

5G Corridor project fiche – 5G SEAGUL

5G SEAGUL: 5G Seamless Roaming for the Greece-Bulgaria Cross Border Corridor



The project in a nutshell

This project, led by WINGS ICT Solutions, Cosmote and A1 Bulgaria EAD, will target the deployment and upgrade of 5G RAN for transportation uses with a focus on connectivity across the border between Bulgaria and Greece to support Connected and Automated Mobility (CAM) services.

The project aims to achieve an optimum network interconnection and roaming/handover configuration while measuring the smooth handover experienced by connected vehicles and validating via real-life cross-border trials.

Key facts

Length: 473 km

Corridor: Sofia (Bulgaria) - Kulata/Promahonas - Velestino (Greece)

Total EU grant: €5,748,000.00

Project duration: 36 months (January 2023 - December 2025)

Transportation mode: Road

Spectrum bands: 700MHz and 3.5Ghz

Standards: 3GPP Rel-16

QoS:

- Uninterrupted packet-switched voice calls
- Uninterrupted video calls
- Infotainment: uninterrupted video streaming
- Data sharing for real-time situational awareness and traffic information
- Transport safety, convenience, sustainable goods transfer

Service / Use cases:

- Capacity reservation for industrial and mission-critical Transport & Logistics services
- Faster change of network at border crossings



What will it provide?

The project aims to speed up the deployment and upgrade of 5G connectivity along the Greek and Bulgarian highways by 2025 in challenging areas for 5G deployment, thus enabling more efficient, intelligent, sustainable, and environmentally friendly mobility along one of the primary EU transport paths.

How will the project unfold?

5G SEAGUL works on State-of-The-Art (SoTA) Stand Alone (SA) 5G networks through the deployment of new equipment (core, gNBs) and upgrade of existing ones (eNBs, backhaul) on both the Greek and Bulgarian sections of the corridor. Two separate deployments of 5G networks shall be evaluated in the scope of the project:

Phase 1 network: Based on the NSA (Non-Stand Alone) architecture over the existing commercial EPC (Enhanced Packet Core) core networks.

Phase 2 network: Based on the beyond SoTA SA architecture planned for subsequent implementation by both MNOs.

It will provide uninterrupted 5G coverage at the EL-BG CBC (Cross-Border-Corridor) with the 700 MHz band for the 473 km corridor length and supplementary coverage with 3.5 GHz for 11 km around the Promahonas/Kulata border-crossing point. Also, 5G connectivity across the entire Greece-Bulgaria corridor delivering CAM services will be tested and validated.

How is it financed?

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

Total EU Contribution: €5,748,000.00

More information

<https://5g-seagul.eu/>

[Funding and tenders project page](#)

<https://twitter.com/5gSeagul>

<https://www.linkedin.com/company/5g-seagul/>

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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<https://guide.5gcorridors.eu/>

