

Latest Generation 5G: Towards a Connected Metz-Saarbrücken Axis for Autonomous and Secure Mobility thanks to Vantage Towers, TOTEM, Orange, O₂ Telefónica and htw saar

Dusseldorf, Paris, January 15th 2025

Vantage Towers, TOTEM, Orange, O₂ Telefónica and the Saarland University of Applied Sciences (htw saar), announce a pioneering collaboration to create one of Europe's first cross-border 5G highway corridors.

This ambitious project, named "5G Autobahn to Autoroute" (5G A2A), will connect the cities of Metz in France to Saarbrücken in Germany, covering a 60-kilometer stretch. Construction will begin in early 2025 with completion scheduled for the end of 2027.



Click here to watch images of the project: <https://mastermedia.orange.com/pmCYkmh3SC?o=353579>

Cutting-edge infrastructure for connected mobility:

The deployment of this latest generation 5G infrastructure goes well beyond national coverage obligations. It will enable the development of innovative mobility services, including:

- Cooperative lane changing
- Collision anticipation and prevention
- Automatic traffic jam alerts
- Testing of (partially) autonomous vehicles

This deployment will improve 5G connectivity for cross-border travelers, while enabling innovative industrial trials of connectivity along the entire route.

A european-scale project:

This highway corridor includes:

- A 55 km section in France along the A4 and A320 motorways;
- A 5 km section in Germany along the A6 motorway.

This infrastructure is fully integrated into the ATLANTIC trans-European transport network, ensuring uninterrupted 5G connectivity along the entire route.

A unique international collaboration:

In France, TOTEM and Orange will install nine new masts and upgrade up to eight existing masts to ensure dedicated 5G coverage on the 3.5 GHz frequency. In Germany, Vantage Towers and O₂ Telefónica will deploy up to five radio masts using a distributed antenna system (DAS) on the 3.6 GHz frequency.

A sustainable commitment:

The infrastructure is designed to operate for at least ten years, demonstrating the partners' long-term commitment to sustainable cross-border digital connectivity. This project receives financial support from the European Union under the "Connecting Europe Facility Digital" program and is supported by the Grand Est Region in France.

Expert perspectives:

Christian Hillabrant, CEO of Vantage Towers: "With the establishment of the Franco-German mobile communications corridor, we are advancing digital transformation in Europe. Together with our project partners Telefónica, Orange, TOTEM and htw saar, we are creating infrastructure that enables uninterrupted cross-border connectivity and, in the future, the use of advanced mobility applications such as autonomous driving functions - setting new standards for digital connectivity."

Nicolas Roy, CEO of TOTEM: "This project is a great proof of cooperation between towercos and mobile operators to provide latest-generation 5G mobile network between Metz and Saarbrücken. This project relies on each actor's cutting-edge industrial expertise, dedicated to providing better connectivity for all along the way. With this project, TOTEM demonstrates its teams' ability to deploy bespoke and specific infrastructure solutions in a cross-border environment."

Thierry Marigny, Director Orange Grand Est Region, Eastern France: "Orange is proud to be involved in the deployment of the first next-generation 5G corridor between Metz and Saarbrücken. This pioneering project will make this cross-border route the first in Europe to enable the use of connected vehicles and equipment. In future, users of this route will benefit from driver assistance services to enhance their comfort and safety in their connected vehicles".

Mallik Rao, Chief Technology & Enterprise Officer of O₂ Telefónica: "We are building a high-speed 5G highway to test how to provide consumers and companies with gigabit speeds in the best possible way while driving. This can be a major step towards making connected driving a reality in Germany. We are looking forward to be partnering with the automotive and logistics industries to implement and test digital networking solutions of the future based on our high-performance 5G network. The project is a prime example of how digitalization in Europe must not stop at borders."

Prof. Dr.-Ing. Horst Wieker, Leader ITS Research Group of htw saar: "The project is an integral part of the htw saar's ongoing efforts to increase the safety of connected vehicles and to realize automated driving in cross-border traffic. The htw saar is proud to be able to support the transition from research to live operation with its renowned partners, to implement innovative applications, and to evaluate the project scientifically."

About Vantage Towers:

Vantage Towers is a leading tower company in Europe with more than 86,000 sites in ten countries, connecting people, businesses and devices in cities and rural areas. The company was founded in 2020 and is headquartered in Düsseldorf.

Vantage Towers' portfolio includes towers, masts, rooftop sites, distributed antenna systems (DAS) and small cells. By building, operating and leasing this infrastructure to MNOs or other network providers such as IoT companies or utilities, Vantage Towers is making a significant contribution to a better-connected Europe.

