## **SWISS\*PHOTONICS**: Mission

5.06.2023

Lunch Chat: Laser lightning rod, online NSS SUN, 01.00 Nr. 31.12.2023

Photonics 4 Masterpieces, Geneva, Palexpo at EPH

3 Swissphotonics-EPHJ roundtable the rechnologies, Palexpo at EPHJ

Lunch Chat: Laber Solicis in Packaging NSS Sun, 01.00 Nr. 31.12.2023

Swissphotonics-EPHJ roundtable the rechnologies, Palexpo at EPHJ

More: Charles of the rechnologies of the rechnolog Swissphotonics Events Tue, 06.06.2023 Thu, 08.06.2023 Fri, 09.06.2023 Tue, 13.06.2023 Tue, 20.06.2023 Tue, 27.06.2023 Wed, 28.06.2023 Tue, 12.09.2023 Robotics and Automation, Save the date,

## Swissphotonics is a network:

- > Networking, interactive workshops, breaks, apero riche for personal matchmaking
- Improve competitiveness of our members by strengthening the innovation forces to secure and grow industrial workplaces
- Successful matchmaking between industry needs and academia efforts, working the value chain from idea to market
- Active participation in EU projects, BestPhorm21, Carla and PhotonHub Europe
- No full time staff: 3\*20% + volunteer (Professors, CTOs, project leaders)
- > 200 members and increasing (2/3 SMEs) supporting initiatives of its members
- Strong worldwide international network











## 200+ members in high tech photonics

## https://www.swissphotonics.net/about/list-of-members

List of Members

 46-MEMS Bohotonics GmbH

 ABB Switzerland AG Abimar GmbH

Adkubech AG Agathon AG

ACCEMITED Grabit Alges Laser SA arms AG

Analog Photonic Andritz Soutec AG

 Ansys Switzerland GmbH APM Technica AG

Authouer, Dr. Thomas Avantama SA

Báchli, Dr. Andreas Bade, Mike

 BASE - The Chemical Company BCI Groups

Bobst Mex SA Boardi-Gravures SA

Boushard, Dr. Christian Boyard AG/SA

Brunner, Dr. Marcus BUAS-HuCE optoLab

BUAS Research area Applied Fiber Technology AFT BUAS Research area Laser Surface Engineering

Bühler AG, Leybold Optics Bürkli, Fablan

Burn, Dr. Andreas Bystronic Laser AG CADFEM (Sulton) AG

Cedes AG Congrent GmbH CIPOSA SA

Class 4 Laser Professionals AG

 CoatChecker GmbH Coatmaster AG

 Lentilitec GmbH Leister Technologies AG LESS, SA Ligentec SA

 Ilino Blobech AG Loepfe Brothers Ltd. Logitech Europe SA Lumentum Switzerland AG

 Lumibled Lumiphase AG Lympile Tec SA

Kueler Dimetal SA

Lasotronic AG

Lasea Switzerland SA

Kuhn, Marvin

 Magic Leap Mass, Dr. Péter Materion Balzers Optics

 Medtronic Europe Särl Marchir Photopics &G. Meridian AG

Mesomatic Meastechnik AG Mettler-Toledo AG

MicroR Systems Särl Mikrop AG

 Milleus Investment Partners AG Miraey SA

Monfort Laser GmbH Mineraltoniania Stell Muller, Beni

NCCR MUST NLT Switzerland GmbH

NKT Photonics Switzerland GmbH NTN innovation Booster Additive Manufacturing IBAM

 Omnisens SA. Optical Consulting Crybin Opton Laser International

 Optotune AG Osswald, Marc

Nanoga SA

 Caherent Switzerland AG Computer Controls AG

 COMSOL Multiphysics Grabit Corlc, Or, Dragan

 CERumomation IA CSCM AG, Murrare

Dawtwyler Graphics AG de Combaud, Benoît de Lima, Dr. Wilton

 Debergh, Patrick · Deeplight SA.

