργαζόμενα μέλη
 - ❑ Οικοσύστημα με περίπου 50 επιπλέον φορείς

- Technology/Knowledge intensive
- Συνεργασία επιχειρήσεων για την δημιουργία ολοκληρωμένων προϊόντων και υπηρεσιών
- Αλυσίδα αξίας
- Καινοτομία στην παραγωγή διαδικασία και στα προϊόντα/υπηρεσίες
- Στενή συνεργασία ερευνητικής και επιχειρηματικής κοινότητας.
- Εξωστρέφεια /παγκόσμια αγορά

- Έμφαση στην **αλυσίδα αξίας** με την συμμετοχή εταιριών για μια **ολιστική** προσέγγιση εφαρμογών, προϊόντων, υπηρεσιών και διατάξεων
 - ❑ Άμεσης ανάπτυξης φωτονικής τεχνολογίας
 - ❑ Παραγωγικές, χρήστες φωτονικής τεχνολογίας (end users)
 - ❑ Ρομποτικής, αυτοματισμού και επεξεργασίας δεδομένων
 - ❑ Κατασκευής παραγωγικών συστημάτων
 - ❑ Εξειδικευμένων μηχανουργικών μικροκατεργασιών
 - ❑ Προστασίας ΙΡ και νομικής υποστήριξης
 - ❑ Πιστοποίησης ή/και διαμόρφωσης προτύπων
 - ❑

- Research & Networking
- Commercial Cooperation
- Innovation & Technology
- Education & Training
- Cluster Expansion
- Policy Action

Δράσεις ανάπτυξης του HPhos



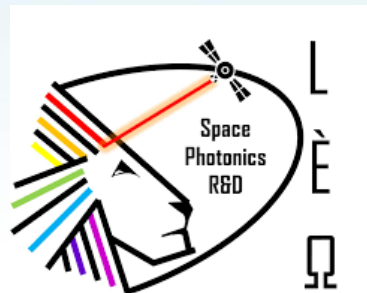
HPhos members 1/3



HPhos members 2/3



HPhos members 3/3



HPhos international network 1/2

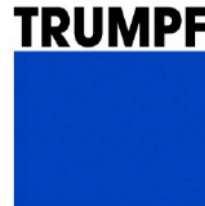


PHOTONICS PUBLIC PRIVATE PARTNERSHIP

Photonics21 > 2500 members



HPhos international network 2/2





The ALPHA - Route des Lasers & des Hyperfréquences[®] (ALPHA-RLH) is based in the Nouvelle-Aquitaine region (Bordeaux, Limoges and La Rochelle) and brings together talents in Photonics and Microwave technologies. It facilitates progress and innovation at the service of the economic development.

It is based on six Strategic Fields of Activity and one Cross-Disciplinary Field of Activity.



ALPHA-RLH is structured around two key Strategic Fields of Activity: [Photonics-Lasers](#) (laser sources and procedures, optical components, instrumentation) and [Microwaves-Electronics](#) (integrated circuits, radiocommunication systems, radar systems), **with the support of digital tools** ([Digital Solutions & the Factory of the Future](#) Cross-Disciplinary Field of Activity).

MoU με AviaSpace



  **BREMEN
BREMERHAVEN**
HOME OF INNOVATION

WE TAKE OFF WITH YOU
BREMEN AS A CENTER
FOR AERONAUTICS AND
SPACE INDUSTRIES

Ministry of Economic Affairs,
Labour and Ports  Free
Hanseatic City
of Bremen 

MoU με AviaSpace

SPACE IN BREMEN THE SKY IS NOT THE LIMIT

Space expertise from Bremen is orbiting all around the globe. Satellites and carrier rockets for space have been developed and manufactured in Bremen for more than 50 years. Bremen can look back at its achievements with pride: the science laboratory *Columbus* and the cargo spacecraft *ATV*, which were Europe's contribution to the International Space Station *ISS*, were both developed in the Airbus plant. The service module of the new NASA spacecraft *Orion* also comes from factories in Bremen. In addition *Ariane* rockets have always included parts made in Bremen, as *ArianeGroup* has been constructing the upper stages of the launch vehicles here since 1979, and can now look back on more than 220 launches. Furthermore, *DHB SE* with its *Space Systems* division is highly renowned on an international level.



Top: The Automated Transfer Vehicle (ATV) in use
Bottom: Integration of the Eu-CROPIS satellite at the German Aerospace Center IDLR in Bremen

AIRBUS WING PRODUCTION AERONAUTICS IN BREMEN

With approximately 4,500 employees, Bremen is the second-largest Airbus plant in Germany, manufacturing the high-lift systems of all Airbus programs. The entire process chain, from the design to manufacture and integration through to testing, is established here. This includes the project office, technology and systems engineering, flight physics, structural development and assembly, verification tests, wing equipping and delivery.



For the A400M transport aircraft, Bremen develops and manufactures the integrated fuselage section including the cargo loading system. In the field of materials and process development, new technologies are being researched and developed through to series production in Bremen. In short: Airbus relies on the aeronautics expertise of Bremen, which can be traced back to 1910.

