



Photonics
Innovation
Incubator



Accelerating Photonics innovation for SME's: a one stop-shop-incubator



PHOTONICS PUBLIC PRIVATE PARTNERSHIP



ACTPHAST4.0 is an Innovation Action funded by the European Commission
under H2020 Grant Agreement N° 779472.

“PHOTONICS” is the science and technology that innovates with the unique properties of light



7 application domains where **photonics** plays an important role to **innovation**



Photonics for safe, nutritious and affordable food



Photonics in life sciences and healthcare



Photonics for sustainability and a clean environment



Photonics for a secure and resilient IT infrastructure



Photonics in manufacturing and production



Photonics for connected mobility



Photonics for smart homes and liveable cities



Live longer, feel better

Photonics in life sciences and healthcare

Our mission : instant diagnosis of major diseases

“Already, photonics plays a crucial role in the diagnosis or treatment of virtually every major disease.”

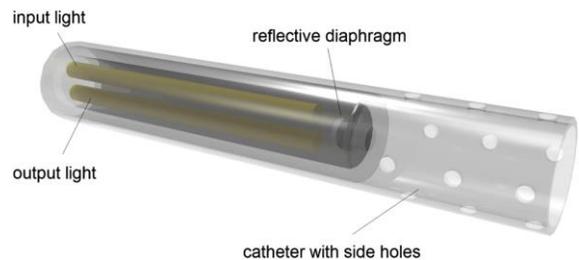


EYE-TECH



EYE-TECH is a high-tech company active in the field of optical sensors for biomedical applications. EYE-TECH's core business is the design, development and commercialization of image sensor in CMOS technology.

Modelling, design and prototyping of a customized **low-cost lens for single-use endoscopic applications**

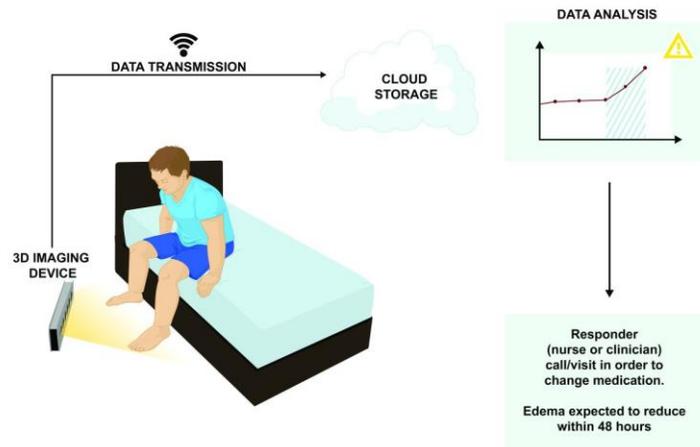


Heartfelt Technologies

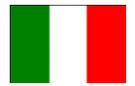


Heartfelt Technologies exists to help patients, their families, carers and doctors, to reduce hospital re-admission rates from congestive heart failure de-compensation

The development of micro-lens array for a **3D scanning system**



Italray



ITALRAY Srl was founded in 1974 with the goal of manufacturing high-quality x-ray systems, 100% made in Italy. ITALRAY's core business is Medical Imaging with a special focus on Digital X-ray Imaging.

Within the project novel procedures in a **hardware-software solution** for digital x-ray chest tomosynthesis have been developed.





Lightpoint Medical



Lightpoint Medical is an innovative medical device company founded in 2012. The company has developed a groundbreaking surgical imaging technology based on Cerenkov Luminescence Imaging (CLI).

Optimisation of **optical design for Blue / UV Spectral Detection**



NT Laboratory

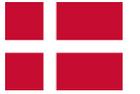


N.T. LABORATORY is an active engineering and mechanical manufacturing company. As a supplier of advanced, reliable and affordable mechanics equipment, it has gained global recognition for its high-quality solutions dedicated to IVD instruments.

The development of an **optical detection module for readout of optical signals in microfluidic disc-shaped plastic test carrier**



OCTLIGHT ApS



OCTLIGHT is developing a swept light source for medical imaging by Optical Coherence Tomography (OCT). The OCTLIGHT technology is based on breakthrough research performed at The Technical University of Denmark (DTU).

