Target definition for future automated public transportation modes and specifications for 4 different vehicle concepts

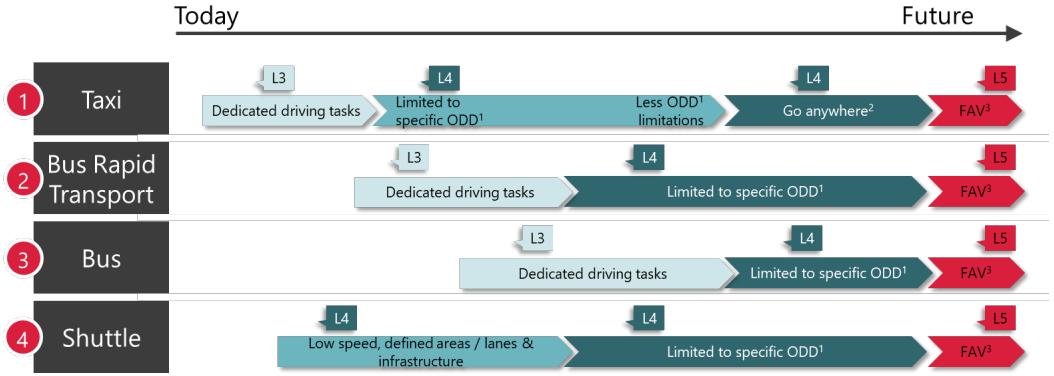
CLIENT: TRANSPORT AUTHORITY

BACKGROUND: The client wants to achieve a significant share of automated public transport trips in the next decade. FEV was asked to advise in the target setting and develop functional specifications.

DELIVERABLES

- Global benchmark of existing automated transport approaches and initiatives
- Analysis of technology trends for enabling vehicle automation for different modes of transport
- Target Setting for Automated Public Transport (till 2030), i.e. vehicle types and mission profiles, automation levels, and boundary conditions (Operational Design Domains) for automated operation etc.
- Functional requirements specifications for 4 vehicle types: City-Bus, Bus-Rapid-Transit, Shuttle, Taxi as well as for Infrastructure and Intelligent Transportation System
- Defined safety mechanisms by Hazard And Risk Analysis
- Defined a concept for Testing & Proof of Concept and implementation

TECHNOLOGY READINESS ROADMAP



FUNCTIONAL REQUIREMENT SPECIFICATIONS

The functional requirements are categorized in the following chapters:

- Homologation and development guidelines
- Service mission and operational requirements
- Safety target
- Automated Driving System (ADS)
- ADS operational design domain
- Sensing, perception, localization
- Connectivity
- Cyber Security
- Board net
- Lighting and signaling
- Body
- Dimensions

etc.

>380 PAGES FUNCTIONAL REQUIREMENTS

>2,000 SAFETY MECHANISMS IDENTIFIED

"The vehicle doors must inform the passengers about their status, i.e. there shall be both acoustic and visual signals while opening / (...)"