

TF-AVRS #16

Suggestion to the definition of R51

2025/7/8



JAPAN AUTOMOBILE STANDARDS INTERNATIONALIZATION CENTER

Dual control vehicle

- To describe a vehicle that can be operated by either the driver or both the driver and ADS in the "area exceeding 6 km/h," which is outside the scope of subcategories X and Y, add the definition of "Dual control vehicle."

- *Category X*
- *Category Y*
- ***Dual control vehicle*** GRBP unique

<Definition>

"Dual control vehicle" means a vehicle equipped with an ADS where the DDT can be performed by either the ADS or a conventional driver, including at speeds exceeding 6 km/h.

Definition of Subcategory X & Y

Sub-category

2.34. Categories of vehicles equipped with an ADS ↵

↵

2.34.1 “Category X” means vehicles intended to be used without a driver and designed to carry occupants.¹↵

↵

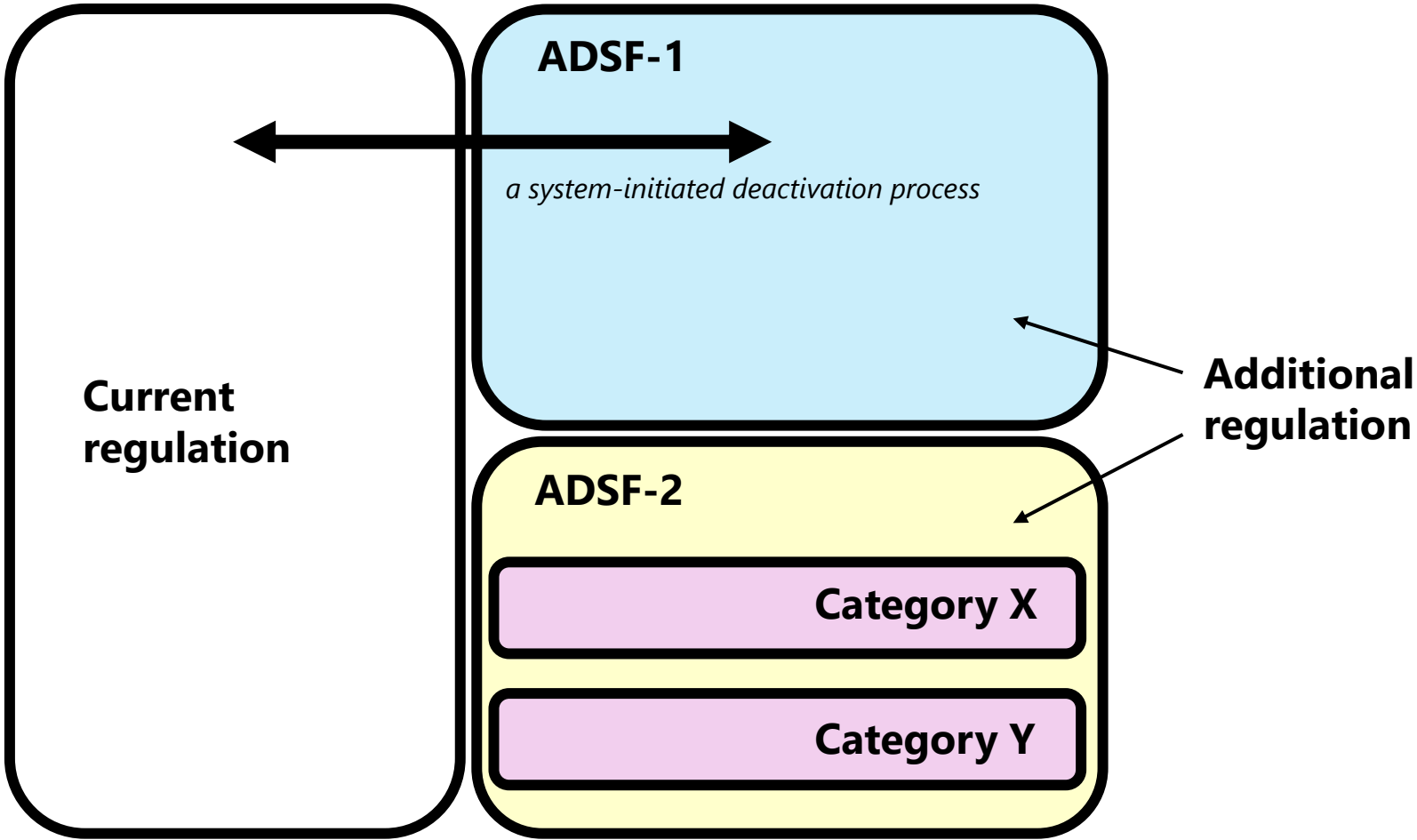
2.34.2 “Category Y” means vehicles intended to be used without a driver and not designed to carry occupants.¹↵

