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Space Economy - New models and economic approaches for private space ventures, with an emphasis on
the needs of emerging space nations (3)

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A PROPOSED APPROACH FOR NEWSPACE INDUSTRY DEVELOPMENT IN TAIWAN

Abstract

Space development Taiwan is much later than that of many traditional space fairing countries. Prior to the 1990s, Taiwan's space activities focused on receiving satellite TV, meteorological and remote sensing data from other countries. In 90, the space development in Taiwan was divided into three paths, the first was GSO communication satellites operated by Chunghwa Telecom and Singapore Telecom, the second was the Formosa satellites developed by National Space Organization (NSPO), and the third was cubesats developed by local universities. Except for cubesats, all of Taiwan's satellites were acquired from foreign countries. Until 2017, the launch of Taiwan's first self-made high-resolution optical remote sensing satellite marked a new milestone in the history of space development in Taiwan. Based on this achievement, the Taiwan government officially passed the third phase of the National Space Program in 2019. One of the important goals of this plan is to promote the establishment of the Taiwan space industry.

In addition to the traditional space sector, some entrepreneurs in Taiwan have also taken advantage of this "NewSpace" wave and have set up new space companies. Compared with the past, the Taiwan space industry has changed dramatically in recent years. In order to grasp the overall picture of the development of the Taiwan space industry, NSPO has also conducted the Taiwan space industry survey since 2017. The survey covers both traditional and NewSpace companies.

The space industry is a high value-added industry, but it is also an industry with a high investment amount and high risks. Therefore, how to formulate related incentives and regulations and other supporting measures to effectively promote the space industry is a topic that many emerging space nations must face. Same satiation is also occurred in Taiwan.

This study is structured in three parts. First, it introduces the Taiwan space industry, especially the development of the NewSpace industry, and discusses the opportunities and challenges of the development of the NewSpace industry in Taiwan. The second is to adopt the concept of the ecosystem to analyze whether Taiwan's current incentive measures and regulations to promote the space industry in this space ecosystem meet the needs of the NewSpace industry. Finally, referring to the experience of other countries and the feedback from Taiwan space industry survey, it puts forward suggestions to establish measures for Taiwan's NewSpace industry, with a view to establishing a model for emerging space countries to establish a NewSpace industry.