

Photonics Leadership Group

Meeting Minutes



Tuesday 18 June 2024, 13:00-16:00,

Cambridge Consultant, Cambridge & virtually on Teams

www.photonicsuk.org

Attendees in person and online, for whole or part:

Ric Allott, STFC, Simon Andrews, Fraunhofer UK, Graham Berry, CIP Huawei, Dom Brady, Fibercore/ Humanetics, Martin Brook, Cambridge Consultants, Karin Burger, SPIE Europe, Rohin Burney-O'Dowd, Department for Business & Trade, Richard Clark, AMS Technologies, Allan Colquhoun, Leonardo, Iwan Davies, IQE, Chris Dorman, Coherent Scotland, Sandra Dressler, Edmund Optics, Daniel Esser, Heriot-Watt University, David Gillett, Laser 2000, Mark Goossens, CS Applications Catapult, Duncan Hand, Heriot-Watt University, Tom Harvey, Nat Healthcare Photonics Ctr, Steven Jones, Cadfem UK, Stratos Kehayas, GandH, John Lincoln, Harlin, Callum Littlejohn, University of Southampton, Anke Lohmann, Anchored In , Owen McGann, GTS, Cillian McPolin, Digital Catapult, John Parsons , Indigo Consulting, Richard Pitwon, Resolute Photonics, Andy Robertson, Bay Photonics, Michael Robertson, independent, Toby Scrivener, Laser 2000, Malcolm Varnham, Trumpf UK, Mike Wale, UCL, Matthew Wasley , KTN, Tom Watson, Cambridge Consultants, Philip White, Department for Business & Trade, Nicholas Wood, Thales UK, Ben Wood, Thorlabs

Direct Apologies: Name and Affil

Ian Alderton, Alrad, Thomas Butcher, STFC, Peter Collins, Laser 2000, Phil Cornish, CS Connected, Caroline Gray, OptiC, Glyndŵr University, Antony Hurden, Grounded Innovation, Shahida Imani, Singular Photonics, Rand Ismaeel, University of Southampton, Louise Jones, Photonics Connected, Kevin Mackrodt, Novanta, David MacLellan, AILU, Lucy Preston, Department for Business & Trade, Andy Sellars, CS Applications Catapult, Jason Smith, University of Oxford, Chris Sorsby, Vitritech, Aidong Xu, Cambridge Consultants

*Post meeting and editorial input in italics

1) Previous Minutes and welcomes

Those attending their first PLG meeting formally welcomed, including Ben Wood of Thor Labs.

Minutes from previous meeting on 4 March 2024 were accepted without revision. Previous meeting minutes are accessible at <https://photonicsuk.org/contributors/minutes/> with access code "PLGcontribute" (case sensitive).

[Slides from the meeting are available online](#)

2) Cambridge Consultant introduction, Tom Watson, Martin Brock, CCL

Dr Martin Brock and Dr Tom Watson provided an overview of activities, capabilities and interests of Cambridge consultants including specific Photonics programmes. [Slides available](#)

3) Government interactions

A large, perhaps the largest, intake of New MPs ever is expected at the July 4 election, with a high probability of change to a Labour Government. Minimum information on what the new government innovation and industry policy will be. The fiscal situation is understood to be tight and no immediate budget is expected.

The All-Party Parliamentary group on Photonics and Quantum will need to be reconstituted post-election.

We will need to bring the large intake of new MPS up to speed with photonics, leverage their enthusiasm quickly and gain their support for the APPG. This engagement has to come from those with a constituency connection, either as a constituency resident or as employer in the constituency or neighbouring constituency. Contact to MPs has to be made direct by PLG members, we cannot do so centrally.

To support, and in response to previous request to be clear what Westminster can do for photonics we have prepared a Two page '[Future policy Actions for Photonics](#)' The PLG will generate a template for contacting your MP, although it is best if you generate your own. Your MPs contact details can be found at <https://www.parliament.uk/get-involved/contact-an-mp-or-lord/contact-your-mp/>

Action, all PLG members> Contact Email your new MP July 5 - latest July 12

- Congratulate them - include constituency relevance e.g as employer or as resident in
- Introduce your company

- Invite them to visit
- Attach future policy actions for photonics flyer
- Ask them to support great £15.2 billion UK photonics industry with policy actions
- Highlight element that of interest to you
- Ask them to engage with and support the APPG in Photonics and Quantum
 - Be brief, be positive. How can they align with your success.

The policy actions have been intentionally prepared to be high level, concise, cross reference areas strongly linked to photonics in AI, quantum and semicon, make risks of poor support clear and not to have a big cash ask.

The same policy action paper has been distributed to BEIS and other departments with additional evidence including the latest [Photonics: the hidden economic engine report](#)

4) New PLG Logo



The new PLG logo was introduced. Objective being to continue the professionalisation of the PLG with a distinctive, iterative logo differentiated from cooperate logos other societies etc.

Final copy will be available for appropriate use e.g. identification as sponsor of the PLG, use of PLG stats etc.

