



## Press release

### **SES and TESAT to Develop Payload for Europe's First Quantum Cryptography LEO Satellite System EAGLE-1**

*The ESA- and EC-supported EAGLE-1 LEO satellite will be equipped with innovative security features developed by TESAT, Europe's leading laser communication technology company*

Luxembourg, 11 May 2023 – EAGLE-1 consortium lead SES announces a new key partner, TESAT, responsible for developing and integrating the Quantum Key Distribution (QKD) payload for the EAGLE-1 satellite. The SES and TESAT partnership is aimed at achieving the next key milestone in building and implementing Europe's pioneering quantum secure communications initiative EAGLE-1. Supported by the European Space Agency (ESA) and the European Commission, EAGLE-1 is a quantum key system integrating both space and ground segments that will deliver secure transmission of encryption keys across geographically dispersed areas and connect EU's national quantum communications infrastructures for truly sovereign networks.

Consortium member and Europe's leading laser communication technology company TESAT will manufacture the QKD payload comprising the Scalable Optical Terminal SCOT80 to establish a secure optical link from space to ground, as well as the QKD module of the satellite.

The technology integrated into the EAGLE-1 system's payload will include built-in redundancy and is specifically designed to be associated with the satellite communications and data transmission for such areas as government, telco operators, cloud providers and banking, to add guaranteed security of the cryptographic applications.

"EAGLE-1 is a project that will benefit the whole of Europe, and being able to work with the leading technology players in the market to co-develop it and together shape this innovative secure technology is a privilege to SES," said Ruy Pinto, Chief technology Officer of SES. "The addition of the secure optical links and the actual QKD module brings us closer to implementation, testing and further scaling the technology, that can ultimately serve millions of users. This elevates secure communications to an entirely new level, supporting development of reliable pan-European quantum communications infrastructures."

"We are delighted to be selected as payload prime by SES and looking forward to bring our expertise in integrating secure technologies, and a track record of almost 80,000 executed optical satellite links for the benefit of this highly-important and timely European project," said Thomas Reinartz, CEO of TESAT. "The EAGLE-1 system allows for achieving synergies together with leading industry partners, SMEs and institutes, reducing time to service and to market for the quantum secure technologies and its future key users, such as governments and institutions, or



banking sector. Together with our partners, we are looking forward to strengthen European collaboration at all levels, including SMEs and institutions and contributing to European sovereignty in space.”

#### About EAGLE-1

The EAGLE-1 project comprising satellite and ground infrastructure is developed by SES and its consortium of 20 European partners, and is co-funded by the ESA contribution of Germany, Luxembourg, Austria, Italy, the Netherlands, Switzerland, Belgium, and the Czech Republic under ARTES, as well as the European Commission through Horizon Europe.

Once launched in 2024, the EAGLE-1 satellite will complete three years of in-orbit mission. During the operational phase, the satellite will allow European Union governments and institutions as well as critical business sectors early access to long-distance QKD that would path the way towards an EU constellation enabling ultra-secure data transmissions.

Learn more about EAGLE-1 and SES-led consortium of European partners [here](#).

#### **For further information please contact:**

Victoria-Louisa Kirstein  
Head of Marketing & Communications, TESAT  
Tel: +49 7191 930-1039  
[victoria-louisa.kirstein@tesat.de](mailto:victoria-louisa.kirstein@tesat.de)

Suzanne Ong  
External Communications, SES  
Tel. +352 710 725 500  
[suzanne.ong@ses.com](mailto:suzanne.ong@ses.com)

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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 connectivity around the world. As the leader in global content connectivity solutions, SES operates the world's only multi-orbit constellation of satellites with the unique combination of global coverage and high performance, including the commercially-proven, low-latency Medium Earth Orbit O3b system. By leveraging a vast and intelligent, cloud-enabled network, SES is able to deliver high-quality connectivity solutions anywhere on land, at sea or in the air, and is a trusted partner to the world's leading telecommunications companies, mobile network operators, governments, connectivity and cloud service providers, broadcasters, video platform operators and content owners.



SES's video network carries over ~8,000 channels and has an unparalleled reach of 369 million households, delivering managed media services for both linear and non-linear content. The company is listed on Paris and Luxembourg stock exchanges (Ticker: SESG). Further information is available at: [www.ses.com](http://www.ses.com)

### **About TESAT**

TESAT is a world-leading manufacturer for satellite equipment. More than 1,100 employees, based in Backnang, Germany, develop, manufacture and distribute systems and equipment for satellite communications every day. The product range spans from the smallest space-specific components to modules, entire assemblies or payloads. As the world's leading provider of in-orbit-verified optical communication terminals for data transmission via laser, TESAT has a focus on commercial and institutional space programs. Thanks to the deep understanding of the market needs, customer focus and technological innovation, TESAT offers products that contribute to sustainable development and security, for the people, for a better world. More information at [www.tesat.de](http://www.tesat.de).