

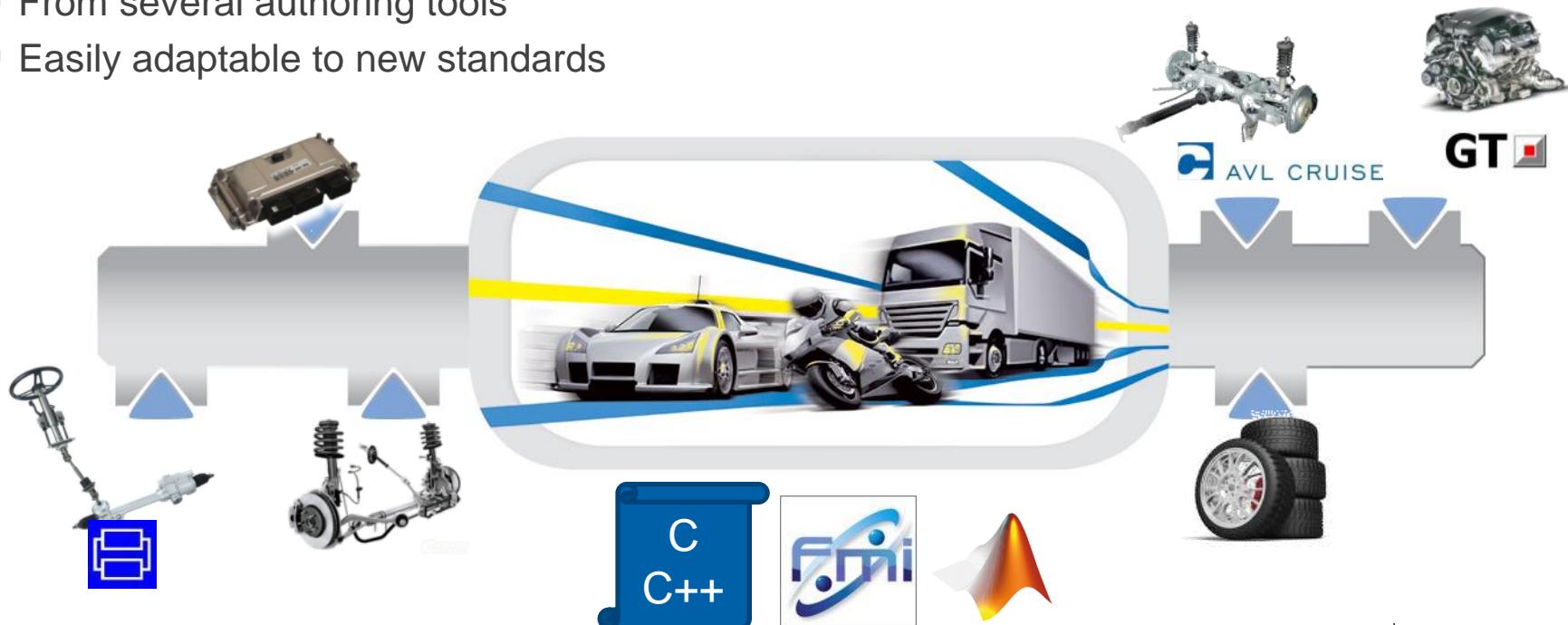


FMI in CarMaker (HiL)

Open Integration and Test Platform CarMaker

Simulation Core with ModelManager:

