

Photonics Leadership Group- Undertakings and Impact 2017- 2018

Background

The **Photonics Leadership Group** aims to:

- Secure and raise the UK's position as one of the top five photonics manufacturers and innovators globally.
- Foster a strong and dynamic UK photonics supply chain from components to integrated systems for applications from healthcare to defence and advanced manufacturing.
- Provide a clear voice for the UK photonics industry emphasising the importance of photonics in solutions to societal challenges and productivity supporting continued economic growth.
- Maximise photonics innovation and its commercialisation in established applications e.g. communications and emerging areas e.g. quantum, strengthening UK industry, enhancing exports and investment to enhance the competitiveness and growth of the UK economy.
- Foster continuous dialogue between the photonics industry, government, academia and support agencies, in the UK and Europe, to create an efficient environment for translating innovation into manufacturing.

The PLG achieves these aims through a continuous process of 'nudge' and feedback creating mutually beneficial, self-reinforcing and aligned strategic directions. By ensuring industry, government and agency motivations, insights and interventions are mutually understood and closing feedback loops we aim to ensure industry can position itself in the fast-stream, swimming with the currents of policy, innovation and user trends.

At the vanguard of enabling the 'modern' in modern society, from the internet to safe mobility, photonics is vital to meeting the challenges of the 21st century through a myriad of different vertical markets. We recognise the importance of responding as rapidly, concisely and accurately to those seeking to understand how photonics can help meet those challenges. The results are evident in the following actions demonstrating how we are increasingly asked to respond reactively as well as proactively. To maintain this level of activity, especially in delivering timely reactive responses, we are looking for your support.

Photonics Leadership Group Activity 2017-2018

Science and Technology Select Committee, UK Government

- Submission of evidence to the Committee enquiry on Quantum technology detailing the 2018 National Security and Infrastructure amendment to the Enterprise act.
- Submission of evidence to the Committee enquiry on Balance and Effectiveness of Research and Innovation spending. Highlighting importance of supporting enabling technology and implication of focusing on short term impact in industrial strategy challenge areas.

Future Sectors Team, Business Growth Directorate, Department of Business Enterprise Innovation and Skills (BEIS),

- Internal enquiry on potential of Quantum and related Photonics technology. Face to Face input on BEIS quantum focus, relationship to photonics and potential for future sector team deep-dive in photonics. Delivery of reports and evidence on the size and impact of the Photonics.

Priority Project Team Department of Business Enterprise Innovation and Skills (BEIS),

- Meetings to provide input and comment on the "National Security and Investment" White Paper and Draft Statement of Policy Intent.

- **National Security and Infrastructure Investment Review: Short-term Reforms** response to BEIS Green paper consultation with addition support on refining technology definitions.

UK Industry Strategy 2017

- Submission of response to green paper consultation. Summary and comment on key elements relevant to photonics in green and white paper.

Innovate_UK

- **Industrial Strategy Fund Round 3**
 - **Stephenson, Power Electronics industrial strategy fund round 3.** Attendance and input into priority area at the deep dive ElecTech Roadmap
 - **Quantum Technology industrial strategy fund round 3.** Attendance and input into priority area at the deep dive quantum deep-dive – multiple PLG members
 - Preparation and submission of Eyes of the Future Expression of Interest on autonomous vehicle sensing in collaboration with the Automotive Council and AESIN with ~40 expression of support
 - Support of EOI submissions on laser processing, compound semiconductors and Zettabyte challenge.
 - Debrief on the ISCF round 3 and optimal future interaction points for photonics
- **ElecTech Roadmap**, input on shape and focus, addition of key defence and security vertical market impact. Further detailed comment and editorial on draft and structuring of report.
- Dissemination of funding competitions
- **Knowledge Transfer Network.** Regular input into workshop scoping, speaker recommendations and participation and weekly dialogue.
- Input to Innovate UK sector leads on impact /relevant of photonics to various vertical markets

Quantum Industry Leadership Group

- Consideration of parallels to Photonics Leadership Group and potential to provide/ coordinate industrial leadership in the emerging quantum industry.

Science and Innovation and European Partnerships Team, Department of Business Enterprise Innovation and Skills (BEIS)

- Face-to-face meetings on the statistics, interaction mechanisms and impact thereof of UK participation in Photonics 21 and the Horizon2020 programme and the benefits to UK from the Photonics 21 Public Private Partnership.

Electronics & Machinery Sectors Team, Department of Business Enterprise Innovation and Skills (BEIS)-

- Dissemination of government outputs to photonics community via web, social media and direct email as requested by BEIS including, but not limited to: -
 - Industry Strategy: intellectual property call for views- Government response
 - Industry Strategy Bulletin
 - Made Smarter commission
 - Business Productivity Review call for evidence
 - Capital-financing growth in innovative firms
 - Gov. notice on Aluminium imports and changes to required licences.
 - T-level consultation
- Summary for BEIS of methods used to dissemination funding opportunities to photonics community
- Interactive input on the status and impact of the photonics industry and continued weekly dialogue

Department of International Trade

- **UK-China Trade Review** Priority submission on photonics sector issues in relation to trade with China.
- Suggestions for companies to visit / include in DTI organised missions of potential foreign direct investors to UK.
- Input on priority sectors areas/ case studies for DTI foreign post FDI focus.

Reports and analysis

- **UK Photonics: the Hidden economy** – preparation of definitive report on the size of UK photonics industry, methodology and comparison to rest of world and other key UK manufacturing sectors in response to requests from BEIS, in collaboration with the Future Photonics HUB and Knowledge Transfer Network.
- **UK Photonics, the size of the industry.** Analysis of the size of the UK photonics industry and with clear methodology account for the contribution of diversified large organisations.
- **Laser for Productivity: A UK Strategy.** Dissemination of key report developed by AILU and EPSRC centre for Innovative manufacturing in laser-based production processes.

All Party Parliamentary Group in Photonics

- Provision of briefing documents and recommended speakers at APPG meetings with MPs in Westminster. Attendance at 1:1 and 1:many meeting with MPs active in the APPG.
- **Westminster showcase** of photonics innovation and enabled products at the Palace of Westminster demonstrating the cross section of photonics impact.
- **Briefing to Carol Monaghan, MP** for parliamentary debate on autonomous vehicles

Photonics 21, the Europe Public Private Partnership in Photonics

- Dissemination of opportunities to input into P21 workgroup consultations on defining funding competitions and development of strategic roadmap for Horizon Europe.
- Promotion of participation in P21, voting in P21 Board of Stake holder elections and alerts of UK representatives standing in P21 elections.
- Monitoring of UK participation in Photonics 21
- Collation and dissemination of working group discussion at P21 annual meetings

In addition the PLG maintains an active blog, website and social media feeds at www.photonicsuk.org and @Photonics_uk and input to the UK Photonics LinkedIn group.

Whilst the above is an extensive list of PLG activities it is not intended to be fully exhaustive. Future activities will be varying as opportunities and requests for input require.

For further information please contact the Photonics Leadership Ltd. at www.photonicsuk.org; john.lincoln@photonicsuk.org.