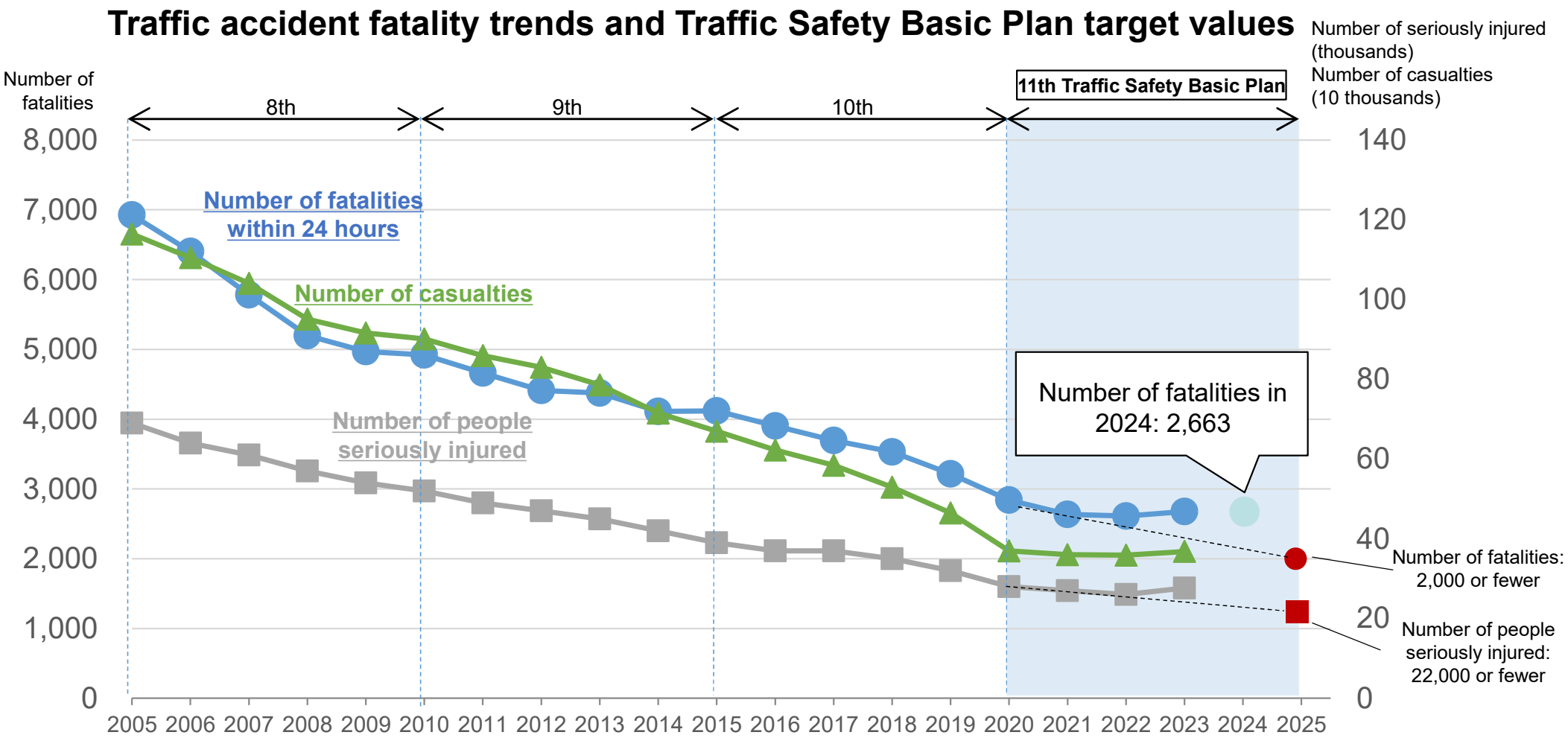
Status Report of Japan

International Affairs Office,
Vehicle Regulation and International Affairs,
Division Logistics and Road Transport Bureau, MLIT

1. Traffic Safety Measures

Traffic Accident Fatality Trends and Goals

- The number of traffic accident fatalities in Japan has fallen to 2,663 (in 2024), about 1/6 that of the peak of 16,765.
- In the 11th Traffic Safety Basic Plan, the government has set a goal of reducing the number of fatalities to 2,000 or fewer by 2025.

