



5G Corridor project – 5G4RailScand

5G for Railway operations in Scandinavian-Mediterranean corridor



The project in a nutshell

The 5G4RailScand project focusses on enabling the first implementation of the Future Rail Mobile Communication System (FRMCS) along the Scandinavian-Mediterranean TEN-T corridor, specifically in the section connecting Copenhagen, Gothenburg, and Oslo. By deploying the required passive digital infrastructure, the project will lay the foundation for advanced communication systems in rail transport. This effort aims to enhance connectivity, ensure reliable and efficient communication for rail operations, and support the transition to modern, future-proof digital rail systems in the region.

The project's consortium is coordinated by TRAFIKVERKET and consists of BaneNOR, Øresundsbro Konsortiet and BaneDANMARK.

Key facts

Length: Approximately 800 Km

Corridor: Scandinavian-Mediterranean corridor, Copenhagen-Gothenburg-Oslo (border crossings: Norway-Sweden, Sweden-Denmark)

Total EU grant: €18,018,000.00 (50%)

Project duration: 36 months (January 2025 - December 2027)

Transportation mode: Rail

Spectrum bands: Preparation for 1900/900 Mhz (Railway Mobile Radio)

Service / Use cases:

- Railway Traffic Control and Signaling (voice and data)



What will it provide?

The 5G4RailScand project will deliver a range of outcomes to facilitate the implementation of the Future Rail Mobile Communication System (FRMCS) along the Scandinavian-Mediterranean corridor:

- **Guidelines** for FRMCS cross-border considerations and passive infrastructure deployment, ensuring seamless integration across national borders.
- **Upgraded passive infrastructure**, including radio sites, optical fibre, and radiation cables for railway tunnels, to support the future deployment of active components and the FRMCS network.
- **An upgraded FRMCS test track** in Sweden, equipped with 5G radio (1900 MHz) and a 5G standalone (SA) test core, enabling piloting, rolling stock testing, and innovation of FRMCS services.
- **Detailed plans** for the deployment of active FRMCS network components and the piloting of rolling stock along the corridor section.
- **Enhanced preparedness** for full-scale FRMCS implementation by streamlining processes and organizational structures, ensuring readiness for modernizing rail communication systems.

How will the project unfold?

The 5G4RailScand project will be carried out in three key phases over a three-year period:

1. In **2025**, the focus will be on preparing for the main construction work scheduled for the following years. This includes initiating the cross-border study and beginning the installation of passive infrastructure.
2. During **2026**, the installation of 5G radio and a 5G standalone (SA) core will take place on the upgraded FRMCS test track, enabling testing and piloting activities.
3. By the end of **2027**, all passive infrastructure within the project's scope will be completed and handed over to the relevant operation and maintenance organizations, ensuring readiness for future FRMCS deployment.



How is it financed?

The project is funded by EU/CEF Digital Grant programme.

Total EU Contribution: €18,018,000.00 (50%)

More information

[EU Funding & Tenders Portal](#) | [EU Funding & Tenders Portal](#) | [EU Funding & Tenders Portal](#)

About

The ambition of the GUIDE project is to bring together the relevant stakeholders from the ecosystem of 5G Corridors across the European Union (EU) and to help them get the maximum value from the CEF Digital programme, ensuring that future CEF Digital work programmes progressively address the actual needs of the stakeholder communities.

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