1) Reduction of accidents and congestion in road traffic
2) Early realization and deployment of automated driving systems
3) Realization of an advanced public bus system that is easy to use by elderly and disabled people
Promoting R&D focused on topics for technical fields (cooperative fields) that require a joint industry-academia-government collaboration at SIP.

**Vehicle**

- Recognition
- Judgment
- Operation

⇒ Dynamic Map (high-precision 3D map + changes over time)

- Congestion, accidents
- Construction, road regulations
- Structures, lanes

Delivery of updated data on construction, congestion, etc.

Tying together information that changes with time (e.g., construction, congestion, etc.) on a highly-precise 3D map for car localization

**Base technologies**

- Cyber Security

  Guidelines for protection against cyber attacks on vehicles, etc.

**HMI**

- Human Machine Interface

  The transition time required, depending on driver’s readiness, to safely switch from automated driving to manual driving

  Interfacing with other traffic participants

  Instruction method concerning the operating condition of the automated driving system, etc.

**Next Generation Transport**

Application of automated driving technologies to buses, etc.

- Precise stopping at bus stops with almost no space between the bus and the curb to make getting on/off easier for wheelchair users and elderly passengers
- Improved express performance and on-time operation through enhancement of Public Transportation Priority Systems (PTPS) Etc.

**Pedestrian traffic accident reduction**

Verification of the accident-reduction effects of wireless communication between cars and pedestrians’ devices and use of radar, etc.
Promoting Committee for SIP Automated Driving Research Project

PD: Seigo Kuzumaki, Executive General Manager, Toyota Motor Corporation
Sub-PD: Tateo Arimoto, Professor, National Graduate Institute for Policy Studies
Masao Fukushima, ITS Technical Consultant, Nissan Motor Company
Yoichi Sugimoto, Senior Chief Engineer, Honda R&D Co., Ltd.

Members: Cabinet Office, National Police Agency, MIC, METI, MLIT
Industry, Experts

System Implementation Working Group
Chair: Toshiyuki Inagaki, Vice President, University of Tsukuba

International Cooperation Working Group
Chair: Hajime Amano, President and CEO, ITS Japan

Next Generation Transport Working Group
Chair: Takeshi Oguchi, Professor, University of Tokyo

Map Structuring Task Force
Chair: Hiroaki Takada, Professor, Nagoya University

Large-Scale Field Operational Tests Task Force

Management agency
R&D is outsourced to research institutions by the management agency, related ministries, and the Cabinet Office.

Cabinet Office
"headquarters function" partnership

Cabinet Secretariat (IT)

Govt.

NEDO
Integrated promotion of the large-scale field operational tests

National Policy Agency

MIC

METI

MLIT
Road Bureau
Road Transport Bureau

Unified promotion with ministerial measures using the organization/knowledge each ministry

Industry

ITS Japan
Japan Automobile Manufacturers Association, Inc.
Society of Automotive Engineers of Japan, Inc.

Japan Automobile Research Institute
Japan Auto Parts Industries Association

Academia

Japan Electronics and Information Technology Industries Association
Association of Radio Industries and Businesses

Advanced Mobility Research Center, Institute of Industrial Science, University of Tokyo
Institutes of Innovation for Future Society, Nagoya University

Car manufacturers
Related device manufacturers
and others
2014 2015 2016 2017 2018

- Team Building
- R&D on specific themes

Steering Committee
- System Implementation Working Group
- International Cooperation Working Group
- Next Generation Transport Working Group

- Integration into 5 key fields
  ① Dynamic Map
  ② Information security
  ③ HMI (Human Machine Interface)
  ④ Pedestrian Traffic Accident Reduction
  ⑤ Next Generation Transport

- Large-scale field operational tests
  - Activation of research/technical development
  - Evaluation/issue identification with more objectives
  - Focus on deployment
  - International cooperation and coordination
  - Social acceptance

- Field Operational Test of Automated Bus Driving in Okinawa