

# Support from Road Side Aimed at Realizing and Expanding Automated Driving

## Road Traffic Department

Automated driving is expected to bring safer and smoother road traffic and contribute to the advanced use of road networks through the reduction of traffic accidents, traffic jams, and environmental impacts. We are proceeding with the research to contribute to supporting automated driving through the information provision from the road side with the aim of realizing and expanding automated driving.

## Social background and issues

- The government goal has been set as “level 4\* automated driving on expressways for private owned vehicle” by 2025.  
\*: Completely automated driving under specific conditions (no driver takeover)
- The development of autonomous vehicle control technology, which is operated to accelerate, decelerate, keep a lane, etc., based on information detected by on-board sensor is progressing. On the other hand, the information detection by on-board sensor has some limits, and as a result, there are various situations in which the automated driving cannot be continued.
- Joint research and development with automobile and electronic equipment manufacturers etc. have been conducted to support automated driving from the road side.

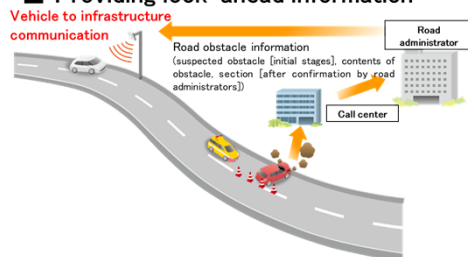
## Research content

### Research and development on automated driving support through cooperative ITS

Cooperative ITS aims to enable road administrators and automobile manufacturers to share information with each other by mutual communication to realize better road traffic.

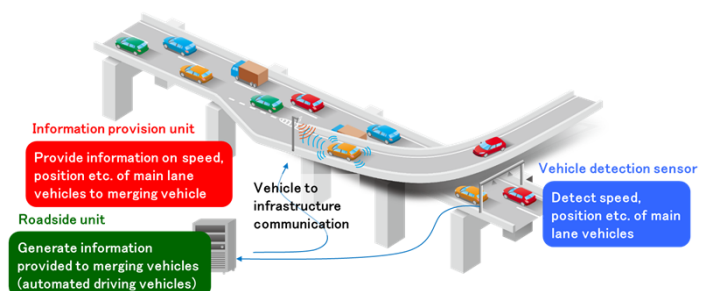
The content of information provided from the road side is considered and the effect of information provision is verified to realize smooth automated driving through cooperative ITS in situations where the automated driving cannot be continued with the information by the vehicle alone.

#### ■ Providing look-ahead information



Grasp and provide the information on lane regulations, obstacles, etc. and support early lane changes, etc.

#### ■ Providing merging support information

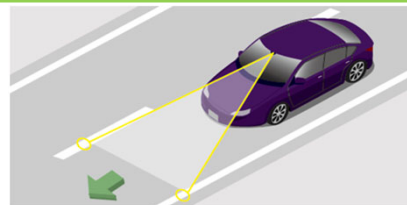


Provide the position, speed, etc. of main lane vehicles to merging vehicles and support merging into main lane safely and smoothly

### Research and development on support for localizing vehicle

Automated driving vehicles identify their own position in the cross-road direction through on-board sensors, and travel in the center of the lane safely and smoothly.

To support continuing automated driving from the road side, the draft of requirements for lane markings is made and the field operational test are conducted to understand the faint level of lane marking where lane keeping assist can operate.



Support from road side for controlling automated driving vehicles appropriately  
Realizing safer and smoother road traffic through automating mobility services/logistics services and labor-saving of them

➡ See here for related articles

- Initiatives Aimed at Realizing Automated Driving on Expressways (p. 76)