5) PLG Activities

- **Economist Impact: Commercialising Quantum Global 5-6 June**

The Economist team added a photonics focused ½ day to the start of the 3rd edition of their commercialising Quantum global event. John L provided the opening key note introducing photonics the global and UK scale of the industry and key impact areas and chaired the rest of the opening day. ~550 people attended the opening photonics day including a large number of international journalists and snr technology decisions makers from larger industry. This makes it one of the most significant event to reach a wider audience that the PLG have participated in.



The 2025 event will be 3-4 June and PLG will seek similar collaboration.

- **Infrastructure for Critical Technologies, National technology Advisory input**

The PLG was invited to provide input to David Smith, National Technology Advisor to number 10 on infrastructure requirements that cut across AI, Future Comms, Engineering bio, Quantum, Semicon.

Integrated photonics, particularly heterogeneous integration continues as a dominant theme. The PLG also flagged the importance of laser processing to support for manufacturing capability across all applications.

- **Emerging Photonics Tech highlights for Innovate UK**

Innovate UK emerging technology team continue to gather inputs on top emerging technology trends. PLG highlighted following:-

- Integrated photonics short/long wave
- heterogeneous integration
- biodegradable photonics
- AI in laser processing

Additional suggestion welcome

- **Phorwards21 – end user meeting workshop**

Phorwards21 is the Eu funded cooperative support action that supports the Photonics21 secretariate. In addition modest funds are included to support inter-cluster communication and collaboration in Europe, under which the PLG is a partner. The program includes following work packages:-

- Eu strategic autonomy in photonics.
 - This includes core activity of P21 in defining the Strategic research and innovation agenda and providing inputs to the commission on the priority for R&I actions calls
- Leveraging regional, national, EU investments
 - This includes support for application / user focused photonics 4 workshops across Europe, including one in the UK. Collaboration with KTN – Innovate UK Connect a given

Actions all> your preference for which end user event you would like the UK workshop to be at.

Event must be identified by November 2024

- Trigger regional & national public co-investment. For the UK focus is on national investment and the potential for bi-laterals. Current thought is that these will not be direction funded from HEU to make the administration simpler than past ERANETS

ACTION Innovate UK> reengagement with the P21 mirror group who are exploring bi-laterals

- Enhancing access to growth funding options
 - Key action here is to identify start-ups in UK and highlight access to funding
- Comms & engagement
 - P21 have a regular newsletter content for which is always welcome. Contact John L or Anke L for the News story template.

- **AI**

PLG has been making contact with the government office for AI (via gov office for Quantum) to seek input at next PLG meeting on gov vision for AI, and support available. Seen as important not just due to the increasing application of AI in e.g. visions and laser processing, but also the application of photonics in enabling AI in comms and AI processing.

- **Other**

ACTION all> suggestion for additional PLG activities in additional to above welcome

6) Horizon Europe (Photonics21)

Mike W provided an update on the recent Photonics21 AGM.

Key development is the integration of integrated photonics actions under the EU Chips joint undertaking. On the plus side this give access for very significant funding under the EU chips act. However, access to this support often requires matching national contributions. Large 40 plus consortia are common with much larger budgets than normally experience for photonics calls. Delay to the implementation of the UK semiconductor infrastructure investment (below) does not provide the best timing as status of any UK matched contribution is unclear.

Looking to the next framework program (10) that for implementation from 2027 the move of integrated photonics within semicon casts doubt on where the rest of photonics will sit and if there will be space for Photonics21 as a separate and distinctive Photonics PPP. Representations to the EU commission in support of photonics will be coordinated by P21 in the Autumn following the European elections and appointment of new Commission directorate. Outside Eu core membership, the UK participation in this is limited, although support of those with European offices and operations is important.

In the near term, European calls for a significant pilot line in photonics, quantum pilot line and AR/VR components and laser based processes are anticipated in the next few months, subject to final negotiations. Watch P21 and national contact point (Craig Sharp) for draft text. PLG members are reminded that the UK can now participate in full and lead EU projects.

Photonics21 have published a number of papers on the relevance of photonics to key strategic applications including AR/VR, high performance computes, defence and sustainability. [All are available online from Photonics21](#)

Action PLG> provide links to white papers/ strategic impact papers from PLG website.

7) UK Semiconductor strategy update

New national semiconductor institute was announced by gov, just before the election call. A key recommendation of the Semiconductor infrastructure report (in which PLG partnered), the concept is inspired by the Aerospace Technology Institute, to provide a single contact point for providing expert Semicon inputs, international coordination and funding support. Further details are yet to emerge.

The full IFM semiconductor infrastructure report is unlikely to be made public. Request to publish a summary of the recommendations have been made. These do not deviate significantly from those detailed in IFM dissemination events

ACTION PLG> to seek permission to present the IFM dissemination slides at the next PLG meeting

Further implementation of the UK semiconductor strategy and significant investment appears to have been delayed until after the election, and next spending review.