Free-space optical coupling of VCSEL and SOA in a **photonics packaging system**



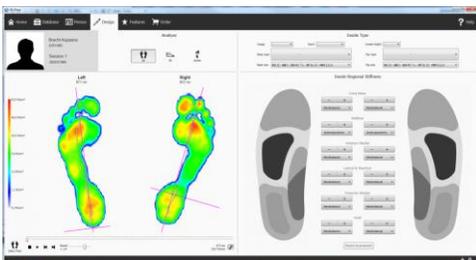


RSscan International



RSscan is dedicated to delivering state-of-the-art solutions for plantar pressure measurements. The company has a proven track record backed by patented technology, thousands of users worldwide, published PhD studies and research papers on biomechanics.

Feasibility studies on using Digital **Image Correlation method for measurements** of shear forces on the plantar surface of the foot

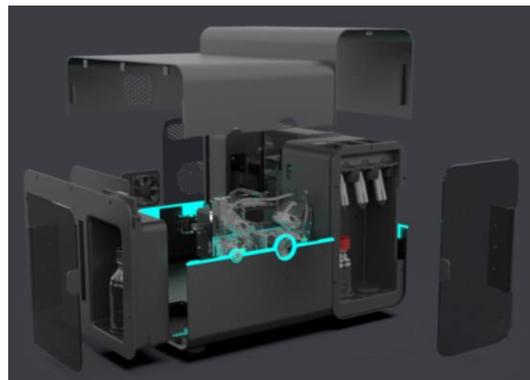


CellDynamics



CellDynamics develops a CELLviewer platform for 3D cell culture and live imaging of floating biological samples (from single cells to clusters and spheroids), in an in vivo-like environment with high level of automatization.

Design of a **light sheet for bio-imaging**



DoseVue



In the past years DoseVue has started developing an entire portfolio of non-invasive and minimally invasive technologies for in-vivo dosimetry and a new product line dedicated to preclinical and clinical quality insurance. Products are already present on the market.

Design and optimization of a **dosimetry platform based on optical fibers** for real-time multi-point dose monitoring in patients



