

# Impact of Covid-19 on Photonics (&Acoustics)

Dr John Lincoln, PLG meeting 3 June 2020

Summary at [www.photonicsuk.org](http://www.photonicsuk.org)

# Motivation & source

“What’s the impact of lockdown been on UK photonics”

- - Press, Gov, Agencies, Companies
- Rapid Survey provide factual response
  - Distributed from 23 April,
  - 202 responses by 4 May, 209 to-date
  - Include Photonics and Acoustics for coverage and comparison\*
  - Targeted to UK
- Known issues
  - Snap-shot only
  - Not relevant to all esp academics
  - Limited depth

## UK Photonics / Acoustics industry coronavirus impact survey

As key enabling technologies light and sound are key enablers of our economy, often embedded within products and services and absolutely critical to making those products competitive. Photonics and acoustics directly add £13.5billion and £4.6billion, respectively, to the UK economy with their secondary impact in enabled products much higher.

The objective of this short, 12 question, survey is to gauge the impact of coronavirus and associated restrictions on the photonics and acoustics industries. Whilst technically very different, photonics and acoustics share many characteristics, hence this survey is targeted at both for efficiency and to enable comparison of the results.

No personal or identifiable information is requested, all responses are anonymous, information will be treated in confidence and kept for no more than 2 years in EU based datacentres with only aggregated figures released. If you are uncomfortable with, or unable to answer, any question please feel free to skip.

In collaboration with the Photonics Leadership Group, the UK Acoustics Network  
Any questions please contact [info@photonicsuk.org](mailto:info@photonicsuk.org). Ver Draft 0.2, 20 April 2020

\* Required

1. Which enabling technology industry are you more strongly associated with? \*

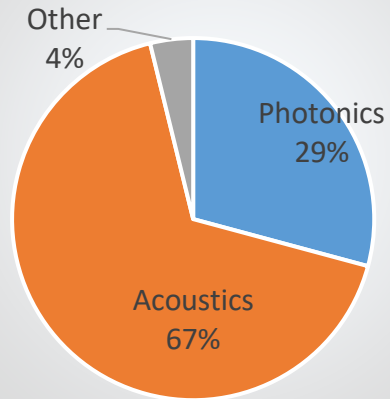
☐ Photonics

☐ Acoustics

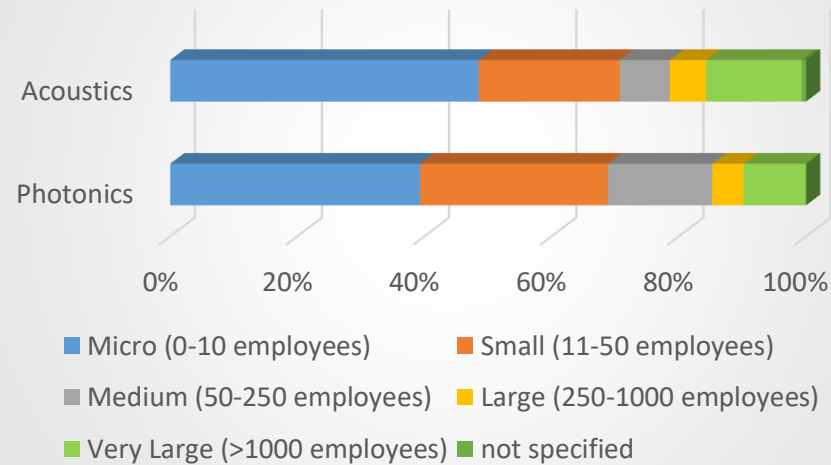
\* Acoustics provide some £

# Response profiles

Responses by industry



Responses by org size



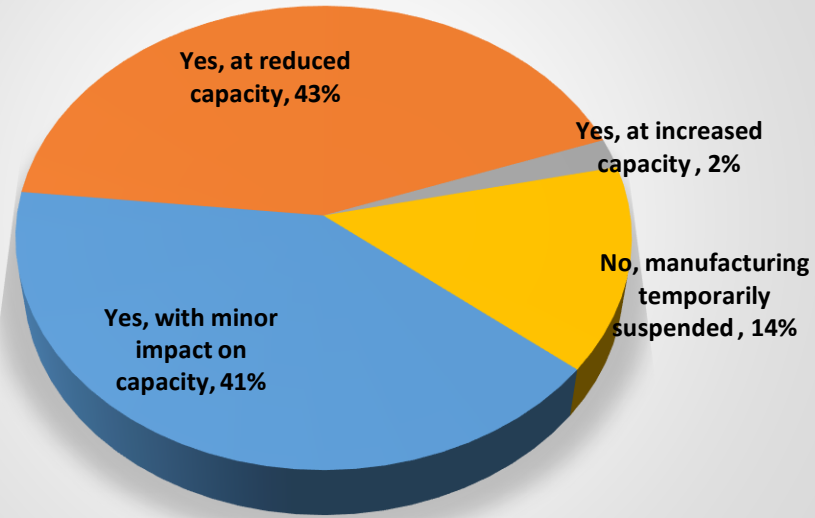
By Organisation type



- Good cross-section of sizes
- More photonics manufacturing
- Photonics response rate less

