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Eutelsat, MediaTek and Airbus announce world's first 5G non-terrestrial network connection, leveraging OneWeb LEO satellites

- Eutelsat becomes the first satellite operator to demonstrate the 5G air interface working on a commercial fleet
- Paving the way for deployment of 5G NTN and interoperability between terrestrial and satellite technologies
- Placing Eutelsat at the forefront of 5G NTN innovation, a key feature of the future IRIS² constellation

Paris, 24 February 2025 – Eutelsat Group (ISIN: FR0010221234 - Euronext Paris / London Stock Exchange: ETL), MediaTek Inc. and Airbus Defence and Space have conducted the world's first successful trial of 5G Non-Terrestrial Network (NTN) technology over the Eutelsat OneWeb low Earth orbit (LEO) satellites. The tests pave the way for deployment of the 5G NTN standard, which will result in future satellite and terrestrial interoperability within a large ecosystem, lowering the cost of access and enabling the use of satellite broadband for 5G devices around the world.

The trial used Eutelsat OneWeb satellites, with the MediaTek NR NTN test chipset, and NR NTN test gNB provided by ITRI, implementing the 3GPP Release 17 specifications. Sharp, Rohde & Schwarz provided the antenna array and test equipment and the LEO satellites, built by Airbus, carry transponders, with Ku-band service link, Ka-band feeder link, and adopt the "Earth-moving beams" concept. During the trial, the 5G user terminal successfully connected to the 5G core via the satellite link and exchanged traffic.

With the integration of 5G standards shared and accepted by the entire mobile industry, all compatible satellite constellations will naturally and seamlessly complement terrestrial networks, enabling truly ubiquitous connectivity with economies of scale, and opening up new markets for smartphones, the automotive industry and the Internet-of-Things.

Arlen Kassighian, Chief Engineering Officer at Eutelsat Group, said: "These trials show the commitment of Eutelsat Group in developing and adopting new technologies, in order to provide the best possible services to our customers, in collaboration with trusted partners. 5G NTN will be a key feature of the IRIS² constellation, and Eutelsat is at the forefront of this innovation and active member of the ecosystem. We are proud to be the first satellite operator to demonstrate the 5G air interface working on a commercial fleet in Ku-band and paving the way for new applications in future constellations."

"As a global leader in terrestrial and non-terrestrial connectivity, we continue in our mission to improve lives by enabling innovative technology that connects the world around us, even in areas with little to no cellular coverage," said Mingxi Fan, Head of Wireless System and ASIC Engineering at MediaTek. "By making real-world connections with LEO satellites in orbit, we are now another step closer to bring the next generation of 3GPP-based NR-NTN satellite wideband connectivity for commercial use."

Elodie Viau, Head of Space Systems Engineering at Airbus added:

"Demonstrating successful 5G NTN satellite connectivity using the Airbus built OneWeb satellites not only proves the flexibility and innovative design of the satellites but opens the prospect of true global satellite broadband connectivity for 5G devices. As a pioneer in space connectivity, we are actively contributing to the development of 5G NTN, and we look forward to the next stage of further integrating satellites in our everyday lives."

About Eutelsat Group

Eutelsat Group is a global leader in satellite communications, delivering connectivity and broadcast services worldwide. The Group was formed through the combination of the Company and OneWeb in 2023, becoming the first fully integrated GEO-LEO satellite operator with a fleet of 35 Geostationary satellites and a Low Earth Orbit (LEO) constellation of more than 600 satellites. The Group addresses the needs of customers in four key verticals of Video, where it distributes more than 6,500 television channels, and the high-growth connectivity markets of Mobile Connectivity, Fixed Connectivity, and Government Services. Eutelsat Group's unique suite of inorbit assets and ground infrastructure enables it to deliver integrated solutions to meet the needs of global customers. The Company is headquartered in Paris and the Eutelsat Group employs more than 1,500 people across more than 50 countries. The Group is committed to delivering safe, resilient, and environmentally sustainable connectivity to help bridge the digital divide. The Company is listed on the Euronext Paris Stock Exchange (ticker: ETL) and the London Stock Exchange (ticker: ETL)

Find out more at www.eutelsat.com

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