ASAM OSI Overview 2023

Overview of Standard and Project Status in 2023

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2023-03-21
ASAM TS 2023

ASAM Association for Standardization of Automation and Measuring Systems

Who am I?

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- (Pre-)ASAM OSI CCB Member
- ASAM OSI Project Leader

- ASAM OpenSCENARIO CCB Member
  Former ASAM OpenSCENARIO 2.0 Language Lead

- MAP FMI Steering Committee Member
- MAP SSP Founding Member & Deputy Project Leader

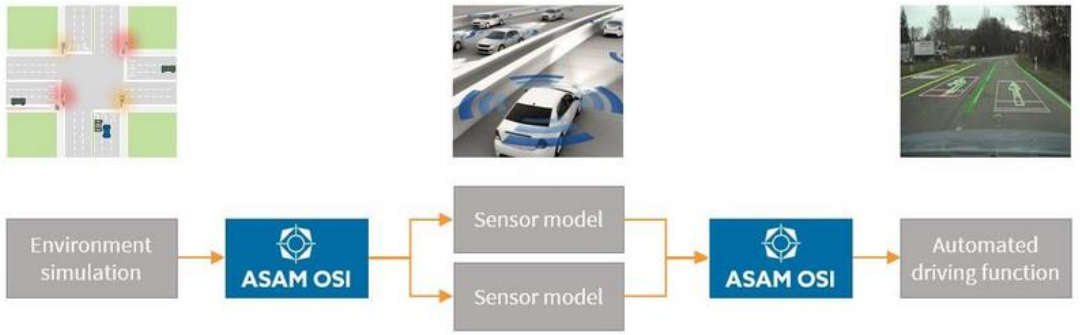
Agenda

1	What is OSI: Then, Now and in Future
2	Current Development Phase and Roadmap
3	Implementation Examples: Persival
4	Implementation Examples: PMSF
5	Implementation Examples: Carissma

What is the Open Simulation Interface?

“The Open Simulation Interface (OSI) defines a generic interface between automated driving functions, driving simulation frameworks and sensor models. Its long-term goal is to provide users the ability to connect any automated driving function to any driving simulator or sensor.”

