

Nudging industry, academia, support agencies & government together
Making Photonics bigger, faster, stronger

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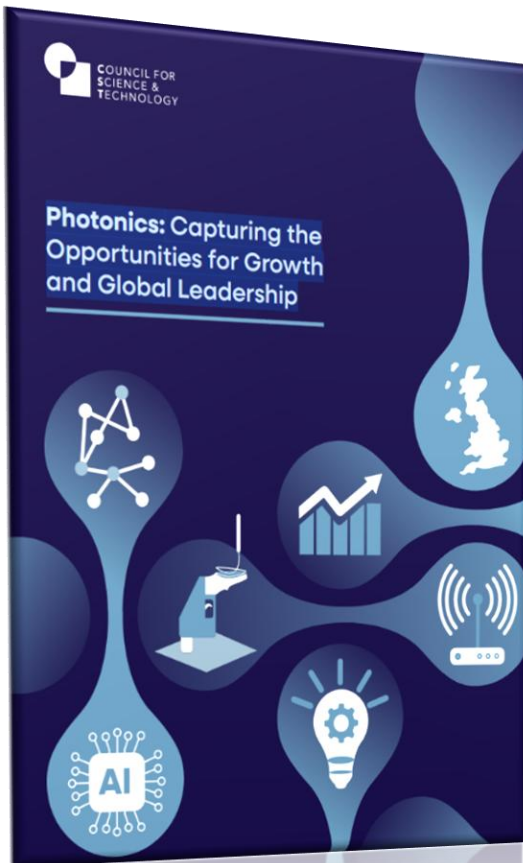
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Wave photonics

National Roadmap for Photonics 2026

National Photonics Roadmap

- Process, Objectives, priorities
- Review of inputs from last PLG meeting
- Online questionnaire



Photonics significant UK success story

- ..seizing Opportunities.. investing for security..
- Skills, funding, dedicated team, PIC foundry, exports
- ..photonics sector currently lacks coordinated government oversight...
...*warmly received across gov*

Recommendations:

- 1. Develop a national photonics roadmap**
 - To coordinate funding, leverage existing clusters, build on technological strengths.
- 2. Use public procurement to support domestic industries**
 - Reduce reliance on global supply chains, build sovereign capabilities
- 3. Expand international partnerships and export activities**
 - To support growth.

....much more in narrative

CST recommendations

- A shared view of the most significant opportunities for photonics in the UK in the next 10 years
 - Barriers and enablers to maximising those opportunities
 - Top-down industry driven

Roadmap

- Objective and motivation

Photonics is a significant UK success story, a major UK strength

Photonics vital to future of UK growth and prosperity

Photonics hidden behind the vertical sectors it is key to enabling

Rapid growth from strong base, strong demand = unique needs

At point of technology inflection with integrated photonics

Revenue, value-add, employment, exports, innovation, leadership

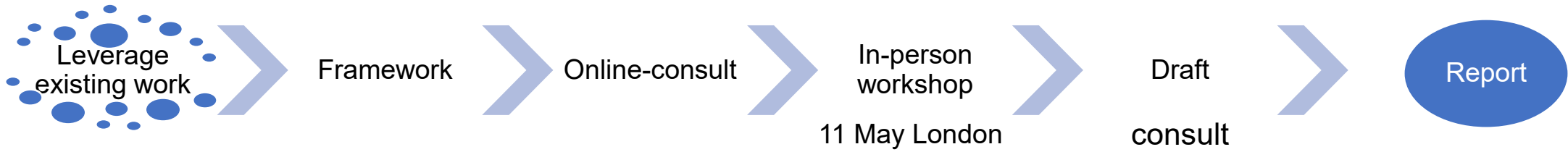
- No coordinating body / visibility in gov - falls between departments
- Danger of photonics advances critical to UK future falling between gaps

- Bigger absolute impact

- Adapt and lead
- Ignore and be left behind

• A shared view of the most significant opportunities for photonics in the UK in the next 10 years

