

Make informed decisions about your career path by learning about key labour market sectors in Cornwall & the Isles of Scilly

# THE SPACE AND DATA

SECTOR IN CORNWALL & THE ISLES OF SCILLY





## Introduction

The space and data industry is concerned with the manufacture and use of spacecraft, satellites and other components that go into Earth's orbit or beyond. It is also concerned with the analysis and use of data gathered from space, including data about the earth viewed from space. This is why we refer to it as the 'space and data' sector.

The space and data sector is at the cutting edge of Cornwall & the Isles of Scilly's economy. There has been massive investment in this future facing industry meaning that it is likely to continue to grow over the next decade. The UK plans to have 10% of the £400bn global space market by 2030. Cornwall & the Isles of Scilly is playing a vital role in this with a particular focus on support for startups and new players in the sector.

The establishment of Spaceport Cornwall provides a focus for this sector in Cornwall, but it is just the tip of the iceberg with key investment also going into less visible areas like the development of the area's capacity to manage and utilise big data. The Cornwall Space Cluster brings together 157 industry partners with 10 academic and educational institutions and 9 government departments. The space and data sector includes opportunities in everything from space and aerospace engineering, computer programming and data analysis to a wide range of associated technical, administrative, business and service roles.

The space and data sector in CloS is small but growing rapidly. It is strongly linked to the larger aerospace sector which is centred around Cornwall Airport Newquay and the Aerohub Enterprise Zone. Goonhilly Earth station is the UK's Space Communications Gateway and a recognised centre of excellence in Communications Engineering, Teleport Services, R&D and Manufacturing. Goonhilly is also working with partners to plan a privately funded mission to the Moon, providing communication relay and navigation services to other lunar missions.

The intention is to continue to scale up the sector, but for that the area will need to grow the level of knowledge and experience. The strategy is to develop, attract and retain scientists, software and technology developers, engineers and entrepreneurs.

Closely aligned to the space sector is the development of new technologies and approaches to capture, manage and make use of big data. But of course, big data has much broader implications for wider social and economic life. The growth of companies engaged with big data is a key strategic priority for the area. This is expected to create demand for a range of new jobs including data engineers, analyst and architects and a range of roles associated with data security.

**THE UK PLANS TO  
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# Current outlook

Space and data is a small, but growing sector in CloS. It is a sector which attracts highly skilled people and which rewards them well for their skills.

## Salaries in the space and data sector

| Occupation Title              | Median Salary (UK-wide) |
|-------------------------------|-------------------------|
| Management                    | £66,000                 |
| Sales                         | £60,000                 |
| Policy                        | £50,000                 |
| Engineering                   | £48,000                 |
| Computing                     | £43,000                 |
| Science                       | £38,000                 |
| Education                     | £37,000                 |
| Administration                | £37,000                 |
| Sector average                | £49,000                 |
| Regional average (South West) | £50,000                 |

Data from the Space Skills Alliance (<https://spaceskills.org/census-pay>)

## Jobs

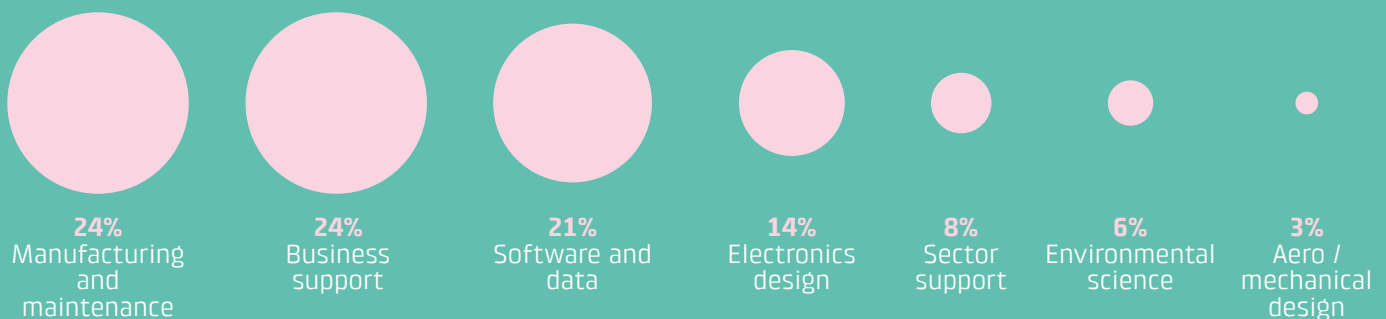
46,995 people are employed in the space industry across the UK with 2,476 in the South West.<sup>1</sup> The Cornwall Space Cluster estimate that there are currently over 1000 people employed in Cornwall in the space and digital sector.

