Over 130 years of contribution to Belgium

INFORMATION AND KEY DATA

- 1330 employees in Belgium - more than 500 engineers
- 5 entities and 2 offices in Brussels
- **Brussels**: Transport sales offices and project management
- **Brussels**: European Public Affairs offices
- **Charleroi**: Transport site
  - North Europe Regional centre for signalling systems and worldwide ERTMS* Development Center
  - World centre of excellence for auxiliary converters, traction systems and low voltage cubicles.
- **Charleroi & Mechelen**:
  - Thermal & Renewable Power sales offices and project management
  - Local Service Centre: field & workshop services and engineering competencies with nuclear specifications.
- **Lambermont (Verviers)**: sales offices for Grid, manufacturing unit for substations automation, expertise in instrument transformer activities, project management
- **Oostende**: Renewable Power site office

*European Railway Traffic Management System*
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History

1881: Creation of the "Compagnie d'Electricité et d'Hydraulique Charleroi"
1904: The company was taken over by the industrial Baron Empain. The company – whose name changed in ACEC - knew a rapid development of its activities in Belgium and abroad
1911: Creation of “Société Belge des Appareils Rateau”
1989: GEC-Alsthom acquired a large part of the ACEC activities (electric and electronic for transport and electricity production)
1999: Merger of ABB presence in Belgium and Alstom Power.
1999: The local units take over the Alstom branding
2007: Take over of the Sogepa part in the capital of its subsidiary Alstom ACEC Energie
2011: Take over the Transmission activity of Areva
2013: Inauguration of the site in Oostende for offshore activities

Partnerships

Alstom Belgium has developed several partnerships with Belgian universities : ULB, UCL, FUCAM, FUNDP, ULG, in particular in 2 specific domains: Power Electronics and Signalling.

Corporate Social Responsibility

2010-2011: Involvement in local communities in the Democratic Republic of Congo with the refurbishment of water station to provide 100 m³ of clean drinking water to N’Seke village. The project awarded by the Alstom Foundation 2011 edition has included sanitary and hygiene education of local communities (more than 5.000 people).
Alstom Belgium is in charge of the maintenance of several hydro stations in Congo.

Awards and Certification

AWARDS :
- Belgium Award for Exportation in 2002
- Agoria Award for Innovation in 2008
- Alstom Award for Innovation in 2009

CERTIFICATIONS

Transport plants :
Certified ISO 9001 and ISO 14001 and the Alstom referential EHS with high scores

Power plants
The Thermal Power Service activities are certified ISO 9001 (Quality), ISO 14001 (Environment), OHSAS 18001, VCA Petrochemie, Alstom referential EHS with high scores (Safety) and 10CFR50 (for maintenance activities in nuclear power plants).

Grid plant :
Certified ISO 9001 and ISO 14001 and the Alstom referential EHS with high scores

Contact :
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Alstom Belgium, March 2014
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Transport – References and Ongoing projects

Alstom Transport Belgium is a world leader for railway electronic and electric solutions and it develops its capabilities within two centres of excellence with worldwide responsibilities.

- The platform for signalling systems based on the European common standard ETCS (European Traffic Control System) destined to boost railway traffic, average transport speeds and safety. The Charleroi-based site is responsible for design, production, tests, homologation and integration of signalling and traffic control systems, as well as for the project management.

- The platform for the design and manufacture of traction systems, auxiliary converters (components) and low-voltage cabinets for Alstom and non-Alstom rolling stock (high speed trains, locomotives, regional trains, metros)

In Belgium, Alstom Transport manages complete projects on rail transport, including rolling stock, signaling and maintenance services. It serves railway operators on a worldwide scope.

Main references

Signaling: Alstom Belgium has a leading supplier position in the design and implementation of signaling solutions for infrastructure and rolling stock for Belgian and European operators

- Onboard system of major rolling stock of SNCB in commercial service
- Trackside solutions for 4000 signals on the Belgian network for Infrabel
- 1400 shelters in the concentration plan of cabins for the network operator Infrabel

In Europe and out of Europe, the platform for signaling systems has succeeded several majors contracts with some "premières" with Alstom ETCS solutions (ATLAS). Today it is working on a large contract with Danish operators for the equipment of lines and trains.

- Trackside solutions on high speed lines Bologna-Firenze and Roma-Napoli, Brussels-Koln, Antwerp-The Netherlands, but also on main lines as the Mattstetten-Rothrist and Lötischberg Tunnel lines in Switzerland, the Hanzeljin line (in the Netherlands) on the Sydney’s CityRail network (600km) and the Cronulla Branch Line of Railcorp in Australia, and on freight line the Betuwe Route (Coridor C) in the Netherlands.

- On board solutions: installed on about 500 trains for SBB (CH), on 449 trains for OBB, x trains for Railcorp (Australia), as well as on trains from all vehicles main constructors: Siemens (more than 120 ICE); Bombardier, Rottem, Ansaldo, EMD, Vossloh, ...