RE3 ANNEX 8 車両カテゴリー	
5 ドライブレスADS車用にサブカテゴリーX,Yの定義を追加	
サブカテゴリー X	サブカテゴリー Y
"2.9. Category X 2.9.1. Definition Category X vehicles are vehicles of categories M, N, L and T meeting all of the following onditions: (a) They are <u>equipped with an ADS</u> ; (b) They are <u>not capable of being driven manually at speeds exceeding 6 km/h</u> ; and (c) They are designed to <u>carry occupants</u> .	Category Y (*) Definition. Category Y vehicles are vehicles of categories N, L and T meeting all of the following conditions: (a) They are <u>equipped with an ADS</u> (b) They are <u>not capable of being driven manually at speeds exceeding 6 km/h</u> (c) They are not designed to <u>carry occupants</u> at any time

(*)...It can be operated remotely (e.g., via remote control) up to 6 km/h, but driving by riding in the vehicle is not possible.

Manual driving

Autonomous Driving (ADS)



Insert new paragraphs 2.29. to 2.34.3., to read:

- 2.34. Categories of vehicles equipped with an ADS ←
- 2.34.1. “Category X vehicles” are vehicles of categories M, N, L and T meeting all of the following conditions: ←
- (a) They are equipped with an ADS←
 - (b) They are not capable of being driven manually at speed exceeding 6 km/h; and←
 - (c) They are designed to carry occupants ←
- 2.34.2. “Category Y vehicles” are vehicles of categories N, L and T meeting all of the following conditions:←
- (a) They are equipped with an ADS←
 - (b) They are not capable of being driven manually at speed exceeding 6 km/h; and←
 - (c) They are not designed to carry occupants at any time←

2.34.3. “Dual control vehicle” means a vehicle equipped with an ADS where the DDT can be performed by either the ADS or a driver including at speeds exceeding 6 km/h.←

Revert to the original proposal (➡ common definition with ADS-IWG)

➡ 2.34.3. “Category ADS” features type 1 and type 2” means ~~V~~vehicles intended to be controlled either by a driver or by the ADS. ←

<Additional considerations>

For those with definitions in R.E.3, there are approach methods to avoid duplicating them within each regulation. (What about other GRs?)

Insert a new Annex 10, to read:

2. Specifications[↵]

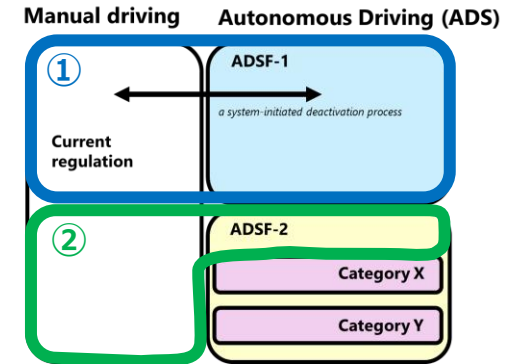
2.2. Preparations[↵]

