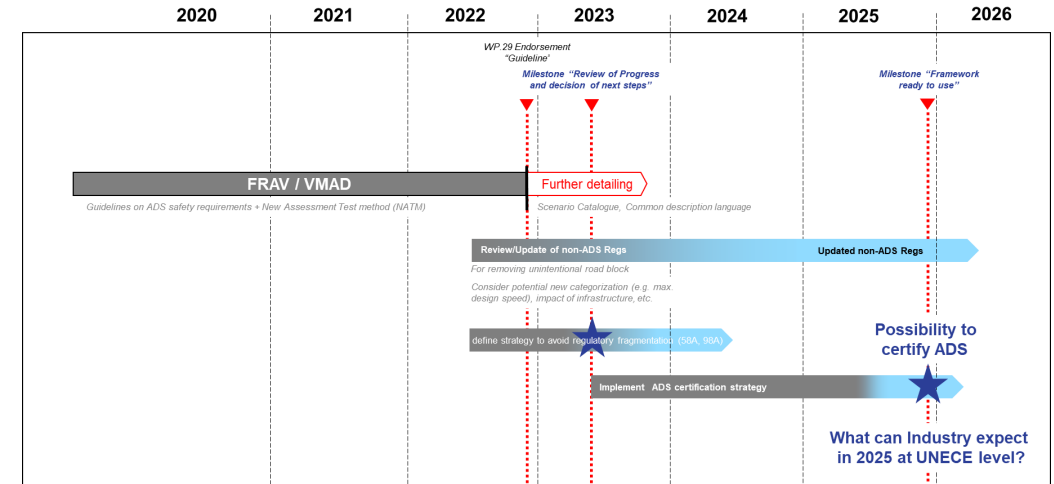# Regulatory activities related to Automated Driving
- View from Industry -

OUR TARGET AND MOTIVATION…
(REMINDER FROM GRVA-13)

- Industry readies for market introduction of ADS

- Need for harmonization

- Need for legal certainty

Vision Industry Roadmap 2025: GRVA-13-18e & WP.29-187-21

Industry is in preparation for all relevant regulatory topics to support activities under UNECE, e.g.:

1) Review and amendment of non-ADS Regulations ("make existing Regulations work for AV's")
2) Categorization of Automated Vehicles
3) Strong involvement in all AD-related working groups (FRAV, VMAD, DSSAD, WP.1-IGEAD, ITS, …)

NEED FOR NEW VEHICLE CATEGORIES FOR AV'S?

- Since the applicability of Regulations is defined by the vehicle categories the question came up if existing vehicle categories are still appropriate to be used for Automated Vehicles

- The large variety of new use cases and vehicle designs will require to link the respective requirements to such concepts. This could be done either by creating new vehicle categories or by considering the different use cases in the individual system regulations. A balanced approach seems to be most appropriate.

- It is identified that Automated Driving will have a fundamental impact on how such vehicles will be used and operated. This will require a number of adaptations to existing requirements (as well as in some cases maybe generating new ones) and, as a logical consequence, drive a new categorization of vehicles . Basic use cases to be differentiated include:

    - Vehicles which can be operated with or without driver (dual mode vehicles)

    - Vehicles which can not be driven manually under nominal conditions and
            - which are designed to carry occupants
            - which are designed to carry no occupants (freight only)

