

INDRA WILL INSTALL ADIF'S ASSISTED DRIVING TRACK EQUIPMENT AND TRAVELER SERVICE SYSTEMS FOR OVER 50 MILLION EUROS

- **The company will contribute to the installation of the assisted driving system for the ASFA Digital control. It will install a network of landline and Wi-Fi telecommunications in the stations: Madrid Puerta de Atocha, Madrid Chamartín, Pontevedra, Salamanca and Bilbao Abando Indalecio Prieto and will set up the traffic management system in the AVE high-speed train on the Pedralba-Ourense section.**
- **These contracts reinforce Indra's worldwide leadership in the rail sector, with highly innovative proprietary solutions and projects in the USA, Australia, Ireland, Netherlands, Lithuania, Estonia, Saudi Arabia, Mexico, Colombia, Malaysia and India.**

Madrid, September 30, 2020- Having won several public tenders, Indra was awarded many contracts with Adif for over 50 million euros, to set up assisted driving track equipment, traveler services and traffic management systems, which will make it possible to improve the performance of ASFA systems in the Spanish rail network and the service provided to customers by the Spanish Rail Infrastructure Management Company (ADIF).

The company has been awarded a contract, in a JV with Instalaciones y Técnicas Eléctricas Asturianas-INTEL (75% Indra-25% INTEL), for the amount of 50.3 million euros to set up the necessary equipment (beacons and connection units) for the emission of new frequencies of the assisted driving system of the ASFA train, replacing the existing one, which entails a technological evolution that enhances performance compared to the present ASFA Analog track system. Indra has already supplied Adif, as a result of other contracts, with ASFA digital, generic and fixed track beacons.

Moreover, in November, 2019, Indra was awarded the ASFA Digital system aboard 310 rail vehicles owned by Adif, for an amount of 7.57 million euros.

Indra will introduce the developed solution of the ASFA Digital, pursuant to the Technical Specification drawn up by Adif, which is part of its line of Mova Protect solutions and which entails evolution and improvement in driving aid systems.

Indra's technology is also supported by the IRIS certificate granted to the company, which certifies the highest quality and security of its railway products.

The Spanish digital ASFA system (Signal Announcement and Automatic Stop) is present in most conventional rail networks, as well as high speed ones, as a back-up system, and it can control speeds of up to 200 Km/h.

The world's most advanced railway traffic management technology

Adif has also awarded Indra the contract for the extension of the DaVinci system for railway management and remote control of auxiliary detection systems at the Atocha Regulating and Control Center (CRC) for the inclusion of the Pedralba-Ourense section, part of the North-Northeast high-speed rail line. The contract was awarded for an amount of €821,114.34.

Indra will supply the Pedralba-Ourense high-speed line with this system developed in collaboration with Adif, which manages more than 3,000 Spanish high-speed kilometers and has established itself as one of the most advanced railway management platforms in the world.

The contract includes the adaptation, configuration, installation and commissioning of all the hardware, software and communications software, as well as the supply and installation of new equipment for the

efficient running of the DaVinci and TSAD (initials in Spanish of Backup Detection Systems Remote Control) of the real-time operational environment for the use and regulating of railway traffic and control of the Pedralba-Ourense stretch from the Atocha CRC.

The DaVinci system integrates the centralized traffic control, fixed communications, Train-Ground and GSM-R, signposting, security systems, planning and regulation systems and power remote control. The system is in constant evolution to adapt to new requirements and incorporate upgrades.

From a functional point of view, the system takes into account the integration of all remote control systems (interlocking, power, ERTMS, detectors), operation planning, a monitoring system of real-time rail traffic, forecasting of traffic conditions, automatic train routing, geographical information system, delivery of instructions to operators, assisted traffic control, statistics, track use fee and simulation and reconstruction of past events. Additionally, it can disseminate the information and remote monitoring of all systems via the Internet.

Indra's rail traffic management technology is part of Mova Traffic, Indra's family of solutions for the management of infrastructure and the operation of transport and traffic, which allows a comprehensive management of multi-modal mobility, enhanced by the incorporation of technologies such as big data, artificial intelligence or IoT (Internet of Things).

The best customer service

In addition to offering its services for railway traffic management, Indra will also contribute to improving the telecommunications service in stations. The company will be responsible for setting up a new network of landline and Wi-Fi telecommunications in the stations of Madrid Puerta de Antocha, Madrid Chamartín, Pontevedra, Salamanca and Bilbao Abando Indalecio Prieto for 3.3 million euros. The contract includes the building project, execution and maintenance of the networks.

The project is a part of the network with which Adif wishes to move on to a hyper-connected station, in which different players (shops and commercial stores, railway operators, travelers, the general public, etc) of the station may provide and enjoy the services of smart buildings, configured as IoT nodes within the Smart Station Platforms and integrated with the smart ecosystem (cities, regions and other stakeholders).

This network will enable services to be provided to Adif, rail and telecommunications operators, as well as proposing a Wi-Fi service project in the stations for all the customers.

At the forefront of the sector

These new contracts reinforce the world leadership of Indra in the rail sector, with its own highly innovative solutions and projects in countries such as the USA, Australia, Netherlands, Ireland, Lithuania, Estonia, Saudi Arabia, Turkey, Mexico, Colombia, Malaysia and India.

With the aim of staying at the forefront of the sector, Indra leads some of the most important RDI projects in the Shift2Rail framework, the main initiative of European innovation for the rail sector, and it continues to make an important effort for the development of cutting-edge rail technologies in the ERTMS level 2 and ASFA Digital framework, among others.

The company is also driving forward with the digitalization of transport with the aims of achieving mobility and infrastructures which are more sustainable, reliable and accessible, contributing to the reduction of accidents to provide a better protection of travelers and infrastructures, without neglecting the company's commitment to work towards a more efficient and less contaminating transport management.

Indra has vast experience in Transportation, with more than 2,500 projects developed in more than 100 cities and more than 50 countries. Its Transportation Division, Indra Mova Solutions, covers the entire life cycle of its clients' projects and combines the new digital capabilities, integration, specialization and innovation demanded by the market, with reliability, business knowledge, Indra's technology proprietary for transport and the vast experience of its team of professionals.

About Indra

Indra (www.indracompany.com) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers world-wide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defence markets, and a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America through its affiliate Minsait. Its business model is based on a comprehensive range of proprietary products, with a high-value focus and with a high innovation component. In the 2019 financial year, Indra achieved revenue of €3,204 billion, with more than 49,000 employees, a local presence in 46 countries and business operations in over 140 countries.