Top: The A330neo plane developed by Airbus
Bottom: View of the wing assembly floor at Airbus



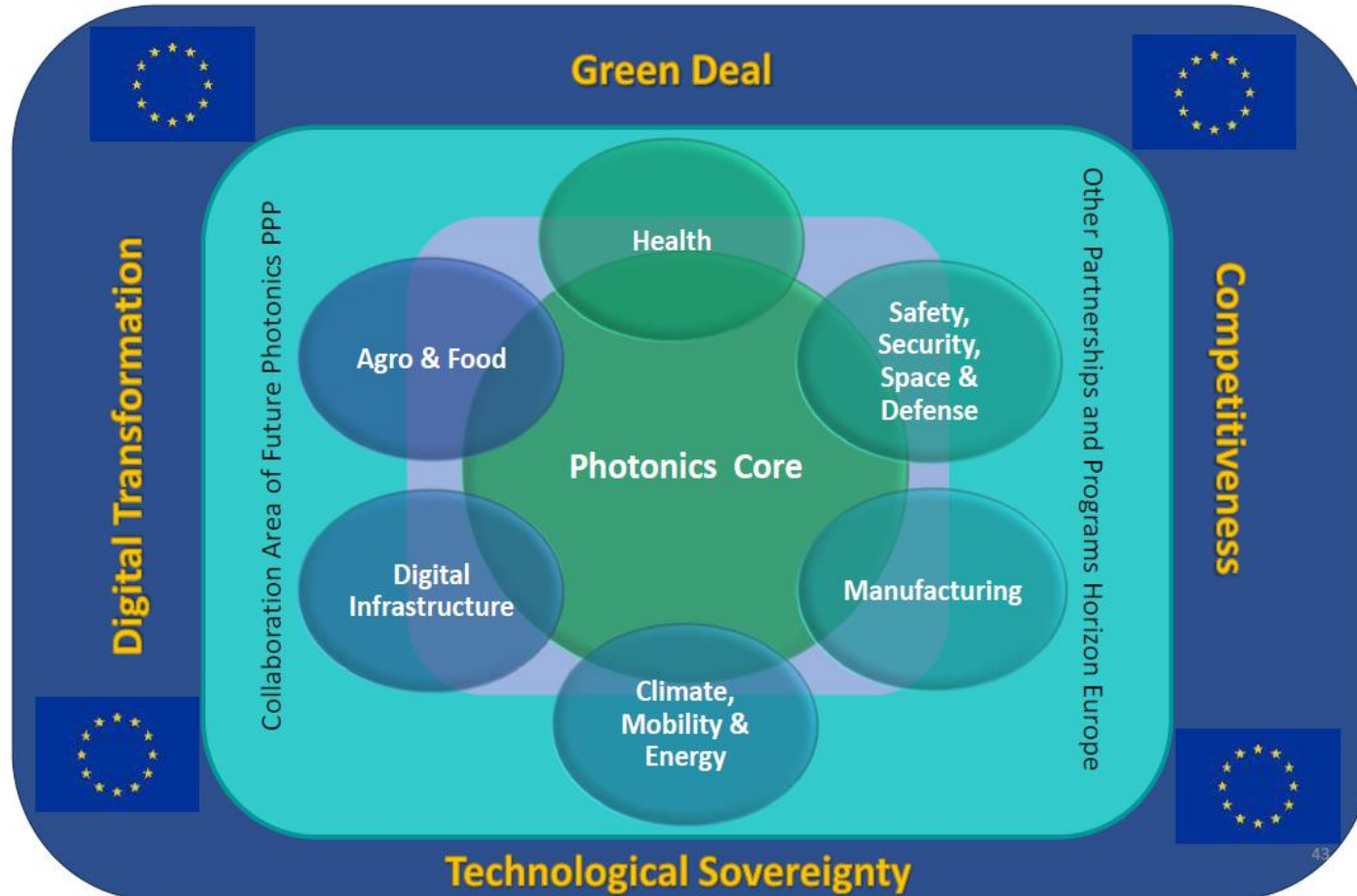
BoS Online Election 2019

Elected Candidates sorted by Affiliation

Name	First Name	Affiliation	Country	Type
Petsch	Tino	3D-Micromac AG	Germany	Industry
Eiselt	Michael	ADVA Optical Networking SE	Germany	Industry
Simon	Ulrich	Carl Zeiss AG	Germany	Industry
Diamanti	Eleni	Centre National de la Recherche Scientifique	France	Research
Simon	Santiago	DAS PHOTONICS, S.L.	Spain	Industry
Pauliat	Gilles	European Optical Society	Finland	Others
Gillner	Arnold	Fraunhofer-Institute for Laser Technology	Germany	Research
Baets	Roel	Ghent University	Belgien	Research
Hontzopoulos	Elias	Hellenic Photonics Cluster, HPhos	Greece	Others
Davies	Iwan	IQE plc	UK	Industry
Luger	Siegfried	Luger Research e.U.	Austria	Industry
Tjörnhammar	Staffan	Photonic Sweden- RISE Acreo	Sweden	Others
Nogueira	Rogério Nune	Sociedade Portuguesa para a Investigação e Desenvolvimento em Optica e Fotónica (SPOF)	Portugal	Research
Leyens	Christoph	TU Dresden / Institute of Materials Science	Germany	Research
Townsend	Paul	Tyndall National Institute	Ireland	Research
Källhammer	Jan-Erik	Veoneer Sweden AB	Sweden	Industry

