SETLevel 4to5
Project Overview & OSI usage / development

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ASAM

Project Overview

The project's mission

- BMWi sponsored project
- Close relation to VV-Methoden
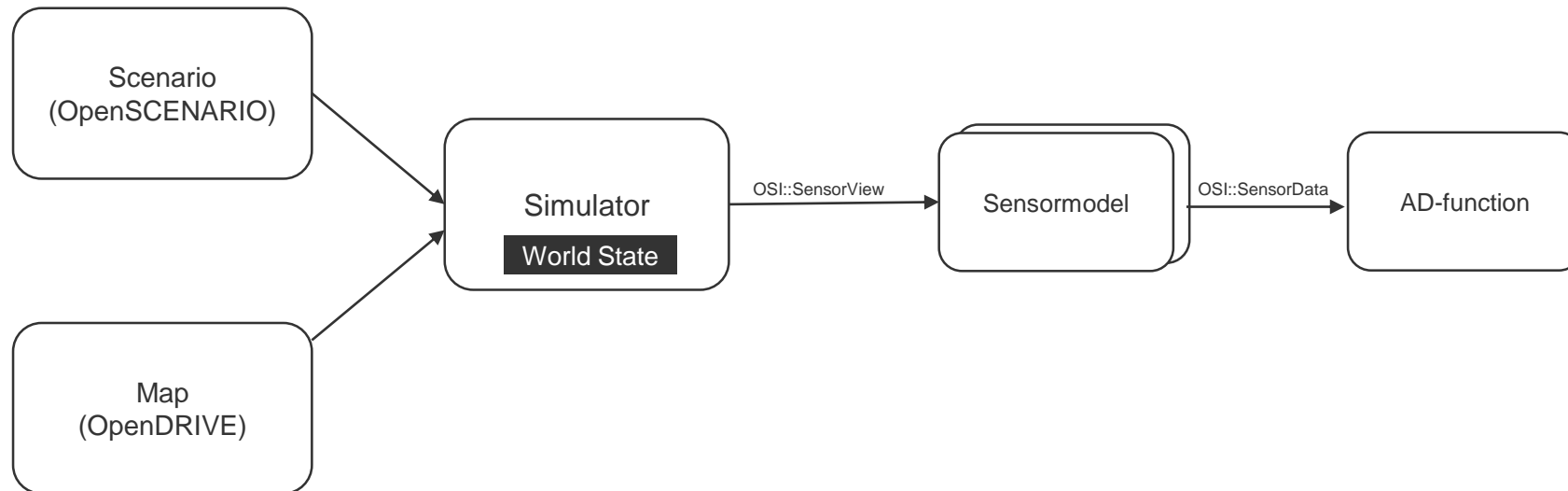- „PEGASUS-family"

Overall Goal:

Advance the simulation-based development and testing of level 4 and 5 vehicles for urban environment, to build up a basis for verification and validation and the homologation of the vehicle systems. [1]

→ Methodolgy
→ Reasonable Modularity
→ Leverage Standards (ASAM OSI, ASAM OpenSCENARIO, FMI, …)
→ PoC with different Toolchains

→ OSI is the choice for connecting all kinds of models & tools.
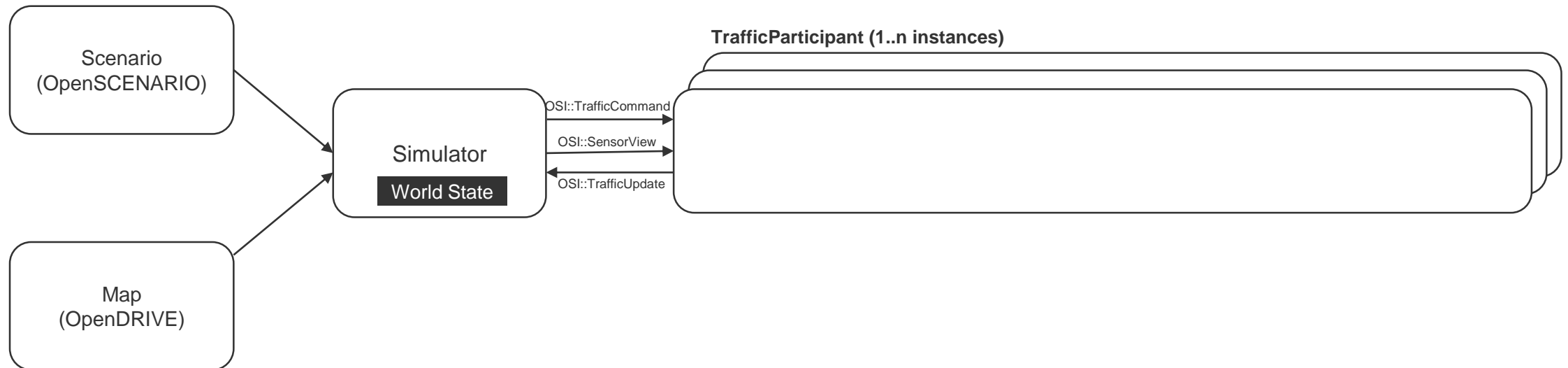
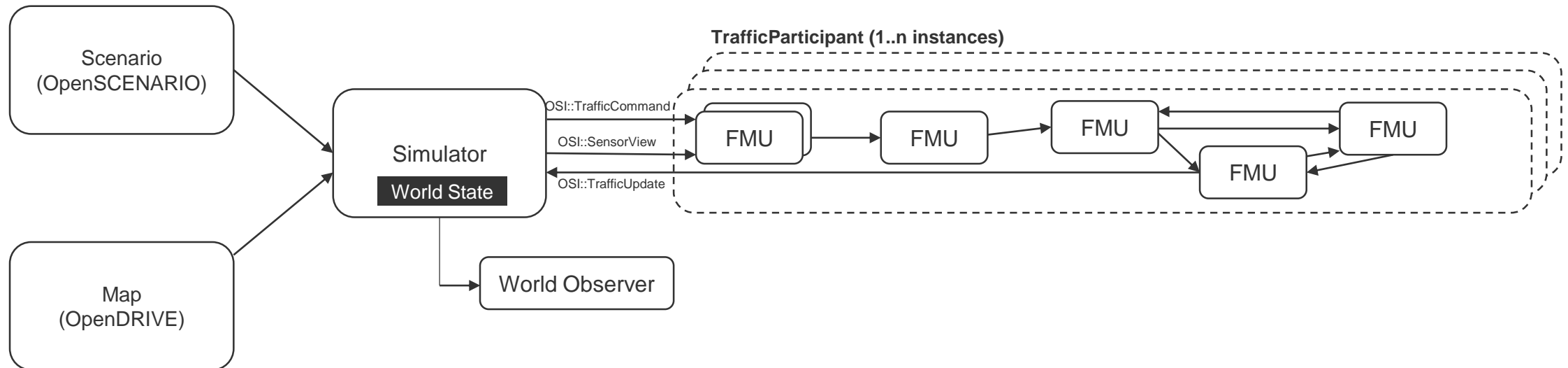[1] http://www.tuvpt.de/index.php?id=setlevel4to5

