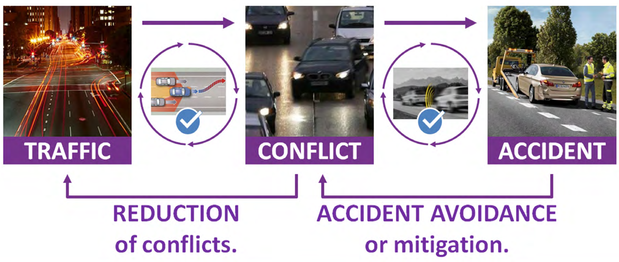
VALIDATION
AND TEST

Ko-HAF
KOOPERATIVES
HOCHAUTOMATISIERTES FAHREN

Prospective Effectiveness Assessment

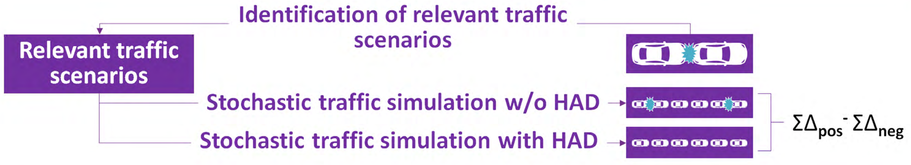
ANALYSIS OF POTENTIAL EFFECTS OF AUTOMATED AND COOPERATIVE DRIVING ON TRAFFIC SAFETY

ACCIDENT AS A PROCESS OF INTERACTING FACTORS

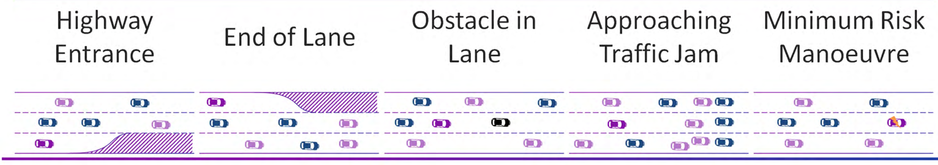


METHODOLOGY & SCENARIOS

Traffic-based Simulation Approach



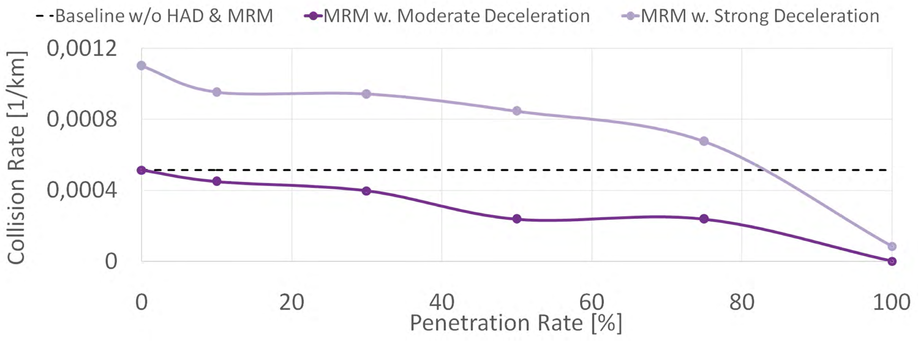
Relevant traffic scenarios



RESULTS

Example: Minimum Risk Manoeuvre Scenario

- Simulation conducted with different penetration rates of cooperative HAD vehicles.
- Comparison of two MRMs that consider only braking within the lane (moderate deceleration vs. strong deceleration).
- Main risk for the simulated MRM are collisions with the rear traffic.



- For a MRM with strong deceleration an increased risk of a collision compared with the baseline without any HAD vehicles is detected; this additional risk can be compensated with high penetration rate of cooperative HAD vehicles.
- For a MRM with moderate deceleration no additional risk is detected.
- However, in order to achieve a MRM with a moderate deceleration higher technical efforts including better sensors and lager planning horizon need to be taken.

Gefördert durch:
Bundesministerium für Wirtschaft und Energie
aufgrund eines Beschlusses des Deutschen Bundestages

www.ko-haf.de