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

Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholders candidate
Politecnico di Torino (Italy) / Stefano Taccheo

- Letter of Nomination -
Photonics21 Board of Stakeholders
Election 2023

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

   Politecnico di Torino, Turin, Italy

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).)*

   Politecnico di Torino
   Dipartimento di Elettronica
   Corso Duca Abruzzi 24
   Turin, 10129
   Italy

   Invoice address as above. To the name of Stefano Taccheo

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

   Stefano Taccheo

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]

Politecnico di Torino (POLITO) is among the top European technical Universities for education and research, with 38,700 students and a teaching staff of more than 1,000.

In an evolving global context disrupted by the effects of globalization, climate change, population aging, new and increasingly pervasive technologies, Universities are expected to progress in order to produce an impact on a rapidly changing society. Politecnico di Torino has therefore decided to transform itself into a "platform" University expected to be permeable, inclusive, open to the labour market and to industry, with a key role in innovation and lifelong learning. The goal is to become a driving force for a societal sustainable development.

On top of the above official POLITO mission statement, the valuable Institution contribution for Photonics21 will be a multidisciplinary one. Infact beside a strong Photonic research expertise there is a number of other research groups using Photonics for applications ranging

[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.

from medicine to environmental monitoring, energy, food control, automotive, sensing and others. This will ensure both a multidisciplinary input to the BoS as well to help to disseminate Photonics in other fields to increase the impact of our Photonic community.

The Department of Environment, Energy, Smart Building and Manufacturing and BioPhotonics will add contribution to Photinics21 bringing their wishes in term of new/improved photonics tools. In addition, POLITO will be the gateway for a numerous of regional, national and international activities with strong direct impact quality of daily life as well as the great experience in industrial related research and support to small and medium enterprises.

All Photonics related activities are supported by a strong Institutional Photonics tradition, in particular on Telecom, active devices and biomedical applications which will be brought into Photonics21 organisation. The strong Photonics expertise at POLITO have been internally recognised by the creation of Photonex, The Interdepartmental Centre of Photonic which connects all interested departments.

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

The candidate will bring multiple contributions to the BoS. As introduction we remind the candidate was already member of BoS in the 2017-2019 as UK Swansea University representative working actively to support the whole Photonics area.

We will start to describe the contribution and attitude of the candidate. At the end of the section is attached a brief curriculum vitae.

First as above stated (point a) the candidate will represent and provide the full know-how of his institution. The candidate has also an international curriculum form working in the US (1yr, Lucent Bell Labs) and 13 years in UK (ORC Southampton, Swansea University). In addition, the candidate has great experience of large networks such as COST MP1401 (Development and Applications of Fiber lasers), Network of Excellence, Integrated Projects and chaired main laser conferences such as Advanced Solid State Lasers (2017-2020). The candidate has industry working experience as well as of leading university-Industry collaborations (Italtel, Marconi-Ericsson, Saes Getter, IPG Photonics, Pirelli Cable, among others)

This introduction is to confirm that while laser and laser application is the main candidate area of expertise and core activity, the candidate has a broad knowledge of the Photonics World in order to give an effective multidisciplinary contribute and not only focussed on a small area of expertise.

The previous experience in Photonics21 BoS, COST network Chairing demonstrated his ability in networking and bringing together different position and expertise to create synergies.

In summary the candidate will bring to the BoS an open mind wide range contribution to support the Photonics21 community as a whole.

The specific more technical candidate contribution to WGs will be focussed on healthcare and sensing/Telecom where he concentrates his activity and will bring connection with Piedmont region hospitals, with emphasise on cancer early diagnosis and Telecom companies.

Brief candidate curriculum vitae

Stefano Taccheo was born in Trieste, Italy in 1964 and he received the M.S. degree in nuclear engineering in 1989 from the Politecnico di Milano, Italy, and the Ph.D. degree in applied physics from the Politecnico di Turin, Italy, in 1996.

From 1990 to 1991, he was a Researcher at SIRTI company and CSELT Turin, working on optical fiber amplifiers. In 1991 he joined at Politecnico di Milano as Researcher, and he was appointed Associate Professor at Politecnico di Milano in 2004. He spent sabbatical years at ORC, Southampton, UK in 1996 and Lucent Bell Labs, NJ, US in 1999.

In 2007 he joined the College of Engineering at Swansea University to set-up a laser group. He also created the Centre for Cosmetic & Curative applications of Compound Semiconductor Technology in collaboration with the Compound Semiconductor Center, UK. Research interest included development and applications of light sources and Mid-infrared sources to medicine.

In December 2019 he joined Politecnico of Turin, Italy. Its activity focus on developing and testing lasers and LEDs sources for applications to medicine, sensing and communications. In particular to apply new sources to improve diagnostic and curative methods. He is building a new facility for lasers and light sources applications to medicine, in particular early cancer diagnostic coordinating a group of Piedmont Institutions like the University of Turin and several city Hospitals. He also develops new lasers and light sources, particularly in the mid-Infrared lases, for medicine and multi-band optical transmission..

Overall main research fields are lasers sources and their applications in particular to medicine and sensing and communications, waveguide and integrated devices, spectroscopy and light/matter interaction.

During his activity he has been a consultant of several laser, biomedical and telecom companies and developed a large experience in building commercial devices. Industry list includes Pirelli Cable, Marconi/Ericsson, Datalogic, SAES Getter, IPG, Cyden Ltd, PulmonIR.
He has been an elected member of the Board of Stakeholder of Photonics21 (2016-2019). He is author of over 260 journal and conference publications. He was hair and co-General Chair of OSA Advance Solid-State Lasers 2017-2020. He participated in several Italian, UK and EU projects, including largest project on fiber lasers (FP7 LIFT). Among others he was UK Biophotonics representative (FP7 OASIS project) and Chair of H2020 Network COST MP1401 on fiber lasers and their applications.

He delivered Keynote and several plenary talks on medical applications of lasers sources and on fiber lasers.

He was the co-recipient of the 1993 Philip Morris Prize (with Prof. Svelto and Prof. Laporta) for the first demonstration of the diode-pumped Er:Yb bulk glass laser.