

The 'New Space Economy' how can the UK seize the opportunity of space technologies

techUK is the trade association for the technology sector in the UK. Our over-1000 members, the majority of which are UK-based SMEs, are based around the United Kingdom. Our members employ 1.1 million people across the UK, with a turnover of £329bn in 2023 and an estimated annual growth rate of 10%.

We have prepared this briefing to help Prospective Parliamentary Candidates understand key issues for the UK technology sector, what can be done to tackle these issues and the benefits of doing so .

This briefing draws upon:

- Our [Emerging Space Technology Industry Perspective Report](#)

More briefings, both from techUK and our members, can be found on our online briefing hub.

How is the space economy changing?

Whilst space was once the domain of a handful of Governments, recent technological advances have significantly improved the ability of a wide range of organisations to access, utilise, and transform the space environment. The aggregation of this increased commercial activity and its reduced dependence upon public sector funding is referred to as the 'New Space Economy'.

Not since the invention of the Internet has industry been presented with such a potentially transformative opportunity to create, re-shape and re-define entire industries, both on Earth and in space.

According to PwC and the UK Space Agency (UKSA), the global space ecosystem is forecast to grow by up to 11% per year to 2030. The UK Government aims to become Europe's leading space nation by this date.

How is the UK benefiting from space technologies and what are the opportunities for the future?

As of 2020/21, the UK's space industry directly contributed £7 billion of GVA to economic output (0.34% of GDP) and had a total GVA effect of £18.3 billion. The UK space industry growth (+5.1%) outpaced the growth of the global space industry (+1.6%) and continued throughout the pandemic.

The UK's space industry comprises 1,590 organisations, directly employs 48,800 people and indirectly employs a further 126,800 across the supply chain. The UK space industry workforce is particularly highly-skilled, with over 3 in 4 (77%) employees holding at least a primary degree – higher than any sector in the ONS Census.

All UK regions/nations are home to headquarters of space organisations, though industrial sites (and employment) are concentrated in London, the South East, South West & East of England, and Scotland. The industry is concentrated and dominated by a few large organisations, with just 14 organisations accounting for 81% of total space income, 148 for the next 13% and 1,428 for the remaining 6%. These include Airbus Defence and Space (with bases in Stevenage, Portsmouth, Bristol, Newcastle, Guildford, Chester and Leicester), Thales Alenia Space UK (bases in Reading and Crawley), and Inmarsat (based in Shoreditch, London).

With Research & Development (R&D) investment of £788 million (down 6% since 2019/20, equivalent to 11% of GVA), **the space industry is more than 5 times more R&D intensive than the UK average.**

According to responses to the UKSA's 'Size & Health of the UK Space Industry 2022' survey, **economic uncertainty was the most prevalent obstacle to commercial success (51%) in the next 3 years, followed by limitations on EU programme involvement (49%) and recruiting staff (46%).** More funding is forecast to flow into British space ventures, with total private investment having risen at a remarkable 21% annual rate over the past few years.

What will determine the UK's success in the New Space Economy ?

There are 6 enablers the UK needs to truly seize the opportunities and take the lead in the New Space Economy. These enablers are:

1. Encouraging more non-space companies to develop emerging space technologies

The next Government should ensure Space Clusters (groups of companies involved in space) are well equipped to enable a growing number of non-space companies to identify, develop, and exploit cross-sector opportunities - Whilst these already enable cross-sector opportunities by engaging non-space sectors such as health and agri-tech, this function will only become more important and resource dependent as the New Space Economy brings additional industries into the umbrella of the space sector. Such support could take the form of a long-term funding settlement to scale the services provided by Space Clusters gradually, predictably, and ultimately sustainably.

Organisations in future New Space industries should encourage and support increasing numbers of non-space companies to get involved in the New Space Economy - This should result in the development, application, and commercialisation of a wider range of space-enabled products and services spanning many of the industries set to underpin the New Space Economy. Trade associations in traditionally non-space industries could launch promotional campaigns or the space programmes themselves could allocate additional resources towards establishing more cross-sector partnerships.

2. Streamlining regulation for space products and services

The Civil Aviation Authority (CAA) should continue to streamline its application and review process for space systems - Further accelerating the licensing process, perhaps through reducing documentation requirements, could result in lower deployment times and costs for

businesses whilst boosting inward investment. The overhaul of the CAA's Space regulation website in November 2023 and Ofcom's efforts to advance engagement with industry is a positive start.