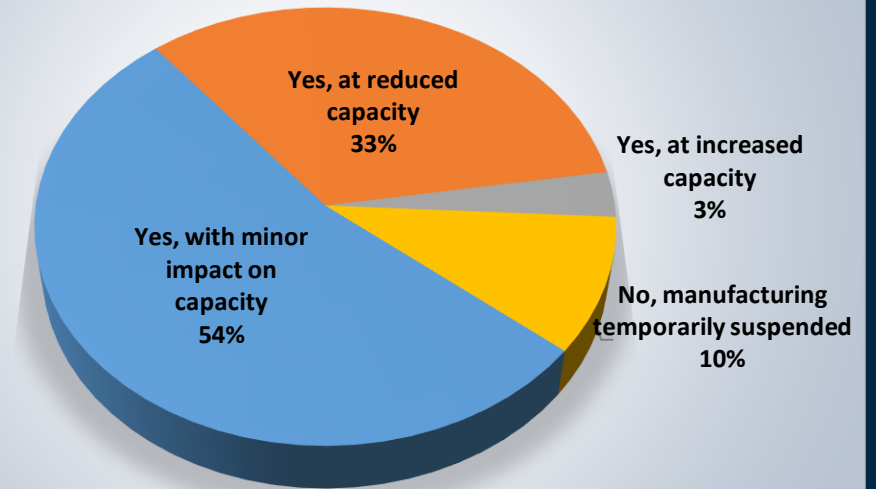
# Production impact

Photonics & Acoustics Manufacturers  
- have you been able to continue production



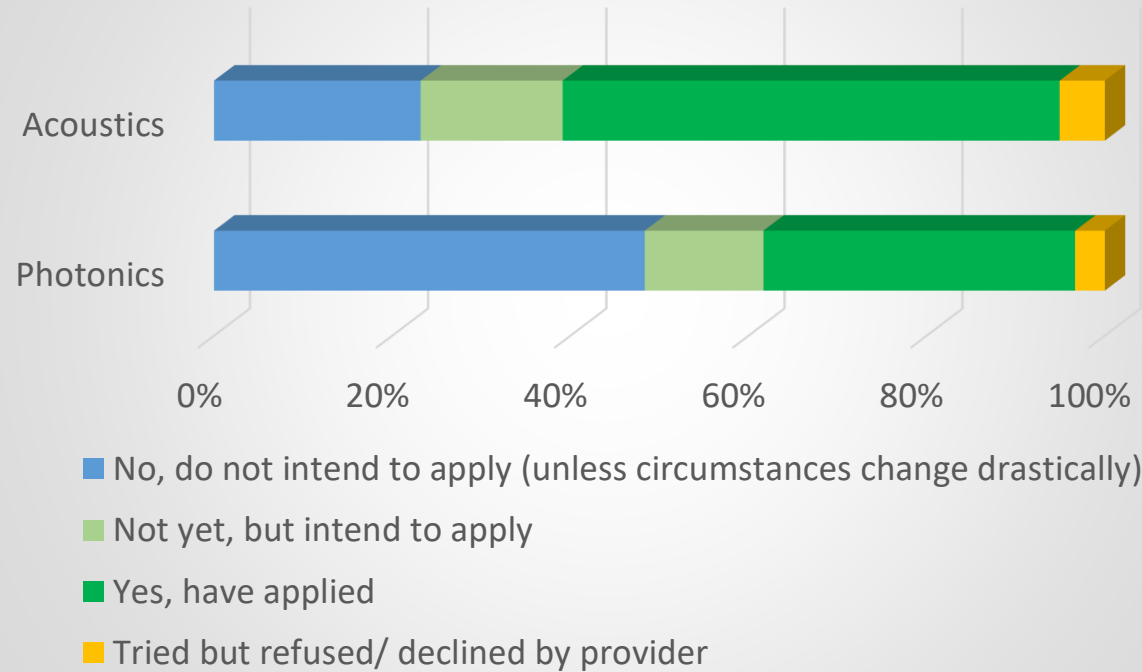
- 90% photonics manufacturers have continued production

