

Alstom equips S-Bahn Hamburg for digital rail operations

- Contract for fleet upgrade worth over 60 million euros
- Automation and European train control system for 82 S-Bahn trains
- Increased capacity with reduced energy consumption through digitalisation

10 April 2025 - Alstom, a global leader in smart and sustainable mobility, has signed a contract with S-Bahn Hamburg for a technology upgrade of 82 S-Bahn trains of type BR 490. The S-Bahn trains will be equipped with the European Train Control System (ETCS)¹ and modern ATO² technology for automated train operations. This involves semi-automatic train operation with GoA2³. The contract value exceeds 60 million euros⁴.

Alstom will equip four prototype vehicles with ETCS Onvia units and ATO technology by 2029 and re-homologate them. This work will be carried out at Alstom's Hennigsdorf location. The contract also includes the delivery of the technical equipment for the retrofit of the remaining 78 trains. Additionally, Alstom will support the serial retrofitting process, which will be carried out by Deutsche Bahn. The 82 S-Bahn trains are part of the first batch of BR 490 trains ordered in 2013. Sixty-four S-Bahn trains from the second batch are from the start equipped with ETCS and ATO in the factory. In the future, the entire BR 490 fleet of the Hamburg S-Bahn will be ready for digital rail operations.

"The combination of digitalisation and automation is the key to more green mobility on rail. It allows shorter headways and higher passenger numbers while at the same time reducing energy consumption. This way, climate protection and the mobility shift to rail go hand in hand," says Tim Dawidowsky, President of the Central and Northern Europe region, Alstom. "With this project, the Hamburg S-Bahn is making an important contribution to the digitalisation of rail in Germany. Alstom supports this effort with expertise, experience, and cutting-edge technology."

Jan Schröder, Chairman of the Management Board of S-Bahn Hamburg, said: "With the full digitalisation of S-Bahn Hamburg, we are setting new standards for the future of rail. I am pleased that we were able to secure a strong partner like Alstom for the retrofit of the last 82 vehicles. The full digitalisation of the fleet is a milestone for increased capacity, better quality, and much higher efficiency in S-Bahn operations. My special thanks go to the city of Hamburg and the Authority for Transport and Mobility Transition for their strong commitment to S-Bahn Hamburg."

Global leader in digitalisation

With over 120 ETCS projects worldwide, around 24,800 Onvia Cab onboard units in over 200 vehicle types, and more than 13,300 kilometers of equipped tracks, Alstom is a global leader in the digitalisation of rail transport. Onvia Cab is designed for installation and integration on all types of new trains as well

¹ ETCS (European Train Control System)

² ATO (Automated Train Operation)

³ GoA (Grade of Automation) GoA2 stands for semi-automated train operations with driver on board.

⁴ Order intake in Fiscal Year 2024/25. Fiscal Year 2024/25 ended 31.03.2025.

as for retrofitting existing vehicles. Onvia Cab is compatible with the latest, TSI 2023 standard at Baseline 3 level ensuring compatibility and compliance.

In Germany, for instance, Alstom is equipping 215 S-Bahn trains and 118 regional trains with ETCS and ATO for the flagship project Digital Node Stuttgart.

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About Alstom

Alstom commits to contribute to a low carbon future by developing and promoting innovative and sustainable transportation solutions that people enjoy riding. From high-speed trains, metros, monorails, trams, to turnkey systems, services, infrastructure, signalling and digital mobility, Alstom offers its diverse customers the broadest portfolio in the industry. With its presence in 64 countries and a talent base of over 84,700 people from 184 nationalities, the company focuses its design, innovation, and project management skills to where mobility solutions are needed most. Listed in France, Alstom generated revenues of €17.6 billion for the fiscal year ending on 31 March 2024.

For more information, please visit www.alstom.com.

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