



PRESS RELEASE

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Save the Date: Live demo of first Galileo-enabled autonomous vehicle

Connected and Automated Driving is transforming the way vehicles are operated and integrated in the connected mobility ecosystem, and Europe's GNSS programme Galileo is at the heart of this transformation. Join us at the University of Technology of Compiègne, France, on 27 November for a live demonstration of the first Galileo-enabled autonomous vehicle made in the EU and see for yourself how Galileo is driving the future of autonomous vehicles.

Participants in the day-long event will have a unique opportunity to ride in an autonomous vehicle fitted with a Galileo-enabled ESCAPE GNSS engine (EGE). The EGE is an innovative positioning engine that leverages the Galileo signals and services to provide a core positioning component in autonomous vehicles. It was designed and prototyped by the ESCAPE project, funded under the European GNSS Agency's (GSA) Fundamental Elements programme.

Live demonstrations

Cars equipped with this engine will be showcased in two demonstrations at the event. The first demo will involve two Renault Zoe electric cars being (autonomously) driven at the same time. During the demo, participants and journalists will have a unique opportunity to get on board the vehicles and take a driverless ride on the University of Technology of Compiègne (UTC) track.

In the second demo, a third vehicle will be driven on a public road in Compiègne to demonstrate its performance in a peri-urban environment. There will be no passengers in this car, but the participants will be able to watch a live video of the test broadcast via 4G with the estimated position obtained using the EGE equipped with the RTK high accuracy technique. The demos will be followed by a Q&A session where journalists and other participants will be able to put their questions to the developers of the engine.

"The EGE hardware has been developed based on state-of-the-art practices in the design of automotive electronic control units and is based on the first automotive grade GNSS and Galileo receiver. As a result, all of its interfaces and configurations have been developed to be fully compliant with the most widely recognised trends in the sector," said GSA Head of Market Development Fiammetta Diani.

Participation in the event is free of charge, but places are limited. So if you are interested in the future of mobility and would like to take part in this exciting live demo, [sign up now!](#)

Localisation workshop

The demos will be followed by a series of presentations on the ESCAPE project, including use cases for autonomous driving, high accuracy and integrity, localisation standards, and HD maps for localisation. There will also be a presentation of the TESEO APP receiver from

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STMicroelectronics, which combines multiple-frequency and multi-constellation tracking and enables autonomous-driving systems to combine precise positioning with sensor data for enhanced performance, safety and reliability.

Following the presentations, there will be a workshop on localisation integrity for autonomous driving, with discussions on relative and absolute localisation and integrity estimation for land-based applications. All in all, this is a not-to-be-missed event for anybody interested in intelligent transport systems and autonomous driving.

The ESCAPE prototype

The EGE prototype design includes several major components, including a novel multi-frequency, multi-constellation automotive-grade GNSS receiver. The main distinguishing feature of the ESCAPE receiver is its ability to precisely and simultaneously process signals from two different GNSS bands and from different satellite constellations. Although this capability is common in high-end professional receivers, it is cutting-edge in the automotive Tier-2 panorama.

The receiver is also a first-of-a-kind device in its segment to support the new Navigation Message Authentication (NMA) service of Galileo, the additional anti-spoofing service to be offered by Galileo on the open E1 signal. Finally, the new GNSS receiver comes with several core signal-processing enhancements: better receiver sensitivity and tracking capability, multipath mitigation, more intermediate frequency (IF) channels and flexibility in routing IF samples, jamming detection and mitigation, and optimisation of the GNSS data flow.

The result is an ESCAPE GNSS sensor that combines a high-end GNSS technology traditionally reserved for professional applications, innovative dual-band Galileo processing, as well as all the hardware and software safety aspects that are needed to certify the component for the automotive market.

About the European GNSS Agency (GSA)

As an official European Union Regulatory Agency, the European GNSS Agency (GSA) manages public interests related to European GNSS programmes. The GSA's mission is to support European Union objectives and achieve the highest return on European GNSS investment, in terms of benefits to users and economic growth and competitiveness.

For more information, visit the GSA [website](#).

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