

Present in Singapore actively for transport activities for over **20** years, Alstom is a major supplier of integrated metro system, signalling, rolling stock, infrastructures and services for Singapore's metro lines.

All metro lines in Singapore except two LRT lines have Alstom's solution, among which **Circle Line** MRT system is fully designed and built by Alstom.



KEY FIGURES

- Built the **1st** and **the only** turnkey metro system (Circle Line) in Singapore
- **3** driverless metro lines with Alstom's signalling systems, including **the first** driverless heavy metro line in the world (North East Line)
- Over **100** metro trains (450 metro cars) in operation in Singapore are Alstom's Metropolis metro
- **130** employees



INTEGRATED METRO SYSTEM

- Circle Line (CCL) integrated metro system



SIGNALLING SYSTEMS

- Completed: North East Line (NEL), the first driverless heavy metro line in the world (1997 – 2003)
- Ongoing: Thomson and East Coast Line, CCL stage 6, NEL & CCL upgrading, and Integrated Operation Control Centre



ROLLING STOCK

- Completed: 43 trains (258 cars) for NEL, and 64 trains (192 cars) for CCL



INFRASTRUCTURE

- Completed: track work & 3rd rail for Downtown line stage 1 and stage 2, and Tuas West extension (plus power supply)
- Completed: track work and catenary for NEL depot extension
- Completed: concrete sleeper c/w fasteners for East West Line
- Completed: replacement of the 3rd rail for North South Line



SERVICES

- Ongoing: spare parts and repair for NEL rolling stock and signalling since 2005
- Ongoing: spare parts and repair for CCL rolling stock and signalling since 2010

MAIN REFERENCES

Proven driverless metro references in Singapore via North East Line and Circle Line

- North East Line (NEL) is 20km and with 16 stations. Started revenue service in June 2003, NEL is the world's first fully automated underground driverless metro line. Alstom provides Urbalis signalling system and Metropolis rolling stock.
- The Rail Report Land Transport Authority (LTA) in Singapore released in May 2017 shows that NEL achieved the second highest Mean Kilometre Between Failure just after the newly opened Downtown Line, demonstrating its high level of reliability.
- Singapore Circle Line (CCL) is the second fully automated underground driverless metro line in the country. Alstom designed and built the existing CCL as a turnkey project. The line started revenue services in five stages from 2009 to 2011.
- Alstom's Urbalis signalling solution and Metropolis rolling stocks are used on CCL and NEL.
- CCL Stage 6 is now under construction. It will close the loop by connecting HarbourFront Station to Marina Bay Station. Alstom won contract in October 2017 equipping its Urbalis signalling solution on CCL stage 6.



PROJECTS ONGOING

Building Singapore's most advanced driverless metro line, Thomson & East Coast Line

- Thomson & East Coast Line (TEL) is 43km long and has 31 stations. It will start revenue service in five stages from 2019 until 2024.
- Alstom supplies its Urbalis signalling system for TEL and its two depots.
- Urbalis signalling systems is Alstom's service proven Communication Based Train Control (CBTC) solutions. Today, over 100 metro lines in the world ordered Urbalis signalling solutions, including driverless metro lines such as Singapore North East Line, Circle Line, Shanghai metro line 10, Hong Kong South Island Line, Taichung metro line.



Image source: LTA