3rd SIP-adus Workshop on Connected and Automated Driving Systems 2016

RoadMap

Public-Private ITS Initiative/Roadmap 2016

- Toward the Realization of Automated Driving on Highways and Driverless Autonomous Driving Transport Services in Limited Regions by 2020 -

Basic Strategy for Automated Driving Systems

■We will strategically promote the development of Automated Driving Systems (e.g. Levels 3 and 4) that are considered important to address the aging population combined with low birth rates, regional revitalization, and other problems faced by Japan, which include the securing of modes of transportation for the elderly and in depopulated areas and the shortage of drivers.

■We will push ahead with efforts toward fully Automated Driving Systems under diversified traffic conditions particularly via two approaches: (1) by gradually raising the level of utilization of automated control and (2) by starting out from limited regions and gradually expanding the scope of applicable traffic situations.

Commercialization of Automated Driving Systems and Driving Safety Support Systems

Commercialization of Automated Driving Vehicles on Highways

■Delivering semi-auto pilot*1 (Level 2) by 2020: we aim to conduct large-scale field operational tests on SIP Automated Driving Systems in 2017.

■Starting the research and examination of institutions to enable commercialization of auto-pilot*2 (Level 3) in 2020

		Current Status	2017 – 2018	By 2020	In 2020
Highways	Level 2: Follow-up + automated lane change, etc.	Field operational tests on public roads underway by respective companies	Commercialization		
	Level 2: Semi-autopilot (a mode for automated driving in certain zones)	Field operational tests on public roads underway by respective companies	SIP-adus Field Operational Tests	Commercialization	
	Level 3: Auto pilot (a mode for automated driving in certain zones)		Starting the research and examination of institutions		Commercialization

*1: This system has the Automated Driving on Highways Mode (from highway entrances to exits). The driver takes responsibility as a rule. (The driver is obligated to monitor the status and surrounding situations of the vehicle.)

*2: This system has the Automated Driving Mode. In the Automated Driving Mode, the system takes responsibility as a rule. (The driver is to respond to the situation upon request by the system.)

Launch of Driverless Autonomous Driving Transport Services in Limited Regions

■In preparation for Remote Automated Driving Systems*3 to be used in the services, we aim to conduct field operational tests on public roads in 2017 with the use of the special zone system in mind while ensuring consistency with the relevant treaty on road traffic*4.

■Based on the results of field operational tests on public roads, we aim to launch the services by 2020 while ensuring safety.

	Current Status	2016	2017	2018 – 2019	2020
Presence of drivers in vehicles (non-remote)	Field operational tests on public roads underway by respective companies				
Remote (depopulated, suburban, and urban areas)		Conducting field operational tests on nonpublic roads	Field Operational Tests on Public Roads	Launch of Services	
			Field Operational Tests on Public Roads	Launch of Services	
			Expanding the area subject to tests	Field Operational Tests on Public Roads	
		Starting coordination with service providers and examination on institutions		Expanding the area subject to tests	

*3: This type of System has no driver inside the vehicle but someone equivalent to the driver is present outside the vehicle (remotely) monitoring the status and surrounding situations of the vehicle. *4: 1949 Geneva Convention on Road Traffic (signed by Japan)

■We will repeat field operational tests on driverless autonomous driving and other transport services in dedicated spaces in depopulated areas and start operation by 2020.

Other Automated Driving Systems

■Next-generation urban traffic system, truck platooning, automated valet parking

Driving Safety Support Systems, etc.

■Automatic braking response systems in case of driver emergencies, emergency report and accident information report systems, in-vehicle video recorders, ETC2.0, etc.

Promotion of Innovation in ITS and Automated Driving

Development and Popularization of Automated Driving Systems

■Promoting R&D efforts and demonstration experiments

■Preparing standards and addressing institutions

Improvement and Utilization of Traffic Data Platforms

■Upgrading dynamic maps and other forms of digital infrastructure

■Improving and utilizing traffic-related data

Improvement of Collaborative Structures

■Addressing privacy and security

■Preparing collaborative structures for society as a whole and ensuring social receptivity

URL http://japan.kantei.go.jp/policy/it/2016/itsinitiative_roadmaps2016.pdf

Cabinet Secretariat, Government of JAPAN

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