



Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholder candidate:
Tampere University of Technology / Prof. Mircea Guina.

**- Letter of Nomination -
Photonics21 Board of Stakeholders
Election 2018**

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

Tampere University of Technology

2. Full contact details of the affiliation (street, postal code, country) nominated as BoS Member and invoice address (in case the candidate is elected, the affiliation needs to pay an annual service fee according the Photonics21 Terms of Reference §5 (10)):

Korkeakoulunkatu 10, 33720 Tampere, Finland

Invoicing:

Korkeakoulunkatu 3, 33720 Tampere, Finland

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

Mircea Guina

4. Information about the BoS candidate and the BoS representative

Extract Photonics21 Terms of Reference¹: “§ 5 BOARD OF STAKEHOLDERS; ... (6) Election of BoS Members: “Description of the activities of, and information about the added value and contribution to the BoS by both the nominated BoS member and the BoS Representative”

a) Description of the activities and information about the expected contribution and value added the nominated BoS member (candidates organization) will bring to the BoS²

Tampere University of Technology (TUT, www.tut.fi) is the leading technological university in Finland. Photonics has been a leading-edge research area of TUT for over 20 years, with significant investments to the infrastructure (in the range of 20 M€). The photonics cluster at TUT includes 14 professors and over 120 researchers, from a broad range of disciplines from material science to lasers, and applications in spectroscopy and medicine.

At national level TUT has been profiled as the leading Photonics-related higher education in Finland and has received dedicated funding to further strengthen the community and enhance the impact of photonics science and technologies at societal level. What makes TUT a special place in the photonics environment it is the instrumental role played in establishing laser industry in Finland (largely located in Tampere area). There are currently 12 spin-offs from TUT in laser field including major players such as Modulight Ltd. or new-comers like Ampliconyx and Vexlum.

Without doubt TUT is a strong node of competence in Scandinavia and in general in Europe with good visibility across education, leading science, and technological impact, which would provide a unique interaction perspective with Photonics21. In fact, TUT has been a member of the Photonics21 Board of Stakeholders (represented by Dr. Pekka Savolainen). Now we propose change here and hope that **Prof. Mircea Guina** will be elected as a new member for the BoS.

¹ Photonics21 Terms of reference are available at https://www.photonics21.org/download/about-us/structure/ETP_Photonics21_Terms_of_Reference_C3.pdf?m=1513688127&?m=1499877714

² The candidate is aware and accepts that according to the Photonics21 Terms of Reference a service agreement and a service fee invoice is to be signed / paid with the Photonics21 association.

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

Prof. Mircea Guina has 20 years of experience in photonics, with outstanding contribution to optoelectronics technology, spanning from epitaxy of novel heterostructures, to new devices, and their applications. Since 2008 Prof. Guina leads the scientific activity at the Optoelectronics Research Centre (www.tut.fi/orc) of the Tampere University of Technology, one of the largest optoelectronics group in Europe focused on molecular beam epitaxy. ORC currently includes about 35 researchers having an annual project portfolio in the range of 2.5M€ covering topics in material science, photonics integration, photovoltaics, and laser applications. Prof. Guina has gained a wide visibility for leading work in the area of vertical external cavity surface emitting lasers and high efficiency solar cells. He has an outstanding involvement in major conferences, has an excellent track-record in educating PhD student (10 at this point and other 5 progressing towards completion of the studies), and is a strong advocate of entrepreneurship activities in photonics and has been involved in creation of three start-up (the most recent one being Vexlum – www.vexlum.com).

Prof. Guina's multidisciplinary work has resulted in major contributions to several areas of material science, technology, and development of novel optoelectronic devices. The most important achievements are listed below in connection with specific areas of work. He has authored about 200 refereed journal articles, more than 300 papers in international conference proceedings, and has been an invited speaker to more than 30 international conferences, including Photonics West, CLEO, CLEO-Europe, E-MRS, Euro-MBE. He has also authored 5 book chapters and 4 granted patents. What makes Mircea's work unique and truly inspirational as a leader is that he has been able to advance several research fields over a significant amount of years, all the way from material science to commercialization.

Prof. Guina brings in a wide European perspective in terms of collaboration. He has been a member of Photonics 21 (WG6) since 2007, he is a representative of TUT in European Photonics Industry Consortium (EPIC, www.epic-assoc.com), has been involved in 8 EU projects with three ongoing H2020 projects, and is also the chairman of the scientific board of Photonics Finland (www.photonics.fi). He serves as Chairman of two spin-offs (RefleKron Oy and Vexlum Oy) and acts as a scientific advisor for several other companies being a well-recognized figure in optoelectronics and epitaxy communities.

In summary, Prof. Guina will bring a unique combination of expertise over a vast technical domains, a long experience in terms of European networking with academia and industry, and a good balance between academic and entrepreneurial perspective.

Additional information on his background can be found in his CV (enclosed with the letter) and the website of his group: www.tut.fi/orc.

Final information from the Photonics21 secretariat:

- *We recommend limiting the BoS nomination letter to 3-4 pages max.*
- *Letters of nominations should be either submitted via the Photonics21 website*

<https://www.photonics21.org/bos-election/index.php>
or via e-mail to secretariat@photonics21.org.

- *It is highly recommended to consult the Photonics21 Terms of Reference before submitting the nomination.*