

## **INDRA USES IOT, ARTIFICIAL INTELLIGENCE AND BIG DATA TO ACHIEVE MORE SECURE AND SUSTAINABLE MOBILITY AND TO DRIVE NEW BUSINESSES**

- **The company demonstrates at the TRAFIC Fair its state-of-the-art digital technologies that will shape urban and interurban traffic management in the future, together with its most advanced projects underway in Great Britain, United States, Colombia and Spain**
- **Indra is one of the world's leading companies providing solutions for control and management of traffic, tunnels and tolls, as well as in urban mobility, and leads important European innovation projects to digitalize the sector**

**Madrid, October 24, 2017.-** Indra, one of the world's leading global consulting and technology companies, presents at TRAFIC, the International Safe and Sustainable Mobility Exhibition, held in Madrid on October 24-27, the latest digital technologies that will transform urban and interurban traffic management in the future, together with some of the most advanced projects it is developing in Great Britain, United States, Colombia and Spain.

At its stand, the company will display some of the leading European R&D&i projects it leads with the goal of putting autonomous vehicles on the roads, taking advantage of all of the potential offered by hyper connectivity and of technologies like IoT, big data, cloud or artificial intelligence to improve traffic.

Among these, AUTOCITS is worth mentioning, as it will test autonomous cars on roads in Lisbon, Madrid and Paris to adapt regulations, traffic control centers and infrastructures to the connected, autonomous vehicle. Initial tests have already begun in Madrid, and the company has created a new module in its Horus traffic and tunnel management solution for in-cloud management of information transmission to the autonomous or connected vehicle as well as taking advantage of the data these vehicles generate, processing these in real time and providing valuable information for decision-making by managers, the connected vehicles themselves and drivers of conventional vehicles.

In addition to the new developments, demonstrations will take place at TRAFIC of the functioning of Horus at different sites including, for example, London's 12 road tunnels managed by Indra's integrated platform since the end of 2016.

Given the unstoppable growth of data this sector generates, Indra is working on innovative processing, analysis and operation using big data as one of its pillars to improve management of mobility and services provided to users, as well as to open new lines of business. The company is heading up the macro Transforming Transport project in Europe that includes two smart road pilots in Spain and Portugal. Within this project's framework, Indra's traffic management solution is incorporating new algorithms for *analytics* and *machine learning* that enable the tool to learn from and improve itself when generating traffic-related alarms and predictions.

Furthermore, big data, combined with artificial intelligence, is the basis of the new system being perfected by Indra and which enables the automated identification of vehicle types and their number of occupants, in real time and with unique precision. The solution of the BeCamGreen project, also to be presented at TRAFIC, allows traffic managers to ascertain mobility patterns and define policies to promote the use of public transport and/or high-occupancy and low-emission vehicles, and apply discounts, penalties, access restrictions, etc.

This solution is beginning to be requested in highway tenders in countries like the United States, as it facilitates the creation of special lanes for certain vehicle types and complements toll technology that Indra has already

implemented in the country. The company has also been a trailblazer in implementing toll systems under multiple contracts, permitting integrated management and operation of several highways, and has supplied all of the toll systems for the Indiana Toll Road, a demo of which will also be shown at TRAFIC.

### **Smart and sustainable urban mobility**

The BeCamGreen will also enable the development of sustainable urban mobility and traffic restriction strategies that are already being implemented in many European cities by marketing a product that is automated, reliable and reasonably priced and that helps comply with and detect infractions.

Indra will also showcase demonstrations of other traffic management and urban transport solutions in place in over 100 cities worldwide, including Madrid, London, Manila and Medellin. These include its urban traffic management and video surveillance systems and the Operation Assistance System (OAS) for bus management.

The company will present the case of Medellin as an innovative example of smart urban mobility and where it has been technology partner, implementing its solutions in the city's most important transportation infrastructure projects: Metro Medellin, Metro Cable, Metro Bus, Ayacucho Streetcar and Smart Mobility System. Thanks to this integrative and intermodal concept based on state-of-the-art technologies, the city's mobility is managed globally, taking maximum advantage of the different transport infrastructures.

Some of the most modern advances in intermodality will be displayed with the Harmony R&D&i project that develops technologies for integrating real-time data from different transport means and operators as well as traffic to improve multimodal information services. The system will be tested in Madrid in a pilot project with the collaboration of Grupo Interbús and the Directorate General for Traffic.

### **About Indra**

Indra is one of the world's top consulting and technology companies, the leader in IT in Spain, and the advanced technology partner for core business operations of its customers everywhere. 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 clients' 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. Through its Minsait unit, it addresses the challenges of digital transformation. In 2016 Indra posted revenues of €2,709m and had a workforce of 34,000 professionals, a local presence in 46 countries, and sales operations in more than 140 countries. Following its acquisition of TecnoCom, Indra's combined revenues amounted to more than €3,200m in 2016 with a team of nearly 40,000 professionals.