

## Agenda

1. Welcome 15:00
2. Introduction to current Photonics Leadership 15:10
3. Motivation for future leaders group 15:20
  - Fit other groups
  - Proposed operating model & support
  - Gains of participation and committee membership
4. Breakout room session 1: Discussion of concept, terms of reference, representation 15:30
  - Breakout room feedback 15:45
5. Breakout room session 2: Priority tasks & committee roles 15:55
  - Consolidation of priority tasks & roles 16:10
6. Ways fwd, volunteers and wrap-up 16:20
7. Close 16:30

# Future Photonics Leaders

[https://bit.ly/PH\\_leaders\\_mural](https://bit.ly/PH_leaders_mural)  
<https://photonicsuk.org/contributors/future-photonics-leaders>



**PHOTONICS**  
LEADERSHIP GROUP



## Outline

### ❖ PLG

- ❖ Motivation

- ❖ What, How, Who

### ❖ Future Leaders Group

- ❖ Why Now

- ❖ Why Participate

- ❖ Who

# Introduction to Photonics Leadership Group

& Opportunities in the Post  
Covid Era

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Dr John Lincoln, Chief Executive

**PHOTONICS**  
LEADERSHIP GROUP



## Motivation, Mission

- Keep & raise UK as top photonic manufacturer and innovator
- Foster a strong and dynamic UK photonics supply chain
  - People and tech
- Provide a clear inclusive voice for the UK photonics industry
- Maximise new photonics innovation + commercialisation,
- Foster industry, government, academia & agencies dialogue



## About eco-system not technology

1/4ly meetings - Hybrid + virtual

- Inform, connect
- *Macro impacts, Trends, Funding/ Collab, Events*

Rapid response

- Consultations, committees

Proactive content

- Vision & horizons, stats, case studies, surveys, directory

Voice

- Blog, panels, press, careers, Westminster APPG

Reactive

- Feedback, comment, briefing

Predictive

- Trends

## What

- Practical Activities



- **Responsive**
- **Inclusive**
- **Forward looking**
- **Representative**
- **Agile**
- **Forth-right**

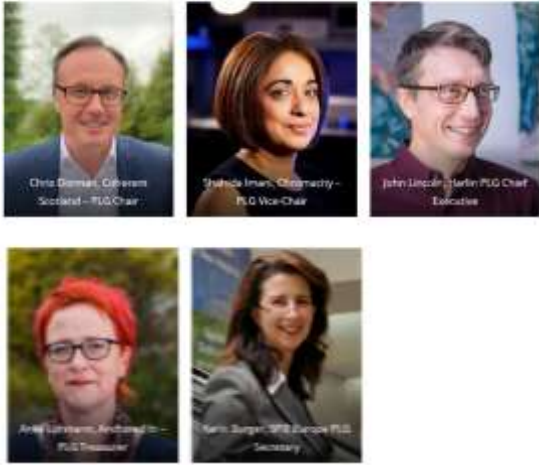
- Ultra-lean back office
  - No staff, no office, almost no budget
    - ~1 day/wk of John Lincoln
    - Lots of in-kind support
    - Leverage on-line productive tools
    - Zero overhead
- Professional(ish) front window
  - [www.photonicsuk.org](http://www.photonicsuk.org)
    - No agency, no designer, no editor
- Action Focused

