



To Photonics21 Secretariat
via eMail: secretariat@photonics21.org

Dear Photonics21 Secretariat,

We herewith submit the nomination of the following Photonics21 Board of Stakeholders candidate
Łukasiewicz Research Network – Institute of Microelectronics and Photonics / Kamil Pierściński.

**- 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):

Łukasiewicz Research Network – Institute of Microelectronics and Photonics

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).)*

Al. Lotników 32/46
02-668 Warsaw
Poland

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

Kamil Pierściński

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

The Łukasiewicz Research Network – Institute of Microelectronics and Photonics (IMIF) focuses on semiconductor technologies for microelectronics and photonics. Since its founding, IMIF has collaborated with Polish and international industry partners and universities. Its leadership in photonics, microelectronics, and nanotechnology is driven by innovative research applied in semiconductor lasers, detectors, integrated circuits, microsystems, and sensors. IMIF's excellence is reinforced by its involvement in numerous application-focused projects with Polish high-tech companies and participation in EU-funded research initiatives. To date, IMIF has been part of over 60 projects, leading to numerous papers and patents. IMIF also fosters collaborations with industry and academia, offering students internships and opportunities to pursue MSc and PhD theses.

Photonics has been a core focus since the late 1960s, when IMIF demonstrated Poland's first semiconductor laser. Since then, the Photonics Department has advanced in areas like detectors, LEDs, and laser sources, specializing in semiconductor lasers. The department leads scientific consortia in projects related to semiconductor laser sources and researches innovative light sources and detectors for use in medicine, environmental monitoring, industry, and the military, with a focus on quantum cascade lasers in the mid-infrared range.

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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IMIF operates four key technological lines: silicon microelectronics, III-V optoelectronics, GaN power electronics, and LTCC. It provides a wide range of services, including technology development, device and IC design, certification, and production. IMIF is open to external services and customer orders.

As a participant in Photonics21, IMIF aims to strengthen its role as a key research center for semiconductor laser sources in Poland. Its participation in European initiatives will enhance international collaboration, helping Polish teams engage in large-scale projects. IMIF, as part of the Łukasiewicz Research Network—Europe's third-largest research network—benefits from access to 22 research institutes and 8,000 specialists. This unique position allows IMIF to apply its expertise in fields such as automotive, material processing, process control, and the chemical industry.

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

Kamil Pierściński, a highly accomplished researcher with a Ph.D. in physics from Warsaw University of Technology, brings extensive expertise in photonics and optoelectronics to his role as Infrared Photonics Research Group Leader at the Łukasiewicz Research Network – Institute of Microelectronics and Photonics. With over a decade of experience, he has led various teams and projects, specializing in the design and development of mid-infrared quantum cascade lasers (QCLs), including innovations in single-mode lasers based on monolithic coupled cavity designs. His contributions extend to several EU-funded and Polish National Centre for Research and Development (NCBR) projects, as well as leading multiple Polish National Science Centre projects.

Pierściński's scientific focus aligns closely with Photonics21's mission to advance photonic technologies in Europe. He is deeply involved in increasing the technology readiness level of quantum cascade lasers, with an emphasis on their applications in industrial sectors like gas detection and free-space optical communications. His work on mid-IR photonic integrated circuits, in collaboration with Polish high-tech industries, demonstrates his commitment to driving innovation and enhancing the availability of mid-IR optoelectronics for both research teams and industry.

By joining Photonics21, Kamil Pierściński will actively contribute to fostering collaboration between academic and industrial partners across Europe. His expertise in mid-infrared technologies and his leadership within the Łukasiewicz Research Network make him a valuable asset in shaping Photonics21's research agenda. Pierściński's role in evaluating industry-driven projects and participating in research policy development positions him as a key figure in promoting innovative, application-focused photonics solutions that meet market demands.

Furthermore, Pierściński's experience as a reviewer for several high-impact journals and his advisory role in industry-driven projects for NCBR will allow him to contribute effectively to Photonics21's working groups. He is well-positioned to facilitate access to Łukasiewicz's extensive network of researchers and resources, enabling stronger cooperation between

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European research institutions and industry, especially in the fields of photonics and optoelectronics.