

Supplementary written evidence submitted by the Secretary of State for Business, Energy & Industrial Strategy, Department for Business, Energy and Industrial Strategy (SPA0102)

Following the evidence session held by the Science and Technology Select Committee on 9 February 2022, I would like to provide an update to the Committee on work my Department is undertaking to tackle the cross-sectors skills shortage.

BEIS is working closely with Department for Education to ensure the skills system considers employers' needs, to improve the supply of skills, and encourage businesses to take a stronger role in providing skills and training to their workforce.

Space skills

The National Space Strategy of September 2021 plans to build one of the most innovative and attractive space economies in the world. The strategy seeks to capitalise on major opportunities and build on the UK's unique strengths.

The Strategy commits to upskilling and inspiring our future workforce. To deliver on this ambition, we will partner with employers to help more young people gain access to work placements and apprenticeships in rewarding careers such as space engineering and space systems.

The Strategy envisions more national and international missions to help develop and retain skilled graduates. Availability and retention of skilled workers is needed for the growth of the UK space sector and the government recognises that employers need to be able to recruit and train more staff if our space sector is to thrive.

Skills issues across the space sector are well documented and affect all levels of seniority within the sector. There are several ways that this skills gap can start to close. The sector, the government, and civil society organisations need to work together to encourage children to choose Science, Technology, Engineering, and Mathematics (STEM) subjects, to inform students and young people about opportunities in the space sector and to tackle perceptions about working in the sector, for instance, that you have to have a PhD or be from a certain background to succeed. Other sectors also share this challenge, including Geospatial Data Analytics, Artificial Intelligence and Cyber Security.

The UK Space Agency (UKSA) has convened the Space Skills Advisory Panel (SSAP), a partnership that brings industry and academia together with government to ensure that the scale of the problem is recognised and that solutions can be designed and delivered. The SSAP is developing a national skills strategy for space

and has commissioned a Space Census which gives the space sector the benchmarks against which to measure its efforts to improve Equality, Diversity and Inclusion. The government will assess this data alongside the evidence collected through regular skills surveys to measure improvements across the workforce.

The UKSA also uses the power and draw of space to inspire children to study STEM subjects and is working closely with industry to ensure they can develop the workforce they need now and for the future. The Space Placements in Industry (SPIN) programme enables students to access the experience that they need to be of immediate benefit to their employers. These opportunities are increasingly popular among graduates and sector partners.

The UKSA has also been working with Industry Trailblazer Groups to establish new apprenticeship standards relevant to the sector. Two space engineering standards are in place and a third, for a Level 7 (Master's) Location Information Specialist, is in preparation. This will particularly support the need for Geospatial Data Analytics skills.

The government supports the establishment of two new Centres for the growth and development of higher-level space Artificial Intelligence (AI) related skills, one at Goonhilly in Cornwall and one at the University of Bradford in West Yorkshire. The UKSA is supporting and will continue to support the collection of evidence and sharing of best practice around all space-related skills issues including AI.

The government works closely with stakeholders across the space sector to encourage them to recognise and take on the responsibility for addressing the skills deficit issue. These partners include the Space Education Office (ESERO-UK) who are delivering space-inspired resources for teachers across all STEM subjects, and the National Space Academy, Leicester, who are delivering space masterclasses for teachers and students. UKSA's One Million Interactions programme also harnesses the efforts of professionals from across the sector to inspire young people to consider careers in STEM in general and space in particular. UKSA has invested over £600k annually over the last three years in its measures to support of space education and skills (alongside the government's wider investments in education and skills).

R&D Skills

We know that to sustain our target of 2.4% research intensity of GDP by 2027, our R&D sector is estimated to need a minimum of 150,000 additional researchers and technicians between 2021 and 2030¹.

Our R&D People and Culture Strategy sets out our plan to tackle skills gaps, anticipate future needs in both business and academia, and build the workforce the UK needs to achieve our ambitions to be at the forefront of research and innovation excellence.

To aid our understanding, the Strategy committed to create the first annual cross-sector survey of the R&D workforce. Producing data on the activities, skills, careers, enablers, barriers, and impacts of the R&D workforce in the UK, it will both improve

¹ R&D People and Culture Strategy, July 2021

our evaluation of strategy implementation and enable better analysis and decision making for the wider R&D system.

My department is working with partners across government and the sector to better understand needs and actions. In January, BEIS held the first meeting of its R&D People and Culture Ministerial Coordination Group – which brings together key organisations from across the sector to advise on and coordinate sector-led actions to deliver the Strategy vision.

STEM inspiration

The government, through UKRI, funds programmes to support engagement with STEM and the creation of a more diverse STEM workforce now and in the future.

The STEM Ambassadors programme is a nationwide network of 30,000 volunteers from over 7,000 STEM and related employers. Last year, STEM Ambassadors spent 200,000 hours in primary and secondary schools across the UK raising awareness of the diverse range of STEM careers and enabling young people to explore and develop their skills and interest in STEM.

UKRI supports the British Science Association's CREST Awards scheme: the UK's largest national award scheme for project work in STEM subjects. CREST recognises and rewards young peoples' own research and investigations, building skills and encouraging motivation and engagement with STEM. Each year, over 30,000 CREST Awards are undertaken by 5-19 year olds across the UK.

There is considerable work underway across government to address the current shortage of skills, particularly in R&D, STEM, and the space sector. My department is aware of these challenges and is looking forward to continuing working in partnership with all sectors affected to close the skills gap.

15 March 2022