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AN ANALYSIS OF THE REPUBLIC OF KOREA'S SPACE INDUSTRY ECOSYSTEM

Abstract

On October 21, 2021, the Republic of Korea launched the Nuri (KLSV-II) and succeeded in developing a 75-ton medium-large liquid engine. Korea became the 7th country in the world to be able to launch a satellite into orbit. The launch of KLSV-II was a major milestone and showed the technological growth of Korea's space technology and had a significant impact on the context of Korea's space policy.

Korea's space context is in transition with the most noteworthy aspect of its space policy that it will be developing autonomous access to space and the growing role of the private sector in the space sector. This is leading to an evolution of the Korean space ecosystem with the emergence of new actors. This is being dealt with as a major policy in the 20th presidential election of Korea planned for March 9, 2022, and the public's attention is focused on it.

Global space actors are interested in Korea, which has the potential to grow into an influential actor at not only regional level but also at the global level. However, there is a limit to understanding Korea's growth potential with the currently available data. Therefore, this paper is designed to contribute to informing global space actors who are interested in Korea to know Korea's space capabilities and current status and to review the possibility of future international cooperation space projects with Korea.

The Korean space industry has a complex and unique structure. For example, Korea Aerospace Research Institute (KARI) plays a pivotal role in most space projects and plays an important function in 'technology transfer'. Academia has been long a major player, and new actors are emerging. Defense companies like Hanwha Group (Hanwha Aerospace, Hanwha Defense, and Hanwha Systems) are entering the space industry. This may be related to the chaebol culture that appears in the Korean economy. Meanwhile, space start-ups like Nara Space are also appearing because Korea is active in supporting the development of a New Space. Additionally, companies like Korea Aerospace Industries (KAI) are expanding their business to the downstream sector.

Therefore, this paper examines the relationship between the different types of Korean space industry actors with various drivers and examines the advantages and disadvantages in the Korean space ecosystem. It will map the current Korean space industry ecosystem, analyze the impact of this unique structure and actors on the space industry and trends, and propose appropriate policy recommendations.