



INSIGHT: NORTHEAST ASIA

South Korea enters space race, launches new aerospace agency



THE TAKEAWAY

South Korean President Yoon Suk-yeol's [meeting with SpaceX CEO](#) Elon Musk — and Yoon's release of a road map for the space industry a week after the meeting — signals South Korea's bid to turn its aerospace and space-related industries into global leaders. In doing so, the country aims to minimize its imbalance with North Korea regarding projectile technologies.

IN BRIEF

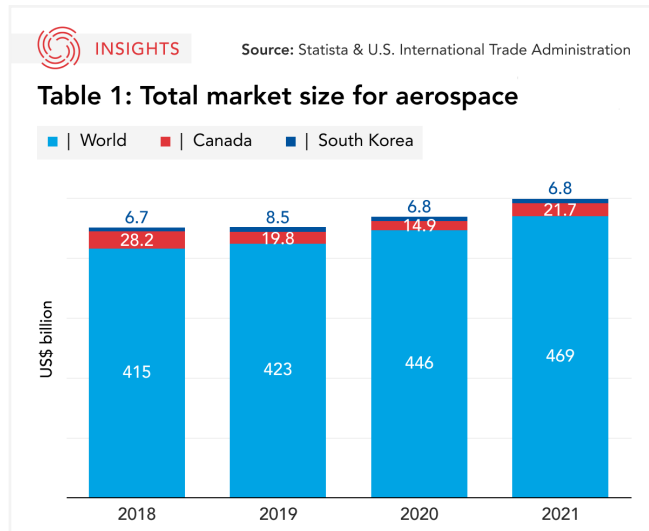
South Korea launched its first space rocket, Korea Space Launch Vehicle (KSLV)-I “Naro,” in 2013 with a first-stage rocket booster developed by Russian engineers. Following this experience, South Korean engineers worked to independently develop and launch the KSLV-II space rocket “Nuri” in June 2022. The feat made South Korea one of the few countries able to place practical satellites above a tonne in orbit by themselves. On August 5, 2022, South Korea launched the Korea Pathfinder Lunar Orbiter (KPLO) “[Danuri](#),” which is expected to enter the Moon's orbit by March 2023. Once there, Danuri will engage in lunar observations.

Following the successful launches of Naro, Nuri, and Danuri, the South Korean space industry formally demanded the national government create **a national aerospace agency to kick-start a new space era** and oversee national space projects. In line with his pledge to expand space programs during his presidential campaign in February, Yoon met virtually with Tesla and SpaceX CEO Elon Musk on November 23, and reportedly proposed to Musk a [satellite as well as internet-related co-operation](#) with SpaceX and satellite-internet provider Starlink. On [November 28](#), Yoon released a road map for the space industry and announced that the South Korean government would establish the Korea Aerospace Agency (KAA) by the latter half of 2023.

IMPLICATIONS

South Korea first became serious about developing space launch vehicles in the late 1990s in response to North Korea's attempts to launch space rockets and satellites. Since that time, North Korea began developing projectile technology under the pretext of launching satellites, but, in reality, applied the technology to developing ballistic missiles. **North**

Korea's continual missile provocations, especially the dramatic increase of launches in 2022, helped awaken South Korean aspirations to excel in the space industry.



The South Korean aerospace industry has been steadily growing since [2013](#) and could reach a value of up to [US\\$8.4 billion](#) (12 trillion won) by the end of 2022. In addition to promoting security against the North, South Korea seeks to use **the space industry as a new engine for national economic development**. The KAA is expected to help strengthen public-private co-operation and support international projects between private space companies and NASA to expand and advance the South Korean aerospace industry.

The advancement of South Korea's space technologies is expected to be a boon to **many related industries**, including the defence industry, and the provision of more and better jobs for future generations in South Korea. New space technologies could also shine a

gleam of light, countering darker developments like climate change, energy shortage, and environmental pollution (as space technologies are widely used to monitor the earth's climate), as well as environmental issues like deforestation, and could be used to investigate underground resources.

WHAT'S NEXT

1. Lunar and Mars exploration programs:

Since 2021, South Korea has participated in the [Artemis Program](#), a NASA-led, manned lunar exploration project, and has also been conducting joint research with other Artemis-participating countries, including Canada. As part of the joint research, Danuri is expected to provide information about a landing point for the next Artemis lunar probe. South Korea also has its own plans to land a lunar probe on the moon by 2032, and [explore Mars by 2045](#).

2. A catalyst for balanced regional development

South Korea's space industry is centred around the southern coast, such as Sacheon, South Gyeongsang Province, and Goheung, South Jeolla Province. If [the KAA is established in Sacheon](#) as expected, the nascent space industry could help balance South Korea's regional development.

3. Growing concern about KAA's status

Concerns are growing over whether the KAA can be as independent as NASA in the U.S. Some aerospace experts are demanding that the KAA be established as a presidential agency to effectively deal with cross-ministry affairs, rather than having the KAA under the Ministry of Science and ICT.

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