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Briefing for the Public Petitions Committee

Petition Number: PE01746

Main Petitioner: Andrew Paliwoda

Subject: Creation of a Scottish space non-departmental public body

Calls on the Parliament to urge the Scottish Government to create a nondepartmental public body with responsibility for space technology and to work in partnership with other relevant organisations to ensure Scotland's space sector potential is fulfilled.

Background

Scotland has a dynamic and growing space sector, which includes a number of high-tech, high skill and research and development businesses. The space industry in Scotland has over 130 companies, with 7,600 employees - backed by strong relationships with researchers in Scotland's universities. Nearly a fifth of all jobs in the UK space sector are based in Scotland.

A recent report on the size and health of the UK space industry shows that the number of space companies choosing to have their headquarters in Scotland has risen over recent years and now sits at 83.

In July 2018, funding announcements by UK Space Agency (UKSA) and Highlands and Islands Enterprise (HIE) confirmed that the north coast of Sutherland will be the home of the UK's first spaceport. By the early 2020s, it is planned that Scottish-built satellites will be launched from the site. A total funding package of £17.3 million will be invested in the site, including £2.5 million from UKSA and £9.8 million from HIE. It is expected that the project will create 40 highly-skilled jobs in the northern Highlands location, and a total of around 400 new jobs when accounting for wider supply chain developments.

Scotland's enterprise agencies believe that by securing the development of the UK Spaceport in Scotland, the sector now has the opportunity to deliver "transformational growth" for the Scottish economy.

Scotland has a strong standing in space science research, and in aligned areas such as sensors and big data - this is supported by investment in Scotland's innovation centres (eg CENSIS, Data Lab). For example, the work of the University of Glasgow's Institute for Gravitational Research and the Science and Technology Facilities Council's UK Astronomy Technology

Centre (UK ATC) in Edinburgh, will develop the optical benches for the <u>European Space Agency's LISA mission</u> (Laser Interferometer Space Antenna). These optical benches are at the core of the laser interferometry measurement system, the key technology needed to detect gravitational waves.

Scotland's Space Sector is not a single entity, but rather "a number of pillars" (according to Scottish Enterprise) often operating within existing industrial areas, such as aerospace, electronics, materials, manufacturing and software. Opportunity areas for Scotland include:

- **Scottish small satellite industry**: the design, development, prototyping, manufacture, test, certification and operation of small satellites, with a supply chain supporting the satellite sector.
- **Scottish launch services**: launch services for the Scottish space industry and businesses.
- **Scottish launch vehicles**: the design, development, manufacture, test, certification and operation of a Scottish launch vehicle capable of orbital entry and space operation.
- New Applications: research, design, development and manufacture of technologies, systems and services as part of an overall growth in Space (both upstream and downstream¹) – including energy production, zero-G manufacture, habitats and asteroid prospecting.

UK Government role

Petition <u>PE1746</u> recognises that many areas related to the space industry are reserved to the UK Government. For example, <u>the UK Space Agency</u> is the executive agency, sponsored by the Department for Business, Energy and Industrial Strategy, responsible for all strategic decisions on the UK civil space programme. It aims to "provide a clear, single voice for UK space ambitions". As such, the Agency was set up to:

- co-ordinate UK civil space activity
- encourage academic research
- support the UK space industry
- raise the profile of UK space activities at home and abroad
- increase understanding of space science and its practical benefits
- inspire our next generation of UK scientists and engineers
- licence the launch and operation of UK spacecraft
- promote co-operation and participation in the European Space programme.

¹ Upstream work is focused on sending objects into space and space exploration, while downstream utilises the research and technology from upstream in a range of different applications. Downstream is where greatest growth in the sector comes from and where the greatest number of opportunities are (see Edinburgh University's definitions).

It is also worth noting that the UK Government's <u>recently published Industrial</u> <u>Strategy</u> includes an aspiration "to grow the UK's share of the global space market from 6.5% to 10% by 2030". Related to the Strategy, the UK Government created a sector-specific partnerships with industry – known as a Sector Deal - aimed at boosting productivity, employment, innovation and skills in <u>the UK's aerospace industry</u>.

Scottish Government Action

The Scottish Government's Minister for Trade, Investment and Innovation <u>during a recent debate</u> mentioned various policies supporting Scotland's space industry. These include:

- The establishment of the national manufacturing institute for Scotland;
- Support for Scotland's universities;
- Scotland's enterprise agencies (currently Scottish Enterprise and Highlands and Islands Enterprise);
- Involvement in the Scottish Space Leadership Council (see below);
- Participating and co-funding the Ayrshire Growth Deal, which includes support for the aerospace industry.

Scotland's enterprise agencies have experts and account managers working with many companies in the space sector. Support includes advice, grants, training programmes and various events.

The Scottish Government, Scottish Enterprise and Highlands and Islands Enterprise are partners of the Scottish Space Leadership Council (SSLC). The SSLC, an industry-led group, has the following aims and aspirations:

- **Aims:** To form a community of Scottish Businesses with an involvement in Industrial/Commercial Space to increase business opportunities, efficiencies, effectiveness and economic impact through collaboration, partnering and mutual support.
- Aspirations: To raise the profile of Scotland and to become a leading global destination for those wishing to access space and space services or to locate or establish their businesses in an environment supportive to the growth and success of Industrial Space businesses. To work collectively and with partners such as the investment community, academia and Government to enable such an environment.

Scottish Parliament Action

A Scottish Government <u>debate was held in Parliament</u> on the 14th March 2019. MSPs debated and agreed the following motion:

"That the Parliament welcomes the rapid growth of the Scottish space sector: notes that it now accounts for 18% of all jobs in the UK space industry: encourages investment in support of the ambition to deliver a full end-to-end space sector capability in Scotland, to build, launch and operate satellites; agrees that now is the time to take advantage of the strengths that Scotland has in technology, engineering and data science to realise this ambition; further agrees that Scotland's clear strengths in small satellite manufacturing and space data are starting points for success, laying the foundations for Scotland to become Europe's leading space nation, and considers that this success will be enhanced by Scotland's plan to become the site of the first spaceport in Europe; welcomes both the Space Industry Act 2018 and the UK Government's Industrial Strategy, which includes support for a £50 million programme to support small satellite launches and sub-orbital flight from UK spaceports; notes the crucial diversification to the Scottish economy that the space sector provides; considers that future commercial viability will be dependent on the European small satellite launch on demand service, and notes the comparative advantage that Scotland enjoys for spaceport location by providing access to sunsynchronous and polar orbits."

Non-Departmental Public Bodies

The main ask of the petition is for the Scottish Government to create a new Non-Departmental Public Body (NDPB) tasked with growing Scotland's space sector.

It is possible that the petitioner has in mind a new *executive* NDPB – such as Scottish Enterprise or Scottish Funding Council. This type of body carries out administrative, commercial, executive or regulatory functions on behalf of the Government. They are normally established by statute; they employ their own staff, who are not civil servants, and manage their own budgets; and are accountable to a board whose members are normally appointed by Ministers.

Alternatively, the petitioner may favour an *advisory* NDPB. These provide expert advice to Ministers and others, or input into the policy-making process in relation to a particular subject. They do not usually require legislation in order to operate and they tend to be accountable to a board whose members are appointed by Ministers.

There are <u>44 NDPBs</u> carrying out administrative, commercial, executive, advisory or regulatory functions on behalf of the Scottish Government, ranging from the Care Inspectorate to VisitScotland.

Greig Liddell Senior Researcher 19 August 2019

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