Photonics Manufacturers  
- have you been able to continue production



# Use of support

Use of UK Government covid business support



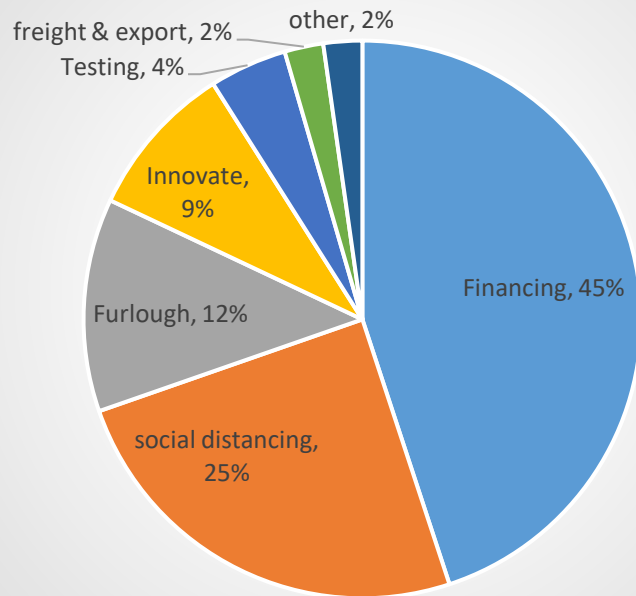
- Resilience

- ~50% of photonics org no intention of using emergency gov support!
  - Big delta to acoustics
  - Related to make-up of industry?

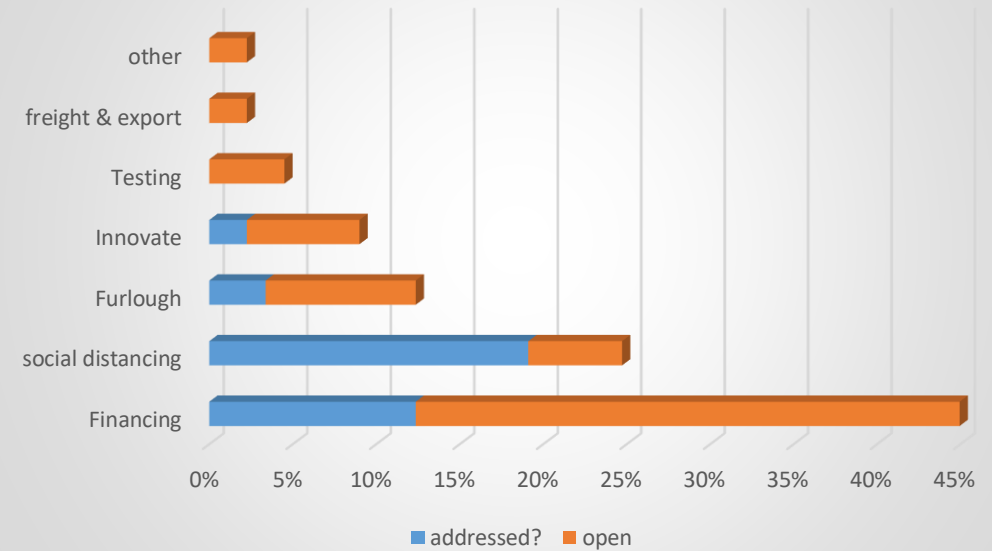
# Additional measures

- Open suggestions for additional for support measures
  - Approximately classified