When performing the tests of this Regulation, the conditions prescribed in chapter 6 “Specifications” shall be fulfilled. Additional preparation of the test track, the vehicle or other equipment may be needed for vehicles equipped with an ADS. This additional preparation shall be approved by the Type Approval Authority and its designated Technical Service and described in the test report.[↵]

2.2. For Dual Control Vehicles it is sufficient to test either in manual operation or ADS operation, when the two following conditions are fulfilled:[↵]

- the manufacturer declares that the vehicle is designed in such a way that there should be no difference between the manual and the automated modes with regards to this Regulation and[↵]
- the Type Approval Authority and its designated Technical Service agree to this single mode testing.[↵]

① Vehicles equipped with Type 1 ADS



② Vehicles equipped with Type 2 ADS that can be manually operated above 6 km/h

Express a similar meaning without using "Dual Control Vehicle" (see R13H).

- ➔ 2.2 **For Dual Control Vehicles** [For vehicles equipped with an ADS, other than those of category X or Y,] it is sufficient to test either in manual operation or ADS operation, when the two following conditions are fulfilled:
- the manufacturer declares that the vehicle is designed in such a way that there should be no difference between the manual and the automated modes with regards to this Regulation and
 - the Type Approval Authority and its designated Technical Service agree to this single mode testing.

Definition of ADS feature type 1 & 2

ADS Feature of type 1 (ADSF-1)

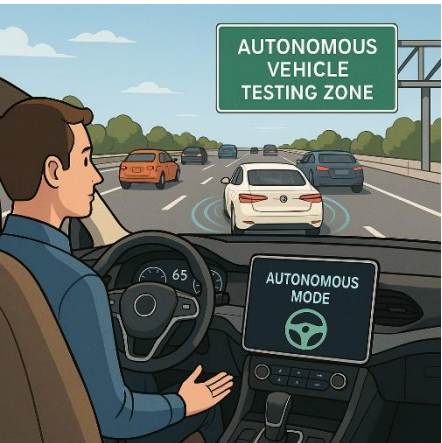
means an ADS feature which includes a system-initiated deactivation process (i.e. a feature which **requires the presence of a fallback user**).

ADS Feature of type 2 (ADSF-2)

means an ADS feature which does not include a system-initiated deactivation process (i.e. a feature which **does not require the presence of a fallback user**).

ADSF-1

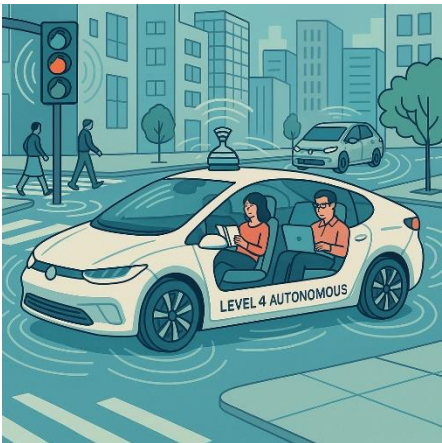
- Required a fallback user
- DDT will be substituted to a driver



During trip...
ADS ↔ Driver

ADSF-2

- Not required a fallback user
- DDT is completed by ADS



During trip...
ADS only

8. Question:

Why have we not introduced a separate category for 'dual-mode' vehicles?

Answer:

As 'dual-mode' vehicles are intended to be driven manually under nominal conditions, these vehicles would need to meet all existing technical requirements related to manual driving. These vehicles would also have to meet different technical requirements for when the ADS is active. However, additional requirements or exemptions might be stipulated in relation to whether a particular feature of the ADS is active, rather than the feature merely being present in the vehicle. Therefore, a decision was made to not categorize such a vehicle.

Source: GRSG-129-28

QUESTIONS AND ANSWERS

Regarding the proposal for Revision 8 to the Consolidated Resolution on the Construction of Vehicles (R.E.3)