

## INDRA AND HUNGAROCONTROL OPTIMIZE AIRPORT GROUND OPERATIONS WITH PIONEERING SOLUTION THAT INCREASES SAFETY AND EFFICIENCY

- **A large-scale validation of the SESAR Integrated Airport Operations project has been successfully run by Indra and HungaroControl, resulting in better ground safety and efficiency**
- **The projects includes airport safety nets such as conflicting ATC clearance alerts (CATC), conformance monitoring (CMAC), as well as automatic pre-departure sequencing and surface movement planning and routing**
- **The validation was followed by a SESAR Integrated Airport Operations Open Day, which took place in Budapest**
- **Indra's InNOVA Ground A-SMGCS is the industrial platform for the solution that is now ready for deployment, as part of Indra Air Solution comprehensive answer to air traffic challenges**

**Madrid, May 6, 2019.**- Attendants from 13 countries saw presentations and live demonstrations of pioneering solutions to guide and control aircraft ground movements (A-SMGCS), as Indra and HungaroControl hosted an Open Day following validation of the SESAR 2020 Integrated Airport Operations (PJ28) project on April. The ambition of the project is to optimize ground operations by improving efficiency and capacity, enhancing safety, and reducing CO2 emissions.

During the project, a range of new solutions has been developed and implemented in the selected industrial platform, InNOVA Ground from Indra. To increase safety, the system compares aircraft movements against given clearances. Conformance monitoring alerts (CMAC) will notify the air traffic controller in case of non-compliance. The controller will also be alerted of potentially conflicting clearances (CATC). Efficiency and capacity challenges are addressed in several ways. The system automatically calculates the optimal time of departure of each aircraft to improve traffic flow at the airport. Further, surface movement planning and routing is also automated and integrated into the A-SMGCS, allowing air traffic control to focus on more demanding tasks.

"We have tested out the new solution from Indra, and we like what we see. Integrating more automatic alerts and functionality into the A-SMGCS helps air traffic controllers work more efficiently and allows more time to react in case of non-conformance or conflicting clearances", comments Anna Petrovai, Head of Aerodrome Control Unit at HungaroControl.

"Making airport operations more secure, efficient and environmentally friendly are the main challenges of our industry, and it is precisely what we have addressed in this project. We are very pleased to see so much interest in the solution, and grateful to HungaroControl for partnering with us to run live demonstrations at their facilities", comments Terje Dalen, Product Manager at Indra.

The validation has proven that the new functionality is ready to be deployed operationally as part of Indra's Advanced-Surface Movement Guidance and Control System (A-SMGCS); InNOVA Ground.

### **About HungaroControl**

HungaroControl is a certified provider of air navigation services and specialist professional services. With its dedicated workforce, HungaroControl delivers safe, efficient and environmentally-responsible air navigation services to more than one million flights in Hungary and the upper-airspace of Kosovo (on NATO assignment). Leveraging both a breadth and depth of experience, HungaroControl also partners with service providers globally to solve their burning problems and achieve their strategic goals, providing customers with

more than just step-changes improvements, but clear pathways to translate air traffic management innovation into valued service outcomes. Discover more at [en.hungarocontrol.hu](https://en.hungarocontrol.hu)

**About Indra**

Indra ([www.indracompany.com](https://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 Consultancy 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 2018 financial year, Indra achieved revenue of €3.104 billion, with 43,000 employees, a local presence in 46 countries and business operations in over 140 countries.