# GENERAL PROFILE

BOMBARDIER

BOMBARDIER EURORAIL

# BOMBARDIER Inc.

*GENERAL PROFILE*

Bombardier Inc. is a Canadian manufacturer active in the fields of transportation equipment, civil and military aerospace and motorized consumer products.

## Transportation equipment

Bombardier is recognized as the North American leader of the rail transit equipment industry. It offers a wide range of urban, suburban and intercity vehicles, including all of the Budd and Pullman designs. In addition, through a commercial and industrial cooperation agreement with the French-British group GEC-Alsthom, Bombardier is responsible for the marketing and manufacturing of the French TGV high-speed train in North America.

With the acquisition of the Canadian rail transit assets of UTDC on February 7, 1992, Bombardier's range of equipment was extended to include the vehicles of the Ontario-based manufacturer. Bombardier also has transportation equipment operations in Mexico, as a result of the May 6, 1992 purchase of the assets of Constructora Nacional de Carros de Ferrocarril, a Mexican manufacturer of railway rolling stock. The transaction was completed through the Mexican subsidiary Bombardier-Concarril S.A. de C.V.

Bombardier's North American operations in this field fall under the responsibility of the Transportation Equipment Group - North America.

Bombardier is present in the European Transportation equipment industry via its European subsidiary Bombardier Eurorail which coordinates the activity of five production sites; the BN Division in Belgium, ANF-Industrie in France, BWS in Austria, Prorail in England and Waggonfabrik Talbot in Germany. Bombardier Eurorail offers a full range of urban, suburban and intercity transit vehicles.

Bombardier, BN Division and ANF-Industrie are members of the international ESC wagons consortium which has built the shuttle trains for the transportation of automobiles and coaches through the Channel Tunnel. These companies were responsible for the design and manufacturing of the shuttle wagons and are now ensuring the entry in service and after sales operations for this equipment.

## Civil and Military Aerospace

In 1986, Bombardier entered the field of aerospace with the acquisition of Canadair, Canada's leading integrated aircraft manufacturer. Current Canadair operations are centered on the twin-engine Challenger* business jet, the CL-415* turboprop amphibious aircraft, the launched Canadair Regional Jet*, a 50-passenger jetliner intended for regional carriers, the Bombardier Global Express*, a long-range, high-speed business aircraft, as well as major airframe components for other aircraft builders, such as Aerospatiale, Boeing, British Aerospace and Mc Donnell Douglas. In addition, Canadair has developed a recognized expertise for unmanned airborne surveillance systems and provides technical support services for military aircraft, as well as pilot training.

With the addition of the operations and assets of Ontario-based de Havilland, on March 9, 1992, Bombardier is now Canada's sole integrated airframe manufacturer. The Dash 8* family of turboprop regional aircraft manufactured by de Havilland is an excellent complement to the Canadair Regional Jet.

Bombardier is also present in the American aerospace industry through its Learjet Inc. subsidiary which was created in 1990 for the acquisition of the assets and operations of the Learjet Corporation. Renowned worldwide for its business jets, Learjet currently offers the series 31 light models, the model 45 and the model 60 with transcontinental range. In addition, Learjet is a subcontractor for both commercial and government programs, doing work for Boeing, Martin Marietta, and the US Air Force.

Bombardier's North American operations in this field fall under the responsibility of the Aerospace Group - North America.

The European activities come under the Northern Ireland subsidiary, Short Brothers plc (Shorts). Shorts, which manufactures the Sherpa* C-23 military transport aircraft also produces airframe components, engine nacelles and nacelle components for aircraft builders and aircraft engine manufacturers, such as Boeing, British Aerospace, Fokker, International Aero Engines, Rolls Royce and Bombardier Aerospace Group-North America. Shorts is also a world renowned specialist in close-air defence missiles.

## Motorized Consumer Products

Bombardier is one of the world's most important snowmobile manufacturers. It manufactures and markets the Ski-Doo* snowmobile, developed by Joseph-Armand Bombardier and first introduced in 1959. Another vehicle, the Sea-Doo* watercraft, was launched throughout North America in 1987 and already holds the leading position in the "sit-down" segment of the personal watercraft market. Both of these products are powered by Rotax* engines designed and manufactured by Austrian subsidiary Bombardier-Rotax GmbH. The latter also makes engines for motorcycles, small and ultra-light aircraft and various special applications. In the jet boat segment of the boat market, Bombardier introduced a third model in 1995, the Sporster*, which is being offered alongside the Explorer* and Speedster* models.

