



HAVEit

Highly automated vehicles for intelligent transport

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ICT for intelligent vehicles and mobility services

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The future of driving

Deliverable D54.1 Active Green Driving: Sensors installed in vehicle (1st SW version)

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Executive summary

The overall objective of the HAVEit project is to develop technical systems and solutions that improve automotive safety and efficiency. Volvo Technology contributes to the overall objective by among others developing a fuel efficiency application, Active Green Driving (AGD). This report documents the sensor installation for the AGD function.

The Active Green Driving application (WP5400 in the HAVEit project structure) uses sensor information to optimize the driveline to reduce fuel consumption and, if needed, provide the driver with coaching on how to drive more fuel-efficiently. These sensors are: a forward-facing camera, laser scanners, electronic horizon based on digital map data and positioning and IR based vehicle-to-vehicle communication.

The main objective of WP5400 during project periods M4 – M15 was to specify, develop, and integrate these environment perception sensors in the demonstration vehicle. As the WP5400 demonstrator vehicle has not yet been available at the time for installation and as the sensors in the WP5400 vehicle are to a large extent a subset of the sensors in the WP5200 vehicle, used for the Automated Queue Assistance application, the decision was taken to temporarily install them in the WP5200 vehicle in order to allow for the integration and testing of the sensors to move forward in an environment similar to the final one.

The integration and installation work of most sensors has been completed and the sensors have been tested and found to operate satisfactorily and according to expectations. The agreed exception to the installation time-line is the V2V communication system, which will be delivered and installed at a later point. Work will now continue to further develop the HMI (human-machine interface), software, and control algorithms.

More details on the sensor specification and architecture can be found in the corresponding development deliverables D11.2 Specification [1] and D12.1 Architecture [2].