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THE EMERGENCE OF SPACE INNOVATION HUBS: A CASE STUDY OF GRAND FORKS, USA.

Abstract

In recent years, a new and prominent feature has emerged in the international space system: space hubs. The traditional state-centric model of the space industry is shifting towards a more diversified model in which new actors play a more important role. Although cities have played significant roles in world history as economic, political, and international actors, they have been subordinated to national interests in the space domain for most of the 20th century. In the post-Cold War international system, cities have become increasingly attractive geographic units for the development of science, technology, and innovation (STI). In recent years, the model of innovation hubs has been applied to the space sector, resulting in the creation of a new map of space hubs around the world that cooperate and compete with each other. For cities, space hubs represent an opportunity to create new job sources, attract commercial investment, stimulate research and innovation, attract and retain talent, and support new businesses. Several cities, including Moscow, Seoul, Beijing, Tsukuba, Houston, and Huntsville, have recently adopted the new paradigm of space hubs in the international system. This research highlights the necessity for further studies that describe and explain the significance of sub-state actors in the space domain. Specifically, it examines how cities are establishing themselves as space hubs in the international system and emerging as important players in the space industry. The primary research question and objective of this investigation is to analyze how small and medium-sized cities are attempting to develop and enhance local space ecosystems. The project will conduct an in-depth case study of Grand Forks, North Dakota, United States, which has emerged as a space hub in recent years. This is due to the academic programs offered by UND, the missions of Grand Forks Air Force Base, and the companies operating in Grand Sky. This study aims to contribute to the scientific understanding of space hubs and assess the performance of the existing case in the city of Grand Forks. The research uses social science literature review and interviews, as well as systems science systems architecture framework. The study addresses an important conceptual gap in the literature and a practitioner's gap, which is the emerging political, economic, and social relevance of space hubs.