

Photonics Leadership Group Meeting Minutes

Tue 6 December 2022, 13:00-16:00 Gallery Suite 3, NEC, and on Teams

www.photonicsuk.org

Attendees:

Ian Alderton, Alrad; Stuart Allan, Artemis Optical; Ric Allott, STFC; Yann Amouroux, Optica OSA; Simon Andrews, Fraunhofer UK; Dom Brady, Fibercore; Karin Burger, SPIE Europe; Peter Collins, Laser 2000; Allan Colquhoun, Leonardo; Phil Cornish, CS Connected; Iwan Davies, IQE; Chris Dorman, Coherent Scotland; Joe Gannicliffe, CS Applications Catapult; Mark Goossens, CS Applications Catapult; Caroline Gray, OptiC Technology Centre; Bob Hainsey, SPIE Europe; Duncan Hand, Heriot-Watt University; Stratos Kehayas, GandH; Christopher Leburn, Chromacity; John Lincoln, Harlin; Anke Lohmann, Anchored In ; Iain Mauchline, InnovateUK; Owen McGann, GTS; Alison McLeod, Technology Scotland; Cillian McPolin, Digital Catapult; Chris Meadows, CS Connected; David Payne, University of Southampton; Bonnie Peterson, SPIE Europe; Richard Pitwon, Resolute Photonics; Paul Rees, Glyndŵr University; Rob Roach, Alter Technologies; Mike Wale, UCL; Matthew Wasley , KTN; Philip White, DIT

Direct Apologies:

Paola de Bono, TWI; Sandra Dressler, Edmund Optics; David Gillett, Laser 2000; Shahida Imani, Chromacity; Louise Jones, Photonics Connected; David MacLellan, Ailu; Sergio Mantecon, Edmund Optics; Andy Sellars, CS Applications Catapult (Apologises to anyone missing from apologies)

**Post meeting and editorial input in italics*

1) Previous Minutes and welcomes

Those attending their first PLG meeting formally welcomed including Paul Rees, Glyndŵr University; Rob Roach, Alter Technology; Peter Collins, Laser 2000.

In memoriam: The recent passing of Nigel Rix on 21 November, formerly with the Knowledge Transfer Network with whom many had worked was noted. There is a donations page at <https://fundraise.cancerresearchuk.org/page/nigel-rix>

Minutes from previous meeting on 14 July were accepted without revision

2) Photonex Welcome (Karin / Bonnie)

Bonnie Peterson and Karin Burger welcomed PLG to Photonex at NEC. Over 800 people noted as preregistered to attend with more expected. Those present noted that SPIE had done a good job in shielding exhibitors from the numerous challenges of holding Photonex at the NEC.

Photonex will return to SEC, Glasgow 24-26 October 2023.

Input was requested on potential of Manchester as venue for 2024. Overall comments positive, with those present noting in terms of convenience of access that there is little difference between Manchester and Birmingham. Given the local research strength, if Manchester is chosen, a focus on materials was suggested. Additional inputs to SPIE on content welcome.

With support from Visit Britain, SPIE have invited a number of EU cluster organisers to Photonex to support increase participation from Europe. Yvonne Lindner from Spectaris, Germany will be attending and those present are encouraged to meet with her. Opportunities to expand this will be sort in the future.

3) External Impacts on Photonics - roundtable

a) Energy costs

Most noted that the current increase in energy costs is not currently having significant impact on their operations. This was noted as being mostly to the use of long term energy contracts, with the full impact not felt until these have expired. The energy cost of running research facilities was noted as particularly high and impactful as increased costs must be met from existing budgets

b) Supply chain challenges

Supply chain challenges remain ongoing with the biggest problems being in sourcing spare parts for equipment and machinery rather than in the supply of in raw materials. This was noted as beginning to impact some grant funded projects, as delays in sourcing or repairing equipment mean project deadlines

can no longer be met in some instances. Inflexibility in grant authorities means that in some cases money is having to be returned rather than projects proceed.

c) **Autumn statement and inflation.**

A [summary of the Autumn Statement](#) has been previously supplied to PLG participants. The key elements being maintaining of R&D funding levels and changes to R&D tax credits with a balancing of tax credits between SMEs and larger companies.

It was noted that, whilst maintaining R&D funding was positive, the impact of current high inflation rates means flat cash in practice means a reduction in the amount of R&D activity that can be supported.

Also noted that as central banks continue raise interest rates to bring inflation under control this may results in a slowing down of economies and thus demand in UK and globally. Challenging times may lay ahead. However, it was also noted that challenges in recruiting talent remain, with significant upward pressure on salaries, with any recession has yet to impact people supply.

