

PVLSA – Passenger Vehicle for Low Speed Autonomy (SC2 – Demonstrator 2.4)

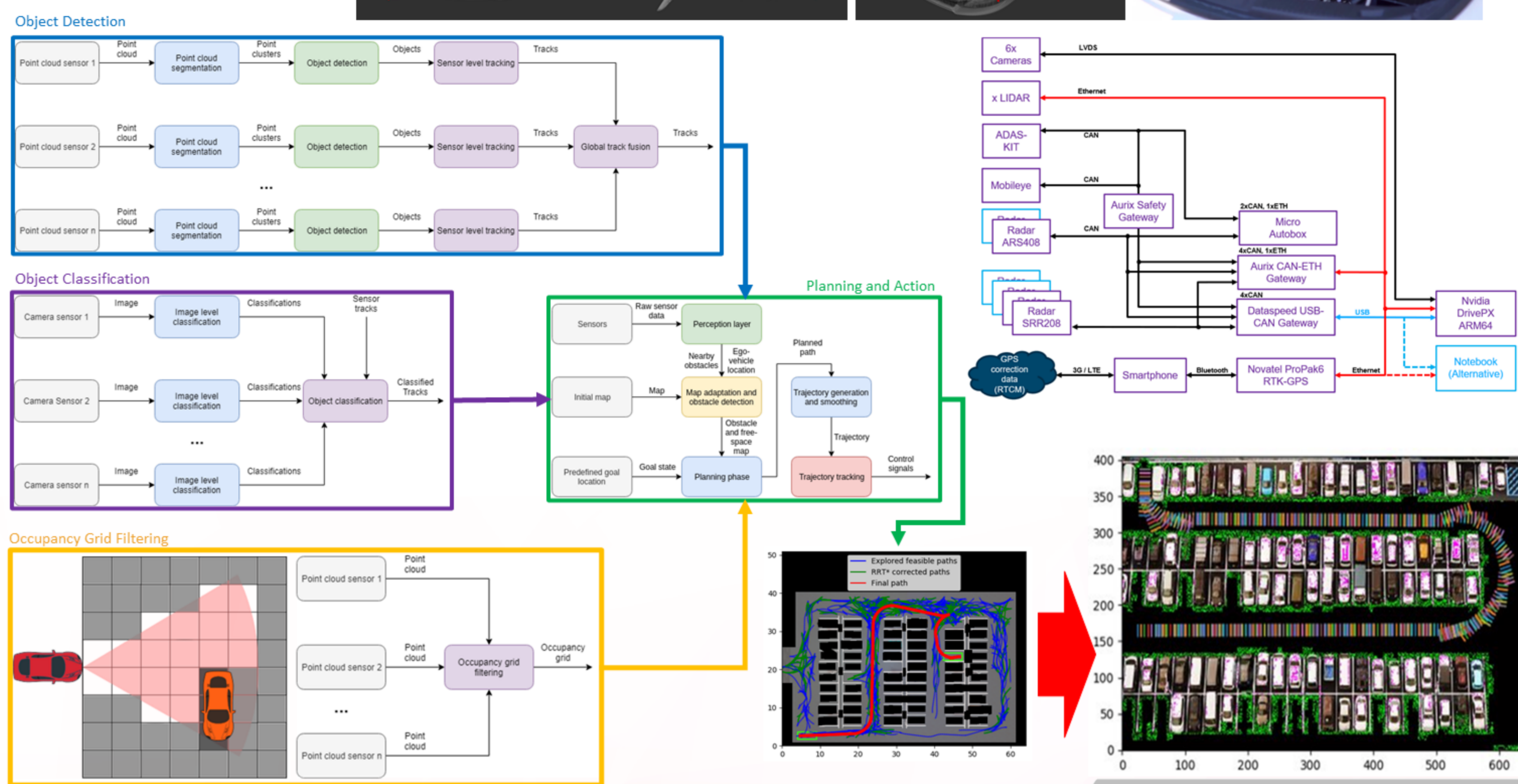
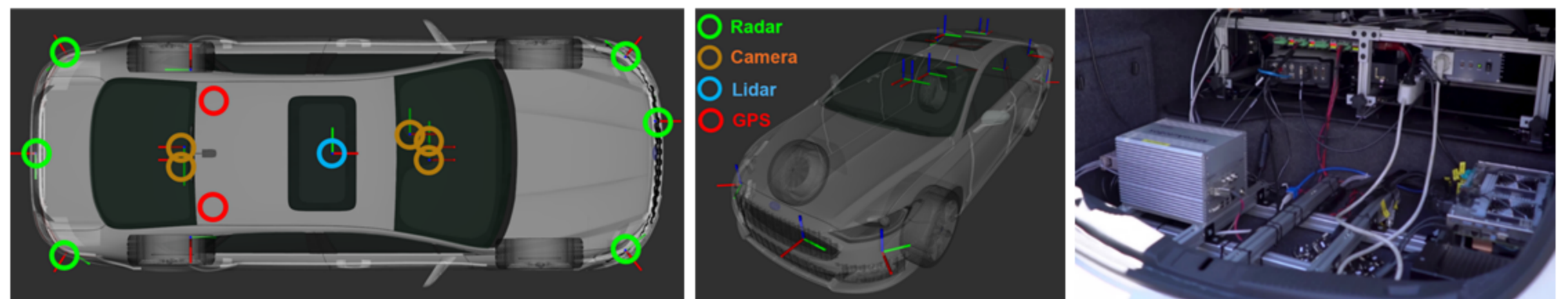
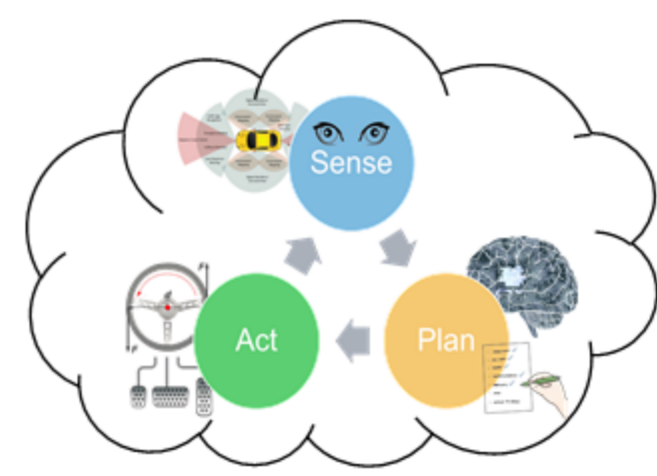
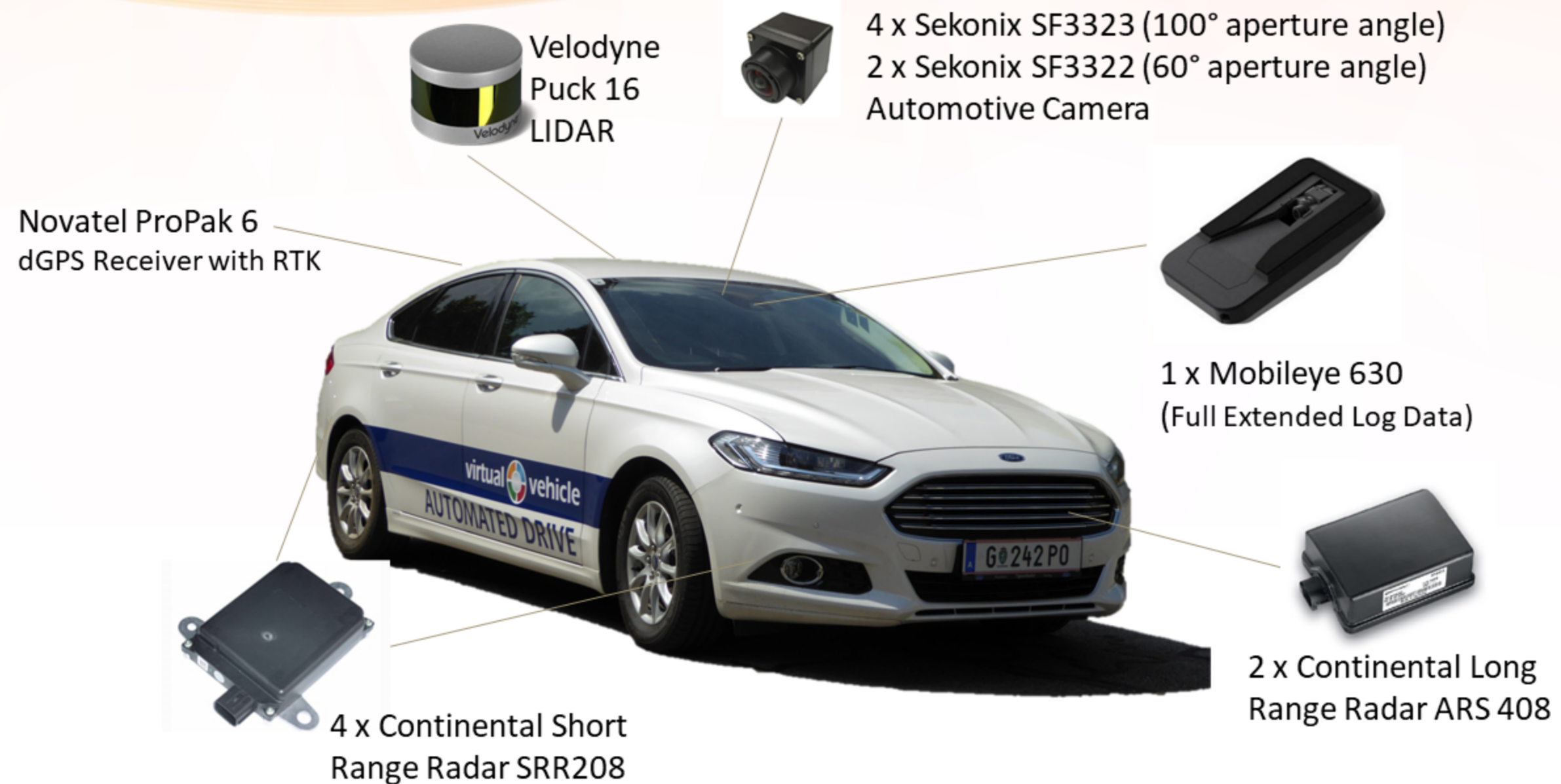


Description

- This is a passenger vehicle pre-demonstrator for low-speed autonomy based on environmental perception algorithms.
- The FUSION architecture will be integrated into the PVLSA demonstrator, while the focus being on the low-speed autonomy and autonomous parking in cluttered environments, where motion constraints of the ego vehicle will be taken into account.
- The main building blocks for this demonstration will be the occupancy grid filtering algorithm and the AI-based motion planning.
- The main contribution will be a high-level planner for efficient navigation in cluttered environments.
- As environment of interest, a typical parking lot is assumed, and the goal is to park in a predefined spot that will be provided as an input.
- By fusing information from different sensors, the location of the ego vehicle and sense obstacles around can be identified.

Objectives:

- The goal is to demonstrate autonomous parking use cases based on environmental perception on a passenger vehicle demonstrator platform.
- This shall represent the first demonstrator to evaluate the developed FUSION algorithms on a real vehicle platform by M24.
- The SW architecture for AI-based perception (FUSION) algorithms will be adapted and implemented for the SC4 and SC5 Demonstrators from Ford Otosan.
- The demonstrator will serve as a proof of concept platform for the later SC4 and SC5 demonstrators.



Acknowledgment

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 783190

