GUIDE
Supporting the Strategic
Deployment Agendas for
The EU Corridors

5G Corridors project fiche – 5G Carolina

5G Carolina: Cross-border Highway 5G Corridor Munich-Prague

The project in a nutshell

5G Carolina is a joint effort from T-Mobile CZ, together with CETIN and Vantage Towers AG as part of a consortium of 13 partners, that aims explicitly at preparing the 5G systems deployment needed along the 5G Corridor Munich-Prague to enable CCAM throughout the network across all Mobile Network Operators and Vehicle Manufacturers.
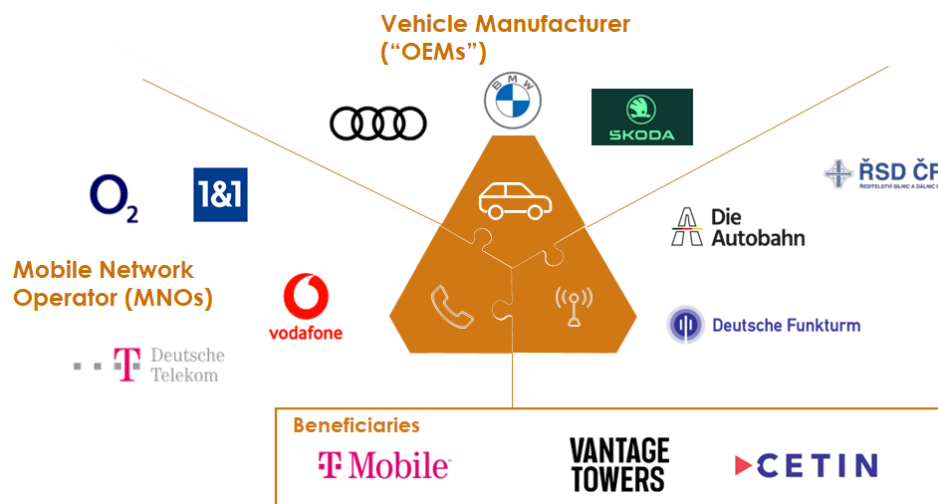
Key facts

Length: 70 km

Corridor: Nova Hospoda (Czech Republic) - Rozvadov/Waidhaus - Wernberg-Köblitz (Germany)

Total EU grant: €238,000

Start and end date: January 2023 - June 2023

Transportation mode: Road

Spectrum bands: Low - (700 MHz), Mid - (1800/2100 MHz) and C-Band (3,6 GHz) and mmWaves (26-28 GHz)
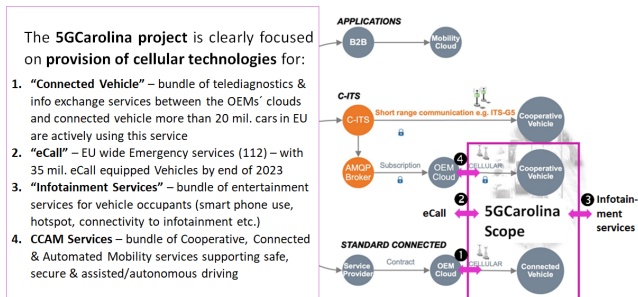
Standards: 5G SA Rel-16+

QoS: CCAM requirements for 5G Highway corridors (SLA)
1. RSRP better than -105 dBm
2. Latency better than 20 ms
3. Download better than 200 Mbit/s
4. Disruption shorter than 1 s (seamless handover)
5. Support of Multi-active SIM

Service / Use cases:
- SLA-based CCAM (Cooperative, Connected and Automated Mobility) Services
- CCAM Infrastructure used also in remote areas - Seamless Handover (on border crossings)
- CCAM Services for road safety - use cases such as collision warning avoidance, Emergency Trajectory Alignment and Platooning
- Enhanced user experience - 5G for infotainment
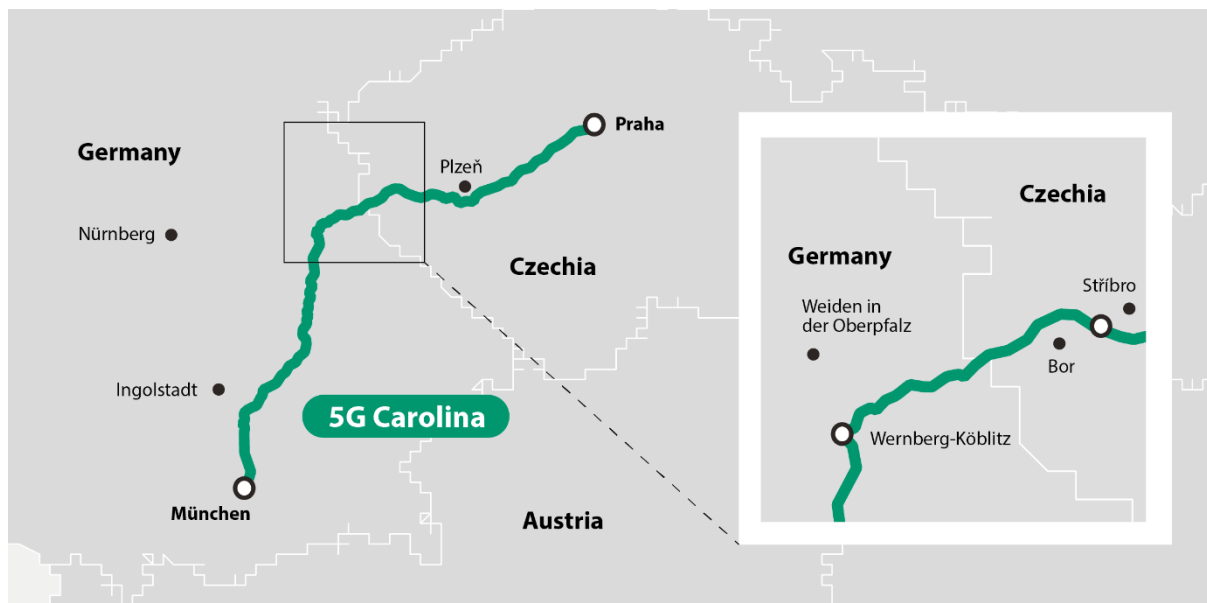- New Generation of e-Call