4) **National strategies**

a) **Centres for doctoral training**

The long-awaited UKRI call for proposals for the [next generation of Centres for Doctoral Training](#) has been released. A very large number of proposals are in play with some 400 outlines being prepared compared to 79 current centres and about 40 that will be funded from the current call.

The current outline stage does not require formal letters of support from industry, but does require an indication of the level of industrial financial support. The level of support from industry was noted as needing to be stronger for this round of CDTs than in the past. Industry is encouraged to support, noting that this is a long term investment to expand flow of PhD level skills, delivering in 4+ years.

The challenge of companies supporting multiple CDTs bids with the potential difficulty of total support commitment exceeding the company capacity if several of those are successful was noted. This was noted as being a bigger problem at the next stage after the initial filtering of expressions of interest.

UKRI are putting up a portal for SME's to flag their interest in particular topic areas and help SMEs collaborate in supporting topics of interest to them. Many of those putting together proposals are in process of holding industry consultation days. Included in the call is a MOD supported CDT seeking transformational developments and training in interdisciplinary research.

Whilst the industry would certainly like to see several see CDTs in photonics proceed, it is not possible for the PLG to indicate preference for anyone over another. It was suggested that at the outline stage it would be a more appropriate for the PLG to draught a to 'who it may concern' general supporting letter that could be used by any of the photonic CDT outline bids being prepared. **Action JohnL**

b) **UK Semiconductor strategy**

Publication of the UK's semiconductor strategy has been delayed by changes in government and is now forecast for 2023 *In the latest update from DCMS on Wed @ Photonex publication is forecast for February 2023.*

The [BEIS Select Committee report on the UK semiconductor industry](#) has now been published with government having two months to respond. It was noted that responsibility for the semiconductor strategy remains very much with DCMS not BEIS and caution is advised on the inter departmental. *Richard Duffy, DCMS Snr Policy advisory, semiconductors, attended Photonex on Wed for the semiconductor industry panel.*

DCMS invitation to tender (ITT) for the [UK Semiconductor Infrastructure Initiative Feasibility Study](#) was published on 6 December. This is a £900k program to build on previous semiconductor consultations provide the detailed business case and costs to DCMS for the full semiconductor strategy by August 2023. The ITT identifies five key focus areas to be fleshed out

1. Strategic coordination capability of Aerospace technology Institute
2. Silicon manufacturing capability to support prototyping

3. Advanced packaging capability
4. Compound open-access foundry capability
5. Design IP/tooling capability

The PLG is identified in the ITT and will seek to work with any of those looking to lead the feasibility study.

c) NiQi

Noted that the current NiQi quantum infrastructure proposal to UKRI is aligned but independent of the semiconductor strategy. This is currently progressing through the lengthy UKRI/ EPSRC infrastructure proposal process pending full submission in ~March 2023.

Attendance at the NiQi workshop on the Thursday of quantum week was strong with inputs gratefully received.

d) UK Quantum Strategy

Also delayed by government changes and forecast for publication in three to six months.

5) UKCA marking

As previously noted in PLG communications the deadline for UKCA marking has been moved back by two years. The overall impact of this was noted by most as insignificant as the majority of the work had been done before the delay was announced. The importance of avoid deviation in CA and CE requirements was noted and letter to BEIS from PLG request in this regards **ACTION JohnL.**

6) Future Leaders group

An update on the proposed future photonics leaders group was presented. The concept is to have a mirror group for the current photonics leadership group, filling the gap between student associations and snr industrial associations for the next generation of potential future leaders. A successful sandpit meeting was held online in September, attended by ~35 people with 60:40 academic industry – [minutes available](#). A small working group have defined five key committee roles to help run the new group [nominations for which are open at the moment](#) closing on the 8th of December. *This has now been extended to the 14th of December. Open roles:*

- *Two co-chairs – one from industry one from academia*
- *Secretariat communications*
- *Secretariat meeting*
- *Funding raising*

Elections to the committee will be through a [live meeting on December the 19th at 2:00 PM](#), Including hustings from those standing. [9 nominations received to date](#). There will be no restrictions on voting and PLG participants are welcome to vote, although the aim is to focus attracting voters from the same future leader cohort.

Links to the main PLG are anticipated to be provided by inviting the future leaders co-chairs to the main PLG meeting.

All are encouraged to support anyone they consider to have future leader potential to participate in the group and to stand for the committee. Noted that additional encouragement may be required given that this will be a new experience for many.