- Interlocking solutions (SMARTLOCK) in the metros of Brussels and Charleroi in Belgium, Peking and London

Components

- The traction system and the auxiliary converters of regional trains as Coradia continental DB EMU
- Traction system and auxiliary converters of Metro for China market (Beijing Lines 6 and 15, Buenos Aires 1, Hong Kong SIL; Qingdao Line 3, Shangai Lines 3 and 4, Nankin, ...)
- Auxiliary converters for the PRIMA locomotives (Morocco, China, France,...)
- Auxiliary converters for M6 Belgian coaches

Ongoing projects

Signaling

- Concentration plan of controle centres of Infrabel: major Belgian renovation project of the signalling system on the Belgian network – 1400 shelters to be implemented including the Smartlock solution.
- Maintenance of signaling systems for SNCB fleet
- CFL: ETCS onboard solution for the entire fleet (more than 100 trains)
- Denmark: implementation of the ETCS Level 2 solutions on about 12 lines in Denmark and 789 trains for Danish operators
- The company is supplying its ERTMS solution for 500 trains for OBB (Austria)
- Siemens: ERTMS onboard solution on more than 300 trains
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Components
- Traction system and auxiliary converter for various metros (Beijing L15), Hong-Kong, Buenos-Aires, Montreal, Valencia, Melbourne,…
- Auxiliary converters for VHST trains (RGV2N, NTV)
- Auxiliary converters for various locomotives for the Russia, Kazakhstan and Chinese markets
- Auxiliary converters for regional train (MI09 for RATP in France, Chennai in India, Amsterdam, CPTM in Brasil,…)
- Alstom has also in charge the realization of TCMS project (Buenos Aires) and the industrialization of low voltage cabinet (for SNCF, locomotives).

Power – References and Ongoing projects

Alstom’s Thermal and Renewable Power Sectors cover the full spectrum of power generation technologies. Together, they have the most comprehensive offer on the market.

The Thermal Power portfolio covers all fuels: coal, gas, oil and nuclear. Its leading position in turnkey power plants, power generation services and air quality control systems allows its local team to serve local projects with a worldwide expertise.

The Thermal Services activity in Belgium proposes a complete services offer for the maintenance and optimisation of existing power plant equipment, from consulting, engineering and project management to complete overhaul, reconditioning, upgrades & retrofits, lifetime extension, repairs, spare parts and environmental solutions such as electrostatic and bag filters.

With its workshop, the site of Charleroi is a competence centre with high capacity for maintenance and optimisation of generators & auxiliaries, large AC & DC motors, nuclear pumps & motors and also of mechanical equipment (Industrial steam turbines, pumps, compressors, fans, gearboxes …).

Thermal Services has a proven experience on Alstom equipment, taking care of maintenance and supply of spare parts of the ACEC and RATEAU installed base : turbines, pumps, motors, generators, compressors and fans as well as for the BERGERON pumps, but also on other OEM equipment.

Nuclear plants in Belgium are equipped with Alstom steam turbines (BBC – Alsthom – CEM : about 80 %), generators (ACEC : about 90 %) & electrical motors (ACEC : about 100 %) providing recurrent contracts in services in that market but also in other power generation market (thermal, gas and hydro).

The company delivers services also to large companies in the petrochemical, steel, cement, paper, waste sectors.
Key customers include GDF Suez Electrabel, EDF Luminus, E.On Benelux, EDF, ArcelorMittal, NLMK, Nyrstar, BASF…

References :
- Major overhaul of 500 & 1000 MW generators for GDF-Suez Electrabel Doel/Tihange
- Servicing on primary pumps and auxiliaries for GDF-Suez Electrabel nuclear power plants
- Major overhaul on steam turbines (nuclear, thermal and industrial plants)
- Rewinding of huge DC motors for the steel industry (ArcelorMittal, NLMK, INDUSTIEEL, APERAM)
- Revamping of Electrostatic precipitators in the Industry (Arcelor Mittal, Knaufl)
- Servicing on BOP mechanical and electrical for the Utilities, the Industry and the Belgian Navy
- Manufacturing of three nuclear stators motors for the primary pumps of GDF-Suez Electrabel Doel 1&2
- Generator stator 500 MW repair for GDF-Suez Electrabel Tihange 1
- Rehabilitation of hydro generators at COO 1-2-3 PP
- Major overhaul of steam turbine and generator at Nyrstar Balen

Ongoing projects :
- Rewinding of nuclear generator rotors (900 to 1300 MW) for EDF
- Refurbishment of 6 x 1000 MW generator rotors for GDF-Suez Electrabel Doel/Tihange
- 4 years contract for maintenance of turbines and generators for SPW – Plate Taille hydro power plant
- Major overhaul of 4 generators and electrical auxiliaries for SNEL N’Seke hydroelectric power plant – DRC
- Nuclear motors 6 KV refurbishment for GDF-Suez Electrabel Tihange
- Supply and renovation of classified nuclear motors for Electrabel Tihange & Doel
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The Renewable activities focus on the deployment of wind turbines – onshore and offshore. As such, the first prototype of the off-shore turbines 6 MW is under demonstration period in the North Sea with Belwind. But the sector is also on hydro power, geothermal, solar energy, as well as biomass and marine energies.

Grid

Alstom Grid focuses on Transmission Substations and Automation solutions for Utilities and Industry as well as on offshore substations and HVDC converter stations.

The company has developed a wide offer for the smart grids projects using the latest technologies. This includes turnkey medium- and high-voltage substations, Power electronics for direct current substations and systems to increase grid capacity and quality (FACTS and HVDC), Decentralized energy projects, Circuit breakers, Disconnectors, GIS equipment, Power and distribution transformers, Measurement transformers, EMS, DMS, MMS, Substation Automation and Data Communication Products and Systems, Integrated refurbishment, Protection monitoring, Hardware life cycle, System reliability, System upgrade and expert training, Network consulting, Expertise and training.

In Belgium, Alstom Grid is specialised in Substation Automation solutions and in Instrument Transformer activities. Major customers are: Elia, Infrabel, Schneider, Siemens, Arcelor, Fluxys

A key driver in the transformation of power networks, smart grids are a strategic priority for Alstom, which is firmly positioned at the forefront of this new market with several projects in Belgium.

References:
- Elia: about 1,000 bays of substations are equipped with Alstom Grid Substation Automation control and protection systems.

Ongoing projects:
- Systems and products for substations of Elia and Infrabel
- Upgrade and extension of existing 50kV installation for Tata Steel (Netherlands)
- Substation control and protection system for TOTAL Fina Optara

Contacts

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