Efforts of Road Transport Bureau, MLIT For the Realization of Automated Driving

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1 . Efforts by Automated Driving Strategy Headquarters, MLIT

1. Improving the environment to realize automated driving

(1) Safety regulations formulation and system development related to cars

(2) System / environment improvement to realize the automated driving

2. Promoting the development and spread of automated driving technology

(1) Car technology

(2) Road and cars cooperation technology

3. Demonstration experiments and social implementation to realize automated driving

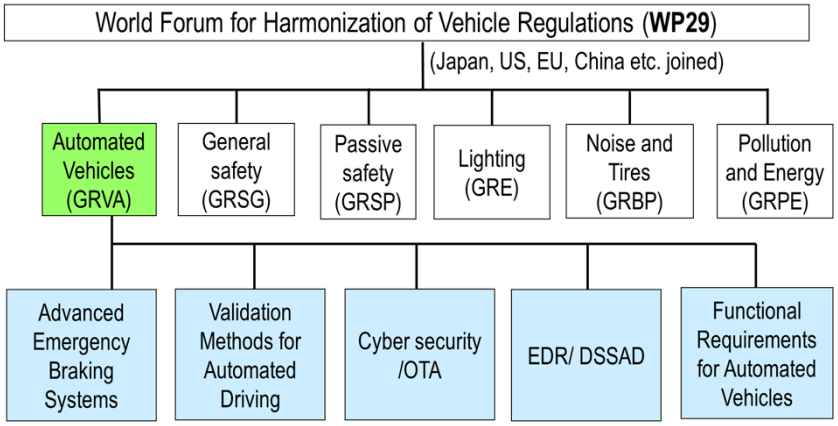
(1) Improvement of moving services

(2) Improvement of logistics productivity

2． Overview of International Regulations Consideration System

○ At the World Forum for Harmonization of Vehicle Regulations (WP29), co-chair or vice-chairperson from Japan led the discussion on international standards for automated driving. In June last year, standards for automated lane keeping, cyber security and others were established.

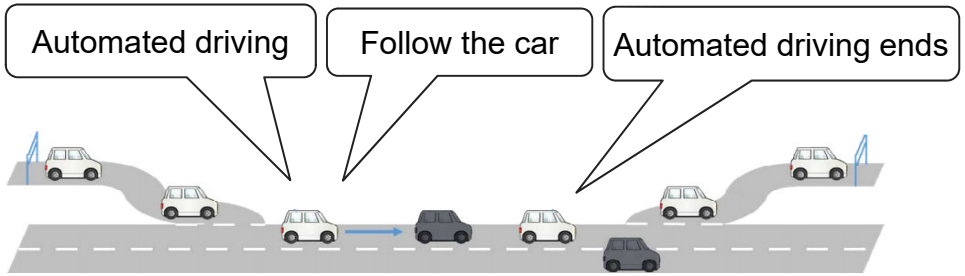
International standards review system and the considered items for automated driving technology



Standards developed in June 2020

Level 3: -Automated Lane Keeping System

For all levels: -Cyber security and software update



3 . Partial amendment of the Road Transport Vehicle Act

○ To promote the safe development of and the practical and widespread use of automated driving vehicles and to ensure their safety during the processes of their designing, manufacturing and use, the Road Transport Vehicle Act was amended and took effect in April 2020.

Automated driving systems were added to devices covered by the safety standards (enforced in April 2020).

Source: Bosch

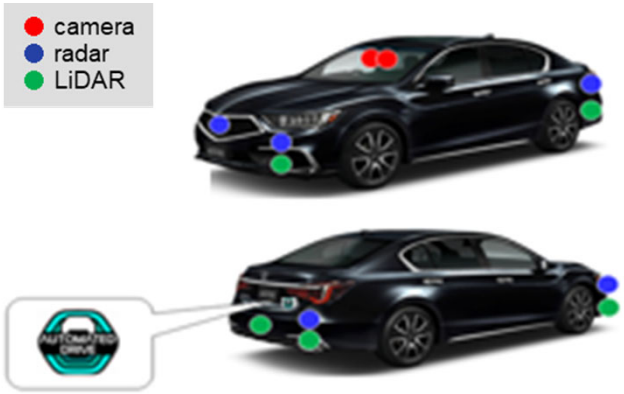
A system for licensing the wireless update of relevant software was established (enforced in November 2020).

Source: Bosch

4. 【Private vehicles】
Type designation of automated driving vehicles (level 3)

○ In November 2020, the type designation of level-3 automated driving vehicles was implemented for the first time in the world. Their sale began in March 2021.

Type designation of automated driving vehicles (level 3) for the first time in the world



Major Operating Design Domain

1. Road situation and geographical situation

[Road sections] National expressways, urban expressways and highways (for the exclusive use of cars) to be connected to them (excluding some sections)

[Excluded sections/locations] Sections where two lanes (a driver's traffic lane and the opposite lane) are not structurally divided by a median strip (sharp curve, service area, parking area, tollgate, etc.)

2. Running condition

[Runningspeed] The speed must be less than 30 km/h before the automatic driving device starts to operate and about 50 km/h or less after it starts to operate.

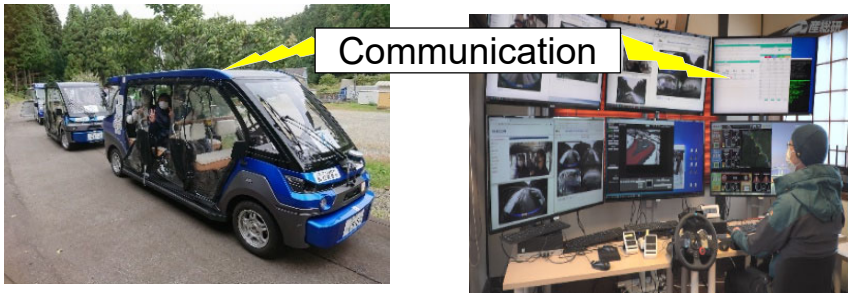
[Runningcondition] The vehicle must correctly obtain information from the high-precision map and the Global Navigation Satellite System (GNSS).

*** Provided by Honda Motor Co., Ltd.**

5．【Mobile service】
Licensing of last-mile automated driving vehicles (level 3)

○ In March 2021, we licensed vehicles whose license had been applied for by the National Institute of Advanced Industrial Science and Technology as vehicles equipped with automated driving systems(level 3).
○ The automated driving systems mounted on the vehicles make it possible for the vehicles to run along an electromagnetic induction wire installed on roads (exclusively for bicycles and pedestrians) and to detect and respond to a pedestrian, bicycle or obstacle.

Licensing of remote-monitoring & control type automated driving vehicles (level 3)



One remote-monitoring operator controls three unmanned automated driving cars.

Major Operating Design Domain

[Road sections]
Eiheiji Mairodo (My Road), Yoshida-gun, Fukui Prefecture: Site of the now-defunct Eiheiji line of the Keifuku Electric Railroad Co., Ltd (about 2 km).

[Road conditions]
Travel routes equipped with electromagnetic.

[Running speed]
The running speed of a vehicle equipped with the automatic operation device must be 12 km/h or less.

[Running condition]
The vehicle must run along the electromagnetic induction wire, and the presence of magnetism detectable by the car is necessary.
The road must not be in an unstable condition such as a frozen road surface.