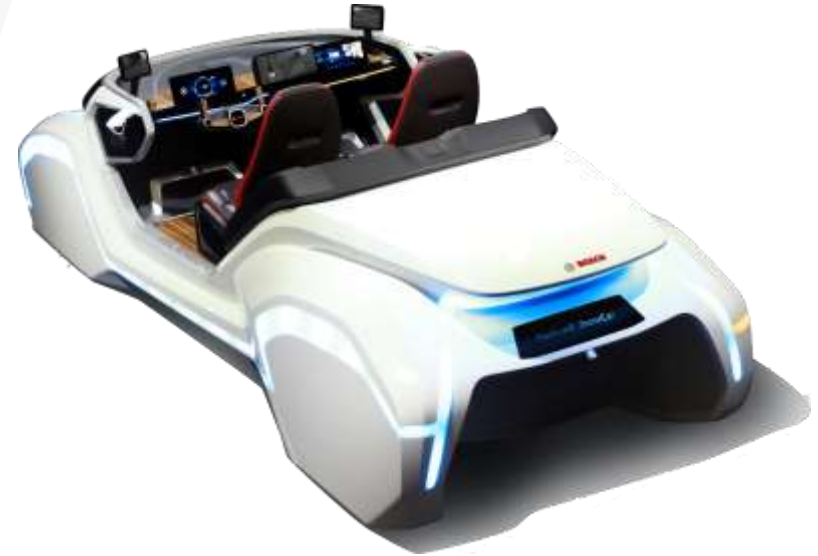# Common Vehicle Interface Initiative

Bosch Stack

CVII Working Session
GENIVI: 18.02.2021
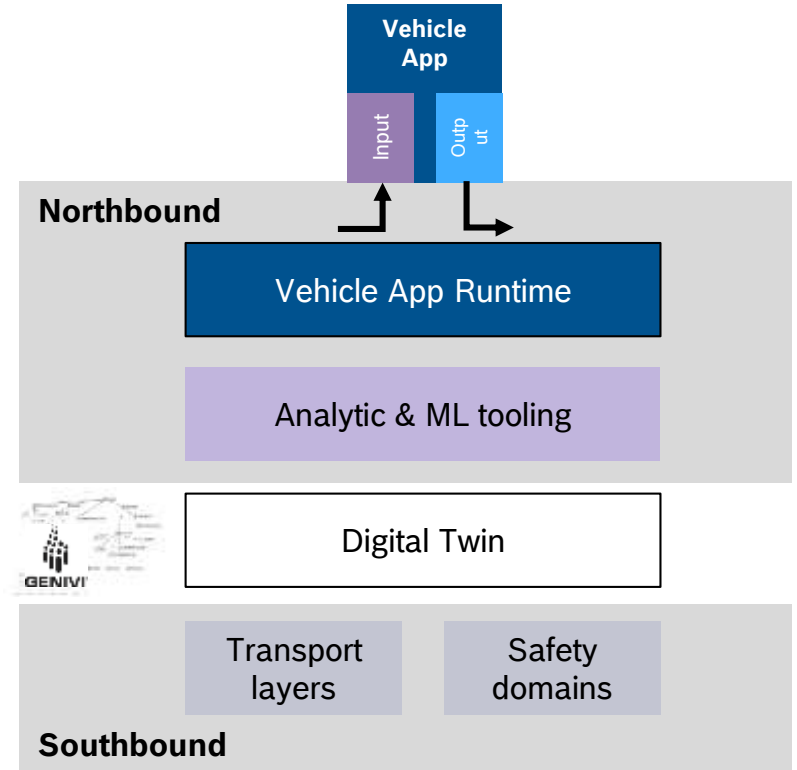
BOSCH

Common Vehicle Interface Initiative
Recap: VAPP in a nutshell

Vehicle **A**pplication **P**lugin **P**latform (VAPP)[1] is an **open**[2], responsive, lightweight, vehicle-2-X **C**omplex-**E**vent-**P**rocessing & **agent-network** (Vehicle App) runtime

- **Flexible integration** for

  - common vehicle interface

  - transport layers *(e.g. CAN, DDS[3], SOME:IP[3]),*

  - *computing units & safety domains (e.g. Safety: QNX, QM: Apertis Linux) and,*

  - *freely deployable on environments like cloud provider.*

- ***Programming language agnostic** (SDKs for NodeJS, Python, C++[4])*
- **Flexible "vehicle app" orchestration** via event driven programming approach
- Flexible **analytic and machine learning** support
- Flexible **tooling** support e.g. **Visual Studio Code** & NodeRed

[1] in active development, not finished all quality gate processes, [2]we strive to make it publicly available, [3]via C++ SDK and respective libraries, [4] currently not fully covers the richness as the NodeJS and Python SDKs

Vehicle App

Input / Output

Northbound

Vehicle App Runtime

Analytic & ML tooling

GENIVI

Digital Twin

Transport layers | Safety domains

Southbound

BOSCH

Common Vehicle Interface Initiative
Northbound Components

BOSCH