

Photonics Leadership Group Meeting Minutes

Tuesday 15 June 2018 10:30-15:00,
BEIS 1 Vic St, London

PHOTONICS
LEADERSHIP GROUP

www.photonicsuk.org

Attendees:

Ian Alderton, Alrad / UKIVA; Ric Allott, STFC/Central Laser Facility ; Simon Andrews, Fraunhofer UK; Terry Boniface, BEIS; Karin Burger, SPIE; Thomas Butcher, STFC/Central Laser Facility ; Dan Daly, Lein Diagnostics; Iwan Davies, IQE; Chris Dorman, Coherent Scotland; Duncan Hand, Heriot-Watt University; Tom Harvey, CPI, Nat Healthcare Photonics Ctr; John Lincoln, HARLIN /Future photonics Hub; Anke Lohmann, Anchored In ; Kevin Mackrodt, Artemis Optical; Georgios Papadakis, InnovateUK; Nigel Rix, KTN; Andrew Scott, QinetiQ; Chirs Tate, Pure LiFi; Mark Thompson, IPG; Mike Wale, Oclaro; Philip White, UKTI;

Apologies:

Jon Blackburn, TWI/AILU; Dom Brady, CS Applications Catapult; Andrew Ellis, Aston Institute of Photonic Technologies; Mark Greenwood, SPI Lasers; Antony Hurden, Grounded Innovation, Jonathan Jessop, Thorlabs; Andrew Kearsley, Oxford lasers; Gary Mackay, EW Simulation Technology Ltd; Graeme Malcom, M Squared Laser; Nick Martin, BAE systems; Wyn Meredith, CSC; David Parker , OPS Innovations, Lumenisity; John Parsons , Thales UK; David Payne, University of Southampton; David Richardson, Uniof Southampton; Michael Robertson, CIP/Huawei; Roy Sambles, IOP / Uni of Exeter; Martin Sharp, AILU/ Liverpool John Moores); Chris Sorsby, Vitritech / GTS; Stefano Taccheo, University of Swansea; Stephen Taylor, Technology Scotland; Sergei Turitsyn, University of Aston; Matthew Wasley , KTN; Michael Willcocks, BEIS; Alastair Wilson, CST Global;

**Post meeting and editorial input in italics*

1) Previous Minutes, apologies and welcomes

- Previous minutes from meeting 20 Feb were accepted
- Confirmed next meeting will be 10 October alongside Photonex at Ricoh Arena Coventry – improved signage will be used.
- Joint meeting with SILC (Sensor Innovation Leadership Council) introduced as method of exploring commonality between groups.

2) UK Photonics: the hidden economy -JRL

- Hardcopies of latest report “UK Photonics: The Hidden Economic Engine” presented to all attendees (<https://photonicsuk.org/uk-photonics-the-12-9bn-hidden-economy>) with NEXTPHO21/P21 Europe’s age of light summary
 - Objective of report summarised as providing detailed methodology for figures release in July 2017, a referenceable publication for those numbers and further comparison to other industries and international context.
 - Summary slides of key figures form report presented. Slide deck to be uploaded to PLG website for use by any stakeholders (now at accessible at <https://photonicsuk.org/contributors/minutes>)
 - From discussion agreed that defence and security should be added as a vertical grand challenge heavily impacted by photonics in addition to the 4 grand challenges in the industrial strategy. Noting that this is very important vertical, overseen by different gov department from BEIS, hence not in industrial strategy. Inclusion reflects the many organisations who are looking to reapply none defence solution into defence and those applying defence solution into dual use applications.

3) Interface to and updates from other groups

Reflecting significant interaction with multiple regional, international and sector focus groups suggested that a standing item is added to agenda calling on update from those groups. (Apologises issue to lack of notice given to those asked to speak on behalf of following)

- **Photonics21** (Wale). Process is underway to create a new Multi-annual roadmap for Photonics in Europe. Working groups are currently processing inputs with additional groups in Agrifood, Transport. **NEXTPho21** looking at new opportunities for bilateral collaboration on research and Innovation.

UK takes over chair of **Eureka**-intergov network coordinating science and innovation UK takes over chair shortly, may provide additional international opportunities.

- **Integrated Photonics Roadmapping** (Wale): global roadmap is being prepared by Photon Delta (Netherlands). Meeting next week Netherlands contact MWale to get involved.
- **AILU** (Allott / Thompson / Lohmann) Laser for Productivity strategy was launched in Westminster on 6 March - http://www.ailu.org.uk/laser_technology/events/2018-03-06/national_strategy_launch.html. **19th International Symposium on Laser Precision Microfabrication (LPM 2018)**, will be in UK for the first time 25-28 June 2018 in Edinburgh, record registration recorded.

ISCF wave 3 submission on Laser in Manufacturing submitted by AILU

For future looking to accelerate laser process in future mobility and clean growth and are e.g. nuclear decommissioning where UK has lead.

