

# Simulation-Based vECU and V2X Testing

## Efficient and Scalable

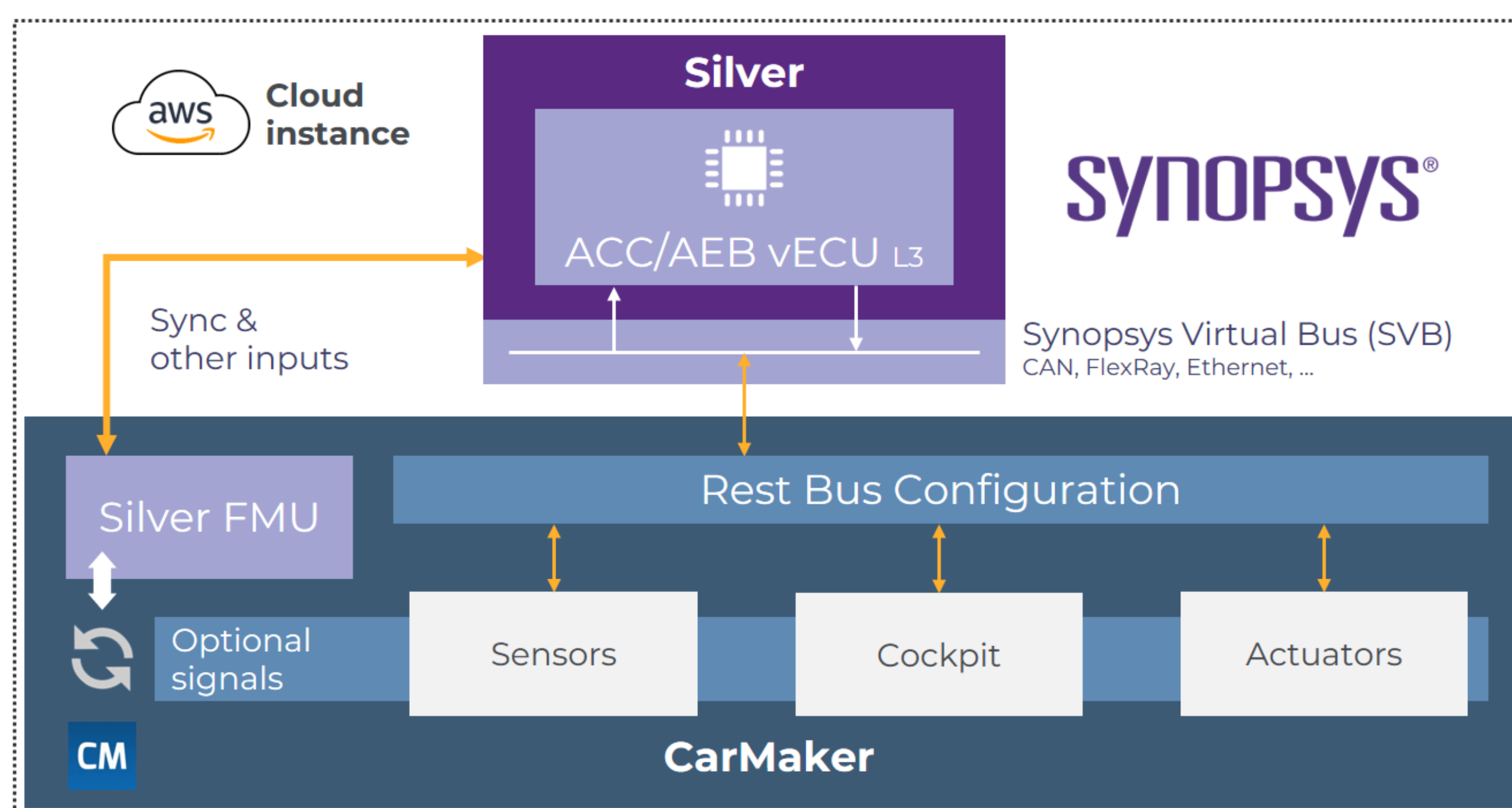
With the IPG **CarMaker** simulation environment, we enable **vECU** evaluation and standard-compliant **V2X** communication. In combination with the digital traffic twin, hereby driving functions can be tested efficiently and scalably.