The Motorized Consumer Products Group, which is responsible for those operations, also manufactures all-terrain, multi-purpose vehicles, including snow-grooming machines for alpine ski hills and snowmobile and cross-country ski trails. Bombardier was the official supplier of such tracked equipment for the 1984 and 1988 Winter Olympics held respectively in Sarajevo and Calgary.

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*Based in Montréal, Bombardier operates plants in Canada, the United States, Mexico, Austria, Belgium, Finland, France, Germany and the United Kingdom: employing 37,000 people. Its business volume totals 5,9 billion Canadian dollars, and nearly 90 percent of its revenues are made in markets outside Canada.*

*Two subsidiaries of Bombardier, Bombardier Credit Ltd. in Canada and Bombardier Capital Inc. in the United States, offer inventory financing services to a broad range of sectors. Another subsidiary, Bombardier Real Estate Ltd. is responsible for the development of the Corporation's real estate assets earmarked for new uses.*

BOMBARDIER EURORAIL

# BOMBARDIER EURORAIL

Bombardier Eurorail was formed in 1991 as a wholly-owned subsidiary of Bombardier Inc., Canada. The company comprises the European-based operating businesses of Bombardier Inc. which manufacture equipment for the railway transport industry.

The company employs 5,250 people throughout Europe, including 600 engineers. Led by Bernard P. Sorel, based in Brussels, Bombardier Eurorail's turnover for 1994 was £348 million.

It holds a seven per cent share of the European rail passenger transport market.

**A European presence for a European manufacturer.**

The European operating companies which form Bombardier Eurorail are :

- ANF-Industrie in France
- Bombardier Prorail in the UK
- Bombardier-Wien Schienenfahrzeuge in Austria
- BN Division in Belgium
- Waggonfabrik Talbot in Germany

Bombardier Eurorail comprises five long-established companies in the UK, France, Belgium, Germany and Austria, each with national market strengths and traditions. Those have been combined at both management and workforce level with an international perspective and approach to create a truly pan-national culture with the highest world-wide standards of production and technology.

The aggregated technological and engineering know-how of the five businesses provides its customers with some of the world's most advanced railway technology and design to meet the varied specifications of the European and international railway markets.

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## A complete product range

Bombardier Eurorail has an exceptional product range, making it outstanding among European railway manufacturing groups. The company's products are specifically developed and produced to meet the needs of intracity and intercity transport.

Bombardier Eurorail meets the special challenges of intracity transport requirements with the GLT (a tram on tyred-road-wheels moving on a special track), conventional trams and low floor light rail vehicles, underground cars, single-deck and double-deck suburban electrical multiple units.

For intercity transport Bombardier Eurorail produces intercity multiple units, turbotrains and passenger cars for the high-speed and very-high-speed trains like the French TGV.

Bombardier Eurorail's involvement in international projects is extensive. It participates in the construction of passenger cars for very-high-speed networks such as TGV Atlantic, TGV Network, TGV for the Channel Tunnel ('Eurostar' and 'North of London'), TGV double deckers and the TGV which will connect Paris, Brussels, Cologne and Amsterdam (PBKA).

Bombardier Eurorail and its parent company Bombardier Inc., are also major contributors to the Channel Tunnel project by producing all the rolling stock (254 wagons) for the tourist trains carrying cars, coaches and their passengers. These wagons are the biggest and most complex ever built in the world.

Bombardier Eurorail is also one of the market leaders of bogies for all types of applications in Europe and the rest of the world.

## A European company addressing the international market

Beyond Europe, Bombardier Eurorail has a significant presence in the international market :

- in America with the turbotrains (AMTRAK) and the urban rolling stock for Montreal, New York, Mexico, Caracas, Rio de Janeiro and Santiago.
- in Morocco with urban and suburban multiple units
- in Egypt and Iran with the turbotrains, passenger cars and bogies
- in Indonesia with suburban electric multiple units (EMU)
- in the Philippines with light underground trains

The most recent order outside Europe signed by Bombardier Eurorail was for the supply of 25 suburban EMUs (Electrical Multiple Units) to the Indonesian railways.

BOMBARDIER EURORAIL

# THE FIVE BOMBARDIER EURORAIL OPERATING COMPANIES

## ANF-Industrie

This company was formed in 1882 under the name 'Ateliers du Nord de la France', originally manufacturing rolling stock and materials for the coal mines. At the turn of the century the business refocussed its activities on the production of railway rolling stock.