The setting up of the future leaders group has attracted considerable attention from other photonics associations and we hope will provide a template for others.

Yann Amouroux, Optica OSA has offered to provide back office support for the group. Following no objections this is gratefully accepted.

7) Quantum week and showcase reports

Quantum showcase reported to be highly successful with ~800 attending, its 6th edition in the 8th year of the quantum program. The Science Minister Rt Hon George Freeman, MP provided the opening address. The [Institute of Physics quantum vision](#) was launched during quantum week, and with many other international strategies being delayed is one of the few quantum strategy documents currently available.

IOP has also stood up a new [quantum Business Innovation and Growth \(qBIG\) Group](#). The group are supporting a new £10k prize, now open for SMEs working on [taking quantum technology products or solutions to market](#).

Quantum week also launch of UK Quantum , seeking to provide similar support to the PLG for the quantum industry.

A significant number of international missions were present in the UK for the showcase and preceding days including from Canada, Quebec, Australia, and Japan. DiT indicated future missions will endeavour to facilitate visits to Scotland and a more diverse range of UK locations.

8) UK pavilions

There will be a strong pavilion again at Photonics West in Jan 2023 supported by SCS. The reception at the close of the exhibition day on Wednesday will return in 2023. Discussions and coordination with the UK consulate on additional support (*Matthew Caron @ consulate will be providing local support*). SCS will also be running the pavilion at Laser World of Photonics in June 2023. Spaces are available contact SCS.

Two spaces are available on the 2023 Photonics West Pavilion – contact Rob Saunders asap for details (rob@scs-expo.co.uk)

ECOC will be returning to the UK in 2023 at the SEC in Glasgow 2-4 October. Discussion are on going on to best showcases UK innovation in optical comms with the organisers, with the PLG looking to UKTIN to support (below)

9) PLG activity/

a) back office update

- As agreed at the AGM, the PLG has now registered for VAT and all contribution invoices will include VAT going forward
- All should have received quotes for 2023 contribution. This can be converted to invoices on provision of PO number. **Many thanks to those who have already made a contribution- keep them coming.**
- Further [career case studies](#) are sort – the template is at https://photonicsuk.org/wp-content/uploads/2022/08/Photonics-Careers-Case-Study-Template_1.docx
- Limited print copies of the [Future Horizons for Photonics Research 2030 and Beyond](#) report are now available, prepared for Photonex. Plus additional print copies on the [2035 UK Photonics Vision](#). These are available for meetings with policy makers, support agencies and international events.- contact JohnL.
- In 2023 the PLG will prepare the biennial update of the size of the UK photonics industry. *PLG will endeavour to have this ready for publication at opening Laser World of Photonics in June 2023.*
 - As previously this will be accompanied by a questionnaire seeking inputs on exports, investment, enablers and barriers to growth. PLG will coordinate with Photonics Scotland and Photonics Connected to sync surveys, to avoid community being asked to answer more than one. A draft survey will be circulate early 2023 seeking inputs on additional questions or modification. **Action JohnL, AlisonM, LouiseJ**
 - The potential for survey / report to provide additional breakdown on size of different Photonics Segments was raised. This is complicated by many organisation operating in multiple segments. Thus whilst plausible to ask respondents to indicate which of a number of segments they operate in, it is difficult to apportion revenues. i.e. 30% of companies work in biophotonics is possible, but not 30% of £16bn is biophotonics. Nevertheless methods of surveying and presenting the relative importance of different market / tech foci will be considered.
 - The last accompanying report [UK Photonics: The Hidden Economics Engine](#), was published in 2018 with 2016 figures and is now outdated. A number noted that this report still resonates and would benefit from updating.

- Quotes will be sort reusing the same design to minimise costs. Alternatively a number offered the support of their design teams. **Action JohnL** (*outline quotation of £1285 received*)
- New and updated images will be required. Anyone with high quality, 300dpi full page images will to have included in report please liaise with JohnL. (*note these will normally be at least 12Meg image files – if you can email them easily they normally aren't big enough*) Full image credits given, use at designers discretion.

b) Projects

The PLG has the following projects in the pipeline:

- Space photonics strategy- Satellite Applications Catapult, 1-2 days of PLG time per month for of 1 year
- UK Germany Photonics trade delegation - Federal German Ministry / Trade Horizons May 22-26
- UKTIN – Optical comms special interest group, ECOC23, community / supply chain / opportunity building. £55k per year proposed, 50% likely.
 - Start up of UKTIN and thus engagement in these activities is proving slower than expected
- DASA disruptive innovation. Speculative £50k concepts from the Horizon scan. , to establish PLG as a source of additional input.
- UK Semiconductor Infrastructure Initiative Feasibility Study Feb-Aug '23. Anticipated Community engagement sub-contract of ~£50k+

10) Web and directory statistics supporting contributions

Key statistics on PLG website and to [UK Photonics Directory](#) traffic were presented. These are available in [PLG web statistics report](#) and can be used to support PLG contributions.