Suggested additional/ adjusted measures by type



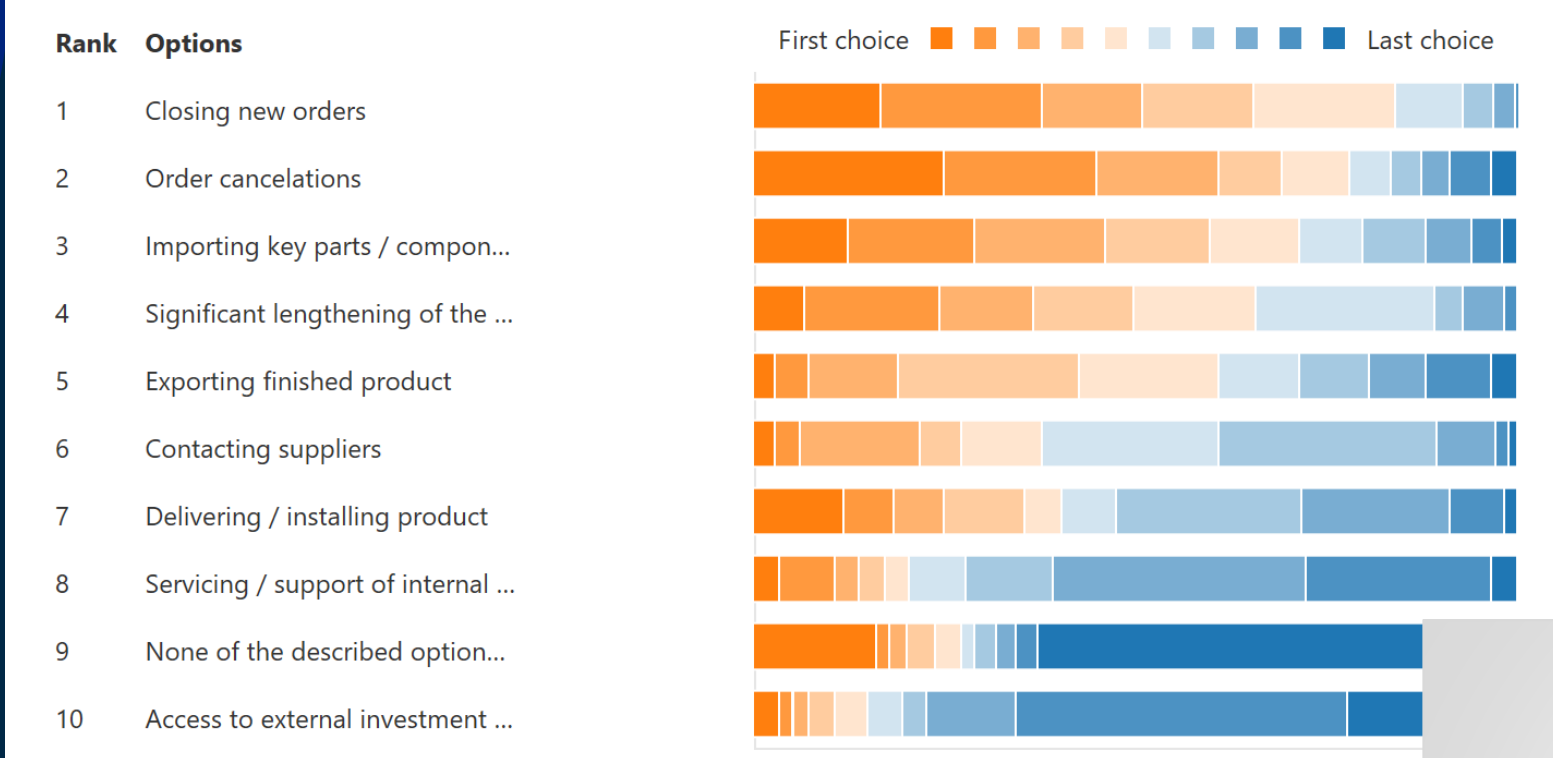
Status of additional measures @11 May



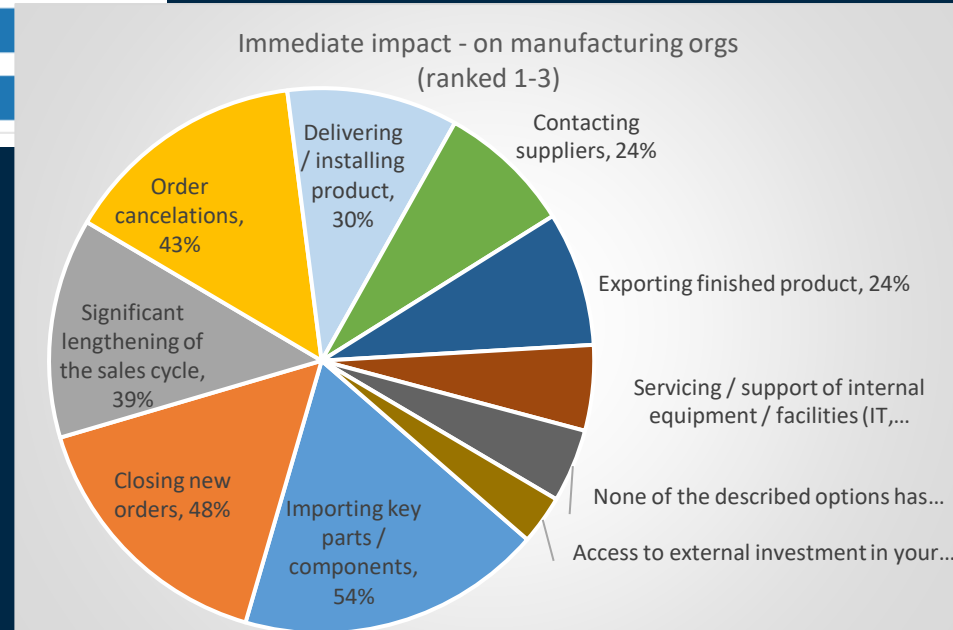
- ~1/3 of these addressed by 11 May  
'Stay alert' update
  - More address with open testing
- Over 90 suggestions across acoustics and photonics

