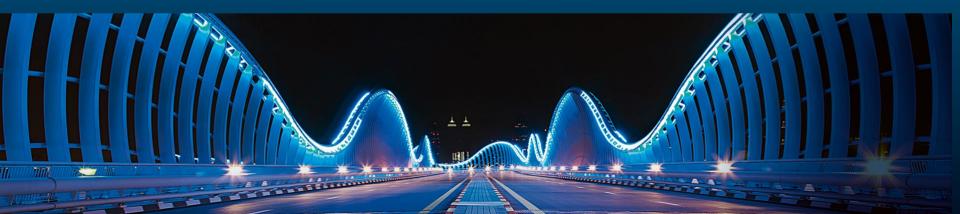


Expectations on a Tool Independent Scenario Description for AD Validation

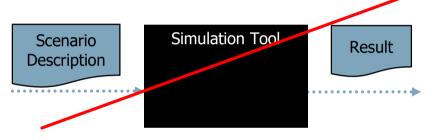
Dr. Gerhard Niederbrucker, Dr. Lara Turner | Autonomous Driving & ADAS | Innovation & Technology



Towards a Tool Independent Scenario Description

What to expect from standardized scenario description?

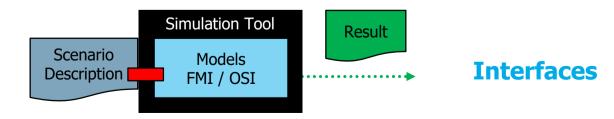
- 1. Enable smooth transition between different simulation tools
- 2. Enable various model fidelities



not expected

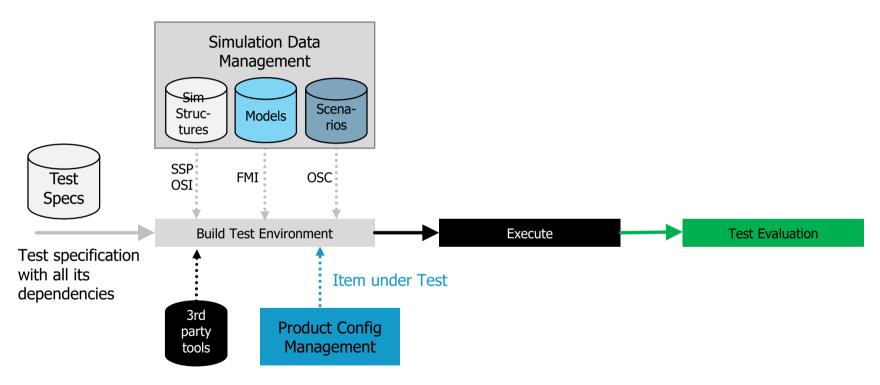
Behavior

What to standardize beyond the "Storyboard"?





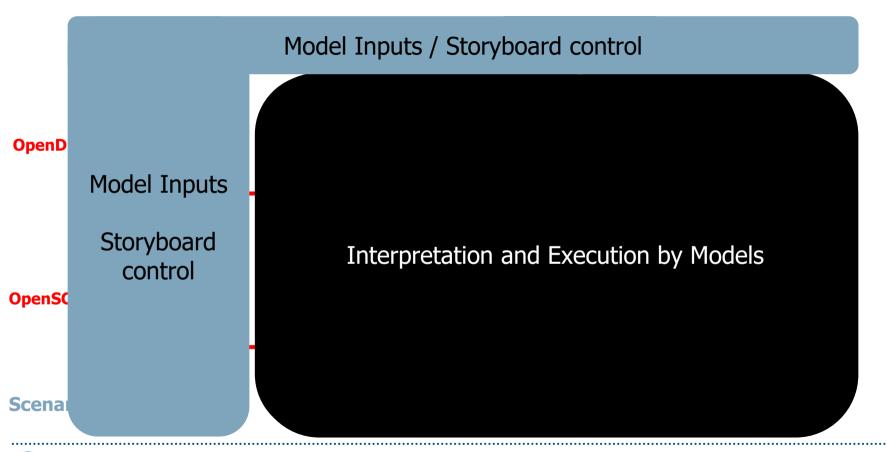
Scenario Descriptions in Virtual Testing for Autonomous Driving



Test specification links all its elements, any change of input may lead to different outputs!



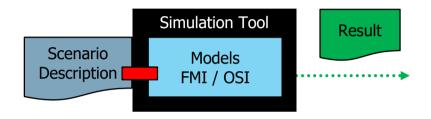
AD Simulation Architecture and Standards





Expectations on a Tool Independent Scenario Description

"AD development and validation requires simulation from component to system level"



- Being a standard:
 - Ensure an industry-wide understanding of how to formalize driving scenarios
 - Consistent distinction between scenario description and (virtual) test case: Clear separation between scenario description and models/their parameterization, expected outputs, etc.
 - Enable different fidelities in input for all dynamic objects (trajectory vs. maneuver, etc.)
- Being standard-compliant:
 - Interpretation of scenario description and storyboard control
 - Providing and populating model interfaces, enable integration of 3rd party boundary models

