



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 Stakeholders candidate  
LASEA S.A. / David Bruneel.

**- 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):

LASEA S.A.

### 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).)*

Rue Louis Plescia, 31  
4102 Seraing  
Belgium

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

David Bruneel

### 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<sup>1</sup>

LASEA was founded in 1999 by Axel Kupisiewicz directly after his studies at ULg in the photonics sector. In 2012, the company set up its subcontracting site in Bordeaux. In 2016, the Company decided to create the two Lasea subsidiaries based in Switzerland and the USA in order to (i) get closer to customers and gain visibility, (ii) avoid customs barriers.

In 2020, LASEA acquired Optec, a company based in Frameries (Belgium) specialising in the UV and ultra-short laser pulses. The new Group will then offer a range of subtractive and additive laser solutions for 4 key sectors (Luxury, Medical, Electronics, Academic). In 2022, LASEA acquired LASER CHEVAL, located near Besançon (France). By this, LASEA continued its growth dynamic, and consolidated its strong position in Switzerland and France extending its offer in welding and marking applications.

The LASEA group is now the leader in Europe in the design and manufacture of precision laser machines. With offices in Belgium, France, Switzerland and the United States, LASEA develops and produces extremely precise laser micromachining machines and solutions (marking, engraving, cutting, drilling, texturing, welding, etc.) for a wide range of industries. Its main customers, spread over five continents, are leading players or technological innovators active in the luxury goods, MedTech, Big Tech and electronics sectors, as well as research institutes.

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<sup>1</sup> 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.

## Photonics21 Board of Stakeholders - Letter of Nomination

At LASEA, we are convinced that companies today have a role to play in society. We are organized therefore in a view targeting sustainability (energy self-sufficiency, local suppliers, focus on sectors linked to sustainable development, etc.). Also innovation at LASEA is not just the result of projects, it belongs to a processus starting by identifying the needs of the markets. Those needs are then addressed by the research and development until to become products. Also, LASEA intends to democratize education of photonics, starting in Wallonia and in relation with Belgian and French training centres, in order to address the current and future needs in terms of employment in photonics. LASEA could contribute to photonics 21 with its strong experience in addressing and identifying the key technologies to address markets needs, both in terms of technical solutions but also of employment.

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

Dr David Bruneel is Group Research Coordinator at LASEA SA, the leader in development and industrialisation of innovations in femtosecond-laser-based micromachining techniques and associated equipment. David leads a team of researchers for more than 10 years with deep expertise in lasers and material science, who solve end-user challenges with novel approaches. In 2010, he graduated as a PhD in femtosecond laser-matter interaction for micromachining. He then acquired a strong experience in optics engineering and photonics in France, Germany and UK with strong relationships with research centers and highly technology companies. Since 2015, he has strongly contributed to reinforce the R&D department of Lasea targeting at commercial solutions. He managed several public funded projects, both regional and international, where the goal was to develop laser micromachining machines. This work included both engineering aspects and applied research on the laser-matter interaction. The research led by David covers different topics such as finding ways to exploit the high power regimes made more and more available by USP laser providers bringing the laser machines to a such level of productivity and energy efficiency, making them as a serious contributor to the European green transformation. This research goes along with the understanding of new regimes of interaction available (such as GHz burst, harmonics, ...) broadening the range of applications addressable by laser micromachining. Results of this research drive the engineering of the future laser machines. Also, David is at the forefront of the use of AI in laser micromachining. In 2018, he published a patent on a method based on machine learning to predict optimal USP laser parameters for micromachining, levelling up laser micromachining machines in terms of productivity and robustness, as well as opening the path to democratization of the use of such highly technological machines, so far only accessible to highly skilled or experienced people. With his experience, David can contribute to develop and strengthen the photonics community in Europe, always pushing the boundaries of a European sovereign photonics industry and at the same time aiming at being compliant with digital and green transformation of the industry.