



To Photonics21 Secretariat  
via eMail: [secretariat@photonics21.org](mailto:secretariat@photonics21.org)

Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholder candidate  
ALPES LASERS SA / representative Dr. Antoine Muller (CEO).

**- Letter of Nomination -  
Photonics21 Board of Stakeholders  
Election 2020**

## Photonics21 Board of Stakeholders - Letter of Nomination

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

- 1. Full contact details of the affiliation 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 Service Fee. The Service Fee will be considered an asset of the Photonics 21 AISBL in accordance with its statutes (article 12,c)).*

**Alpes Lasers S.A.**  
**Avenue des Pâquiers 1**  
**St-Blaise 2072**  
**Switzerland**

- 2. Name of the suggested BoS Representative:**

**Dr. Antoine Muller, CEO**

- 3. 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 (candidates organization) will bring to the BoS<sup>1</sup>

Alpes Lasers SA is a Swiss SME and leader in the development of optoelectronic devices in the mid-infrared range (mid-IR). Alpes Lasers SA was the first company to commercialize Quantum Cascade Laser (QCL) sources in the mid-IR. The company also offers a wide range of other laser sources, including Interband Cascade Lasers (ICL) and short-wave infrared Laser Diodes (SWIR). Infrared light sources are of particular interest since most substances have strong molecular fingerprints in the infrared spectral region. For this reason, these sources are used for a large number of purposes ranging from clinical diagnostics to environmental and industrial quality control. Many of these potential applications are not yet fully exploited and several multi-national partners, especially in the large consumer electronics market, rely on Alpes Lasers for the identification of the most suitable product development strategy and to help them set up prototype fabrication and IP protection. Towards this end, Alpes Lasers has a large R&D team of scientists experienced in developing novel photonics and microelectronics systems. Alpes Lasers is presently involved in numerous research projects with industrial partners, as well as for the European Union and the US government.

Alpes Lasers SA will bring to Photonics21 the unique perspective of a QCL & ICL source manufacturer, neither of which is currently represented in the BoS, although it is a vastly

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<sup>1</sup> 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.

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expanding market in medical, security and industrial applications, with many very strong EU companies leading the field.

In addition, Alpes Lasers SA has a very strong participation in EU research grants, and will bring this expertise to the Photonics21 in order to provide input to future R&D project calls.

(Website: [www.alpeslasers.ch](http://www.alpeslasers.ch) )

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

Dr. Antoine Muller (male) born in 1964 in Geneva is presently CEO of Alpes Lasers. Antoine studied Solid State Physics at the University of Geneva, he received a PhD in Physics in 1995 for his work in Quantum Cryptography with Professor N Gisin. In 1996 he continued work as post doctorate on the same subject at the University of Geneva. In 1997, he worked on single photon metrology at NIST in Gaithersburg, MD and in 1998 he joined Professor Faist's group of mesoscopic physics at the University of Neuchâtel to work on electrical tuning in QCLs. In 1998 he founded Alpes Lasers SA together with Professor Faist and Dr. Beck, he acts as CEO since foundation. He co-authored more than 30 peer reviewed papers or contributions to topical meetings and 7 granted patent & patent applications. In the course of business, he attended and completed successfully various courses on entrepreneurship, marketing and organized an entrepreneurship awareness workshop aimed at the doctorate students of POISE RTN.

Dr. Muller will bring to Photonics21 an invaluable perspective of combining the technical and business aspects of mid-infrared photonics, assisting in pushing the EU photonics industry to tackle global competition more efficiently.

*For Alpes Lasers SA:*

Dr. Antoine Muller

  
Alpes Lasers SA  
Avenue des Pâquiers 1  
CH - 2072 St-Blaise