

### Creation of an internationally open research and development environment

#### Object of the Project

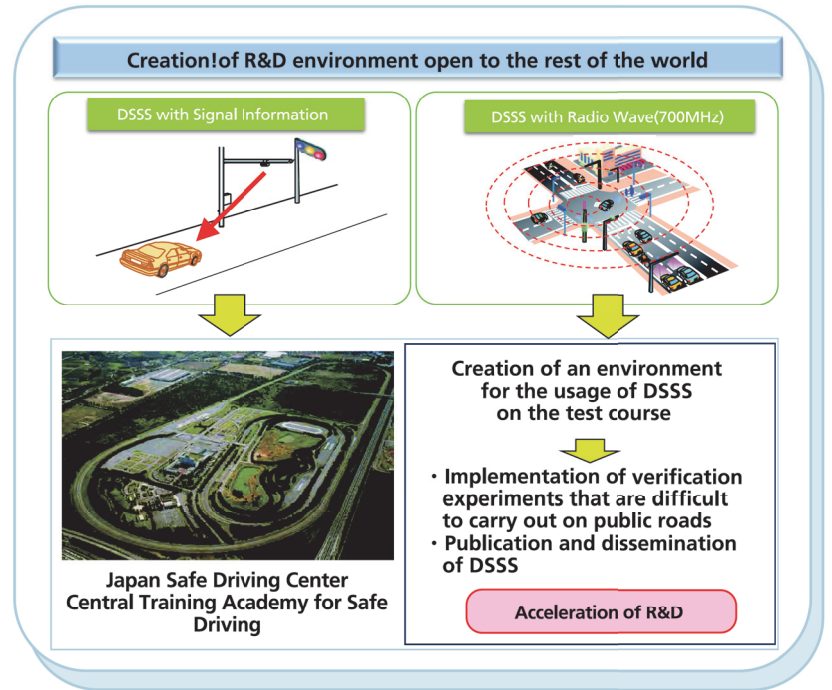
In order for Japan to play an active role as a country in the leading position in international standardization activities, etc. for automated driving systems, it has become an urgent necessity to accelerate research, which requires a research and development environment open to the rest of the world (an internationally open research institute) for establishing basic principles and promoting the international standardization of automated driving systems.

#### Project Summary

The systems for the demonstration experiment of the low-priced version of Driving Safety Support Systems (DSSS), which uses radio communication and was developed aimed at reducing costs while fulfilling functions required for driving support, was installed on a test course (at Japan Safe Driving Center Central Training Academy for Safe Driving), in addition to the demonstration experiment systems for the conventional DSSS which also uses radio communication and was already installed in the fiscal year 2014.

#### Future plan

The environment built on a test course for operating Driving Safety Support Systems allowed us to : conduct demonstration experiments that cannot be performed on public roads make a comparison of functions between the conventional and low-priced version of Driving Safety Support Systems, both of which use radio communication, which enabled the acceleration of research and development.



National Police Agency



### Research for the advancement of DSSS, Driving Safety Support Systems,

#### Guidelines for Public Road Testing of Automated Driving Systems (outline)

- Basic System**  
Under the current law, it is possible to perform public road testing regardless of time and place, provided that:
  - the vehicle used for public road testing complies with the requirements of the Safety Regulations for Road Vehicles
  - the person who assumes the role of the driver is seated in the driver's seat of the test vehicle, monitors the surrounding traffic as well as the vehicle's condition at all times, and in the event of an emergency operates the vehicle as necessary in order to ensure safety and thus prevent damage to others; and,
  - the test vehicle is driven in compliance with the relevant laws including the Road Traffic Act
- Basic Responsibilities of Implementing Entities**  
Implementing Entities should be aware that driving motor vehicles on public roads used for travel by general road users with an automated driving system that is not yet put into practical use may compromise safe and smooth traffic and therefore should take adequate measures to ensure safety
- Measure to Ensure Safety Based on What Will Be Tested in Public Road Testing**  
Implementing entities should take appropriate measure as follows:
  - To conduct sufficient driving testing at test facilities in advance to verify that test vehicle can be driven safely on public roads using the automated driving system
  - To change the environment for public road testing gradually only after its safety is verified sufficiently
  - To have another person aboard the test vehicle, to have a vehicle that will travel side-by-side with the test vehicle, and to mark the body of the test vehicle with information indicating that it is being subjected to public road testing of automated driving systems for taking appropriate measure to ensure safety.
  - To announce in advance the date and place of the public road testing using flyers, notice boards, etc. in order to inform local residents and road users thereof
- Test Driver Requirements**  
The test driver is required to have the driver's license and is required that:
  - to have the responsibilities of the driver under the relevant laws including the Road Traffic Act at all times and is required to acknowledge that he or she will be held responsible as the driver at all times if a traffic accident or traffic violation should occur
  - to monitor the surrounding traffic as well as the vehicle's condition at all times and to be able to operate the vehicle immediately as necessary in the event of an emergency
- Requirements of Automated Driving System Related to the Test Driver**  
Automated driving systems used in public road testing are required to be such that the test driver can operate the system, in the event of an emergency, as necessary to ensure safety and that:
  - Automated driving systems should be such that the authority to operate the test vehicle can be switched between the system and the test driver in an appropriate manner
  - ensuring appropriate cybersecurity
- Record of Various Data on Test Vehicles During Public Road Testing and Maintenance of Such Data**  
Implementing Entities should implement to install in the test vehicle a drive recorder, event data recorder or similar device To record and maintain various data to make it possible to investigate sufficiently any traffic accident or violation that has taken place during public road testing
- Measures to Be Taken in the Event of a Traffic Accident**  
When a traffic accident may have been caused by malfunction of an automated driving system or the driver's over-reliance on the system, the relevant Implementing Entity should refrain from conducting the same type of public road testing until the cause of the accident is investigated and the necessary recurrence prevention measures are taken
- Ensuring the Ability to Pay Damages**  
Implementing Entities should ensure the appropriate ability to pay damages by, for example, buying voluntary insurance in addition to the compulsory automobile liability insurance
- Advance Notification to the Related Agencies**  
When conducting public road testing of an automated driving system using very new technology or large-scale public road testing, according to the procedures, Implementing Entities should notify the Public Road Testing Plan, well in advance, to the police, the applicable road administrator and the applicable District Transport in the jurisdiction of the location where such testing will be conducted, in order to seek required advice