    - Low speed driverless vehicles

- Furthermore, it can be expected that the more the categorization is aligned with the existing boundaries (e.g. GVM limits), the easier the existing requirements in the existing non-ADS Regulations can be applied.
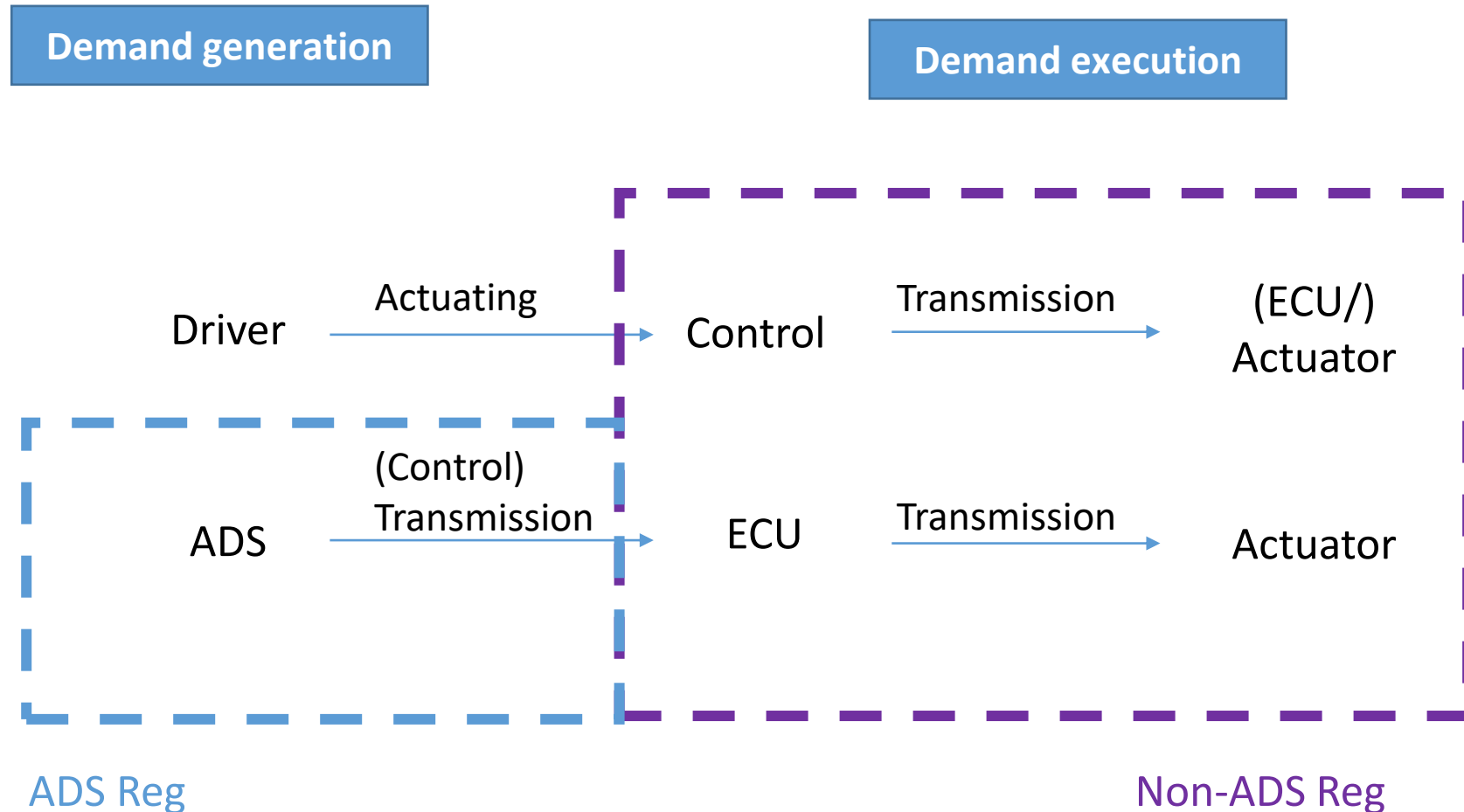
STATUS OF NON ADS-REGULATION REVIEW

- Industry is contributing to the Task Forces / Informal Working Groups in charge of reviewing the non-ADS Regulations in view of Automated Driving already established under the GR's

- Industry has set up groups of experts reviewing the non-ADS Regulations as per GR's

- Industry is preparing overview slides on the non-ADS Regulations and identifies the required amendments in view of the different vehicle use-cases/automated vehicle categories.

