Press Release

THE BRAZILIAN CITY OF CURITIBA AWARDS INDRA ITS LARGEST INTELLIGENT URBAN TRANSPORT AND MOBILITY PROJECT FOR €15 MILLION

- **Indra, along with its local partner Esteio and Dataprom, will expand the urban traffic management solution it implemented in 2010 with new ITS intelligent systems and a support system for operating the fleet of 2,500 public buses**

- **The project will improve the real time management of mobility and transport, and it will enable offering citizens additional information as well as a service that is more efficient, safe and environmentally friendly**

- **Curitiba, an international reference in the management of sustainable urban traffic, once again places its trust in Indra technology, which already manages transportation and mobility in cities throughout Spain, Colombia, Chile, Poland, the US and China.**

The Brazilian city of Curitiba (Paraná) has awarded the consortium comprised by Indra, IEESA--a joint venture between Indra and its local partner Esteio and Dataprom--the SIM (*Sistema Integrado de Monitoramiento, or Integrated Monitoring System*) for the amount of €15 million. The project's objective is to expand the urban traffic management solution that prioritises public transportation throughout the city and to equip it with new Intelligent Transportation Systems (ITS) and an Operations Support System (OSS) for the fleet of 2,500 public buses.

This is the largest project Indra has obtained to date in the area of intelligent urban mobility and transport, a field in which the company has been awarded major contracts this past year and for which it already has customers in cities throughout Spain, Colombia, Chile, Poland, the US and China, among other countries.

Curitiba, an international reference in sustainable urban traffic management, once again places its trust in Indra technology, which implemented in 2010, together with Esteio, its Hermes urban traffic management system in order to manage two of the main areas that organise metropolitan traffic. It will now be expanded to the entire city, taking the step from controlling the traffic lights at 48 intersections to the more than 600 total.

The project includes new Intelligent Transportation Systems (ITS), such as variable message panels to inform drivers, traffic detectors, a video surveillance system (based on CCTV, or closed circuit television) and video detection. Once they have been integrated with the Hermes system, the new ITS features will improve the management of mobility in real time by generating dynamic traffic plans that change according to traffic conditions. It will also be possible to anticipate congestion situations and establish alternative plans since it also has a microsimulation model based on predictive algorithms.

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This will enable the project to increase safety, optimise the flow of vehicles and shorten travel times, while reducing costs and the environmental impact.

Priority for public transportation

Indra will also expand to the Pinheirinho corridor the traffic light priority system for public transportation that it implemented in the previous project for the bus line 1 and Avenida Marechal Floriano. The traffic light priority system, based on the geo-referential analysis of the vehicle's position, improves the travel times of public transportation and promotes its use for a more sustainable mobility.

Once the necessary protocols have been entered, the Indra solution links the GPS system on each bus with the traffic light control centre in order to shorten or extend the time that lights are green when buses are going to pass, giving priority to public transportation using advanced traffic engineering techniques.

The system allows analysing all the bus routes, identifying critical intersections for priority, locating optimal points for improving travel times and defining the most appropriate actions for each intersection, associating them to the previously defined routes. It also considers other relevant parameters in order to favour bus transit, such as the time each bus will pass according to the defined margin, passenger occupancy, stop positions, the existence of a bus lane, etc.

Curitiba*, Smart City* in mobility

Indra's technology will allow Curitiba to continue with its commitment towards sustainable mobility, which earned the city a number of recognitions in 2010, such as the International Sustainable Transport Award or the Globe Sustainable City Award, and to continue on the cutting edge of this field as a *smart city* model.

On the other hand, this project boosts Indra as one of the leading companies in the development and implementation of intelligent technology to manage traffic and urban public transportation, with customers in the Philippines, China, the US, Colombia, Chile, Mexico, Peru, Morocco, Portugal, Poland and Spain.

By applying intelligent transport systems (ITS) in urban environments, cities are able to move towards the *smart city* model and achieve a more efficient and sustainable mobility. This contributes towards reducing traffic congestion and the resulting direct and indirect costs, minimising contaminating emissions and promoting the use of urban transportation. It is a model that improves the quality of life of citizens.

Indra is one of the world's largest consultancy and technology multinationals, a leader in Europe and Latin America and is expanding in other emerging economies. Innovation is the cornerstone of its business, which is highly focussed on the customer and on sustainability. The multinational is one of the leaders in its sector in Europe in terms of investment in R&D and innovation, having invested more than €550M in the last three years. With sales approaching €3,000 million, it employs 42,000 professional and has customers in 128 countries.

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