

5GMED: 21 EUROPEAN ACTORS COMBINE EFFORTS TO TEST AND DEPLOY 5G IN HIGHWAY AND RAILWAY BETWEEN FRANCE AND SPAIN



The [5GMED project](#), with a global investment of 16 Mio euros of which 75% is financed by the European Commission, aims to bring a sustainable 5G deployment model for future mobility in the Mediterranean Cross-Border Corridor. The project will be launched in September 2020 and will be implemented until November 2023.

5GMED: The future of mobility in the Mediterranean cross-border corridor

Through 4 pilot tests in railway and highway between Figueres and Perpignan, 5GMed will demonstrate advanced cross-border trials of 5G application scenarios in Cooperative Connected and Automated Mobility (CCAM) and Future Railway Mobile Communications System services (FRMCS).

The services to be tested will rely on a broad range of technologies beyond 5G, including on-board sensors and Artificial Intelligence (AI), providing advanced connectivity services in a scalable and replicable manner across transport paths.

4 use cases for one infrastructure

The infrastructure will support a remote driving use case, advanced traffic management, applications and business service continuity in railway, and follow-me infotainment both in highway and railway scenarios.

The use case demonstrations will be carried out in three small scale testing facilities in order to replicate real conditions, based on the outcomes of the tests, a final integration and validation will be carried out in the cross-border section between Figueres and Perpignan. A strategic section in the Trans-European Transport Network since it sustains 55% of the road traffic between the Iberian Peninsula and the rest of Europe and 65% of the rail traffic.

Enhancing the Trans-Européen transport network

Enhancing the [Trans-European Transport Network paths with 5G capabilities](#) is one of the key points of the 5G Strategic Deployment Agenda for Connected, Cooperative and Automated Mobility, which is driven by the ambitious connectivity plans specified in the 5G Action Plan for Europe and to receive further investment beyond 2020 through the Connected Europe Facility programme.

VEDECOM: an expert in interconnecting AI in communication networks

In order to accelerate the rollout of 5G for self-driving vehicles, there is a need to **deliver roaming ability and continuity of service**, especially in cross-border areas. To do this, VEDECOM will co-ordinate test activities in the Paris region, incorporating the “remote automated driving” test case; VEDECOM will then conduct a large-scale validation of these tests along the France-Spain corridor. These tests concern both **road infrastructure** and **vehicle systems architecture**.

Specifically, VEDECOM will develop **strategies based on artificial intelligence to deliver hybrid 5G, ITS G5 and LTE-V2X communication channels**. Its teams will develop software building blocks that can **merge data** from various sensors installed in the vehicle or at the roadside, transform the various communications channels into **hybrid intelligent systems** and enable low-latency communications, incorporating roadside units (RSUs) and MEC (Mobile Edge Computing) functions.

The budget assigned to VEDECOM for this project is €756,600.

21 European partners supporting 5GMed

5GMed brings together the key partners to deliver advanced CCAM and FRMCS services in the Figueres - Perpignan section of the Mediterranean corridor.

The consortium, coordinated by Cellnex Telecom, includes 21 partners from 7 countries representing the telecom sector (Vodafone, Hispasat, Retevisión, and Cellnex France); transport and mobility sector (Abertis Autopistas, SNCF, Linea Figueres Perpignan S.A., Anadolu Isuzu, Valeo); technology and solution providers (Axbryd, Nearby Computing, Atos, Athens Technology Center, COMSA Corporación, Terra3D); consulting services providers (Eight Bells), research institutions (CTTC, i2CAT, IRT-Saint Exupéry, Vedecom); outreach organization for mobile and digital transformation of society (Mobile World Capital Barcelona).

The project is also supported by the public administrations of both countries including the Occitania Region and the Govern de la Generalitat de Catalunya, who promoted the 5G corridor from the start.

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ABOUT VEDECOM

The VEDECOM Institute is a public-private partnership foundation for the Energy Transition (French ITE) dedicated to sustainable and innovative mobility, more environmentally-friendly, autonomous and with improved sharing. It is missioned by the French State to support technological innovation and French industry. Based on an unprecedented collaboration between 58 players, it gathers academic establishments, local authorities and private actors involved in mobility evolution: automotive, transport and mobility, logistics, road infrastructure, telecommunications, energy, aeronautics and defence, digital services and simulation, insurance. This trusted third-party central role helps its members to accelerate together innovation and the deployment of new solutions. Threw three multidisciplinary R&D axes - electrification, connected and automated vehicle, new mobility and energy solutions – VEDECOM brings a systemic vision of the vehicle, its environment and the deployment of new solutions. Created in 2014 as part of the “Investing in the Future Programme”. VEDECOM is contributing to the “Self-driving Vehicle Plan” that forms part of the New Industrial France project (NFI). VEDECOM has 400 publications and 80 theses to its credit, as well as 2,500 persons trained as part of its training programme. With an annual budget of €30M, it has more than 200 employees.

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