





Alstom, Indra and Constructora San Jose to supply tunnel safety and security systems for Spain's new Madrid-Asturias high-speed line

Alstom, in consortium with Indra and Constructora San Jose¹, has signed a €53 million contract² with Spanish railway infrastructure authority Adif to supply and install the safety and security systems for twelve tunnels in the Pajares Bypass high speed connection.

The 49-kilometre Pajares Bypass, which joins the municipalities of La Robla (León) and Pola de Lena (Asturias), is part of the future León - Asturias High Speed Line (LAV), which will substantially improve the railway connection between Madrid and the North of Spain. The project includes, includes a 25-kilometre bi-directional tunnel, the second longest tunnel in Spain, and will allow trains to cross the Cantabrian Mountains at high speed.

The consortium will supply the safety and security systems for the tunnels, including ventilation and firefighting systems, fire doors, emergency radio and gas detection. Alstom will also provide the power supply for the entire system and will integrate it into the customer's remote-control Supervisory Control and Data Acquisition system (SCADA). Assistance and emergency responses are also part of the package.

Alstom and Indra teams have long experience in similar projects on the Spanish rail network. Specifically, the companies have already equipped and maintained electromechanical installations in 32 tunnels associated with the Ourense-Santiago line, and 4 tunnels on the Madrid-Valladolid high-speed line, including the Guadarrama tunnel – the longest in Spain. Alstom and Indra have also jointly installed security systems in the tunnels of the high-speed line between Antequera and Granada.

Constructora San Jose has executed various sections of the main high-speed lines in Spain (Madrid - Zaragoza - Barcelona - French Border, Madrid - Valencia, Madrid - Galicia, Madrid - Asturias, etc.), highlighting the Contreras - Villargordo del Cabriel one of the most challenged in Spain (85% of the route is made up of 3 tunnels and 3 viaducts, among them the Contreras one with the largest concrete railway arch in Europe).

Pajares bypass

Pajares Bypass will allow passenger and freight trains to cross the Cantabrian Mountains at high speed. The installation of the security systems will contribute to easier, faster and more reliable connections between Madrid and the north of Spain. It will reduce the travel time on the Madrid-Valladolid-León-Oviedo / Gijón route and will ease the railway connection with the Asturian ports. With a double track section, it will also increase network capacity and ride comfort.

¹ The consortium is composed of Indra (35%), Alstom (35%) and Constructora San Jose (30%).

² Vat excluded (64,3 million Euro, including taxes)







About Alstom

Leading the way to greener and smarter mobility worldwide, Alstom develops and markets integrated systems that provide the sustainable foundations for the future of transportation. Alstom offers a complete range of equipment and services, from high-speed trains, metros, trams and e-buses to integrated systems, customised services, infrastructure, signalling and digital mobility solutions. Alstom recorded sales of €8.2 billion and booked orders of €9.9 billion in the 2019/20 fiscal year Alstom is present in over 60 countries and employs 38,900 people.

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About Indra

Indra has a deep experience in Transport, with more than 2,500 projects developed in more than 50 countries. Its Indra Mova Solutions offer covers the entire value chain of its clients combining new digital integrated and innovative capabilities demanded by the market, with the reliability, market knowledge, Indra's own technology for transport and the experience of its professional teams.

Indra 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.

About SANJOSE Constructora

SANJOSE Constructora is one of the top Spanish Construction Companies. It currently stands at position 140 of the global "Top International Contractors" ranking of the prestigious American magazine ENR (Engineering News-Record).

With close to 50 years of history, it has exported its experience to more than 30 countries, undertaking some of the most unique and complex projects in the world in all its areas of specialization: Building, Civil Works and Industrial Engineering and Construction.