

Deliverable D5.2

Laboratory and environmental test reports

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1 Summary

This deliverable is dedicated for reporting the test scenarios and results carried out for RobustSENSE systems in the laboratory conditions. The components are still in the stand-alone phase and lab tests are intended to ensure that components functionalities full fill the metrics and validation criteria's specified in D2.2 [Sawade et al. 2016]. The aim is to generate smooth path to the vehicle integration which is the next step after successful lab tests.

The laboratory tests are mainly carried for the sensors but also the higher-level components have been taken into account. The high-level modules like sensor data sensor fusion depends on performance of the low-level sensors. Therefore, understanding performance of the object data is the main focus of this deliverable. The measures for the expected accuracy and the performance assessment module output quality is estimated for having indication concerning performance of the RobustSENSE final prototypes.

The deliverable content is limited to the components that can be assessed in laboratory conditions. Therefore, the sensor layer plays significant role and all the RobustSENSE sensors are assessed in the stand-alone mode. The purpose is to not only report the expected sensor and data fusion layer performance estimations but also consider the needed further development steps needed before final integration. This deliverable however, does not cover the understanding layer since it has been reported in D4.2 [UULM 2016].

The deliverable has been divided to the two main sections:

- Test scenarios: overview of the scenarios where the component is needed
- Results: reporting the lab test results

Finally, the concluding remarks concerning the tests are given for making the first assumptions if the component will meet the objectives of the RobustSENSE project.