Source: ASAM e.V. Press Release



Original Motivation – One of

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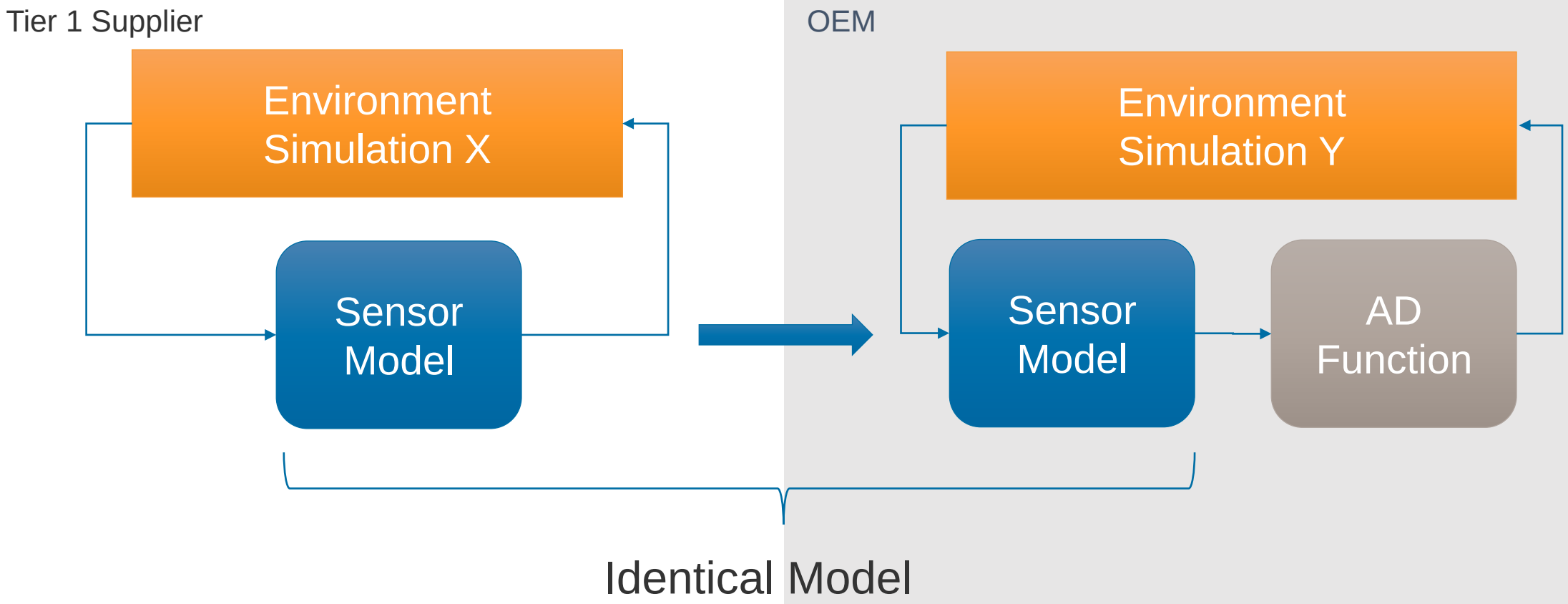
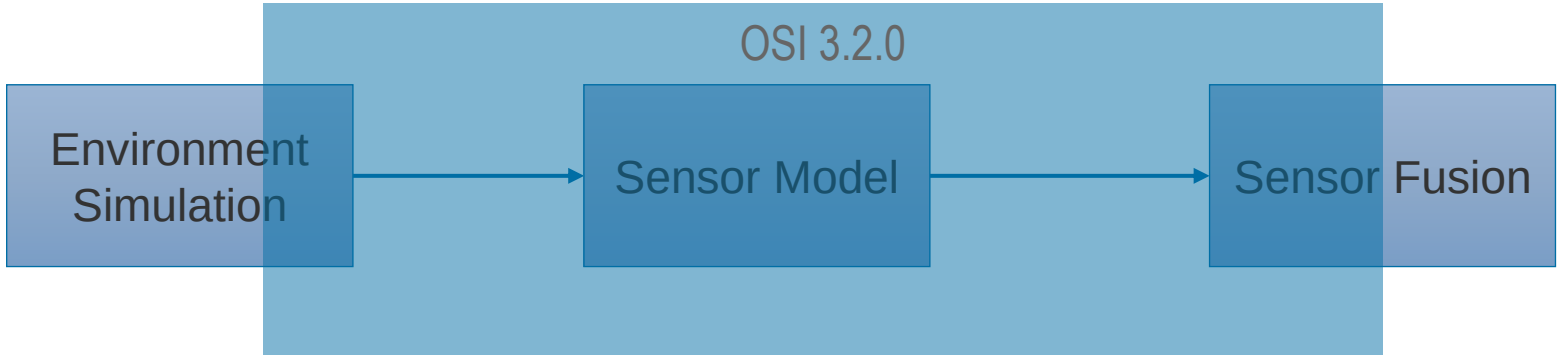


