

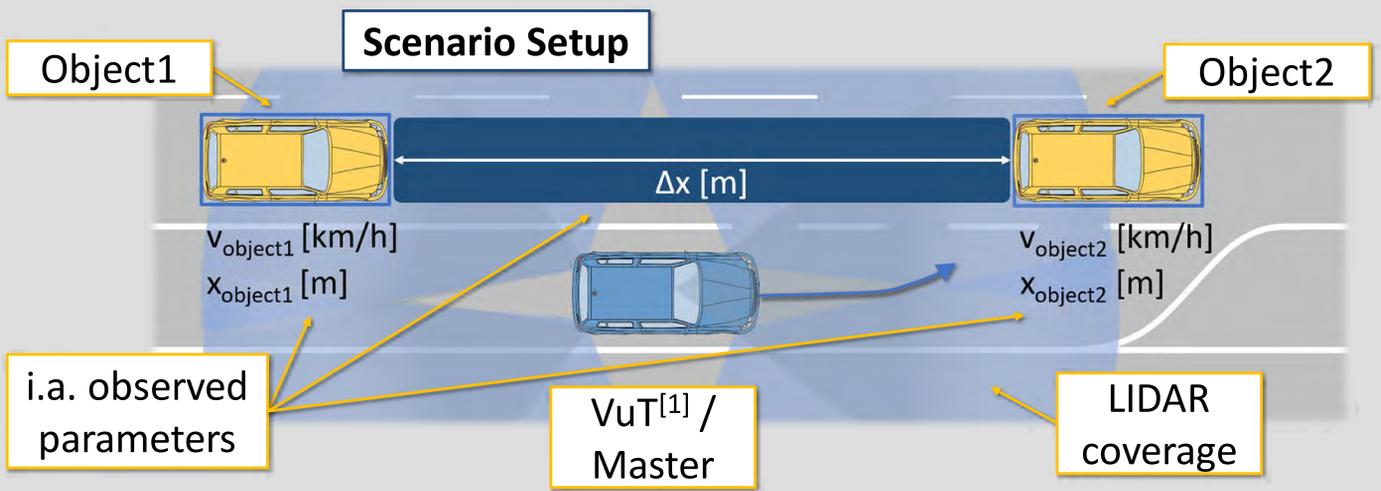


VALIDATION  
AND TEST

# Testmanager – A Tool for Reproducible Test Execution

## MOTIVATION

- Just a **small deviation** of characteristic parameters in execution can lead to **different test-cases**.
- Tool-Chain for the **observance** of test parameters and **precise test execution**, to represent **complex interactions** of HAD vehicle and two objects, e.g.
  - Approach with Merging on highways
  - Overtaking Scenarios on highways



## FEATURES OF TEST-CASE EDITOR AND TESTMANAGER

- Definition and Alignment** of complex highway test-cases [up to two object vehicles] in **Test-Case Editor**
- Survey** of characteristic parameters of test-case on proving ground or on public road
  - object velocities, positions, gaps
  - Maneuvers [via Checkpoints]

**Testmanager Software**

**Quality-Index**

Quality-Index	Current	Average
Velocity Object 1	12%	12%
Velocity Object 2	3%	8%
Quality-Index Gap		
Deviation Gap	17%	17%
Quality-Index Total		
Quality-Index Total		12.3%

**Next Check Point in: 255 m**

**Object 1:** Velocity: 50, Maneuver: Lane Keeping

**Object 2:** Velocity: 46, Maneuver: Lane Change Left

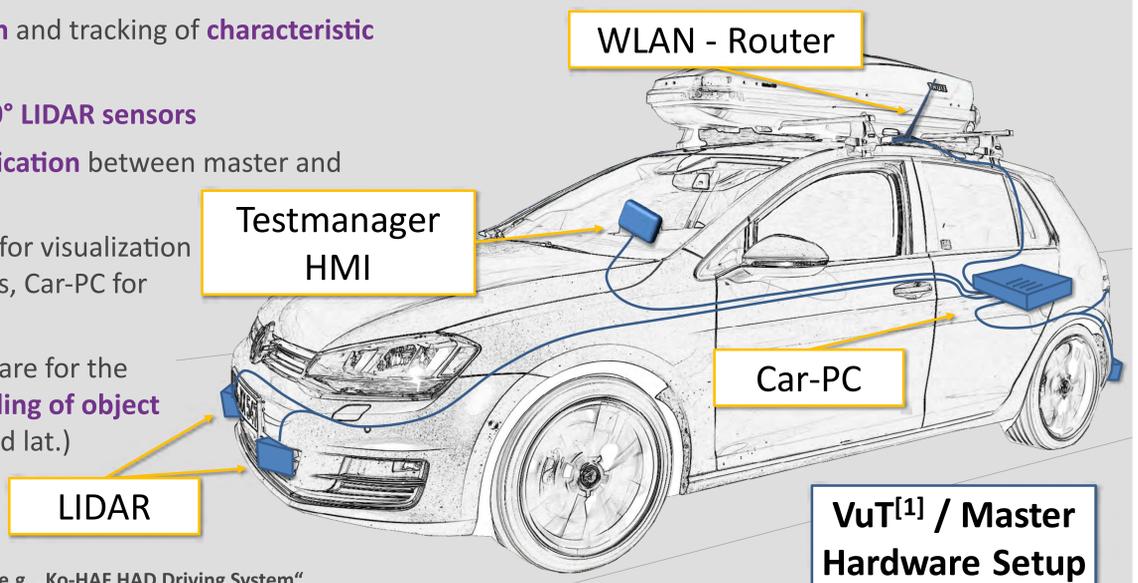
**Instructions / Deviations**

**Upcoming Instructions**

- Online Comparison to **target parameters** and
- Visualization** of deviations
- Calculation of **Quality-Index** of test execution and observance of parameters for a reproducible and precise execution
- Recording** of driven Data for Functional Assessment

## APPROACH AND TECHNOLOGIES

- Object detection** and tracking of **characteristic parameters**
- High precise **360° LIDAR sensors**
- WLAN communication** between master and object devices
- Mobile Devices** for visualization in object vehicles, Car-PC for Master vehicle
- Hard- and Software for the optional **controlling of object vehicle** (long. and lat.)



[1] VuT – Vehicle-under-Test e.g. „Ko-HAF HAD Driving System“