

INDRA STRENGTHENS ITS LEADERSHIP TO TURN THE DIGITAL EUROPEAN SKY INTO THE WORLD'S MOST EFFICIENT AND SUSTAINABLE WITH 21 MAJOR SESAR INNOVATION PROJECTS

- The company is to develop a new generation of systems that will strengthen security, cut flight times and reduce emissions thanks to a much more automated, efficient and environment-friendly air traffic management.
- It will coordinate four key projects to enhance the iTEC system, increase the resilience of the air navigation network, drive urban air mobility and improve the passenger experience.
- Air traffic control centers capable of transferring the management of their air space, artificial intelligence assistants to support the controllers' work and new functions to reduce CO2 emissions and support green aviation will be some of the future developments.
- Indra is one of the main partners of SESAR 3 Joint Undertaking (SESAR 3 JU), one of the most ambitious and innovative ATM initiatives in the world, which enjoys the support of the EU and the entire aviation industry.

Madrid, July 24 2023 - Indra is renewing its commitment to the deployment of technologies that will make the European airspace the most efficient and sustainable on the planet, strengthening air safety, cutting flight times and reducing emissions. The company has been selected to work on 21 major research and innovation (R&I) projects within the framework of the SESAR 3 JU's Digital European Sky program, leading four of them, in which it will develop cutting-edge technologies to transform the way we fly in Europe, thereby improving passenger comfort and airline services. The overall budget for all of them exceeds €263 million.

Indra is once again playing a decisive role in the third phase of the SESAR 3 JU, one of the most ambitious and innovative ATM initiatives in the world, which is transforming air traffic management to make it smarter and more sustainable.

The company has become involved in all the projects that form part of its business strategy, taking on a decisive role in the development of highly advanced technologies. In order to accelerate the arrival of all these developments in the market as rapidly as possible, it will rely on iTEC, one of the most advanced air traffic platforms in the world.

Indra's Head of ATM, Javier Ruano underlined that "at Indra, we've set ourselves the goal of leading the global air traffic market and we're committed to innovation to bring our customers a new generation of systems that will manage the air space in a much more efficient, safe and environmentally-friendly way. If we want Europe to continue to lead the way in the industry, the control centers throughout the continent need to be modernized and made as interoperable as possible, as we're doing at iTEC, so as to put an end to the fragmentation of the airspace".

The most significant projects in this call include ISNAP, led by Indra, which will allow iTEC communications to evolve towards a more modern and robust model, updating the ATM system supervision and data recording functions. Moreover, the calculated trajectory of each flight plan will be improved by means of the receiving of new information directly and periodically emitted by the aircraft. These improvements will form the basis for evolving the concept of virtualization and delegation of the air space.

The company is also leading the VITACY project, which will study new architectures to develop more advanced virtual data centers that are capable of remotely providing much more specific data with which the centers and towers will be able to cover very specific functions, such as arrival management, aircraft separation and conflict detection.



As for en-route flight management, the company will form part of the ATC-TBO project, which will improve the way of responding to unforeseen events in the flight execution phase, when unexpected changes in the weather or runway configuration at an airport can affect a large number of operations planned on the basis of very tight schedules that then need to be dynamically recalculated.

Similarly, Indra will work on the development of advanced digital assistants based on the use of artificial intelligence (JARVIS) to facilitate the work of controllers, it will accelerate the development of a new generation of ADS-B surveillance systems to provide more information in a safer way and promote technologies to facilitate a flexible configuration of the civil and military air spaces (MITRANO), and it will form part of an innovative project (GEESE) that will introduce transoceanic formation flying, during which one aircraft will lead the way, leading to energy savings for the others, as birds do during their migrations.

With regard to the global management of the air navigation network of a country or continent, Indra will develop systems to reinforce the coordination and facilitate the balancing of demand (ISLAND and HARMONIC) to prevent traffic congestion. It will also focus on reinforcing cybersecurity and securing different air traffic and communications platforms and navigation and surveillance systems (FCDI).

Smart airports and drones

Indra is leading two large Digital European Sky projects that will have a major impact on citizens' lives. Firstly, the company will coordinate the FastNET project, which is addressing the development of information exchange systems in airport environments to improve the experience and comfort of travelers.

Secondly, it will coordinate the ENSURE project that will develop the interface connecting conventional air traffic management (ATM) systems with the new traffic management platforms in the U-space in order to facilitate low-altitude drone operations. It will also participate in two other SESAR 3 projects that will focus on the development of drone separation services and the definition of the concept of operating vertiports (SPATIO and EUREKA). The company will thus reaffirm its position as a pioneer in urban air mobility, which will provide huge growth potential in the coming years.

Indra has been part of the SESAR Joint Undertaking since its launch in 2008 and has been one of the companies that has contributed the most in all its phases. This commitment to RDI enables the company to deliver the most advanced automation, digital communications, radar and surveillance systems available today to its customers around the world. Moreover, it is deploying the leading drone traffic management platforms, digital and remote air traffic control towers and satellite constellations to enhance aviation safety around the globe.

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's a world leader in providing proprietary solutions in specific segments in the Transport and Defence 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 end-to-end focus and with a high innovation component. In the financial year 2022, Indra achieved revenue totaling €3,851 million, with almost 57,000 employees, a local presence in 46 countries and business operations in over 140 countries.

About SESAR 3 Joint Undertaking

SESAR 3 Joint Undertaking (https://sesarju.eu) is an institutionalized European partnership between public and private sector partners created to accelerate the realization of the European Digital Sky through research and innovation. It does this by harnessing, developing and accelerating the adoption of the most advanced technological solutions to manage conventional aircraft, drones, air taxis and vehicles flying at higher altitudes.



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