- Barriers and enablers to maximising those opportunities
 - Top-down industry driven



Expression of Interest on-line

- <https://forms.cloud.microsoft/e/cG9LGgnsGp>
- Inc prior publications
- Invites at Gov discretion

National Roadmap for the UK
Photonics Sector 2026

- Where and how will UK photonics play a future role in sectors vital to the UK's interests

- AI, Clean Energy, Connectivity, Defence, Life Sciences, Quantum, Advanced Manufacturing

When will demand appear / when will it be too late for UK companies to compete

*UK Photonics industry
opportunities impacting UK
interests*

Consultation Questions



- Prepare your answers

- What blockers in the UK are hindering exploitation of these opportunities by UK industry?

- How can they be realistically addressed?

- How will the UK's enabling environment (skills, R&D, infrastructure, regulation ..) need to adapt to facilitate opportunities?

- Who are the UK sector's potential international competitors?

- Who are the UK sector's potential international collaborators that would support UK exploitation of these opportunities?

- No additional funds
 - 'Allocation' from spending review pots
- Removal / adjustment to barriers
- Focused international support
- Inclusion / id of photonics in
 - Skills
 - Investment
 - UKRI / Innovate / EPSRC
 - As enabling
- **Signalling**
 - **We don't get UK Growth and reliance without photonics**
 - Voice of photonics in gov

- Can't change past
 - Industry strategy is the industry strategy
 - UKRI, Innovate... strategies are what they are
- Work within structures
 - Adapt, refine, adjust