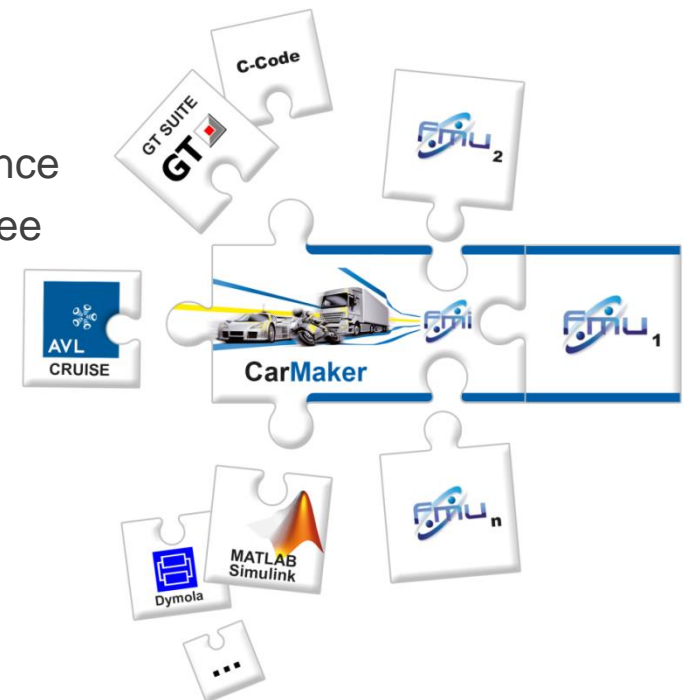
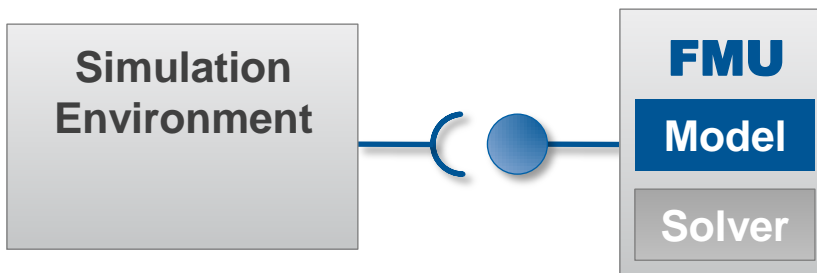
- Combination of IPG and customer models
- From several authoring tools
- Easily adaptable to new standards



