To Photonics21Secretariat
via eMail: *secretariat@photonics21.org*

Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholders candidate
Silicon Austria Labs GmbH Villach (Austria) / Andreu Llobera

- Letter of Nomination -
Photonics21 Board of Stakeholders
Election 2023

Photonics21 Board of Stakeholders - Letter of Nomination

1. **Full legal name of the affiliation nominated as BoS Member (candidate's organisation):**

   Silicon Austria Labs GmbH

2. **Full contact details of the affiliation (street, postal code, country) nominated as BoS Member and invoice address** *(In accordance with the Terms of Reference §5, which the Affiliation acknowledges having received, an Annual Service fee will be invoiced every year during the first quarter to the BoS Member. By signing the present letter, the BoS candidate agrees to pay this Membership Fee. The Fee will be considered an asset of the Photonics 21 AISBL in accordance with its statutes (article 12b).)*

   Silicon Austria Labs GmbH
   Sandgasse 34,
   A-8010 Graz
   Austria

3. **Name of the suggested BoS Representative (the personal candidate)**

   Dr. Andreu Llobera

4. **Information about the BoS candidate and the BoS representative**

a) Description of the activities and information about the expected contribution and value added the nominated BoS member (candidate's organisation) will bring to the BoS[1]

Silicon Austria Labs (SAL) is a top research center for Electronic Based Systems (EBS). At three locations (Graz, Villach, Linz), SAL is conducting research along the entire EBS value chain in the areas of sensor systems, power electronics, intelligent wireless systems and embed-ded systems to develop future-oriented solutions for industrial production, health, energy, mo-bility, safety and more. SAL brings together key players from industry, science and research and thus valuable expertise and know-how and conducts cooperative, application-oriented research along the value chain. Cooperative projects are co-financed by SAL and enable a fast and unbu-reaucratic project start. Our flagship is an ISO class 5 clean room with top notch silicon-based technologies able to process up to 8 inch wafers. As an added value, SAL Villach has an out-standing characterization capabilities, including metrology, environmental, photonics, non-linear spectroscopy and quantum sensing, among others.

The Photonics System Research Unit is specialized in the multidisciplinary research and development of optical, optoelectronic and mechanical components. The competences range from the development of new lasers, quantum and non-linear optics, image spectroscopy, photonic microsystems and biophotonics. Our main aim is to provide "from concept to implementation" photonic solutions to industry willing to make the next step forward in terms

[1] The candidate is aware and accepts that according to the Photonics21 Terms of Reference (§ 5 (10) a member ship fee - as determined by the General Assembly of the Association - needs to be paid to the Photonics21 association.

of advanced tech-nology. This can only be achieved by being at the forefront of scientific research and by having a deep understanding of photonics and clean room technology.

As an applied research center, SAL is committed to excellent applied research, and it aims to bridge the gap between academic research and industrial application. As such SAL is well situat-ed to help define the European research strategies and actively contribute to the activities within Photonics21. As an example, SAL has actively participated in the Austrian Photonics Roadmap, specifically in the selection of topics for HE calls.

b) Description of the activities and information about expected contribution and value added the BoS Representative (candidate / person) will bring to the BoS.

In 2008, Andreu Llobera was awarded with an ERC Starting grant in the first call and only one year after he secured a permanent position as an Assistant Professor at IMB-CNM, CSIC (promoted to Associate Professor at the same host institution in 2015). In 2012-2016 he was coordinator of the FP7-ICT-2011-8-317916 LiPhos project. Additionally, he had an ERC Proof of concept (ERC-2015-PoC-680894).

His industrial expertise started by joining Carl Zeiss Vision GmbH as Head of the Disruptive Technologies department in 2016. In 3.5 years, CZV reduced the production time by 90%, and he secured IP by filling 9 patents (all of them in exploitation). In 2020 he joined Microliquid S.L., capturing contracts of value > 3M€, as well as securing 5 patents (also in exploitation) of key microfluidic components such as all-Cyclic olefin copolymer (COC) Quake valve. Since March 2022 he is the Head of Photonic Systems at Silicon Austria Lab, and since then SAL has acquired funding (contract and competitive) > 6 M€.

