



Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholder candidate II-VI Laser Enterprise/ representative Dr. Norbert Lichtenstein.

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

Photonics21 Board of Stakeholders - Letter of Nomination

§ 5 BOARD OF STAKEHOLDERS (6) b....A candidate nomination will always contain the name of the candidate organisation together with its proposed BoS Representative, and voting on a candidate implies voting on this combination.

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

II-VI Laser Enterprise GmbH

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)):

**II-VI Laser Enterprise GmbH
Binzstrasse 17
8045 Zürich
Switzerland**

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

Dr. Norbert Lichtenstein

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

II-VI INCORPORATED and its divisions and subsidiaries utilize expertise in synthetic crystal materials growth, optics fabrication, electronics component manufacture, and more to create high-tech products for a wide range of applications in Photonics and other industries.

Founded in 1971 II-VI INCORPORATED is a global player with a strong footprint in Europe:

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.

Photonics21 Board of Stakeholders - Letter of Nomination

II-VI HIGHYAG

II-VI HIGHYAG is one of the world's leading suppliers in the laser material processing industry. Its innovative laser processing heads and fiber beam delivery systems are used for laser cutting and welding as well as for brazing. Headquarter and production is located near Berlin, Germany.

II-VI DIRECT PHOTONICS

Headquartered in Berlin Adlershof, Germany, **II-VI DIRECT PHOTONICS** develops direct diode laser systems with optical output power levels from a few hundred Watts up to the Kilowatt range, and with a beam parameter product of 7.5 mm mrad. These Ultra-high brightness direct diode lasers are used in cutting, joining, additive manufacturing and other applications.

II-VI COMPOUND SEMICONDUCTORS

Based in Newton Aycliffe, UK, **II-VI COMPOUND SEMICONDUCTORS** is specialized in high volume manufacturing of compound semiconductor devices based on GaAs, SiC and InP materials.

II-VI PHOTONICS UK

II-VI PHOTONICS delivers high-performance optical communications products to enable amplification, monitoring, switching and wavelength management in next-generation optical networks. **II-VI PHOTONICS** offers products at various levels of vertical integration from ultra-compact components, to intelligent modules, dynamic subsystems and fully integrated line cards. **II-VI PHOTONICS UK** is located in Paignton, United Kingdom

II-VI LASER ENTERPRISE

Located in Zurich, Switzerland, **II-VI LASER ENTERPRISE** is an industry-leading manufacturer of high-power semiconductor laser components enabling fiber and direct diode laser systems for material processing, medical, consumer and printing applications. In addition, **II-VI Laser Enterprise** manufactures pump lasers for optical amplifiers for both terrestrial and submarine applications and vertical cavity surface emitting lasers (VCSELs) for optical navigation, optical interconnects and 3D sensing applications.

As a manufacturer of materials, components and sub-systems **II-VI** has direct exposure to a broad range of technologies, applications and market segments:

II-VI is offering solutions in Information and Communication as well as Industrial Manufacturing and is serving Life Science & Health, Security, Metrology & Sensors and Design and Manufacturing of Optical Components and Systems through materials and components

Also **II-VI** traditionally has a strong focus on research activities and support programs for students.

Photonics21 Board of Stakeholders - Letter of Nomination

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

Serving since 2014 on the Photonics21 Board of Stakeholders, Dr. Norbert Lichtenstein aims to represent the members of Photonics21:

- **Reflecting needs of the members in the strategic research agenda which aims to contribute to Europe's economy and thus to benefit European citizens**
- **Working with and within the work groups setting research and innovation priorities for the PPP work program**
- **Strengthening the links between industry and research centers in order to increase leverage of the excellent results in products**

Dr. Norbert Lichtenstein brings 25 years of experience on semiconductor laser diodes, processes and applications to the Board of Stakeholders. He received his PhD degree from University of Stuttgart for his work involving high-power semiconductor lasers. He joined Uniphase Laser Enterprise in 1998 leading Uniphase's first program for high-power pump laser development. At the site in Zurich he held different positions in development and management within JDS Uniphase, Nortel Network, Bookham, Oclaro and II-VI including responsibility for development of 980 nm and 1480 nm telecom pump lasers, high-power laser diode products and high volume products for consumer applications. Currently he is Director Research & Development for II-VI Laser Enterprise.

Mr. Lichtenstein is a member of Photonics21, SwissPhotonics, IEEE and SPIE.