# Immediate impact

- Rank difficulties experienced

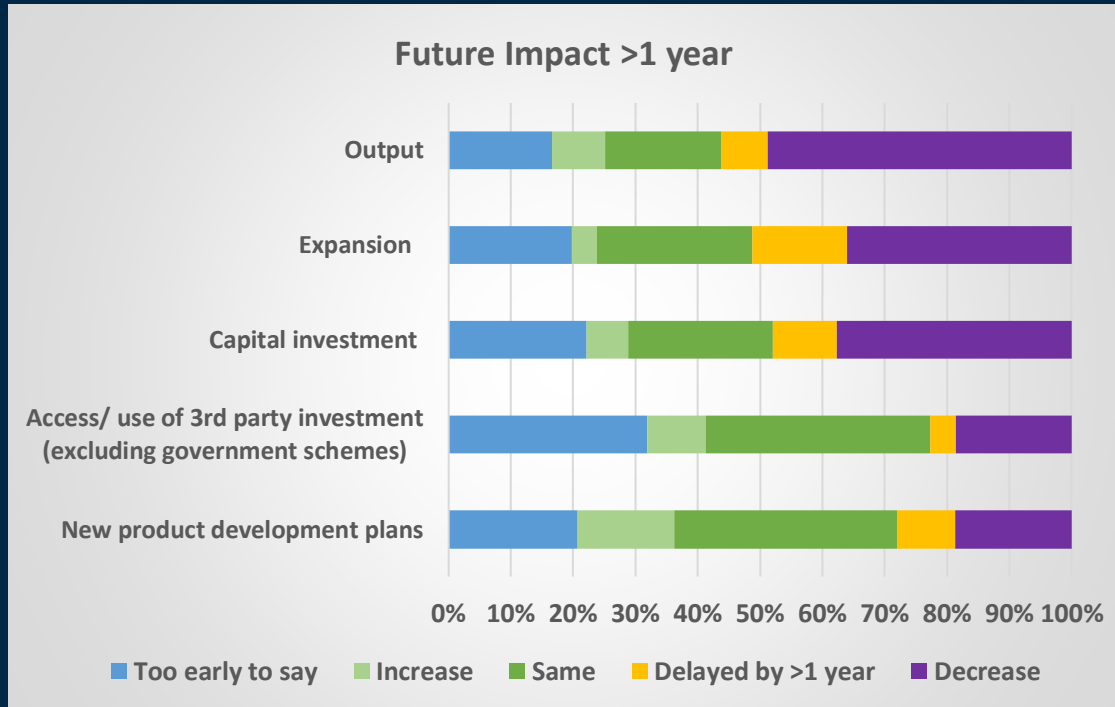


- Order pipeline issues biggest (delays, cancelations, lengthening sales cycle)
- Manufacturing bigger challenge in sourcing parts



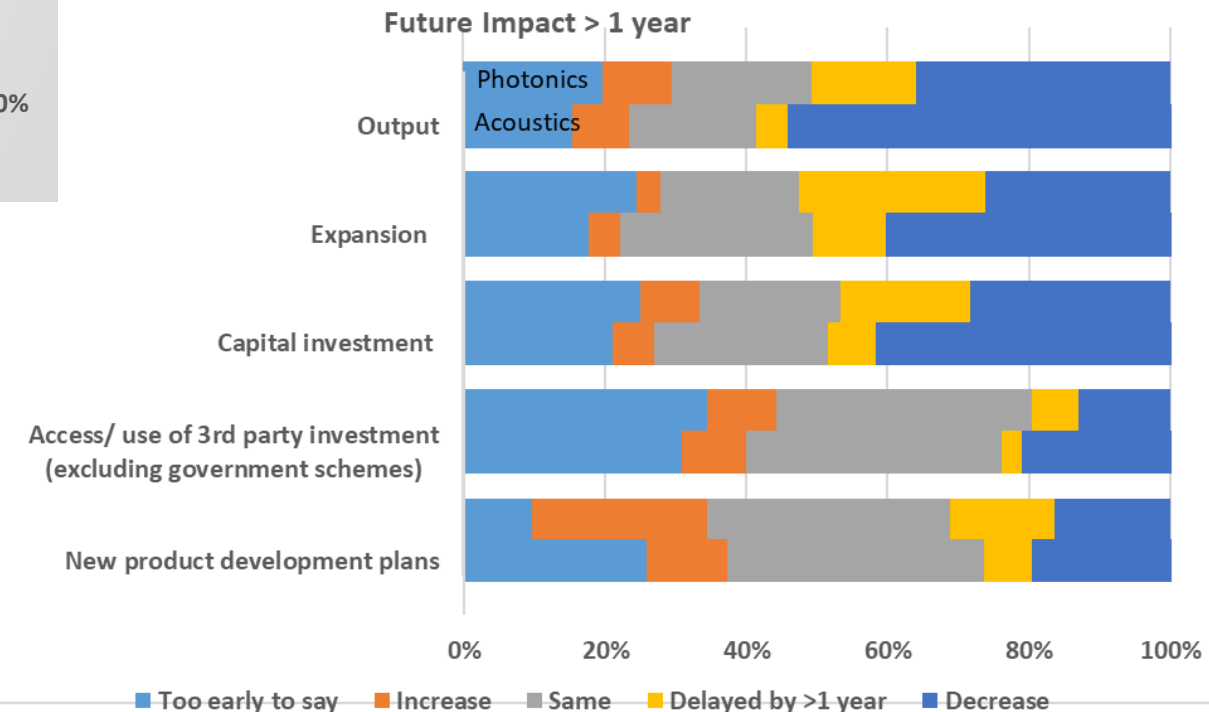


# Future impact



- Photonics more optimistic than acoustics
  - Delayed rather than decline
  - 60% predict same or increasing product developments