Photonics21 in Horizon Europe New Structure

The Future Structure Photonics PPP - Embedded in the new EU Landscape



Photonics21 in Horizon Europe New Structure



Discover the Photonics21 Work Groups

Work Group 1

Digital Infrastructure

Work Group 2

Manufacturing

Work Group 3

Health

Work Group 4

Climate, Mobility & Energy

Work Group 5

Safety, Security, Space & Defense

Work Group 6

Agriculture & Food

Work Group 7

Core Photonics

HPhos participation in H2020 Funded projects

- 1. EuroPho21: Implementing the European Photonics21 PPP strategy**
(1 January 2015 – 31 December 2017)
- 2. 779664-NextPho21: Developing and implementing the Next European Photonics21 industrial PPP Strategy**
(1 January 2018 – 31 December 2020)
- 3. 871875-SEER: A “Smart” Self-monitoring composite tool for aerospace composite manufacturing using Silicon photonic multi-sensors Embedded using through-thickness Reinforcement techniques**
(1 January 2020 – 31 December 2022)



Horizon 2020

Call: H2020-ICT-2018-20

(Information and Communication Technologies)

Topic: ICT-37-2020

Type of action: CSA

Proposal number: 101016520

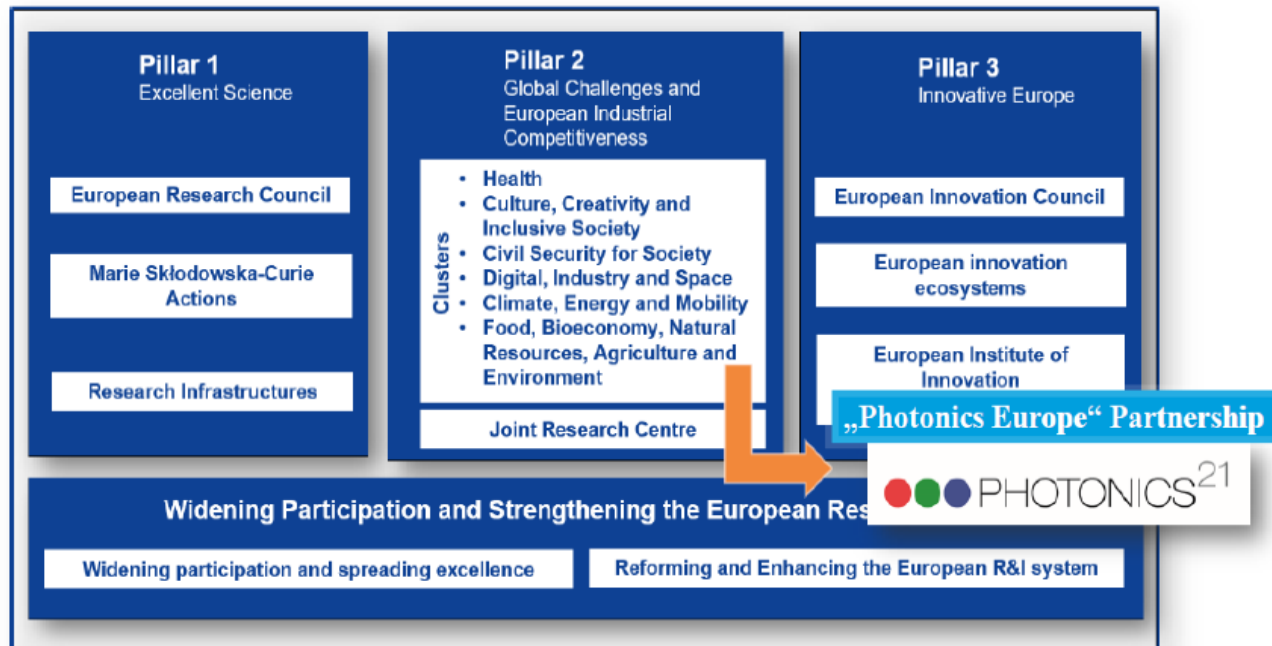
Proposal acronym: BestPhorm21

Deadline Id: H2020-ICT-2020-2

1 January 2021 – 31 December 2023

BestPhorm21 provides the support structure to the HEurope Photonics Partnership

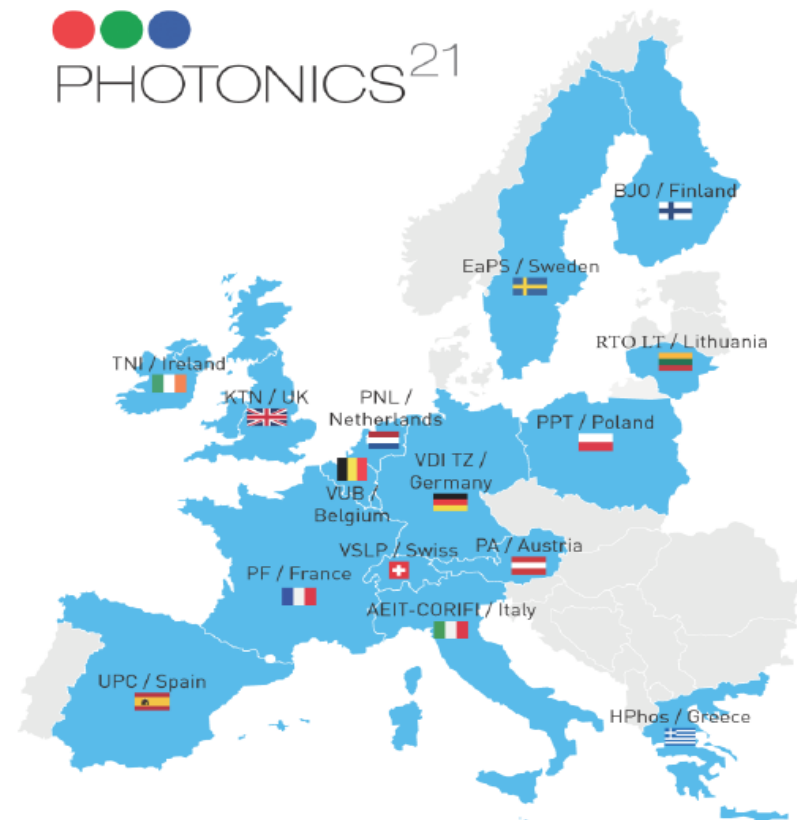
Structure „Horizon Europe“ Framework Programme (2021-27)



BestPhorm21 CSA

Partners

#	Participant Legal Name	Country
1	VDI TECHNOLOGIEZENTRUM GMBH	Germany
2	ASSOCIAZIONE ITALIANA DI ELETTROTECNICA, ELETTRONICA, AUTOMAZIONE, INFORMATICA E TELECOMUNICAZIONI	IT
3	PHOTONICS FINLAND	FI
4	EKONOMISKA FORENINGEN PHOTONICSWEDEN	SE
