

Domestic and International Trends on Regulation Regarding Automated Vehicles

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According to the White Paper on Traffic Safety in Japan, 2,636 people are dead due to traffic accidents in Japan. More than 90 % of these accidents are caused by mistake of operation by drivers. Automated driving technology is expected to contribute to solving a lot of social issues, such as reducing traffic accidents, assisting mobility of elderly people, and so on.

Automated driving is one of the most important policy in Japan. Government of Japan has established governmental targets such as “Initiation of automated mobility service with only remote monitoring on abandoned railroad by around FY2022”, “Realization of unmanned automated mobility service at limited area at more than 40 areas at 2025, 100 areas at 2030”.

Towards earlier realization of automated vehicles, Ministry of Land, Infrastructure, Transport and Tourism (MLIT) has been making various efforts, such as establishing international regulations and conducting domestic demonstrations. This presentation introduces policy trends on automated driving by MLIT.

As vehicles are internationally distributed commodities, international harmonization of regulations is necessary. For this reason, the World Forum for Harmonization of Automobile Standards (WP29) is organized under the United Nations Economic Commission for Europe (UN/ECE).

Under WP29, regulations for automated vehicles are discussed at one of the expert subcommittee (GRVA). Japan leads discussions for international automated vehicle regulations by serving key positions for GRVA and each expert panels under GRVA.

In June 2020, UN Regulation No. 157 is established as a international regulation for automated passenger vehicles at highways (lane keep under 60km/h). After further discussion, the amendment of UN Regulation No. 157 was agreed to expand the scope to include all passenger vehicles, buses and trucks in November 2021. Furthermore, the amendment which expands the limited speed from 60 km/h to 130 km/h and enables the lane change function was agreed in June 2022.

In Japan, Road Transport Vehicle Act was amended to add the “automated driving system” to the safety equipments in 2019. Also, we established regulations for automated driving systems in April 2020.

In November 2020, MLIT approved the world’s first automated passenger vehicle with level 3 automated driving system.

Ministry of Economy, Trade and Industry (METI) and MLIT has conducted a lot of demonstrations, like unmanned automated mobility service with level 3 automated driving system at Eihei town, Fukui prefecture and truck platooning demonstration at highway.

In FY2021, METI and MLIT summarized challenges for realization and promotion for unmanned automated mobility services. For promoting unmanned automated mobility services, it is important to commercialize them based on efforts for technological development, environmental improvement, and improvement for social acceptance. To solve these issues and to promote unmanned automated mobility services, METI and MLIT established “RoAD to the L4 project” (Short for “Project on Research, Development, Demonstration and Deployment (RDD&D) of Autonomous Driving toward the Level 4 and its Enhanced Mobility Services”).

As automated driving technology is growing up day by day, MLIT keeps making efforts for realization and promotion of automated driving.

【UN Regulation No. 157 established in June, 2020】

Lane keep on expressways under 60 km/h (Level 3, passenger vehicles only)



【Revised in November, 2021】

Expansion of applicable vehicle models :

Passenger vehicles only

⇒ applicable all passenger vehicles, buses and trucks



【Summary of amendments agreed in June, 2022】

①Expansion of limited speed

Under 60 km/h ⇒ Under 130km/h

②Addition of lane change function

Lane keep only

⇒ Lane change available (only passenger vehicles, etc.)



Fig. 1 Overview of international regulation for automated driving on highways