

## **INDRA LEADS THE TRANSFORMING TRANSPORT PROJECT, WHICH WILL USE BIG DATA TO IMPROVE MOBILITY IN EUROPE**

- **With a budget of €18.7 million and the participation of 47 organizations from nine countries, coordinated by Indra, this is one of the largest R&D&i projects funded within the Horizon 2020 program**
- **Transforming Transport will demonstrate how the use of data may improve management and services rendered to clients in the logistics and transport sector, through 13 large-scale pilots in different countries and transport modes**

**Madrid, March 20, 2017.-** Indra, one of the leading global consulting and technology firms, leads the R&D&i project Transforming Transport, which intends to be the tangible demonstration of how massive amounts of data generated by the transport and logistics sector can be exploited in an innovative way using state-of-the-art big data technologies to improve the management of mobility and services rendered to users.

This project is one of the largest funded by the European Commission within the framework of the Horizon 2020 program, both in terms of budget, €18.7 million, as well as with the participation of 47 partners from Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, United Kingdom and Spain, including some of Europe's leading infrastructure managers and transport operators.

Transforming Transport includes 13 pilot projects that will be implemented in several countries and in different areas of transport: roads, airports, ports, rail infrastructures, sustainable connected vehicles, integrated urban mobility and logistics. In each of these areas, new algorithms will be developed and tested, based on existing big data technologies, that allow for integrating and analyzing real data from diverse sources, developing transport patterns and exploiting these in a way that is most suitable for decision-making.

For example, Valladolid in Spain will implement one of the pilot projects on urban mobility; France, on the connected vehicle; Greece, on airport passenger flow; Great Britain, on rail transport; Portugal, on highways; and Germany, on logistics at ports.

Furthermore, one of the project's goals is for the results achieved by these pilot projects to be reusable and replicable, even after the formal end of the project, for which over 120 key actors from the European industry will become involved.

### **Tangible benefits**

The three main advantages that big data may contribute to the transport sector, and which the Transforming Transport project will address, are the improvement of efficiency, services rendered to clients and the possibility of generating new revenues or business models.

It is calculated that the use of big data may improve operational efficiency of processes and services linked with transport by, at least, 15%, optimizing the use of resources and reducing maintenance costs, fuel consumption or incidents, among others.

Likewise, these technologies make it possible to offer a more personalized service adapted to the clients' needs, while also contributing to the optimization of passenger flows, reducing waiting times and goods delivery, and avoiding failed connections between different modes of transport, among other benefits. All of this will improve user satisfaction and will generate repeat business.

The use and exploitation of data may also lead to new sources of income and, even, new business models, based on a better knowledge of travelers' preferences or travel patterns, for fields like tourism or advertising.

### **Leading four pilot projects**

Indra contributes toward the Transforming Transport project its knowledge as one of the leading companies worldwide in smart technology for traffic management, with references in more than 50 countries, as well as its digital capabilities in big data and analytics. In fact, the project will count with the participation of Minsait, the Indra business unit that responds to the challenges posed by digital transformation. In addition, the company's experience leading ambitious R&D&i initiatives in Spain and abroad, that involve a large number of partners and include international pilot projects.

Indra leads, furthermore, four Transforming Transport pilot projects. Among these, we are going to launch, in collaboration with Adif and Ferrovial Agroman, a rail pilot project for the high-speed section between Cordoba and Malaga, in Spain. Big data technologies will be used to improve the management of the line's maintenance works, optimize available resources and reduce maintenance costs based on integrating, processing and modeling different data sources: maintenance, information on assets, traffic data, topology, superstructure data and meteorological information. Real-time predictions will also be made on the impact of maintenance on certain events for rail traffic management.

In the two pilot projects on smart roads coordinated by Indra, to be developed in Spain and Portugal with the collaboration of Cintra and Ci3, the goal is to validate the use of data to improve the management of the roads' capacity, reduce accidents, optimize available resources, decrease operating costs and mitigate possible traffic jams. To this end, we will delve into the mobility patterns of the identified corridors, in Malaga and Portugal, and the user selection criteria; develop and validate tools for managing traffic information and make short-term predictions, for example, on expected demand and flow of vehicles, for the purpose of facilitating decision-making. Data on traffic, speed, weather, information from cameras, etc., will be integrated.

Indra also heads a pilot project at the Athens Airport which, based on big data, seeks to optimize operations for the airport as well as for airlines, managing passenger flow, optimizing check-in times, arrival to boarding gates or access to airplanes, and even contribute to improving management of the shops' occupancy levels.

### **A growing sector in Europe**

Expectations are that business trips and tourism will grow significantly in upcoming decades, and that goods transport will increase 40% in 2030, requiring a shift in the operations of transport and logistics. At the same time, regulations related with climate change and the mandatory emissions reduction exert tremendous pressure on the search for a more efficient and sustainable mobility model.

Transforming Transport wants to respond to this challenge through the application of big data to the transport and logistics sector, currently used by only 19% of the sector's companies. The project intends to duplicate this percentage by demonstrating the palpable benefits of using data for both citizens and companies, and how it may help improve Europe's competitiveness and consolidate its position as one of the world's most advanced regions in terms of transport and logistics.

This sector represents approximately 15% of global GDP. It is expected that the push to efficiently exploit large data volumes will result in savings of over €450 billion in fuel and time on a global scale, as well as reducing carbon dioxide (CO2) emissions by 380 megatons. In Europe, it is expected that an improvement of 10% in efficiency may save the EU up to €100 billion.

### **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.