5G Corridor project fiche – BALTCOR5G

BALTCOR5G: Deploying 5G and V2X infrastructure cross-border between Poland and Czech Republic

The project in a nutshell

This project aims at deploying 5G and C-v2x infrastructure connecting cross-border road corridor sections along the Baltic-Adriatic 5G Corridor between Poland and The Czech Republic to enable high quality seamless network coverage and handover.

Towerlink Poland together with CETIN AS will aim to develop novel business models in market failure areas to provide digital services.

Key facts

Length: 147 km

Corridor: Częstochowa (Poland) - Ostrava/Svinov (Czech Republic)

Total EU grant: €2,058,524.00

Project duration: 36 Months

Transportation mode: Road

Spectrum bands: 5G spectrum for MNOs coverage (C-Band and 700 MHz), 5.9GHz for V2X use cases

Standards: 3GPP Rel-15, 5G/C-V2X and DSRC/ ITS-G5

QoS:

- Coverage
- Download/Upload Rate
- Latency
- Call Drop Rate

Service / Use cases:

- Uninterrupted calls
- Neutral infrastructure for MNOs, road administrators, and enterprises
- Enhanced road safety and efficiency through continuous 5G coverage
- Handover of ongoing data sessions to/from foreign PLMN
- ITS G-5/C-V2x coverage to support Connected Automated Mobility services
- Intelligent traffic management
- Low latency data processing through MEC (Multi-access Edge Computing)

What will it provide?

As part of the ongoing BALTCOR5G activities Towerlink Poland and CETIN will be deploying a dedicated telecommunication infrastructure both passive and active for areas with no or very limited 5G coverage. The plan assumes the deployment of several sites both in Poland and the Czech Republic along 125 km A1 Road corridor in the cross border regions between the cities of Częstochowa and Ostrava. The project will enable testing 5G for mobility, including digitizing the road infrastructure with a network of sensors, such as HD cameras that use 5G to send video streams in real time to Artificial Intelligence components to analyze road traffic automatically. This will allow the road operator to monitor the highway traffic in detail, in 1 or 2 km segments, and manage the traffic intelligently. Additionally, Cellnex and CETIN plan to deploy the infrastructure that allows benefiting from Connected and Automated Mobility (CAM) solutions in the future. Thanks to subsidy beneficiaries will be able to offer a neutral infrastructure to different stakeholders (like Mobile Network Operators or road administrators), which would not be possible otherwise.

How will the project unfold?

Project's plan assumes the deployment of two categories of infrastructure. The first category concerns a shared 5G infrastructure and includes passive, active, and transmission layers. Thanks to the deployment of passive infrastructure the MNOs can host their 5G macro equipment (including C-Band allocated to MNOs) to provide coverage. Transmission infrastructure will ensure data transfers to newly deployed sites, and their connection to the core networks of operators. The second category of infrastructure concerns CAM solutions. Implementation of this part of the project will begin with deployment of MEC layer at the sites near the road, to process locally the data collected from the customers, assuring low latency times. This infrastructure is intended to be neutral and shared between various stakeholders both telecommunication companies, road administrators and enterprises. It ensures lowest costs and the shortest time to market to deploy advanced final customer services.

How is it financed?

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

Total EU Contribution: €2,058,524.00

More information

[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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