5GCorridor Munich-Prague Secure Highway Corridors Germany-Czechia





Presented by

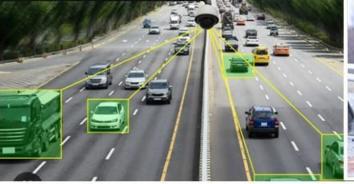
Petr FOŘT – T-Mobile Czech Republic Alina SCHECK – Deutsche Funkturm













The 5GCarolinaPlus project follows on hundreds of years old history in Germany-Czechia heritage of business and trade relationship disrupted by "2WW and iron curtains" period. It should help to transform the struggling region of Carlsbad and Tachov from "coal mining" to "education, R&D and high-tech" driven communities.



5GCarolinaPlus Secure Highway Corridors Germany-Czechia





ENABLERS

Technology

+ 4/5G Network+ MEC + IoT + Big Data + AI

Competitivness

+ national + cross border
Ambitions

EU policies

+ sustainability + safety+ security + inclusion

PROJECT SCOPE & AMBITIONS

CCAM Infrastructure-Services for Highways (TEN-T) Corridors Roads/Rails/... for Smart Cities & Communities

3C's Network

CCAM Infrastructure-Services for Border Crossings Roads/Rails/...

for Industry 4.0, Logistics, ...







5GCarolina Plus – Carolina Secure Highway Corridors Germany-Czechia





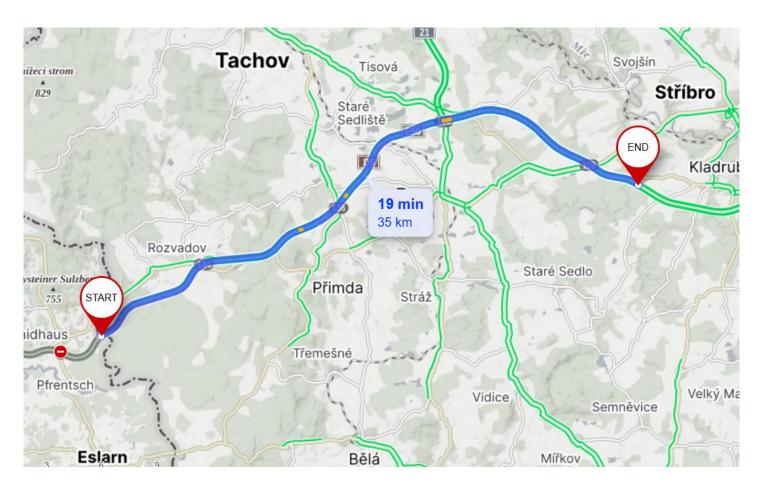
Highway Corridor D5 (35 km):

- backbone for Tachov region
- high demand on CCAM expected
- coverage of Border Crossings (seamless Handover)

Key Targets:

Transformation of Tachov Region

- Forest/Logging/Harvesting
- tourismto preferred
- High Tech and R&D
- Automated Mobility Testing Locations





5GCarolinaPlus - Carlsbadia Secure Highway Corridors Germany-Czechia





Highway Corridor D6 (50 km):

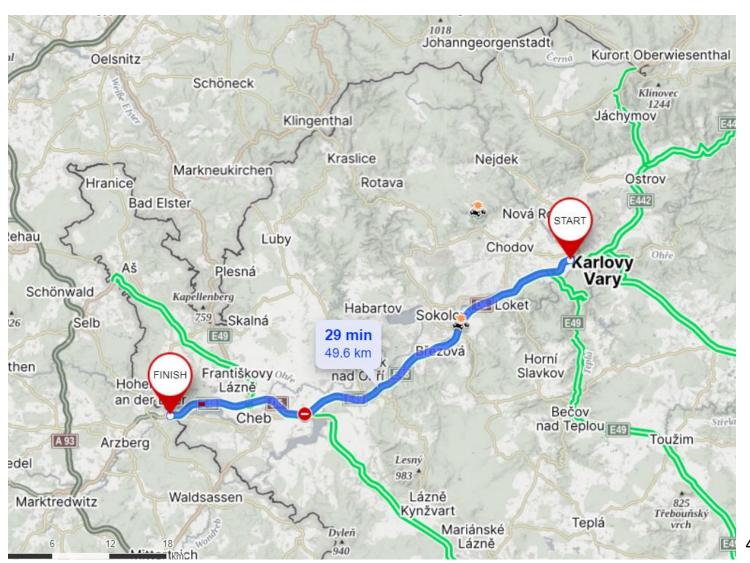
- backbone for Carlsbad region
- high demand on CCAM expected
- coverage of Border Crossings (seamless Handover)

Key Targets:

Transformation of Carlsbad Region

- mining / energy production (coal)
- spa / tourismto preferred locations for
- High Tech and R&D
- Automated Mobility Testing





