



To Photonics21Secretariat
via eMail: secretariat@photonics21.org

or via Mail:
c/o VDI Technologiezentrum GmbH
ST / QS
Attn: Barbara Kehrer, Ursula Tober, Markus Wilkens
VDI Platz 1
40468 Düsseldorf
Germany

Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholder candidate (organization) / representative (person).

**- Letter of Nomination -
Photonics21 Board of Stakeholders
Election 2019**

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§ 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):

Fraunhofer-Institute for Laser Technology

as part of Fraunhofer-Gesellschaft München, Germany

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

**Fraunhofer-Institute for Laser Technology
Steinbachstrasse 15
D-52074 Aachen
Germany**

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

Dr. Arnold Gillner

Contact: arnold.gillner@ilt.fraunhofer.de

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

With more than 540 employees the Fraunhofer Institute for Laser Technology ILT is world-wide one of the most important development and contract research institutes of its specif-

¹ Photonics21 Terms of reference are available at http://www.photonics21.org/download/general_inf/TermsOfReference/ETPPhotonics21TermsOfReference.pdf

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.

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ic field. The activities cover a wide range in the field of Laser Technology and Optical Technologies as well as Laser based manufacturing technologies. Special emphasis is given to the development of new laser sources for industrial manufacturing and metrology. Currently in this field the developments are concentrated on high power multi kw ultrashort pulsed lasers, fiber lasers and diode lasers with a special view on system design for automated packaging and assembly. Moreover frequency converted and single photon lasers are under development for applications in quantum technology. Large activities in laser development are currently multi wavelength lasers for satellite based LIDAR measurements of Methane and other atmospheric gases.

In the field of Laser manufacturing, Fraunhofer ILT is developing all kinds of laser processes like cutting, welding, ablation, drilling, surface treatment, material modification, micro and nano processing and additive manufacturing. Moreover Fraunhofer ILT develops laser based technologies for the generation of bio based artificial tissue for medical and pharmaceutical use. Very strong activities are currently in the field of ultrashort pulsed laser processing with micro and nano drilling for filter applications and display technology. Using high power fs-lasers a new field of laser processing will be opened with fully digital manufacturing approaches. Also large emphasis is given to all kinds of additive manufacturing processing, like LPBF and LMD for metallic materials but also SLA and Multi Photon Processing for polymers. For biological applications Laser printing of cells using Laser induced forward transfer is investigated.

Furthermore, the Fraunhofer ILT is engaged in laser machines, process control, modelling and simulation as well as in the entire system technology. Fraunhofer ILT offers the whole chain of Laser system and manufacturing development from feasibility studies, process qualification and laser integration in customer specific manufacturing lines.

Fraunhofer Institute for Laser Technology is founding member of Photonics21 and has been partner in numerous European collaborative projects since 1985 with the intention to strengthen the European photonics industry, promoting cooperation and technological exchange between research partners, and thus contributes consistently to boosting the European Economic Area for more than 35 years.

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

Dr. Arnold Gillner studied Physics at the University of Darmstadt and made his PHD in Mechanical Engineering at the RWTH Aachen in 1994.

In 1985 he was one of the founding and starting scientists of the Fraunhofer Institute of Laser Technology in Aachen, Germany. Since then he works on Laser based manufacturing Technologies, like surface treatment and system technology.

Starting in 1992 he strongly developed the activities and the department for Micro Technology at the ILT and since 2010 he is heading the department of Ablation and Joining. Together with more than 65 scientists in his department he is developing industrial laser pro-

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cesses for macro and micro joining, packaging, micro and nano structuring, polymer applications and Life Science applications.

He is also Member of the RWTH and gives lectures on Lasers in Life Science and Lasers in Micro- and Nanotechnology. He is currently also managing director of the Fraunhofer Group on Light and Surface and head of the advisory board of MedLife, a Aachen based network of Life Science companies and research Institutes.

In his scientific field he is coordinating numerous national and European R&D-projects on welding, cutting, micro ablation, drilling, process control and biofabrication.

In the Photonics21 platform Arnold Gillner is an active member in the manufacturing working group and together with the head of the working group he has been leading numerous working group meetings for roadmap and future topic definition. He is currently active in writing the strategic agenda and preparing the first funding topics for Horizon Europe program.

In the Photonics21 Board of Stakeholders Dr. Arnold Gillner will actively contribute and work to strengthen the leading role of Photonics Industry in Europe.

Final information from the Photonics21 secretariat:

- We recommend limiting the BoS nomination letter to 3-4 pages max.
- Letters of nominations can either be submitted
 - A) electronically (secretariat@photonics21.org) - **PREFERRED**
 - B) by post mail to:

VDI Technologiezentrum GmbH
ST/QS
B. Kehrer/ U. Tober/ M. Wilkens
VDI-Platz 1
40468 Düsseldorf
Germany

It is highly recommended to consult the Photonics21 Terms of Reference before submitting the nomination.

- Please note that the deadline for providing BoS nominations to the Photonics21 Secretariat is the **21st. September 2019**. This is also valid for postal submission.