“The value of an idea lies in the using of it”-  
Thomas Edison

## How

- Works in practice

PLG Committee- elected annually



Regular PLG participants from industry, research and innovation organisations

Showing 1 - 63 of 63

Sort by Organisation

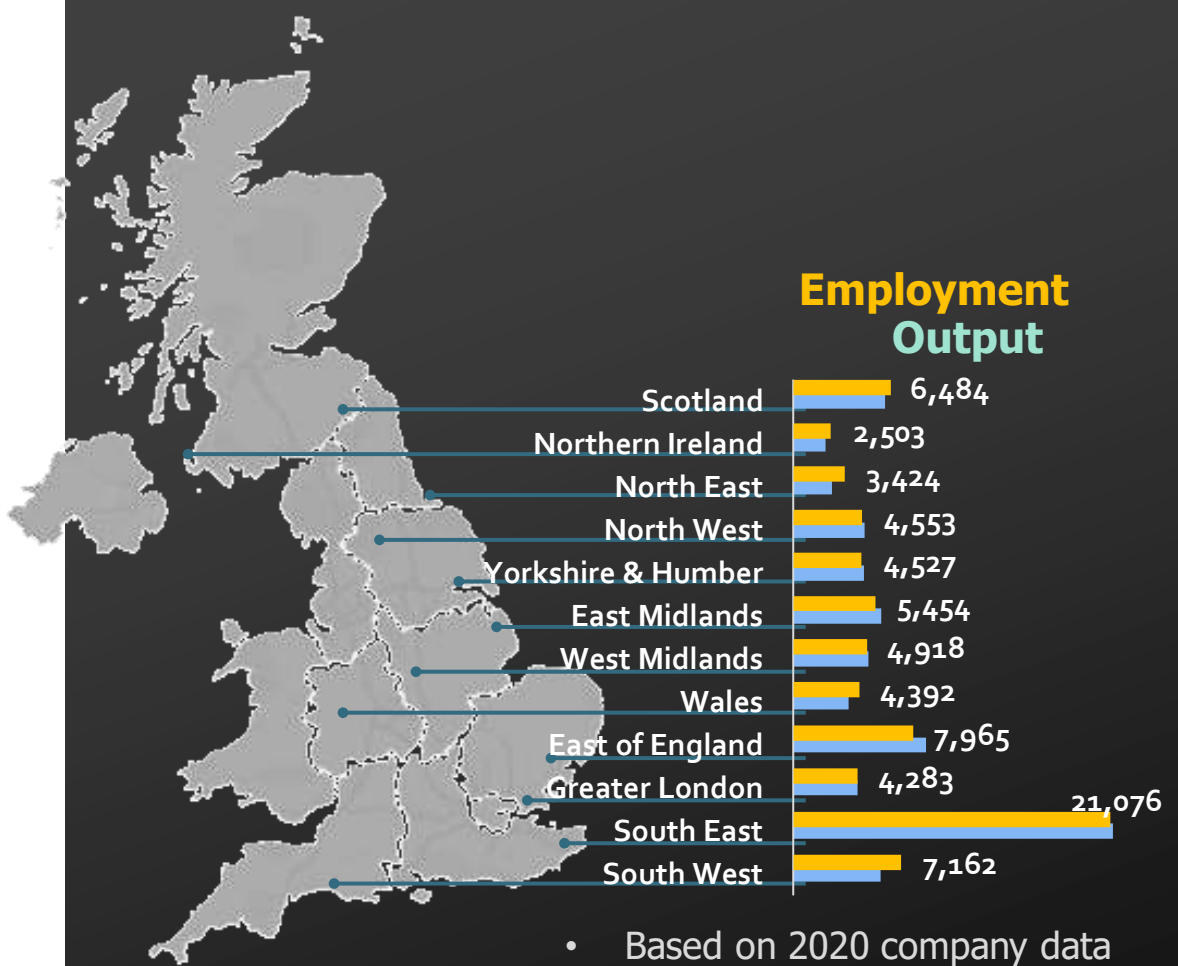
<p><b>Arad Instruments</b> Start-Up</p> <p><b>Association of Industrial Laser Users (AILU)</b> Charitable</p> <p><b>Chromacity</b> Chromacity Start-Up</p> <p><b>FIBERCORE</b> Fibercore Hardware &amp; Software</p> <p><b>HARLIN LTD</b> Harlin Ltd Wholesale</p> <p><b>Leontide</b> Leontide, Hampshire &amp; Co of Wight</p> <p><b>OPTICA</b> with OSA Optica (formerly OSA) Retail</p> <p><b>Photonics</b> Start-Up</p> <p><b>QuantC</b> Start-Up</p> <p><b>Rutherford Technology</b> Sci of England</p> <p><b>Swansea University</b> Retail</p> <p><b>Thales UK</b> Retail</p> <p><b>University of Exeter</b> Start-Up</p> <p><b>University of Strathclyde</b> Retail</p>	<p><b>Alex Technology Group</b> Start-Up</p> <p><b>Your Logo</b></p> <p><b>Event Listing</b> Start-Up</p> <p><b>Effect Photonics</b> Start-Up</p> <p><b>GEM Group</b> Start-Up</p> <p><b>HUBER+SUHNER Photonics Ltd</b> Consulting</p> <p><b>LASER 2000</b> Start-Up</p> <p><b>Laser 2000 UK</b> Consulting</p> <p><b>UNIVERSITY OF Southampton</b> Optoelectronics Research Centre in the Dept of Engineering &amp; Applied Physics</p> <p><b>Optics</b> Start-Up</p> <p><b>Quanta</b> Start-Up</p> <p><b>Robt Royce Ltd</b> Start-Up</p> <p><b>SPIE EUROPE</b> SPIE Europe Retail</p> <p><b>TRIUMF Laser UK Ltd</b> Hardware &amp; Software</p> <p><b>University of Oxford</b> Start-Up</p>	<p><b>ArQ</b> Start-Up</p> <p><b>Arthroflex Ltd</b> Start-Up</p> <p><b>Coherent Scotland</b> Start-Up</p> <p><b>Edmund Optics</b> Edmund Optics Manufacturing</p> <p><b>Edmund Optics</b> Edmund Optics Manufacturing</p> <p><b>glyndwr</b> Glyndwr Innovations, Optic Technology Centre</p> <p><b>Lumenergy</b> Start-Up</p> <p><b>National