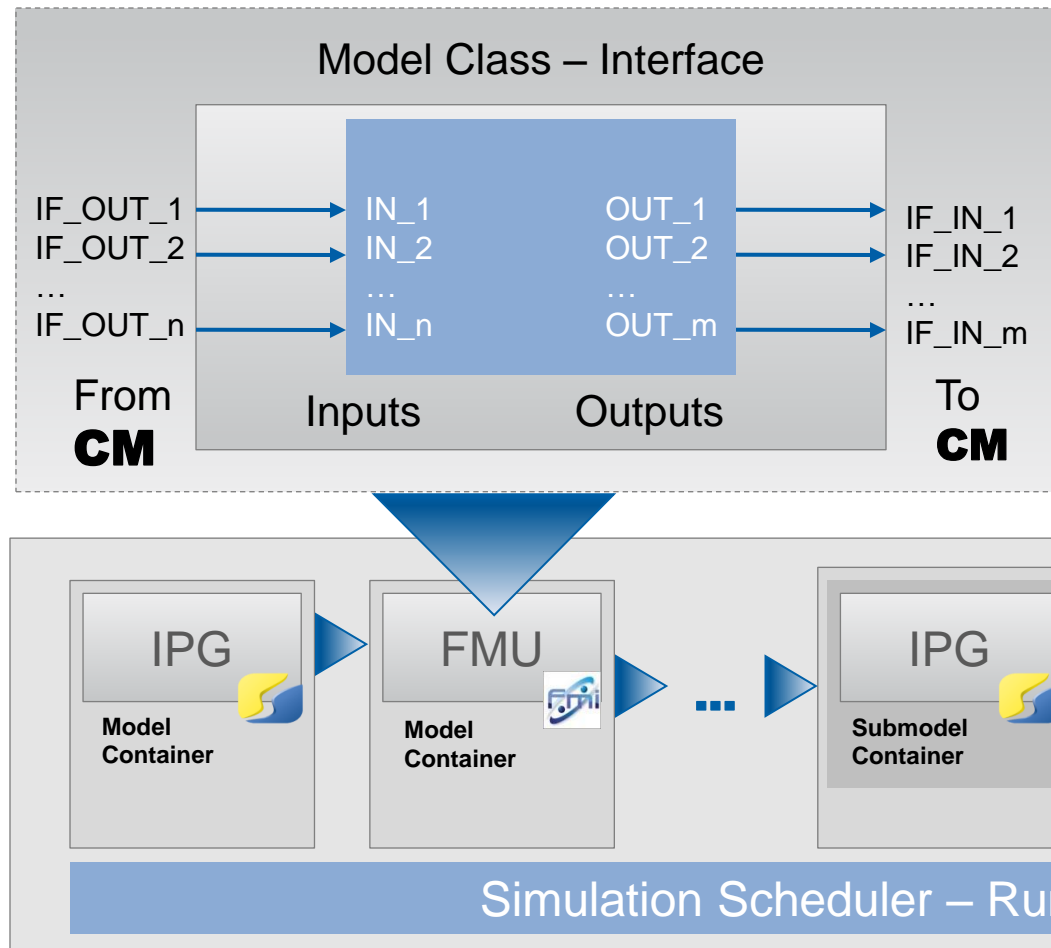
FMI in CarMaker

- Data exchange fixed on discrete communication events
- Master-Algorithm (CarMaker) controls exchange and synchronisation
- **Realtime capability:**
 - FMU has the responsibility
 - FMUs with fixed step solvers must be proven once
 - FMUs with variable step solvers do not guarantee the realtime capability

FMI for Co-Simulation Standalone



Realisation – Integration in CarMaker



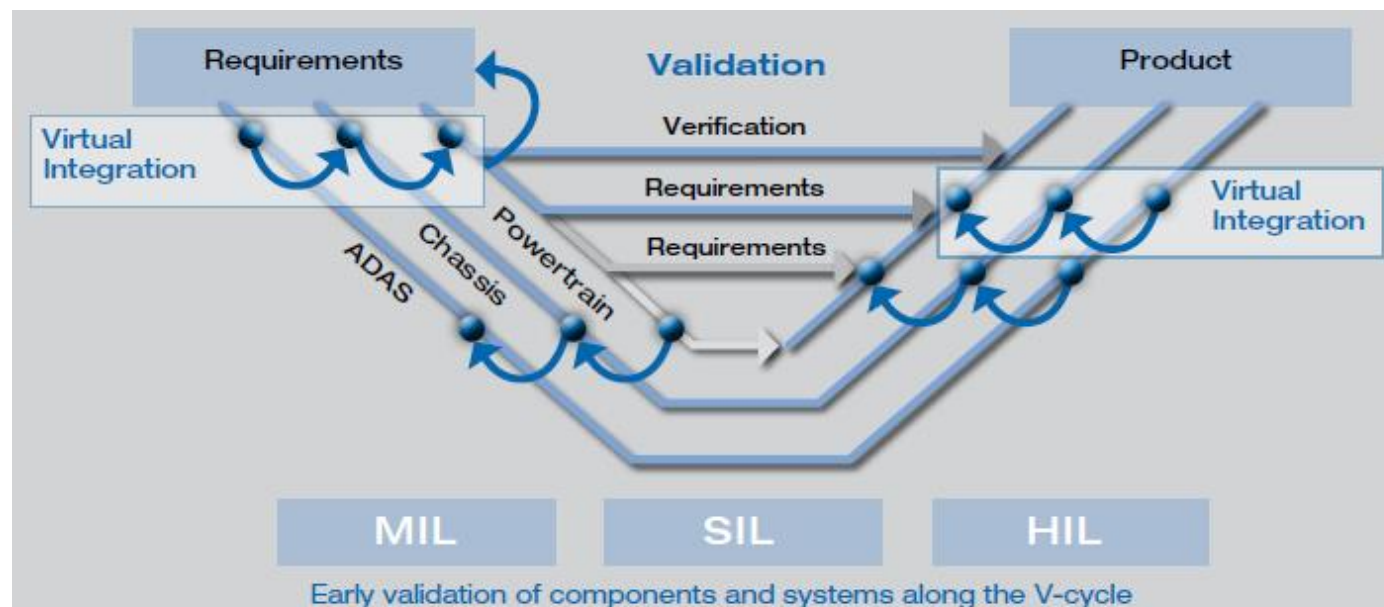
Single preprocessing step to integrate the FMU
install locally:

1. Choose model class
2. Connect ports
3. Select model

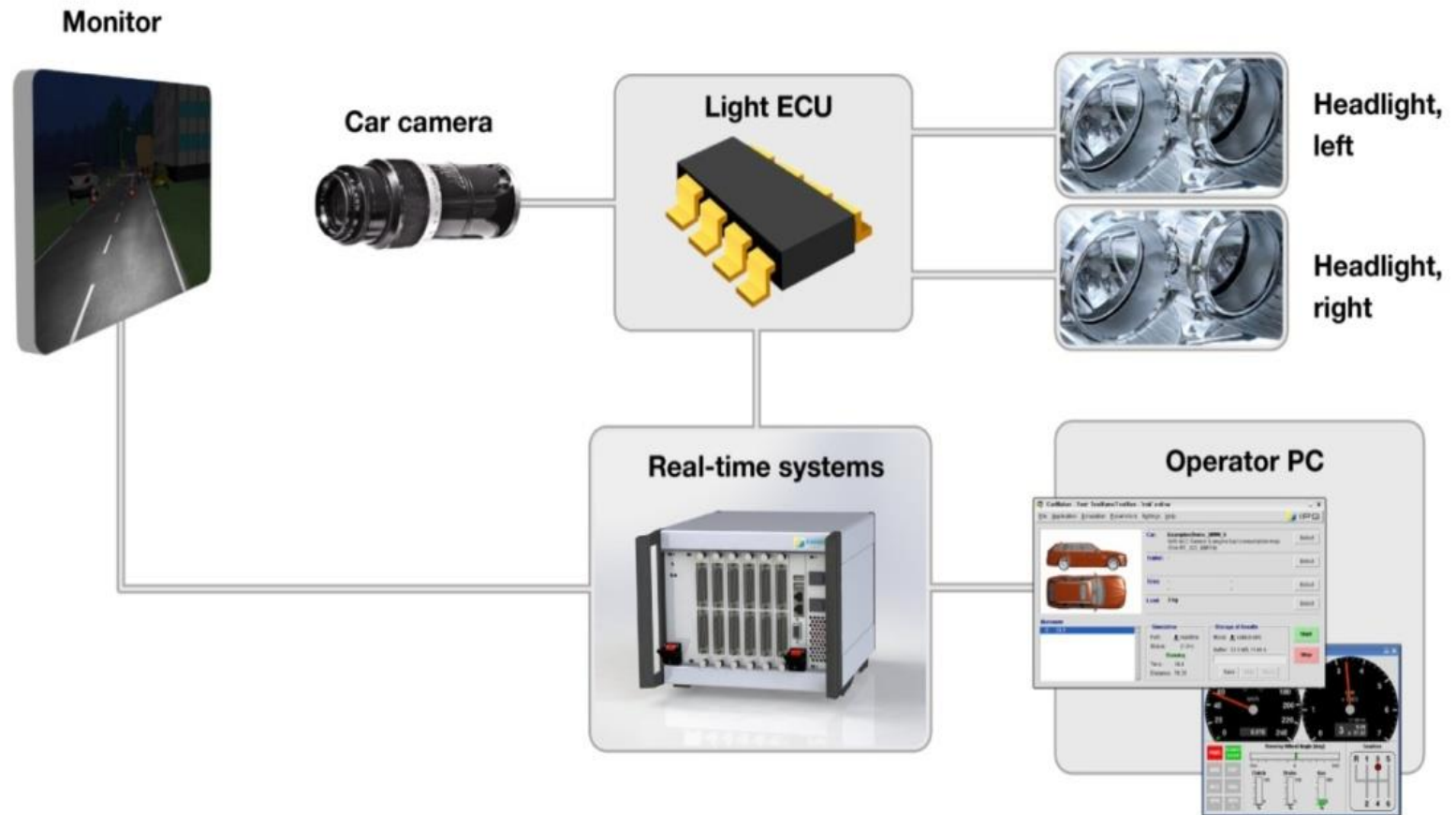
Example of Use: Dynamic Light Function (BMW)