OSI Scope – Then, Now and in the Future



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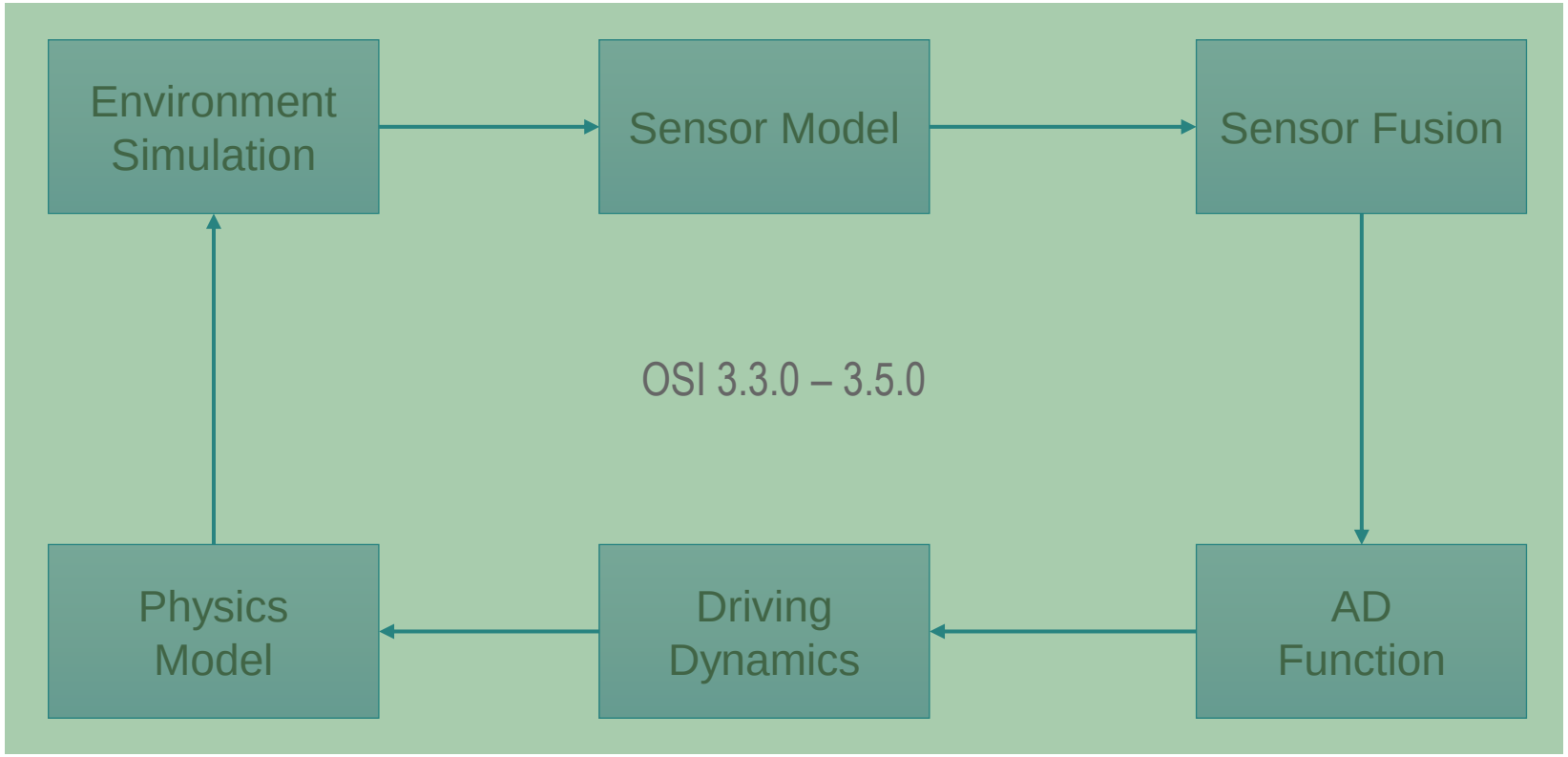
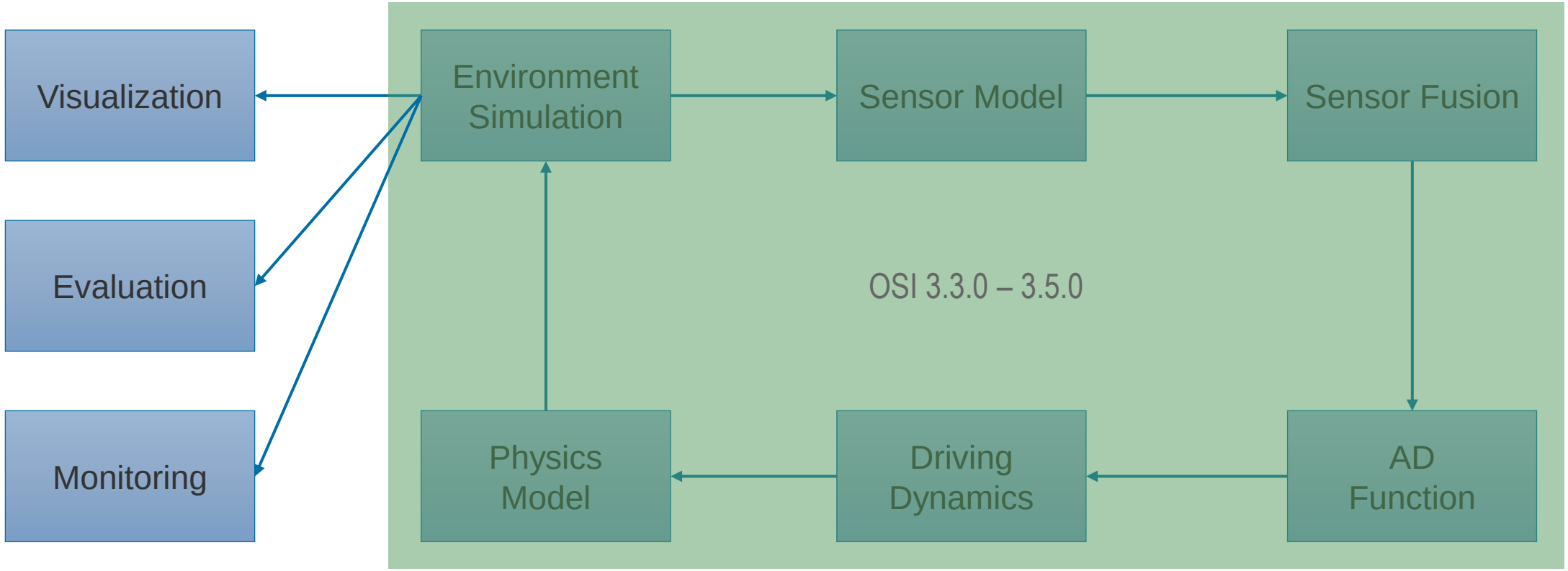