Healthcare Photonics Centre</b> Sci of England</p> <p><b>Photonics Connected</b> Start-Up</p> <p><b>QuantIQ</b> Start-Up</p> <p><b>Resolute Photonics</b> Start-Up</p> <p><b>Sierra Photonics Ltd</b> Start-Up</p> <p><b>Teladyne EDV</b> Start-Up</p> <p><b>TIM</b> Start-Up</p> <p><b>University of Sheffield</b> Hardware &amp; Software</p>	<p><b>AIPT</b> AIPT Start-Up</p> <p><b>Apert University</b> Start-Up</p> <p><b>Compound Semiconductor Centre</b> Start-Up</p> <p><b>IPG Photonics (UK)</b> Start-Up</p> <p><b>Kings College London</b> Start-Up</p> <p><b>Lumeral</b> Start-Up</p> <p><b>Omniscie</b> Start-Up</p> <p><b>Photonics Scotland</b> (Technology Scotland) Start-Up</p> <p><b>Seagate Technology (Ireland)</b> Hardware</p> <p><b>Ternox</b> Start-Up</p> <p><b>University College London (UCL)</b> Start-Up</p> <p><b>Warrham (London) University</b> Start-Up</p>	<p><b>Antenna Optical</b> Start-Up</p> <p><b>Box Systems PLC</b> Start-Up</p> <p><b>bp photonics</b></p> <p><b>Day Photonics</b> Start-Up</p> <p><b>Fraunhofer CAP</b> Fraunhofer Centre for Applied Photonics Start-Up</p> <p><b>IQE Plc</b> Start-Up</p> <p><b>Laser Quantum</b> Start-Up</p> <p><b>M-Squared Lasers</b> Start-Up</p> <p><b>Oxford Lasers</b> Start-Up</p> <p><b>Purcell</b> Start-Up</p> <p><b>Queens University Belfast</b> Start-Up</p> <p><b>Science and Technology Facilities Council (STFC)</b> Start-Up, Start-Up</p> <p><b>Thortiss</b> Sci of England</p> <p><b>University of Glasgow</b> Start-Up</p> <p><b>Wittract</b> Hardware &amp; Software</p>
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- Participation open to all
  - Committee voted annual
  - Time most valuable contribution
- Voluntary contributions from participating orgs in PLG
  - No central funding
  - No compulsory fees
- Backed by Photonics Leadership Ltd
  - Registered not-for-profit company for benefit of members
  - Members defined at those attending meetings

