To Photonics21Secretariat
via eMail: *secretariat@photonics21.org*

Dear Photonics21 Secretariat

We herewith submit the nomination of the following Photonics21 Board of Stakeholder candidate **National Technical University of Athens (NTUA) / Hercules AVRAMOPOULOS**.

- Letter of Nomination -
Photonics21 Board of Stakeholders
Election 2018

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

   National Technical University of Athens (NTUA)

2. **Full contact details of the affiliation (street, postal code, country) nominated as BoS Member and invoice address (in case the candidate is elected, the affiliation needs to pay an annual service fee according the Photonics21 Terms of Reference §5 (10)):**

   Contact details:
   Photonics Communications Research Laboratory
   School of Electrical and Computer Engineering
   National Technical University of Athens
   9, Iroon Polytechniou str.
   157 73 Zografou campus, Athens, Greece
   email: hav@mail.ntua.gr

   Invoice details:
   Institute of Communication and Computer Systems
   42, Patission str.,
   10682, Athens, Greece
   VAT No: EL090162593

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

   Hercules AVRAMOPOULOS

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 BoS[1]

   The National Technical University of Athens (NTUA) is the oldest technical university in Greece, founded in 1837. Its mission was to respond to the needs of reconstruction and industrial development of the country. Through the years NTUA has been pivotal in this role and even more so recently and since Greece's participation in the European Union. NTUA operates as a self-administered State University with nine engineering Schools. The valuable work of NTUA and its international reputation are due to its well-organised educational and research system, the quality of its staff and students, and the adequacy of its technical infrastructure. Today NTUA graduate engineers are been regularly appointed as faculty to the best universities around the world, hired by industry, or fill key positions in governmental organizations across the world. The School of Electrical and Computer Engineering (ECE) is one of the most active Schools of NTUA in fundamental, applied research and development, securing

[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.

substantial grants in national and European competitive research programs and directly from industry. These research programs constitute a significant part of the School's research activities and have a significant impact. According to Shanghai Rankings 2017 (Academic Ranking of World Universities) the ECE School is ranked 101-150 among all Universities in the research fields of Computer Science and Telecommunications. Similarly, according to QS Top Universities 2017 the School is ranked 113 in the broader field of Engineering and Technology.
The Photonics Communications Research Laboratory (PCRL) was founded in September 1995 by Hercules Avramopoulos, as a research facility of the School of ECE of NTUA (http://photonics.ntua.gr/). PCRL's research interests are spanning over a wide range of disciplines including optical interconnects for telecom/datacom communications, digital signal processing, photonic integrated circuit (PIC) design, and biophotonics/sensing. The researchers of PCRL have received recognition and numerous awards for their scientific achievements. PCRL has been in the front line of European research on photonics through its participation to all Framework programmes (from ESPRIT up to H2020) having participated in over 30 European and National research projects, with the role of coordinator in half of them.
NTUA through Hercules, aims to: (i) contribute to Photonics21 its broad expertise towards the advancement of the future EU research priorities in photonics technologies; (ii) share its up to date experience gained from its active participation in the European research scene in order to extend and deepen integration of academic and industrial R&D across Europe and (iii) propose and contribute feasible and efficient policies that enhance the European vision on photonics research and maximize its technological, economic and societal impact. For the accomplishment of its mission in Photonics 21 NTUA/PCRL is already positioned within the policy/decision making loop as P21 BoS member and its involvement in the WG 1, 6 and 7 of the platform for the past 4 years as well as member of the European Photonics Industry Consortium (EPIC).

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

Hercules Avramopoulos is a full Professor in the School of Electrical and Computer Engineering at the National Technical University of Athens (NTUA), founder and head of the Photonics Communications Research Laboratory. Previously, he has worked in Area 11 (the research area) of AT&T Bell Laboratories, Holmdel, NJ, USA, as a member of technical staff. As head of PCRL he has successfully initiated (as coordinator) or participated in numerous collaborative cross-European, research projects. He has authored/co-authored more than 350 articles in peer reviewed international journals and conference presentations and holds several international patents.
Hercules has invested heavily on the training of the young generation of photonics researchers. Through the years he has advised 28 PhD students that have graduated from PCRL. They have followed highly successful carriers worldwide: 8 are faculty staff in Greek and European Universities, 10 are being employed in high-end, technology sector (European Patent Office, Cisco, Gooch and Housego, Mellanox, Nokia, IBM etc.) including positions at top management level,

6 have spun off 3 start-ups, whilst others continue at PCRL or in other high-profile careers. A further 12 PhD students are on course towards completion of their theses.
Hercules work is strongly motivated by his vision of a pan-European network of photonics technologists with strong links between academic and industrial research shaping the future and bettering our lives. He has continuously strived to balance the activities of his group between high-end, blue-sky research and very applied work by blending developments in basic science with feedback from collaborating industrial labs. This has been the key into maintaining the relevance and impact of the group's work over time.
Examples of this motivation are his coordination of EUROFOS NoE (FP7) comprising 17 institutions across Europe for the makings of a pan-European optical systems laboratory, and current participation of PCRL in ACTPHAST, ACTPHAST 4.0 and ACTPHAST4R initiatives (including his personal participation as member of the Technical Coordination Committee)
Hercules has served as Panel Member of the European Research Council (ERC) and member of several conference program committees. He has been the national node for the activities of the International Year of Light and he is currently the national node for the activities of the International Day of Light.
Hercules has already brought this experience and expertise as member of the P21 Board of Stakeholders since 2013. He has had an active participation in the proceedings including for example being a member of the BoS Task Force: "Calling for cross-cutting & strategic PPP actions", contributing with proposals for embedding official instruments towards a cross-cutting strategy of joint calls and/or sub-calls of the Work Groups of Photonics21 Platform into the 2018-2020 Work Programme and the Photonics21 "KPI & Mid-term" Task Force related with the assessment and evaluation of the Key Performance Indicators (KPI)_scorecard of the Photonics PPP.

Hercules Avramopoulos

Head of the Photonics Communications Research Laboratory
Department of Electrical and Computer Engineering
National Technical University of Athens