

Please tell us about you and your organisation

1. Please tell us about yourself

Name: _____

Position: _____

Email: _____

2. Please tell us about your organisation

Organisation name: _____

Address (UK Head Office): _____

Postcode: _____

3. How would you classify your organisation?

- Small or medium-sized enterprise, SME (<250 employees)
- Large enterprise (>250 employees)
- Higher education institution
- Other research / non-commercial organisation (please specify) _____

How would you like to respond?

4. Please indicate for which financial years you are able to respond:

In each case, you will also be asked to provide an estimate for 2020/21. We will also ask you for data from quarters 1-3 of 2021. If this data is unavailable then please do provide an estimate.

For the purpose of this survey the financial year is assumed to start in April.

*The optional 2018/19 year is indicated in blue throughout this document and is not requested if it has been provided in previous Size and Health surveys.

- 2019/20 only
- **2018/19*** and 2019/20

Space-related activities

The categorisation of activities and sectors as defined in previous versions of the Size and Health survey differs from that described by OECD best practice. New questions are asked in this survey to help align with international standards with the aim of transitioning towards OECD best practice.



5. Please tick the following OECD Sectors that your organisation is engaged in:

- Satellite Communications (excluding broadcasting)
- Broadcasting
- Positioning, Navigation, Timing
- Earth Observation (excluding meteorology)
- Meteorology
- Space Transportation (including launch)
- Space Exploration (including ISS, rovers and probes)
- Science
- Other (generic technologies or components)

6. Please select any of the following 'space-related activities' that your organisation is engaged in.

- **Design and/or manufacture of space equipment and subsystems**
Including: launch vehicles and subsystems, satellites/payloads/spacecraft and subsystems, scientific instruments, ground segment systems and equipment (control centres and telemetry), suppliers of materials and components, scientific and engineering support, fundamental and applied research
- **Launch of satellites**
Including: launch services, launch brokerage services
- **Operation of satellites**
Including: proprietary satellite operation (incl. sale/lease of capacity), third-party ground segment operation, ground station networks, In-Orbit Servicing, Debris Removal, Space Surveillance & Tracking (SST), Space Tourism, In-space manufacturing
- **Applications of satellite signals and data**
Including: Direct-To-Home (DTH) broadcasting, fixed and mobile satellite communications services (incl. VSAT), location-based signal and connectivity service providers, supply of user devices and equipment, processors of satellite data, applications relying on embedded satellite signals (e.g., GPS devices and location based services) and/or data (e.g., meteorology, commercial GIS software and geospatial products), Other (e.g., Quantum Key Distribution)
- **Specialised support services**
Including: launch and satellite insurance (incl. brokerage) services, financial and legal services, software and IT services, market research and consultancy services, business incubation and development, policymaking, regulation and oversight.



Income

7. What was the total space-related income* of your organisation's UK operations in these financial years** in £GBP?

Please provide an approximation if actual data is unavailable.

* 'Total space-related income' = Income from all activities that you selected in the 'Space-related activities'.

** If 2020/21 data is unavailable, please provide an estimate/forecast instead.

Please indicate the level of gross income in £m

	<u>Income (gross, £m)</u>
<u>Annual</u>	
2018/19:	£ _____
2019/20:	£ _____
2020/21 e**:	£ _____

Quarterly (if available)

2021 Q1	£ _____
2021 Q2	£ _____
2021 Q3	£ _____

8. Considering UK space-related income in the most recent year available, please estimate the breakdown by type of income.

Please provide an approximate percentage if actual data is unavailable.

	<u>% (sum=100%)</u>
Turnover (i.e., revenues from sales of products/services)	_____ %
Non-commercial income (i.e., grant/core funding)	_____ %

Space-related income by customer region (exports)

9. Considering space-related income in the most recent financial year available, please estimate the breakdown by customer location.

Please provide an approximation if actual data is unavailable. Regional breakdown is based on the UN geoscheme.

