Kinéis selected by ESA to prepare the future of maritime and aeronautical surveillance from space

Kinéis, the French satellite constellation operator dedicated to the Internet of Things (IoT) and AIS, announces that it has been selected by the European Space Agency (ESA) to lead the ALCYON project, a study dedicated to the future of maritime and aeronautical surveillance. This project, is part of the Low LEO layer of the European IRIS² program, the low-orbit segment of the future European sovereign constellation.

IRIS², A CONSTELLATION FOR EUROPEAN SOVEREIGNTY

Backed by the European Union and ESA, the IRIS² program (Infrastructure for Resilience, Interconnectivity and Security by Satellite) aims to equip Europe with a constellation of satellites in low and medium orbit, capable of providing secure connectivity services to Member States, institutions and businesses. It is in this strategic context that ESA entrusted the development of the ALCYON project to a consortium led by Kinéis, as a part of the IRIS2 Low-LEO Pre-Operational and De-Risk Activities within the ESA Programme Related to EU Secure Connectivity.

ALCYON, A DEMONSTRATOR FOR TWO KEY SERVICES

ALCYON is an **IOV** (In-Orbit Validation) mission, designed to validate under real conditions two types of services made possible by the future IRIS² LEO constellation:

- **maritime surveillance**, to improve the tracking and identification of vessels worldwide;
- **aeronautical surveillance**, to strengthen air traffic tracking.

On the maritime side, ALCYON relies on VDES (VHF Data Exchange System), a technology that extends AIS by enabling, in addition to simple vessel detection, genuine two-way data exchange with ships. On the aeronautical side, the demonstrator is based on satellite reception of ADS-B, a technology that makes it possible to track air traffic even over the oceans, where ground-based radars cannot reach.

This demonstrator will provide a concrete assessment of the contribution a low-orbit constellation can make to these two applications, with expected benefits for maritime safety, air traffic management, the fight against illegal fishing, and environmental monitoring.

A EUROPEAN INDUSTRIAL CONSORTIUM

To carry out this project, Kinéis (prime contractor and system operator) is relying on a consortium bringing together well-established players in the space and satellite surveillance sector:

- **Thales Alenia Space**, for the space segment and ADS-B payloads;
- **Satlab**, for the VDES payloads;
- **Sternula**, for VDES operations;
- **ESSP**, for air traffic surveillance services.

This industrial alliance illustrates the ability of the European space ecosystem to mobilise around the sovereignty issues carried by IRIS^2.

RECOGNITION OF FRENCH EXPERTISE

Kinéis has been operating, since 2025, its constellation of 25 nanosatellites dedicated to collecting IoT data around the world, along with an already operational AIS vessel-tracking service. ESA's selection of the ALCYON project confirms recognition of its expertise in the field of satellite-based surveillance.

NEXT STEPS

The ALCYON project will now enter a four-month consolidation phase, with the aim of cospecifying, together with ESA and the selected partners, the future in-orbit demonstrator dedicated to maritime and aeronautical surveillance for the future Low LEO layer of the IRIS^2 constellation.

About Kinéis | *www.kineis.com*
Founded in 2018, Kinéis is the operator of the first European satellite constellation dedicated to IoT and AIS data from space. Its constellation enables the global, sovereign and secure transmission of field data, including from remote or hard-to-reach areas, to support informed operational decision-making. Kinéis supports public and private stakeholders by enabling them to leverage data from assets located anywhere in the world, for use cases such as infrastructure and equipment monitoring, maritime surveillance and operational optimization.

About ESA Programme Related to EU Secure Connectivity | *Learn more*
Under the overall responsibility of the European Commission, IRIS^2 is a bold endeavour to build a space-based secure and resilient connectivity network that elevates Europe's strategic autonomy and competitiveness, where and when it matters most. ESA acts on behalf of the European Commission as the qualification and validation authority for the governmental infrastructure of the Union Secure Connectivity Programme. It manages development and validation contracts supporting the initial space and ground segments, verifies end-to-end system, service, and security performance against EC requirements, and coordinates these activities with ESA's own programme.

Within this programme, the IRIS^2 Low-LEO Pre-Operational and De-Risk Activities components provide a rapid and recurrent mechanism for validating potential new governmental services and associated mission concepts in orbit up to a pre-operational level, subject to successful maturation and later programme level decisions of integration into the operational EU IRIS^2 baseline.

Ultimately, these activities aim at contributing to the continued evolution and enhancement of IRIS2 services and capabilities, supporting Europe's long-term leadership in space in an ever-changing world.

Press contact: Anne-Cécile Thibault | athibault@kineis.com | +33 (0)6 80 52 45 69 - Kinéis

Kinéis - 11, rue Hermès, Parc Technologique du canal, 31 520 Ramonville-Saint-Agne - France