

ArianeGroup to participate in space surveillance for Europe

Brussels, 30. June 2021

- The European Commission has selected ArianeGroup for three space surveillance and early warning projects under the European Defense Industrial Development Programme (EDIDP)
- The three projects SAURON, INTEGRAL, ODIN'S EYE have a total value of €22.5 million
- ArianeGroup thus confirms its role as a major player in space surveillance, which has become a strategic challenge for both civil and military applications

ArianeGroup has been selected for three projects in the "Space Situational Awareness and Early Warning" category of the European Defense Industrial Development Programme (EDIDP). These projects will enable Europe to improve its space and ballistic threat detection capabilities. ArianeGroup will coordinate a consortium of 24 partners in the SAURON project.

Space Situational Awareness (SSA) provides precise information about the status of space traffic (satellites, launches, and space debris), in order to avoid collisions and protect against potential threats. Early Warning capability allows detection and analysis of missile and rocket launches for intelligence and missile defense purposes.

"In response to the growing defense challenges in space, ArianeGroup has developed specific tools such as GeoTracker® and laser-based technologies, drawing on its expertise gained with civil and military launchers," said André-Hubert Roussel, CEO of ArianeGroup. "Our expertise in major space systems and in the analysis of strategic space issues enables us today to contribute to meeting these major challenges for European security. I would like to thank the authorities of the European Commission for their trust, the French defense procurement agency DGA for its support in the implementation of these three projects, and the ArianeGroup teams for their commitment and excellence."

The three projects are:

SAURON

ArianeGroup will coordinate a consortium of 24 partners from nine countries for the **SAURON** project, which aims to develop innovative sensors to characterize and identify satellites in orbit. ArianeGroup will leverage its architecture and optical design skills to develop a European global characterization network and laser and imaging sensors. Other technologies will be developed by the consortium in the optical and radio-frequency fields, for ground- and space-based observations. A combined testing campaign involving the various sensors developed is scheduled for late 2023.



INTEGRAL

The INTEGRAL project will be coordinated by the Italian company Vitrociset, a subsidiary of Leonardo. It consists of designing the software for collaborative networking of national operational space surveillance centers. It will be conducted in close collaboration with SAURON, forming the two facets of a future European space surveillance network. ArianeGroup will be responsible for this coordination between the projects and will perform some of the data interchange functions between the national centers.

ODIN'S EYE

The ODIN'S EYE project, coordinated by Germany's OHB, will cover space-based missile early warning, a subject in which ArianeGroup has been active for many years. The project aims to prepare for the development of a capability to detect ballistic and hypersonic missiles as well as civil launchers from space, to contribute to missile defense, non-proliferation monitoring and space surveillance. ArianeGroup will provide its expertise in the field of ballistic and hypersonic threats as well as for missile defense. It will input threat characterizations into the design studies, study techniques for exploiting the measurements taken in order to generate intelligence data and evaluate the contribution of early warning to missile defense.

The three projects will start in late 2021 and will continue to end 2024.

The developments arising from these projects are intended to be continued and expand under the European Defense Fund (EDF), for which the first call for tender will be issued next year.

Note for journalists:

SAURON: Sensors for Advanced Usage and Reconnaissance of Outerspace situatioN Consortium coordinator: ArianeGroup (France)

Consortium: 24 partners in 9 countries

<u>Partners:</u> ArianeGroup GmbH, Airbus Defence and Space SAS and GmbH, ATOS, Cilium Engineering, CNIT, DA-group, DLR, Deimos, Deimos Engenharia, Free Space, GMV, Indra, Jena-Optronik, Leonardo, ONERA, SED, SDSF, Sybilla Technologies, Thales Alenia Space Italy, Thales LAS France, Vitrociset, Weibel Scientific

Subject: Space Situational Awareness

<u>Goal:</u> Technological Upgrades / Development of sensors, based on promising technologies to enhance European capability for ground- and space-based identification and characterization of space objects.

INTEGRAL Innovative and iNteroperable Technologies for spacE Global Recognition and Alert <u>Consortium coordinator</u>: Vitrociset (Italy) Consortium: 23 partners in 7 countries

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<u>Partners:</u> ArianeGroup France, Thales Alenia Space (TAS) France, Airbus Defence and Space SAS et GmbH, Telespazio Italie, Telespazio France, Telespazio VEGA, Universita degli Studi di Napoli UNINA Italie, Politecnico Milano (POLIMI) Italie, CS GROUP, ONERA, GMV,INDRA, Deimos, OKAPI, Orbits, Vyoma, ELSis, Sybilla Technologies, Thales Denmark, DTU Denmark, Space Inventor, Centro Italiano Ricerche Aerospaziali (CIRA)

Subject: Space Command and Control Center (C2) for a collaborative network of national C2s.

<u>Goals:</u> To evaluate the technical means of exchanging sensitive operational data (orbital or other), more specifically than produced by the SAURON sensors, to ultimately create a shared space situation. To enhance the space intelligence capabilities of the potentially hostile behavior detection/characterization/prediction services, tools and software modules for calculation, display, collaboration, including the security and dynamic management of the shared data.

ODIN'S EYE: Multi-natiOnal Development INitiative for a Space-based missile EarlY-warning architecturE

Consortium coordinator: OHB (Germany)

Consortium: 27 partners in 10 countries

<u>Partners:</u> ArianeGroup France, OHB System, ST Analytics, Diehl Defence, iABG, MBDA, Fraunhofer EMI, Hensoldt, RUAG Space, Airbus DS, THALES Alenia Space, THALES LAS, ONERA, INDRA, GMV, Deimos Space, Leonardo, THALES NL, NLR-Royal Netherlands Aerospace centre, TNO, Optronic Instruments and Products, SpaceBel, Intracom Defense, Hertz Systems, Terma, Isaware, Elsis

Subject: Space early warning

<u>Goal</u>: Feasibility study based on the analysis of architectures and utilization concepts for a space early warning system. Evaluation of the performance of such a system for handover to surveillance radars and of the contribution to the Non-Proliferation Monitoring, Hostile Identification, and ballistic threat active and passive defense missions.

About ArianeGroup

ArianeGroup develops and supplies innovative and competitive solutions for civil and military space launchers, with expertise in all aspects of state-of-the-art propulsion technologies. ArianeGroup is lead contractor for Europe's Ariane 5 and Ariane 6 launcher families, responsible for both design and the entire production chain, up to and including marketing by its Arianespace subsidiary, as well as for the missiles of the French oceanic deterrent force. ArianeGroup and its subsidiaries enjoy a global reputation as specialists in the field of equipment and propulsion for space applications, while their expertise also benefits other industrial sectors. The group is a joint venture equally owned by Airbus and Safran, and employs approximately 7,600 highly qualified staff in France and Germany. Its 2020 revenues amounted to 2.7 billion euros.

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