



To Photonics21Secretariat
via eMail: secretariat@photonics21.org

or via Mail:
c/o VDI Technologiezentrum GmbH
ST / QS
Attn: Barbara Kehrler, 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**

Photonics21 Board of Stakeholders - Letter of Nomination

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

Ghent University

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).*

Ghent University
iGent-building
Technologiepark 126
B-9052 Ghent
Belgium

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

Prof. Roel Baets

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 (candidates organization) will bring to the BoS¹

Ghent University has a large range of activities in the field of photonics, including research, education and industrial spin-off and technology transfer. The key activities are described hereafter:

1. Participation in Photonics 21

A rather large number of permanent staff members of Ghent University are member of Photonics 21 and/or are active in one of the working groups of Photonics 21. These include: prof. Geert Vansteenberghe, prof. Gunther Roelkens, prof. Dries Van Thourhout, prof. Xin Yin, prof. Roel Baets, prof. Johan Bauwelinck, prof. Wim Bogaerts, prof. Geert Morthier, prof. Peter Bienstman. Together they cover a rather broad set of photonics technologies and applications.

2. The **Photonics Research Group** (www.photonics.intec.ugent.be) is a large research entity with focus on photonic integration and silicon photonics. The group has a leading role in research on silicon photonics in Europe. The group consists of 9 professors and about 80 researchers. Six of the PI's hold (or have held) ERC grants. The group has extensive expertise in the coordination of and participation in European research projects. The group is closely associated with imec. From the group six photonics spin-off companies have been founded.

¹ 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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3. **ePIXfab**, the European Alliance for Silicon Photonics, is hosted by Ghent University and chaired by Roel Baets. It has a mission to advance the field of silicon photonics (including silicon nitride photonics) and to support European organizations (technology providers and end users) in this context. ePIXfab's activities strongly focus on the advancement of the workforce through training activities.

4. European Master of Science in Photonics

(<http://www.ugent.be/ea/photonics/en/courses/photonics/overview.htm>) is an English-taught international MSc program in photonics, jointly organized with Vrije Universiteit Brussel. It was launched in 2006 and has graduated about 200 students since then, a large fraction of whom are international students. The program builds on strong collaboration with several other European institutions.

5. **Photonics innovation platform:** Ghent University has a dedicated approach for technology transfer and spinoff. For the field of photonics a full-time senior business developer (dr. Eva Ryckeboer) addresses all initiatives with respect to IP, industrial collaboration, technology transfer and spin-off. Through this approach several spin-off companies have been launched in the field of photonics: Trinean, Caliopa (now Huawei), Luceda, Indigo Diabetes, Sentea, Antelope Dx.

In view of this large portfolio of activities, from education over research to industrial spinoff, Ghent University is well placed to contribute to the activities of Photonics21. In view of the ePIXfab activities this role goes beyond the interests of Ghent University alone and also encompasses the interests of the entire silicon photonics community of Europe.

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

Roel Baets has been active in Photonics21 since its launch in 2005 and has been a member of the Board of Stakeholders from 2014 till 2018 (4-year term). He has been mostly active in Working Group 6 where he contributed to the roadmapping activities and research agenda with respect to photonic integrated components. He has also a strong interest in WG1 as well as WG3. In the past he has had prominent roles in European initiatives for the photonics research community. As an example he has coordinated the Network of Excellence ePIXnet (2004-2008), which has played an important role in finding a broad consensus with respect to the roadmap on foundries for photonic integrated circuits. From ePIXnet several technology platforms have been launched (ePIXfab – chaired by Roel Baets, JePPIX) that enable access to advanced fabrication facilities for the European and global research community. It is widely agreed that these initiatives have contributed strongly to the leading position of Europe in the field of photonic integrated circuits and to the launch in recent years of photonic start-ups addressing various aspect of the supply chain in this field.

When elected as BoS-member, Roel Baets will continue to help develop the European integrated photonics community, both with respect to basic research as well as with respect to industrial competitiveness.

Hereafter a short bio of Roel Baets is given.

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Roel Baets is full professor at Ghent University (UGent) and is part-time associated with IMEC. He received an MSc degree in Electrical Engineering from UGent in 1980 and a second MSc degree from Stanford University in 1981. He received a PhD degree from UGent in 1984. From 1984 till 1989 he held a postdoctoral position at IMEC. Since 1989 he has been a professor in the Faculty of Engineering and Architecture of UGent where he founded the Photonics Research Group. From 1990 till 1994 he has also been a part-time professor at Delft University of Technology and from 2004 till 2008 at Eindhoven University of Technology.

Roel Baets has mainly worked in the field of integrated photonics. He has made contributions to research on photonic integrated circuits, both in III-V semiconductors and in silicon, as well as their applications in telecom, datacom, sensing and medicine.

As part of a team of 9 professors Roel Baets leads the Photonics Research Group. With about 90 researchers this group is involved in numerous (inter)national research programs and has created six spin-off companies. The silicon photonics activities of the group are part of a joint research initiative with IMEC.

Roel Baets has led major research projects in silicon photonics in Europe. In 2006 he founded ePIXfab, the globally first Multi-Project-Wafer service for silicon photonics. Since then ePIXfab has evolved to become the European Silicon Photonics Alliance. Roel Baets is also director of the multidisciplinary Center for Nano- and Biophotonics (NB Photonics) at UGent, founded in 2010. He was co-founder of the European MSc programme in Photonics.

Roel Baets is an ERC grantee of the European Research Council and a Methusalem grantee of the Flemish government. He is a Fellow of the IEEE, of the European Optical Society (EOS) and of the Optical Society (OSA). He is also a member of the Royal Flemish Academy of Belgium for Sciences and the Arts. He has been a recipient of the 2011 MOC award and of the 2018 PIC-International Lifetime Achievement Award. He is Director-at-Large in the Board of Directors of the Optical Society (OSA).