Scientific output. Summary		
145 papers in peer-reviewed journals	Total citations (WOS): 2263	**h-index (WOS): 27**
+150 Participations in scientific conferences	74 Oral (**30 invited**) contributions to scientific conferences	
29 Patents	**17 Patents in exploitation** (Devicare, Carl Zeiss Vision, Microliquid)	

Researcher ID	D-6535-2012	**ORCID ID**	0000-0002-2941-478X

Research (main areas)
Photonics at the micro/nanoscale and their synergistic combination with fluids (photonic lab-on-a-chip) and/or mechanical systems (Micro-opto-electromechanical systems).
Advanced spectroscopy and their miniaturization in handheld, PoC systems.
Photonics based on non-conventional materials, such as light guiding in microorganisms or materials derived from these microorganisms.
New technologies to enhance the functionalities of photonic lab-on-a-chip/ organ-on-a-chip.
Photonics-to-the market: understand the end-user needs and develop photonic concepts towards these needs, and not the contrary, which is the standard in research.
Photonics at the micro/nanoscale and their synergistic combination with fluids (photonic lab-

on-a-chip) and/or mechanical systems (Micro-opto-electromechanical systems).

Education.	
1998-2002	**Ph.D. in Physics**, Universitat Autònoma de Barcelona (UAB), Spain

Current position.	
2022-now	**Head of Photonic Systems.** Silicon Austria Lab GmbH. Austria

Previous positions.	
2020-2022	**Head of Innovation**. Microliquid S.L. Spain
2016-2020	**Head of Disruptive Technologies**. Carl Zeiss Vision GmbH. ZEISS Group. Germany
2015-2016	**Associate Professor** (Investigador científico) Institut de Microelectrònica de Barcelona, Consejo Superior de Investigaciones Científicas. Spain
2009-2015	**Assistant Professor** (Científico titular) Institut de Microelectrònica de Barcelona, Consejo Superior de Investigaciones Científicas. Spain

Fellowships and Awards.	
2015-2016	**European Research Council (ERC) Proof of concept Grant.**
2008-2014	**European Research Council (ERC) Starting Grant.**
2006	Award from the Crays foundation (Crays-Stiftung, Germany).

Supervision activities.	
Fellow of 5 Postdoctoral Researchers	**Supervisor of 7 PhD**
Director of 13 MsC thesis and 8 BsC thesis.	

Scientific evaluator.	
2020-now	Expert evaluator Industrially-driven research projects (Latvia)
2020	EU Expert Evaluator (CNECT-SC1-PHE-CORONAVIRUS-2020-2B)
2019	External Evaluator Ørsted COFUND programme
2019-now	Eureka Expert Evaluator (INNOWIDE and EUROSTARS)
2019-now	EU Expert Evaluator (H2020-NMBP-TR-IND-2018-2020)
2019-now	Marie Curie Vice Chair (H2020-MSCA-IF)
2016-2018	Marie Curie Expert evaluator (H2020-MSCA-IF)

International Committees.	
2026	**General Co-Chair** IEEE International Conference on Micro Electro Mechanical Systems (IEEE MEMS 2026)
2024	**Executive Technical program committee** IEEE International Conference on Micro Electro Mechanical Systems (IEEE MEMS 2024)
2023	**Regional Chair Europe/Africa** International Conference on Solid-State Sensors, Actuators, and Microsystems (TRANSDUCERS 2023)
2023	**Executive Technical program committee** International Conference on Solid-State Sensors, Actuators, and Microsystems (TRANSDUCERS 2023)
2023	**Executive Technical program committee** IEEE International Conference on Micro Electro Mechanical Systems (IEEE MEMS 2023)
2017	**Program Co-Chair.** 43rd international conference on micro- and nanofabrication and manufacturing (MNE)

2015-now	Member of the **Editorial board** "Frontiers in Mechanical Engineering" (Nature Group)
2016-2018	**Subcommittee chair** for CLEO: S&I 10 Biophotonics and Optofluidics.
2015-2016	**Subcommittee member** for CLEO: S&I 10 Biophotonics and Optofluidics.

Previous EU-Funded Projects (selection)	
2016-2020	ND4ID: New Diagnostics for Infectious Diseases H2020-MSCA-ITN-2015
2015	WASP: Wide Spectral Range Photonic Glucometer ERC-2015-PoC- 680894 **European research council (ERC proof-of-concept grant) (coordinator)**
2012-2015	LIPHOS: Living Photonics: Monitoring Light Propagation Through Cells for Cardiovascular Disease Diagnosis FP7-ICT-2011-8-317916 **(coordinator)**
2008-2013	HIP-LAB: High-Throughput Integrated Photonic Lab-On-a-DVD Platforms **European research council (ERC starting grant) ERC-2007-StG-209243 (coordinator)**