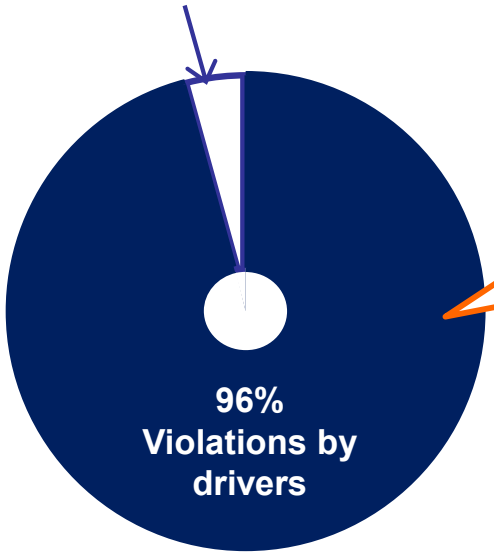


The Significance of Automated/Autonomous Driving

- Automated/autonomous driving is expected to have various positive effects, such as reduction of traffic accidents as well as maintenance and improvement of local public transportation.

Number of fatal accidents due to legal violations (2023)

4%: Caused by pedestrians and others



Number of traffic accident fatalities and injuries in 2024

Fatalities	2,663
Injuries	343,756

* From a National Police Agency material

Examples of the benefits of automated/autonomous driving

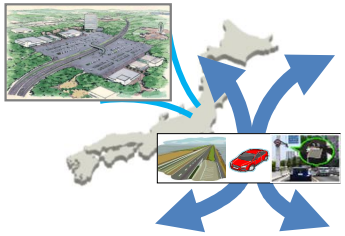
Reduction of traffic accidents

Maintenance and improvement of local public transportation

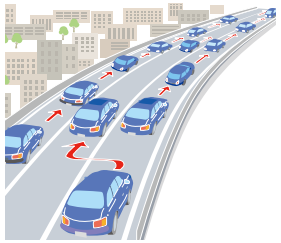
More efficient operation

Solution to the shortage of drivers

Strengthening of international competitiveness



Ease and elimination of traffic congestion



Source of pictures: Companies' websites

Current Status and New KPI Settings

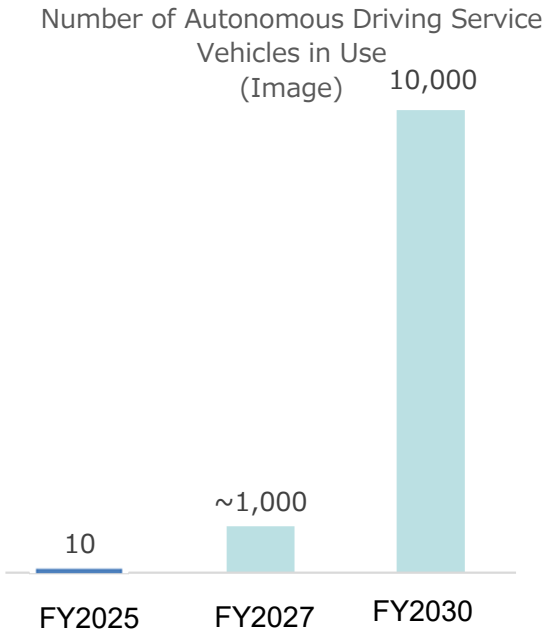
○ The current government target for autonomous driving, as outlined in the Revised Grand Design and Implementation Plan for New Capitalism 2025 (approved by the Cabinet on June 13, 2025), is to **"realize unmanned autonomous mobility services in over 100 locations by FY2027."** Taking this revision of the Basic Plan on Transportation Policy as an opportunity, a new numerical target will be set for FY2030.

Third Basic Plan on Transportation Policy: Draft KPI

○ The government is considering incorporating the following KPIs into the Third Basic Plan on Transportation Policy, **aiming to have "2.5%※" of public transportation vehicles nationwide—including buses and taxis—and trunk line transport trucks operate as autonomous vehicles.**

Number of autonomous driving service vehicles in FY2030	10,000 units

※ In sociologist E. M. Rogers' "Innovator Theory," the segment that adopts innovative new technologies earliest is estimated at "2.5%." This "2.5%" serves as the benchmark for the proportion aiming to adopt autonomous vehicles.