➡ Important to agree on basic concept for system boundaries
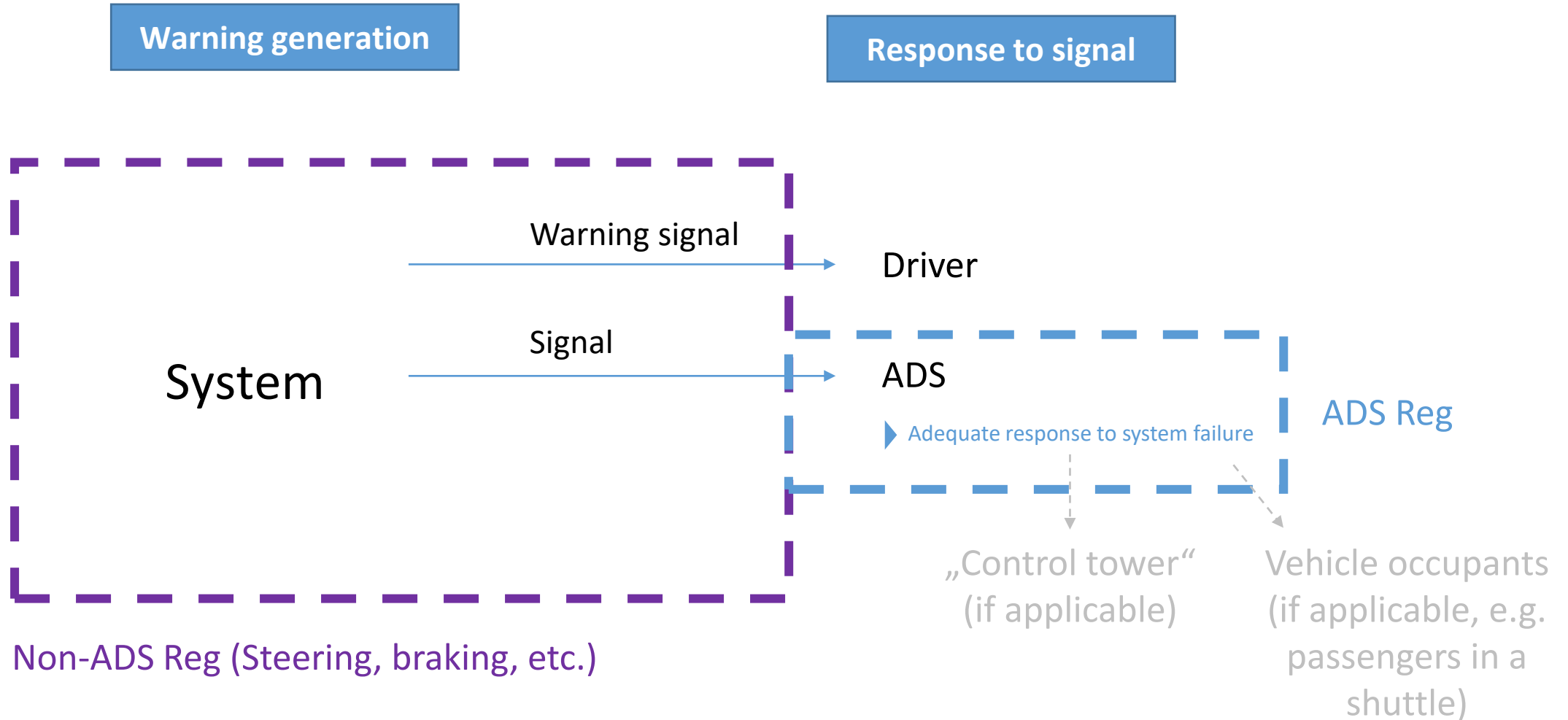(e.g. which requirements to be covered by ADS Regulation, which requirements by non ADS Reg.)

