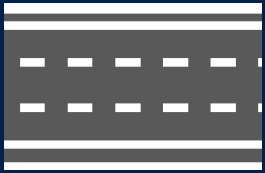


- Reconstructed crashes are limited scenario representation for mixed motorway traffic:
 - Databases contain limited cases, mainly rear-end, few cut-in, end of traffic jam
 - no surrounding traffic, no multiple agent interactions, simplified trajectories (if any)
 - Few cases (GIDAS: $n = \sim 100$), mainly rear-end crashes – no full virtual traffic model



- Methodology transfer in OSCCAR: use **traffic scenario simulation** to predict crashes
 - Many R&D and open-source projects, tool provider offer solutions for virtual traffic assessment
 - Goal „integrated assessment“: traffic accident simulation → crash configurations → CAE sim.
 - OSCCAR D1.2 „open source OSCCAR demo tool“ (based on COVISE & openPASS)
 - in OSCCAR D1.3: demo application of D1.2 tools in large-scale simulation study

Application of openPASS traffic simulation in OSCCAR

| | | |
|-----------------------|--|---|
| OSCCAR openPASS study | Regular motorway  | On ramp  |
| Regular traffic |  | |
| Traffic jam |  | |



Scope: baseline vs. mixed traffic

Virtual traffic volume (for D1.3):

- ~15 mio vehicles

- ~ 2.000 virtual crashes

OSCCAR Result: demonstration of a full tool chain using multi-agent stochastic traffic simulation for crash prediction – open source, hence easy to use in future research