Presentation for FRAV
First Session
Summary

- Listing of national / regional guidelines on Automated / Autonomous Driving
- Clarification of FRAV and VMAD synergy / boundaries
1. Listing of national / regional guidelines on Automated / Autonomous Driving

- Safety Elements
  - Guideline CP A
  - Guideline CP B
  - Guideline CP ...

- Consolidated Safety Elements
  - VMAD-01-03 / VMAD-01-04

- UNECE Framework Document
  - WP29/2019/34

- Safety Elements List
  - ODD recognition
  - MRM
  - HMI
  - Take over Request
  - System limits and boundaries
  - Consumer awareness / education
  - Cyber Security
  - Data recording and storage system (DSSAD)
  - Design & Validation processes
  - Testing methods
  - Risk analysis & Mitigation (failures & in adequate control)
  - Performance in critical/complex situations
  - Response to scenarios & recognition of the OEDR
  - Scenario recognition (Object and Event Detection)
  - Dynamic behaviour in road traffic
  - Adherence to rules of the road
  - Vehicle behaviour predictability
  - Safety of in-use vehicles

- First Attempt to List Safety Elements
  - Safety Elements List
2. Clarification of FRAV and VMAD synergy / boundaries

**Functional Requirements**
Applicable to all ADS / ODD combinations

**System Safety**
Adhere to Road Traffic Laws
Dynamic behavior in road traffic...

**HMI**
System Status / Malfunction
Takeover Request...

**OEDR**
Other road users...

**ODD**
Recognition
- Environmental
- Speed
- Geographic...

**Failsafe Response**
Minimal Risk Maneuver...

**FIELD DATA**
- Accident Taxonomy
- Traffic flow observation data

**Dynamic Scenario Collection**
- Foreseeable / Preventable Occurrence / Severity

**Scenario List**
- Cut Out
- Cyclists
- Pedestrian Crossing
- Intersections
- Limited set of tests
  - See Safety Elements vs MPA

**Processes / Documentation**
- Pass / Fail criteria
  - Simulation Tools

**Virtual Testing**
- SOTIF Safety of the intended function
- ISO 26262 Functional Safety...

**REAL WORLD TEST**
- Track Test

**FRAV VMAD**
CLOSE COLLABORATION