Noted more companies are buying laser but knowledge on how they operate and can be utilised in lacking

- **SOA /Technology Scotland**. Mobility as a service major current focus. Operating special interest groups in Compound Semi, Design, Quantum tech with LiFi coming. For future looking to leverage the science and innovation audit which highlight the strength in enabling technologies (photonics) in central belt.

EPIC AGM will be in Scotland in 11-12 April 2019 to coincide with the 25th anniversary of the Scottish Optoelectronics Association and meeting of the International Optoelectronic Association.

- **WOF/ Wales**. Welsh Festival of Innovation running from now to end of June. 19 June event 'Find out what worlds 1st CS cluster can do for you' at Newport wafer fab.
- **UKIVA** (Alderton). Highly successful Machine Vision Conference 16 May was opened by local MP, 360 visitors up 25%

4) **GDPR update (JRL)**

- PLG requires a GDPR compatible privacy policy. Draft offered for review, suggestions for improvement welcome. Will be posted following meeting (now up at https://photonicsuk.org/wp-content/uploads/2018/06/Privacy_policy_PLG.pdf)

5) **Funding to sustain PLG activities (Andrews)**

Lincoln recused for discussion

JL has given substantial time, for free, over the last five years as CEO of the PLG. In this time he has firmly established the PLG as a trusted industrial body to whom government can make enquiries. This gives us a clear, audible voice in government and well beyond. The creation of the APPG is a significant milestone for our sector too. Increasingly government is looking for industry and sectors to 'self organise'. The 4 recent EoI ISCF submissions would not have been created without his lengthy efforts, nor drawn in the appropriate industrial parties and other trade bodies such as the Automotive Council.

The photonics sector needs an ongoing, fast-reacting industry body and none of us have the bandwidth or neutrality to provide that. To ensure that we have continuity of representation, and because it is simply appropriate, we should consider providing financial support for JL's time in his PLG role. SA had discussed this proposal in advance with AL, RA and CD). SA had a breakdown of JL's unpaid time from the last quarter and agreed that supporting approx. 7 days per quarter, giving a target in the range of 20 to £30k.

A vote on this in principal was held. This was unanimously agreed. (InnovateUK and BEIS employees abstained, given their roles.)

Following some discussions on the practicalities, with many helpful contributions and examples of what was achievable reached following points:

- There should be an annual membership set at the following levels:
 - Micro company £250
 - Small, medium, charitable and university £500
 - Large £900

The usual EU definition of Large will apply, >250 employees or >fifty million euro turnover, micro is up to ten employees.

- The membership will be voluntary, as it is of prime importance to keep membership as open to all as possible. This also recognises that there may be companies who drop in occasionally. It also ensures that companies who have unusual administrative procedures on such payments are not precluded from attending. There will however be an expectation that payment is appropriate.
- Payment will be through PLG Ltd. This already has a bank account, annual audit and three directors, SA, AL, and RA (who are happy to be replaced by other volunteers at any time)
- Karin Burger volunteered for SPIE to look after invoicing and chasing payment.
- The group were keen to underscore that the PLG should not deviate from its current focus and expected that the pursuit of membership numbers or income should not become the *raison d'être* of the organisation.
- P White suggested that a photonics directory could provide scope for further income, with members placing advertisements therein. He suggested that DIT support for producing such a directory might be possible and that international distribution would be possible to help the UK photonics sector.
- SA was not aware of how matched funding could be secured or from whom, but with the level of indication in the room the first £5 to 10k was secure, with a similar amount being possible from regular PLG attendees not in the meeting today, giving perhaps around £15k as a baseline to help consolidate JL's efforts.

This outline was approved by all.

6) Gov consultations update (1)

- **APPG** (Burger)– last meeting on AV sensing was well attended by industry, >8 MPs were expected but only 2 attended, minutes posted on photoncisuk.org shortly.. Two more meetings this year expected in Autumn- suggestions for topics welcome. Monthly newsletter being sent to MP with single graphics headline – content for future MP newsletters is welcome
- **Centres Doctoral Training (CDTs)** (Lincoln). Noted that most industrial or RTO's in room have been asked to support more than one CDT bid currently in preparation. Input from EPSRC on how companies should approach has been sought. Indirectly indications are companies should support multiple bids they consider relevant. Some expressed concern that total support requested adds up to be significant value. Others noted that support letters are an indication of support not a commitment, therefore to insure supply of future talent companies should support as many as possible, understanding not all will go forward and actual commitment will be subject to detail discussion once individual CDTs are operational.
- **H2020 participation. Noted PLG has provided BEIS statistics on UK participation in H2020 photonics programmes and met BEIS to discussion how UK participation in H2020 and Photonics21 and how latter operates.**

Joint SILC PLG session (Rix in chair)

PLG was joined by members of the Sensors industry leadership Council SLIC

7) SILC PLG Introductions

Overviews of the PLG and SILC organisation were presented by JRL and Ian Reid respectively (following request PLG intro presentation is available at <https://photonicsuk.org/contributors/minutes> for stakeholders to use)

- SILC presentation highlighted sensors industry covers ~£61bn, 250,000 employees, 1019 companies, although this is total size of organisations and doesn't apportion a fraction of the business to actual sensor activity in any of these organisation and the actual number of sensor manufacturers in UK is small
- Key focus on National sensing initiative (focus on ISCF wave 3 submission) featuring a network of Catapult like centres to help bridge gap between small/niche sensor providers and large OEM users.

