To Photonics21 Secretariat
via eMail: secretariat@photonics21.org

Dear Photonics21 Secretariat,

We herewith submit the nomination of the following Photonics21 Board of Stakeholders candidate University of Pavia /Daniele Bajoni.

- Letter of Nomination -
Photonics21 Board of Stakeholders
Election 2025

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

   Università degli Studi di Pavia

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).)*

   Corso Strada Nuova 65
   27100
   Pavia
   Italy

   Invoice Address:
   Daniele Bajoni
   Dipartimento di Ingegneria Industriale e dell'Informazione
   Via Ferrata 1
   27100 Pavia
   Italy

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

   Daniele Bajoni

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]

The University of Pavia (UNIPV) is an Italian public university with a centuries-old tradition of excellence. It currently hosts a vibrant and diverse academic community of over 24,000 students, more than 1,000 faculty, and nearly 900 PTA resources (ISTAT-MUR 2021/22 data).
UNIPV comprises a central administration (organized into various areas, such as General Management; Human Resources and Finance; Cultural Heritage; Teaching and Student Services; Research; Third Mission; ICT Systems; Technology and Security; International Relations, Teaching Innovation, and Communication), two Faculties, and 18 Departments organized by research fields, objectives, methodologies, and homogeneous teaching activities. Their primary objectives are to promote and coordinate research activities, as well as organize undergraduate, postgraduate, and doctoral programs. Each Department is headed by a Director, and its

[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.

activities are managed by a Board of Directors. As a research-intensive university with a high international profile, UNIPV benefits from the presence of important research infrastructures such as the Centre for Health Technologies (CHT), the European Centre for Training and Research in Earthquake Engineering (EUCENTRE), and the National Centre for Oncological Hadrontherapy (CNAO). It also has six laboratories equipped with cutting-edge equipment: the Molecular, Cellular, and Tissue Imaging Laboratory; the Magnetic Resonance and Micro X-ray Tomography Laboratory for Small Animals; the NMR Spectrometry Laboratory; the Mass Spectrometry Laboratory; the Computing Cluster; and the 3DMetal@UniPV Laboratory.

As a research-intensive university with a rich history in optoelectronics and a deep commitment to innovation, UNIPV represents an ideal partner for the Photonics21 agenda. Its world-class research infrastructures, offer a unique environment for developing and validating novel photonic applications in the critical life sciences and health sectors—a key priority for Europe. The university's advanced laboratories in molecular imaging, spectrometry, and 3D printing further support the entire innovation chain, from fundamental material science to device prototyping.
Furthermore, UNIPV is dedicated to nurturing the talent pipeline and driving economic impact through its "Third Mission" activities. With comprehensive degree programs in engineering, physics, and artificial intelligence, the university produces a steady stream of highly skilled graduates and doctoral researchers ready to contribute to the photonics industry. As a BoS member, UNIPV would not only contribute cutting-edge research but also actively engage in shaping educational frameworks and technology transfer initiatives. This dual commitment to pioneering science and developing a skilled workforce makes the University of Pavia a strategic asset in achieving the long-term goals of Photonics21.

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

Daniele Bajoni's career has been dedicated to advancing the frontiers of photonics, specifically at the intersection of fundamental quantum science and industrially-relevant integrated technologies, actively pursuing the strategic vision to translate laboratory breakthroughs into tangible, scalable solutions.

The research activities carried out by Daniele Bajoni demonstrate a consistent ability to identify long-term trends and pivot towards technologies with the greatest potential for real-world impact. This is evident in some of his achievements, including in the landmark demonstration of on-chip entangled photon-pair generation in silicon ring resonators. This achievement, one of the first of its kind, was not only a scientific milestone but also showcased the potential for mass-manufacturable quantum components. The significant international media attention (reaching an estimated audience of over 26 million) underscores my ability to communicate the importance of European innovation to a global audience.

Daniele Bajoni's work is also inherently collaborative, and has led to strong, ongoing partnerships with key European players, most notably with CEA-LETI and with ST Microelectronics, collaborations that have led to the participation in European project calls, including the recent

CHIPs JU project STARLight. This collaboration is a model for the academia-industry synergy that Photonics21 champions.

As a member of the BoS, Daniele Bajoni will bring a proactive, collaborative, and forward-thinking perspective, focusing on three key areas. The first will be championing integrated quantum photonics on the Strategic Roadmap as a cornerstone of Europe's technological sovereignty, ensuring Europe leads in quantum communication, sensing, and computing.

Furthermore, Daniele Bajoni will work to strengthen the pathways from university labs to European industry, helping to identify and remove bottlenecks to commercialization, promote the creation of shared fabrication platforms, and contribute to building a robust ecosystem where academic innovation directly fuels industrial competitiveness and start-up creation.

A successful strategy also requires skilled people. Having mentored numerous PhD students who have gone on to successful careers in top-tier international institutions, Daniele Bajoni is passionate about talent development and contribute to BoS initiatives aimed at fostering education, promoting researcher mobility, and ensuring that Europe has the expert workforce required to execute its ambitious photonics agenda.

I am confident that his experience and vision will allow Daniele Bajoni to make a significant and positive contribution to the Photonics21 Board of Stakeholders.