**dedicated task forces
with the best EU experts**



**supported by key
photonics technology
platforms**



**one-stop-shop incubator for
photonics innovation acceleration**

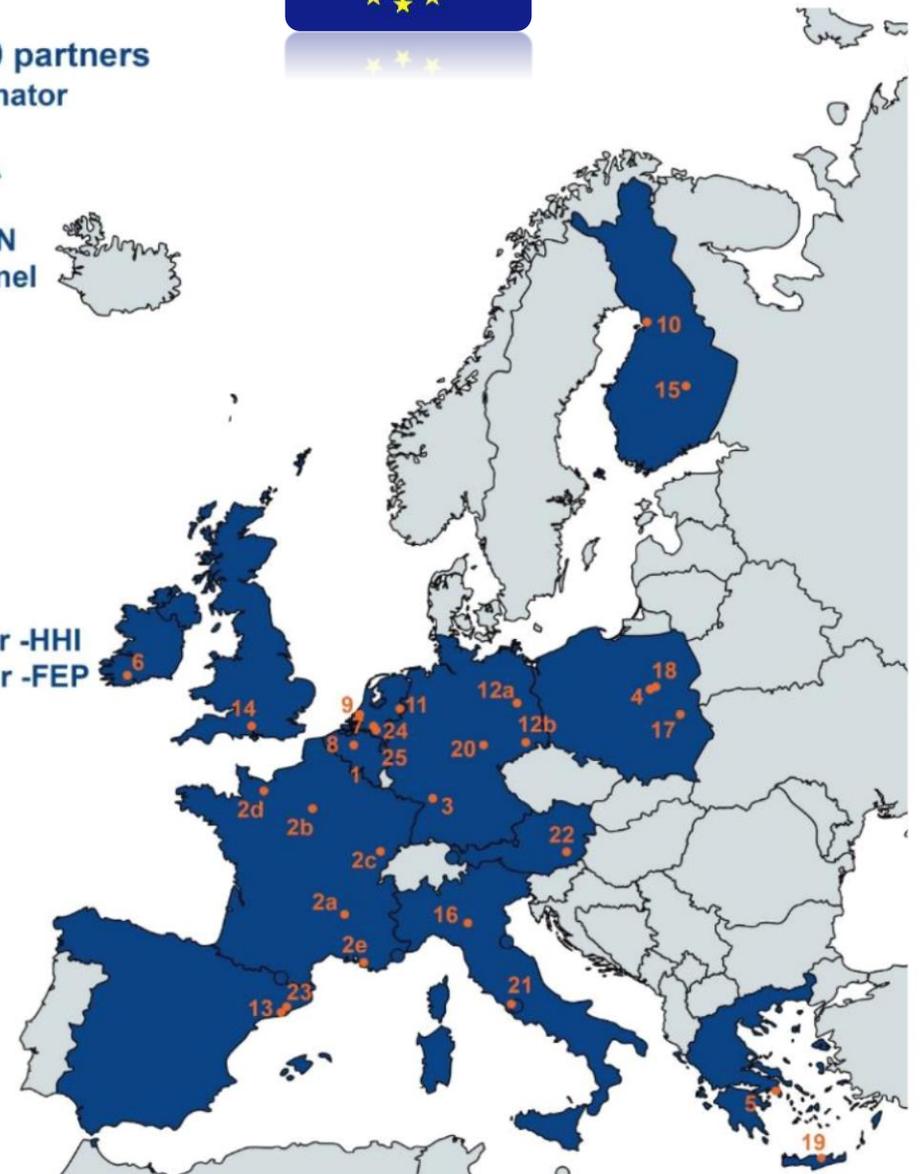


**A one-stop-shop
photonics innovation
incubator integrating
more than
200 top-experts
from 25 institutes
to accelerate
the business
of European SMEs**



● ACTPHAST 4.0 partners

1. VUB - coordinator
- 2 a. CNRS-UJM
- 2 b. CNRS-IOTA
- 2 c. CNRS-UFC
- 2 d. CNRS-CAEN
- 2 e. CNRS-Fresnel
3. KIT
4. WUT
5. ICCS
6. UCC
7. TU/e
8. IMEC
9. TNO
10. VTT
11. LIO
- 12 a. Fraunhofer -HHI
- 12 b. Fraunhofer -FEP
13. ICFO
14. ORC
15. EUF
16. CNIT
17. UMCS
18. ITME
19. FORTH
20. IPHT
21. CNR
22. JR
23. UPC
24. SPH
25. EUN

