

THEME
IN FOCUSRAILWAY
INFRASTRUCTURE

Worldwide network of competence

Politics, economy and enterprises are jointly developing innovative solutions with the aim of upgrading rail infrastructure both within the EU and beyond its borders by 2030.

Indian metro in motion

For the first time Siemens supplies complete railway technology to India



Trains and among others electrification and signalling technology for the Greater Delhi line were supplied by Siemens.

Photo: Siemens

The operating company Rapid MetroRail Gurgaon Limited has taken up passenger operations of the approximately six kilometre long Gurgaon metro line in Greater Delhi. Siemens has supplied the complete railway technology including trains, electrification, equipment of the maintenance facility, signalling and system integration. The line links Gurgaon Cyber City, a business and residential district located some 30 kilometres south of central Delhi, to the capital's metro network. By the end of 2015 the line will be extended by about seven kilometres to the south.

High transport capacity

There are roughly two million daily commuters using the metro.

The line that has just been opened for revenue service is built to cope with an expected volume of approximately 30,000 passengers per hour and offers a transport capacity of up to 800 passengers per train. Siemens not only supplied partial systems to India, but for the first time they bear the responsibility for the key components and their integration including the interfaces to the construction of the complete system.

Progressive technology

The seven aluminium metro trains run on standard gauge tracks at a maximum speed of 80 kilometres per hour. To achieve a headway of no more than 120 seconds during peak traffic times, Siemens

has installed Sicas ECC type electronic signal boxes, the LZB 700 M automatic train control system with ATP (Automatic Train Protection) and ATO (Automatic Train Operations), as well as the Vicos OC 501 ATS (Automatic Train Supervision) system.

Ready to use

Siemens is currently constructing turnkey lines in Rennes (France) and Riyadh (Saudi Arabia) as well as the tram system for Doha, the capital city of Qatar. Lines already in operation are the fully automatic, driverless Line A in Rennes (France), Line 1 in Algiers (Algeria), Line 2 in Santo Domingo (Dominican Republic) and the metro system in Uijeongbu (South Korea).

GUEST ARTICLE

PEDRO
FORTEA

Director-General of Mafex

The Spanish railway supply industry continues its progress in innovation

Pedro Fortea, the Director-General of the Spanish railway association Mafex, about current infrastructure projects of the Spanish railway industry

In recent years railways have been the fastest increasing and growing mode of transport. Specialised companies such as those that constitute the Spanish railway supply industry have contributed to this breakthrough with their continuously improving and developing solutions, products and services.

They are involved in the world's most important railway infrastructure projects, such as the 77 kilometre

long Marmaray line in Istanbul. The current top ten infrastructure projects are also looked after by leading Spanish enterprises and include a total of 1,970 kilometres of line length. It is foreseen that still this year a grouping including twelve Spanish companies will finish Saudi Arabia's most important infrastructure project, the "Haramain High Speed Rail Project", a 450 kilometres long high speed line between Mecca and Medina.

International presence with good prospects for growth

In 2012, exports of railway material from member industries of Mafex, which represents 85 per cent of the overall Spanish railway export sales, totalled 2,507 billion euros, a 23 per cent increase relative to the previous year.

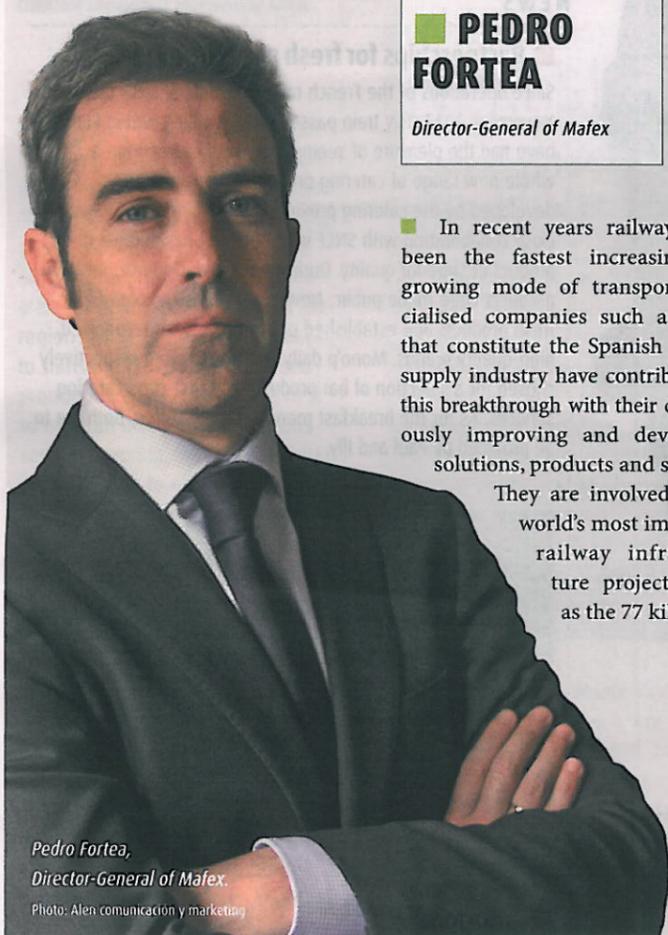
With last year's expansion and the award of numerous contracts, the Spanish industry has strengthened its global market position. Prominent examples are the implementation of ERTMS in Turkey and the participation of Spanish companies in various fields of activity such as the metros of Riyadh (Saudi Arabia), Doha (Qatar), Santiago (Chile), Guadalajara (Mexico) and São Paulo (Brazil). In the latter city they have also provided units for the tram network. The list goes on with the driver-less metro line in Singapore known as the "Downtown Line", the supply of high-performance trains to Russia and Kazakhstan, the high-speed line between Barcelona and Figueres, the installation of an underfloor wheel lathe for the tram in Bordeaux (France) or the signalling systems for the Cairo - Alexandria corridor in Egypt.

During 2013, exports continued to grow with other important milestones such as the completion of the kinetic energy recovery system for the trams in Bielefeld (Germany), where a Spanish innovation has contributed to the improvement of energy efficiency in commercial operation.

INFO

Mafex: Spreading technological advances throughout the world

The aim of the Spanish rail supply industry is to become a technology world leader. In order to support its members, the association carries out a number of different marketing activities and helps to promote their export business.



Pedro Fortea,
Director-General of Mafex.

Photo: Alen comunicación y marketing