

Smart Mobility

Mobility is the lifeblood of modern society: Efficient, sustainable transport of people and goods is essential for our prosperity and well-being. Smart Mobility consists of the smart organization of traffic and the smart use of new technologies and IT.

As more and more vehicles hit the road, mobility is one of the biggest challenges facing businesses, the government and road users. Part of this challenge consists of increasing road-traffic safety and reducing fuel consumption in order to lower harmful emissions and move towards a sustainable economy. The Dutch see this as an opportunity.

The Netherlands is a small, densely populated country with a complex road network, making it the ideal place to test and implement innovative mobility concepts. A unique collaboration between companies, research institutes and governments give the Dutch a running start when it comes to developing and quickly implementing Smart Mobility solutions. Since 2011, more than twenty partners have joined forces to create the open innovation organization Dutch Integrated Cooperative Mobility Test Site (DITCM) together with the Ministry of Infrastructure and the Environment as 'launching customer'. The cooperating partners share both their knowledge and a broad range of test facilities.



Permanent innovative mobility test environment in the Brainport region of Eindhoven

Enabling cars to communicate with each other and with road-side systems can improve the flow of traffic and road-traffic safety, and reduce tailbacks. This vision is the basis of the permanent test and development environment that DITCM set up in the Brainport region of Eindhoven, where government, businesses and knowledge institutes work closely together. The high-tech area around Eindhoven and Helmond has become a leader in automotive technology.



New technology is regularly submitted to usage tests, not only in TNO's advanced test labs at the Eindhoven Technical University, but on public roads as well. The A270 motorway is equipped with cameras and transponders specifically for this purpose. The large-scale usage tests on the A270 are watched and analyzed in a control room on the AutomotiveCampusNL in Helmond.



From an international perspective, this public-road test site is an important link in the chain from the conception to the actual implementation of a product.

SPITS (Strategic Platform for Intelligent Transportation Systems)

The SPITS project paved the way for DITCM. Between 2009 and 2011, thirteen public and private parties collaborated on this project to solve mobility problems with Intelligent Transport Systems (ITS). For example, by enabling vehicles to communicate with each other to improve the flow of traffic and prevent tailbacks or by using in-car systems that tell the driver what the safe distance is between his car and the car ahead of him or where he can find a parking space. In the event of an accident, a car equipped with eCall technology will automatically call emergency services, transmit the vehicle's location and open an audio channel between the car and the emergency switchboard. The promising results of these tests led to the creation of DITCM, whose objective is to accelerate the development and implementation of innovative Smart Mobility applications.

Connect and Drive

The Connect and Drive project with automatic driving in a single lane enables more vehicles to use the road at the same time without sacrificing safety. It also reduces phantom tailbacks, which are created when a driver suddenly brakes or changes lanes, forcing the traffic behind him to slow down. Smoother driving has numerous advantages: improved road utilization, faster and safer traffic flow and better motoring performance.

Grand Cooperative Driving Challenge (GCDC)

In 2011, eleven international teams took part in an open competition to present the best combined platform for a vehicle-vehicle and vehicle-infrastructure communication system. During the competition, conducted on the A270, the vehicles had to drive very closely to one another assisted by in-house developed technology. Simulated real-life situations were used to determine how cooperative vehicles react, for example, when the vehicle in front suddenly slows down. The ultimate goal was to reduce fuel consumption and improve traffic flow.

The unique collaboration demonstrated by DITCM has given the Netherlands a head start in ITS. In addition to improved mobility, the innovations also reduce fuel consumption and increase road-traffic safety. The innovative and competitive solutions contribute to solving the mobility problems plaguing countries around the world.

For more information

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