

6 November 2018

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

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.

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 (www.photonics21.org) 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.

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.

