



Automated Driving at the FZI

Real-world testing, validation, verification
and infrastructure support

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Infra2Go is a mobile sensor platform that was designed, developed and built as part of the Autonomous Driving Test Area Baden-Württemberg (TAF BW). The platform is equipped with high-precision sensor technology for real-time traffic monitoring (camera, LiDAR, infrared camera, DGPS). It can be extended up to a height of 5 meters and can be used to evaluate the positioning of stationary traffic infrastructure. The platform is designed for collecting microscopic traffic data, for testing Vehicle2X communication and connected automated driving, and for testing new sensor technologies for traffic infrastructure.

The interactive demonstration on **adversarial attacks** shows research on securing machine learning techniques against outside interference. Research is conducted on whether these attacks are realistic and how to secure AI against such attacks.

The FZI maintains its own **stack for highly automated driving**. It consists of localization, perception, prediction, planning and control. The **video** shows details about these automated driving functions, which are used by the FZI, e.g. in the SHOW project, for passenger transport in public transport with shuttle buses. Special safeguarding concepts allow the vehicles to move freely in road traffic, while the vehicles are not bound to a virtual track.



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The FZI Research Center for Information Technology is a non-profit institution for applied research in information technology and technology transfer. Its task is to provide businesses and public institutions with the latest research findings in information technology.