Potential Impact

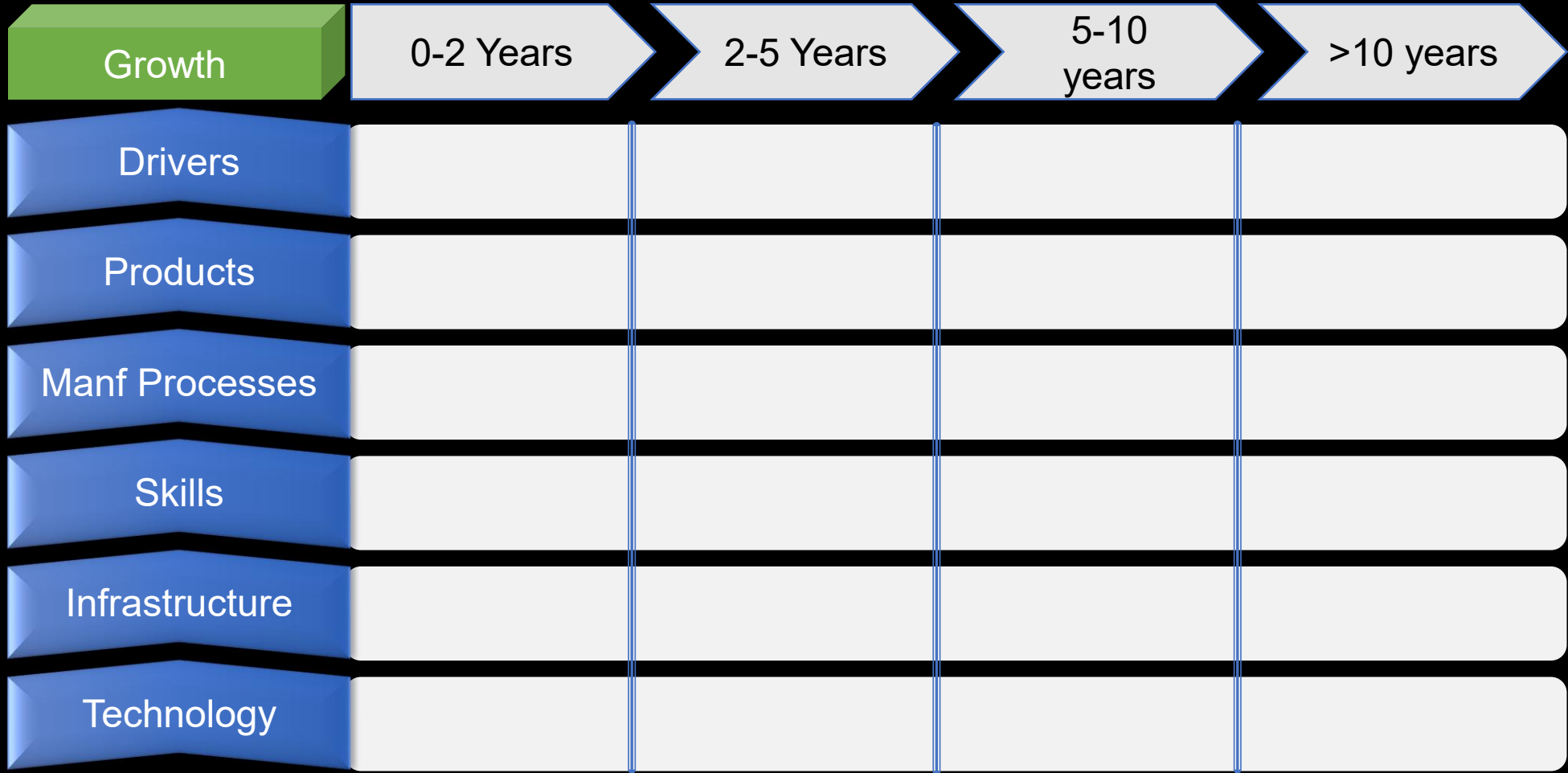


No promises

PLG view only

Pitfalls

- Generic vs IS8
- Families not parts
- Coop sensitivity
- Novelty yield
- Capex, quali
- Timescale
- Generic vs focus
- Timescale
- Cost
- Pull not push
- Comprehensible



Framework

How to define a roadmap to maximise usefulness

What should a UK Photonics roadmap for industry include?

Investment Strategy	Skills pipeline	Agree with high level products that are coming out
Retooling / adoption	Sovereign supply, or at least security of supply. How do we get this?	PICs.
We should go beyond the government life cycle	Heterogeneous Integration.	Skills - coherent Photonics pathways from FE colleges to PhD
which capabilities for PICs should we have in the UK - which substrate, lithography, packaging, test, materials, at what volume (for scale up companies)	Skills: specific growth targets	We should work on this and think about cross party support

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Menti

Government requests fr...



Select which slide to add

Government requests from the UK Photonics community?

Politicians often ask: "What can we do for you?"

- When asked what should the PLG (response) be?
- What are our asks from gov?

Three inputs

- Prioritisation criteria
- Ranking of draft asks
- Open suggestion for additional asks

Objective:

Collate PLG community thoughts on gov asks

- For further discussion and prioritisation at PLG meeting 29 Jan 2026
- Builds on PLG report [Future Policy Actions for Government 2023](#)
- Complement activities underway by TechUK and others

Be prepared!

- **What did we say at last meeting**

How to define a roadmap to maximise usefulness

What should a UK Photonics roadmap for industry not include?

product or field specific requirements

How to make new Qbits

Detailed suggestions

An assumption that quantum computing will happen :-)

Focus on academia

Generic economic drivers

high risk elements

It should be attainable targets / goals

Asking for a large sum of money!

technical jargon

new export restrictions

Foucs on anyone material / technology segment

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Menti

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- **What did we say at last meeting**

Parliamentary Scientific committee on Photonics

- Schedule for 8 September 2026

- Monday format
 - Themed discussion
 - 17:15 Portcullis House, Westminster
 - MPs and Lords + Three guest speakers
 - Drinks 18:45
 - Followed by dinner 19:30 ~40 in parliament (Bellamy's)
 - Editorial in 1/4ly Science in Parliament

- **Light: enabling UK growth and resilience**
 - National Photonics Roadmap (PLG)
 - Security and Defence (Thales)
 - AI and Advanced connectivity (Seagate)
- Sub-committee in place
 - Discussion prep
 - 'What can we do for you?'