	<u>% (sum=100%)</u>
UK (domestic)	_____ %
<u>Europe (incl. ESA, EC, EEA; excl. UK)</u>	
European Space Agency (any location)	_____ %
EU (incl. EC)	_____ %



Non-EU Europe (incl. Norway, Switzerland) _____ %

Other

North America (incl. USA, Canada) _____ %

Central & South America (incl. Caribbean) _____ %

Middle-East & North Africa _____ %

Rest of Africa Asia & Oceania _____ %

10. It would be useful to understand trade at the country level. If possible, please provide further breakdown of selected regions of space-related income by customer country. Please skip this question if your income is solely domestic.

Please provide an approximation if actual data is unavailable.

Europe:

As a % of total income in the region (total = 100%). Please provide an approximation if actual data is unavailable.

European Space Agency (any location) _____ %

France _____ %

Germany _____ %

Italy _____ %

Other EU _____ %

Non-EU Europe (incl. Norway, Switzerland) _____ %

North America:

As a % of total income in the region (total = 100%). Please provide an approximation if actual data is unavailable.

USA _____ %

Canada _____ %

Other North America _____ %

Central & South America (incl. Caribbean):

As a % of total income in the region (total = 100%). Please provide an approximation if actual data is unavailable.

Brazil _____ %

Colombia _____ %

Mexico _____ %

Chile _____ %

Other Central & South America (incl. Caribbean) _____ %



Asia & Oceania:

As a % of total income in the region (total = 100%). Please provide an approximation if actual data is unavailable.

Japan	_____ %
India	_____ %
Russia	_____ %
China	_____ %
Indonesia	_____ %
Malaysia	_____ %
South Korea	_____ %
Australia	_____ %
New Zealand	_____ %
Other Asia & Oceania	_____ %

Space-related income by customer type

11. Considering space-related income in the most recent financial year available, please estimate the breakdown

Please provide an approximation if actual data is unavailable.

As a % of total space-related income (total = 100%).

	<u>% (sum=100%)</u>
UK Space Agency	_____ %
<u>European Space Agency</u>	
Galileo	_____ %
Copernicus	_____ %
EGNOS	_____ %
Other (non-EU programmes)	_____ %
<u>European Commission</u>	
Horizon Europe	_____ %
Other European Commission	_____ %
<u>Commercial</u>	
To Business (B2B)	_____ %
To Consumer (B2C)	_____ %
<u>Other</u>	
Research/Science Funding Bodies	_____ %
Other Space Agency	_____ %



Other Civil Government _____ %
 Defence/Military _____ %

Space-related income by activity

12. Considering *space-related* income in the most recent financial year available, please estimate the breakdown by activity.

Please provide an approximation if actual data is unavailable. As a % of total *space-related* income (total = 100%).

	<u>% (sum=100%)</u>
<u>Design and/or manufacture of space equipment and subsystems</u>	
Launch vehicles and subsystems	_____ %
Satellites/payloads/spacecraft and subsystems	_____ %
Scientific instruments	_____ %
Ground segment systems and equipment	_____ %
Suppliers of materials and components	_____ %
Scientific and engineering support	_____ %
Fundamental and applied research	_____ %
 <u>Launch and/or operations</u>	
Launch services	_____ %
Launch brokerage services	_____ %
Proprietary satellite operation (incl. sale/lease of capacity)	_____ %
Third-party ground segment operation	_____ %
Ground station networks	_____ %
In-Orbit Servicing	_____ %
Debris Removal	_____ %
Space Surveillance & Tracking (SST)	_____ %
Space Tourism	_____ %
In-space manufacturing	_____ %
 <u>Applications of satellite signals and data</u>	
Direct-to-home (DTH) broadcasting	_____ %
Fixed satellite communication services (incl. VSAT)	_____ %
Mobile satellite communication services	_____ %
Location-based signal service providers	_____ %
Supply of user devices and equipment	_____ %
Processors of satellite data (e.g., EO)	_____ %
Applications leveraging satellite signals/data (e.g., nav, geospatial, telematics.)	_____ %
Other (e.g., Quantum Key Distribution)	_____ %