With funding from the:



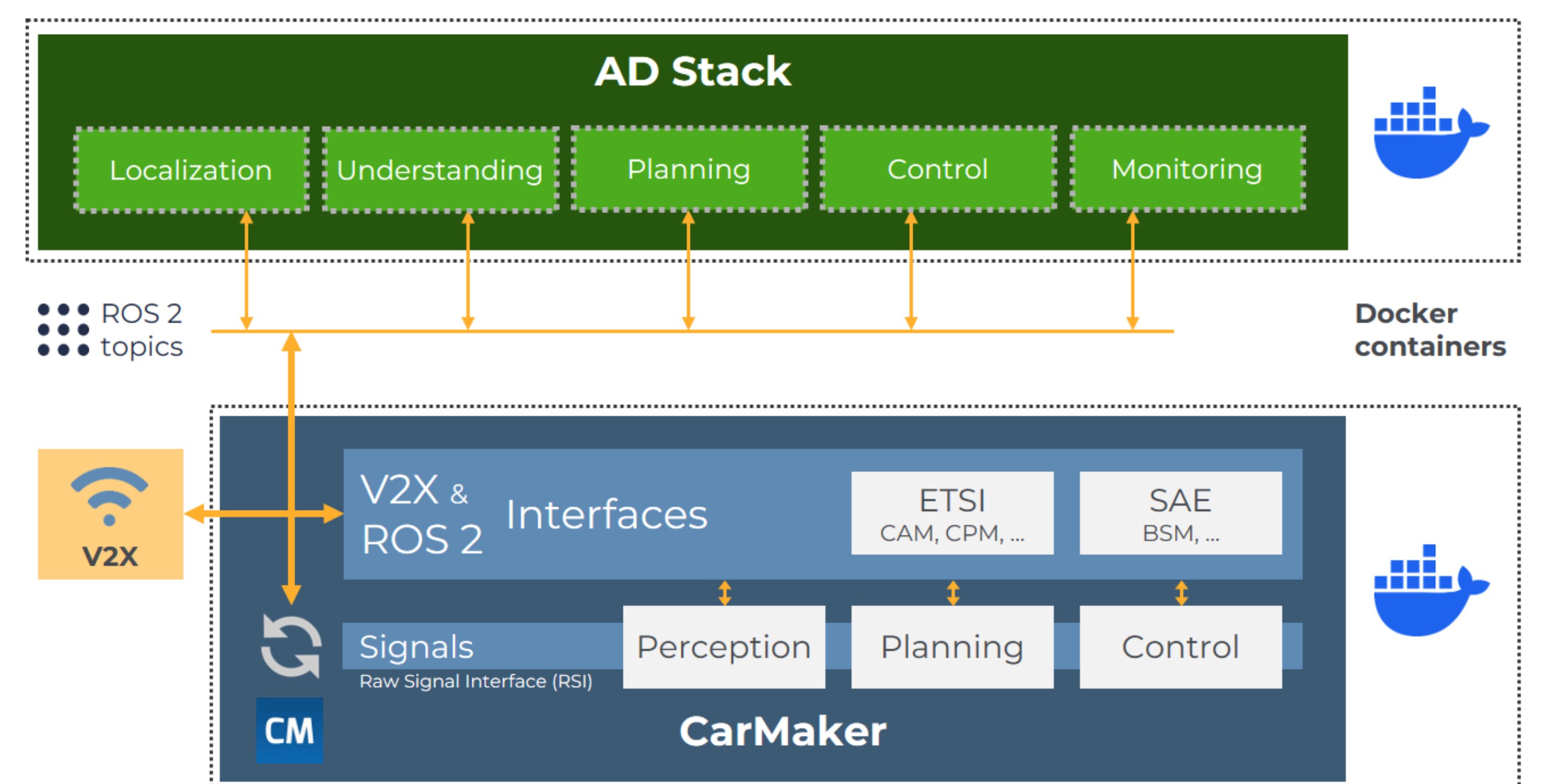
## CarMaker and vECU Evaluation

- Co-simulation with Synopsys Silver
- Exemplary ACC/AEB function
- FMU and rest bus configuration
- Various virtualization levels
- Remote AWS cloud instance