 Descharmes, Dr. Nicolae (Karnond SA

 Dracegroup SA Edmund Optics GmbH

 DMC Electronic blocks Communication SA Errpe

EPFL, Advanced NEWS Laboratory

IPFL, Advanced semiconductors for photonics and electronics Lab

EPFL, Bionarephotonic Systems Laboratory BIOS

 SPFL, Group for Fibre Optics GFO EPFL, Laboratory of Applied Photonics Devices LAPO

 IPFL Laboratory of Nanoscale Decirorics and Structures UANES EPFL, Laboratory of Photonics and Quantum Measurements LPQM, Xi-

EPFL, Lab of Photonic Materials and Fibre Devices FISSAP EPFL Laboratory of Quartum OptoSectrorics LOGQ

 EPFL, Laboratory of Physics of Nanostructures LPN. EPFL Laboratory for Thermomechanical Metallurgy LMTM EPFL, Photonic Micro- and Nanosystems Research Group O-LAB

SPFL, Dectoral Program in Photosics SDPD

 ESP-Engineering GmbH Eagypa Photopics AG

 EDIL Inerthune of Clearpropropriete Relate EX. ETH, Inestruct for Quantum Electronics IQE.

ETH, Institute of Machine Tools and Manufacturing Inti-

ETH, Photonics Laboratory

 Park innovance Paul Schemer Institut PSI

· Parcoc blodical Later (Parcoc Engineering AG)

OST Detachweizer Fachhochschule

 PHABULOuS PRot Line Association Photonfocus AG

 Polariton Technologies AG Pi Lighting Sart

 Pi Switzerland AG Pfeiffer, Martin.

Otadjertli, Or. Salah.

Pandao Grabii

 Precise Vision Grebs Prospective instruments GmbH

 Onanti AG Quantum Ventures SA Ragert Seleuchtungskürper AG

Reichte & De-Massart AG, 89,66

· Bey, Dr. Aretje · AP Phetonics

Rhylearth. Das Forschungs- und innovationsentrum Rheimal.

 Rolk: Technologies Lnd. Ryser, Or, Manuel Safran Vectronix AG

Salaché, Frof. Sm. Oc. Rand Sarte SA Schmidder, Andreas

Schmid, Marthias

Schneeberger AG Lineartechnik Schneider, Lite

 Schneider, Sandra M.O.L. Schryder SA

· Schuhmann, Uwe Schulz-Hannig, Dr. järg Sefar AG

Sensirion AG

 Sereoptic SA Sercale Microsochrology Lnt. Shidover, Dr. Valery

 ITH Uttrafact Laser Physics ULP Ettilin, Dr. Dr. Dominik

Suitettra AC Everec AG Donag AG

Excepted Dr. Massimo Fachitechechule Graubünden DIGR

Fachhachschule Nordweitschweig Fishös

Fastree30 SA FEMTOprint SA DISSA AC

Ruck, Dr. Daviel Busin 66 Fordalist, Dr. Plerre-Tim Transia industria AG GF Machining Solutions SA

Charling Andricasain

Hamamates Phononics Hao, Dr. Ving Harder, Dr. Christoph S. Haute Code Art Ingénierle

Haune École d'ingénierie et de Gestion du Canton de Vaud HDIG-VO

Heltz Or, Thomas Helpling Technik Bern AG hepla heape

Hightoch Zererum Aaresu AG Hofmann, Or. Rits Hofsnemer, Dr. Daniel

IELU lischarbule Lumm Technik & Archinsmu

 Hear, Kandle Huber-Saltmer AG 10M Seasonth Gmbir

ID Guarrique SA S-of Laser Enterprise Grebs

inestight IA Inspire AC Jeannewet, Dr. Françoix

Kirsp, Werner Konegka, Dr. Cha-Christine Kryesi, Wetner

Sächtlie Dr. Körzen

 Solaronbr SA. CEM Schrigger Schwediter Mornlay AC

 Starley, Dr. Ross Stärker, Lärich SUPERISANCE

· SUPPLIERA SUISE Miscre-Optics SA. · Sadgers AG

 Swiss Society of Optics and Microscopy SSOM. Summer AG

TECPFOCHER Telpec Systems AG · Tempus, Martin

. The Seventh Group R&D Ltd. This Film Physics AC Timpsu, Dr. Flavia TRUMPS Schweiz AG

TU Ween Unricore Thin Film Products AG Unitechnologies SA

University of Basel, Department of Biomedical Engineering Universität Bern, Institut für angewandte Physik IAP Universität Serr, Microscopy Imaging Center MC Université de Cenève, GAP, Biophotonics Group

