





The road ahead: in-vehicle enablers (link)

Enablers

- Harmonization of ODs and the vehicle designs (functionalities) needed for given ODs.
- Technologies supporting vehicles own understanding of ODs and cooperation between AD vehicles.
- Standardization of perception systems interfaces.
- Harmonization of validation & simulation methods for L4 systems and components. 
- Technologies and standards to maintain system integrity once in the field. 



Challenges

- Establish robust validation approaches for AI based perception. 
- Reach needed robustness and scalability on perception systems, sensor sets.
- Developing robust knowhow models of ODDs while reaching data efficiency
- Robust and safe integration of external information in vehicle functions (updated maps, infrastructure-based sensing, remote control) 
- Harmonization of fail-operational EE architectures (costs, energy, and redundancy).

Objective

- Autonomous vehicles robustly perceive and understand challenging mixed traffic environments. They can circulate and cooperate safely with other road users to support requested mobility services

 Safety/ User acceptance

Blocking challenge

- Technology jump to enable safe and robust environment perception and decision making
- Safe and explainable AI for L4 integrated in vehicle efficiently and successfully 