What will it provide?

The inception study will define and categorize OEM use cases and requirements for CAM services. It

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will design the 5G technology MNO architecture to provide stable, high-performing, and secure CCAM services. Furthermore, it will prepare the implementation of passive infrastructure for installation, support, and operation of MNO services and validate compliance of 5G CAM services with EU/national laws and regulatory conditions.

An evaluation of best practices in synergistic projects will be undertaken to accelerate the rollout of 5G corridors to the West-East and North-South (e.g., corridors to Bologna and Carlsbad).

How will the project unfold?

The project will identify five key 5G application areas relevant to the Bavarian-Czech corridor. Also, it will explore government funding opportunities in Bavaria, Germany, the Czech Republic, and the EU. Following this, specialized working groups of Czech and Bavarian experts will be formed, focusing on eHealth, Industry 4.0, Connected Mobility, and Smart Regions. These groups will collaborate to set the conditions to implement pilot projects showcasing 5G applications. Simultaneously, the project will address operational and security aspects of the corridor, implementing the EU toolbox for 5G cybersecurity.
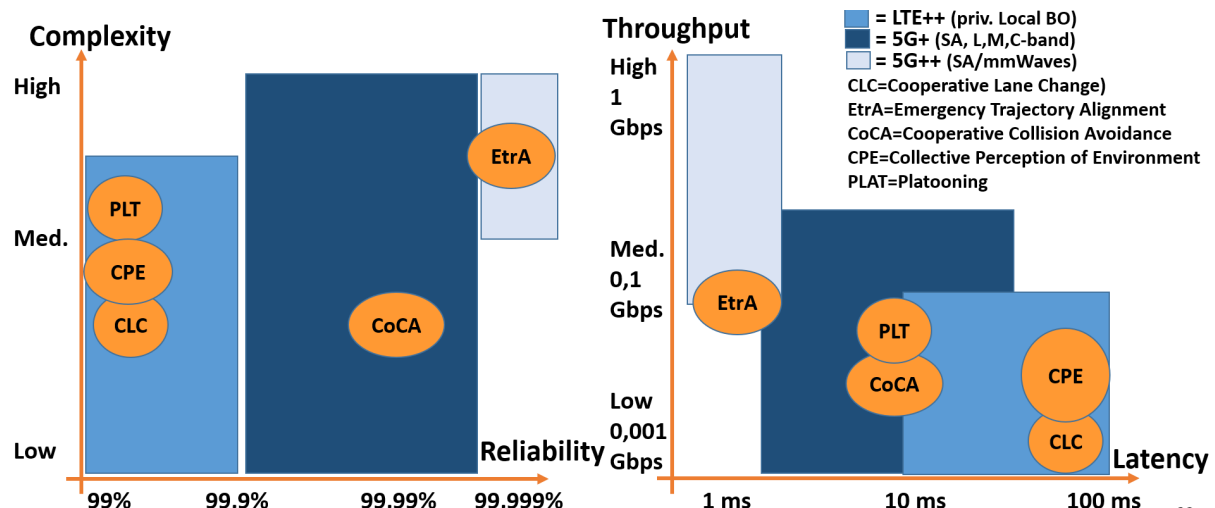
CCAM-Service Requirements on Cellular Infrastructure

How is it financed?

The project is funded by EU/CEF Digital programme.

Total EU Contribution: €238,000

More information

https://www.munich-prague.org/5gcarolina.html

Funding and tenders project page

https://guide.5gcorridors.eu/wp-content/uploads/2023/10/5gcarolina.pdf

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.

Follow us on X.com and LinkedIn for the latest updates on the CEF Digital programmes.

https://guide.5gcorridors.eu/