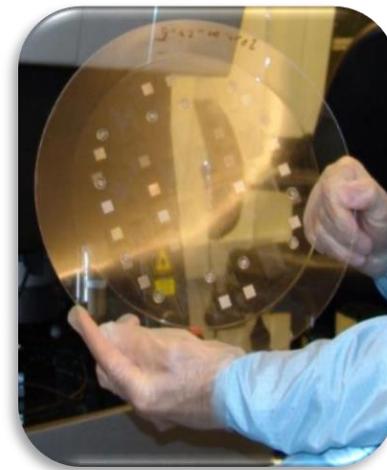




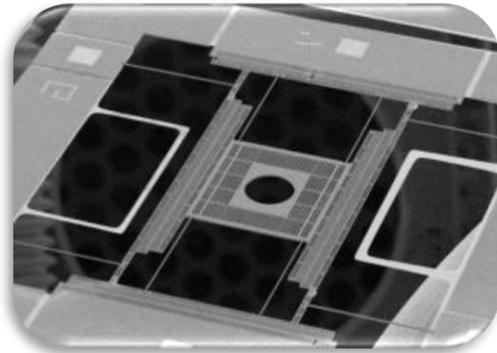
free-space optics



specialty fibers



polymer-based optics

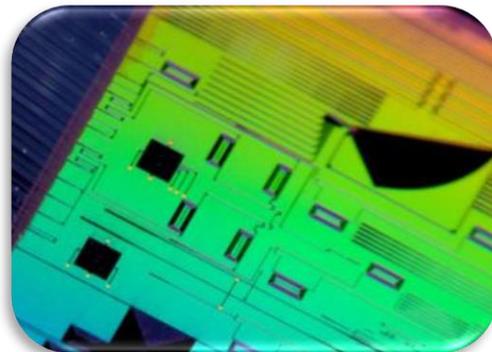


MOEMS

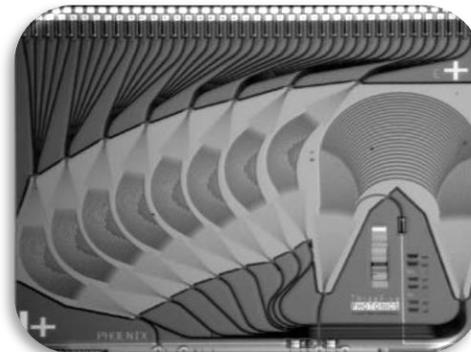
7 Technology Platforms



SiN-SiO PICs



Si -PICs



InP -PICs

Each technology platform is capable of supporting a full supply-chain from design to demonstrator



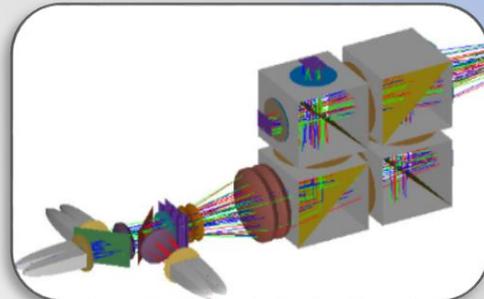
Optical Measurement and Characterization



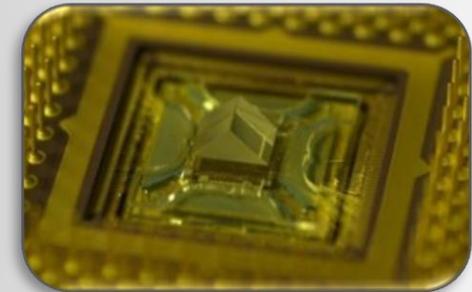
Prototyping with mass-manufacturing equipment



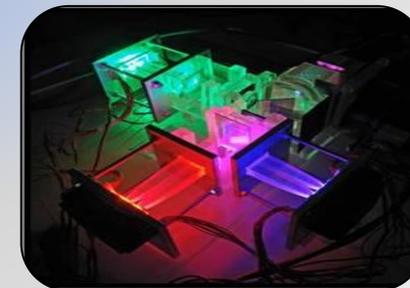
Mastering and Prototyping Technologies



Optical Modelling and Photonic Design



Packaging and Integration



Demonstrators and Prototypes



Optimizing the ACTPHAST success elements



**focus on the company's
innovation challenge**



**subsidized innovation
lowers company's
innovation threshold**



**centralized contact point
professional guidance**



**single-stop shop
top experts and
technology**



**low administrative
overhead
for companies**



**timely
support**

Innovation support for SMEs is subsidized for strongly committed companies

Project budget	SME contribution
40k€	2,5k€
50k€	5k€
60k€	7,5k€
70k€	10k€
80k€	12,5k€
90k€	15k€
100k€	17,5k€
110k€	20k€
120k€	22,5k€

**For SME's
> 80%
For LSC's
50%
Subsidized**



Supported companies



WWW. ACTPHAST. EU

ACTPHAST 4.0 | Accelerating Pho x +

← → ↻ ⓘ Not secure | www.actphast.eu 🔍 ☆ 📄 Ⓢ ⦿

ACTPHAST 4.0 - Accelerating Photonics Innovation for SMEs: a One-Stop-Shop Incubator About us Partners News 1 Key persons

 Join our growing community of innovative companies using photonics to launch superior new products & accelerate business growth
Track record of previous successful innovation support - [click for more](#)→

94	INNOVATION PROJECTS	91%	FOR SMES	46%	FOR NON-PHOTONICS COMPANIES	720	POTENTIAL NEW JOBS
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A unique one-stop-shop solution for supporting photonics innovation in European companies

especially adapted to the needs of small- and medium-sized enterprises

[Watch our video](#)

[Download presentation](#)

Latest news: European partners build efficient pilot production line for photonic chips - Interreg OIP4NWE [Read more](#)

Hear what companies have to say about ACTPHAST

