



SIEMENS

Toulouse (France) Line A, Line B

Val fully automated metro system - Turnkey project

Turnkey contract including all E & M system work elements, and civil work interfaces.

Fully automated AGT system without on-board attendant.

ATC functions include train regulation, variable headway management, push recovery mode and platform door operation, pinched loop operation.

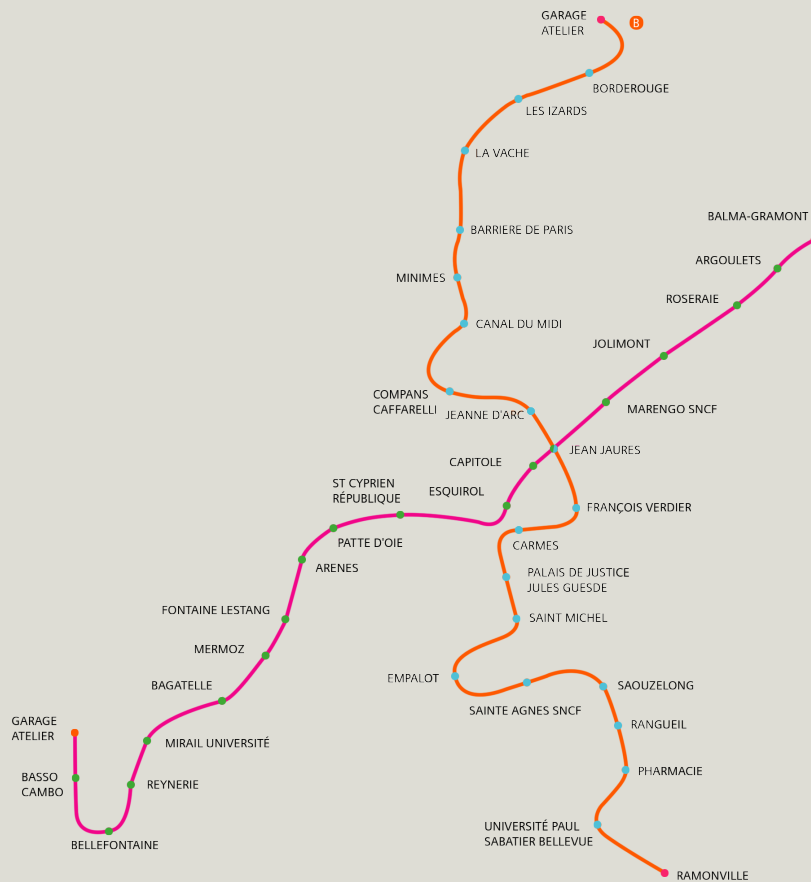
High level of performance and availability, and short headway (60 s).

Siemens France was responsible for the systems portion of this turnkey contract, and the coordination of interfaces between civil and system contracts. Systems provided include Automatic Train Control (on board and wayside), control center, signaling, communication systems, platform doors, power supply, vehicles, depot, and track. Siemens France also undertook the contract for training maintenance and technical assistance (operation, training, reports) and level 3 corrective maintenance.

For the Line A, Siemens France developed and established the Operating Company, and owns 19% of the shares.

Answers for cities.

Technical Information	Line A	Line B
Line length	12.5 km	16 km
Number of stations	18	20
Number of vehicles / Car consist	29 Val 206 Married-pairs + 14 Val 208 Married-pairs	56 Val 208 NG Married-pairs
System technology	Fully automated AGT system. Fixed block technology.	
Contract award	1986 - 1993-2000	2000
Revenue service	1993	2007
Passengers carried per day	185 000	135 000
Operating hours	20 hours/day	
Type of service	Urban	
System Availability Achieved	99.9 %	99.7 %
Commercial speed	35 km/h	36 km/h



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