



To Photonics21 Secretariat
via eMail: secretariat@photonics21.org

Dear Photonics21 Secretariat,

We herewith submit the nomination of the following Photonics21 Board of Stakeholders candidate
NVIDIA - Mellanox Technologies Ltd / Paraskevas Bakopoulos.

**- Letter of Nomination -
Photonics21 Board of Stakeholders
Election 2024**

Photonics21 Board of Stakeholders - Letter of Nomination

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

NVIDIA - Mellanox Technologies Ltd (an affiliate of NVIDIA Corp.)

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).)*

NVIDIA - Mellanox Technologies Ltd (an affiliate of NVIDIA Corp.)
Hakidma 26
Ofar Industrial Park
Yokneam, Israel
Zip code 2069200

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

Paraskevas Bakopoulos

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 BoS¹

NVIDIA pioneered accelerated computing to tackle challenges no one else can solve. Our work in AI and digital twins is transforming the world's largest industries and profoundly impacting society. NVIDIA's invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics and revolutionized parallel computing. More recently, GPU deep learning ignited modern artificial intelligence (AI) — the next era of computing — with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world.

NVIDIA's integration of Mellanox Technologies in 2020 unites two of the world's leading companies in high performance and data center computing. NVIDIA offers a broad portfolio of optical interconnect products (e.g. active optical cables, transceivers) including multi-mode and single-mode solutions for various deployment scenarios in different datacenter tiers.

NVIDIA, as a pioneer in accelerated computing, can offer significant value to the Photonics21 European Technology Platform. The company's expertise aligns perfectly with the growing demand for AI networking infrastructure among Cloud operators, as highlighted by recent

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

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market studies. Photonics plays a crucial role in enabling the scalability of accelerated computing by efficiently interconnecting vast numbers of GPUs, creating a symbiotic relationship between the two fields. NVIDIA's involvement in Photonics21 can provide valuable insights into growing markets for photonics, extending beyond traditional datacenters to encompass artificial intelligence, high-performance computing, autonomous vehicles, and edge computing. NVIDIA's participation in Photonics21 has the potential to drive innovation and unlock new opportunities in the rapidly evolving landscape of accelerated computing and photonics.

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

Paraskevas Bakopoulos leads NVIDIA's Photonic Systems group in Greece (part of Mellanox Technologies Ltd, an affiliate of NVIDIA Corp.). He followed his studies at the National Technical University of Athens (NTUA), Greece, receiving a Diploma in Electrical Engineering and a Ph.D degree in optical communications for studies in networking applications of highly non-linear fibers. He has authored or co-authored more than 150 peer-reviewed articles and conference papers and holds 25 patents in the fields of photonics and datacenter networks. He has served as a TPC member for OFC conference and has participated in organizing committees of photonics-related events.

During his Ph.D studies Paraskevas worked as a researcher at the Photonics Communications Research Laboratory, NTUA, where he investigated concepts for all-optical switching and signal processing. His research activities were funded by European research projects offering him the opportunity to practice collaboration with large, multi-cultural teams.

Following his PhD his early career continued at NTUA where he worked as a senior researcher from 2010 to 2017. In this position he supervised a team of PhD students and worked towards extending the group's activities synergizing photonic circuit design with system architectures. In this position Paraskevas interacted closely with several EU research consortia and initiated new collaborations with the industry.

In August 2017 Paraskevas joined Mellanox Technologies with the mandate to establish a new R&D group focusing on applications of photonic integrated circuits. Following the integration of Mellanox with NVIDIA in 2020, he serves as Director of NVIDIA's Photonic Systems group in Athens. Among his duties Paraskevas is actively involved in company-internal and EU collaborative research projects.

The added value to the Ph21 BoS brought by Paraskevas is summarized below:

- Long-standing, high-quality research track record in applied research
- Large experience and active collaboration links with European photonics community, including SMEs and Universities/Research centers.
- Experience in bringing novel technologies to applied solutions
- Research experience in activities that fall under -and foster synergies between- WG1 and WG7

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Paraskevas will contribute to the BoS and bring value by bridging the evolving needs of accelerated computing systems with innovative research in photonics, fostering collaboration between the European photonics community and the rapidly growing AI and high-performance computing sectors.