Measures to Achieve KPIs

○ Expand support for the Autonomous Driving Social Implementation Promotion Project to secure local transportation options

○ Promote the development and adoption of higher-level Level 2 commercially available vehicles to drive down system and equipment costs through economies of scale, thereby supporting the development and adoption of Level 4 commercial vehicles

○ Establish an accident cause investigation system within the Japan Transport Safety Board and specify safety guidelines that will serve as technical standards for Level 4 technology

Upcoming Schedule

October 24: 54th Meeting of the Planning Subcommittee of the Council of Transport Policy
→Public comment period begins

→ By the end of the year: Cabinet decision targeted

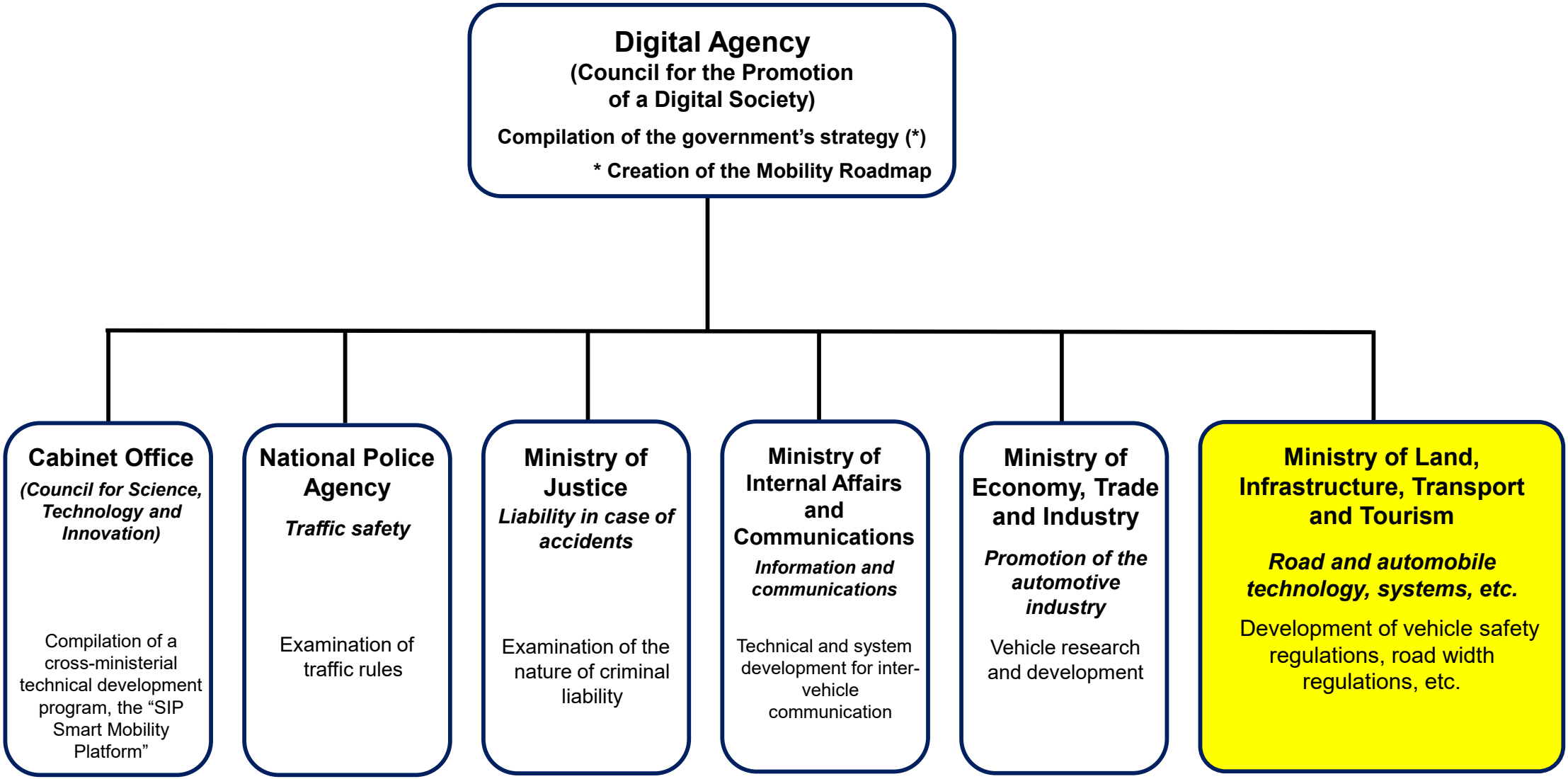
Development of Regulations and Systems in Japan

- In line with the advancement of automated driving technology, Japan has developed a series of necessary regulations and systems, such as the revisions of the Road Transport Vehicle Act and the Road Traffic Act.
- The legal systems for Level 3 and 4 have been completed.

