

Press release

UK faces critical window to lead in photonics, new techUK report finds

- *The global photonics market, of which the UK holds a 3.5% share, is forecast to exceed £1 trillion by 2030*
- *The report calls for swift action to ensure the UK can leverage the photonics opportunity*

[London, UK] 26 May 2026 – The United Kingdom has a narrowing window to secure its position as a global leader in photonics or risk falling behind international competitors already moving faster and investing at scale, according to a new report published today by techUK, the technology trade association.

techUK's new report – *'Photonics: A Vision for UK Leadership in Light Based Technologies'* – sets out how this foundational yet often overlooked technology can drive innovation and economic growth in the years ahead, and how the UK can raise the profile of photonics.

Photonics is the science and technology of generating, detecting, and manipulating light, for instance: the fibre optic cables that carry the world's internet traffic, the precision lasers used across surgery, defence, and manufacturing, and the sensors used to guide autonomous vehicles. It is one of the defining enabling technologies of the past century.

Photonics acts as an 'engine room' or 'building block' for a wide range of technologies across compute, communications, sensing, and more. Its impact extends far beyond its own sector; underpinning a significant extent to the UK's current and future competitiveness and prosperity.

Real-world Impact Already Underway

Case studies from across the techUK membership demonstrate how photonics technologies are already delivering tangible benefits in key sectors:

- The **University of Exeter** is driving innovation in photonics by integrating metamaterials with established and emerging technologies. This supports the advancement of areas such as environmental and biomedical sensors, telecommunications, and quantum systems.
- **Plexal** is enabling collaboration in photonics innovation, particularly as it emerges as a key dual-use capability with a clear military and national security value.
- **CORNERSTONE's** PIC Bootcamp provides practical, industry-led training in designing and building photonic integrated circuits (PICs), combining academic expertise with real-world tools and applications. Its goal is to expand the skilled workforce needed

to support high-demand sectors such as telecoms, sensing, and quantum technologies.

- **ForrestBrown** supports photonics businesses across the UK to secure vital funding that enables sustained investment in the innovation of technologies, such as new laser systems, fibre optics, and integrated circuits.

Despite generating £8.6 billion in economic value and supporting 84,000 jobs across 1,400 UK companies, the sector remains under-recognised in national strategy and investment priorities. With the global photonics market continuing to expand and international competitors moving faster and investing more, the report warns that the UK faces a critical three-to-five-year window to act or risk falling behind.

The report sets out eight recommendations that together form a coherent programme of action to address these barriers:

- Publish a National Photonics Roadmap to provide the long-term strategic visibility that the sector needs.
- Enhance DSIT's Innovation Clusters Map for photonics to ensure the UK's full photonics geographic footprint is accurately represented, enabling better-targeted investment and policy decisions.
- Empower the UK Semiconductor Centre to drive collaboration across photonics clusters.
- Strengthen Awareness of photonics careers through targeted outreach to schools and universities.
- Embed photonics within national skills strategies by designating it as a priority specialism within Skills England and aligning T-Level and apprenticeship standards with the sector's technical requirements.
- Establish a Photonics Patient Capital Fund through the British Business Bank's Future Fund.
- Use public procurement to drive photonics adoption by coordinating demand signals across key departments and creating fast-track procurement routes.
- Commission a taskforce to develop the UK's Pilot Line Business Case to consolidate existing evidence and produce a decision-ready investment case.

The report concludes that if a more strategic and ambitious approach is taken in the leadership of the photonics sector, the UK can lead in developing and deploying the science and technology of light.

Sue Daley OBE, Director of Technology and Innovation, techUK said:

“The UK has a long heritage and strong global leadership in photonics, underpinned by world-leading research, a culture of innovation, and of emerging technologies and applications. Now is not the time for complacency. It’s time for clear, decisive and coordinated action. We can secure the UK’s position at the forefront of this transformative technology and unlock its full potential for growth and prosperity if we act now.”

Paul Taylor, Member of the Council for Science and Technology (CST) said:

“The UK has a strong and growing photonics sector. We have world leading capabilities across research, startups and established firms, and the government is enthusiastic about the opportunity this offers. I welcome the publication of techUK’s vision for the sector, particularly the call for national leadership and coordination to connect the UK’s regional clusters and give businesses the confidence to invest for the long term.”

Fergus O’Donnell, Seagate Springtown Site Lead and Vice President of Operations, Seagate, said:

“Seagate welcomes techUK’s photonics report and its clear articulation of both the UK’s strengths and the actions needed to achieve the technology’s full potential. As a company applying photonics to unleash the next generation of data storage technology, we recognise both the existing technical expertise as well as the potential for government support and policy certainty to unlock greater industry innovation and commercialisation.”

Prof Andy G Sellars, Director of Strategy, CORNERSTONE, said:

“CORNERSTONE welcomes techUK’s Photonics Report, emphasising the critical importance of photonics for UK economic growth and resilience. We applaud the ambition to grow the UK’s photonics sector to £50 billion by 2035, as outlined in the Council for Science and Technology (CST) letter to the Prime Minister. The CST recommendation to create a National Photonic Integrated Circuit (PIC) prototype foundry will play a significant role in delivering this ambition, enabling UK companies to address growing markets for optical compute, AI and quantum – and we are ready to play our part.”

-ENDS-

Notes to Editors

The full report will be available at [this link](#). (from 00:01 on 26 May)

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About techUK

techUK is the technology trade association that brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve.

With over 1,100 members (the majority of which are SMEs) across the UK, techUK creates a network for innovation and collaboration across business, government and stakeholders to provide a better future for people, society, the economy and the planet.

By providing expertise and insight, we support members, partners and stakeholders as they prepare the UK for what comes next in a constantly changing world.