

The EU-funded FRONTIER project introduces ANTME, its new online platform to streamline EU traffic

Urban traffic in the EU is expected to get worse in coming years, particularly since 80% of Europe's population will live in cities by 2050. Road congestion also causes up to 40% longer commutes for EU citizens and burdens their pockets with unnecessary costs, especially in terms of additional fuel and lost time on the road. In parallel, transportation currently causes as much as 25% of EU greenhouse gas emissions, making it a major contributor to climate change.

Light at the end of the tunnel

Yet there are efforts to effectively address these traffic challenges. One of these is the EU-funded FRONTIER project, which developed a platform to streamline communication among transport stakeholders, ease traffic congestion and facilitate decision-making in traffic management. Known as the Autonomous Network and Traffic Management Engine (ANTME), the smart collaborative platform is revolutionising traffic control by addressing traffic incidents – such as roadworks or collisions – across different modes of transport.

In this vein, ANTME is empowering transport operators to better predict traffic points, detect road issues and generate response plans by offering improved situational awareness of traffic, enhanced coordination across transportation modes, real-time traffic analysis, and transport operation decision making supported by KPIs. These technological advances are capable of recommending action plans and providing immediate solutions that help traffic managers and operators overcome traffic issues.

This is being supported by visual dashboards for operators in traffic control rooms, a mobile app to update travellers and commuters regarding traffic issues, a response plan generator and intelligent services that predict traffic and detect incidents. ANTME's advanced



interfaces and features, powered by maps and related data, immediately communicate an enhanced picture of traffic status to involved stakeholders.

Viability demonstrated through several project pilots

The developed platform has already led to better and faster transport stakeholder communication and data exchange, thanks to several pilot projects around Europe, namely in Belgium, Greece and the UK.

In Oxfordshire, UK, transport stakeholders along the Trans-European Transport Network (TEN-T) corridor in the region are concluding two pilot projects that have successfully utilised ANTME. The first of the two pilots integrates Connected and Autonomous Vehicles into traffic management and control systems by sending updates to the vehicles on events or incidents that will affect their routing. The second pilot helps commuters avoid incidents or events that may affect their journey to work, providing simulations and response plans that minimise disruptions arising from roadworks, severe weather or collisions.

On the southern side of the European continent, the Athens pilot in Greece is utilising the ANTME platform for the Attiki Odos peripheral highway around Athens, advancing multimodal traffic management to improve cooperation among different transport operators. The platform provides response plans and minimises response time to traffic events, resulting in reduced travel times and more resilient transport networks.

Transport through waterways is also benefitting from FRONTIER's successful pilots. Specifically, a pilot demonstration in Antwerp in Belgium evidenced improvements in the transport network's resilience by coordinating traffic between road and waterway transport to improve supply chains and freight logistics. By analysing real-time forecasts, it presents transportation scenarios for freight transport and associated costs. Through the ANTME platform, transport operators can access crucial information such as barge operators and inland terminals to streamline road and waterway traffic.

FRONTIER's success

The project pilots have already demonstrated ANTME's success in improving traffic congestion, leading to benefits such as reduced emissions, less collisions and less disruptions for travellers and commuters.



Integrated multimodal network and traffic management is playing an increasingly more important role in overcoming transport-related risks and challenges, now more than ever, ensuring ongoing efficiency and resilience of Europe's transport systems. FRONTIER's ANTME platform will no doubt form part of the solution in alleviating traffic congestion and related challenges.

Find more information about the FRONTIER's ANTME platform at the dedicated project's Factsheet, which can be downloaded following this [link](#).



PROJECT KEY FACTS	
Full title:	FRONTIER: Next generation traffic management for empowering CAVs integration, cross-stakeholders collaboration and proactive multi-modal network optimization
Contract No:	H2020 - 955317
Project duration:	1 May 2021 – 30 April 2024, 36 Months
EU Contribution	Approx. EUR 5 million
Website:	www.frontier-project.eu
Coordinator:	FUNDACIO EURECAT (Spain)

Get in contact with FRONTIER:

- Ms Dariya Rublova (Dissemination and Communication Manager, Press issues – Netcompany-Intrasoft): Dariya.Rublova@netcompany.com
- Ms Fanny Breuil Aymami (Project Coordinator - FUNDACIO EURECAT): fanny.breuil@eurecat.org
- info@frontier-project.eu