## CarMaker and V2X Communication

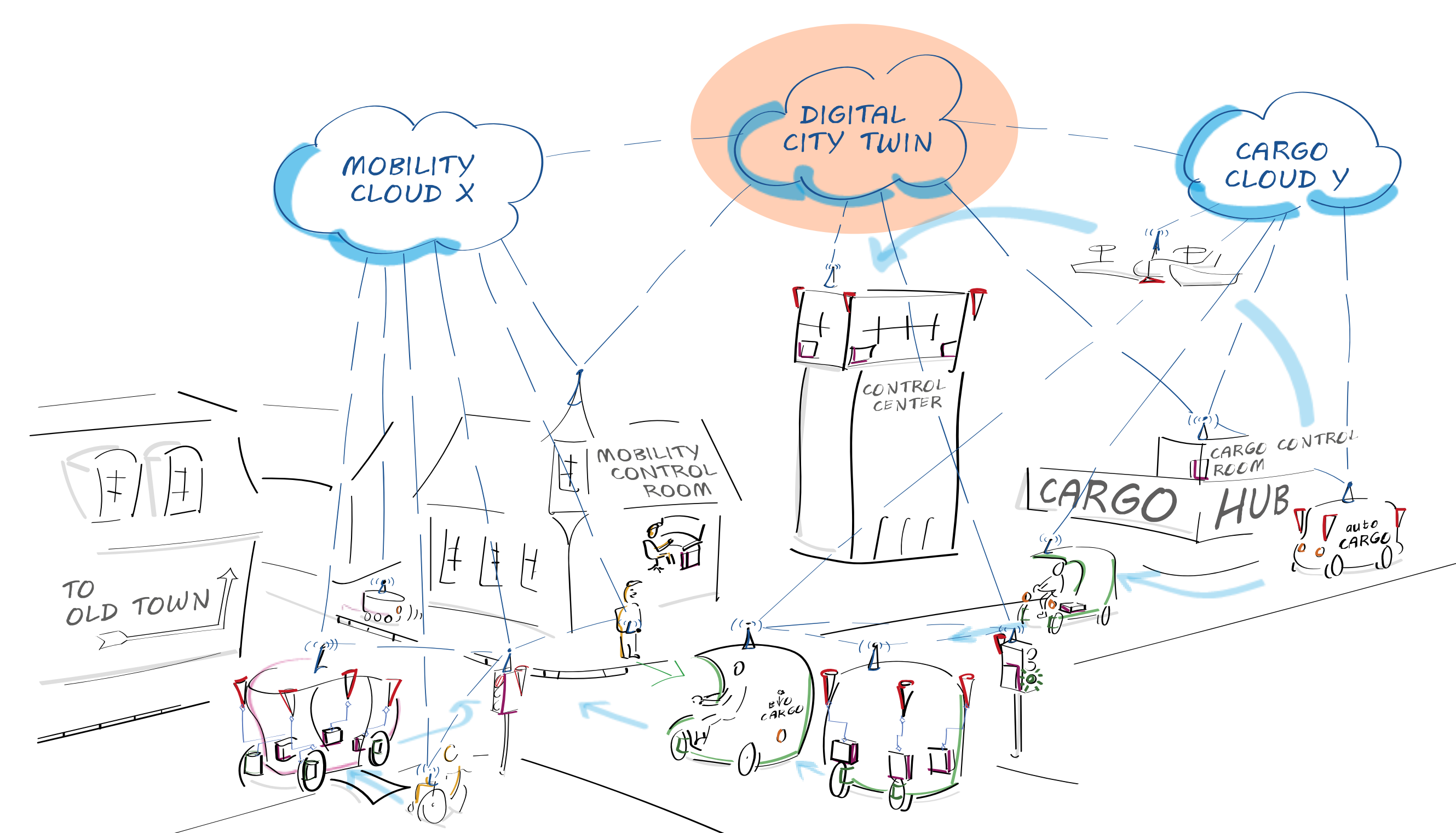
- Docker container framework
- Project specific AD stack integration
- Data exchange via ROS 2 topics
- Compliance with ETSI and SAE standards
- Virtual objects for digital twin



### Silver

### CarMaker

### ROS 2



## Technological Innovations

- Flexible virtualization and containerization
- Use of standard-compliant protocols
- Live interaction with digital twin (mixed reality)

## Contributing Partners

