






### SIP-adus Field Operational Test

SIP-adus FOT focuses on automated driving system technology validation on real environment in public road with various participants and is commenced in five technology fields; dynamic map, human machine interface (HMI), automotive security, pedestrian accident reduction, and next generation urban transportation.

#### Main Targets of SIP-adus FOT

-  Revitalize the study / technology development towards accelerating deployment of automated driving systems by SIP offers test sites and essential infrastructures for the experiments
-  Conduct functional validation of technological result of non-competitive area under each manufacture participation
-  More people to evaluate in the open field and give feedback to further R&D
-  Promote international corporation and further government-industry-academia collaboration
-  Fostering social acceptability

#### Schedule

- **Mid. of November 2016 – May 2017**
  - FOT detailed planning / Coordination with relevant agencies
- **June 2017 –**
  - Participants recruitment / Site preparation
- **September 2017 –**
  - Commencement of FOT
- **March 2018**
  - Interim report
- **March 2019**
  - Final report

#### Test site

##### Expressway



##### Ordinary roads

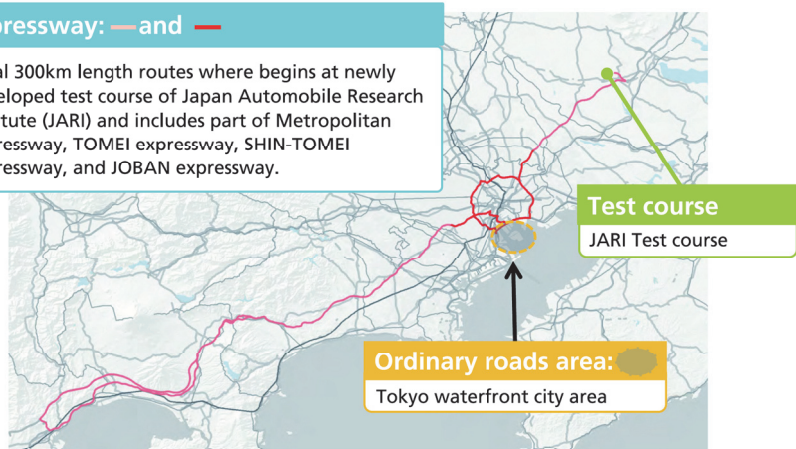


##### Test course



##### Expressway: — and —

Total 300km length routes where begins at newly developed test course of Japan Automobile Research Institute (JARI) and includes part of Metropolitan expressway, TOMEI expressway, SHIN-TOMEI expressway, and JOBAN expressway.



\*Test sites (routes and location) are tentative

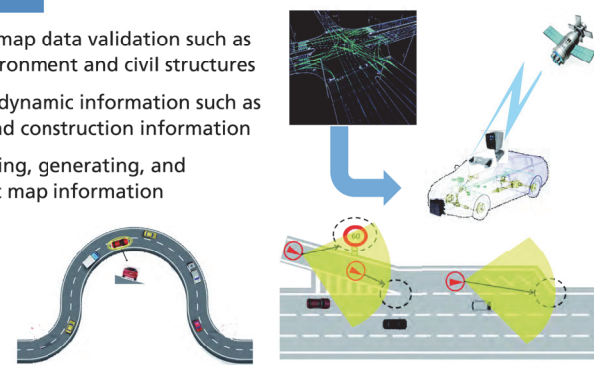
#### Expected Participants

- Car Manufacture
- Supplier
- University / Research Institute
- Overseas Manufacturer

#### Outline of FOT

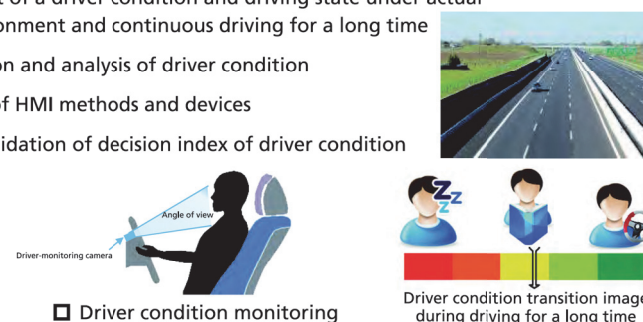
##### Dynamic Map

- ❑ 3-D high resolution map data validation such as road geometry, environment and civil structures
- ❑ Verification of semi dynamic information such as traffic congestion and construction information
- ❑ Validation of collecting, generating, and distributing dynamic map information



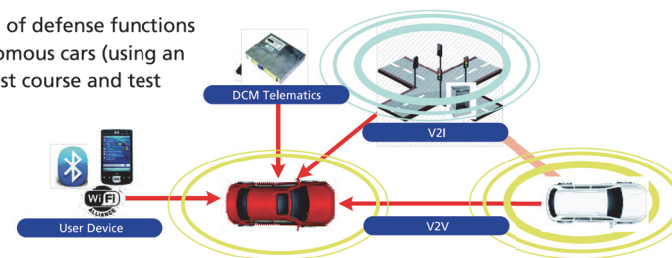
##### HMI

- ❑ Measurement of a driver condition and driving state under actual driving environment and continuous driving for a long time
- ❑ Data collection and analysis of driver condition
- ❑ Verification of HMI methods and devices
- ❑ Study and validation of decision index of driver condition



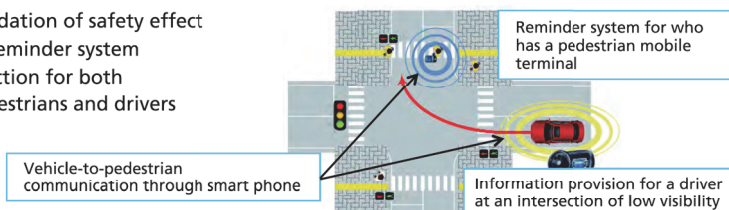
##### Automotive Security

- ❑ Evaluation experiment of simulated cyber attack from the outside of the vehicle with a test equipment, in a radio wave darkroom, under actual driving environment
- ❑ Validation of defense functions for autonomous cars (using an existing test course and test bed)



##### Pedestrian Accident Reduction

- ❑ Verification of a pedestrian mobile terminal (smart phone) which mounts V2P communication technologies and high-precision position measuring system for the prevention of cognitive mistakes which make up the majority of pedestrian fatalities
- ❑ Validation of safety effect of reminder system function for both pedestrians and drivers



##### Next Generation Urban Transportation

- ❑ Validation of service level improvement (passenger comfort and reliability) of public transportation utilizing Advanced Rapid Transit (ART) technologies.
- ❑ Validation of usability and efficiency of attribute-based travel support which gives most suitable route information for the user via smart phone