Specialised support services

Launch and satellite insurance (incl. brokerage) services	_____ %
Legal and financial services	_____ %
Software and IT services	_____ %
Market research and consultancy services	_____ %
Business incubation and development	_____ %
Policy-making, regulation and oversight	_____ %

Please describe your organisation’s main *space-related* products/services:

Inputs purchased

13. Considering your *space-related* income, what percentage (%) was spent on purchasing inputs from suppliers?

Example: If your organisation purchased £400 worth of inputs from suppliers to generate £1,000 of *space-related* turnover, total inputs = 40% of *space-related* turnover. e** If 2020/21 data is unavailable, please provide an estimate/forecast instead. Please provide an approximation if actual data is unavailable.

	<u>% (sum=100%)</u>
<u>Annual</u>	
2018/19:	_____ %
2019/20:	_____ %
2020/21 e**:	_____ %
<u>Quarterly (if available)</u>	
2021 Q1	_____ %
2021 Q2	_____ %
2021 Q3	_____ %



14. Please estimate the breakdown of inputs by type and location of supplier in the most recent financial year available.

Example: If the £400 of inputs from the previous example (40% of *space-related* turnover) breaks down as: £200 from UK-based suppliers within the space industry, £100 from UK-based suppliers in other industries, and £100 from overseas suppliers (any industry), please put: 50%, 25%, 25% in the boxes below, respectively.

Total inputs purchased = 100%.

Please provide an approximation if actual data is unavailable.

	<u>% (sum=100%)</u>
<u>UK-based suppliers</u>	
Space industry	_____ %
Non-space industries	_____ %
<u>Overseas suppliers (non-UK-based)</u>	_____ %
Space industry	_____ %
Non-space industries	_____ %

15. It would be useful to understand inputs at the country level. If possible, please provide further breakdown of inputs from Overseas (non-UK-based) suppliers. Please skip this question if your input purchases are from solely domestic suppliers.

Total inputs purchased from Overseas (non-UK-based) suppliers = 100%. Please provide an approximation if actual data is unavailable.

	<u>% (sum=100%)</u>
<u>Europe:</u>	
European Space Agency (any location)	_____ %
France	_____ %
Germany	_____ %
Italy	_____ %
Other EU	_____ %
Non-EU Europe (incl. Norway, Switzerland)	_____ %
<u>North America:</u>	
USA	_____ %
Canada	_____ %
Other North America	_____ %
<u>Central & South America (incl. Caribbean)</u>	_____ %
<u>Middle East & Africa</u>	_____ %



Asia & Oceania:

Japan	_____ %
India	_____ %
Russia	_____ %
China	_____ %
Australia	_____ %
New Zealand	_____ %
Other Asia & Oceania	_____ %

Employment

16. What was the number of your organisation’s UK-based space-related employees* in these financial years?**

Please provide an approximation if actual data is unavailable.

* 'Space-related employees' = employees involved in all activities which you selected in Q.1 'Space-related activities'.

** If 2020/21 data is unavailable, please provide an estimate/forecast instead.

Annual

2018/19:	_____
2019/20:	_____
2020/21 e**:	_____

Quarterly (if available)

2021 Q1	_____
2021 Q2	_____
2021 Q3	_____

17. In the most recent year available, what proportion (%) of your organisation’s UK- based space-related employees are:

Please provide an approximation if actual data is unavailable. For UK-EU dual nationals, please record as a UK national.

	<u>% (sum=100%)</u>
UK nationals	_____ %
EU nationals	_____ %
Other nationals	_____ %



18. In the most recent year available, what proportion (%) of your organisation’s UK- based *space-related* employees identify as:

Please provide an approximation if actual data is unavailable.

