

## HERE to lead vehicle hazard warning pilot in Finland The project is the first to implement system in accordance with EU ITS directive

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HERE, a leader in mapping, navigation and location services, has been selected by Finnish traffic agencies to lead a pilot project to enable vehicles to communicate safety hazards to others on the road.

The pilot, which will start in 2016, intends to assess the capability of current and emerging mobile network and location cloud technologies in supporting the timely communication of critical safety information, such as black ice or an animal on the road, sudden traffic build-up, or an accident.

In this pilot, to test the capability of the proposed technology architecture, drivers will voluntarily share notifications about safety hazards and changing road conditions initially via a smartphone. The aim, however, is that this architecture would later also support low-latency communication, via a cloud, of data generated by a vehicle's on-board sensors and the surrounding road infrastructure to other vehicles and smart devices on the road.

According to a recent forecast from automotive technology research firm SBD, by 2020 there will be some 33 million vehicles sold annually with built-in connectivity, generating more than 163 million terabytes of data each year via their on-board cameras and sensors. When shared across the road network using 4G/LTE and future 5G network technologies, these data could be utilized by vehicles to give them an awareness of road conditions beyond the reach of their sensors, and thus enable the driver or the vehicle itself to better plan driving maneuvers. 5G technology raises the prospect of road hazard warnings being communicated via the cloud to relevant vehicles in a fraction of a second.

HERE is tasked by the Finnish Transport Agency (FTA) and Trafi, the Finnish Transport Safety Agency, to lead the pilot, called *Coop*, and will work together with traffic information management service company Infotripla in implementing it. The project will be the first to implement a road hazard warning messaging system as described in the Intelligent Transportation Systems (ITS) Directive set out by the EU. This particular pilot does not require the deployment of any additional roadside infrastructure, such as DSRC (Dedicated Short Range Communications) equipment, although HERE is pursuing an agnostic approach with its technologies that will allow for connections with other infrastructure if required.

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George Filley, who heads HERE's Digital Transportation Infrastructure program, said: "With this project, we will explore how technology within our reach today could make driving safer as cars get connected. There will be enormous amounts of data generated by a car's on-board sensors that can be collected, analyzed and shared with others on the road. An important piece of the puzzle is to figure out how to provide relevant, low-latency information to the right people at the right time, and that is a problem we believe we can solve."

Alain Dunoyer, Head of the Safe Car division of SBD, the automotive technology research firm, said: "The technology exists to identify road hazards with increasing levels of accuracy – it is great to see Finland partnering with a technology leader like HERE to take the next step of ensuring this information reaches a broader population of drivers who will benefit from this life-saving information the most."

The first phase of the pilot will focus on ensuring the technical maturity of the system. The second phase begins in the first half of 2016 on the E18 highway, the main road between Helsinki and Turku, as well as the Ring I and Ring III highways in the Greater Helsinki area, with initially up to 1,000 drivers expected to take part. The pilot phase is expected to complete by the end of 2017.

HERE has been developing location cloud technology for several years, and currently provides content and services via the cloud – including maps, routing and real-time traffic information – to automotive and Internet companies as well as government transportation agencies.

In a related effort, HERE is developing next generation high definition (HD) and live maps to power a new class of driver experiences globally, including deployment in highly automated vehicles in 2018. To help accelerate the deployment of a live map for vehicles, HERE <u>last week</u> published an interface specification that defines how sensor data gathered by vehicles on the road can be ingested by a cloud. HERE intends for this interface specification to become a standardized way for vehicles to send to the cloud the rich variety of data gathered by their onboard sensors. With a standard interface specification, the data generated would be analogous regardless of vehicle manufacturer and could be pooled, processed and analyzed quickly to create an enhanced view of road and traffic conditions.

For more information on this announcement, see the <u>HERE 360</u> blog and the <u>FTA press release</u>.

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About HERE

HERE, a Nokia company, is a leader in navigation, mapping and location experiences. We build high-definition (HD) maps and combine them with cloud technology to enable rich, real-time location experiences in a broad range of connected devices – from smartphones and tablets to wearables and vehicles. To learn more about HERE, including our work in the areas of connected and autonomous driving, visit http://360.here.com.

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