In the period between the two world wars and until 1936, the company diversified into the aerospace industry. In 1970, it underwent a major restructuring and changed its name to ANF-Industrie. In December 1989, it became part of Bombardier Inc. ANF-Industrie has been a subsidiary of Bombardier Eurorail since 1991.

The company is now the second-largest rail equipment manufacturer in France. It is also part of the partnership between Bombardier Eurorail and the Transportation Equipment Group of Bombardier Inc. in North America, which produces rolling stock for the Shuttle, the special train which transports cars and coaches through the Channel Tunnel.

ANF-Industrie is based on its original site, in Crespin, Valenciennes, and employs 1,450 people.

## BN Division

The origin of BN goes back to the amalgamation of more than 14 Belgian companies established between 1838 and 1905.

In 1913, two companies based in Bruges, formed 'La Brugeoise' which later merged with 'La Louvière' and formed 'La Brugeoise, Nicaise et Delcuve'. The latter was acquired, in 1919, by the 'Société Générale de Belgique'. In 1956, following another merger, 'La Brugeoise et Nivelles' was formed. After another bout of mergers and acquisitions, 'La Brugeoise et Nivelles' became the sole Belgian construction company serving the railway industry, under the name 'BN Constructions Ferroviaires et Metalliques'.

Bombardier Inc. started buying BN shares in 1986 and became principal shareholder in 1988. In 1991, BN became an operating division of Bombardier Eurorail.

The company produces rail transport vehicles for urban and suburban needs. BN is also participating in the ESC Wagons consortium, building wagons for the Shuttle, for car and coach transport through the Channel Tunnel.

BN Division employs 1,580 people in two factories at Bruges and Manage.

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## Bombardier Prorail Limited

'Charles Robert Limited' was the original name of the company which was established in 1856, near Wakefield, West Yorkshire. Then, as now, the company specialised in the construction of rolling stock equipment and materials for the railway industry.

Bombardier Inc., Canada, acquired the company in 1990 from Procor Engineering who had owned the site since 1974. Changing its name to Bombardier Prorail Ltd., the company became a subsidiary of Bombardier Eurorail in 1991.

Bombardier Prorail specialises in the production of structures and complete bodyshells for locomotives and passenger cars.

Today it can offer clients full passenger train refurbishments and new build for complete train sets. Its involvement in the Channel Tunnel lies in the production of the bodyshells for the Class 92 locomotive, which will be used to convey freight and night-sleeper trains between major centres in the UK, France and Belgium.

With 480 employees, the company continues to be based at its original site in Wakefield, West Yorkshire.

## Bombardier-Wien Schienenfahrzeuge AG (BWS)

BWS was first formed in 1823 as 'Laurenzi and Lohner' producing passenger railway carriages. In 1878, the company based itself in Florisdorf, near Vienna, where it still operates today.

At the beginning of this century, the company specialised in the construction of coaches and car chassis. The production of trams started in 1925 and in 1959 it acquired Rotax-Werke AG, the famous engineering company producing rotary engines.

In 1970, Bombardier Inc. acquired both Lohner-Werke AG and Rotax-Werke AG and renamed them BWS and Bombardier-Rotax GmbH respectively.

BWS employs 320 people and manufactures railway equipment, especially tramways and special rail vehicles. It also represents its parent company, Bombardier Eurorail, in Germany and Eastern Europe.

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## Waggonfabrik Talbot

The Waggonfabrik Talbot was registered in the Commercial Register in 1838, three years after the opening of the first German railway line. The founder, Johann Hugo Talbot, was one of the leading German railway pioneers and played an important part in building up the railway system.

The self-discharging wagon developed by Talbot and patended in 1891 earned worldwide renown and is regarded as a pioneering example of wagon building. Although the company started producing goods wagons, the field of passenger vehicles later received ever-increasing attention. Double-deck buses and trams were also manufactured later.

Within the last ten years the Waggonfabrik Talbot has become the most important supplier of passenger trains to the Dutch Railways (Nederlandse Spoorwegen).

The company occupies a leading position in the field of double-deck multiple-unit train for the Dutch Railways.

At present a novel light rail motor train is being developped for regional transport. An extensive range of products is offered for combined transport and special goods wagons, and also for bogies.

The company currently employs 1,250 people and manufactures its products in its Aachen plant.