# Who



# Examples



# UK Photonics 2021

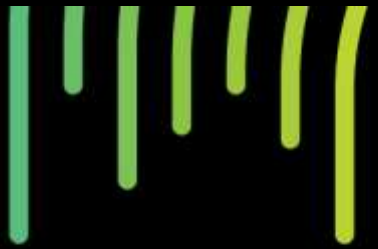


- >8 Regions >£1bn output,
  - >4500 employees
  - >1200 companies
    - Includes Quantum

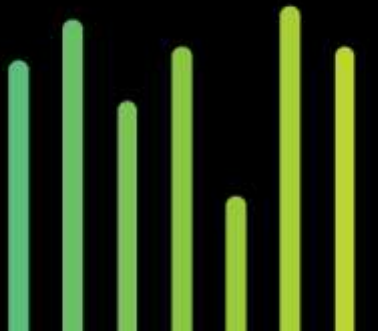
[www.photonicsuk.org/directory](http://www.photonicsuk.org/directory)



# The Vision



**UK  
PHOTONICS  
2035**



- Photonics will be essential to delivering a net zero economy
- Photonics will digitally shrink the UK
- UK will be a manufacturing hub for the 'digital eyes' of the 21<sup>st</sup> century
- Photonics will increase manufacturing & agriculture productivity by 20%
- Integrated photonics will be embedded in point-of-care diagnostics
- Defending a secure resilient nation will only be possible with photonics
- Photonics tools will push the boundaries of scientific understanding

- **2035 photonics** will be a **£50 billion** industry, add **100,000 direct jobs**
  - **Top three most productive UK** manufacturing sectors.
  - **>60% of the UK economy will directly depend on photonics.**

[Photonicsuk.org/uk-photonics-2035-the-vision](https://Photonicsuk.org/uk-photonics-2035-the-vision)



## Energy Generation

- Direct - Photovoltaics
- Indirect- sensing

## Energy consumption

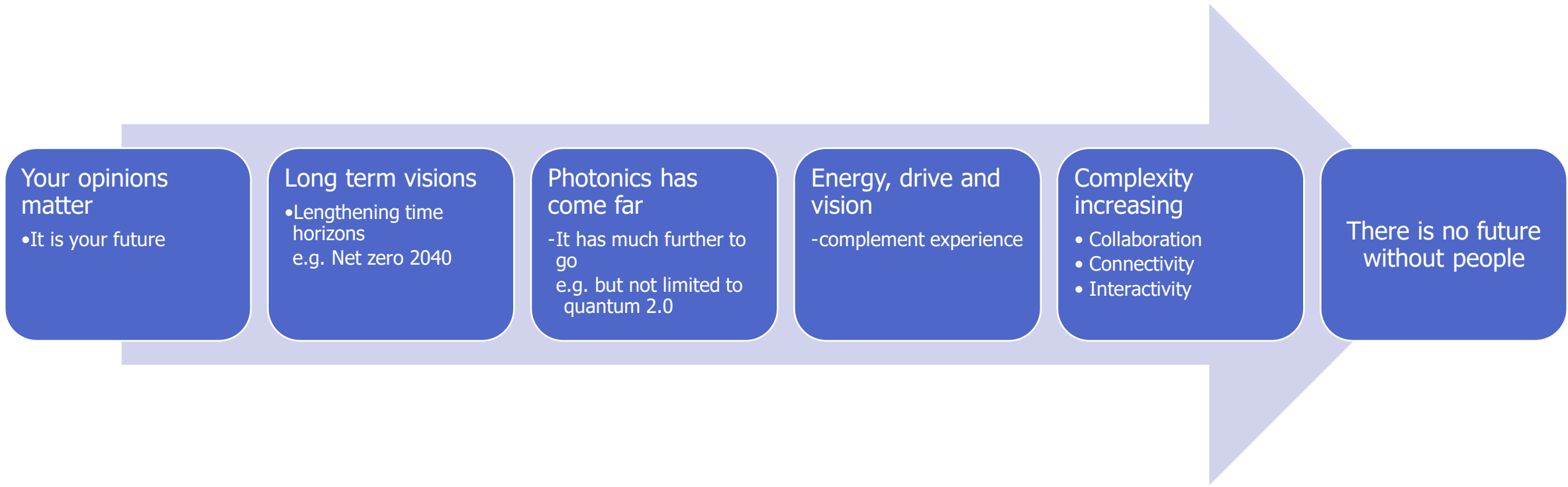
- Networks & Data
- Industry / Agriculture
- Lighting

