



To Photonics21 Secretariat
via eMail: secretariat@photonics21.org

Dear Photonics21 Secretariat,

We herewith submit the nomination of the following Photonics21 Board of Stakeholders candidate
LIMO GmbH - A Subsidiary of Focuslight Technologies Inc. / Dirk Hauschild.

**- 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):

LIMO GmbH - A Subsidiary of Focuslight Technologies Inc.

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).)*

LIMO GmbH
A Subsidiary of Focuslight Technologies Inc.
Bookenburgweg 4-8
44319 Dortmund
Germany

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

Dirk Hauschild, [LinkedIn](#)

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

LIMO GmbH - A Subsidiary of Focuslight Technologies Inc. is part of Focuslight Technologies Inc., a public company with headquarter in Xi'an in China (Shanghai Stock Exchange: 688167), that is specialized in developing and manufacturing of high-power diode laser components and materials, laser optics, as well as photonics module and system solutions focusing on optical communication, automotive, pan-semiconductor, and medical and health applications with customers in Americas, EMEA and Asia. The European subsidiaries LIMO GmbH and Focuslight Switzerland SA, develops and produces micro-optical components and sub-assemblies for beam shaping of laser and light sources to enable and improve the performance of related applications. The optimized beam profile is a basis to develop and produce next generations of laser and illumination tools for advanced material processing, sensing, communication and mobility. With more than 30 years experiences in micro-optics beam shaping LIMO and its partner Focuslight Switzerland SA are partners of a wide range of applications and customers. Based on these experiences, LIMO GmbH - A Subsidiary of Focuslight Technologies Inc. would be pleased and honoured to contribute and add value to their European customers and partners to be able to use the results of this activities within Photonics 21 for a global added value in using photonics.

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

Mr. Dirk Hauschild is one of the leading industrial contributors in micro-optics with more than 30 years experiences in enabling and scaling new applications with laser sources. With his special focus on application specific beam profiles for efficient light-material interaction, the development of optics for high power diode laser, optical lithography, semiconductor processing and quality assurance were a breakthrough in the development and production of a wide range of products and related industries and the basis to use the laser sources in a more defined, economic and innovative way. Based on his academic work at the Technical University of Braunschweig, Germany, to guide light in semiconductors and to design and pump fibre laser with multi-wavelength emission, his vision is always on how to transform resonator given light distributions into precision light engines to get the best out of these tools in photonics applications and to push the limits from “impossible” to an innovative solution. Within his career, he pushed the transition of classical optics design into innovative engineering with photonic energy.

Within more than 10 German and European funded projects, Dirk Hauschild has shown as a Project Manager the value of interdisciplinary development and multi-country project management as a basis for the development a ground breaking photonics technologies and inspired with his work and leadership also various leading German Research Institutes to step into the development of next-generations processes for laser materials processing with application and material specific laser beam profiles even for larger area processing with multi-square meter productivity per minute and laser based photonic heating processes to address innovative solid and liquid phase transition of material composition that are not addressable with tradition heating technologies.

Together with the founders of LIMO GmbH and optics technology experts, he co-developed a startup up into a 240-employee company in Dortmund, as a leading and trends setting optics and laser technology expert with the following examples:

- Collimation optics for high power diode laser (FAC, SAC, TEL, BTS)
 - Brightness saving micro-optics with high-order aspheric and free-form surfaces.
 - Wafer-level production of micro-optics on up to 300mm wafer size.
 - Optics design without compromises made of Fused Silica, high index glass, semiconductors and crystals.
 - Transition from surface geometry based to optical performance related quality assurance using application specific light and laser sources.
 - Scaling of capacity within Focuslight from 100K to 30 Mio. pcs p.a.
 - Together with the evolution of high-power diode laser the use of the new type of collimation micro-optics was the basis to produce and scale fiber laser as a driving laser source of many industries.
 - Further scaling of Focuslight wafer level FAC production will be a basis for next generations of multi-Joule diode pumped solid state laser sources for fusion energy.

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- Homogenization optics
 - Design and production of near and farfield defining and integrating homogenization optics for UV to IR multimode laser.
 - Discretisation of on- and off-axis illumination light sources for high numerical aperture lithography and resolution enhanced light source conversion.
 - Enabling optical lithography with less 10nm feature sizes.
 - Homogenization of flat-top beam profiles with <1% p-v intensity variation.
 - Line beam profiles for annealing, sintering and crystallization of Silicon, metal conductors, transparent conducting oxide coatings and active solar and battery materials.

Together with his team in Dortmund, the work and results for the global photonic industries was honoured with the German Industry Innovation Award 2008 and Prism Award 2018. In addition, Dirk Hauschild held over 80 invited and contributed talks and is author or co-author of more than 36 technical articles and 15 SPIE papers.