

## INDRA AND THE UNIVERSITY OF CORDOBA WORK TOGETHER TO RESEARCH AND DEVELOP CUTTING-EDGE DIGITAL SOLUTIONS APPLIED TO SUSTAINABILITY 4.0

- They have signed a Framework Agreement to collaborate on researching state-of-the-art digital technologies, with a special focus on this area that improves logistics management and predictive maintenance of all types of platforms, such as aircraft, ships or land vehicles
- Leading the digital transformation of armies, Indra will also collaborate with the University of Cordoba in the training and development of highly specialized professionals
- One of the potential areas of work is the development of cloud, fog and edge computing technologies, aimed at reducing latency when processing critical data

**Madrid, May 13, 2022.-** Indra, a leading global technology engineering company for the aerospace, defence and mobility sectors, and the University of Cordoba have signed a framework agreement to work together on research and development of next-generation digital technologies related to Sustainability 4.0, as well as to promote the training and specialization of professionals in a critical area for the future of society.

Both organizations are thus taking a first step towards defining the specific digital areas and projects on which they will work together with this agreement. The development of new cutting-edge solutions applied to Sustainability 4.0, which transfers the concept of Industry 4.0 and Maintenance 4.0 from the civilian to the military sphere, and which introduces the use of artificial intelligence and virtual reality in the logistics management of defence and predictive maintenance of platforms (air, naval and land) to take it to maximum levels of efficiency, is of particular interest.

Indra's Defence Aftermarket director, José Manuel Sánchez Serrano, said "through the introduction of technologies such as artificial intelligence, cloud computing, virtual reality and hyperconnectivity, Indra is successfully automating the management and control of all the logistics processes of an army to a degree of agility and efficiency never seen before. Through this agreement with the University of Cordoba, Indra will work to remain at the forefront in this field".

The rector of the University of Cordoba, José Carlos Gómez Villamandos, highlighted "the importance of this agreement with a company that is a leader in the domestic and international technology sector and that will allow the UCO to put its knowledge at the service of the development of one of the strategic areas for the economic development of advanced societies".

For the head of the Advanced Informatic Research Group (GIIA) of the University of Cordoba, Joaquín Olivares, "one of the possible areas of collaboration identified involves hybridizing near and cloud computing, applying High Performance Computing (HPC) in Edge & Fog layers, close to where the data is produced, which enables a fast response and a robust system, and also reduces the volume of data and decision -making in the cloud to those really needed in the cloud".

These techniques bring tremendous speed to real-time data processing, which is essential to meet the critical needs of modern armed forces, where multiple systems and platforms operate collaboratively exchanging information in combat clouds. This technology allows data to be processed directly at the point of capture, without having to send raw data to large data centers for processing, thus saving time and gaining agility.

Research in edge and fog computing is fully aligned with the Spanish Army's project to build a large logistics base in Cordoba, which will concentrate all its logistics capabilities and act as a focus of innovation for the digitization of countless processes.

The joint work of Indra and the University of Cordoba will also contribute to position Spain among the big European leaders in the development of new digital technologies which, in the case of defence, are strategic for the autonomy and sovereignty of the European Union. Beyond the military sphere, such systems also find direct application in all sectors of the civilian economy.

The agreement will also enable the development and retention of local talent in a key area for the competitiveness and future of the economy, facilitating the specialization and professional development of new generations in Spain.

The University of Cordoba thus joins the extensive open innovation network that Indra maintains with a large number of Spanish and international research centers and startups. This relationship speeds up the development of the breakthrough solutions it offers to its customers.

### **Leaders in Sustainability 4.0**

Indra has developed the sustainability 4.0 platform that is revolutionizing defence maintenance and logistics. A solution based on the use of artificial intelligence that makes it possible to control, comprehensively and in real time, all the material and supply management flows and processes of an entire army. It is also capable of 'learning' and incorporating increasingly accurate algorithms to improve management and support managers in decision making.

The platform is prepared to collect a huge volume of data from air, land and naval platforms to monitor their behavior and be able to carry out predictive maintenance of all their systems, anticipating any possible failure. It also introduces the use of virtual assistants based on VR glasses, remote telecare tools and digital twins that facilitate the work of professionals in charge of maintaining increasingly sophisticated and complex systems and platforms. The ultimate goal is to put a system in the hands of the military that will enable it to be always ready for its next mission and help it to deploy quickly wherever it is needed.

As a global leading company in engineering technology for the aerospace, defence and mobility sectors, Indra is its customers' technology partner for digitization and key operations around the world. Its team of experts and its in-depth knowledge of those businesses and the latest technology, and its leadership in major European innovation programs and projects to design the next generation of technological solutions, give it a differential offering and enable Indra to lead unique, highly innovative projects that will transform the future of these sectors on a global scale in the coming years.

### **About Indra**

Indra ([www.indracompany.com](http://www.indracompany.com)) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers worldwide. It is a world-leader in providing proprietary solutions in specific segments in 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 2021 financial year, Indra achieved revenue of €3.390 billion, more than 52,000 employees, a local presence in 46 countries and business operations in over 140 countries.