

## **INDRA AND UPM CREATE AN INNOVATION HUB TO IMPROVE SMART CITY MANAGEMENT**

- **Indra and Universidad Politécnica de Madrid (UPM) successfully completed the CPSE Labs project, under the European *Smart Anything Everywhere* program, which aims to transfer the latest advances in digital innovation to European industry**
- **The Innovation Hub drives the creation of ecosystems involving students, researchers and companies, and is equipped with the experts and infrastructure needed to develop experiments and solutions designed to improve management in cities**
- **The results include solutions for efficient water management, a support system in traffic accidents based on e-call using drones, or the implementation of management models for cities following the international standards on sustainability**

**Madrid, June 25, 2018.-** Indra and Universidad Politécnica de Madrid (UPM) have made further inroads into building innovative solutions to improve the management of smart cities with the creation of a laboratory of cyber-physical systems. The initiative is the result of the European R&D program Smart Cyber Physical Systems Engineering (CPSE) Labs, which intended to roll out a collaborative network of Innovation Hubs in five different countries to promote the development of cyber-physical systems in areas such as smart cities, robotics, aeronautics and sea transport.

The Spanish Hub, led by Indra and UPM and located at the South Campus of this university, has achieved its initial quantifiable results with the iWESLA project, a pilot project for smart water management that has obtained savings of up to 40%. To do so, Indra's Minsait IoT Sofia2 has been used as a platform for integration between smart water sensors developed by A-Cing and usage a disaggregating algorithm developed by Novelty. The experiment demonstrated that using IoT and Big Data can optimize water usage by detecting anomalies and acting in real time.

Furthermore, "Drones, ecall and Cyber Physical Systems for Public Safety Answering Points 112," developed by Answare Technologies along with CENTIC (Technology Center of the Information and Communications Technologies of the region of Murcia), has used Minsait IoT Sofia 2 to test its use for the new European system of emergency call, eCall, mandatory since last April 2018.

This system will standardize the use of Public Safety Answering Points (PSAP 112) in Spain and will include drones as a new source of information to contextualize the emergency. Indra's platform integrates data from eCall, images from the drones and information on weather and from social networks to create business rules that will speed up response. This project has been selected by the European Commission as the best of the 23 financed within the program, due to its impact on society.

Finally, Smart Urbana, another of the projects developed in the Hub, has made it possible to test a management model for smart cities in accordance with the international standard for Smart Cities defined by ISO37120 (Sustainable development of communities - Indicators for city services and quality of life). ASIDEES (Association for Sustainable Innovative Development in Economics) has provided its tool Smart Monitor. This tool defines a full dashboard of indicators for the city and is fed thanks to Indra's technology, which facilitates the connection with the different devices and sensors. In addition, the project involves the municipality of Faro (Portugal), Alba Iulia municipality (Romania), City Hall Nasporeni (Moldova), municipality of Volvi (Greece) and the city of Calvia (Spain).

These three proposals were selected in the Spanish Hub between the 31 received from 46 organizations in 10 countries, after an open selection process (open calls) in which independent experts assessed and selected the best experiments to be financed under the CPSE Labs project.

### **A Hub open to innovation and training**

Access to the Hub is aimed at both students and researchers and companies. It involves professors and researchers from UPM and is equipped with the infrastructure, hardware and software necessary for the development of projects that improve the management of smart cities. Also, Indra provides competencies in smart technology in the ecosystem Minsait IoT Sofia2 to support and collaborate with researchers and entities performing experiments.

Additionally, within the framework of the Master's degree in Distributed and Embedded Systems Software from UPM, training in Minsait IoT Sofia2 technology was given to the ecosystem's participants; this was then tested with a hackathon for developers. Indra professionals gave support to experiments and assessed and awarded the best solutions.

The CPSE Labs project, recently completed as part of the Horizon 2020 EU Framework Program for financing research, development and innovation, under 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.

### **About Indra**

Indra is one of the world's top technology and consulting companies and a technology partner for the key operations of its customers' businesses worldwide. It is a leading worldwide provider of proprietary solutions in niche areas in transport and defense markets and the absolute leader in IT in Spain and Latin America. It offers a comprehensive range of proprietary solutions and cutting-edge services with a high added value in technology based on a unique culture of reliability, flexibility and adaptability to its customers' needs. Indra is a world leader in the development of end-to-end technology solutions in fields such as defense and security, transport and traffic, energy and industry, telecommunications and media, financial services, electoral processes, and public administrations and healthcare. Minsait is Indra's digital transformation business unit. In 2017, Indra posted a revenue of €3.011 billion, employed 40,000 professionals, and had a local presence in 46 countries plus sales operations in more than 140 countries.

### **About UPM**

Universidad Politécnica de Madrid (UPM) has more than 39,000 students enrolled in their 18 schools and faculties. UPM is the leading Spanish public university in engineering, architecture, physical activity and sports science and fashion design. UPM is the Spanish-speaking university with the highest position in the QS World University Ranking in the area of engineering and technology.

UPM has 205 active research groups consisting of teachers and students. The results of this intensive research work include becoming the number one Spanish applicant for patents. Between 2005 and 2017 UPM applied for 583 patents, according to the Spanish Patent and Trademark Office. This university also heads the ranking of Spanish universities both in terms of the number of University-Business chairs (73) and the economic volume derived for their research. The chairs carry out activities in diverse subject areas such as the aeronautical sector (including the Indra Chair), information and communications technology, the energy sector and the materials and building sector, among others.