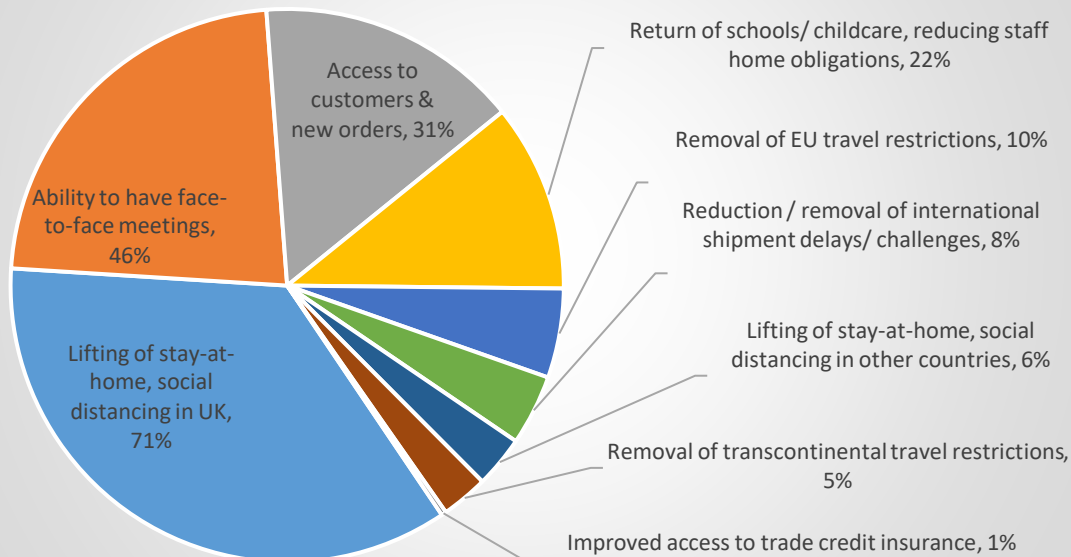
- Too early for many to predict
- Where made estimate (combined)
  - 30% output same / increasing, 50% decreasing
  - 50% development plans same or increasing



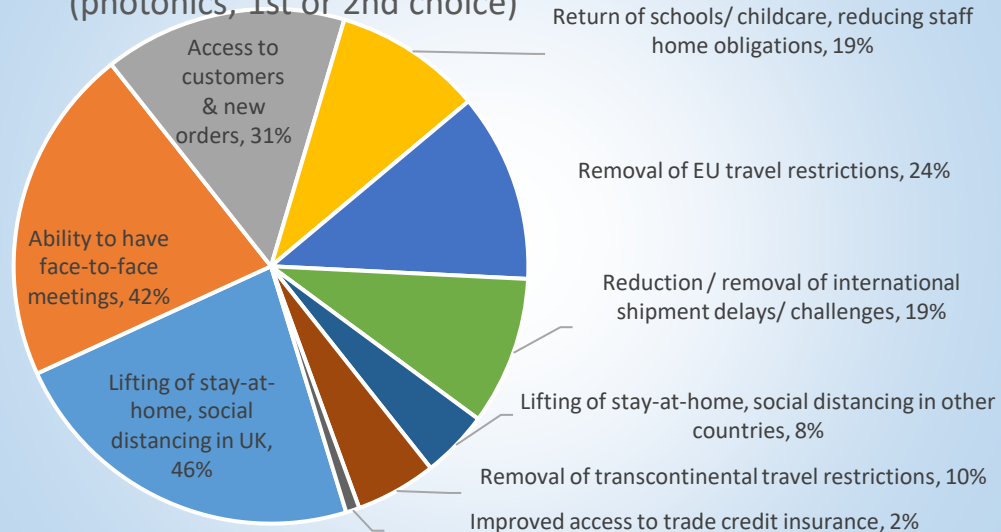


# Help returning to 'new' normal

Forward path to return to 'normal'  
(all responses, 1st or 2nd choice)

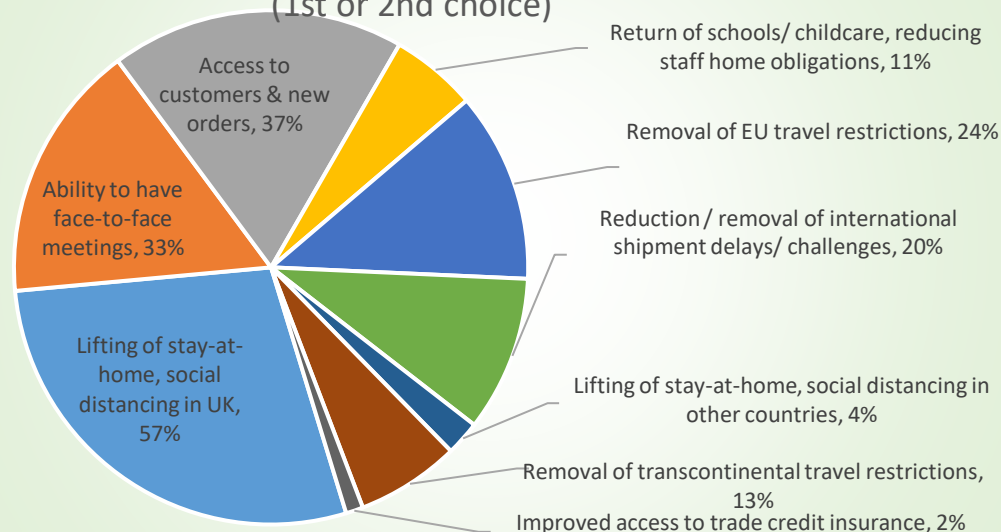


Forward path to return to 'normal'  
(photonics, 1st or 2nd choice)