Headlines:

- Active visitors:
 - 3914 in 6 months to 31 Oct, All time visitors 29,112, Current rate 10,000 per year
- Page Views
 - Directory views 250 per month, 3000 per year forecast. Directory taking 105 of all PLG website page views.
 - Future photonics leaders, contributors and APPG all in top page views.
 - 65% Directory Traffic from UK, majority of rest from Europe.
- Impressions (appearance in Search results)
 - PLG pages attracting over 3000 search impression per month.
 - Top impressions in last 4 months include number of directory entries e.g. Edmund Optics Glyndwr University, Laser 2000 etc plus key events, inc Photonex and quantum showcase.
 - Those with high impression counts are directory entries where organisation have added content.

Give this is all additional coverage for your organisation , everyone is encouraged to make full use of their directory entry and or provide full event descriptions.

11) Updates from communities and programs

c) Photonics Scotland (Alison M)

- First up/reskilling to photonics training course has taken place with ~10 participants. This will rerun in April 23

d) Photonics Connected

- Photonics fully integrated into [Wales Tech week](#). In person 20-23 March at the ICC Newport.

a) AILU (Dave M) *post meeting*

Two key AILU events

- [Additive manufacturing workshop](#) at University of Birmingham is rescheduled from 15 December to 25 January due to rail strikes
- [ILAS is coming on 22-23 March](#) 2023. Register now for early bird discount which has been extended to 31 December. Programme will be published shortly

b) UKIVA (Ian A)

- UK Machine Vision conference planned for 21-21 June 23 at the CBS arena Coventry and joined by new Automation exhibition. <https://www.machinevisionconference.co.uk/>

c) Fraunhofer Centre for Applied Photonics

- Will be hosting a 10th anniversary event in Glasgow on 26 Jan. Contact Simon A for info.

d) Photonics 21 and Horizon Europe

Congratulations to Anke Lohman & Mark Goossens who have been elected to Photonics 21 Board of Stakeholder. They join Alison Mcleod, John Lincoln, Richard Pitwon, Iwan Davies, Mike Wale and Kent Rochford taking UK representation to ~7-8

The process of updating the Photonics21 strategic research and innovation agenda are on-going. To make inputs please contact the relevant working groups. Draft will go to the board of stakeholders for approval in early 2023, prior to publication and presentation to the Commission at the P21 AGM 26-27 April 2023.

Mike W is also co-chairing a joint task force between Photonics21 and Key Digital joint undertaking looking at the role of integrated photonics in the new EU Chips Joint undertaking, linked to the EU chips act

The latest round of [Horizon Europe calls including photonics](#) have just opened with information days next week. UK organisations remain eligible to apply with funds coming from UK gov for any successful project pending Horizon Europe association (which remains pending)

e) APPG

APPG Parliamentarians were invited to Photonex, but unable to attend due to ongoing activities and planning difficulties due to gov changes over summer. Proactive engagement does continue on topical issues e.g. semiconductors. PLG participants are encouraged to continue to engage parliamentarians and invite them to visit e.g. [Rt Hon Andrew Bowie, MP recent visit to Chromacity](#) and Rachel Gwyon from Department for International Trade. (congratulations to, Shahida Imani appointed Scottish Export Champion by the Department for International Trade (DIT) and Scottish Development International (SDI))

Engagement across all parliamentary parties is particularly encouraged to ensure diversity of support for the APPG and photonics in Westminster.

f) Other

Two additional SME innovation support routes are now open.

National Aerospace Technology Exploitation Programme (NATEP) is open aimed at small and medium sized suppliers to help them develop their own innovative technologies

Defence Technology Exploitation Programme (DTEP) aims to inspire companies to win new business, develop industrial capabilities, and provide new cutting-edge answers to defence problems at home and abroad.

Both are worth considering and foster collaboration between lower tier suppliers and primes / established higher tier suppliers, overcoming a key barrier to market in both defence and aerospace (*these may form a model for interventions from the semiconductor strategy*)

12) Next Meeting

The Next Full PLG meeting will be in March 2023 fully online via Teams at a date to be confirmed.