

BUSINESS INNOVATION SYMPOSIUM (E6)
Public/Private Human Access to Space - Supporting Studies (2)

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THE STRUCTURE OF THE EUROPEAN SPACE INDUSTRY – CURRENT AND HISTORICAL
ANALYSIS OF INDUSTRY CLUSTERS IN GERMANY

Abstract

In late 2012, after observing new developments in the private space sector, the Space Generation Advisory Council (SGAC) established a project group to gather inputs and to conduct research into commercial space activities. In this capacity, the group is currently supporting a study group of the International Academy of Astronautics (IAA) on “Public/Private Human Access to Space” that aims to assess the viability potential of human orbital commercial space markets. For the long-term politico-economic decisions the study group intends to support, a solid knowledge of industrial and macroeconomic structures is necessary. This proper understanding of industries and their structure relies not on the consideration of a single influence or driver, but on a comprehensive examination of cultural, structural, political, economic, and historical drivers and environments that affect industries and their development. In order to fully comprehend the interactions and results of these forces, existing market data must be visualized using industry models. One model particularly suited to provide information on background and development of regional and national industry strengths and advantages – and therefore, the reasons for today’s industry structure – is the model developed by Michael E. Porter in his book ‘Competitive Advantage of Nations.’ As the basis of his analysis, Porter uses industry clusters as highly connected building blocks that can be individually analyzed. Accordingly, in a precursor work for this paper, the main industry clusters of the European space industry and their basic characteristics have been identified. This paper builds on that analysis with a detailed description and analysis of the space industry clusters in Germany made by examining their individual makeup, macroeconomic determinants, and other external influences. As previous work on the influences of cultural and historical backgrounds on industry development in Germany has shown, the structure of the space industry in the country depends highly on historical developments due to a strong tie of the German space and aerospace industries to political institutions. This paper therefore puts a special emphasis on examining the historical development of each cluster and comparing the historically founded forces with the current economic determinants. This work is part of a larger research project at SGAC that focuses on the detailed examination and definition of industrial clusters in relevant European countries. The ultimate goal is to obtain a better understanding of the European space industry as well as the roles individual nations play within it.