5	ELLINIKI ENOSI FOTONIKIS ASTIKI MIKEROSKOPIKI ETAIRIA	EL
6	KNOWLEDGE TRANSFER NETWORK LIMITED	UK
7	Moksliniu tyrimu ir technologiju organizaciju asociacija	LT
8	PHOTONICS AUSTRIA - PLATTFORM ZUR FORDERUNG DER OSTERREICHISCHEN INTERESSEN IM BEREICH PHOTONIKERICH PHOTONIK	AT
9	PHOTONICS FRANCE	FR
10	POLSKA PLATFOMA TECHNOLOGICZNA FOTONIKI	PL
11	UNIVERSITY COLLEGE CORK - NATIONAL UNIVERSITY OF IRELAND, CORK	IE
12	UNIVERSITAT POLITECNICA DE CATALUNYA	ES
13	VEREIN SCHWEIZER LASER UND PHOTONIK NETZ	CH
14	VERENIGING PHOTONICSNL	NL
15	VRIJE UNIVERSITEIT BRUSSEL	BE



PHOTONICS PUBLIC PRIVATE PARTNERSHIP



Horizon 2020

Call: H2020-DT-2018-2020

(Digitising and transforming European industry and services: digital innovation hubs and platforms)

Topic: DT-ICT-04-2020

Type of action: IA

Proposal number: 101016665

Proposal acronym: PhotonHub Europe

Deadline Id: H2020-DT-2020-1

1 January 2021 – 31 December 2024



PhotonHub Europe®

PHOTONICS INNOVATION HUB
FOR EUROPE



PHOTONICS PUBLIC PRIVATE PARTNERSHIP

PhotonHub is a unique pan-EU large-scale consortium, integrating the following key capabilities and resources of a total of **53 partners** into a single one-stop-shop Photonics Innovation Hub for Europe:

- ❖ **36 Technology Support partners** representing the top competence centres from across Europe offering the broadest possible range of photonics technologies and photonics specialist domains
- ❖ **11 Local Photonics Hub partners** representing other EU regions with an existing smart specialisation in photonics.
- ❖ **6 Business Support partners** with specialist resources for supporting SMEs with business coaching, IP advisory support, investment-readiness mentoring and investor matchmaking.

