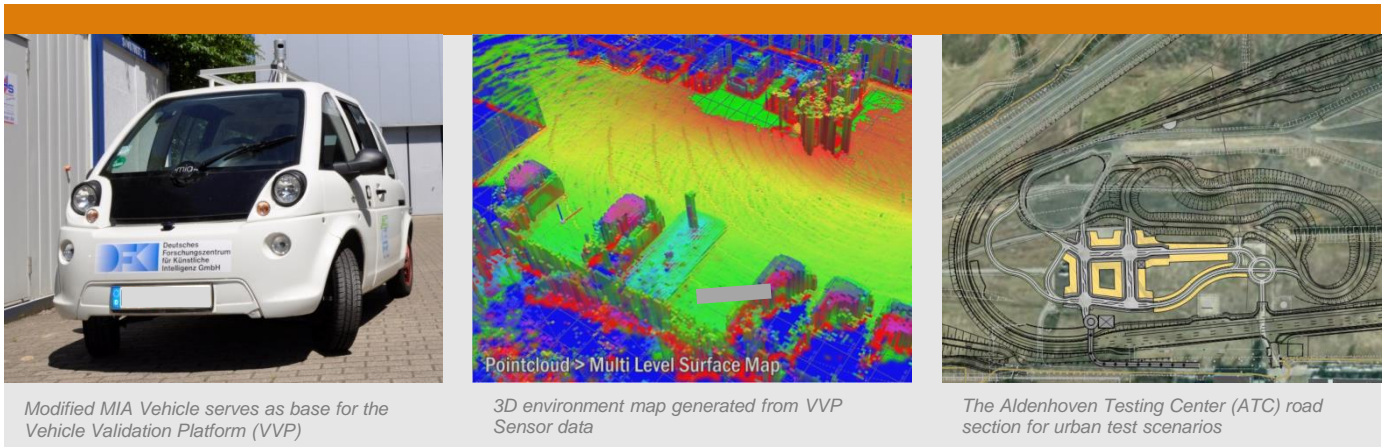


CERMcity

Center for European Research on Mobility Urban Validation Environment



Discrimination-free validation of vehicle autonomy for urban environments

In the cities, different traffic interacts with each other, so that very complex and highly dynamic traffic situations arise, which must be controlled safely by automated driving functions. New and innovative functions and systems of automated networked vehicles require full validation. For this purpose, there is often a lack of suitable and freely accessible vehicle platforms for rapid implementation and objective assessment as well as a validation environment, which enables the necessary tests in a safe and reproducible environment. The aim of the CERMcity project is to create it and make it available to all interested users without discrimination.

Vehicle Validation Platform for testing environmental sensors and advanced driver assistance systems

Within the framework of the sub-project "CERMcity - VVP" an existing vehicle of the DFKI RIC is extended to a Vehicle Validation Platform (VVP) with autonomy functions. The aim is to provide a dynamic platform in addition to the static urban test environment, which can be used within the scope of the pilot validation and within the scope of the trial operation. Building an VVP is a very important component of the project so that potential users of the urban test environment can not equip and commission their own vehicle platform, but can concentrate on their core work (for example, sensor development, algorithmic developments). When using a vehicle as a validation platform, three prototypical applications are to be distinguished:

- The system to be validated provides data, e.g. an environmental sensor to be validated
- The system to be validated must have access to data and the vehicle control, e.g. a lane keeping system
- The combination of the first two cases, such as an autonomous vehicle control

In all three cases, the validation system must also record test data, perform different driving behaviors reproducibly, and provide a reference measurement. In addition, there may be a variant of a software to be validated or a hardware to be validated.

Project duration: 10/2016 – 09/2019

Partners:



Support:

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