



Press release

SES and SpeQtral Sign MoU to Advance Global Quantum-Secure Communications

An interoperable Optical Ground Station will provide a long-distance Quantum Key Distribution link between Asia and Europe to scale next-generation cybersecurity and services

Singapore / Luxembourg, 28 March 2025 – SES and SpeQtral signed a Memorandum of Understanding (MoU) to develop an interoperable Optical Ground Station (OGS) to establish long-distance satellite-based Quantum Key Distribution (QKD) between Asia and Europe.

Under the agreement, the development of an interoperable OGS will enable SES and SpeQtral to connect both companies' current and future QKD satellite missions, resulting in easier access to, and diversity in the supply of long-distance QKD to end users in Asia, Europe and other future compatible ground stations worldwide. The integration of this proposed OGS with Singapore's fibre-QKD network will help future customers integrate their networks with satellite QKD networks and demonstrate a practical pathway towards enabling a global QKD connectivity once the QKD satellites are operational.

SES and SpeQtral collaboration will reduce costs associated with quantum communication infrastructure, bridge a critical gap in the QKD service availability and lower barriers for global deployment and adoption.

The first such OGS is anticipated to be built in Singapore which already hosts a vibrant seedbed of quantum-safe activities including the [National Quantum Safe Network Plus](#) (NQS^N+) initiative driven by Singapore's Infocomm Media Development Authority (IMDA).

SES and SpeQtral's Expertise in QKD

Fibre-based QKD networks that are being deployed in major cities around the world will require a satellite-based QKD solution to form an interconnected global QKD network.

QKD satellites operate in Sun-Synchronous Orbits approximately 500 km away from the Earth's surface, enabling global interconnectivity and laying the foundation for highly secure communications in the age of quantum computing.

SES, in collaboration with a consortium of European partners, is leading the development of the EAGLE-1 project to enable early access to long-distance QKD for ultra-secure data transmissions. The project, which includes both satellite and ground infrastructure, is co-funded by ESA national contributions and the European Commission, reinforcing Europe's commitment to advancing quantum-secure communications.

SpeQtral is working on two QKD satellites, SpeQtre and SpeQtral-1, which are supported by the



Office for Space Technology & Industry, Singapore (OSTIn). SpeQtre, a joint Singapore-UK mission set for launch later this year, will host SpeQtral's space-qualified quantum-optics system which enables the establishment of quantum-secure encryption keys. OSTIn's strong support for technological development in advanced space-based capabilities has played an important role in enabling local startups like SpeQtral, foster impactful international partnerships with the potential to shape the global quantum-security industry.

The MoU agreement was signed by the CEOs of both companies in Betzdorf, Luxembourg, during the State visit of Singapore's President Tharman Shanmugaratnam to the Grand Duchy of Luxembourg.

Adel Al-Saleh, CEO of SES said, "Satellite-enabled Quantum Key Distribution is a fundamental technology for next-generation cyber security, allowing long-distance transmission of encryption keys. At SES we are delighted to bring our innovative expertise in developing secure, interoperable networked solutions, joining efforts with like-minded ecosystem partner SpeQtral in implementing the next milestone of our quantum-secure vision. The agreement allows SES to expand into non-EU markets and serve commercial customers, including facilitating secure exchanges between entities based across different geographies."

Chune Yang Lum, CEO of SpeQtral, said: "Our partnership with SES represents a significant step towards realising commercially viable space-based QKD. It is important that we build on each other's expertise, to unlock synergies in this initial phase of enabling the interconnection of localised fibre-based quantum networks. By developing a shared OGS infrastructure, we are reducing costs and strengthening the foundation for a truly global quantum-secure network."

Mr Jonathan Hung, Executive Director at OSTIn said: "The collaboration between SpeQtral and SES marks a significant milestone in Singapore's quantum technology landscape that will strengthen secure global communications for the future. The partnership leverages SpeQtral's strengths as one of the first quantum key distribution (QKD) companies, together with SES's satellite QKD expertise and position of a global content and connectivity solutions provider - to make quantum communications more accessible worldwide and allow seamless services for end-users in Asia and Europe. We welcome more partnerships with companies to strengthen Singapore's position at the forefront of quantum communications innovation and commercialisation."

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About SES

SES has a bold vision to deliver amazing experiences everywhere on Earth by distributing the highest quality video content and providing seamless data connectivity services around the world. As a provider of global content and connectivity solutions, SES owns and operates a geosynchronous orbit fleet and medium earth orbit (GEO-MEO) constellation of satellites, offering a combination of global coverage and high performance services. By using its intelligent, cloud-enabled network, SES delivers high-quality connectivity solutions anywhere on land, at sea or in the air, and is a trusted partner to telecommunications companies, mobile network operators, governments, connectivity and cloud service providers, broadcasters, video platform operators and content owners around the world. The company is headquartered in Luxembourg and listed on Paris and Luxembourg stock exchanges (Ticker: SESG). Further information is available at: www.ses.com

About SpeQtral

SpeQtral is a pioneer in quantum communications, with a vision to build and deploy global quantum networks. SpeQtral develops quantum-secure products and services designed to protect sovereign and enterprise telecommunication networks against classical, as well as future quantum-based cyber-attacks on cryptography. Combining both terrestrial and space-based solutions, SpeQtral aims to secure the world's networks against the threats posed by the imminent quantum revolution and drive innovation in quantum communications that will serve as the building blocks for the future quantum internet. For more information, visit: <https://speqtralquantum.com/>