

MÁSMOVIL Group, CELLNEX, ABERTIS, OPUS RSE, INDRA, VINCES and ALPHA SYLTEC INGENIERIA launch CRETA, an innovative project to promote sustainable mobility and reduce traffic emissions

- *The goal of the consortium is to create a new global system for monitoring and intelligent traffic management through different technologies to promote sustainable and efficient mobility.*
- *This group of companies is going to develop three pilot projects in Madrid, Barcelona and Gipuzkoa to demonstrate the benefits of applying 5G technology to reduce road traffic emissions and improve mobility flow management.*
- *Thanks to this project, Public Administrations will have tools to improve air quality and protect the environment, positively impacting the well-being of citizens.*
- *For its implementation, the project "Control of Mobility and Reduction of Traffic Emissions" (CRETA) has been endowed with a €2.7M grant financed by the European Union-NextGenerationEU within the framework of the Recovery, Transformation Plan and Resilience of the Ministry of Economic Affairs and Digital Transformation and the Recovery and Resilience Mechanism.*

Madrid, 16 May 2023 - The consortium of companies made up of MÁSMOVIL Group, ABERTIS, CELLNEX, INDRA, OPUS RSE, VINCES and ALPHA SYLTEC INGENIERIA has launched CRETA, an innovative project to promote sustainable mobility and the reduction of emissions through 5G technology.

The objective of this initiative is to create and implement an active and dynamic management solution for transport and mobility based on the control of the real emissions of each vehicle and the optimization of traffic flow through different disruptive technologies, with the aim of reducing transport emissions and protect the environment. The CRETA project is based on the integration of 3 different technologies; 5G, technology for remote measurement of traffic emissions, and advanced analytics and Artificial Intelligence, for optimal management of traffic mobility and air quality.

To achieve this goal, CRETA is based on the following pillars:

1. **Communications:** creation of a 5G system capable of interconnecting data between different sensors, infrastructures, and vehicles in real time.
2. **Mobility:** creation of a variable pricing system depending on the use and external environmental consequences produced by each vehicle and even, according to the rate of emissions per passenger.

3. **Environment:** Monitoring of the gradual reduction of the source of emissions (road traffic) with autonomous remote sensing systems and connected to the 5G network.



The consortium formed for the project "Control of Mobility and Reduction of Traffic Emissions" (CRETA), has obtained an endowment of €2.7M financed by the European Union-NextGenerationEU within the framework of the Recovery Plan, Transformation and Resilience of the Ministry of Economic Affairs and Digital Transformation and the Recovery and Resilience Mechanism.

This Plan is part of the strategy to promote the deployment of 5G technology included in the Digital Spain 2026 agenda and in the Recovery, Transformation and Resilience Plan, and is aimed at carrying out experimental development projects for 5G applications and services that influence the digital transformation of key economic sectors for Spain.

"We are very happy that the Ministry of Economic Affairs and Digital Transformation, through the Secretary of State for Telecommunications and Digital Infrastructures, has opted for the CRETA project to receive the first aid from the UNICO 5G Sector Plan that will allow us to achieve the sustainable development objectives that both the Public Administrations and the private sector share".

"We look forward to demonstrating the capabilities of 5G technology to measure real vehicle emissions, and to employ advanced analytics and artificial intelligence to drive optimal traffic management and emissions reductions to improve care and safety. protection of the environment", said Jose Jiménez, Director of Innovation of the MASMOVIL Group and coordinator of the project.

