OICA & CLEPA Input for ADS User Safety

14 -16th March 2023
FRAV 38th Session

INTRODUCTION AND BACKGROUND

- Industry (OICA and CLEPA) have actively supported developments of FRAV ADS Safety Requirements (Recommendations) from the initial discussions

- We recognize that great progress was made across all five key categories of requirements, including High Level and Detailed Requirement

- However, our concern remained with FRAV User Safety chapter requirements as:

  o Requirement coverage focus on particular use-cases, not verifiable requirements and provisions going beyond ADS Safety – scope of the document

  o Requirements overall going beyond

- To support the group's work and established an aligned direction, OICA and CLEPA prepared FRAV Users HMI Flowchart highlighting the proposed focus areas for roles and HMI requirement categories
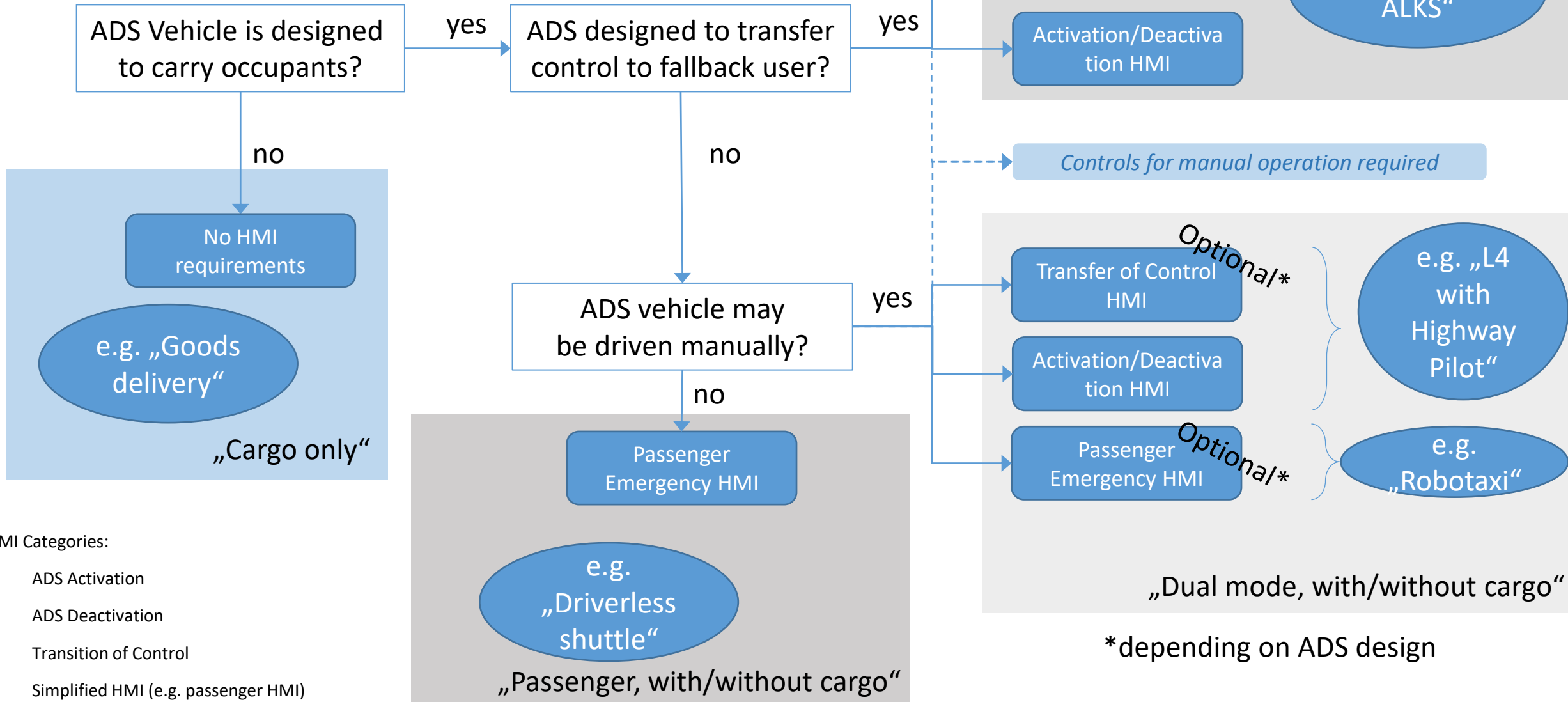
USER SAFETY REQUIREMENTS: PROPOSAL

- Reviewing pre-workstream developed User requiements alongside current document content, the proposal targeted to ensure:
  - o Requirement that are focused on safety
  - o Structure to not be limited by specific ADS use-case(s) and/or ADS feature(s)
  - o Considers key possible roles, but does not otherwise limit it
  - o Have appropriate level of detail (in line with rest of the document, FRAV 30th agreement)

- Therefore, as per previously presented flowchart, the interim proposal covers:
  - o Activation and Deactivation focused requirements
  - o In both cases consider transition of control in ADS use-cases allowing manual driving

- To further consider – passenger safety related HMI, consider some of existing requirements for sections other than ADS Safety Requirements

THANK YOU!

OICA CLEPA

OICA CLEPA Proposal for FRAV: HMI Categorisation by ADS Use Case:

HMI requirements

"driver always present"

ADS Vehicle is designed to carry occupants? — yes → ADS designed to transfer control to fallback user? — yes → Transition of Control HMI / Activation/Deactivation HMI

e.g. "L3 ALKS"

no ↓

No HMI requirements

e.g. "Goods delivery"

"Cargo only"

no ↓

Controls for manual operation required

ADS vehicle may be driven manually? — yes → Transfer of Control HMI / Activation/Deactivation HMI / Passenger Emergency HMI

Optional*

e.g. "L4 with Highway Pilot"

Optional*

e.g. "Robotaxi"

no ↓

Passenger Emergency HMI

e.g. "Driverless shuttle"

"Passenger, with/without cargo"

"Dual mode, with/without cargo"

*depending on ADS design

HMI Categories:

1. ADS Activation
2. ADS Deactivation
3. Transition of Control
4. Simplified HMI (e.g. passenger HMI)