PSC meeting

- "Light: enabling UK growth and resilience"

PLG status update

- Five strong & varied candidates
- Two stage selection process scheduled
- Offers by end of March

- New **PLG General Manager** appointed
 - From 1 September 2026
 - 50% FTE
- Back-office procedures being captured



Dr Lewis Hill

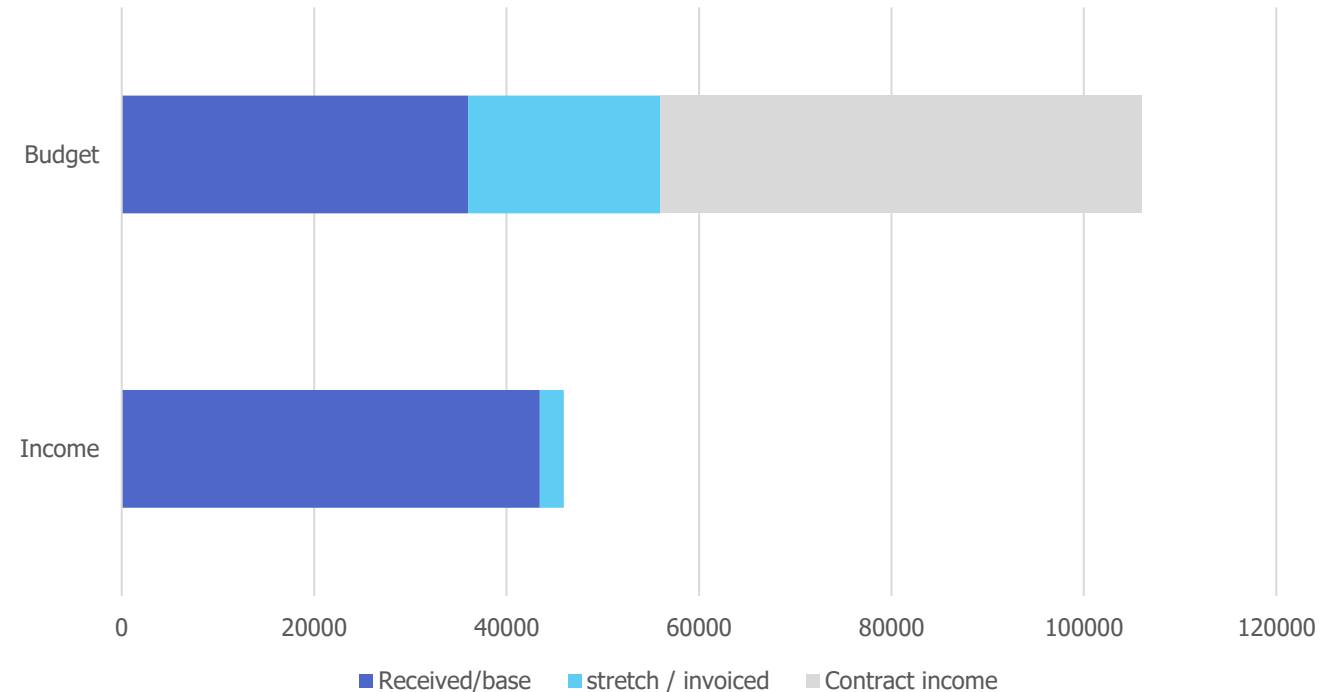
**PLG manager
recruitment**

- 33 Contributions received
 - 2 invoiced pending payment
 - Of ~60 eligible regular participants.
 - If you haven't had a quote or invoice let me know
- Only current contributors get logo on publications etc.
 - & prem directory entry

+ PhotonHorizon

- P21 CSA, €42,375 - 3 years from Jan 2027
- Roadmap burning time
 - no funds forthcoming

