



VTT's robot car Martti

VTT's Robot Car 'Martti' Linked To 5G, Takes Step Towards Full Automation

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By [Eurasia Review](#)

VTT Technical Research Centre of Finland and Nokia have joined forces to hook the VTT's robot car, Martti, up to a 5G network, which allows the car to detect objects with improved range and share its observations with other vehicles. This also takes Martti a step closer to highly automated driving. The safety of road users also improves as new solutions and services based on 5G technology become more widely available.

VTT is currently coordinating a project called 5G-Safe, which is aimed at piloting new solutions and finalising them on the basis of the experiences and results accumulated so far. The project also involves brainstorming new opportunities created by 5G technology and analysing any limitations.

“One of the solutions being tested now in the project is a Nokia 5G connectivity in Martti, which allows the car to send its observations to a server for analysis across a low latency 5G link. The data can be used to adapt the car's behaviour according to actual road weather conditions,” explained Matti Kutila from VTT's RobotCar Crew team.

“The new 5G link is an important step towards the future development and testing of vehicle services using 5G devices, which are expected to become commercially available during 2019. The main benefit is the broadband uplink which enables collection of data from multiple cars to cloud service,” said Tiia Ojanperä, leader of the 5G-Safe project.

The new 5G services developed in the project relate to road weather services, road maintenance, automated driving and fast inter-vehicle transmission of 3D views.

VTT is using its new vehicle network solutions, the local road weather and road safety related services they enable to support drivers, road maintenance providers and the systems used to control autonomous vehicles. They require no inputs from motorists while driving, as data can be gathered and warnings sent to users automatically.

The radio equipment is supplied by Nokia as part of the telecom operator's long-standing 5G Test Network cooperation with VTT and other partners. The 5G Test Network allows businesses and other partners to develop increasingly sophisticated new solutions and services that enable a transition to the 5G era via series of improved LTE generations.