

To Photonics21Secretariat via eMail: secretariat@photonics21.org

Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholder candidate Thales / Gilles Feugnet.

- Letter of Nomination Photonics21 Board of Stakeholders
Election 2025

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

Thales SA

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).

Affiliation:

Thales SA 4 rue de la verrerie 92190 MEUDON France

Invoice adress:

Thales Research & Technology Attn. Gilles Feugnet 1 Avenue Augustin Fresnel 91120 Palaiseau France

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

Gilles Feugnet

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 Thales group is one of the major world players in aerospace, space, defence, and security. With a world-class technology, the combined expertise of over 80000 employees and operation in 65 countries have made Thales a key player in keeping the public safe and secure, guarding vital infrastructure and protecting the national security interests of countries around the globe. Thales is strongly committed to innovation with 20% of its revenue invested into R&D activities.

¹ The candidate is aware and accepts that according to the Photonics21 Terms of Reference (§ 5 (10) a member ship fee - as determined by the General Assembly of the Association - needs to be paid to the Photonics21 association.

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Photonics-based Thales products include Long-wave IR (LWIR) focal-plane arrays and cooling systems, Short-wave IR (SWIR) focal-plane arrays, high-tech optics for space applications, integration of space optical instruments, optronics defense systems, zooms for the movie industry, high sensitivity laser gyroscopes, head-up displays, and lasers for defense, industrial and scientific applications. Thales has produced the highest peak-power commercial laser system delivering 10 PW ultra-short pulses at ELI-NP in Romania. Thales has also fabricated the lasers operating on planet Mars.

Thales Research & Technology-France (TRT), located in Palaiseau near Paris, is the main multidisciplinary research unit of the Thales group. Through its internal activities and scientific links with industries and universities, either in France or internationally, TRT is participating in the Thales industrial future in strategic R&D fields. Photonics-based research activities include both fundamental and applied topics, such as cold-atoms sensors, quantum-optics, optoelectronics oscillators, optical microwave signal processing, nanotechnology defined diffractive optics, high sensitivity Lidars and active imagers, high power solid-state and fiber lasers and photonics integrated circuit.

Through its activity at the Photonics21 BoS, Thales TRT will contribute to the strategic planning, the coordination and the facilitation of photonics industrial and research activities in Europe.

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

Gilles Feugnet (M), 60 years old, obtained his engineering degree from the Graduate School of Optics in Orsay, France in 1989. He was with Coherent Laser Inc from 1990 to 1991 where he developed and patented a Kerr lens mode locking Titanium-Sapphire laser. He joined Thales Research & Technology-France (TRT) in 1991 with initial activities in diode-pumped solid-state laser. He initiated researches on non-imaging optics for longitudinally pumped YAG laser. His work was the foundation of the lasers on the Mars rovers Pathfinder and Perseverance realized by Thales Laser. His current activities are mainly on optical gyroscopes and photonics integrated circuit. He is currently the coordinator the Horizon Europe PATTERN project aiming developing state of the art Thin Film Lithium Niobate platform featuring the world's first Process and Assembly Design Kits for 100+ GHz microwave photonics, cointegration of BiCMOS drivers, light source and detectors, optical isolator and acousto-optics modulators. He is also heavily involved in the Thales Research & Technology-France (TRT) activities in the ChipJU.

In the frame of his activity, he is closely linked to photonics activities within the different Thales operational units. He has participated in six EC-funded projects, coordinated one EDA project, as well as many national projects.

Gilles Feugnet authored or co-authored more than 100 publications/communications in international journals and conferences and holds more than 10 patents. Gilles Feugnet is member of the board of the French Society of Optics. He serves as a reviewer for OSA, IEE, and IEEE publications.

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Gilles Feugnet intends to be mainly involved in WG7 in line with his activity and expertise. As the representative of Thales TRT at the BoS, Gilles Feugnet will contribute further to the Photonics21 mission and will also coordinate the Thales Photonics21 members in the different working groups.