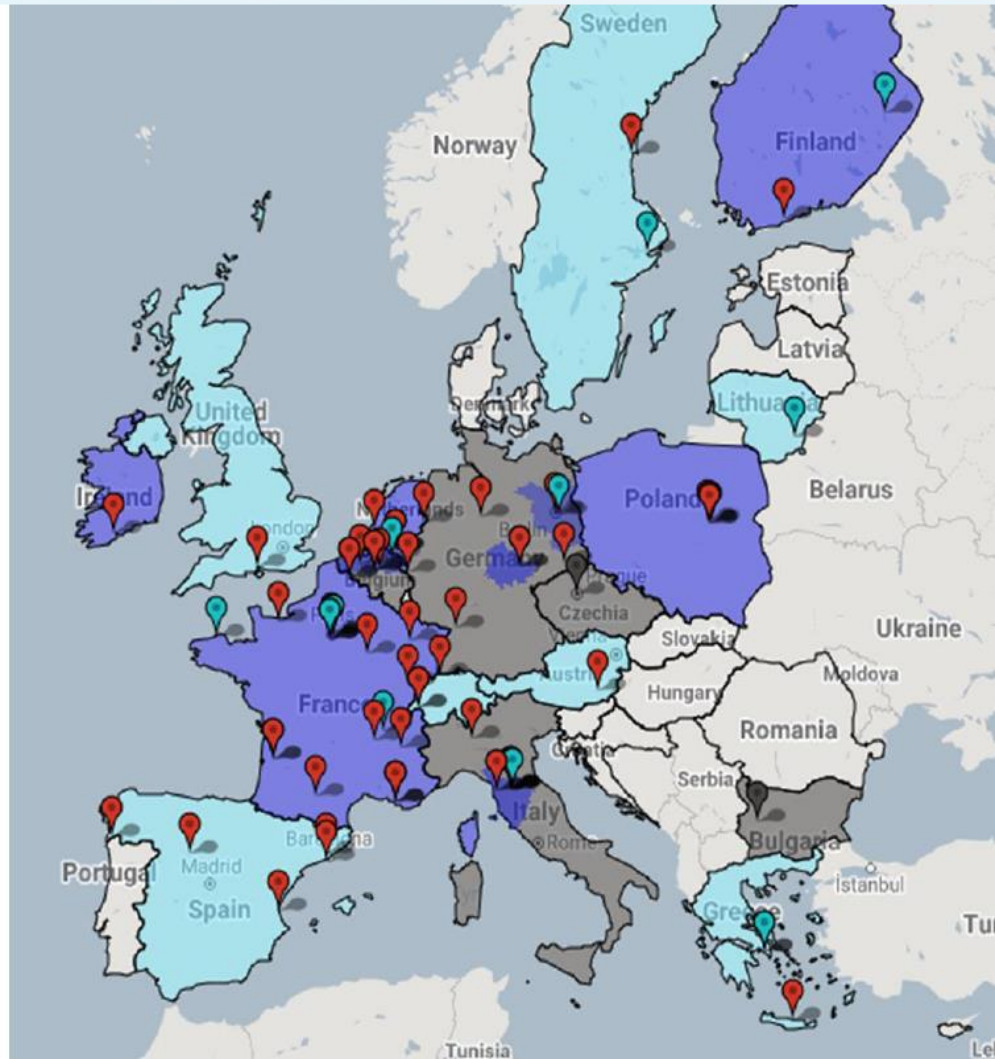


**PHOTONHUB®
EUROPE**

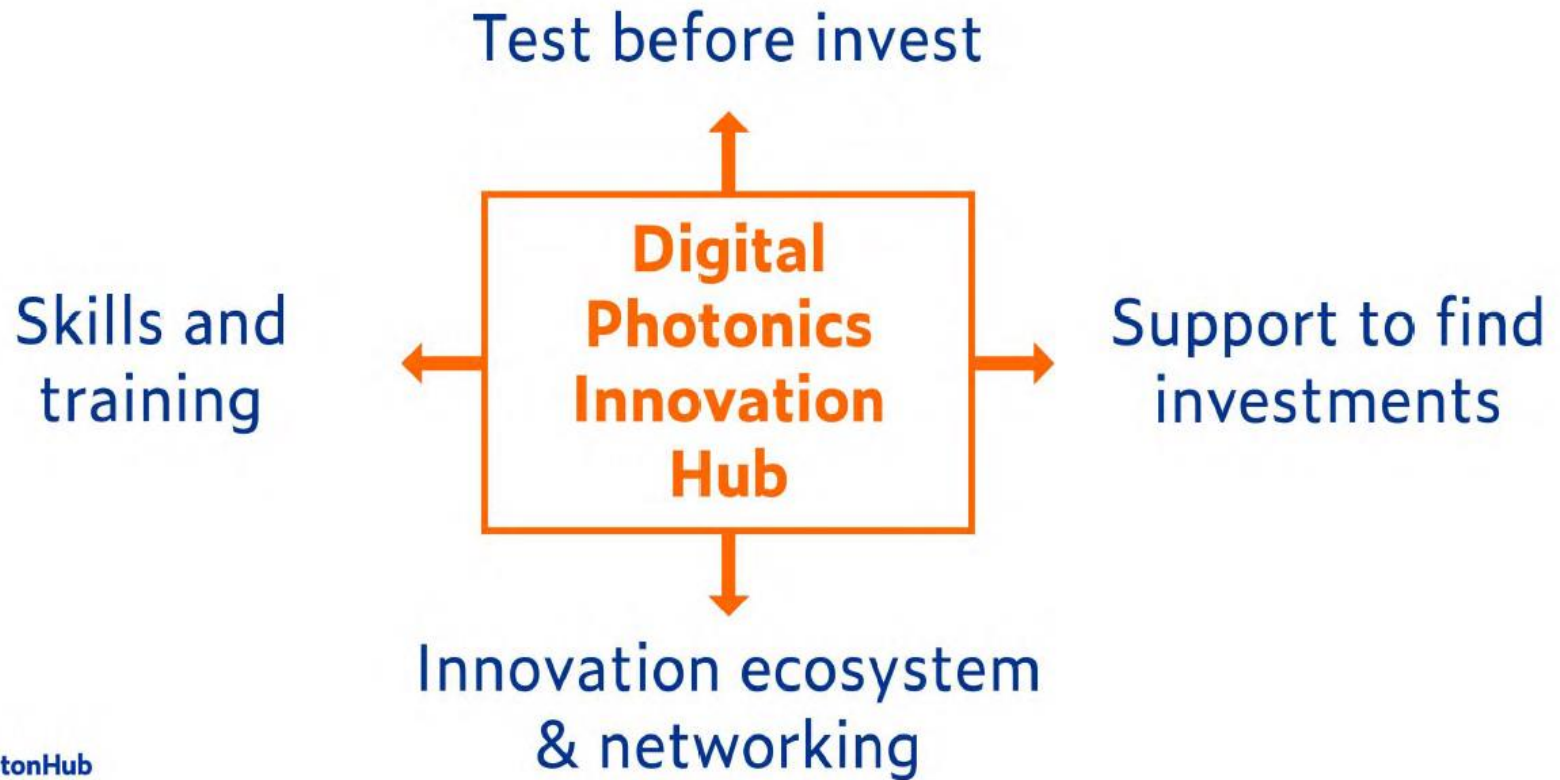
54 partners
500+ experts
15 member states

Legend:

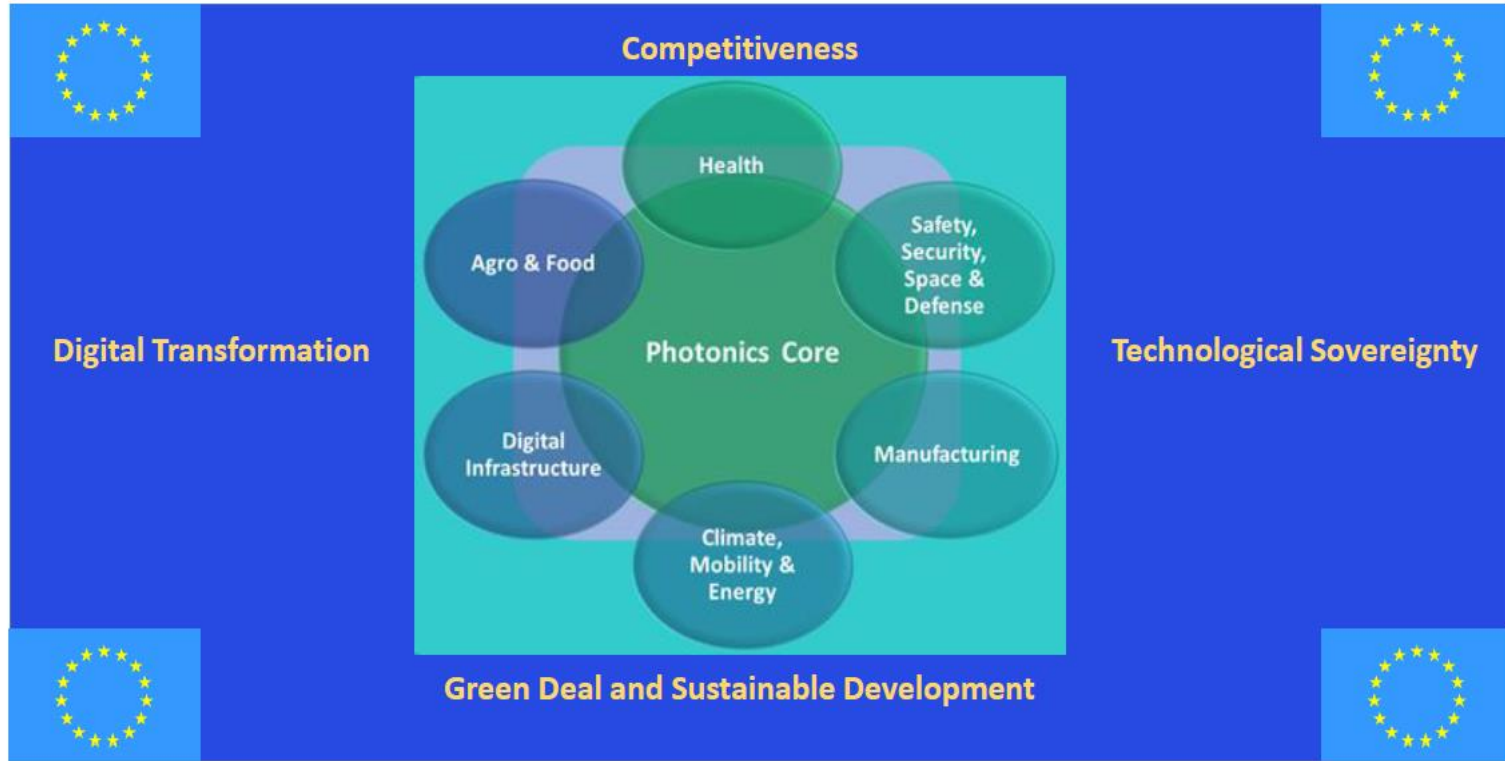
- 36**  Technology Support partners
- 18**  Local Photonics Hub partners
- 6**  Business Support partners
- 9**  Lighthouse Regions
- 9**  Early Adopter Regions
-  Other EU Regions represented by partners
-  Dark Border for EU Members