PLG income FY26 vs Budget @ April 26



Income vs Budget

UK Pilot plans

Community Updates

- Innovate_UK
 - Innovate Connect
- Future Leaders group
- AILU
- Photonics Scotland
- Photonics21
- UK Photonics meetings
 - Photonics Means
 - SPIE
 - Optica
 - UKIVAUKIVA

Innovate UK being reshaped

- New Growth sector teams
 - Active portfolio management
 - 'The tech due diligence engine'
 - Focus 6 of IS8 & frontier
- **Velocity**
 - Focused Account management for high potential businesses

Questions

- How do you get onto velocity program
 - 'No wrong door'
- End of thematic calls? ('one size fits all interventions')

Advanced manufacturing, Clean energy, Creative, Defence, Life sciences, Digital and technologies inc AI, adv connectivity, cyber, engineering biology, semicon, quantum

Innovate UK

Shifting strategy

- Quantum
 - UK Quantum Missions, including Supply Chain, Testbeds, Networking & PNT competitions
- Collaboration & Knowledge Transfer
 - Knowledge Transfer Partnerships Rd 2
- Defence & Dual-Use
 - Dual-Use Technology Innovation
- Net Zero, Energy & Climate
 - Offshore Wind Innovation...
- Advanced Manuf & Materials
 - Advanced Manufacturing CR&D
 - National Materials Innovation Programme – Feasibility
- Advanced Connectivity Tech (ACT)
 - ACT – CR&D
 - ACT – Contracts for Innovation
 - ACT Academic Start-up Accelerator

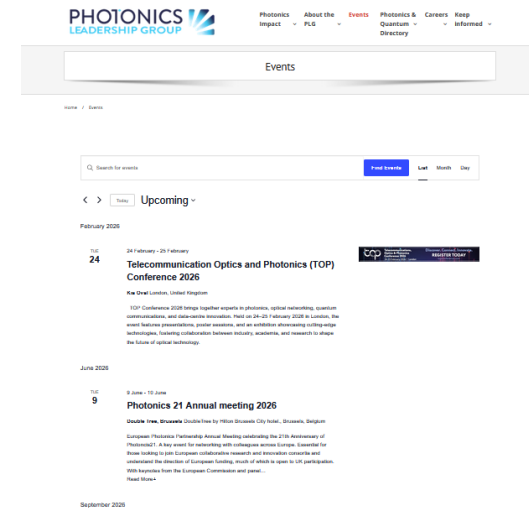
- Rewire – 25 May
 - Pilot Study to Investigate Barriers to Increasing the Diversity of the Semiconductor Research Workforce
- UKRI Translation: Proof of Concept – 13 May
 - UK Research org 250k

UKRI

Calls <https://www.ukri.org/opportunity>

- 11 May National Photonics Roadmap workshop
- 9-10 June P21 annual meeting
- 4 June AILU Handled laser workshop
- 8 June AILU early career group
- 16/17 June Quantum Industry Summit
- 1-2 July, UK Semiconductors 2026
- 31 Aug-3 Sept Photon 2026
- 8 Sept Parliamentary and Scientific Committee
Light: enabling UK growth and resilience
- 14-17 Sept SPIE Sensors+Imaging / Defence
& Security
- 24-25 Sept Global Photonics Economic
Forum
- 30/9 Fraunhofer Centre for Applied
Photonics annual symposium
- 29-30 Sept Microelectronics UK)
- 1 Oct Photonics Means (+PLG & dinner
 - NI cluster focus
- 6-8 Oct Vision Stuttgart

UK Meetings



<https://photonicsuk.org/events>

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Fraunhofer Ctr Applied
Photonics
G&H Group
Glyndŵr University, OptiC
Heriot-Watt University
Harlin Ltd

Intel (Optoscribe)
IQE
Laser 2000
Optica
Oxford Fiber
Oxford Lasers
PowerPhotonic
Singular Photonics

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