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KEY SUCCESS FACTORS FOR THE DEVELOPMENT OF IMPACTFUL SPACE CLUSTERS:
LESSONS LEARNED FOR EMERGING SPACE ECOSYSTEMS

Abstract

With space being more accessible than ever, we are seeing regions and countries across the world venture into the sector to seize wide-ranging opportunities. However, many barriers can limit involvement in space activities, including red tape and limited resources. Stakeholders may also sometimes be unaware that their expertise and capabilities can be leveraged in space, leading to significant untapped potential.

Research has extensively explored the benefits of clusters in identifying relevant stakeholders, defining common objectives and coordinating activities for their achievement. Clusters play a key role in creating opportunities, providing financial (e.g. tools, guidance, grants) and business support (e.g. accelerators, intelligence). Most importantly, they foster innovation and support entrepreneurship by connecting research, education, policy and industry stakeholders, in the space sector and beyond.

There are different models to developing a space cluster, and while there is not a unique and ‘perfect’ guideline, lessons can be learned by those clusters that have become key drivers in the development of their regional and national space ecosystems.

This paper will aim to identify key success factors for the development of space clusters supporting emerging space ecosystems. To do so, we will examine the structure and activities of space clusters with different profiles in space nations displaying varying levels of maturity. The clusters we will consider are: (i) Space Scotland (United Kingdom), which is particularly active in supporting the development of an end-to-end Scottish space supply chain within the growing UK space sector; (ii) South Australian Space Industry Centre (Australia), which is the central coordinating and activity hub for the emerging Australian space sector; and (iii) LRT Sachsen Thüringen (Germany), which is pivotal in bringing together expertise from established and emerging industries to create synergies for the region’s nascent space sector.

First, we will define a profile of the selected case study clusters, examining their historical formation, governance and financial structure, members, strategy, programmes, events and infrastructure. We will then explore whether there are any high-level enablers fostering their impactful activities (e.g. national cluster coordination activities). Finally, we will identify which characteristics have enabled the examined clusters to become effective drivers in the growth of the space sector.

This paper will provide a set of key success factors that can be considered by existing or prospective space clusters in emerging space economies to enhance their impact on the development of their regional and national space ecosystem.