

## **INDRA TESTS NEW TECHNOLOGIES IN MADRID TO IMPROVE INFORMATION ON TRANSPORT AND MOBILITY**

- The company leads Harmony, the European R&D&i project that develops technologies for integrating real-time data from different transport operators and means to improve multimodal information services
- This pilot project, developed with the Polytechnic University of Madrid, is part of the *Connecting Europe Facility* (CEF) program, the European Commission's most important investment plan for developing the transportation network in Europe
- The collaboration with Grupo Interbús and DGT in the pilot in Madrid will enable testing information exchange on public transportation and traffic to improve management and mobility and to offer citizens new, improved services
- The Harmony project allows Indra to participate in different European committees on standardization of Intelligent Transportation Systems (ITS), reinforcing its international leadership in intermodal transport solutions

**Madrid, July 25, 2017.-** Indra, with the collaboration of the research groups G@TV and TranSYT from the Polytechnic University of Madrid, and with the support of Grupo Interbús and Spain's Traffic Department (DGT), is implementing the European R&D&i project Harmony, a pilot study in Madrid for developing new technologies that facilitate the exchange of information between different actors intervening in transportation. This way, the project will contribute toward improving multimodal information services on mobility in a city and intermodality, the combined use of mixed modes of transport.

With a budget of €1.3 million and a 3-year duration, Harmony is part of the program *Connecting Europe Facility* (CEF), the European Commission's largest investment plan for developing transport infrastructures, in Spain coordinated by the Ministry of Public Works, with the goal of completing the Trans-European transportation network. Indra is one of the few companies that, neither a transportation operator nor manager, has obtained financing from the program for its proposal to test its developments in Madrid as one of the nodes, the Atlantic Corridor, that belongs to the mentioned network.

The Harmony project applies current European standards and state-of-the-art technologies to standardize, exchange and integrate data on public transportation in real time, and data and information on road network traffic, as well as that from other entities involved in the many facets of transportation. Therefore, it intends to make progress toward a single, permanent and sufficiently standardized procedure for information exchange between these bodies' different control centers, currently inexistent, to enable more coordinated and efficient operations, especially in the event of any incidents.

The goal is to develop, based on all of this data, new multimodal information services that will benefit both transportation operators and citizens themselves, and that will contribute to improving mobility management, available information in real time and the combined use of different modes of transport.

**Pilot in Madrid with Interbús and DGT**

The Harmony project's pilot program is underway in the north of Madrid, where some of the services developed are undergoing testing, thanks to the participation of different bodies that intervene in Madrid's mobility management.

The initial phase has counted with the participation of Grupo Interbús, one of the country's leading transportation operators, and which manages a major part of Madrid's metropolitan transportation network. Thanks to this collaboration, Interbús has access to statistical data in real time, such as incidences in its bus network, in standard formats like SIRI -protocol for real-time information exchange on vehicles and public transportation services- and DATEX -the model for information exchange between traffic management centers. In addition, by integrating the information from Interbús into Indra's traffic management solution, the buses may be located graphically on a map of Madrid's different roads.

These initial services have already proven to improve management tasks for public transportation operators, as directors from the Ministry of Public Works were able to verify during a recent follow-up visit at the Interbús control center.

In a second phase, it is expected for Spain's Traffic Department (DGT) to join the pilot project, for purposes of validating the real-time, standardized information exchange between this body, managing some of Madrid's main roads, and Grupo Interbús. In addition to testing services for improving the city's mobility management and contributing toward a coordinated and speedy response when faced with incidents, the pilot project also contemplates offering citizens new services, like alerts and multimodal route planning, in a third stage.

Upon completion of the project and based on the results obtained, the Harmony project will analyze the real impact that these applications and services could have on both transportation conditions as well as on operators' management and users' satisfaction.

**Building the Trans-European transportation network**

The European Commission wants to boost the generalization in Europe of this type of Multimodal Information Services, but to achieve this needs to standardize the data generated by different operators and Intelligent Transportation Systems (ITS). The Harmony project will enable Indra to participate in European committees on standardization of these ITS systems, reinforcing the company's international leadership position in these types of solutions.

Other goals of Harmony include generating and promoting standards for these types of systems applied to traffic and multimodal transportation in urban settings, providing guidelines to expand the deployment of these tested technologies and services to other European transportation infrastructures, and generating new business models that will take into account the reduction of external costs of transportation, in terms of energy and the environment.