

INDRA: “SPANISH INDUSTRY IS READY TO LEAD THE DEVELOPMENT OF THE EUROPEAN SPACE TRAFFIC MANAGEMENT SYSTEM”

- The EU has acknowledged the urgent need for infrastructure to cope with the ever-increasing satellite traffic with the continuous launch of mega-constellations
- Indra's leadership of air traffic management, Defence and Space and its capacity as a driving force position Spain among the countries that are best prepared to take on the challenge
- Space's growing geo-strategic importance is obliging Europe to procure its own space traffic management system to provide it with autonomy while being interoperable and transparent for other countries

Madrid, 25 February 2022.- Indra, one of the leading global technology and consulting companies, stated at the Spanish Small Satellites International Forum (SSSIF) held this week in Málaga that the country's industry “has the technology and capacity to lead the development of the European system set to manage satellite traffic”, an element which is key to guaranteeing the security of critical space services for society and the defence of the interests and freedoms of European citizens.

In a Joint Communication to the Parliament and the Council, the European Commission and the High Representative of the Union recently expressed the urgent need to deploy space traffic management infrastructure. The document, published on 15 February, acknowledges the risk of a series of chain collisions rendering certain orbits unusable, thus hindering access to space and holding back a space sector worth 340 billion euros a year which is growing at a rate of 10%.

According to Indra advisor Francisco Almerich, Indra's global leadership of air traffic management systems, cutting-edge defence systems and space together with its capacity to drive the entire business fabric “position Spanish industry at the forefront of the response to a global challenge such as this one”.

The company has developed one of Europe's most powerful space surveillance radars, one that can detect objects up to 2,000 kilometers from Earth. This sensor forms part of the Spanish Space Surveillance and Tracking System (S3T), which provides data to the European Space Surveillance and Tracking (EU SST) Support Framework, a key component upon which the future satellite traffic management system will be based. Indra is also leading the development of large strategic command and control centers for defence in Europe and working on several new space projects, focused on the launch of large constellations to provide different commercial services.

All this experience provides Indra with profound understanding of the challenge of developing space traffic management infrastructure. In this regard, Almerich pointed out that mega-constellations “multiply the degree of complexity when it comes to evaluating and conducting avoidance maneuvers in the event of a risk of impact, as they require adjustments of complete formations flying on different orbital planes”.

The future space traffic control system, he added, will need to make use of Artificial Intelligence and closer integration with the constellation control layer to act more effectively and with greater anticipation. “A model in which constellations are autonomously self-managing in terms of security isn't far away”, he underlined.

However, beyond the risks of unintentional collision, Almerich recalled the words of EU High Representative Josep Borrell at the European Space Conference held on 25 January, at which he declared that “we’re detecting more and more examples of irresponsible and hostile behavior in the use of space” and indicated that “military operations and situational awareness in defence depend on capabilities supplied from space”.

Almerich explained that a space traffic management system is “of vital importance in reinforcing the security of Europe’s critical defence assets in space”. He stated that the EU is seeking to develop its own system “to guarantee its autonomy while remaining interoperable with those of its main partners, in an effort to contribute to global transparency and trust”. He also stressed that the need to secure its critical assets in space has led the European Union “to envisage the security and defence dimension in its new space strategy, with awareness of the spatial situation/domain as a basic component”.

During the space congress held in Málaga, Indra argued the need to address the transformation of Spanish new space companies and endow them with industrial production capabilities so as to undertake the manufacture and recurrent renewal of the constellations that the company will deploy in the country in the future every three to five years.

Indra has played a crucial role in the development of major European space infrastructures, including the Galileo global positioning system and the Copernicus constellation of earth observation satellites. Its customers include the European Space Agency (ESA), the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), Ministries of Defence and large telecommunications companies such as Hispasat and Eutelsat.

The company is currently working on the main programs promoted by the EU through the European Defence Fund to develop the technologies required to protect its assets in space. Last year it joined the Integral project, which is undertaking the development of command and control solutions for space situational awareness, the Odin’s Eye project, which develops early warning capabilities to detect and track the trajectories of ballistic missiles and hypersonic threats from space, and the Sauron project, which develops advanced sensors to identify and characterize objects in space based on a combination of ground-based and space-based sensors.

About Indra

Indra (www.indracompany.com) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers world-wide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defense markets, and a leading firm in digital transformation and Information Technologies in Spain and Latin America through its affiliate Minsait. Its business model is based on a comprehensive range of proprietary products, with a high-value focus and with a high innovation component. In the 2021 financial year, Indra achieved revenue of €3.39 billion, more than 52,000 employees, a local presence in 46 countries and business operations in over 140 countries.