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Author: Ms. Becca Browder
Massachusetts Institute of Technology (MIT), United States

Prof. Dava J. Newman
Massachusetts Institute of Technology (MIT), United States

ANALYZING SPACEPORT FEASIBILITY VIA AN AUGMENTED POLICY AND BUSINESS FRAMEWORK

Abstract

The New Space Age is full of optimism and promise, with analysts projecting that the space industry will grow to a trillion dollars. Satellites make up the largest portion of the industry, but reports show that there is a massive overcapacity for launches in comparison to the demand. With 34 companies currently developing small launch vehicles, and with frequent reports of the booming smallsat sector, where are all the launches? As regional and national governments consider investing millions of dollars into a single spaceport, they need a good framework for determining the viability of a spaceport. Proposed spaceports are often approached with standard tools such as a site a feasibility study and an environmental report; I argue that in the unique landscape of the space industry and given the context of launch overcapacity, deeper analysis is needed before a determination about viability can be made. As with any large government undertaking, the moving parts include political support, economic sustainability, and the nuanced process of developing policies and regulation for an emerging industry. Policymakers will have to garner political support, to predict accurately the economic output of the spaceport, and to determine the policies, physical infrastructure and ground support required to attract commercial partners. In addition, knowing the long-term financial commitment of the government is key for success because in countries such as the United States, much of the commercial space industry is backed by national defense spending. In countries with modest defense budgets, spaceports may need a different infrastructure to ensure success. Ultimately, proposed spaceport projects require a determination of whether or not they are an effective use of taxpayer dollars in the pursuit of high-tech, high-paying jobs in a theoretically trillion-dollar industry. This project studies emerging space agency actors in Europe and their consideration of proposed spaceports while incorporating industry expertise. The research employs a multidisciplinary approach, incorporating policy and business analysis to reach a holistic determination of when a spaceport is economically viable for a government to pursue. This works also builds upon previous studies of spaceports, including why commercial companies have made less use of government and commercial spaceports than anticipated. At a time when numerous government entities are considering building spaceports, this research will provide a valuable framework for determining which spaceport projects are worth pursuing. This will prevent the investment of government funds in unviable projects and ensure only sustainable business projects are implemented.