While already 100% of the grid electricity that Vantage Towers uses to operate its infrastructure is obtained from renewable energy sources, green energy generation is piloted directly on site with the help of solar panels and micro wind turbines, and also hydrogen solutions are under testing. This fits well into the overall strategy of the company to drive a sustainable digitalisation in Europe and to support partners through technological innovation in decarbonisation and achieving their climate goals.

For more information, please visit our website at <https://www.vantagetowers.com/en>, follow us on X at @VantageTowers or connect with us on LinkedIn at www.linkedin.com/company/vantagetowers.

About TOTEM:

TOTEM is a leader in the European TowerCo market, with of a footprint over 27,000 sites in France and Spain. Created in November 2021, TOTEM is an Orange subsidiary and provides its excellent grid of sites to all operators and IoT players to provide better connectivity for all, both in rural and urban areas.

Through infrastructure sharing, TOTEM plays a key role in building a more sustainable connectivity. As an independent and neutral player, TOTEM provides mutualised bespoke solutions for operators, as well as Distributed Antenna Solutions (DAS) for dense and enclosed areas such as stadiums or public transport. To improve connectivity in urban centers, TOTEM also deploys small cells in major cities in Spain including Madrid and Barcelona. Connectivity, for everyone, everywhere, is at the heart of TOTEM's strategy, bringing together operators, local authorities, landlords and companies.

For more information, please visit our website at <https://www.totemtowers.com/> and connect with us on LinkedIn at <https://www.linkedin.com/company/totemtowers/>

About Orange:

Orange is one of the world's leading telecommunications operators with revenues of 39.7 billion euros in 2023 and 128,000 employees worldwide at 30 September 2024, including 71,000 employees in France. The Group has a total customer base of 292 million customers worldwide at 30 September 2024, including 253 million mobile customers and 22 million fixed broadband customers. These figures have been restated to account for the deconsolidation of certain activities in Spain following the creation of MASORANGE. The Group is present in 26 countries (including non-consolidated countries). Orange is also a leading provider of global IT and telecommunication services to multinational companies under the brand Orange Business. In February 2023, the Group presented its strategic plan 'Lead the Future', built on a new business model and guided by responsibility and efficiency. 'Lead the Future' capitalizes on network excellence to reinforce Orange's leadership in service quality.

Orange is listed on Euronext Paris (symbol ORA) and on the New York Stock Exchange (symbol ORAN).

For more information on the internet and on your mobile: www.orange.com, www.orange-business.com and the Orange News app or to follow us on X: [@presseorange](https://twitter.com/presseorange).

About O₂ Telefónica

O₂ Telefónica is a leading full-service provider of telecommunications services for private and business customers. The portfolio of the core brand O₂ and various secondary and partner brands includes traditional telephony and internet connections as well as innovative digital services in the area of the Internet of Things and data analysis. In mobile communications, O₂ Telefónica serves more than 45 million mobile connections (incl. M2M - as at 30/09/2024). No network

operator connects more people in this country. The company's high-performance and award-winning mobile network reaches more than 99% of the population. In the fixed network, O₂ Telefónica offers its customers the greatest technological diversity and geographical availability of any provider in Germany. In the 2023 financial year, the company generated a turnover of 8.6 billion euros with around 7,500 employees. The company is majority-owned by the Spanish telecommunications group Telefónica S.A., based in Madrid, one of the largest telecommunications groups in the world.

About htw saar

The htw saar is a research- and application-oriented university with a pronounced regional focus and a strong international orientation. Boasting a high level of practical experience and an extensive corporate network, it trains qualified and high-performing young managers with a sense of social responsibility. In the field of research and development, the htw saar sees itself as an innovation driver and initiator in the industrial and social transformation of a region long dominated by coal and steel. [Input needed]

The competence centre Future – Transportation – Society (FTS) (Kompetenzzentrum Future - Transportation - Society) focuses on future mobility with an interdisciplinary approach encompassing society, economy, technology, and transportation. Future mobility, in particular automated vehicles and driving, is of particular importance: Real-world testing in a medium-sized city, autonomous operation as a research project at a global supplier, and participation in Gaia X projects are just a few examples.

The ITS research group (FGVT) as part of the FTS of htw saar has 20 years of experience in the acquisition and management of federal and EU projects. The research areas of the FGVT have developed from pure technology research to impact-oriented research. In addition to the competence in communication and information technology in ITS, electromobility and autonomous driving, the research group is characterized by its competence in traffic and economics. Ongoing projects and research efforts are expanding these to include socio-technical, technological, psychological, and energy-economic aspects, so that transdisciplinarity and the ability to coordinate transversal projects have become the strengths of the FGVT.

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