DIGITALES TESTFELD AUTOBAHN

Field of Intelligent Infrastructure

Status: June 2021

Telematic Wrong-Way Driver Warning

Initial Situation / Motivation

Wrong-way driving incidents represent an increased risk for traffic safety. A fast and reliable detection and reporting of these incidents can reduce this risk.

Measure Goal

The aim of this measure was to use modern detection systems to automatically and reliably detect wrong-way drivers in the vicinity of junctions and to warn them directly. In a further step, it was planned to forward corresponding warnings to other road users on the main roadway in the area of the junction.

Measure Implementation

At three junctions on the A9, infrastructure-based telematic wrong-way driver warning systems have been tested since mid-2015. Three different technical concepts were used:

- Radio field
- Combination of radar and induction loop
- Tracking radar

The investigation was divided into short and long-term observations. Within the scope of the short-term observations, controlled wrong-way driving was carried out at two different times in coordination with the Bavarian Street Building Administration and the departure of the respective junction was blocked.

Source: BMVI

Current Status

Based on the results of the measure, an evaluation report was prepared by BASt, which is available for download on the BASt website.

Taking into account the facts and results from the tests on the Digital Motorway Test Bed, the use of telematic wrong-way driver warning systems is not considered to be reasonable. Further supported testing is also not considered to be expedient. With regard to network-wide "equipment" and taking into account cost-benefit aspects, the use of cooperative and interconnected systems for detecting wrong-way drivers based on vehicle sensors and stored map data is considered the most effective measure.

Therefore, it is intended to promote the use of cooperative intelligent systems for wrong-way driver detection and warning both on the automotive side and if necessary on the infrastructure side.

Source: Bavarian Street Information System (Baysis)

Locations

At three junctions in the direction of Munich (The systems have been deconstructed in the meantime.):

Operating Kilometre 514.7:
AS Eching

Operating Kilometre 518.8:
AS Garching-Nord

Operating Kilometre 520.4:
AS Garching-Süd

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The Digital Motorway Test Bed (DTA) is operated by the Federal Ministry of Transport and Digital Infrastructure (BMVI), by the Free State of Bavaria, by the German Association of the Automotive Industry (VDA) and by the German Federal Association for Information Technology, Telecommunications and New Media (Bitkom).