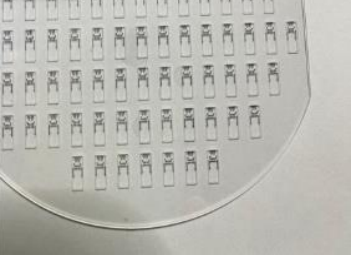
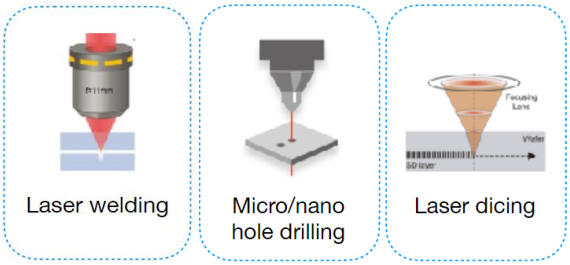
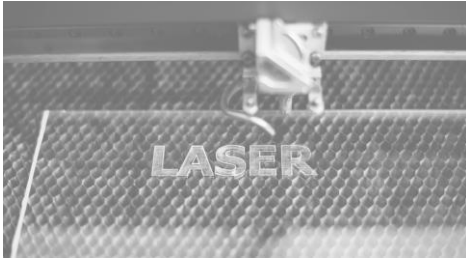






Ultrafast-Laser Microprocessing of Transparent Materials

Workshop topic
Laser material processing has already revolutionized the world of metals. Recent breakthroughs in ultrafast lasers and materials science have opened a realm of possibilities for other materials, particularly glass, sparking new applications and opportunities.

In this workshop, needs and challenges faced by industries like Photonics, Electronics, Optics, Medical Implants, Microfluidics, and Watchmaking will be explored that could be addressed with novel technology trends in Ultrafast Laser Microprocessing of glass and other transparent materials (sapphire, fibers, ruby, diamond etc.) and pave the way for innovative solutions.

Participants will join a company-tour at NKT Photonics, benefit from insights on current technology topics and will get an overview about national and European funding opportunities. This will be followed by group discussions where questions will be explored in more depth and potential areas of need and solutions will be discussed together. Furthermore, you will have the opportunity to network with potential project partners and, ideally, start a collaboration project that can be funded by the Innovation Booster Photonics.

Date / Location

Date:	14. November 2023
Duration:	9.30 a.m. – 17.30 p.m.
Location:	Hotel Thessoni, Eichwatt 19, 8105 Regensdorf

Target audience
This workshop aims for both, partners seeking an innovative solution and potential technology providers. E.g. business developers, product managers, R+D specialists.

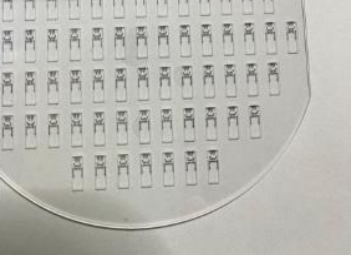
Cost
This workshop is free of charge

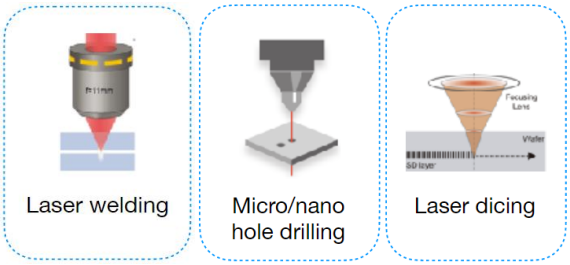
Registration compulsory
Link

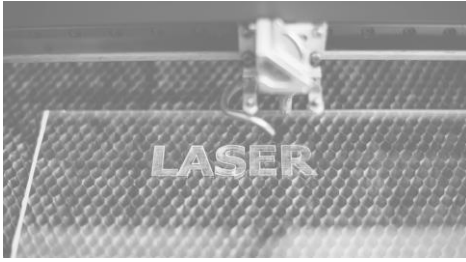
Language
English preferred

Organized by the Innovation Booster Photonics, Yalosis SA, GMP SA, FHNW and NKT Photonics

PHOTONICS INNOVATION BOOSTER · GMP GENERAL MICROTECHNOLOGY & PHOTONICS · YALOSYS LASER MICROPROCESSING SOLUTIONS · n|w Fachhochschule Nordwestschweiz · NKT Photonics







Time	Presentation & Topic
9:30 h	**Arrival & Welcome Coffee** at Hotel Thessoni
10:00 h	**Welcome & Introduction** into the workshop by **Selina Casutt**
10:15 h	**Introduction of NKT Photonics** by **Tony Pisano**
10:30 h	**Group 1:** **10:30 h - Transfer** to NKT Photonics - *10 min walk* **10:45 h - learn about the various lasers and how they could be used for your applications** **11:15 h - Transfer** back to Hotel Thessoni - *10 min walk* **11:30 h - EU GrantsAccess, Katrin Reschwamm & Innosuisse, Leendert den Haan** «Funding Opportunities for Switzerland» **Group 2:** **10:30 h - EU GrantsAccess, Katrin Reschwamm & Innosuisse, Leendert den Haan** «Funding Opportunities for Switzerland » **11:00 h - Transfer** to NKT Photonics - *10 min walk* **11:15 h - learn about the various lasers and how they could be used for your applications** **11:45 h - Transfer** back to Hotel Thessoni - *10 min walk*
12:00 h	**Networking Lunch**
13:00 h	**Input talks:** • **Yalosys SA, Luigi Calabrese & Sandro Schneider** «IN GLASS: electronic packaging for medical implants, enabled by ultrashort-pulsed-Laser technology» • **GMP SA, Jürgen Söchtig & Fabio Manzini** «Ultrafast-Laser µ-processing: from feasibility to production» • **FHNW, Magnus Kristiansen & Ronald Holtz** «Laser micro machining and polishing of transparent polymers» • **IMT, Winfried Arens** «Already established and interesting future applications of ultra short pulse lasers in the processing of micro structured glass components at IMT» • **Femtoprint, Andrea Lovera** «In-glass integration of three-dimensional functionalities for optical and medical devices» • **FH OST, David Bischof** «3D Laser processing of glass - materials and process chains»
14:30 h	**Coffee Break**
15:00 h	**Group Discussions** to explore challenges and needs in more detail and discuss possible approaches and solutions: • **Group A** «**Laser Dicing** / glass-chip singulation», moderated **by Luigi Calabrese** • **Group B** «**Other Materials than Glass** – polymers, ceramics, etc.», moderated **by Bojan Resan** • **Group C** «**Laser Processing for PIC** – inscribed optical waveguides / packaging / software / inspection», moderated **by Jürgen Söchtig** • **Group D** «**Surface Quality and Subsurface Processes** – Roughness / Crack propagation», moderated **by Selina Casutt**
16:00 h	**Wrap up** in the Plenum
16:30 h	**Networking Apéro**

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