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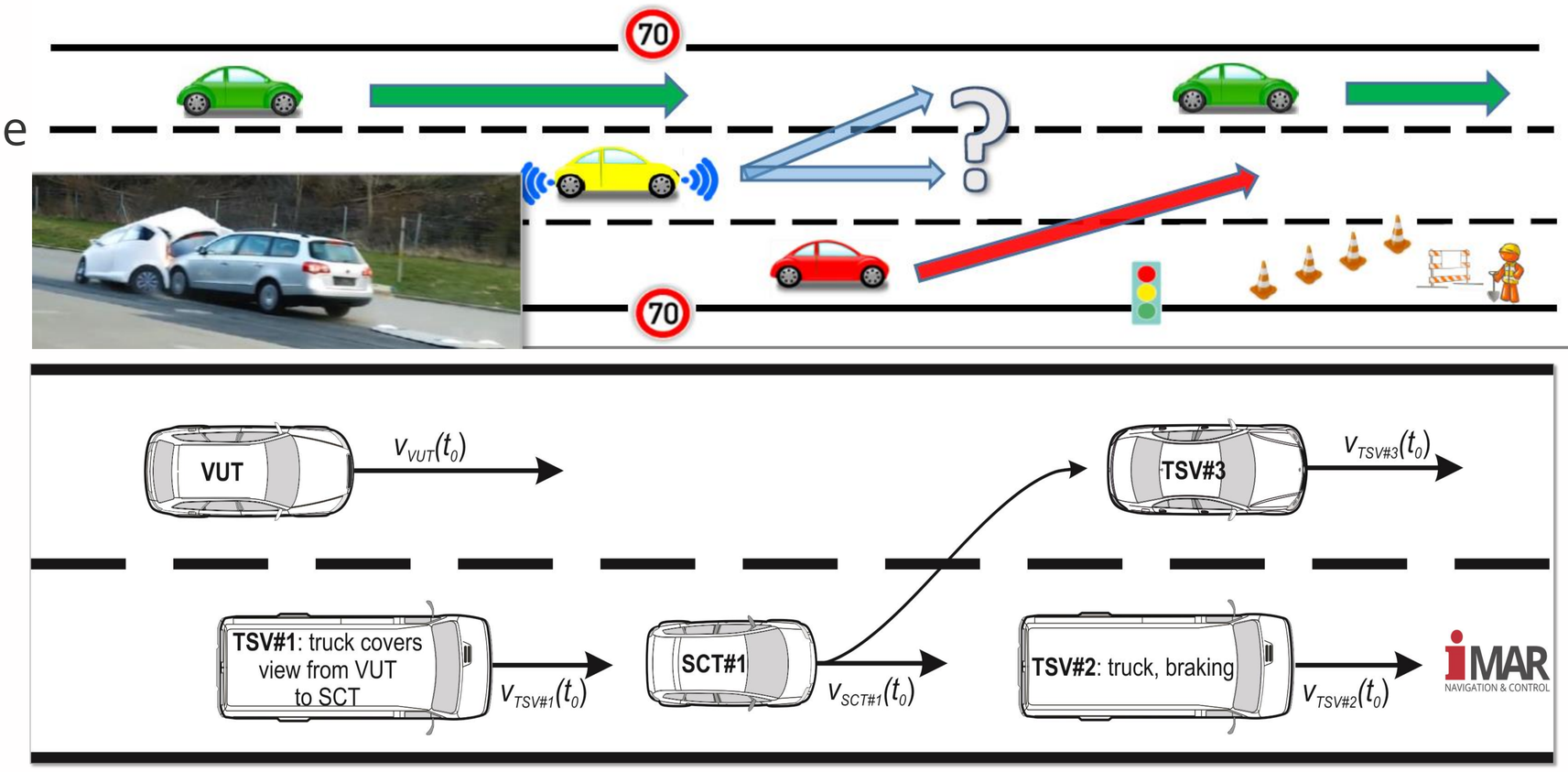
Repeatable & Efficient Vehicle Behavior Testing

# HIGHLY AUTOMATED DRIVING: VERIFICATION ON THE PROVING GROUND

## Efficient Testing of Highly Automated Driving Vehicles on Roads and in Virtual Public Traffic Environment

The development and implementation is the answer to the challenge to verify the safety relevant features of automated and autonomous driving vehicles of all SAE levels.