2018	**Establishment of the "Outline of System Development for Automated/Autonomous Driving"**	The government established its policy related to the review of relevant legal systems that are necessary to realize advanced automated driving.
2020	**Revision of the Road Transport Vehicle Act** (enacted in April 2020) **Revision of the Road Traffic Act** (enacted in April 2020)	• "Automated operation systems" were defined and added to the systems covered by the safety standards. • The Road Traffic Act was revised to establish rules related to the obligations of drivers using automated operation systems. → **Level 3 autonomous driving became possible under the system.**
2023	**Revision of the safety standards based on the Road Transport Vehicle Act** (enacted in January 2023) **Revision of the Road Traffic Act** (enacted in April 2023)	• Safety standards related to Level 4 autonomous driving were established. • The Road Traffic Act was revised to establish a permission system for specific automated operation (driverless automated driving). → **Level 4 autonomous driving became possible under the system.**

The Government's Promotion Structure

- Ministries are working together under the Digital Agency to establish a government-wide structure.
- MLIT is responsible for **the development of vehicle regulations**, road maintenance, and other tasks.

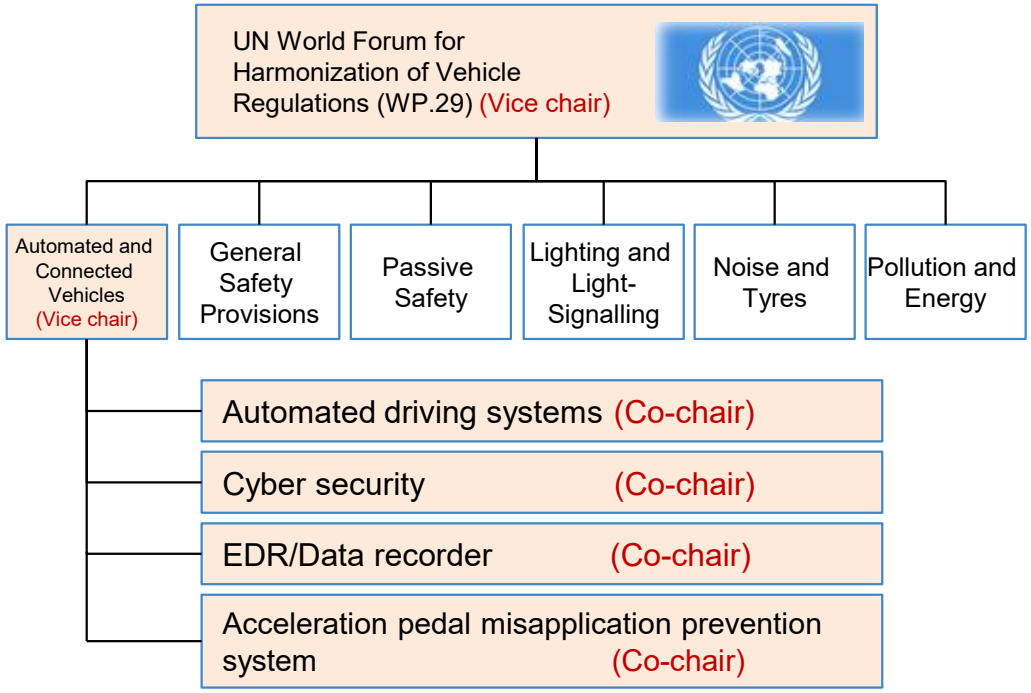


Current Efforts for the Development of International Regulations

- In WP.29, **Japan has been leading discussions related to international regulations on automated/autonomous driving as the co-chair, vice chair, etc.**
- Countries are discussing international regulations to be established in June 2026.

UN World Forum for Harmonization of Vehicle Regulations (WP.29)

Japan serves as co-chair, vice chair, etc. at working groups and expert meetings to establish regulations on automated/autonomous driving.



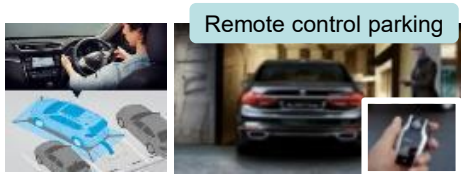
※The discussions included Japan, the EU, the US, China, and other countries.