Université de Neuchâtel, institut de physique University of Fribnary, Adolphy Markle Institute UVCX Arbeitsschutz (Schweit) AG

 vavie-optics AG Noted AC Warday 85 WEer, Dr. Martin WZW Optic AG. Kerdun AG

 Zaffnwger, Dr. Christoph shaw, institute of Applied Mathematics and Physics IAMP show, institute of Computational Physics ICP

Zürcher, Stephan

## Join our **SWISS\*PHOTONICS** workshops



#### Past events:

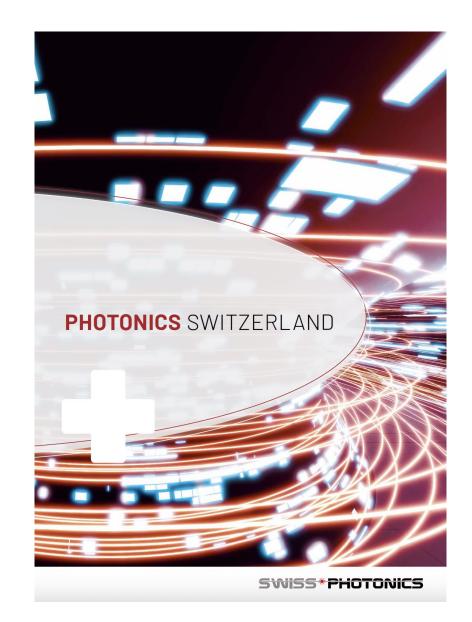
- 07.11.22: Microoptics: Neuchatel
- 17.11.22: Careers in Photonics, Lausanne
- 01.02.23: Apero at Photonics West, San Francisco
- 28.02.23: Specialty Optical Fibers, Biel
- 27.04.23: Neuromorphic Photonics, EPFL

#### **Future events:**

- 08.06.23: Photonics for Masterpieces, Geneva
- 09.06.23: Fusion of Technologies, Geneva
- 28.6.23: Apero at Laser World of Photonics, Munich
- 12.09.23: Robotics and Photonics: Chur

## Recent Swissphotonics support actions

- Photonics Switzerland Brochure
  - Highlights the strength of Switzerland сн in photonics.
  - Is vivid and cutting-edge
  - Details the Swiss photonics activities and Swiss companies across the world
  - Promotes the Swiss photonics activities in Switzerland, Europe and worldwide.







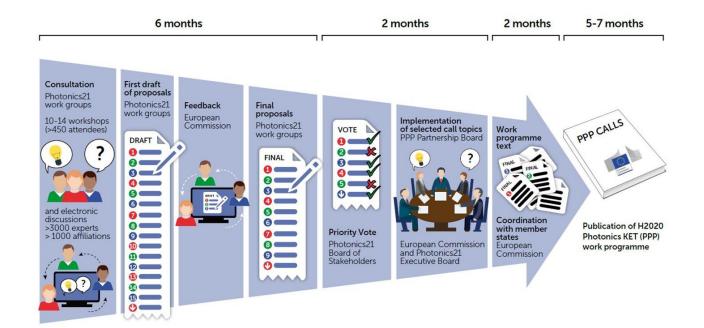
# Europe: Photonics21 (network, paid by SBFI)