Types of Jobs in the Data and Space sector include

- Aerodynamicist
- Data analyst
- Astro ecologist
- Astrobiologist
- Astrochemist
- Astronaut
- Astrophotographer
- Astrophysicist
- Astronomer
- Business analyst
- Data scientist
- Disaster response co-ordinator
- Earth observation scientist
- Engineers
- Entrepreneur
- Geodesist
- Insurer
- Lecture
- Meteorologist
- Navigational scientist
- Oceanographer
- Planetary scientist
- Policy maker
- Project manager
- Researcher
- Science communicator
- Space lawyer
- Space medical professional
- Space psychologist
- Spacecraft operator
- Technician

## Demand

The space and data sector includes many highly skilled and often unusual roles. Because of this, candidates who have relevant skills and qualifications often find that they are highly in demand.



Data from: Space Skills Alliance. (2022). *Cornwall space skills opportunity report*.

## Employers

The UK Space Agency estimates that there are over 200 employers engaged in the space sector across the South West.

Key employers in the space and data sector in Cornwall include:

- 3DMSI
- 4 Earth Intelligence
- Aspia Space
- Avanti Communications
- Blue Abyss
- Cornwall Airport Newquay
- D-Orbit
- Data duopoly
- Exobotics
- Flann Microwave
- Goonhilly Earth Station
- Satellite applications catapult
- Space Engine Systems
- SpaceChain
- Spaceport Cornwall
- Virgin Orbit

<sup>1</sup> UK Space Agency, <https://www.gov.uk/government/publications/the-size-and-health-of-the-uk-space-industry-2021/size-and-health-of-the-uk-space-industry-2021-lowcarbonandrenewableenergyeconomyfirstestimatesdataset>

## Skills



**76%**

of space industry employers report that they have been unable to recruit staff with the necessary skills.\*