\*Note that these Guidelines are not intended to prohibit public road testing conducted using procedures that are different from those indicated herein. Those planning to perform public road testing that does not comply with these Guidelines are advised to consult well in advance with the police in the jurisdiction of the location where such testing will be conducted.

(Only the Japanese text is authentic)

#### 自動走行システムに関する公道実証実験のためのガイドライン(概要)

- 基本的制度**  
現行法上、次の条件を満たせば、公道実証実験を行うことは可能である。
  - 公道実証実験に用いる車両が運転者座席の保安基準の規定に適合していること
  - 運転者となる者が実験車両の運転者席に乗り、常に周囲の道路交通状況や車両の状態を監視(モニター)し、緊急時には、他人に危害を及ぼさないよう安全を確保するために必要な操作を行うこと
  - 道路交通法を始めとする関係法令を遵守して走行すること
- 実施主体の基本的な責務**  
公道において、いまだ実用化されていない自動走行システムを用いて自動車を走行させることは、公道の安全と円滑の確保に支障を及ぼす可能性があることを認識し、実施主体は、十分な安全確保措置を講ずるべきである。
- 公道実証実験の内容等に即した安全確保措置**  
実施主体は、公道実証実験の内容等に応じて、次のような措置を講ずるべきである。
  - 事前の実験施設等における自動走行システムの安全性の確認
  - 安全性を確認しながら段階的な公道実証実験の実施
  - 実験車両への複数人の乗車、併走車両の用意、実験中である旨の車体表示等の適切な安全確保措置の実施
  - 緊急時における具体的な対応要領や連絡体制等の書面化及び周知
- テストドライバーの要件**  
テストドライバーは、必要な運転免許を保有し、次の要件を満たす必要がある。
  - 常に道路交通法を始めとする関係法令における運転者としての義務を負い、仮に、交通事故等が発生した場合には、テストドライバーが、常に運転者としての責任を負うことを認識すること
  - 自動走行システムを用いて走行している間、常に周囲の道路交通状況や車両の状態を監視(モニター)し、緊急時に直ちに必要な操作を行うことができること
- テストドライバーに関連する自動走行システムの要件**  
公道実証実験に用いる自動走行システムは、テストドライバーが緊急時に安全を確保するために必要な操作を行うことができるものである必要があるほか、次の要件を満たすべきである。
  - 自動走行システムとテストドライバーとの間における実験車両の操作の権限の譲渡が適切に行われるようであること
  - 適切なサイバーセキュリティが確保されていること
- 公道実証実験中の実験車両に係る各種データ等の記録・保存**  
実施主体は、実験車両にドライブレコーダーやイベントデータレコーダー等を搭載するなど、公道実証実験中に発生した交通事故等の事後検証を十分に果たすことができるよう、各種データ等を適切に記録・保存するべきである。
- 交通事故の場合の措置**  
交通事故が自動走行システムの不具合や当該システムへの通信を原因として発生した可能性がある場合には、実施主体は、当該交通事故の原因について調査した上で、再発防止策を講ずるまでの間、同様の公道実証実験の実施を控えるべきである。
- 賠償能力の確保**  
実施主体は、自動車損害賠償責任保険に加え、任意保険に加入するなどして、適切な賠償能力を確保するべきである。
- 関係機関に対する事前連絡**  
実施主体は、新規性の高い技術を用いた自動走行システムに関する公道実証実験や大規模な公道実証実験を実施する場合には、その内容等に応じて、必要な助言等を受け、実施場所を管轄する警察、道路管理者、地方運輸局等に対し、当該公道実証実験の計画について事前に連絡するべきである。

\*本ガイドライン案は、これによらない方法で行う公道実証実験を禁止するものではなく、本ガイドラインに適合しない公道実証実験を行う場合には、実施場所を管轄する警察に事前相談を行っていただきたい。



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