3. Tackling the skills gap by improving domestic and international recruitment

The next Government must commit to introducing a Space Workforce Action Plan and ensure that space and non-space companies can continue to shape - This is essential if the plan's focus is to evolve alongside the emerging technologies and industries set to underpin the New Space Economy. Government could equip the Space Skills Advisory Panel with the power to continually review the plan or commit every few years to hold additional industry workshops and update the plan to retain talent in the space industry.

The next Government should look to reduce the cost and complexity of visa applications by promoting and expanding existing visas - This would address the two main barriers to the recruitment of international talent in the space sector. Alternative visas to promote include the UK Graduate visa, High Potential visa, and Youth Mobility visa, whilst the next Government should expand the eligibility criteria of the last two to a much wider range of universities and countries.

4. Building a more varied and mature space finance ecosystem

The next Government should look to diversify the space funding landscape by shaping new financial initiatives, reforms, and support packages with the space sector in mind -

Creating a more competitive space finance landscape should improve the terms behind funding, helping space companies to scale and reducing their propensity to relocate abroad. The next Government should continue to pursue the implementation of the Venture Capital Framework for Space and the Mansion House reforms in full consultation with industry whilst shaping the scale-up support package to address the funding concerns of innovative small and medium-sized space companies.

The next Government should consolidate its space-related purchasing, particularly in Earth Observation data, before passing any benefits onto industry - Making Earth Observation data centrally available would provide industry with access to cutting-edge capabilities years sooner than otherwise. Doing so should stimulate the market by taking advantage of the Government's economies of scale, across multiple departments, to support small UK space businesses and startups. This should improve scalability and the UK's ability to shape then capture a significant proportion of the value that is expected to be generated through the emergence of the New Space Economy.

5. Championing space sustainability through early involvement and adoption

Space and non-space companies should take advantage of the UK's leadership in space sustainability by getting involved early in Government's technology development schemes, dedicated space technology facilities, and nascent international initiatives -

Doing so will enable them to access time-limited resources, iterate their products and services in a lower risk environment, and exploit the commercial opportunities created by a growing UK-led international consensus around space sustainability, regardless of whether they would traditionally call themselves a 'space company'. Small businesses should work through

organisations such as UKSA, techUK, UKspace, Satellite Applications Catapult, and collaborative clusters of space companies to aggregate activity and amplify impact.

The next Government should continue and expand the scope and duration of the ‘Unlocking Space for Business’ programme to better align it with the sustainability requirements of the New Space Economy - Doing so should ensure a dependable and long term offer of support for companies utilising emerging technologies to drive more sustainable outcomes across many of the key industries that are set to underpin the New Space Economy. This could involve widening the programme’s scope outside the Financial Services and Transport & Logistics sectors and extending its duration to well beyond March 2025. The sustainability implications of such a policy could be significant, as demonstrated by the estimated carbon dioxide savings enabled through the enhanced use of satellite communications, satellite navigation, and Internet of Things (IoT) technologies.

6. Leveraging international space partnerships to influence trade policies covering emerging space technologies

Recommendation: The next Government should push for the inclusion of innovation chapters and negative list systems in future trade deals covering emerging space technologies - Through leveraging international space partnerships such as the UK-Australia Space Bridge, the UK can turn consensus into tangible trade benefits. The inclusion of innovation chapters in Free Trade Agreements would facilitate cooperation around the trade of emerging space technologies whilst the addition of negative list systems would then shield these technologies from international tariffs unless explicitly added by a country to a list. This would pave the way for greater international cooperation around emerging space technologies and reduce the risks faced by the UK companies developing these.

How can I learn more?

If you would like to know more about how the UK can lead in the New Space Economy, you can read our [Emerging Space Technology Industry Perspective Report](#).

techUK can also arrange a call with yourself and our policy managers so we can brief you on this topic in more detail. If this would be of benefit to you, please contact archie.breare@techuk.org and alice.campbell@techuk.org.

techUK is also able to arrange a meeting between yourself and a member company of ours who has premises in your constituency if possible. This would provide you with a photo opportunity and allow you to discuss the importance of this issue further with a company operating in your constituency.