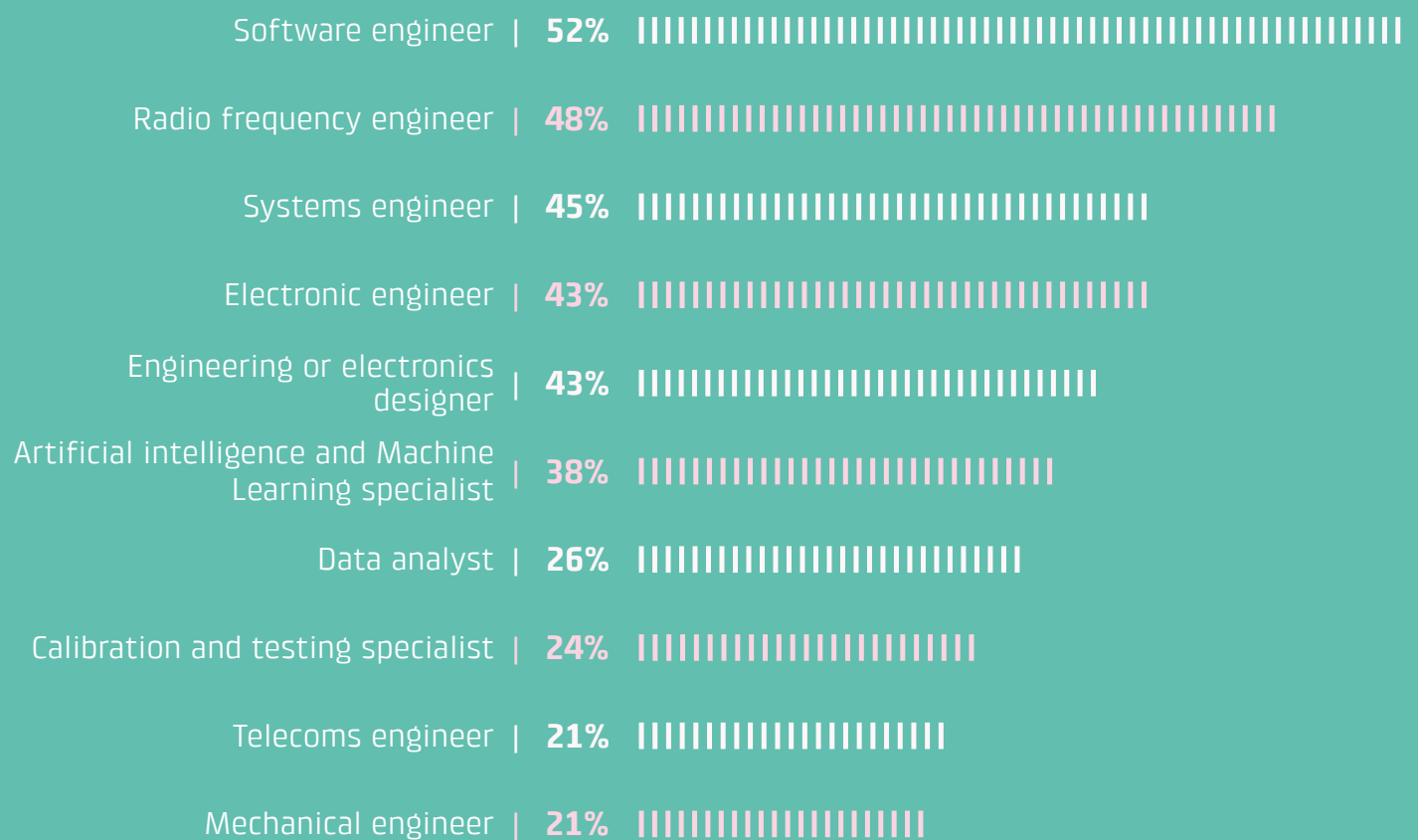


**86%**

of space industry employers recruit staff with transferable skills from other sectors.\*



## Proportion of businesses reporting skills gaps by skill



There are around 78 space related further education courses available at Cornwall College and Truro and Penwith College. A further 134 space related higher education courses are available in and around Cornwall in areas such as geography and geospace, computer science, engineering, business and science.

Data from: UK Space Agency, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/964639/BMG\\_2081\\_UKSA\\_Space\\_Sector\\_Skills\\_Survey\\_2020\\_Report\\_V1.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/964639/BMG_2081_UKSA_Space_Sector_Skills_Survey_2020_Report_V1.pdf)

\* [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/964639/BMG\\_2081\\_UKSA\\_Space\\_Sector\\_Skills\\_Survey\\_2020\\_Report\\_V1.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/964639/BMG_2081_UKSA_Space_Sector_Skills_Survey_2020_Report_V1.pdf)



## Future outlook

By 2030 Cornwall & the Isles of Scilly plan to be a regional leader in the national space programme. The Local Enterprise Partnership anticipate that the space and data sector will have contributed to an additional £1bn of economic value for the area through increased productivity, jobs and turnover.

Since 2000/01 employment in the space industry has more than tripled, with an annual growth rate of 6%. It is expected to continue to grow as a sector over the next decades. Employers generally report finding it challenging to find the skills that they need. However, the most in demand roles in the space and data sector require high levels of training and are typically at technical, associate professional or professional level.

The Cornwall Space Cluster anticipate that by 2030 over 4000 people will be employed in this sector in Cornwall (over 2% of the labour market).

### Automation

Automation and artificial intelligence are already a major part of the space and data industry. In many ways this sector can be seen as a pioneering sector in relation to the integration of automation into its operations.

Despite the strong level of engagement with automation, the space and data sector is expected to grow and to employ more people in the future. Most of these jobs are likely to be in the more highly skilled end of the sector and will involved working closely with AI and forms of automation.

## For further support:

**Careers in Space** <https://www.careersin.space>

**Cornwall Space Cluster** <https://www.cornwallspacecluster.co.uk/careers>

**Space Careers** <https://spacecareers.uk>

**Space Education** <https://nextstepssw.ac.uk/resources/space-education>

**Space Individuals** <https://spaceindividuals.com>

**Space Skills Alliance** <https://spaceskills.org>

**Spaceport Cornwall** <https://spaceportcornwall.com>

Contact the Cornwall & Isles of Scilly People Hub, they can help if you are:

- unemployed and wondering what options are open to you
- out of work and looking to retrain or develop new skills
- recently redundant and want to get back into work or training

**Call - 0333 0150699** (Monday–Friday, 9am–4pm)

**Visit – [www.peoplehub.info](http://www.peoplehub.info)**

**Email – [hello@peoplehub.info](mailto:hello@peoplehub.info)**

The National Careers Service provides free careers advice and guidance to individuals from the age of 14. Visit 'Get the Jump' for 14-19 year olds and the National Careers Service website for adults.

**Get the Jump: explore your education and training choices | National Careers Service** (<https://nationalcareers.service.gov.uk/explore-your-education-and-training-choices>)

**Careers advice - job profiles, information and resources | National Careers Service** (<https://nationalcareers.service.gov.uk>)