Three pilot projects to demonstrate the favorable results of 5G technology

For the launch of this project, the CRETA partners are going to develop 3 pilots that will demonstrate the benefits of applying 5G technology to reduce traffic emissions in three strategic areas:

- **Management of urban mobility and low emission zones (ZBE).** Demonstration of a global system for monitoring, analysis and intelligent management of urban mobility in Madrid and Alcobendas, which will test dynamic pricing and access control to ZBEs based on different parameters. Different sensors and systems for remote measurement of emissions, cameras and the 5G network will be implemented on the M30 in Madrid and at the accesses to Alcobendas, for advanced monitoring of road traffic and its real emissions.
- **Interurban mobility and access to cities.** Through a pilot in Barcelona with the collaboration of the Barcelona City Council, Barcelona Metropolitan Area and the Generalitat of Catalonia. The ability to apply a tariff to the circulation of vehicles will be demonstrated, taking into account their real and individual emissions, variably adjusting the access fee to the city.
- **Cross-border control and payment for pollution.** By carrying out a pilot in Gipuzkoa (Irún) with the collaboration of the Gipuzkoa Provincial Council and the Basque Government, the capacities to discriminate against heavy vehicles based on their real emissions and activate alerts in real time if vehicles are detected will be demonstrated suspected of having been illegally manipulated.

Thanks to this project and the development of these three pilot projects, cities will have tools to improve air quality and protect the environment for the well-being of citizens. In addition, the road infrastructures will enjoy greater control of mobility that will allow an improvement in the fluidity of traffic and a reduction in accidents, among other advantages.

A consortium made up of 8 leading Spanish companies in their different sectors of activity

The CRETA project is coordinated by MASMOVIL Group and sees the participation of leading Spanish companies in their sectors of activity that provide the knowledge and technology necessary to control and reduce traffic emissions.

MÁSMOVIL Group is going to make its 5G network available to CRETA, which already covers 75% of the Spanish population in more than 1,660 municipalities throughout Spain, and its associated capacities, allowing real-time communication between sensors, infrastructures and vehicles to develop an intelligent traffic monitoring and management system.

Abertis Mobility Services (AMS) is the Abertis technological competence center, expert in the implementation of state-of-the-art technology platforms and operation services for intelligent mobility in urban and interurban environments. AMS contributes to the CRETA project with the development and implementation of a dynamic charging system based on the real emissions of the vehicle, on traffic monitoring and on the characterization of traffic emissions.

Autopistas España, an Abertis company, takes a step further in its commitment to innovation and its contribution to providing new digital and dynamic solutions that promote smart, safe and sustainable mobility. The digitization of infrastructures together with advanced management are key to the connected mobility of the future.

OPUS RSE develops new remote measurement systems for traffic emissions, with 24/7 measurement capabilities and 5G connectivity, in order to empirically and remotely measure the real emissions of all road traffic. Variable pricing and alert systems will be developed based on these devices, in order to identify the most polluting vehicles and act selectively on them, in a fair and efficient manner.

Cellnex, through its subsidiary Tradia, provides CRETA with knowledge in architecture, deployment and management of the c-v2x communications infrastructure in the sections of the Barcelona C-32 pilot (Barcelona - Sitges) with the aim of continuing to evolve the architecture for digitizing roads and enabling it for AI, which supports mobility services focused on pollution reduction and the development of the connected and/or autonomous vehicle.

Indra, leader in smart mobility, is going to implement a pricing system and an access control system, based on the ecological footprint of the vehicle and even on the footprint per passenger, as well as on the journeys made by the vehicles. To do this, it will deploy an Edge Computing infrastructure that, taking advantage of 5G, will process in real time the satellite positioning information sent from connected cars (V2X), emission sensors, 3D LIDAR for vehicle classification and occupant detection systems with artificial intelligence.

Vinces Consulting will make its regulatory analysis capacity available to CRETA to, on the one hand, evaluate the fit of the project within the legal framework related to the control of polluting emissions and, on the other, promote possible regulatory changes that are necessary to accommodate to this technology. Likewise, it will evaluate the econometric impact of the project and will make its results known to the public administrations at the local, regional and state level with the aim that it can be replicated in other parts of the country.

ALPHA SYLTEC INGENIERIA, a leading company in the engineering and new technologies sector, will contribute its experience in the field of Artificial Intelligence, where it has focused mainly on energy efficiency projects, which is closely related to the objectives and scope of the initiative. SYLTEC's commitment is aligned with the Sustainable Development Goals (SDG), which makes the company a perfect candidate to work on the CRETA project.