5GCarolinaPlus – PortaBohemica Munich-Prague 9 Border Crossings



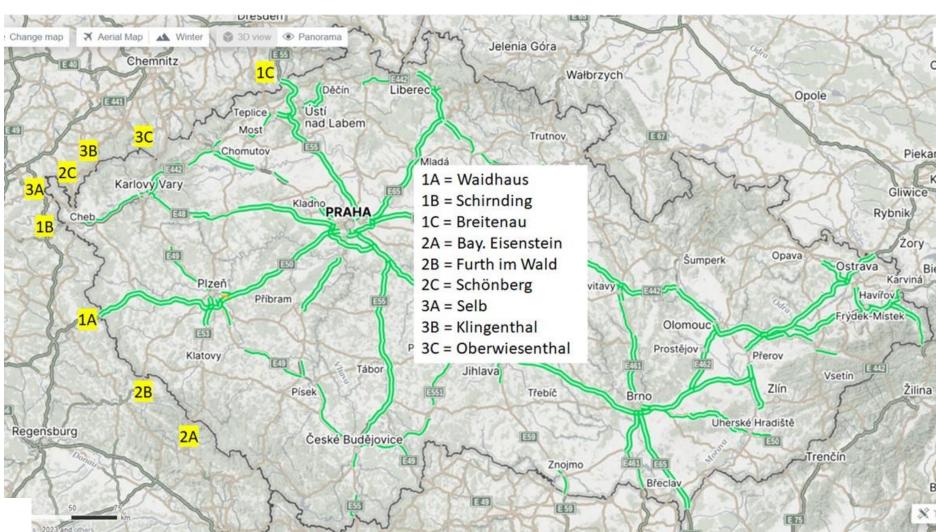


9 Border Crossings:

- 5 with Bavaria
- 4 with Saxony

3 for TEN-T (European)
6 for other Corridors

Providing CCAM
"seamless" Handover
= change of a Roaming
operator w/o significant
(less 1 s) connectivity
disruption.



5GCarolinaPlus Project Scope / Deliverables







- more than 50 existing and
- 22 new High Cell towers
- upgraded/equipped with C-band 5G technology
- to cover the Carlsbad and Tachov region with CCAM services
- to enable the development of social and economic neglected territories bordering to Germany.

The suggested use cases will demonstrate the development potentials of

- Smart Communities projects (Waste Management, Public Transportation, Healthcare) and
- Commercial Initiatives (OEMs projects for Automated Mobility) and unfold the socioeconomic entrepreneurship



5GCarolinaPlus – **5GInnovators Support for 5G Innovation Projects**







5G Innovations for:

- Public Sector
- **SED** Socio-economic Drivers
- Commercial Actors.

Main Criterium is added Value of the Use Case(s).

Provision of 5G CCAM Services for all Sectors:

- 5G CCAM Connectivity
- MEC Cloud Services.



Example of Border City Cheb:

- Teleoperation/Automation of municipal vehicles (cleaning/waste)
- City Traffic Flow Control (Crossings)











Innovations for BMW FMDC:

- Automated Vehicle Testing
- Teleoperated Vehicle
- V2X Services





5GCarolinaPlus Project Plan







No.	WP	Task	Deliverables		Q1/25	Q2/25	Q3/25	Q4/25	Q1/26	Q2/26	Q3/26	Q4/26	Q1/27	Q2/27	Q3/27	Q4/27
1	WP1	Project-Kickoff	Meeting Report / Milestone		*											
2	WP1	Detailed Project-Planning	Plan D5, D6, Borders+Bus. Model+	Reviews				Ť								
3	WP2	Tender for HW Delivery	Tender/Retender D5, D6, Crossings + Bus. Model			(Ì								
4	WP3	Upgrade on 5G CCAM-ready	Upgrade of exist. Infrastructure + Delivery Review							→		Ť				
5	WP3	Installation of 5G CCAM	Deployment of new CCAM Infrast. + Improvement					•								
6	WP3	Innovative CCAM UseCases	Selected+deployed+validated CCAM Use Cases						—			-0			•	\
7	WP3	CZ Installation on D5	D5 Highway Corridor Coverage by 0	CCAM								•		╪	7	
8	WP3	CZ Installation on D6	D6 Highway Corridor Coverage by 0	CCAM								•		╀		
9	WP3	Installation on CZ borders	9 CZ border Crossings Coverage by	CCAM								•		╅		
10	WP3	Installation on DE borders	9 DE border Crossings Coverage by	CCAM								•		_		
11	WP4	Tests of Border Crossings	Function Tests of Border Seamless Handover												$\downarrow \mid \mid \mid$	
12	WP4	Function Tests of 5GCCAM	Functional 5GCCAM services											*	Ď↓∣	
13	WP4	Integration Tests of 5GCCAM	Integration with OEM CCAM Use Ca	ses												
14	WP4	Integration Tests of 5GCCAM	Integration with Innovation CCAM Use Cases												,	→ →
15	WP4	Hand-over/Demo + GoLive	CCAM KPIs + 5GCCAM services operational (Go Live			e)										→
16	WP5	Communic. + Outreach	Regular + Events + EU platforms (GUIDE)					•				•				
17	WP5	Project RoadShow	Local presentation of Project achievements													→
18	WP5	Progress Report 1 + 2	Detailed Progress report (delivery, spending)					Ė)							
19	WP5	Final Meeting	Meeting Report / Milestone / Wrap-up												*	
20	WP1	Post-Go Live Support	Commercial Operation of CCAM Se	rvices			*									$\rightarrow \Longrightarrow$



Spending In mil. €

RP1 RP2 RP3 SUM 2025 2026 2027 25-27 2,91 6,6 4,49 2,91 9,51 14,00 14,00

5GCarolinaPlus – 5GInnovators Out of Scope - 5G Innovation Projects





5GSkyDrone:

- UAV with 60 m wingspan
- stratospherically located (20 km)
- 5G coverage of 15.000 km²
- 7-9 days on Sky endurance
- Solar / hydrogen powered.





Provision of 5G CCAM Services:

- 5G CCAM non-terrestrial Connectivity
- Emergency & CCAM demanding use cases.