OSI Scope – Then, Now and in the Future



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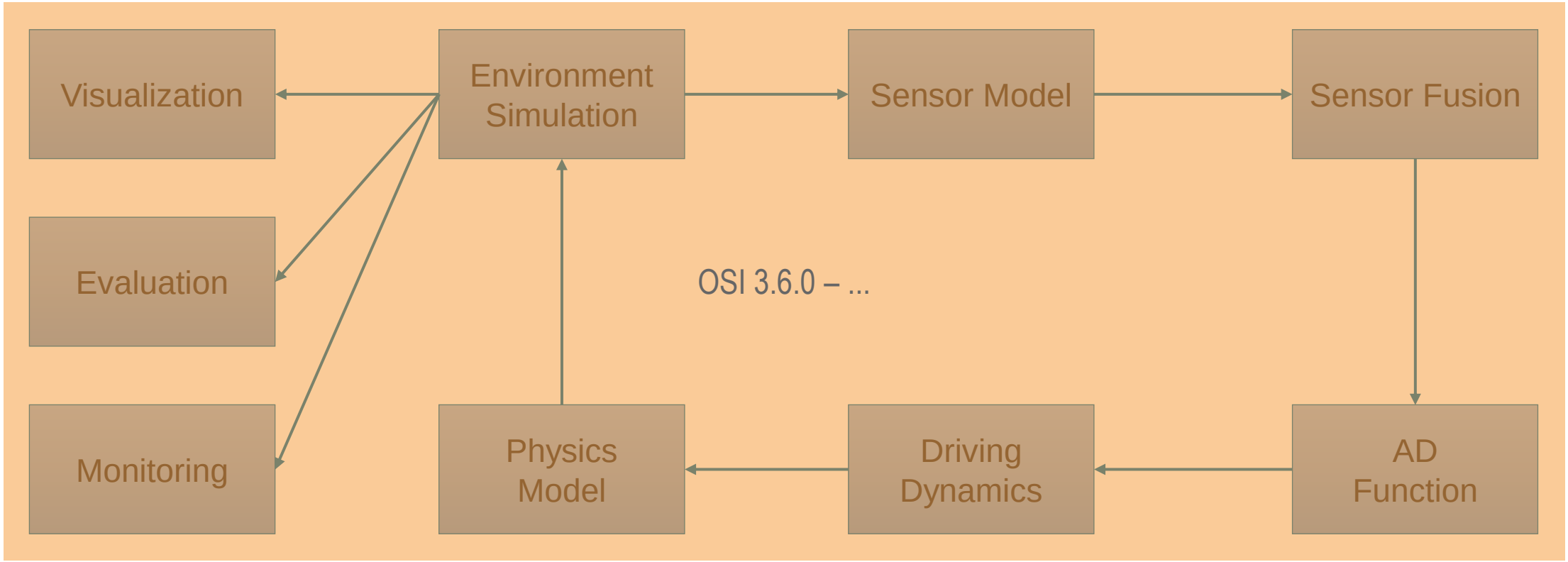
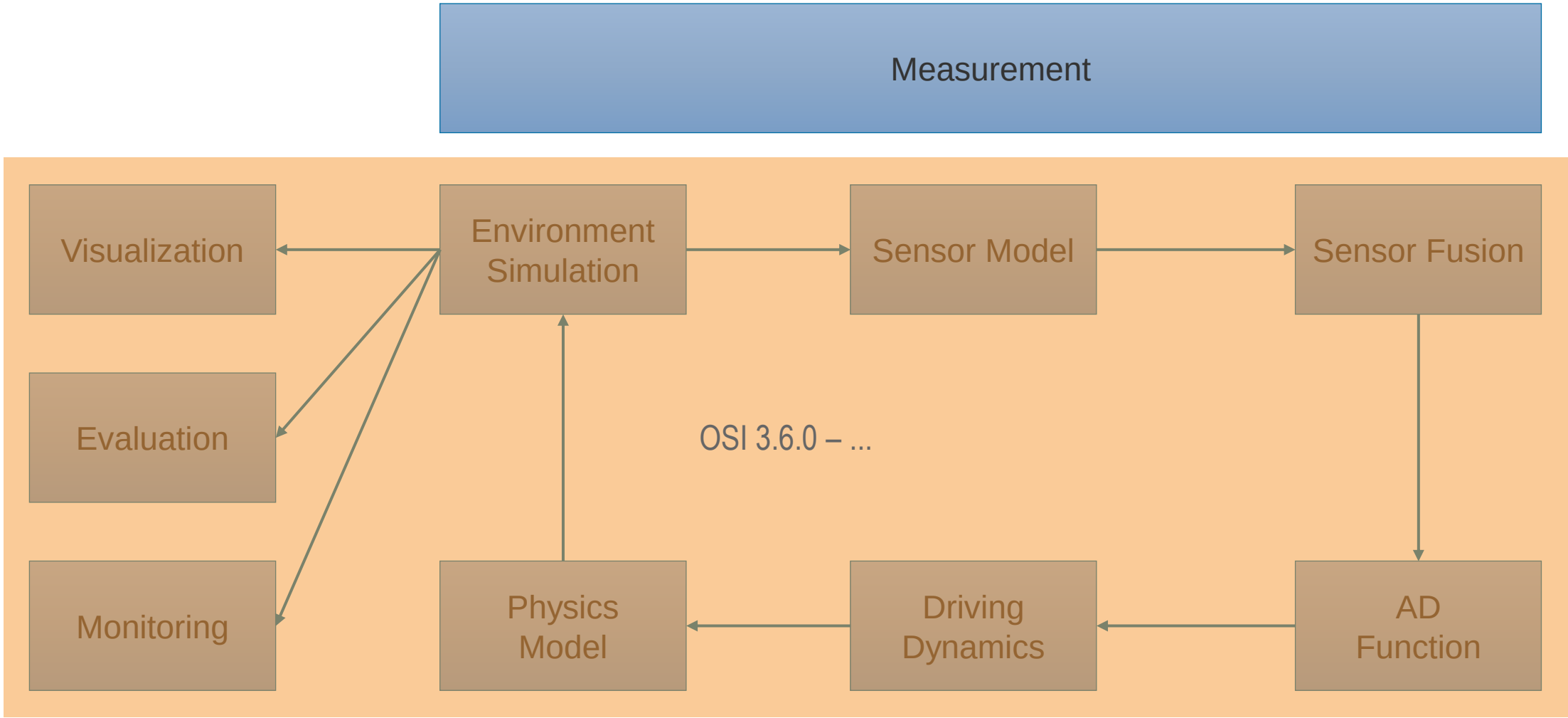
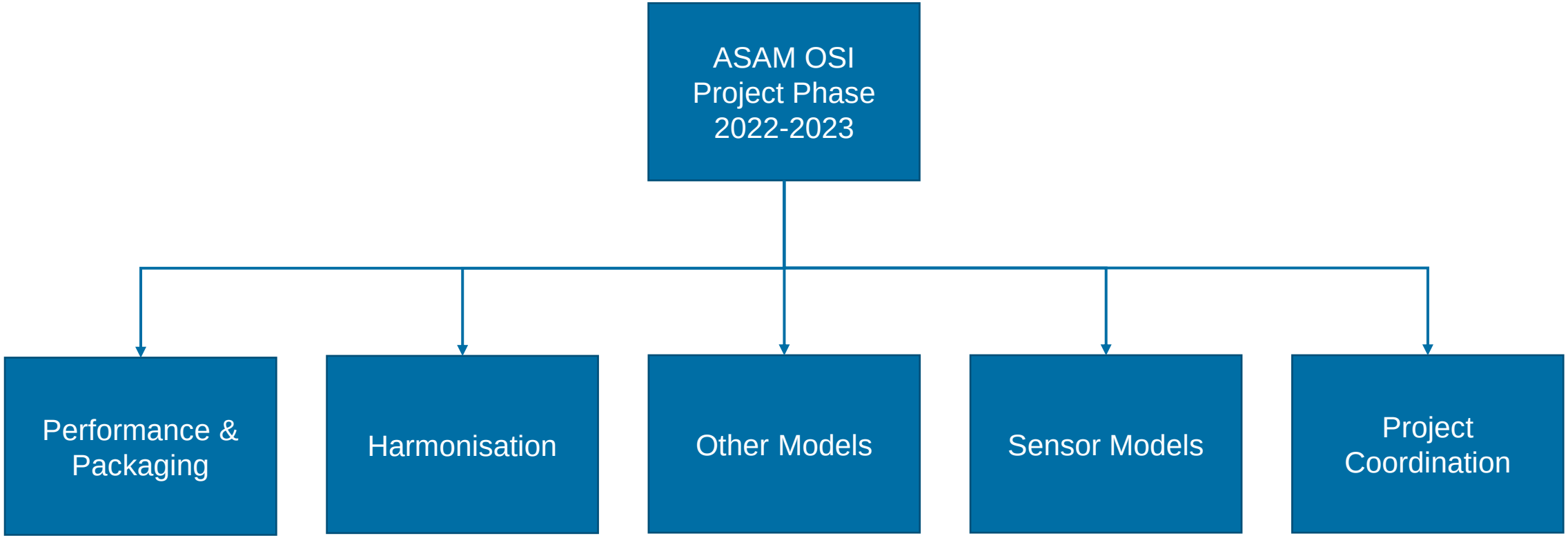