- Developing 1 page narrative per industry strategy grand challenges.
- Discussion indicate subtle different in emphasis between SILC and PLG, with the former focused on increasing value added use of sensor (few of which may be manufactured in the UK), whilst PLG was focused on the UK based photonics manufacturing industry.

8) ISCF update (Papadakis)

- 1 submission from SILC and 4 related to photonics – Eye of autonomous future (PLG), Zettabyte challenge (CSC), Laser Manufacturing (AILU) + 1 from IQE.
 - *Organisation and submission of these by those concerned with collaborating organisation following initiation at last PLG was a significant achievement -thanks to all involved.*
- 251 ISCF wave 3 submissions were made with total public funding ask of £12bn and a £11bn industry match. Eligibility checks have remove some, and a filter on rest is ongoing and due to report over Summer. Those successful will be subject to deep dive workshops in September with final announcement likely in November
- Discussion of where it was possible to pre-prepare for the deep dive workshops. In wave 2 these were invite only driving by leads inside Innovate, with some present indicating preparation was not therefore possible. Others indicated wave 3 will be drive by external leads self-identified in the EOIs and therefore preparation e.g. on wo to involve may be welcomed. Format is normally closed invitation only with high demand for places. Key is engagement with lead, known in case of the photonics submissions, but subject to amalgamations

Action Reid / Lincoln> to further discuss follow-on from the ISCF noting that significant progress will not be possible until after Innovate review.

9) Gov consultations update (2)

- **Business Productivity consultation** (Boniface) Gov consultation open on factors that would improve productivity of SME's at firm level. Focus on the long tail of lower productivity SMEs and factors that are controlled by small firms e.g. standards of leadership, use of business support, access to finance. IF you have comment or experience please answer some or all of consultation Q's by 4 July at <https://www.gov.uk/government/consultations/business-productivity-review-call-for-evidence>.
- **Electech roadmap** (Papadakis) Exercise underway supported by innovate to refresh roadmap for electronic systems. Revised remit firmly includes photonics. Workshop 3 July, invitees will be draw from those registering interest at <https://www.eventbrite.co.uk/e/electech-roadmap-workshop-registration-46876368480> Input in advance of workshop to key questions in consultation at https://photonicsuk.org/wp-content/uploads/2018/06/Brief_Electech_stakeholder_questioning_final.pdf
 - Comment from original workshop (JRL) additional input especially on optical comms needed
- **InP and ROHS.** (Davies) Eu proposals has been tabled to restrict use of InP. Initial response coordinated by IQE, Oclaro and others, supported by PLG, has quantified total use of InP in Europe at <25kg and made clear case that substitution is not possible aiming for INP to be excluded rather than except from legislation. Next stage is likely a deeper dive in Autumn
- **UKRI update** (Papadakis)
 - Emerging and enabling competition results** from final round 4 due shortly (22 June)
 - Open competition**, the first competition of the only 'open competition' environment is now open closes 11 July <https://apply-for-innovation-funding.service.gov.uk/competition/149/overview> . In modification to previous competition RTO' can now lead, organisation can only be part of 3 application per competition, single company submission limit raised from £100 to **£500k!**
 - Loans** competitions continue with next due in July and September before Pilot loan program will be reviewed. Note innovation still a key part of criteria.
 - Innovate realignment** around the 4 industry strategy pillars + international continues.
- **KTN update** (Rix) Currently operating on interim contract for 9 months after last expired in April as UKRI came into operation. Restricted activities focus on ISCF and open competitions only. Other

events will need to be self-funding with small charges to be expected. Review of KTN performance complete and positive.

10) Funding activities & AOB (roundtable), not covered above

- Photonic Europe SPIE meeting concluded in April with significant increase in attendance to 18,000
- SPIE Security and Defence 10-13 Sept< Berlin, record number abstracts
- EU CSA [EPRISE](#) will be holding number of roadshows around EU including 11-12 June in Stockholm on photonics for Pharma and Med Tech and 17-18 Oct Berlin, Biophotonics Contact Tom.Harvey@uk-cpi.com
- DIT (White) thanked all for support with DTI (UKTI) inward investment mission
- A new IEEE standard for LiFi is in development – see Chris Tate Pure-LiFi.

**Many thanks to BEIS for hosting and especially Michael Willcocks for helping with venue organisation
Thanks to NextPho21 for supporting lunch.**