

**PE1746/C**

Scottish Government submission of 7 November 2019

## **Scottish Government response to the petition**

The Scottish Government supports the petitioner's view that the space sector represents a great opportunity for Scotland. The latest (2018) UK Space Agency (UKSA) Health report<sup>1</sup> put the sector's global value at £400bn by 2030. UKSA is aiming for the UK to achieve 10% of this global share and is actively building capability to achieve that through the emerging Space Sector Deal.

Space has been identified as a key priority in the Scottish Government's Programme for Government in which we have set out our ambitions for Scotland to have £4 billion of the global space market by 2030 and become the first country in Europe to provide an end-to-end solution for small satellite manufacture, launch and innovation in satellite data analysis, including critical earth observation and environmental data. However, the Scottish Government does not consider that the creation of a non-departmental body (NDPB) is the best, or correct, way to ensure that Scotland fulfils its full space sector potential for a number of reasons.

We have a strong system of existing organisations and structures already in place to support the effective development of the space sector in Scotland, with great progress having been made.

The latest UK Space Industry 2018 report shows that Scotland already punches well above its weight in the space sector. The report shows the sector in Scotland has seen an increase in employment of almost 10% since the previous report and Scotland is now home to almost one fifth of all UK space sector jobs. The total workforce employed by the sector in Scotland is considerably higher than that of the UK, with 0.29% of the total workforce in Scotland compared with 0.13% across the UK as a whole.

Scotland has become an increasingly attractive destination for space sector organisations as a base of operations. The latest figures show an increase of over 25% in the number of businesses situated in Scotland and almost double the number of organisations are headquartered in Scotland than Wales and Northern Ireland combined. The space sector in Scotland has increased its annual income by almost 7% to £140m, with great potential for future growth.

Underpinning this growth is a strong system of support from both public and private sector partnerships. The Scottish Space Leadership Council (SSLC) brings together a community of Scottish businesses with an involvement in Industrial/Commercial Space and is leading on the development of the sectoral opportunity for Scotland. SSLC membership includes public, private and academic partners who have come together with the aim to increase business opportunities, efficiencies, effectiveness and economic impact through collaboration, partnering and mutual support, and whose role is firmly business-based.

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<sup>1</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/774450/LE-SHUKSI\\_2018-SUMMARY\\_REPORT-FINAL-Issue4-S2C250119.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/774450/LE-SHUKSI_2018-SUMMARY_REPORT-FINAL-Issue4-S2C250119.pdf)

Scottish Enterprise (SE) is Scotland's national economic development agency and are committed to growing the Scottish economy for the benefit of all, helping create more quality jobs and a brighter future for every region. Highlands and Islands Enterprise (HIE) is the economic and community development agency for the North of Scotland, with a remit to support sustainable and inclusive growth across the region. Alongside these agencies we have established the Scottish Government Space Group to ensure a coordinated and strategic approach to the sector which is working in partnership with the SSLC, UKSA and others to support the Scottish aspiration of delivering the full potential of the space sector now and in the future.

As space remains a matter reserved to the UK parliament we are maintaining close working relations with the relevant UK Government department, and particularly working in partnership with UKSA, who have responsibility for all strategic decisions on the UK civil space programme and the regulatory regime around the space sector.

### **Satellite manufacturing**

Scotland is leading in small satellite manufacturing with Glasgow building more small satellites than any other place in Europe. AAC Clyde Space is recognised as a world-class innovator and supplier of small satellite systems and was behind Scotland's first space satellite, UKube-1, launched from Kazakhstan in July 2014. AAC Clyde Space supports circa 40% of all current and past CubeSat missions and its customers have included NASA and UKSA.

Spire Global was the first company in Europe to provide an end-to-end CubeSat development and data service offering. Spire designs, builds, tests, and operates all its satellites in-house. Spire's data services include space-to-cloud analytics that uses nanosatellites to track aviation, maritime, and weather patterns. The First Minister recently announced a £14.7m package of support from Scottish Enterprise for Spire to grow their total employment in Glasgow from 60 to 320 over the next five years.

Alba Orbital is building and launching some of the world's most advanced picosatellites, named PocketQubes, for earth observation and telecoms purposes. Alba Orbital holds contracts with the European Space Agency for the development and manufacture of the Unicorn-1 and Unicorn-2 satellite platforms and was named in 2015 by CNN as one of the top 10 startups to watch.

### **Launch capability**

Scotland is the best location in the UK for launching small satellites, situated in the northern half of the northern hemisphere and therefore well-placed to launch satellites into Lower Earth Orbit (LEO) - launches from Scotland have shorter trajectories, reducing risk and enabling satellites to reach their destination more quickly.

The public sector is already playing a leading role in the delivery of the infrastructure for satellite launch capability. HIE are leading the delivery of Space Hub Sutherland with a £17m funding package in place to deliver vertical launch (including £2.5m from UKSA). South Ayrshire Council are leading the delivery of an £80m package to

support horizontal launch from Prestwick Spaceport through the Ayrshire Growth Deal. Successful delivery of these projects in collaboration with industry will make Scotland the home of European small satellite launch.

As well as this there are a number of other launch projects underway; for vertical launch through Comhairle Eilean Siar's plans for 'Spaceport 1' in the Western Isles, and the Shetland Space Centre (SSC) and for horizontal launch through the Macrihanish Airbase Community Company (MACC).

### **Data analysis and exploitation**

Scotland is the data driven capital of Europe, hosting the largest centre for informatics in Europe and having more than 170 data science companies. Scotland has world class facilities and expertise and through leading university programmes such as Edinburgh University's Data Driven Innovation Programme and Strathclyde University and Glasgow University's Innovation Districts, Scotland is extremely well placed to capitalise on the significant potential associated with downstream data analysis and exploitation. Much of this data will be focussed on monitoring, tracking and solving the fundamental issues of our time such as the climate emergency and includes forest and crop monitoring systems; using space-derived intelligence to monitor global construction; and aiding disaster response. For example, on 25 September 2019 Orbital Micro Systems announced that it had partnered with the Bayes Centre at Edinburgh university to create the International Centre for Earth Data (ICED) and plan to employ 50-60 people within the year.

It is, therefore, the view of the Scottish Government that this sector is developing effectively and that the creation of a new NDPB would distract, duplicate and overlap on much of the existing activity already underway. As such, the Scottish Government does not support the petitioners' view to create a new Scottish space non-departmental public body at this time.