

Alstom unveils the world's first Eurobalise with integrated encoding capabilities – a pioneering breakthrough in rail safety

- Redefining rail safety standards by enhancing Eurobalise with simplified ERTMS encoding capability for multiple use cases
- The game-changing innovation is based on the leading Onvia Balise technology and demonstrate our commitment to improve safety in rail operations
- First framework contract with Infrabel, the Belgian rail network operator, with a firm order of 50 balises and maintenance for the next 20 years

27 November, 2023 – Alstom, global leader in smart and sustainable mobility, has introduced a groundbreaking Eurobalise (a safety-critical device transmitting data from tack to train) that integrates simplified ERTMS encoding functionality to serve multiple use cases. This innovative solution represents a major stride in advancing rail safety standards, addressing the critical need for increased safety during track work. Its easy installation offers rail operators a cost-effective proposition.

"Alstom is proud to introduce this game-changing super balise to the market. This innovation is in line with our commitment to advance rail safety with digital solutions to meet the evolving needs of the industry," says Bernard Belvaux, Alstom Benelux Managing Director.

Alstom has received the first firm order from Infrabel, Belgian railway network operator, for 50 units and 20-year maintenance services, with the potential to expand to 100 units. The production will involve engineering and manufacturing sites in Villeurbanne (France) and Charleroi (Belgium)

The solution, to be deployed by Infrabel for the first time, includes an automatic warning system to safeguard track workers. It efficiently secures the work area by transmitting "STOP" or "GO" messages to the train automatically.

When used in a train control system level 1 with limited supervision (ETCS L1LS) installation, it autonomously selects the right message out of 16 possibilities and transmits it to the train in SIL4 (the highest Safety Integrity Level). Simple to install, the combination of Eurobalise and encoder functions into a single product provides customers with a notably competitive solution.

Finally, the solution addresses the essential necessity for elevated safety during track maintenance. By allowing operators to remotely control train movements, the system minimises the risk of accidents and enhances overall safety standards.

A Eurobalise is vital for data transmission, train positioning, and European Rail Traffic Management Systems (ERTMS) compliance. This advanced version presented today is based on the proven Alstom Onvia Balise technology with over 400,000 units installed around the world.



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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 63 countries and a talent base of over 80,000 people from 175 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 ϵ 16.5 billion for the fiscal year ending on 31 March 2023.

For more information, please visit <u>www.alstom.com</u>.

In Belgium, Alstom employs 2100 people. The Group's activities are concentrated around two global development centres in Charleroi (signalling, powertrain and energy efficiency solutions), an assembly and maintenance plant in Bruges, and an overhaul facility in Fleurus

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