

# Space Sector: Exploring New Horizons

Home to the iconic satellite dishes of Goonhilly Earth Station, Cornwall is ideally positioned as a launch pad to explore exciting new horizons, as part of the UK's growing Space sector.

From our heritage and future as a globally recognised communications hub, to our surging tech industries and rapidly expanding Aerospace sector, now's the time to make the most of what Cornwall has to offer.

Over the next 10 years we want to help Cornwall's Space Sector businesses connect, collaborate, incubate and excel with access to the skills development they need, when they need it.

And the mission starts here.

## Ground Zero

The Space sector is booming. With the global market expected to grow to \$400bn by 2020 and \$600bn by 2030, the Space sector is "an engine of economic growth" (OCED report, 2011).

### Global Space Sector: The Facts

- \$200bn annual turnover
- Global market expected to double by 2020 and treble by 2030

### UK Space Sector: The Facts

- £9bn annual turnover – targeted for significant growth
- 70,000 workforce
- 50% higher salaries than UK average

The UK's Space sector too, is on an upward trajectory – with an estimated current annual turnover of £9bn and rising. Government strategy is to capture 10% of the global market by 2030, with a target of 100,000 new jobs. There's astronomical potential for growth, for those with the vision to get onboard.

While Space sector activity in Cornwall is limited right now, Cornwall's ambitions and current programmes have significant resonance and important synergies with the Space sector's core technologies – including satellite communications, advanced avionics engineering, advanced composites, robotics and advanced software engineering.

In the Space sector, even the smallest regions can carve out a significant niche, as the Isle of Man has shown.



Growth depends on advanced engineering and manufacturing, software engineering and telecommunications. With established players such as Goonhilly Earth Station, GCHQ Bude, Avanti, and GES Limited alongside specialised high tech firms, centres of learning like Penryn campus, and strengths in related sectors like software design, marine sciences and advanced manufacturing, Cornwall's poised to take a giant leap into the future.

## Preparing for Lift Off

To boost our share and position ourselves as an essential element of the Government's growth strategy, Cornwall needs to establish a mechanism to develop and maintain strong links with the main stakeholders and funders in the wider Space sector.

*"The Space Sector could represent £15bn in turnover for the UK in satellite business alone by 2020."*

We'll need to develop Cornwall's presence in the sector by securing the future of Goonhilly Earth Station as one of the country's key space centres and by developing the potential of centres of education and enterprise such as Penryn and the Aerohub.

We'll need more skills, from reinforced STEM subjects and new advanced engineering courses, to enhanced IAG (Information, Advice and Guidance) education for high tech sectors, as well as courses to promote excellent operational, financial, marketing and managerial skills.

Extended lead-in times on space-related activities mean we'll need to get initiatives for an overall Cornwall high-technology drive off the ground fast, for maximum impact.

### New Frontiers

Connections. Awareness. Support. Cornwall's Space Sector depends on being able to develop strong links with UK and European space stakeholders and funding bodies, playing to our existing strengths and seeking to attract new high-tech activities to the region.

*"The development of the Space sector in Cornwall depends on us playing to our existing strengths and seeking to attract new high-tech activities to the region."*

To make this happen, there are a number of recommended steps we can take.

We should establish an executive group to support Cornish companies in engaging with the Space sector and its stakeholders.

We should develop educational and enterprise facilities at Penryn campus, the Aerohub and Goonhilly to establish a tripartite hub and develop an incubator strategy to offer a focus for space-related activities in Cornwall.

Space deploys high technologies to high value-added activities, which have the potential to add quickly to Cornwall's existing strengths in telecoms, software development, marine engineering and its ambitions in the health and life sciences sector. Establishing a central hub will help everyone discover, explore, learn and make more of the potential for development in the Space industry.

**To get started, we need to focus on four specific areas:**

- **Strengths:** by building on Cornwall's existing strengths in telecommunications, advanced engineering, software engineering maintenance and Unmanned Aerial Systems (including space-planes, engines, avionics and electronics) industries, we'll propel the region into prime position.
- **Opportunities:** by matching our existing strengths and skills to market opportunities in earth observation, navigation, precision farming, space science, traffic management, real time data and location-based services, e-commerce, e-working and telemedicine we'll help Cornwall to carve out its niche.
- **Connections:** by cultivating strong links with funding bodies like Horizon 2020, CEOI-ST (Centre for Earth Observation Instrumentation), National Space Technology Programme and National Space Applications Programme, we'll enable Cornwall to navigate a successful course into the heart of the sector.
- **Skills:** by supporting STEM development activities in schools, forging connections with established space academic centres and developing an educational and enterprise hub, we'll encourage young people to gain the skills required to rocket their Space careers into orbit.

### What's Next?

By maximising the potential of existing facilities, fostering and encouraging new skills and connecting with leading academic and commercial organisations, we can supercharge Cornwall's growth and see its Space sector ambition take off.

This isn't about complicated technology, overwhelming resources or impenetrable reports. It's about bringing businesses together and helping them reach higher by collaborating, building their skills and sharing their insights.

Let's work together to put Cornwall on the Space map.

**Find out more about the thinking behind this Skills Action Plan and read the full report by visiting <http://www.cornwallandislesofscillylep.com/employment-and-skills.html>**