Meanwhile DBT and Innovate UK continue to support a number of international missions around semicon that are open to photonics participation (see previous PLG meeting minutes and below)

8) Innovate UK

Your attention is drawn to the following opportunities and news from Innovate UJK

Horizon Europe Roadshow - Scotland – more event like this are likely to arise
UK Semiconductor Institute announced – no more info than the initial announcement
ChipStart - Cohort2 & RoK GEM
GBIP - Semiconductors UK/GER/SWI 2024 – which has photonics as a focus theme and webinar on the 19th June
Eureka Cluster - Xecs Call 4 Timeline
Japan-UK joint opportunity in semiconductor research (JST-EPSC)
RoK Semiconductor GEM Report – output from the Expert mission we took out in February, including Shahida. Photonics gets special mention...
UK-Singapore Collaborative R&D 2024
GBIP - Semiconductors UK/TW 2024
Horizon EU - Pump Priming
Innovate UK and Make UK event 24 July connecting innovators in the UK with some of the UK's leading manufacturers. EOI online by the 27 July

- In addition GBIP with the Netherlands cancelled due to the election is anticipated to be rescheduled for September / October
- A GBIP related to quantum is also scheduled for Stuttgart and Germany– contact Anke L for more information.

9) UK Photonics Roadmap

Generation of photonics roadmaps is currently in vogue by photonics clusters across Europe and the world. This leads to question of whether the PLG should seek to generate a roadmap for the UK. Notable that the terminology can be confusion – what many mean by a roadmap is a [vision statement](#) which the PLG already has.

Roundtable and subsequent input indicate general support for a roadmap providing a pathway from now (as documented in the current landscape) to the future (captured in the vision). Such should provide

information on which missing pieces industry can pickup, enable investors to see where investments fit in the bigger picture and where gaps exist that support agencies can intervene to incentivise filling. Key question

- Technology or market focus
- Which areas to focus on – building on existing UK strengths and interests
- How to differentiate and provided added value over roadmaps provided by others e.g. P21`
- Lessons to be learnt form other roadmaps international in photonics and national form other industries
- Funding that may be available to support

ACTION all> if you would like to involved in a small working group to flesh out detail definition of a remapping project please contact John L.

10) External events impacting photonics industry

Noted that good business can still be found in China, despite international trade headwinds

Additional export control regulation on Quantum compute and enabling tech for are causing concern for a number of companies

11) Updates from communities and programs

- **Future Photonics Leaders committee update**

Future leaders group struggling to find direction. Support to mentor their direction welcomed

Engagement with the AILU early careers group encouraged

- **AILU** <https://www.ailu.org.uk/events/>
 - 27 June – Free webinar on laser safety of Hand-held laser systems- Zoom registration link on our event page
 - 11 July – AILU Workshop – Laser Applications in E-mobility @WMG
 - TBC Sep – AILU Workshop – High Power and Hybrid Laser Welding Applications @Cranfield Uni
 - TBC Nov – AILU Annual Job Shop Business Meeting – Venue TBC
 - 26-27 March 2025 – ILAS 2025 - @Chesford Grange Hotel, Kenilworth <https://ilas2025.co.uk/>
- **Photonics Scotland**
 - Space Photonics special interest group meeting is due shortly.
- **Photonics Connected / CS connected - Wales**
 - Chirs Meadows @ CS connected due to retires shortly. [Howard Rupprecht](#) taking much CS connected activities -
- **UK Quantum - <https://ukquantum.org/>**
 - Continues a range of activities and working groups
- **UKIVA**
 - [UKIVA conference and exhibition](#) took place 18-19 June at Coventry Arian
- **SPIE**
 - [Sensors and Imaging](#) Edinburgh 16-19 September. Featuring SPIE Remote Sensing SPIE Security + Defence conferences in. Also featuring industrial/marketplace/ funding program open, with both Eu and UK funding and program day.
 - [Photonex](#), Manchester 30-31 October 2024

12)Next meeting and AOB

Next Meeting 30 or 31 October at Photonex in Manchester. This will include the PLG AGM

Subscription and membership. Thanks offers to those that have made a contribution for 2024. Others are reminded to make their contribution to keep the PLG operation. Quotes can be converted in invoice via Karin or John.

Slides such as the following are used at PLG presentations to acknowledge your contribution, including recent economist event to over 500 C level executives. If you name is in italic or not present it means we have not yet received you contribution for this year.

13) Close.

Informative Tours of CCL facilities followed

Great many thanks to CCL particular Tom Watson, for facilitating hosting at CCL, the first PLG meeting in the Cambridge area and providing such great hospitality.

PHOTONICS LEADERSHIP GROUP

Nudging industry, academia, support agencies & government together
Making Photonics bigger, faster, stronger
www.photonicsuk.org, @photonics_UK, John.Lincoln@photonicsuk.org

As shown to 500 C levels at Economist Impact summit

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Alter Technology	Edmund Optics	Laser 2000
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<i>Cambridge Consultants</i>	G&H Group	University of Southampton
<i>Coherent Scotland</i>	Harlin Ltd	SPIE Europe
Compound Semiconductor	IQE	Thales UK
Applications Catapult		

AILU, ALRAD, British Glass, Centre for Process Innovation (CPI), Compound Semiconductor Ctr, CS Connected, Heriot-Watt University, Optica OSA, STFC, UCL, University of Aston, UCL, University of Sheffield.

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