







Hochschule für Technik und Wirtschaft des Saarlandes University of Applied Sciences



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Corridor - Project 56 - A2A - Autobahn to Autoroute

Vantage Towers AG - Gerhard Machinger / Team 5G Corridor



January 2025

56 A2A Corridor: Scope

- Scope Deploying 60km of 5G highway corridor infrastructure (passive & active) between Metz in France and Saarbrücken in Germany located in a heart region of Europe, part of the TEN-T ATLANTIC corridor
- Scope Dedicated highway coverage frequencies: 3.5 GHz in France, 3.6 GHz in Germany (n78 band) radio spectrum
- **Scope** Passive infrastructure sharing in France and active sharing through neutral host model in Germany
- Scope 5 new radio towers in Germany, 9 new towers and 8 upgraded towers in France



Metz – Kaiserslautern is on the TEN-T-ATLANTIC- corridor (<mark>-</mark>)





56 A2A Corridor: Scope - Details



Metz to German border:

- 55 km along highways A4 and A320
- Dedicated highway coverage
- Mixture of 9 new sites and 8 site upgrades
- Passive sharing
- Antenna supporting 2 to 3 different MNOs
- 3,5 GHz coverage
- National partners: TOTEM & Orange



Highway corridor between Metz and Saarbrücken, with a total length of 60km along the TEN-T ATLANTIC corridor and connecting links to other corridors.

5GA2A Corridor





French border towards Saarbrücken:

- 5km along A6
- Dedicated highway coverage
- 5 new compact towers (max. height 15m)
- Built for Neutral Host services
- 5G Stand Alone using 3,6Ghz
- First of its kind outdoor Distributed Antenna System (DAS) (first "tenant" – Telefonica)
- National partners: Vantage Towers & Telefónica Germany, htw saar



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56 A2A Corridor: Partners & Timeline of the project





- VANTAGE Towers
- Vantage Towers
- o, Telefónica 02 Telefonica
- htw saar University of Applied Sciences (htw saar)
 - TOTEM Totem

- Orange
- Continental

orange

- Continental (Advisory Partner)
- * * * * * * * Co-funded by the European Union
- European Union CEF Program (Co-funded)

- October 31, 2024: Grant Agreement
- January 2025: Project kick-off
- June 2025: Deployment kick-off
- March 2026: Start Tests
- December 2027: Project Completion

56 A2A Corridor: Objectives

• **Objectives** - Delivering full 5G coverage (uninterrupted cross-border deployment to connect countries)

 Objectives - Establishing reliable and safe mobile communication to enable various use cases for Cooperative, Connected and Automated Mobility (CCAM)

• **Objectives** - Sharing of Infrastructure and contribution of expertise of various industry leading partners



C2 Genera

56 A2A Corridor: Use-Cases

Cooperative Line Change (CLC)	In this use case we explore the different situations that you can find in a Highway with a vehicle. When vehicle needs to change lane from overtaking to first lane or vice-versa, when a vehicle is on the first lane and plans to exit the motorway in moderate-high traffic situation and when vehicle needs to enter in highways.		5G KPIs: • Latency • Reliability
A unbiging a book			
Anticipated cooperative Collision Avoidance (ACCA)	This use case relates to the possibility to anticipate certain road hazards to reduce the probability of collisions, particularly in situations when these hazards are out of the field of view of the vehicles' sensors. It allows to build a situational awareness of the road in quasi real-time manner, and to notify nearby vehicles about collision risks.		5G KPIs: • Delay • Localization • Accuracy
		-	
Follow-me Infotainment & Video Streaming	This use case will demonstrate the continuity of service of intensive infotainment and multimedia applications along the entire highway route.		5G KPIs: • Data Rate • Continuity • Latency
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56 A2A Corridor: In a nutshell

5G Autobahn to Autoroute (5G A2A) is a *Works* project, aiming at timely and cost-effective deployment of 5G infrastructure along a cross-border highway corridor between France and Germany contributing to the transformation towards innovative and greener mobility.

- Deploying 60 km of 5G infrastructure:
 - Passive infrastructure sharing
 - Active sharing through neutral host model (Germany)
 - 5G for dedicated highway coverage

• Establishing reliable and safe mobile communication as an enabler for various use cases for Cooperative, Connected and Automated Mobility (CCAM).

• CEF2 Digital funded



• Run by leading industry players:





Sharing of Infrastructure

CCAM for digital Automotive and Gigabit mobile coverage is only feasible with sharing of infrastructure.

Contribution of Expertise

With partners from various industries and different countries the required knowledge is made available to all partners.



Post-project ownership of the infrastructure

Creation of a long-term cooperation and sustainability.

CEF funding

The cross-border Pilot is eligible for funding from the "Connecting Europe Facility" funding.



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Press Release & Media Contacts:

5G Autobahn to Autoroute - Press Release & Media Contacts

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