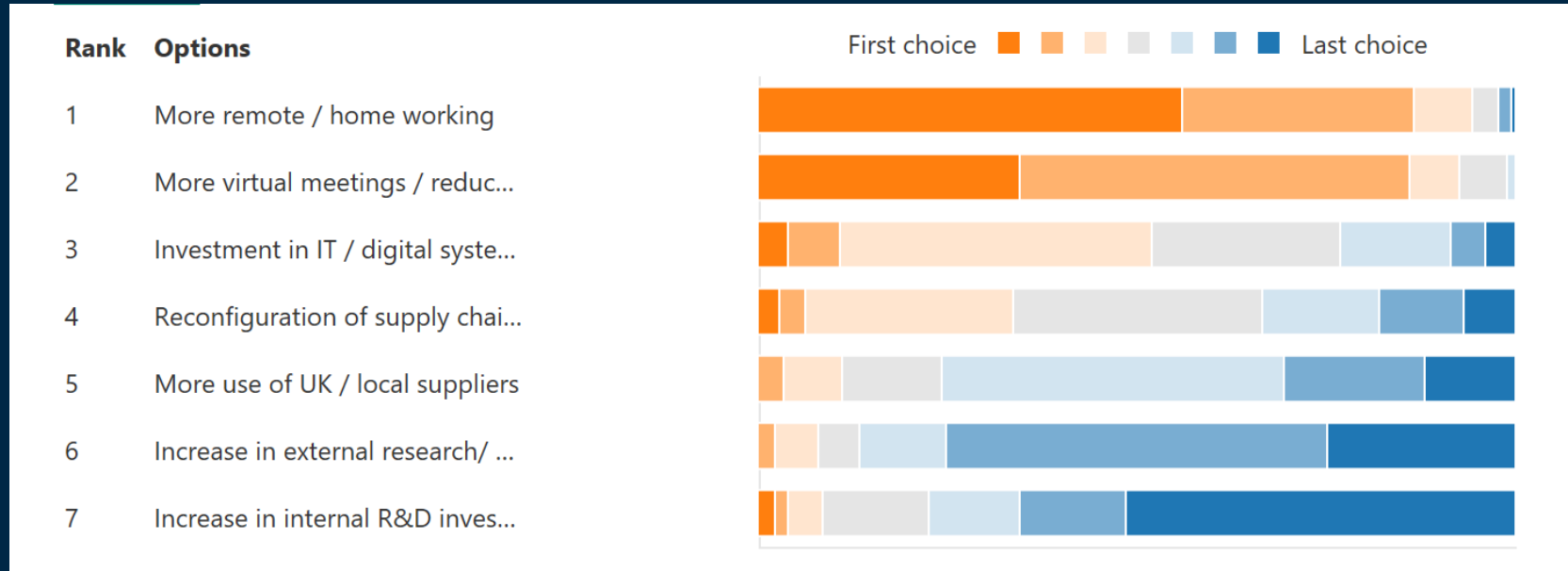


- Based on ranking of 9 choices
  - For photonics & manufacturing
    - EU, intercontinental travel & international shipping more important

Forward path to return to 'normal'- Manufacturing  
(1st or 2nd choice)