Single One-Stop-Shop



Photonics: a key-enabling and key-digital technology

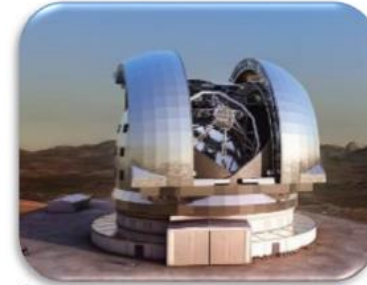




Manufacturing



Agro-food



Safety Security Space Defence



Health

all these industry sectors
need innovation
and digital transformation



Energy

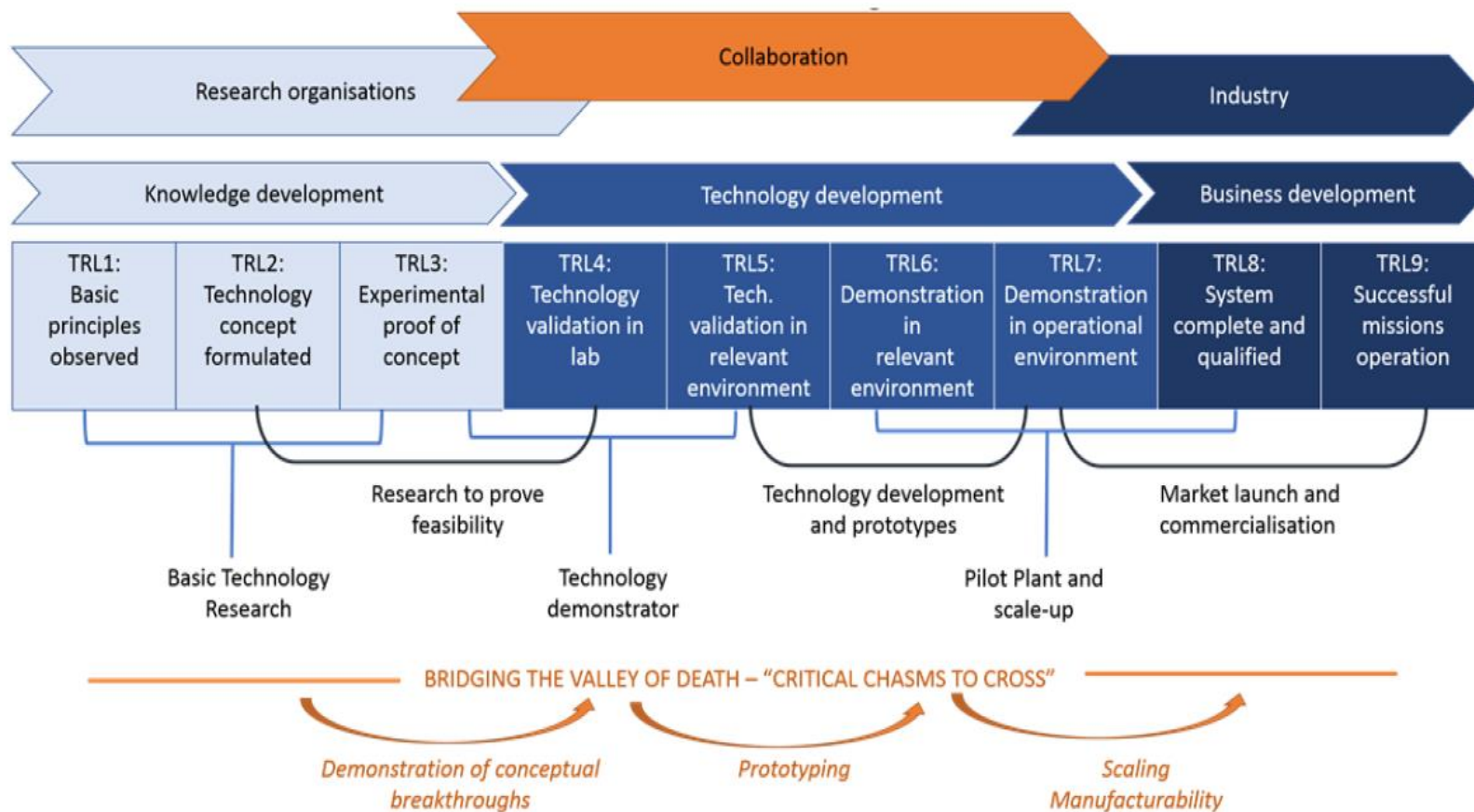


Digital Infrastructure



Mobility

