

EPIC POSITION PAPER

STRENGTHENING
PHOTONICS INDUSTRY SUPPORT
WITHIN THE FUTURE EUROPEAN COMMISSION
MULTIANNUAL FINANCIAL FRAMEWORK
2021-2027

Strengthening Photonics Industry Support Within the Future European Commission Multiannual Financial Framework (MFF) 2021-2027

6 November 2018

Photonics technologies are key for future mega-markets such as autonomous driving, 3D printing, precision farming, smart cities as well as industry 4.0. In the future, photonics will continue to have a growing impact on most areas of our lives and will be literally everywhere, from smartphone displays to secure fibre-optic broadband to energy-saving LED lights to the laser surgery that saves our life.

The European Photonics Industry Consortium (EPIC) therefore requests relevant decision makers in the European Union Member States, European Parliament and Commission to support the Photonics industry as a key pillar of European industrial competitiveness. Photonics is a Key Enabling Technology and one of the critical components of several European strategic value chains. In addition, a photonics capacity is vital to European sovereign security interests. EPIC reiterates the importance of empowering a vibrant European photonics industry as a specific objective across and within the above new EC programmes, for a future competitive, secure and independent European Union.

The European Photonics Industry Consortium (EPIC) welcomes the European Commissions' legislative package for a post-2020 multiannual financial framework (MFF) of EUR 1,279 billion for the years 2021 to 2027¹, including the EUR 97.6 billion Horizon Europe² programme, the EUR 9.2 billion Digital Europe programme³ and the EUR 13 billion European Defense Fund⁴.

Specific EPIC Comments on Horizon Europe

EPIC acknowledges the European Commission's efforts to increase spending on research and innovation, essential to the future prosperity of Europe. EPIC welcomes the overall construct of the programme and in particular, as an industry-driven association, the second pillar 'Global Challenges and Industrial Competitiveness' which combines Europe's ambition for industrial leadership with the goal to address global issues. EPIC also supports the focus on European industry partnerships which will leverage public and private funding, bringing together actors from across the full value chain.

¹ On 2 May 2018, the Commission published its legislative package comprising proposals for a post-2020 multiannual financial framework (MFF), including a proposal for a Council Regulation laying down the multiannual financial framework for the years 2021 to 2027 (COM (2018) 321).

² Horizon Europe is the ambitious €100 billion research and innovation programme that will succeed Horizon 2020. The programme is part of the EU's proposal for the next multiannual financial framework (MFF) 2021-2027.

³ The first ever Digital Europe programme will invest €9.2 billion to align the next long-term EU budget 2021-2027 with increasing digital challenges. The programme will support three key strategic digital capacities; artificial intelligence, high performance computing and cyber security.

⁴ The new €13 billion European Defense Fund will provide €4.1 billion to directly finance competitive and collaborative research projects, in particular through grants.

⁵ <https://sciencebusiness.net/framework-programmes/news/eu-makes-its-pitch-member-states-12-research-missions-and-13-industry>

⁶ The Commission list of potential industry partnerships is as follows: funded Faster and safer use of health innovations (a possible successor to IMI); Global health partnerships (successor to European & Developing Countries Clinical Trials Partnership); Key digital technologies (successor to Electronic Components and Systems for European Leadership); Metrology (successor to European Metrology Programme for Innovation and Research); Air traffic management (successor to Single European Sky ATM Research); Aviation (successor to Clean Sky); Rail (successor to Shift2Rail); Fuel-cell and hydrogen technologies (successor to Fuel Cells and Hydrogen Joint Undertaking) and finally, Bio-based solutions (successor to Bio-based industries). In addition, four brand new industry topics were also presented to ministers, including: connectivity beyond 5G; innovative space systems; connected, autonomous mobility; and industrial batteries.

However, the Horizon Europe proposal requires further reflection and work with regard to the following issues:

1/ Budget allocation in Horizon Europe

With 54% of the total budget, the budget proposed for the second pillar on 'Global Challenges and Industrial Competitiveness' is inadequate for purpose. The current low percentage does not reflect that from fundamental research towards prototyping and pilot production, the research, development and innovation resources required increase significantly.

EPIC requests EU decision-makers to prioritise and place increased emphasis on EU competitiveness, especially with respect to the research, development and innovation budget allocated to Pillar two of Horizon Europe.

2/ Key Enabling Technologies (including Photonics)

KETs are essential technology building blocks to strengthen Europe's competitiveness and leadership. In the previous framework programme, the Photonics KET was one of six KETs prioritized across Horizon 2020. In the current Commission Horizon Europe proposal, KETs are not explicitly mentioned across the five clusters of the second pillar, but rather vaguely and only in the Cluster on Digital and Industry, where *key digital technologies* are mentioned.

EPIC requests EU decision-makers to prioritise and enhance the role of key technologies for EU competitiveness and to explicitly add Photonics as an area of intervention to the nine intervention areas listed in the Digital and Industry cluster.