# What is 'new normal'



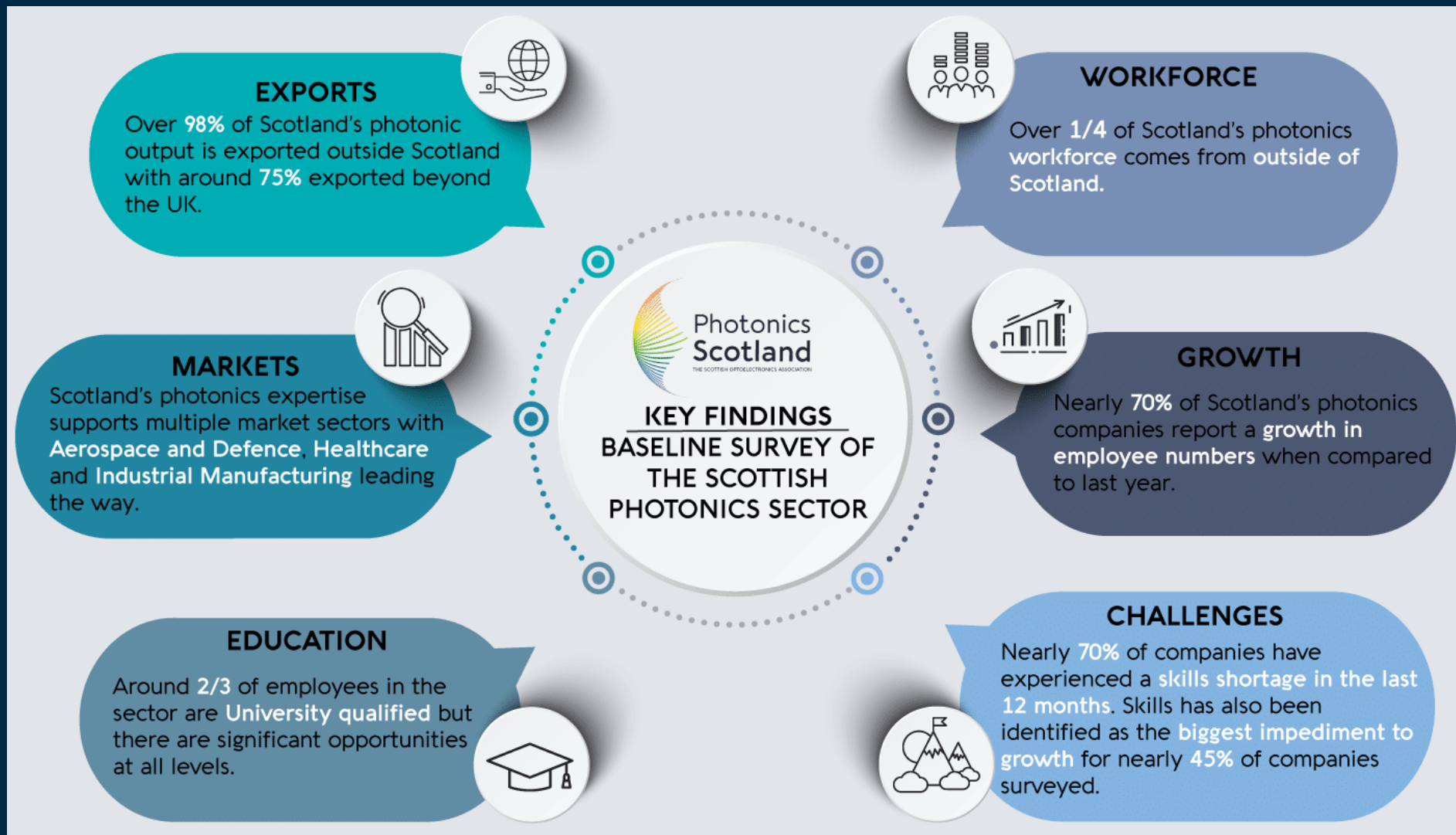
- Unsurprisingly more remote working and virtual meetings dominate
  - The reconfiguration of supply chains & digital / IT investment.
- Potentially significant impact on photonics via optical comms.

# Summary

- It is not all doom and gloom
  - Impact yes, but not currently catastrophic
  - Showing strong resilience
    - Staying manufacturing
    - Not using emergency programs as much as some.
- Valued activity
  - Gratefully received by multiple gov / agency engagement points
- Future
  - Snap-shot only
    - Repeat in ~September
- Photonics response low without direct email list
  - Social media is no substitute to email
- Initial survey remains open

# Additional Surveys

# Survey of the Scottish Photonics



c/o  
Photonics  
Scotland  
Ally  
McInroy  
for more  
info

<https://photonics-scotland.com/2020/05/key-findings-from-photonics-scotlands-baseline-survey-of-the-scottish-photonics-sector/>

# UK Photonics Survey

- Released 20 Questions
  - Exports % & destination
  - Investment past and future
  - Sources of Capital
  - Enablers and barriers to growth
    - Similar Photonics Scotland survey
- Stalled due to Covid-19
  - Remains open, but Covid impact?
    - QED impact survey
  - Re-distribute / combine with Autumn covid impact update?

## PLG UK Photonics Industry Survey 2020

The UK photonics industry adds £13.5 billion to the UK economy and employs over 69,000 people. Previous figures have provided valued insights on the importance of UK photonics, however we lack information on the level of exports, investment and growth enablers for the industry. These are now key metrics as we move through the Brexit transition period with government focusing on raising R&D spending to 2.4% of GDP. It is second to none for many of us that photonics is a significant exporter and investor – but evidence is vital.

The aim of this survey is to gather data on exports, funding sources, investment and enablers/barriers to growth so we can quote definitive figures in these areas for the UK Photonics industry. The aggregated results will be jointly published with the All Party Parliamentary Group in Photonics and Quantum and will make a significant impact on the future focus of direct and indirect research, innovation and business support funding.

<http://bit.ly/UKphotonics2020>