International regulations on automated/autonomous driving

Levels 0, 1, and 2

- Collision damage mitigation brake
- Automatic parking (remote control parking)
- Hands-on automatic steering (such as lane keeping/changes)
- Hands-off automatic steering (under discussion)

* Honda Motor Co., Ltd. website　* LEXUS website



* Nissan Motor Co., Ltd. website　* BMW website

Levels 3 and 4

- Level 3 autonomous driving on expressways
- Guidelines on requirements and evaluation methods for automated driving systems' safety performance

→ Legally binding international regulations on autonomous driving are under discussion.

Status of the Realization and Spread of Automated/Autonomous Driving

- Automated/autonomous driving for commercial and private vehicles has started through efforts to establish systems and promote its widespread use.
- Japan **aims to enhance and expand the use of Level 4**.

(1) Commercial vehicles (mainly for Level 4)

- May 2023: Eiheiji-cho in Fukui prefecture started to provide Japan's first Level 4 mobility services.

Yamaha electric cart (driverless vehicle)

Remote monitoring room (One supervisor monitors three vehicles.)

- July 2024: Haneda Innovation City complex in Ota-ku, Tokyo became the second area in Japan to provide Level 4 mobility services.

NAVYA ARMA (small bus)

Operating route

(2) Private vehicles (Levels 2 and 3)

- March 2021: Honda started to sell Level 3 vehicles, a world first.

Structure of an automated operation system

Outside world recognition (around the vehicle)
- Camera
- Radar
- Rider

Vehicle location recognition
- High-precision map
- Global Navigation Satellite System (GNSS)

Driver state recognition
- Driver monitoring camera

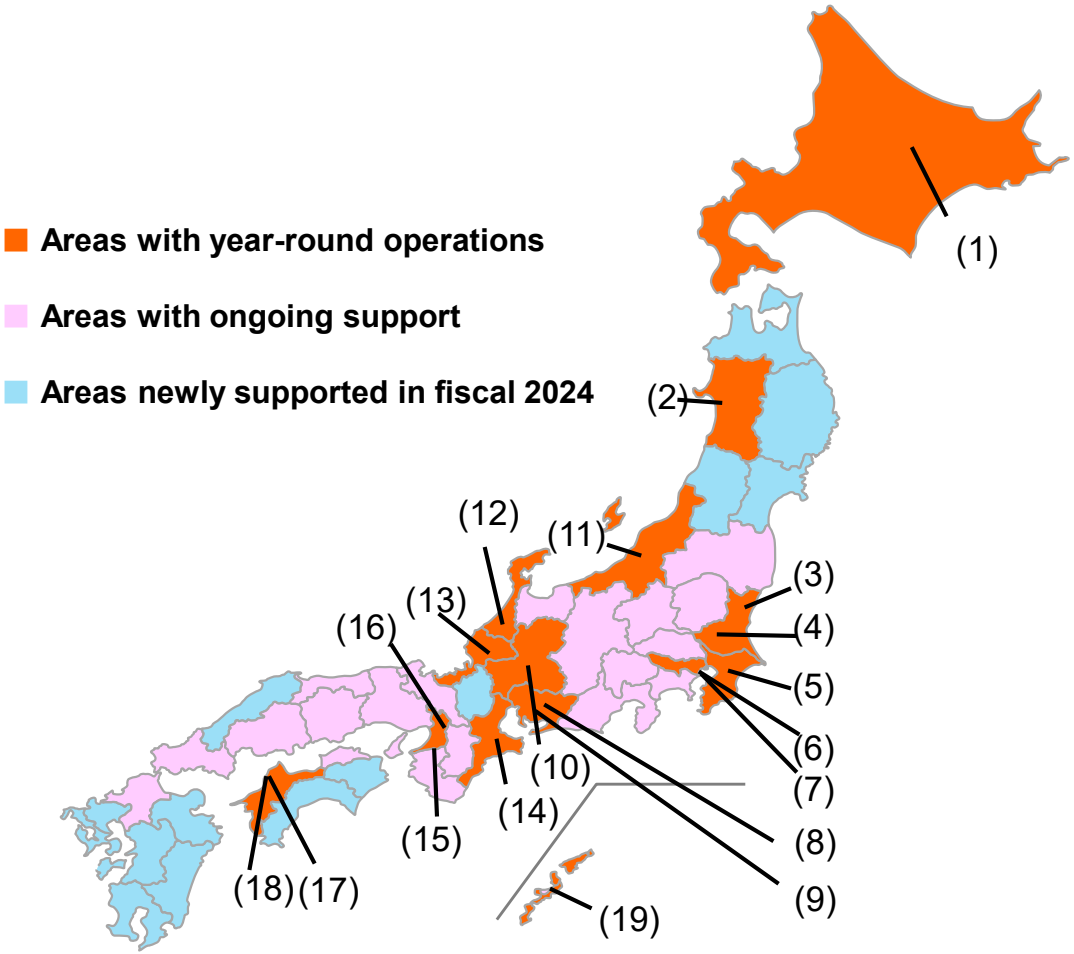
Measures and equipment required for the automated operation system
- Cybersecurity
- Software updates
- Operational status recorder
- Outward-facing display (sticker)