Use in the Development Process

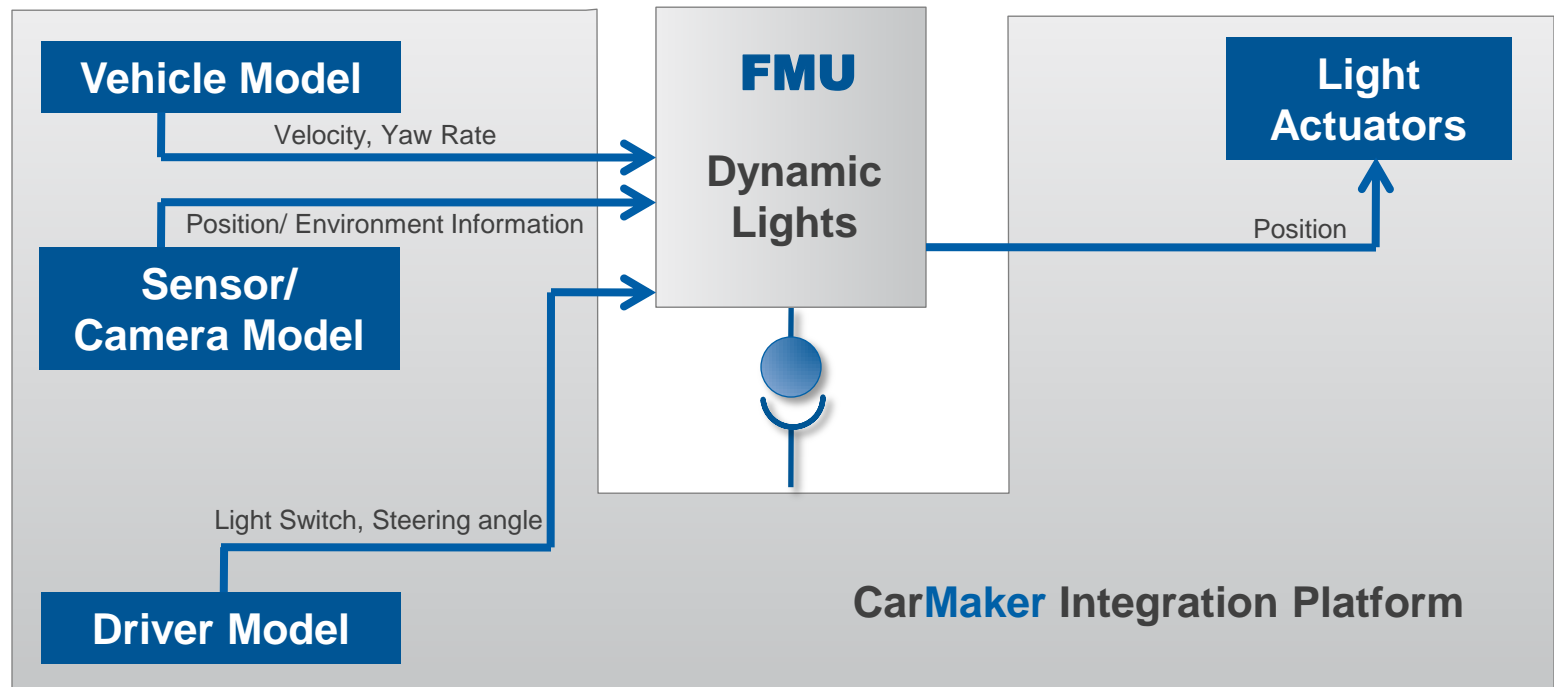
- MiL – CarMaker for Simulink e.g. calculation of light distribution
- SiL – C-Code Model in CarMaker e.g. degradation, runtime or over-run tests
- HiL – AUTOSAR-conformant ECU code in CarMaker/ HiL




Example of Use: Dynamic Light Function (BMW)



Dynamic Light Function Integration



Taking you to the next level – worldwide



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