BASIC ASSUMPTIONS FOR NON ADS-REGULATION REVIEW

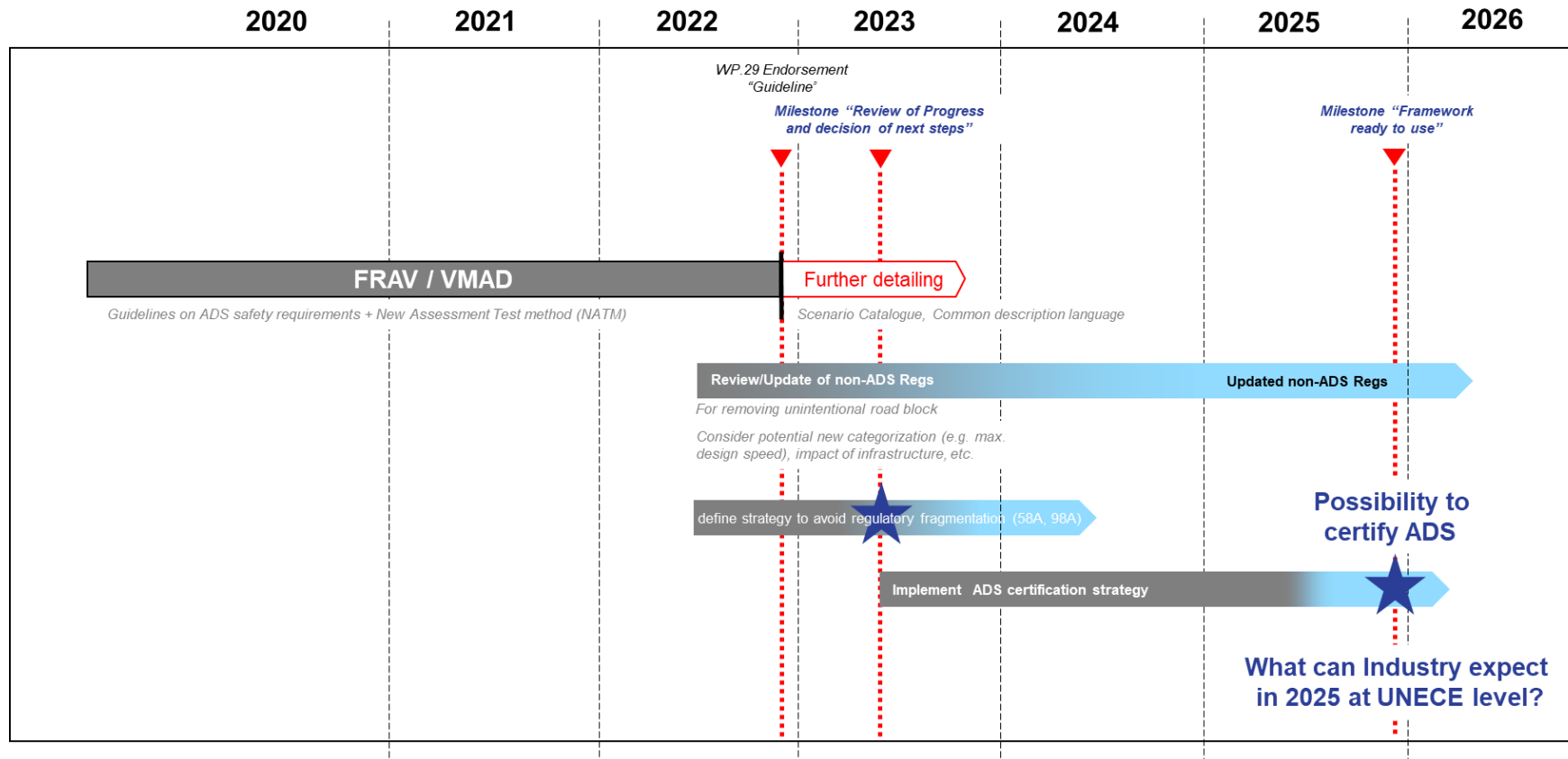1. What has to be covered by which Regulation?

BASIC ASSUMPTIONS FOR NON ADS-REGULATION REVIEW

2. Warning and response in case of failure

Warning generation

Response to signal

System

Warning signal → Driver

Signal → ADS

▶ Adequate response to system failure

ADS Reg

„Control tower" (if applicable)

Vehicle occupants (if applicable, e.g. passengers in a shuttle)

Non-ADS Reg (Steering, braking, etc.)

INDUSTRY IS PREPARED TO SUPPORT AND TO CONTRIBUTE…

THANK YOU FOR YOUR ATTENTION!