

TF-AVC#6 11-12 June 2024 in London

ACTION: Experts have been asked to review the current text on slides 4 and 5 in AVC-05-04rev1 and provide feedback on this for the next TF-AVC session (TF-AVC-06).

NL Proposal:

2.9. Category A

2.9.1. Definition.

Category A Driverless vehicles are considered to be the vehicles of categories L6, L7, M, N and T meeting all of the following criteria/conditions:

- (a) They are equipped with an ADS
- (b) They are not capable of being driven manually at speeds exceeding 6 km/h.
- (c) they are not equipped with manual controls (e.g. steering wheel, pedals)
- (d) They are designed to carry occupants

2.10. Category B

2.10.1. Definition.

Category B Driverless vehicles without occupants are considered to be the vehicles of categories L6, L7, N and T meeting all of the following conditions: of paragraph 2.10.2.

- (a) They are equipped with an ADS
- (b) They are not capable of being driven manually at speeds exceeding 6 km/h
- (c) they are not equipped with manual controls (e.g. steering wheel, pedals)
- (d) They are not designed to carry occupants

In NL point of view, there is a need to define a subcategory for vehicles that do have manual controls i.e. dual mode vehicles. They are basically 2 vehicle concepts in 1: a conventional vehicle and an ADS vehicle.

When the ADS is operational, there will not be a transition demand. The manual controls shall be disabled, suppressed, de-activated, inhibited or by other means made unavailable when the ADS is operational, to prevent accidental operation by someone sitting in the seat facing the controls. These shall be part of the requirements rather than the definition.

The reason why a definition for dual mode vehicles is needed, is the fact that if we did not describe them, they do not exist and the legislation cannot take them into consideration when drafting the ADS specific provisions. They shall be clearly distinguished from ALKS alike vehicles of level 3, where there is always a driver present in the driver's seat.

2.11 Category D

2.11.1. Definition

Category D Dual mode vehicles are considered to be the vehicles of categories L6, L7, M, N and T meeting all of the following criteria/conditions:

- (a) They are equipped with an ADS
- (b) They are capable of being driven manually
- (c) they are equipped with manual controls (e.g. steering wheel, pedals)
- (d) They are designed to carry occupants (≥ 1)

ACTION: Experts have been asked to review options 1 and 2 highlighted on slides 4 and 5 in AVC-05-04rev1 and come to TF-AVC-06 with feedback.

ACTION: Experts have been asked to review options 1, 2, 3 highlighted on slides 4 and 5 in AVC-05-04rev1 and come to TF-AVC-06 with feedback.

NL position; distinguish definition of vehicle categories in R.E.3 and S.R.1. from the actual mandate and prioritisation of updating the relevant Regulations. At this phase of the TFs-AVRS/FADS covering 2024-2026, only vehicle categories M and N are considered. Possible use case exist for L6, L7 and T which could be further discussed in a future phase. Restrict ourselves to L6 and L7 from safety perspective (L5 stability issues and lack of power and mass restrictions could open the door to less safe vehicle concepts)

Advantage to already include these categories L6, L7 and T in R.E.3. would be not having to go back in 2 years and update R.E.3. again. It is not crucial for the Netherlands to already include them.

ACTION: Experts have been asked to review slide 11 in AVC-05-04rev1 and come with proposals for phase 2 to TF-AVC-06.

NL position is as follows

Shuttles with standees

Current vehicle categorisation is there for a reason. Shouldn't matter from safety perspective if the vehicle is driven by a human or by an ADS. So if in a next phase, a new vehicle category is to be defined, this shall be taken into account. In order to consider a new vehicle concept with a reduced safety level, this would only be feasible for an infrastructure where the risk analysis shows there is a reduced risk due to e.g. lack of vehicles >2t, limited speed of e.g. 30 km/h zone etc.

Low speed vehicles

It is a misconception to believe a low speed vehicle is a safer vehicle. It depends on the infrastructure in which it is moving. If the shuttle is standing still and a N3 truck crashes into it at e.g. 60 km/h, then it doesn't matter if the shuttles top speed is limited to 30 km/h or 60 km/h...

Bi-directional vehicles

At this moment not considered because from a safety perspective, such a vehicle would have to comply in both orientations. At this moment, we do not have the possibility to do a crash test with ATDs in rearward direction since they have not been developed for that purpose.

With regard to "last mile delivery" concepts in city environments, we see a future for light-weight automated vehicles without occupants driving at low speed e.g. falling in the scope of L6 and L7.