- Mobile, generic design, easy and fast to be implemented on nearly arbitrary proving grounds.
- Easy to use: Capability to drive TSVs via its integrated steering, throttle and braking actuators (no steering or driving robots required anymore!).
- The R&D activities at iMAR Navigation cover also the recommendations **for the future ISO 22133-1 standard** “Road Vehicles - Test Object Monitoring and Control for Active Safety and Automated/autonomous Vehicle Testing”.




**Figures:** Test scenario to test the Vehicle Under Test (**VUT**) with fully autonomous guided Traffic Simulation Vehicles (**TSV**) and Soft Crash Targets (**SCT**) under realistic traffic scenarios on the proving ground (including Infrastructure Elements (**ISE**) like construction areas, traffic light or traffic signs.

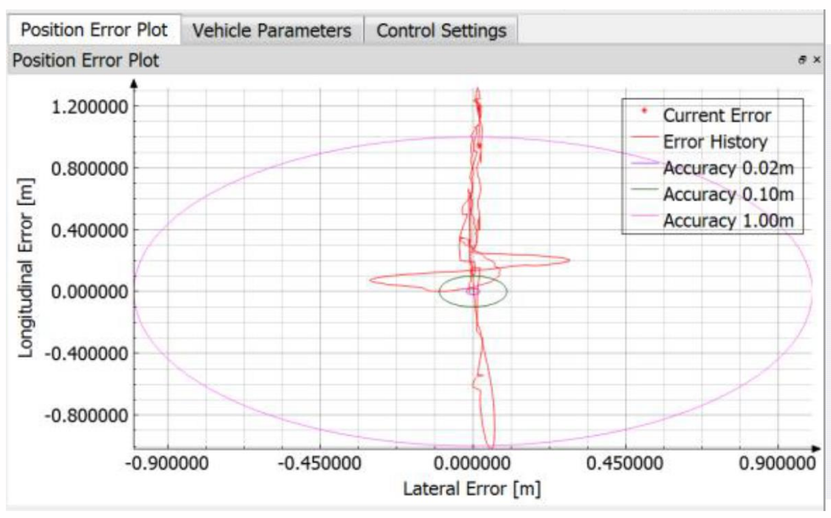



**Figure:** Control performance of fully autonomous driving TSV during lane change at 100 km/h speed and 0.5 g (!) lateral acceleration

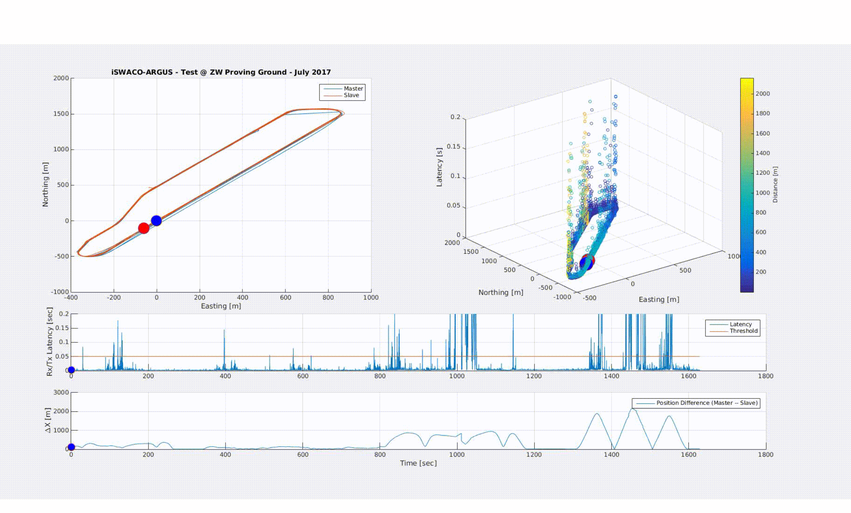



**Figure:** Driving 2 vehicles within a dynamic mesh network - Data transmission latency analysis

Follow this link to find more information.

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