#### Horizon 2020 Photonics PPP calls



PHOTONICS<sup>6</sup>

Research & Innovation Priority Process



#### 2025-2027 2028-2030 Photonics Research (R) Sub-systems based on emerging PIC platforms Sub-systems based on PIC platforms with Challenges, TRL up to 5 with hybrid and heterogeneous integration of monolithic and heterogeneous integration of various materials and components, allowing materials and components operation in the MWIR to UV range, for Quantum PIC chips (QPIC) applications in atomic clocks, communications, • 2D SPAD arrays with embedded processing CBRN detection to quantification, quantum and • High power 2D phased-array semi-conductor · Development of efficient, high-bandwidth, low-noise single-photon detectors in the near- and mid-infrared range • Low-noise lasers for quantum technologies · 2D arrays of single-photon avalanche detectors New approaches incorporating digital Photonics Innovation (I) Assembly of different technology photonic • Demonstration of fused optics/electronics Challenges, TRL starting building blocks by 3D integration, on optical/ imaging systems from 5 electrical interposer, co-packaged or • 3D stacking of sensors and photonics AI chips. connected by passive waveguides or fibre · Miniaturized PNT sensors including quantumbased sensors for Quantum Information routing systems Micro-optical technologies (including) Network (QIN) meta-surfaces, diffractive optics, micro-lenses, • Miniaturized long range sensors exploiting filters, polarizers), eventually at the wafer-level quantum technologies • Photonic technologies for satellite • SWAP-C eye-safe high power laser constellations: space tolerant sensors for effector systems positioning, navigation and timing (PNT), • Large size III-V substrates and epitaxial wafers inter-satellite distance measurements Space hardened very high data rates • Free-space telecom systems for the Quantum transceivers (DP-QPSK) Secured Network (QSN), based on novel photonic components • SWAP-C innovative sensors for long range situational awareness, ISR146, 3D imaging and chemical sensing (CBRN) • High power eye-safe laser developments for emerging threat countermeasures, including dazzling, jamming and neutralizing capabilities • Sensors protection against laser radiations · Growth of crucial III-V and oxide materials for photonics and exploration of advanced processing techniques







**Budget: 19 M EUR** 

**Start: 1 Jan 2021** 

register your interest

orienteering

#### **Training**



intro to photonics

training catalogue

demo centers

hands-on experience



#### **Deep Technology Support**



first level technology and business coaching

deep technology support TRLs 3-8

impact



#### **Business and Financial Coaching**



investment readiness coaching

matchmaking support

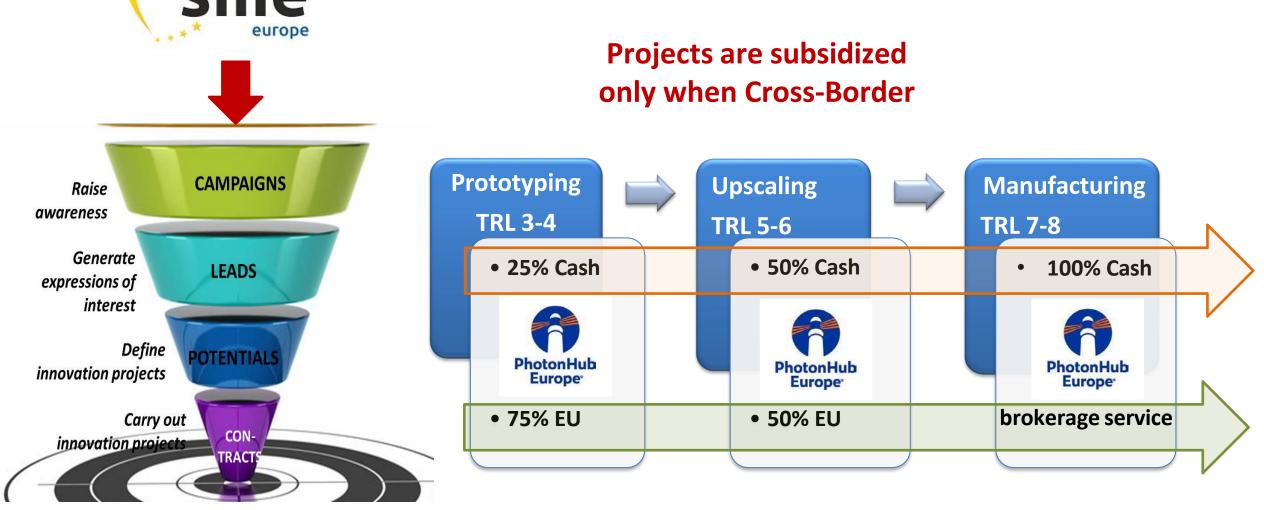
photonics venture forum

investor days

support



# Focus on Deep Innovation Support to European Companies SMEs and LSC, from TRL 3 to TRL 8



members

Strengthening the innovation forces to secure and grow workplaces through:

- Networking and interactive workshops
- Matchmaking beteen academia strengths and industry needs
- Active participation in EU projects
- > BestPhorm21
- > Carla
- > Photonhub Europe
- > Horizon Europe programs

Working value chain from idea to market



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