

## MINSAIT DRIVES, THROUGH A EUROPEAN PROJECT, THE CONSTRUCTION OF NEW INTERNET OF THINGS SOLUTIONS FOR IMPROVING THE MANAGEMENT OF SMART CITIES

- Within the framework of the CPSE Labs project, Indra's digital transformation unit has contributed its product FEEP IoT&BigData Platform Sofia2 as the basis for developing a smart water management system that is capable of saving up to 40% of consumption
- Minsait technology will also be the basis for two new projects that have just been launched to test the use of drones as a source of information for the new European emergency call system and for promoting sustainable development in cities
- The CPSE Labs project is framed within the Horizon 2020 EU Framework Programme, the main goal of which is to launch a collaborative node network to facilitate experimentation with products and services and to accelerate progress

**Madrid, March 27, 2017.-** Minsait, Indra's digital transformation unit, is giving a new boost to the construction of solutions with great innovative content in the realm of Smart Cities through its participation in the European R&D program Smart Cyber Physical Systems Engineering (CPSE) Labs, with the purpose of creating a collaborative network of expert engineering centers to develop cyber-physical systems in areas like smart cities, automotive sector or urban sustainability.

The initiative has already achieved its initial quantifiable results with iWESLA, a pilot project for smart water management that has obtained savings of up to 40% in consumption. This is the first success story of the CPS center activities in Spain, led by Minsait.

The purpose of this laboratory in Spain, located at the Polytechnic University of Madrid (UPM), is the experimentation and development of services for the digital citizen to facilitate communication between physical and virtual worlds, using the capabilities of FEEP IoT&Big Data Platform Sofia2 (<http://sofia2.com>) as the basis for its solutions. The Minsait platform allows for integrating heterogeneous information from different devices and systems, and is capable of processing thousands of events per second, with Big Data storage capacities and built-in rules.

The solution's prototype was tested at the South Campus of the Polytechnic University of Madrid (UPM) in its initial phase, for its subsequent expansion and deployment to a sports center and a primary school in the city of Rivas-Vaciamadrid. This pilot has managed to demonstrate how the use of IoT and Big Data technologies can optimize water consumption by detecting anomalies and implementing actions in real time.

Alvaro García Dols, Minsait Innovation Coordinator, explains that "integrating the information obtained from different devices (meters and sensors) in FEEP IoT&Big Data Sofia2 has made it possible to disaggregate the average consumption at the main connection, identify real consumption points and, as a result, also detect anomalous consumption that could result of faults in the network or of inefficient water use".

### New pilots

This initiative's success has driven the development of two new projects by the CPS Laboratory in Spain, based on the Minsait Internet of Things and Big Data platform, the results of which will be available at the end of this year.

The first, “Drones, eCall and Cyber Physical Systems for Public Safety Answering Points 112”, will use the Minsait solution for testing its use in the new European emergency call system, eCall, which will be mandatory as of April 2018. This system will standardize the use of Public Safety Answering Points (PSAP 112) in Spain and will include the use of drones as a new source of information for contextualizing an emergency. FEEP IoT&Big Data Platform will integrate the data from eCall, images from the drones and information on weather and from social networks to create business rules that will speed up response.

Furthermore, the goal of the “Enabling municipalities with CPS instruments and business models for digital transformation” project is to display the digital transformation of public services through FEEP IoT&Big Data Sofia2, in compliance with ISO 3710 regulations for sustainable development and indicators for urban services. In this case, the Minsait platform will be integrated with a Smart City monitor, a powerful tool for the web publication of indicators.

The CPSE Labs project, scheduled to end in 2018, as part of the Horizon 2020 EU Framework Programme for financing research, development and innovation, grant agreement number 644400, has as its goal the facilitation of experimentation with products and services to accelerate knowledge transfer to industry in Europe, with the goal of driving its competitiveness. Led by Fortiss as consortium coordinator, it counts with the collaboration of nine companies, including Indra, from five member countries which will host expert centers: Germany, France, Sweden, the UK and Spain.

### **A prestigious and consolidated platform**

To date, FEEP IoT&Big Data Platform Sofia2 is a prestigious and consolidated platform that has driven the development of high value-added solutions for clients in fields such as Smart Cities (La Coruña urban platform) or Smart Health (TELEA project for Teleassistance and SISENS, for patient monitoring, both in the Galician Health Service).

The platform, which gains notoriety every day through our new projects, is considered state-of-the-art technology by experts and analysts of the sector, after winning the 2016 Open Digital Ecosystem Platform of the Year Award for its capacity for driving the creation of open digital systems that promote collaboration between companies, organizations or researchers.

In addition, it presents an important, differential value. “It has been designed as digital native based on *open source* technologies, is accessible through APIs, and may be integrated with third parties. Likewise, it offers free environments for experimentation for active collaboration between manufacturers, providers, clients, entrepreneurs or universities”, Alvaro García explains.

Currently, FEEP IoT&BigData Sofia2 is also being used in fields like home automation, industry and retail, through solutions like Connected Home, Smart Cities and Industry 4.0, as well as others specific to the world of energy efficiency and sustainability of infrastructures.

Furthermore, it serves as the basis for the development of e-Vacuate, an important European innovation project, the purpose of which is to develop a comprehensive platform based on simulation and emergency management systems and Internet of Things and Big Data technologies to define, in real time, optimal routes for evacuation from large infrastructures. The initial pilot, completed at the end of 2016 at the Anoeta soccer stadium, reduced evacuation times by 23%.

In the opinion of García, the future now depends on expanding the platform's scopes of application through new projects. “The acquired experience allows for a faster maturity of the solution, growing in capacities and functionality to prepare for the coming future. In fact, we are already creating solutions in R&D projects in the transport sector, like ITRail and Transforming Transport, and in the space sector, like Land Analytic Eo Platform”, he affirms.

### **About Minsait**

Minsait ([www.minsait.com](http://www.minsait.com)) is the Indra business unit that tackles the challenges posed by digital transformation to companies and institutions. Its offer is focused on achieving immediate and tangible results.

Indra has grouped its entire digital business technology and consulting solutions under Minsait, which has established itself as one of the leading companies in said market in Spain. Minsait is characterized for its differential methodology, a broad portfolio of business solutions, a proprietary and unique sales model, delivery and support aimed at impact generation, and a flexible organization based on multidisciplinary teams, comprised of specialists with very specific profiles. Minsait completes Indra's existing offering of high-value vertical products, helping to orientate all services to cater to clients' key business needs, and thus becoming a driving force behind their growth.

### About Indra

Indra is one of the main global consulting and technology companies and the technology partner for core business operations of its clients businesses throughout the world. It offers a comprehensive range of proprietary solutions and cutting edge services with a high added value in technology, which adds to a unique culture that is reliable, flexible and adaptable to its client's needs. Indra is a world leader in the development of comprehensive technological solutions in fields such as Defense & Security, Transport & Traffic, Energy & Industry, Telecommunications & Media, Financial Services and Public Administrations & Healthcare. Through its Minsait unit, it provides a response to the challenges of digital transformation. In 2016 it reported revenues of €2,709m, had a workforce of 34,000 professionals, a local presence in 46 countries, and sales operations in more than 140 countries.