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**PARTICIPATION OF FKA IN INVENT****Traffic Impacts, Legal Issues and Acceptance (VRA)**

Based on components of the simulation program PELOPS the fka develops in cooperation with its project partners an integrated, methodical approach for the analysis of traffic impacts of INVENT advanced driver assistance systems (ADAS). The traffic simulation is used for both assessment of the system characteristics and examination of the impact of INVENT ADAS on the surrounding traffic. The developed methodology allows to analyse the ADAS in a uniform way. Furthermore it permits to elaborate recommendations for the optimisation in terms of traffic flow, traffic safety and fuel consumption.

**Congestion Assistant (STA)**

fka develops a control algorithm, which takes over the vehicle guidance at low-speed up to standstill as an extension of the ACC (Adaptive Cruise Control). Both longitudinal and lateral guidance of the vehicle shall be implemented. The controller's structure is based on a situation classification, which has been developed analogously to the human driver's behaviour. In this project fka works as a subcontractor for the INVENT STA project.

**Traffic Performance Assistant (VLA)**

Aim of fka activities is the improvement of the course of traffic and the increase of the traffic flow through reduction of disturbances by usage of a new driver assistance system. Diverse algorithms, the benefit of inter-vehicle-communication and varying penetration rates will be analysed using the traffic simulation program PELOPS. In this project fka works as a subcontractor of the BMW Group.

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