

# First autonomous car demonstration in Luxembourg traffic

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Prof. Raphaël Frank and Car. Credit: Christian Wilmes

The University of Luxembourg's Interdisciplinary Center for Security, Reliability and Trust (SnT) demonstrated its autonomous car in live traffic on Kirchberg today, Thursday, November 3, 2022. This

represents the first time a single-family autonomous car has joined the flow of traffic in Luxembourg with members of the public as passengers.

This [autonomous car](#) is the test platform for navigation technologies and [high definition](#) (HD) maps being researched at SnT's 360Lab. The demonstration is the culmination of five years of research work by the 360Lab team, led by Prof. Raphaël Frank. The 360Lab is the first thematic research laboratory focusing on smart mobility in the country, and it serves as an umbrella to conduct strategic and [collaborative research](#) in the broader area of mobility innovation.

The 360Lab's research is crucial to the future of autonomous driving in Luxembourg as it is developing HD maps of the region, which provide information that road signs and markings traditionally give to drivers as they navigate to their destination. HD maps are the basis for autonomous navigation. These are exponentially more detailed than standard definition (SD) maps, commonly used by traditional navigation services' found in cars and mobile devices. The map for the demo was completed in partnership with a San Francisco based start-up, Civil Maps, specialized in providing HD maps for automated mobility.

Beyond the technical research, there are also many logistics involved in researching autonomous navigation. As part of their research, the team needed to gain authorization for the single-family car to drive on Luxembourgish roads, trailblazing the regulatory path for autonomous driving in the country.

"Autonomous driving holds the potential to create a mobility ecosystem that is both safer and more sustainable. Full autonomy will be a [paradigm shift](#) in mobility, improving [traffic](#) and reducing congestion by reducing the number of vehicles," says Prof. Raphaël Frank.

"Our mission is to have a research platform where we demonstrate the technology of autonomous mobility that we can use for research and education. Today's demo achieves this goal as it is the first-time members of the public get to experience the functionality of the car first-hand."

Provided by University of Luxembourg

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