3/ Industry Partnerships

Industry partnerships have had a very significant impact on leveraging public and private funding and bringing together actors from across the full value chain. In Horizon 2020, these were either public private partnerships or joint undertakings, and were established in almost all KET domains. Photonics21 is the PPP for Photonics and has played a major influence on the competitiveness of the European Photonics sector and key strategic value chains. EPIC notes that no reference is made to the Photonics PPP or its future evolution in the current draft of the Horizon Europe proposal.

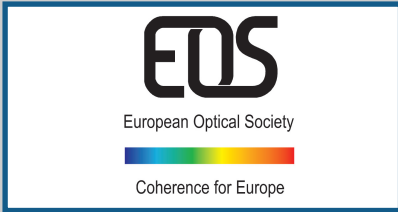
EPIC requests EU decision-makers to clarify why certain strategic industry partnerships have disappeared from the future Horizon Europe programme, and to prioritise the role of key enabling technologies PPPs for EU competitiveness. EPIC explicitly requests that the Photonics PPP remains as a distinct partnership uniquely tailored to the needs of the European photonics sector.

Latest update on industry partnerships

EPIC has noted the recent presentation by EU Research Commissioner Moedas, to European Union science ministers on the 15th October 2018, detailing the EC strategy for missions and industrial partnerships in Horizon Europe⁵. In essence, the Commissioner has drawn up a short-list of thirteen⁶ industry partnerships for discussion with European Union governments. The explicit omission of a future Photonics industry partnership has raised considerable cause for concern in the Photonics industry community and is at variance with international trends and best practice.

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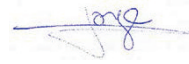
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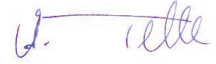
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Thomas Klein, Managing Director
Optores (Germany)

Guy Ear, President & CEO
OptoSigma Europe (France)

Martin Udden, Managing Director
Optoskand (Sweden)

Patrick Summ, Managing Director
Optronis (Germany)

Rainer Jung, CEO
optrovision (Germany)

Juergen Zosel, Managing Director
ORAFOL Fresnel Optics (Germany)

Algirdas Ruksenas, Director
Oriental Technology Solutions (Lithuania)

Thierry Georges, President & CEO
OXXIUS (France)

Vivek Tandon

Vivek Tandon, CEO
perPETual Global Technologies (UK)

Krzysztof Jakubczak, CEO
Perspectiva Solutions (Poland)

Ewit Roos, Managing Director
Photon Delta (Netherlands)

Ann Whyte, President
Photonicsens (Spain)

Eric DREAN

Eric Drean, CEO
Photon Lines (France)

Douglas Aguiar

Douglas Aguiar, CEO
PhotonPath (Italy)

Joseph Pankert, General Manager
Philips Photonics (Germany)

Albert Hasper, CEO
PHIX (Netherlands)

Laurence P Devereux, Director
Photonex Europe (UK)

Daping Chu, Chairman of CAPE Head of
Photonics and Sensors Group University of
Cambridge (UK)

Andrew Blain, Managing Director
Photonic Solutions (UK)

Zenonas Kuprionis, CEO
PhotoSana (Lithuania)

Karl Spanner, President & CEO
Physik Instrumente (PI) (Germany)

Rainer Erdmann

Rainer Erdmann, CEO
PicoQuant (Germany)

Frank Smyth, CEO
Pilot Photonics (UK)

Khalid Ishaque

Khalid Ishaque, CEO
Pixium Vision (France)

Arnold Braunsteiner, CEO
plasmo International (Austria)

Ron Weerdmeester, Innovation Officer
PNO (Belgium)

Jan Schubach, CEO
POG Precision Optics Gera (Germany)

Tamila Zlachevskaya, General Manager
Polarus (Russia)

Richard Kirk, CEO
PolyPhotonix (UK)

Dietmar Gnass, CEO
Polytec (Germany)

Roy McBride, Managing Director
PowerPhotonix (UK)

Guy Bauwens, General Manager
PRC Laser Europe (Belgium)

Reinhard Kramer, CEO
PRIMES (Germany)

Josep Maria Silvestre, CEO
ProCareLight (Spain)

Luz Ruiz, President
Pro-Lite Technology Iberia (Spain)

Martin Åberg, CEO
Proximion (Sweden)

Jamie Knight, Managing Director
PSE Strategic Consultants (UK)

Stephan Eifel, Managing Director
Pulsar Photonics (Germany)

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PV Technology Cluster (Lithuania)

Rokas Sulcas, CEO
QS Lasers (Lithuania)

Luca Fumagalli, CEO
Q-Tech srl (Italy)

Valerian Giesz, CEO
Quandela (France)

Michael Schmidt

Michael Schmidt, CEO
Quantonics (Germany)

Carlos Abellan, CEO
Quside Technologies (Spain)

Volker Raab, CEO
Raab-Photonik (Germany)