## Waste/materials

- In Photonics
- Reduced by Photonics

**Photonics: Net zero dimensions of impact**

# Future Photonics Leaders – Why Now



## Why Now

- Shaping eco-system takes time
  - Start early

- Apply to participating
- Apply<sup>4</sup> for committee

## Why participate

### Visibility

- Across community

### Connections

- Beyond your organisation

### Influence

- Shape your own future &
- Future around you

### Knowledge

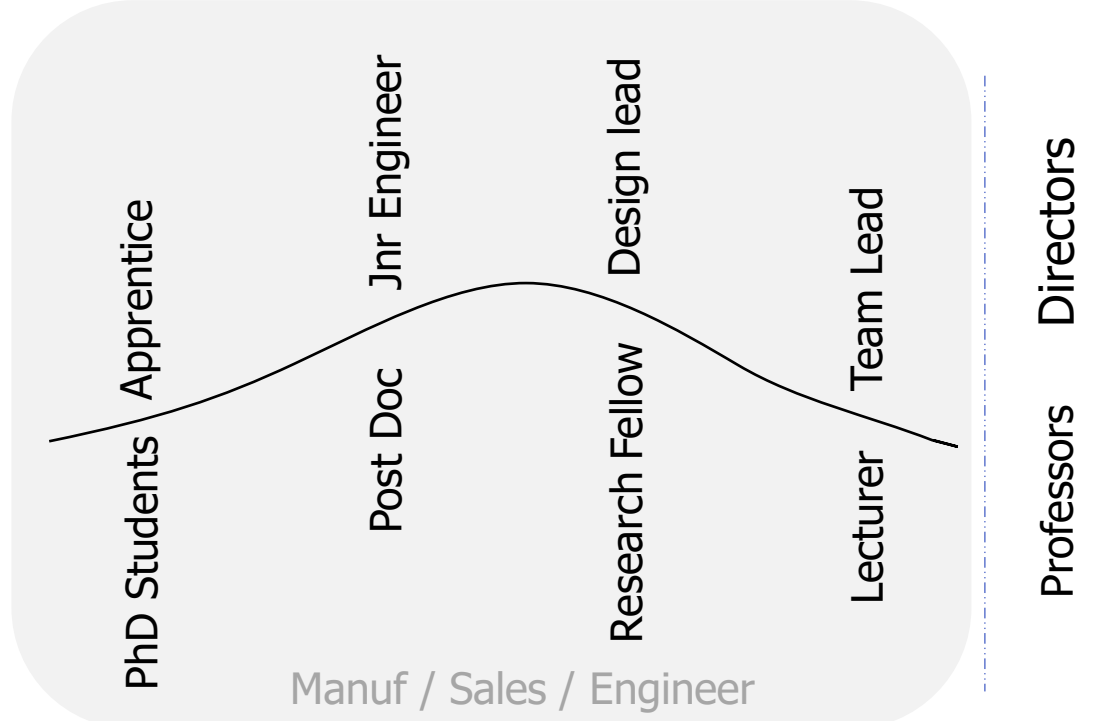
- Beyond tech
- Challenges / opportunities

### Skills & experience

- Cite, leverage, differentiate
- Practice and hone

- For you to define..
  - Start: Self – identifying as early career professionals
    - In photonics and quantum
    - In industry & or academia
    - Post docs

- Broad Distribution
  - Peak at academic industrial career transition?
  - Few year in industry
  - Few years of Phd/ Eng D



**Who**



- A new early career UK photonics community focused on the future generation of photonics leaders.
- Capture the input, opinion, energy and drive of the future leaders.
- Provide opportunities to interact, exchange ideas and shape the future photonics ecosystem beyond technology

## What

- Nudging industry, support agencies, policy makers and academia into mutually beneficial directions. .
- maximises the awareness and expansion of photonics knowledge and application supporting
- ensuring the photonics ecosystem of the future is one that PLNX participants will be proud of and motivated to lead
- It will be self-organised and open to all.

# PHOTONICS

LEADERSHIP GROUP

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

[www.photonicsuk.org](http://www.photonicsuk.org) , [@photonics\\_UK](https://twitter.com/photonics_UK), [John.Lincoln@photonicsuk.org](mailto:John.Lincoln@photonicsuk.org)

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