

# Field of Intelligent Infrastructure

Status: June 2021

# Sustainable Roadside Emergency Telephone Infrastructure

#### **Initial Situation / Motivation**

For a sustainable use of the existing roadside emergency telephone infrastructure, against the background of declining numbers of emergency calls - especially via the roadside emergency telephone infrastructure it must be considered whether and how this infrastructure can be used for other services in the future. The focus here will be on advanced applications that go beyond a plain emergency call.

#### **Measure Goal**

As part of various measures in this area, on the one hand information about the traffic situation and the environment was to be obtained by retrofitting the roadside emergency telephones. On the other hand, by upgrading the roadside emergency telephones with WLAN communication units V2I-communication should be made possible so that information can be transferred from the vehicle to infrastructure and from infrastructure to the vehicle

### **Measure Implementation**

One measure involved equipping three roadside emergency telephones with prototype systems (radar) for recording traffic data in the section between the Nuremberg motorway junction and the Nuremberg-Fischbach junction.

In addition, a research project in the framework of the "Innovation

Programme Road" was investigating the possibility of using the existing roadside emergency telephone infrastructure for V2I-communication via ETSI ITS-G5.



Source: BASt

## **Current Status**

The use of radar sensors for traffic jam detection was investigated in a field test on three roadside emergency telephones and was evaluated as technically feasible. However, showed that in certain situations data transmission was not complete. The measure is complete and the installed hardware is dismantled. On the basis of these results, this approach is not to be further pursued in the future.

A further use of the roadside emergency telephone infrastructure was investigated in the ANIKA II project, which was funded within the framework of "Innovation Programme Road". The aim was to connect ETSI ITS-G5 units to the roadside emergency telephone infrastructure for V2I-communication. In conclusion, the research objectives of the project were achieved. The investigations have shown the various challenges for the use of the existing infrastructure. The dismantling of the installed hardware has already taken place.



Source: Bavarian Street Information System (Ba

#### Locations

The prototypical investigation of "ANIKA II" took place on the section between the cable house Göggelsbuch and AM Greding.

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