



5G Corridor project– 5G Balkans

5G Balkans: uninterrupted connectivity covering the Bulgaria-Serbia border



The project in a nutshell

5GBLK aims at improving 5G infrastructure along the Sofia-Dimitrovgrad cross-border corridor, part of the core network corridor "Orient/East-Med" Belgrade-Sofia Thessaloniki. The project's primary goal is to upgrade the current backbone and radio network infrastructure to ensure the delivery of the necessary throughput and operations in the 5G bandwidth to facilitate CAM and enable seamless communication.

CETIN Bulgaria together with CETIN in Serbia and the Technical University of Sofia will thus contribute to securing uninterrupted connectivity and covering the cross-border segment Sofia - Dimitrovgrad along the core network Orient/East-Med Corridor Belgrade-Sofia-Kalotina. Associated partners in 5G Balkans are Yettel companies in Bulgaria and Sofia.

Key facts

Length: 135 km

Corridor: Sofia (Bulgaria) - Dimitrovgrad (Serbia)

Total EU grant: €3,364,402.00

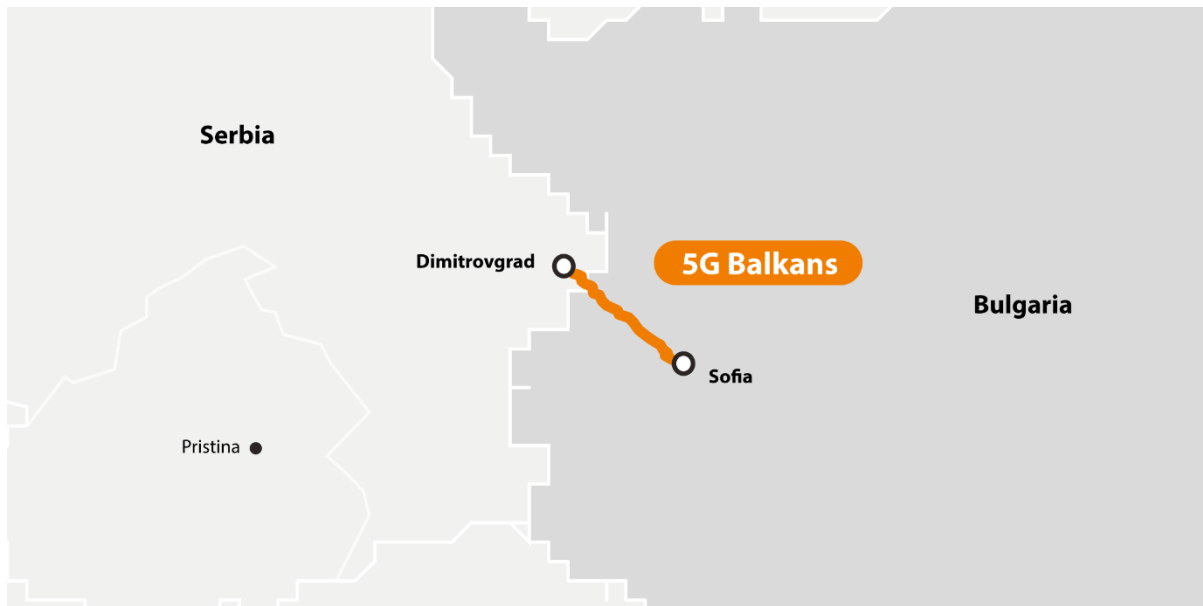
Project duration: 36 months (January 2024 - December 2026)

Transportation mode: Road

Spectrum bands: 700MHz and C-band

Service / Use cases:

- 5G for CAM, covering "Minimum" & "Classic" scenarios with 1 Mbps per vehicle and 2 Mbps per vehicle, respectively



What will it provide?

The project aims to design and deploy enough RAN capacity to deliver on Connected and Automated Mobility (CAM) in the mentioned areas, achieving Minimum and Classic scenarios for automated cars with an inter-site distance of ~3 km, assuming fair market share coverage of the needed capacities.

The project's primary goal is to significantly upgrade the current backbone and radio network infrastructure to ensure the delivery of the necessary throughput and operations in the 5G bandwidth to facilitate connected and automated mobility, enable seamless communication, and lay the foundation for edge computing and the Internet of Things (IoT).

The project includes 25 km fiber optic upgrade along Sofia's inner-city roads, 110 km new fiber optic coverage from Sofia to Dimitrovgrad and fiber coverage to the existing 15 base stations in Bulgaria and 3 base stations in Serbia, covering the respective route. Fiber optic and 5G surveys and analysis will be executed by Technical University of Sofia. Analysis of any potential interferences with 5.9GHz will also be carried out by the Technical University of Sofia.

How will the project unfold?

The project is divided into six work packages: three for CETIN Bulgaria, with separate work packages for 5G NR and Fiber Optic deployment; two for the Technical University of Sofia, separating the measurements and analysis of Fiber Optic from 5G NR; and one for CETIN Serbia, which is responsible for providing fiber optic to the base stations covering the Kalotina – Dimitrovgrad (RS) route.

The project was launched on schedule, with a preliminary study included as part of the application. Both CETIN Bulgaria and CETIN Serbia, as infrastructure companies, possess the operational capacity, expertise, and experience necessary for such projects, providing a solid foundation for successful completion.



How is it financed?

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

Total EU Contribution: €3,364,402.00 (50%)

More information

[EU Funding & Tenders Portal | EU Funding & Tenders Portal \(europa.eu\)](#)

[5G Corridors Call 2: Selected Project Overviews | Shaping Europe's digital future \(europa.eu\)](#)

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/>

