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DEVELOPING A SUSTAINABLE SPACE ROADMAP FOR SCOTLAND

Abstract

In Scotland the space industry generated £880m Gross Value Added for the Scottish economy in 2017/18 with a sustained annual growth rate of 12

Accordingly, Scottish Enterprise commissioned the development of a Sustainability and Net Zero Roadmap for the totality of the space industry in Scotland which will help co-ordinate actions by industry, academia and the public sector. This follows the work performed by Space Scotland's fifty-member space industry group last year to identify sustainability challenges for the space sector, incorporating input from environmental groups, the UK Space Agency, the Scottish Government and ESA.

Drawing on desk research, interviews with international leaders in the field of space sustainability, and engagement with stakeholders in the Scottish space sector, we developed a roadmap towards a sustainable Scottish space sector. The roadmap covers policy milestones and actions over a 25-year period designed to minimise the environmental impacts of Scottish space activities both on ground and in orbit.

Topics addressed include steps to encourage the Scottish space sector to comply with existing sustainability guidelines, methods to gauge the environmental impact of space activities, and transferable effective practices from other sectors which can help minimise environmental impacts on ground. Actions to align with existing space sustainability initiatives such as Space Sustainability Rating and the Paris Peace Forum Net Zero Space pledge are also presented. This paper presents our approach, summarises the recommendations of the Scottish Space Sustainability Roadmap, and presents ongoing efforts to implement these recommendations.