

5G EMCIE

Emerald Motorway Corridor Ireland (Dundalk – Rosslare Europort) project partners Vantage Towers, Three Ireland (Hutchison) Limited and WINGS ICT Solutions Technologies announce a significant collaboration to expand pan-European 5G corridors to enable Cooperative, Connected and Automated Mobility (CCAM) applications and enhance 5G mobile network quality.



5G EMCIE

Emerald Motorway
Corridor Ireland



Introduction

'5G EMCIE' will connect Dundalk, south of the Northern Ireland border, to Rosslare Europort, Ireland's most strategically located port, for direct connectivity to both the United Kingdom and continental Europe. The project has kicked off in January 2026, with the expectation that infrastructure construction will progress through late 2026 into 2027 with use case pilots scheduled through 2028.

Objectives

1. Provide uninterrupted 5G connectivity, capable of supporting select use cases along the corridor
2. Validate the network and applications performance of 5G connectivity via field trials, demonstrating its effectiveness in real-world scenarios.
3. Deliver a thorough Business and Techno-economic analysis regarding corridor 5G deployments

5G EMCIE

Key facts

CORRIDOR LENGTH:
260 kilometres

ROUTE:

The project will provide 5G connectivity exclusively for motorways (M1, M50 and M11), resulting in a connected cross border corridor from Dundalk to Rosslare Europort border through counties Louth, Meath, Dublin, Wicklow and Wexford.

FUNDING:

Co-funded by the European Union - Program: Connecting Europe Facility (CEF)

SUPPORTED BY:

Irish Department of Culture, Communications and Sport, Rosslare Europort

PROJECT DURATION:

36 months (1 Dec 2025- 30 Nov 2028)

PASSIVE INFRASTRUCTURE:

12 new radio towers on the corridor and 22 upgraded towers already in service

5G SPECTRUM BANDS:

700 MHz and 3.5 GHz (n78) radio spectrum for dedicated motorway coverage



Co-funded by the European Union

Use cases

The service use cases will pilot scalable, interoperable, and 5G-enabled solutions designed to strengthen smart mobility, intelligent infrastructure, and climate resilience along the corridor.



Real-Time Tracking for High-Value or Regulated Cargo



Road Safety Systems and Early Hazard Warnings (C-ITS / V2X)



Port Operations that Respond to Live Conditions



Compliance and Border Automation



Monitoring the Road and Transport Infrastructure

These use cases aim to demonstrate how advanced 5G connectivity can support real-time data collection, analytics, and cross-border information exchange, enabling safer transport operations, more efficient logistics processes, and improved environmental monitoring along the corridor.

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