Enhancing OSI-Sensormodeling

→ Enhancing the existing interfaces for Sensormodeling in urban usecases.

Generalizing the concept for Traffic Participants

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Scenario
(OpenSCENARIO)

Map
(OpenDRIVE)

                    Simulator
                    ┌─────────────┐
                    │ World State │
                    └─────────────┘

                         OSI::TrafficCommand →
                         OSI::SensorView →
                         ← OSI::TrafficUpdate

TrafficParticipant (1..n instances)
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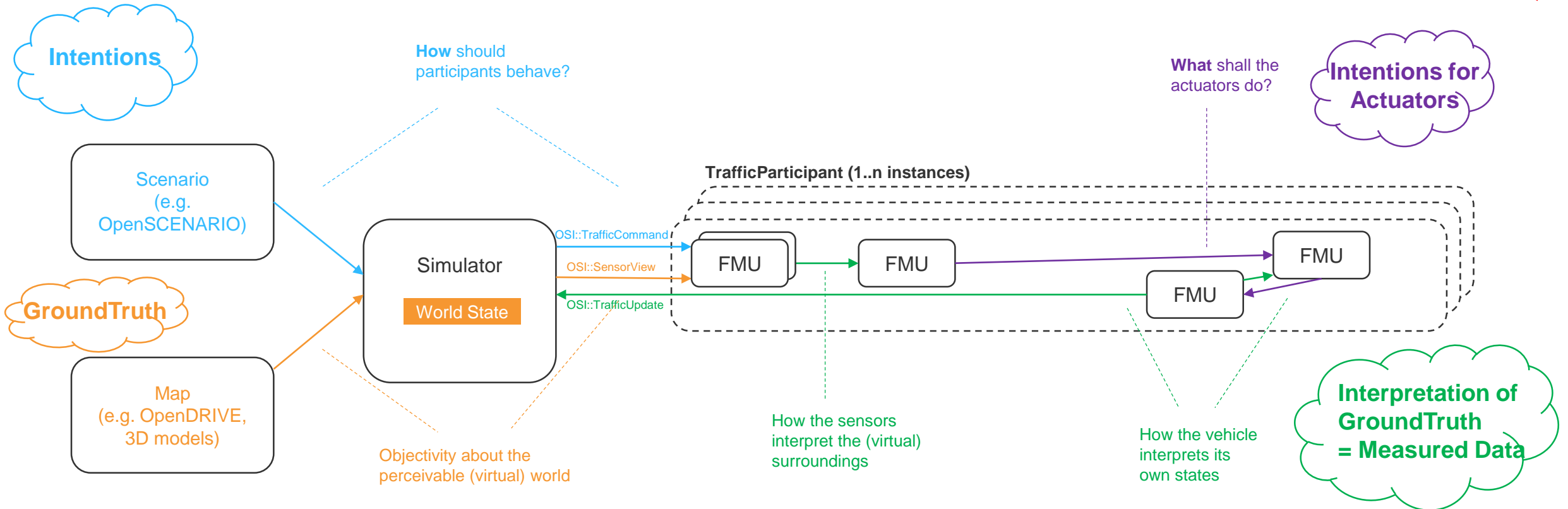
→ The Loop to the Simulator get's closed.

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Connecting all kinds of models as FMUs via OSI

→ Looking at the building blocks (Sensormodels, AD-function, Dynamic Models, Actuator Mangement, …) and what interfaces are needed on a signal level (ongoing).

Mapping to industry usecases at ASAM OSI

Summary

- SETLevel4to5 can be seen as a **catalyst** for the ASAM OSI work.

- SETLevel4to5 can be seen as a **PoC** for the ASAM OSI work.

- The usecase range for OSI as a Simulation interface gets broadened and enhanced for urban usecases.

Thank you for your attention!

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