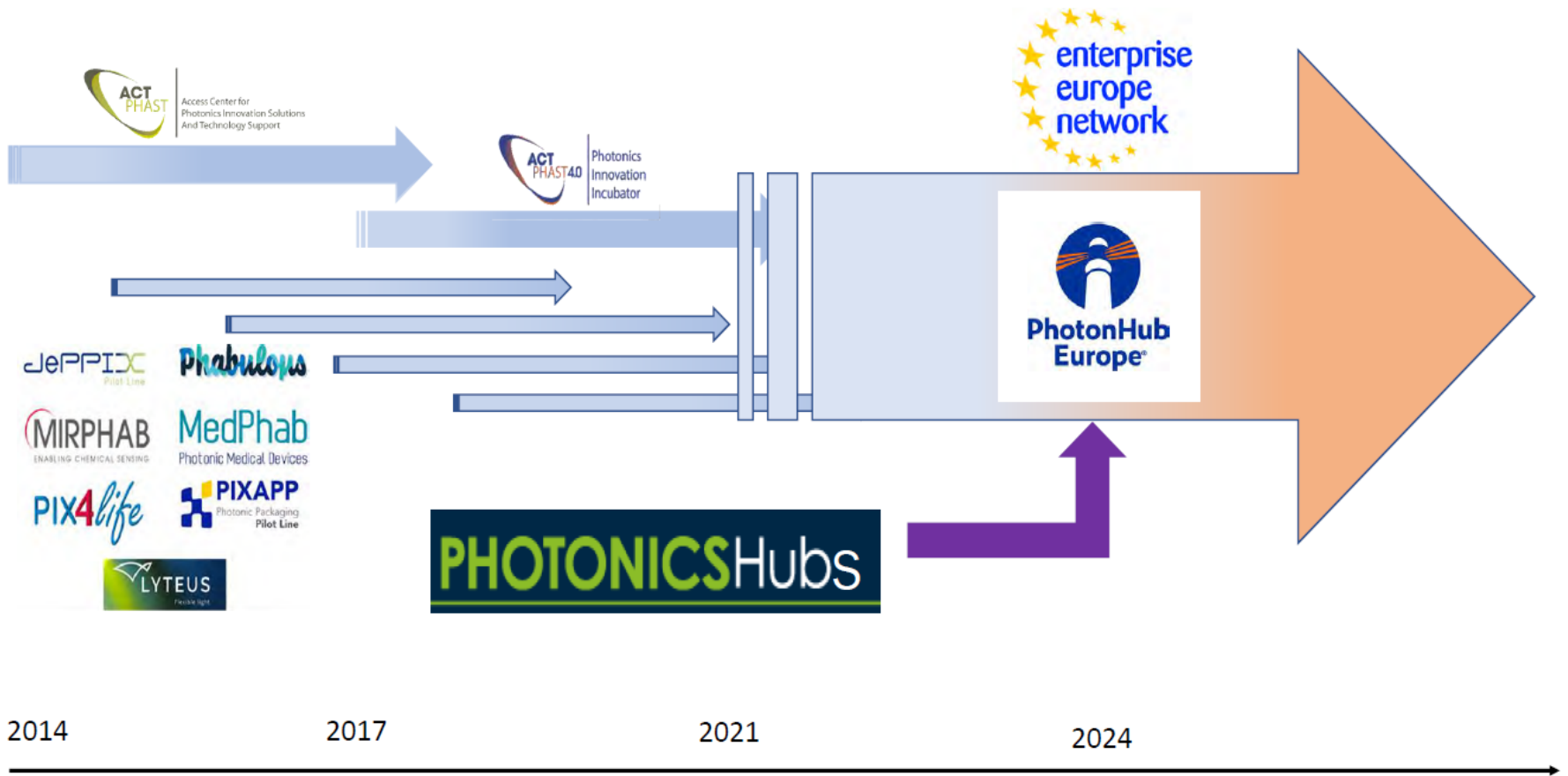
SMEs need support along the entire innovation valley of death



15 years of EU-wide networking, integration, access and pilot line efforts create a solid basis for a photonics DIH



ACTPHAST4.0, Pilot Lines, Local Hubs, and regions Ensuring EU-wide coordination with other EU and regional support initiatives



Ευχαριστώ πολύ!!