OSI Scope – Then, Now and in the Future



Current OSI Project Phase 2022-2023

Overview



Current Project Phase 2022/2023: Motivation and Scope

Increased Scope, New Use Cases, Further Harmonization, Performance & Packaging

Increased Scope

- Spaceflight applications
- Vehicle-internal model interfaces
- Intermediate interfaces for sensor processing
- Streaming interface for visualization

New or Enhanced Use Cases

- Detailed pedestrian modeling
- Real sensor data support
- Modeling of radar sensor interference
- Enhanced road surface modeling
- Enhanced bounding box modeling
- Enhanced modeling of NCAP targets
- More orthogonal physical sensor modeling interfaces

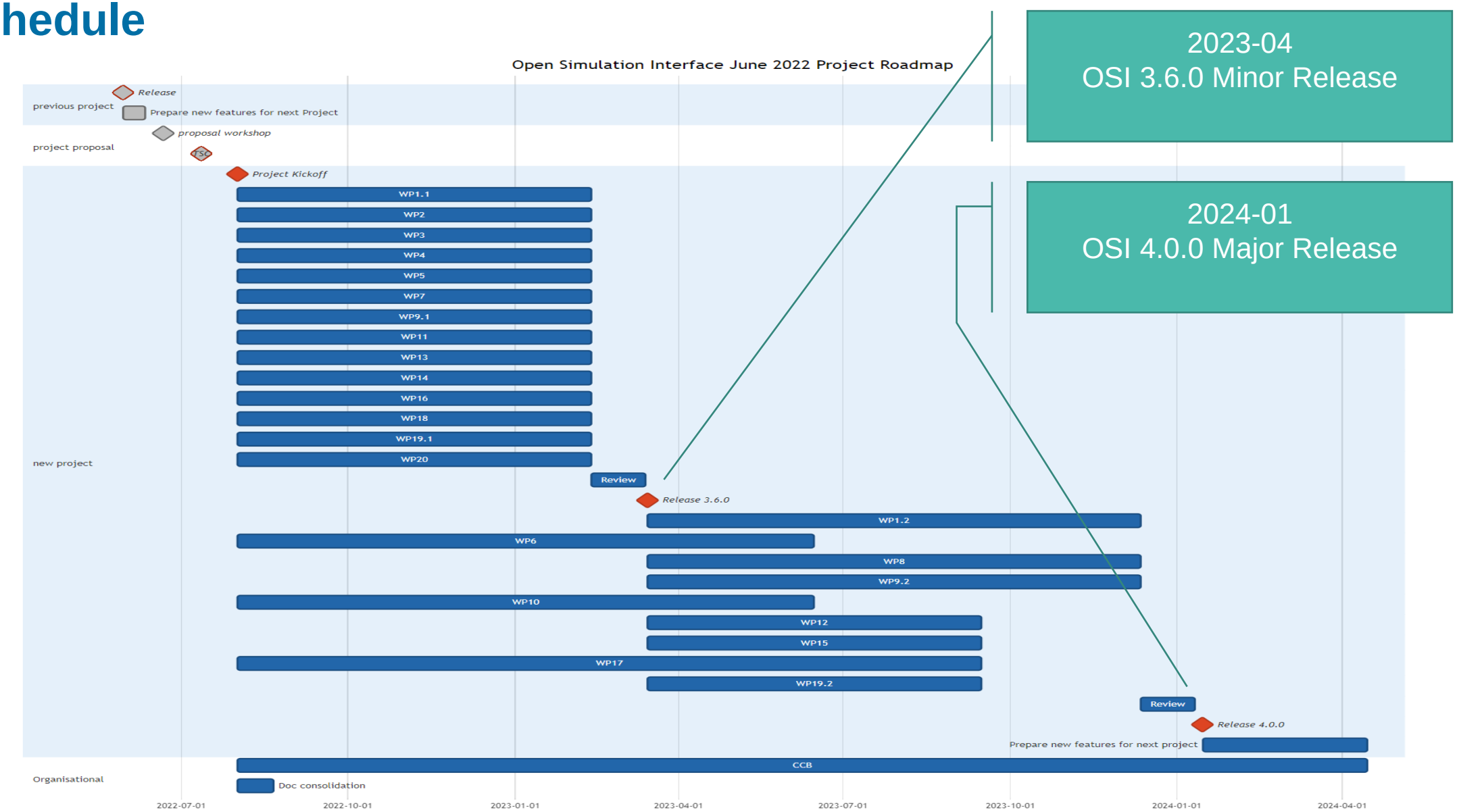
Further Harmonization

- Continued alignment with OpenDRIVE road network
- Alignment with OpenODD/OpenSCENARIO on environment conditions
- Continued alignment with ISO 23150 and AUTOSAR ADI on SensorData

Performance & Packaging

- Ongoing support & switchover to Flatbuffers
- Clearer separation of static and dynamic data
- Better support for mapping to other representations
- Additional ROS2 packaging

Schedule



2023-04
OSI 3.6.0 Minor Release

2024-01
OSI 4.0.0 Major Release

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