

UIC Launches FP2-MORANE-2 Project to Advance Future Railway Mobile Communication System

January 31, 2025



The International Union of Railways (UIC) has announced the launch of the FP2-MORANE-2 project, a critical step towards the deployment of the Future Railway Mobile Communication System (FRMCS). This ambitious initiative aims to test and refine FRMCS technology in real-world conditions, ensuring its seamless integration into Europe's evolving rail network.

FRMCS is poised to replace the existing GSM-R system by 2030 and will serve as the cornerstone of future railway operations, enabling enhanced digitalization, improved capacity, and greater efficiency for both passenger and freight rail transport across the European Union.

The €13.5 million FP2-MORANE-2 project, co-funded by the EU-RAIL and SNS JU, officially commenced on December 1, 2024. This 34-month initiative will involve rigorous testing across various European rail lines, including conventional and high-speed tracks, and in three dedicated European laboratories.

The project's primary objective is to validate the latest FRMCS specifications provided by the European Union Agency for Railways (ERA) and ensure their seamless integration into future revisions of the Technical Specifications for Interoperability (TSIs).

A consortium of leading industry players, including railways, suppliers, and research institutions, is actively involved in the project. The UIC, serving as the Project Coordinator, leads this consortium, which includes UNIFE, representing the European Rail Supply Industry, alongside key players such as ADIF, BaneDanmark, Network Rail, Alstom, CAF, Ericsson, Eviden, Hitachi Rail, KPN, and Telia.

“The FP2-MORANE-2 project represents a turning point for European railways,” stated François Davenne, UIC Director General. “By advancing FRMCS, we are not only ensuring seamless communication across the rail network but also supporting the EU’s vision of a greener and more efficient transport system.”

FRMCS is designed to support not only existing applications like the European Train Control System (ETCS) and voice services but also to enable the deployment of advanced functionalities such as Automated Train Operation (ATO) at various levels, data and video services, and other innovative applications that demand enhanced quality, flexibility, and capacity.

Enno Wiebe, Director General of UNIFE, emphasized the importance of this collaborative effort. “The European rail supply industry is dedicated to making FRMCS, as part of the overarching ERTMS rollout, a full success. All actors must work together to ensure a timely and seamless transition to this crucial technology.”

The FP2-MORANE-2 project will play a pivotal role in shaping the future of rail communication in Europe. By collaborating closely with regulatory and standardization bodies, such as the ERA, and aligning with other EU-Rail projects and initiatives, the consortium aims to ensure the successful development and timely deployment of FRMCS across the European rail network.