Functional redundancy
- Power system
- Steering function
- Brake function

* Provided by Honda Motor Co., Ltd.

Introduction of Automated Mobility Services

- Japan is promoting the social implementation of automated/autonomous driving nationwide through subsidized projects.
- In fiscal 2024, across all prefectures, **a total of 99 projects were adopted**, including ongoing ones.
- As of the end of 2024, **19 areas are conducting a project of year-round operations on general roads**.



Automated driving using small EV buses

- Features: Mixed spaces, 40 km/h or less
- Municipalities with year-round operations
  - (5) Yokoshibahikari-machi, Chiba
  - (12) Komatsu-shi, Ishikawa
  - (17) Matsuyama-shi, Ehime
- Number of cases adopted in fiscal 2024: 33

Automated driving using small carts

- Features: Driving in low-traffic/limited spaces, 12 km/h or less
- Municipalities with year-round operations
  - (2) Kamikoani-mura, Akita
  - (8) Kasugai-shi, Aichi
  - (13) Eiheiji-cho, Fukui
  - (15) Kawachinagano-shi, Osaka
  - (16) Shijonawate-shi, Osaka
  - (19) Chatan-cho, Okinawa
- Number of cases adopted in fiscal 2024: 7

Automated driving using vehicles with no steering wheel

- Features: Mixed spaces, 20 km/h or less
- Municipalities with year-round operations
  - (1) Kamishihoro-cho, Hokkaido
  - (3) Hitachiota-shi, Ibaraki
  - (4) Sakai-machi, Ibaraki
  - (6) Ota-ku, Tokyo
  - (9) Nisshin-shi, Aichi
  - (10) Gifu-shi, Gifu
  - (11) Yahiko-mura, Niigata
  - (14) Taki-cho, Mie
  - (18) Iyo-chi, Ehime
- Number of cases adopted in fiscal 2024: 28

Automated driving using passenger cars

- Features: Mixed spaces, around 40 km/h
- Municipalities with year-round operations
  - (7) Tokyo (Ariake)
- Number of cases adopted in fiscal 2024: 3

* (1), (6), (13), (14), (17): Level 4; others: planned to transition from Level 2 to Level 4

2. Other Topics

Outline of the UNR for Acceleration Control for Pedal Error

○ Japan proposed the formulation of UNR for Acceleration Control for Pedal Error in 2022, and led international discussions.

○ The draft regulation has been agreed upon by the Technical Subcommittee of WP.29 and was just adopted at WP.29 this November.

Main requirements

○ **Requirements for sudden acceleration control**

When the driver is stopped 1.0 m and 1.5 m in front of the obstacle and the accelerator pedal is depressed to full stroke, one of the following must be true

- ✓ Not to collide with obstacles
- ✓ Speed at the time of collision with an obstacle does not exceed 8 km/h, and the speed is reduced by 30% or more compared to the speed at the time of collision with no obstacle

○ **Requirements for driver alerts**

- ✓ Visual alarm required etc

○ **Requirements regarding the conditions for the release of functions**

- ✓ Display to driver during release
- ✓ Functional return condition etc

Eligible Vehicles

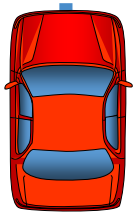
○ **Passenger cars with automatic transmission (AT)**

(Capacity of up to 9 passengers)

<Image of device in operation>

<Test method overview>

Distance to Obstacle
1.0m and 1.5m



Rate of change in speed : $(V_0 - V)/V_0$

Speed when the device is deactivated : V_0

Speed at which the device is activated : V

From a stop (brake on), accelerate to full stroke

Thank you.