

The header image features a dark blue night sky filled with stars and a faint Milky Way. In the foreground, the silhouettes of two people stand on a dark horizon, looking up at the stars. One person is pointing towards the sky. The text 'PRESS RELEASE' and 'THALES ALENIA SPACE' is overlaid on the left side of the image.

# PRESS RELEASE

## THALES ALENIA SPACE

### Thales Alenia Space partners with KT SAT for the 5G satellite backhauling demonstration

*Thales Alenia Space on board for an unprecedented technological experiment*

**February 04, 2021** – Thales Alenia Space, a joint venture between Thales (67%) and Leonardo (33%), is partnering with South Korean operator KT SAT, subsidiary of the world's first 5G commercial service provider Korea Telecom, to lead 5G demonstration using the geostationary Koreasat 5A telecommunication satellite to provide 5G network to remote areas.

KT SAT will use 5G backhauling as the first stone of satellite integration in the 5G world. This unprecedented experiment consists in backhauling the connection between a 5G Core Network and a 5G gNB through KT SAT Koreasat-5A(GEO satellite). In this case, the satellite is not only a complement to terrestrial 5G network but a fully integrated part of it by receiving 5G network from Earth and then returning it to remote areas where traditional backhauling technologies (wired, fiber, radio beams) are not suitable for technical and/or economic reasons. This demo was implemented from the KT SAT's Kumsan teleport.

Koreasat 5A, orbited by SpaceX in 2017, is based on a Thales Alenia Space's Spacebus 4000B2 platform, Koreasat and equipped with Ku-band transponders. Koreasat 5A covers Indochina, Japan, Korea, the Philippines and Central Asia. Thales Alenia Space was the prime contractor for KOREASAT-5A, in charge of its design, production and testing.

It is not the first time that Thales Alenia Space is involved in 5G demonstration. Indeed, on February 20<sup>th</sup> 2018, as part of "5G Champion", a Horizon 2020<sup>1</sup> research project that is being financed by the European Commission, Thales Alenia Space, with CEA/LETI (electronics and IT lab) and Nokia as partners, showcased 5G communications technology demonstration at the Winter Olympics in Pyeongchang, South Korea. As a 3GPP<sup>2</sup> member, Thales Alenia Space continue to adopt new standards regarding NTN (Non Terrestrial Network) in 5G with strong acceleration of the traditional cellular stakeholders.

"This new partnership between Thales Alenia Space and KT SAT shows a trustful relationship between both companies, reinforces Thales Alenia Space's implication in South Korean market and strengthens its pioneer position in 5G" declared Marc-Henri Serre, VP Telecommunication at Thales Alenia Space.

KT SAT CEO Song Kyung-Min said "This satellite-based 5G backhaul experiment using KOREASAT has opened possibilities for 5G communications without geographical divisions caused by mountains and oceans. Based on this technology, KT SAT will expand its global outreach, particularly in Southeast Asia where terrestrial network construction faces difficulties."

In November last year, KT SAT unveiled the world's first router for hybrid satellite-terrestrial 5G transmission. The hybrid router, demonstrated online, was developed with the KT Institute of Convergence Technology, further expanding the role of satellites in 5G services.

<sup>1</sup> Horizon 2020 is a European program supporting Research & Development for the period 2014-2020.

<sup>2</sup> 3rd Generation Partnership Project created in 1998. It groups seven international telecom standardization bodies, several hundred industry companies, associations and public institutions. It is tasked with the development and maintenance of technical specifications concerning mobile telephony standards.

## ABOUT KT SAT

Since the establishment of Kumsan Satellite Service Center in 1970, KT SAT(wholly owned by KT) has been leading Korea's broadcasting and telecommunication industry in Asia as the Korea's sole satellite communication operator. Having total of 5 satellites, KT SAT provides user-customized services and global satellite coverage over the Asia, Middle East and Africa.

KT Corporation, the mother company of KT SAT, launched the world's first nationwide commercial 5G network on April 3, 2019, after successfully showcasing the world's first trial 5G services at the PyeongChang Winter Olympic Games in February 2018. KT SAT provides services using the resources of the group as being a member of KT group. KT SAT cooperated with KT group is standardizing the '5G-Satellite' technology, which enables network connection from land, sea and air. Leveraging the abundant experience and expertise of a global operator, KT SAT leads satellite communications industry.

[www.ktsat.net](http://www.ktsat.net)

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## ABOUT THALES ALENIA SPACE

Drawing on over 40 years of experience and a unique combination of skills, expertise and cultures, Thales Alenia Space delivers cost-effective solutions for telecommunications, navigation, Earth observation, environmental management, exploration, science and orbital infrastructures. Governments and private industry alike count on Thales Alenia Space to design satellite-based systems that provide anytime, anywhere connections and positioning, monitor our planet, enhance management of its resources, and explore our Solar System and beyond. Thales Alenia Space sees space as a new horizon, helping to build a better, more sustainable life on Earth. A joint venture between Thales (67%) and Leonardo (33%), Thales Alenia Space also teams up with Telespazio to form the parent companies' Space Alliance, which offers a complete range of services. Thales Alenia Space posted consolidated revenues of approximately 2.15 billion euros in 2019 and has around 7,700 employees in nine countries.

[www.thalesaleniaspace.com](http://www.thalesaleniaspace.com)

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