	<u>% (sum=100%)</u>
Female	_____ %
Male	_____ %
Other (incl. non-binary)	_____ %

Space-related employees by site

19. Please provide location details of all your UK sites which are involved in *space-related* activities and the percentage of UK-based *space-related* employees employed in each site in the most recent year available.

Please provide an approximation if actual data is unavailable. For remote employees, assign to facility with which they are primarily associated.

The Economic Development Body (EDB) regions are available to pick from the below list. Where possible please assume staff are attached to an office/location even if working substantially remotely. In the instance that staff cannot be allocated to an office/location please pick ‘remote – not associated with a facility’ from the list.

<u>Region</u>	<u>% of all space-related employees</u>
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %

Region list consists of the following Economic Development Body regions:

Black Country	Liverpool City Region
Buckinghamshire Thames Valley	London
Cheshire and Warrington	New Anglia
Coast to Capital	North Eastern
Cornwall and the Isles of Scilly	Northamptonshire
Coventry and Warwickshire	Northern Ireland
Cumbria	Oxfordshire LEP



Derby, Derbyshire, Nottingham and Nottinghamshire	Scottish Enterprise
Dorset	Sheffield City Region
Enterprise M3	Solent
Gloucestershire	South East
Greater Birmingham and Solihull	South East Midlands
Greater Cambridge & Greater Peterborough	South of Scotland Enterprise
Greater Lincolnshire	Stoke-on-Trent and Staffordshire
Greater Manchester	Swindon and Wiltshire
Heart of the South West	Tees Valley
Hertfordshire	Thames Valley Berkshire
Highlands and Islands	The Marches
Humber	Wales
Lancashire	West of England
Leeds City Region	Worcestershire
Leicester and Leicestershire	York and North Yorkshire
	Remote

Any other UK locations and percentage of *space-related* employees:

Research and Development

20. Are you an academic organisation?

- Yes
- No

If academic organisation, then the survey only asks questions 24-27 in this section, otherwise both sets of questions are asked



21. Please estimate your organisation's total expenditure on research & development (R&D) (including own/internal and external sources of funding) for these financial years.

Please provide an approximation if actual data is unavailable.

Please indicate the level of expenditure in £m.

** If 2020/21 data is unavailable, please provide an estimate/forecast instead.

	<u>Expenditure (£m)</u>
<u>Annual</u>	
2018/19:	£ _____
2019/20:	£ _____
2020/21 e**:	£ _____
<u>Quarterly (if available)</u>	
2021 Q1	£ _____
2021 Q2	£ _____
2021 Q3	£ _____

22. What percentage of this total R&D spend is space-related*?

Please provide an approximation if actual data is unavailable.

'Space-related R&D' is the combination of total expenditure on R&D and the percentage on space-related R&D.

** If 2019/20 data is unavailable, please provide an estimate/forecast instead.

	<u>% (sum=100%)</u>
<u>Annual</u>	
2018/19:	_____ %
2019/20:	_____ %
2020/21 e**:	_____ %
<u>Quarterly (if available)</u>	
2021 Q1	_____ %
2021 Q2	_____ %
2021 Q3	_____ %



23. Please estimate the percentage breakdown of total space-related R&D* by internal and external funding for these financial years.

Provide an approximation if actual data is unavailable. The total for each financial year should equal 100%.

*'Space-related R&D' is the combination of total expenditure on R&D and the percentage spent on space-related R&D.

** If 2020/21 data is unavailable, please provide an estimate/forecast instead.

	2018/19	2019/20	2020/21 e**
Internal Funding (e.g., matched)	____ %	____ %	____ %
External Funding (e.g., grant)	____ %	____ %	____ %
Total: 100%	Sum=100%	Sum=100%	Sum=100%

If academic organisation, then ask these questions only:

24. Please indicate the approximate number of space-related inventions (whether protected or not) your organization has produced within the last year.

25. Please indicate the approximate number of space-related patents that your organization registered within the last year.

26. Is your organisation involved in commercializing products which were originally supported by public sector funding for space-related activities?