Majid Ebrahim-Zadeh, President
Radiantis (Spain)

Gert Rapp, CEO
Rapp Optoelectronic (Germany)

Philipp Schoen, CEO
Raylase (Germany)

Richard Pitwon, CEO
Resolute Photonics (UK)

Hans Manhaeve, CEO
Ridgetop Europe (Belgium)

Gerwin Puppels, Managing Director
RiverD (Netherlands)

Andrew Rickman, Chairman & CEO
Rockley Photonics (UK)

Alain Giraud, Managing Director
Rosendahl Nextrom (Switzerland)

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Laure Sandoval, CEO
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Holger Reinecke, CEO
SCHÖLLY FIBEROPTIC (Germany)

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Ville Hevonkorpi, Managing Director
SCHOTT Primoceler (Finland)

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Hans Brouwer, CEO Amsterdam
Scientific Instruments (Netherlands)

Jean François Vinchant, CEO
SEDI-ATI Fibres Optiques (France)

Oliver Maiwald

Oliver Maiwald, CEO
Sencio (Netherlands)

Ronny Timmreck, CEO
Senorics (Germany)

Marc Canales, CEO & General Manager
SENSOFAR (Spain)

Ernst Wiedenmann, CEO
Serious Enterprises (Germany)

Christoph Sieber, General Manager
Sill Optics (Germany)

Bernd Zingrebe, Managing Director
Sill Optics (Germany)

Daniel Turover, CEO
SILSEF (France)

Sander Dorenbos, CEO
Single Quantum (Netherlands)

Philippe Bolle, Managing Director
Skylane Optics (Belgium)

Chris Staveley, CEO
Smart Fibres (UK)

Richard Visser, CEO
SMART Photonics (Netherlands)

Pauli Tarna

Pauli Tarna, CEO
SmartWatcher (Finland)

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SOFRADIR and ULIS (France)

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Solayer (Germany)

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SpectraCure (Sweden)

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SPECTROS (Switzerland)

Rosa Romeró, CEO
Sphere Ultrafast Photonics (Portugal)

Mark Greenwood, CEO
SPI Lasers (UK)

Wilhelm Quittner, CEO
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Reinhard Völkel, CEO
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Swarovsky Optik (Austria)

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Christian Bosshard, Managing Director
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Sébastien Brun, CEO
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Olivier Lapiere, CEO
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Philip Orr, Managing Director
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Bernhard Richerzhagen, CEO & President
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Technobis (Netherlands)

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Antoine Kevorkian, CEO
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Massimo Tormen, CEO
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Udo Umhofer, CEO
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Robert van Tankeren, CEO
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Ricarda Kafka, Managing Director
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TRUMPF (Germany)

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Fedor Karpushko, CEO
UniLasers (United Kingdom)

Kamel AIT MAHIOUT

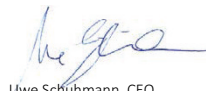
Kamel Ait Mahiout, CEO
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Janis Spigulis, Head of Biophotics Lab
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Marius Enachescu, General Manager
Univ Politehnica Bucharest (Romania)



Uwe Schuhmann, CEO
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Oliver Prochnow, Managing Director
VALO Innovations (Germany)

Lars AIKALA

Lars Aikala, CEO
Valoya (Finland)



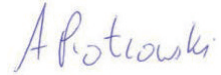
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Jussi-Pekka Penttinen, CEO
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Peter Flug, CEO
XONOX Technology (Germany)

ABOUT PHOTONICS

Photonics is an SME based and fast growing key enabling technology. Today, more than 5000 Photonics organizations are present in Europe and the sector has created more than 300.000 direct jobs. With an annual turnover of more than 60 billion € the European photonics industry grows four times faster than European GDP. The European photonics industry further holds a global leadership position as second player following only China which proves the enormous economic potential of photonics technologies. Photonics technologies are the key for future mega-markets such as autonomous driving, 3D printing, precision farming, smart cities as well as industry 4.0. In the future, photonics will continue to have a growing impact on most areas of our lives and will be literally everywhere, from smartphone displays to secure fibre-optic broadband to energy-saving LED lights to the laser surgery that saves our life.

ABOUT EPIC – EUROPEAN PHOTONICS INDUSTRY CONSORTIUM

EPIC is the industry association that promotes the sustainable development of organizations working in the field of photonics in Europe. Founded in 2003, the association represents over 400 companies across 33 countries. EPIC fosters a vibrant photonics ecosystem by maintaining a strong network and acting as a catalyst and facilitator for technological and commercial advancement. EPIC publishes market and technology reports, organizes technical workshops and B2B roundtables, supports EU funding proposals, advocacy and lobbying, education and training activities, standards and roadmaps, pavilions at exhibitions.



Lucilla Sioli, European Commission's Director of Digital Industry, described in her speech Our Way Towards FP9 that the Photonics21 PPP was one of the most outstanding and efficient contractual PPP's ever seen in the Commission.



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