

BOMBARDIER

SITE FACT SHEET

San Sebastián de los Reyes (Madrid), SPAIN

Basic Information

Total area: 3,485 m²

The Rail Control Solutions (RCS) Spain site is a centre for excellence for rail control engineering and product development, sales, project management and customer services for the Spanish market and the wider RCS Region 3 stretching to encompass Spain, Portugal, North Africa and Latin America. The product portfolio includes *EBI** Lock computer-based interlocking (CBI) systems, wayside equipment and automatic train control solutions for *INTERFLO** mainline and *CITYFLO** mass transit solutions. The site has almost 90 years experience in providing the latest signalling technology to the Spanish national rail network and metro systems, and is also host to a joint Bombardier Transportation and Aerospace showroom for the Spanish market.

Competencies

- Development of mass transit solutions based on the *CITYFLO* family.
- *EBI* Lock CBI systems - adaptations and applications.
- Implementation of *EBI* Screen traffic management systems.
- Development of automatic train protection (ATP) onboard equipment with a focus on ERTMS technology.
- Project management, testing, commissioning, maintenance and customer service of signalling projects.

Main Products and Contracts over the last 10 years

Mass Transit solutions:

- *CITYFLO* 250 solution in Metro do Porto (delivered 2006).
- *CITYFLO* 350 mass transit solution implemented for key metros in the Spanish and the Latin American markets - Metro Bilbao (Line 1 - 1995 and Line 2 - 2002), Metro Barcelona (Line 1 - 2009 and Line 3 - 2006), Metro Sevilla (Line 1 - 2009), Metro Lima Line 1 (Line 1 - 2011), Metro Salvador de Bahia (under construction).
- *CITYFLO* 650 CBTC operating on Metro de Madrid (Line 6 in 2008 and Line 1 in 2009). This project was executed on two of the busiest lines in Europe and represents a capacity increase of 30%.
- Delivery of four *EBI* Lock 950 CBI systems in Sao Paulo for operator CPTM featuring the signalling of the busiest station in South America (Bras station) (2011).
- Metro de Madrid Line 9 equipped with *EBI* Lock 950 CBI Release 4 ruggedised system – first application worldwide (2011).
- *CITYFLO* 650 CBTC project on the Metro Sao Paulo Line 5 in execution.

Mainline solutions:

- *INTERFLO* 200 conventional mainline signalling system delivered for more than 100 interlockings in stations of the Spanish Railway administration ADIF.
- *INTERFLO* 200 and *INTERFLO* 250 ERTMS Level 1 Pilot Line system delivered for Albacete - Villar de Chinchilla (2002) and Villar de Chinchilla - Albacete (2007).
- *INTERFLO* 200 and *EBI* Cab 900 automatic train control system delivered for commuter line - Barcelona Area and Via Area (2008).
- *EBI* Cab 900 ATP system provided for Mediterranean mainline corridor (Valencia-Barcelona) (2005).
- *EBI* Lock 950 CBI system installation in VALE railway network in Belo Horizont, Brazil (2009).
- *INTERFLO* 250 solution in delivery for Rio de Janeiro commuter trains by SuperVia, first ERTMS in South America.

Historical Milestones

The activities of the Bombardier, RCS site in Spain have been carried out over the last 90 years under relevant industrial groups:

- 1922 Signalling activities started in Spain (Ericsson).
- 1931 First signalling installation in Spain, Cariñena Station, Zaragoza-Caminreal Line.
- 1934 Business expands to include manufacture of rail signalling systems.
- 1941 RENFE begins to operate, responsible for the 12,400 km of track (in a damaged state after the Civil War) - site is key player in the refurbishment.
- 1960s Business expands to include manufacture of rail components.
- 1988 EB Señal takes over Ericsson signalling division, continuing expansion in Spain.
- 1992 ABB Señal replaces EB Señal.
- 1996 Activities become part of Adtranz, after merger of Daimler-Benz and ABB rail transportation units.
- 1999 Following share purchase, DaimlerChrysler Rail Systems operates site, still under the brand of Adtranz.
- 2001 Bombardier acquires Adtranz to become the first company in the world specialised in railway transport, with its own signalling division (Rail Control Solutions, RCS) – commitment to the Spanish market is reflected by the increase in employees in Spain.
- 2011 New and modern RCS rail control facility opens in San Sebastián de los Reyes, confirming Bombardier's presence in the market.

Main Projects (order intake dates)

- 1977 PMR Projects: two lines (Zaragoza-San Vicente and Manzanares-Linares) with more than 40 relay interlockings and two central control points.
- 1994 Metro de Bilbao Line 1: first *CITYFLO* 350 system with relay technology (interlocking and ATP).
- 1996 Mediterranean main line Corridor 0: *EBI* Cab 900 ATP system.
- 1999 Metro de Barcelona Lines 1 & 3: *CITYFLO* 350 with *EBI* Lock CBI.
- 2002 Metro Sur (Metro de Madrid Line 12): 10 interlockings over 42 km.
- 2004 Metro de Madrid Lines 1 and 6: *CITYFLO* 650, largest order in RCS history Worldwide.
- 2005 Metro de Sevilla: *CITYFLO* 350 solution.
- 2005 ADIF, Villar de Chinchilla – La Encina Section: *INTERFLO* 250 ERTMS Level 1.
- 2010 ADIF, Albacete – La Encina: *INTERFLO* 200, largest ever contract with ADIF.
- 2010 Metro de Lima: *CITYFLO* 350.
- 2011 SuperVia, Rio de Janeiro commuter trains: *INTERFLO* 250 ERTMS Level 1, first ERTMS in South America.
- 2011 Companhia de Metrô de Sao Paulo Line 5: *CITYFLO* 650, largest order ever in RCS Region (Spain, Portugal and South America).

Certifications

- Quality management system, certified according to ISO EN 9001:2008
- Environmental management system, certified according to ISO EN 14001:2004
- International Railway Industry Standard (IRIS), certified according Rev. 01
- Occupational Health & Safety Management, certified according to BS OHSAS 18001:2007

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