- Yes
- No

27. If yes, please indicate the amount of revenue you have received for this activity over the last year.



Staff Education, Training and Skills

28. Please estimate the percentage breakdown of employees by the highest qualification obtained in the most recent year available.

Provide an approximation if actual data is unavailable.

	<u>% (sum=100%)</u>
Master's degree or above (incl. PhD)	_____ %
Bachelor's degree	_____ %
Vocational qualification (HND/HNC)	_____ %
Other qualification	_____ %

29. Please estimate the percentage breakdown of employees by the highest qualification obtained in the most recent year available.

Please provide an approximation if actual data is unavailable.

Apprentices	_____
Graduate Trainees	_____



General

30. Compared to performance in the last 3 years, please estimate how your organisation is likely to perform over the next 3 years.

Please select one response per row.

	Much lower (>10%)	Slightly lower (<10%)	About the same	Slightly higher (<10%)	Much higher (>10%)	N/A
Income	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
R&D spending	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please comment on factors influencing your forecasts (e.g., COVID, EU exit, other):

31. Has the UK spaceflight programme (defined as the spaceport, linked launch service providers, and launches occurring in the UK) positively impacted your revenue in the past 12 months?

- Yes
- No

32. If you answered yes for the above question, which of the below options represent how the Spaceflight programme has helped enhance your revenue (tick all that apply). If you answered no, please skip this question.

- Increased business coming from the SUPPLY of launch - Increased business with launch service providers, spaceports, or the supply chain which supports UK launch activity.
- UK launch has led to increased foreign and domestic investment opportunities resulting in increased business and/or additional business opportunities
- Increased business coming from the DEMAND for UK launch- increased business has been realized from foreign and domestic clients for UK launch, which also purchase other space goods/services from UK institutions to support their launch activities
- Benefits to UK users of UK launch (for example satellite manufacturers, launch brokers etc): The ability to utilise UK launch services as a customer has enhanced our business offering



33. If you answered yes to Question 31, approximately what percentage of revenue in the past 12 months was due to the UK Spaceflight Programme/UK launch. Please skip if not applicable.

Please choose from ONE of the options below.

- Low (1-5%)
- Medium (6-10%)
- High (11-15%)
- Other, please provide percentage: _____

34. What are the greatest barriers for you in attracting private investment in the UK Space Sector?

35. What steps should UKSA prioritise to increase private investment in the UK Space Sector?

36. Please tick each of the UN Sustainability Goals that you believe are applicable to the work your organisation undertakes.

- Goal 1 – End poverty in all its forms everywhere
- Goal 2 – End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3 – Ensure healthy lives and promote well-being for all at all ages
- Goal 4 – Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5 – Achieve gender equality and empower all women and girls
- Goal 6 – Ensure availability and sustainable management of water and sanitation for all
- Goal 7 – Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8 – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9 – Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10 – Reduce inequality within and among countries
- Goal 11 – Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12 – Ensure sustainable consumption and production patterns
- Goal 13 – Take urgent action to combat climate change and its impacts*
- Goal 14 – Conserve and sustainably use the oceans, seas and marine resources for sustainable development



- Goal 15 – Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16 – Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17 – Strengthen the means of implementation and revitalize the global partnership for sustainable development

37. Do you estimate your carbon emissions?

- Yes
- No

38. If you estimate your Carbon emissions please answer the following. If not, please skip this question.

What is your estimate for the latest year? _____
How do you estimate? _____

39. Further Contact: Would you be happy to be contacted via email to take part in further engagement hosted by the UK Research and Innovation Infrastructure Team, and UK Space Agency Local Growth Team and for your information to be shared for this purpose?

- Yes
- No

UK Research and Innovation, and the UK Space Agency, will use this information to improve understanding of existing and planned UK space sector research, development, and innovation infrastructure, as well as future needs. For the purpose of this question, we define research, development, and innovation infrastructure as facilities, resources, and services used by the research and innovation communities to conduct research and foster innovation in their fields.

General

If you have any additional comments relevant to this study, please provide them below: