BOMBARDIER

SITE FACT SHEET

Stockholm, Sweden

Basic Information
Total area: 16,364 m²

With over 135 years experience in providing the latest signalling technology, the Bombardier Stockholm site is the global headquarters for the Rail Control Solutions (RCS) Division, as well as the central hub for the RCS Nordic, UK, Baltic, Russian & CIS Business Region.

Stockholm is also host to global Engineering and Product Development and Operations teams, providing expertise for RCS projects worldwide, as well as representatives of other headquarter functions.

The Regional RCS team in Stockholm focuses on rail control engineering and product development, sales, project management and customer services for its markets (as listed above) and wider, stretching to encompass South Africa, Turkey and Slovakia. The RCS product portfolio includes EBI® Lock computer-based interlocking (CBI) systems, wayside equipment and automatic train control systems for INTERFLO® main line and CITYFLO® mass transit solutions. RCS also provides industrial rail solutions worldwide.

Competencies
- Development, adaptation and application of wayside and onboard systems for mainline, ERTMS, regional, industrial and mass transit solutions for global application
- Installation, test, commissioning, service and maintenance of signalling products and complete solutions in the Region and globally
- Project Management, sales, bids, procurement and logistics, etc. for the Region and globally
- RCS Training Academy for the Region and globally

Main Products and Contracts (Stockholm Regional site) over the last ten years

ERTMS Development projects
Bombardier has extensive framework agreements in place for the roll-out of wayside and onboard ERTMS technology in Sweden, as part of its global portfolio:
- **ERTMS Regional frame agreement** for thirteen lines to be delivered from 2008 to 2016 (signed 2007) - pilot project underway on Västerdalsbanan to be commissioned in 2012
- **ERTMS/ETCS Onboard frame agreement** for specification and development of EBI Cab 2000 ETCS systems plus products and services on all new and retrofitted vehicles in Sweden and Norway (awarded 2008) - first phase underway to equip 220 vehicles
- **Interlocking frame agreement** for EBI Lock computer-based interlocking (CBI) 950 Release 4 systems with conventional and ERTMS Level 1 functionality (awarded 2008) - three pilot lines in operation at Skandia (2009), Ålvängen (2009) and Malmö/Citytunneln (conventional operation 2011, ERTMS delivery ongoing) with follow-on projects at Gothenburg (phase one operation), Nordlänken (in operation), Kiruna and Folkesta (plus others).
• **ERTMS Level 2 frame agreement** (in consortium) for specification, development and delivery of **INTERFLO 450** ERTMS Level 2 wayside solution (awarded 2008) - pilot project underway on 130km Ådalsbanan (to link to the Botniabanan - see below)

**Other contracts Sweden:**

• **INTERFLO 450** ERTMS Level 2 high speed solution delivered on Botniabanan (2010) - first ERTMS Level 2-equipped line Sweden/Nordic Region (to link to Ådalsbanan - see above)

• Contract to adapt **EBI Screen 900** TMS to ERTMS functionality (awarded 2008) - including in Stockholm, Gothenburg and Malmö

• Contract for **INTERFLO 150** industrial solution to be delivered at LKAB Kiruna iron ore mine in Sweden (signed 2010)

• Sweden - frame agreement for **Hot box/Hot wheel** detectors, which prevent derailing (ongoing 2004 - 2014)

**Other contracts managed from Stockholm site**

• **INTERFLO 250** ERTMS Level 1 solution delivered as part of the Pan European Corridor X Croatia (operation in 2011)

• **INTERLO 200** solutions being delivered in:
  - Lithuania – **INTERFLO 200** solution at Salcininkai station (commissioned 2011)
  - Slovakia – Cadca station and the line to Skalité (commissioned 2009)
  - Uzbekistan – **INTERFLO 200** for the Tashguzar to Kumkurgan line (first modern signalling system in the CIS – delivered 2011)

• **CITYFLO** mass transit solutions are also being delivered in Turkey:
  - **CITYFLO 250** solutions for Istanbul and Izmir Light Rail Transport systems and the Sultanciftligi Tram (Istanbul)
  - **CITYFLO 350** solutions for the Istanbul Ikitelli and Adana Metro

**Historical Milestones**

1938  First centralised traffic control in Europe commissioned (at Neglinge for the operation of the Stockholm-Saltsjöbaden Railway)

1978  World’s first electronic interlocking in operation (Gothenburg)

1978  First advanced balise-based ATP system installed in Sweden (Älvsjö-Västerhaninge line, outside Stockholm), and globally in Taiwan (1979)

1995  ATP technology recognised by UIC, and the Bombardier balise technology is selected as the base for the Eurobalise, setting the standard for ERTMS

1995  Europe’s first radio-based system in operation (Linköping-Västervik line, Sweden)
1994  First sleeper-integrated point machine in the world (Alby, Sweden)

2002  World's first ERTMS Level 2 system to go into commercial operation (*INTERFLO 450 solution, Olten-Luzern, Switzerland*)

2007  First high-capacity *EBI* Lock CBI 950 Release 4 in Sweden (Scandia Harbour, Gothenburg)

2010  World's largest capacity interlocking system delivered (Gothenburg)

2010  First high speed Level 2-equipped line in Sweden, *INTERFLO 450* (Botniabanan)

The activities of the Stockholm site have been carried out under these relevant industrial groups

1876 – 1915  Site established as L.M. Ericsson & Co.
1915 – 1988  Ownership by Ericsson Signalling
1989 – 1991  Transfers to EB SIGNAL
1992 – 1996  Transfers to ABB SIGNAL
1996 – 1998  Ownership to ADTRANZ ABB Daimler-Benz Transportation Signal AB)
1999 – 2001  Transfers to DaimlerChrysler Rail Systems (Signal) AB)
2001  Acquisition by Bombardier - Bombardier Transportation (Signal) Sweden AB

**Certifications**

- Quality management system, ISO EN 9001:2000
- Environmental management system, ISO EN 14001
- International Railway Industry Standard (IRIS), Rev. 01
- Occupational Health & Safety Management, BS OHSAS 18001:2007
- SWEDAC

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