SIP Automated Driving System

SIP-adus ; Automated Driving System for universal service

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Program Director of SIP-adus

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Welcome to Japan & Tokyo !

![SIP logo]

Cross-Ministerial Strategic Innovation Promotion Program

Council for Science, Technology, and Innovation

Governing board
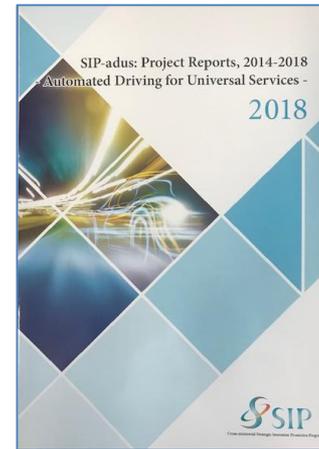(CSTI Executive Members)

Executive Director of SIP (Assigned from 2018)

Program Director (PD)
(assigned to Cabinet Office for each policy issue)

Steering Committee
PD (Chairman), relevant ministries, experts, corporations, Cabinet Office (secretariat)

Relevant ministries and management corporations and other researchers

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➢ **5years R&D (FY2014-FY2018)**
  ➢ **Total budget ¥ 13.6Billion (US$ 123 Million)**

➢ **Promote cross-sector collaboration**

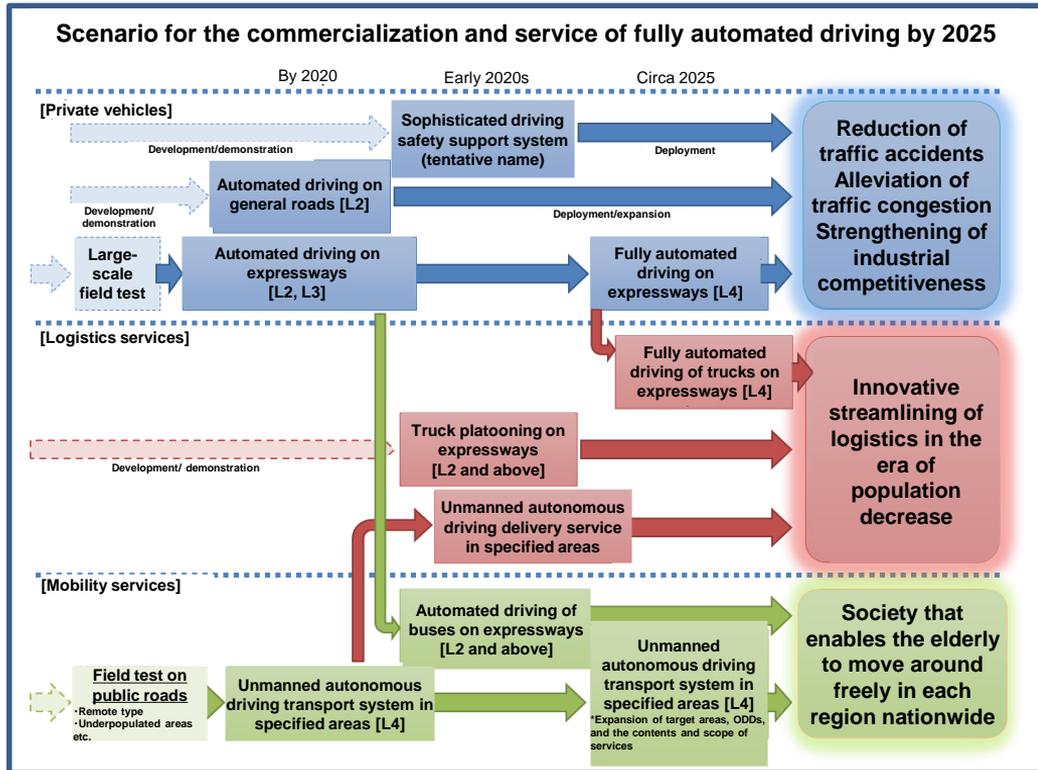➢ **From fundamental research to commercialization**

SIP-adus: Project Reports, 2014-2018
- Automated Driving for Universal Services -
2018

1st Phase SIP-adus Project Reports, 2014-2018

Total 223page

http://www.en.sip-adus.go.jp/

Public-Private ITS Initiative/Roadmaps 2019

Scenario for the commercialization and service of fully automated driving by 2025

By 2020 — Early 2020s — Circa 2025

[Private vehicles]
- Development/demonstration → Sophisticated driving safety support system (tentative name) → Deployment
- Development/demonstration → Automated driving on general roads [L2] → Deployment/expansion
- Large-scale field test → Automated driving on expressways [L2, L3] → Fully automated driving on expressways [L4]
- **Reduction of traffic accidents Alleviation of traffic congestion Strengthening of industrial competitiveness**

[Logistics services]
- Fully automated driving of trucks on expressways [L4]
- Development/demonstration → Truck platooning on expressways [L2 and above]
- Unmanned autonomous driving delivery service in specified areas
- **Innovative streamlining of logistics in the era of population decrease**

[Mobility services]
- Field test on public roads ·Remote type ·Underpopulated areas etc.
- Unmanned autonomous driving transport system in specified areas [L4]
- Automated driving of buses on expressways [L2 and above]
- Unmanned autonomous driving transport system in specified areas [L4] ·Expansion of target areas, ODDs, and the contents and scope of services
- **Society that enables the elderly to move around freely in each region nationwide**
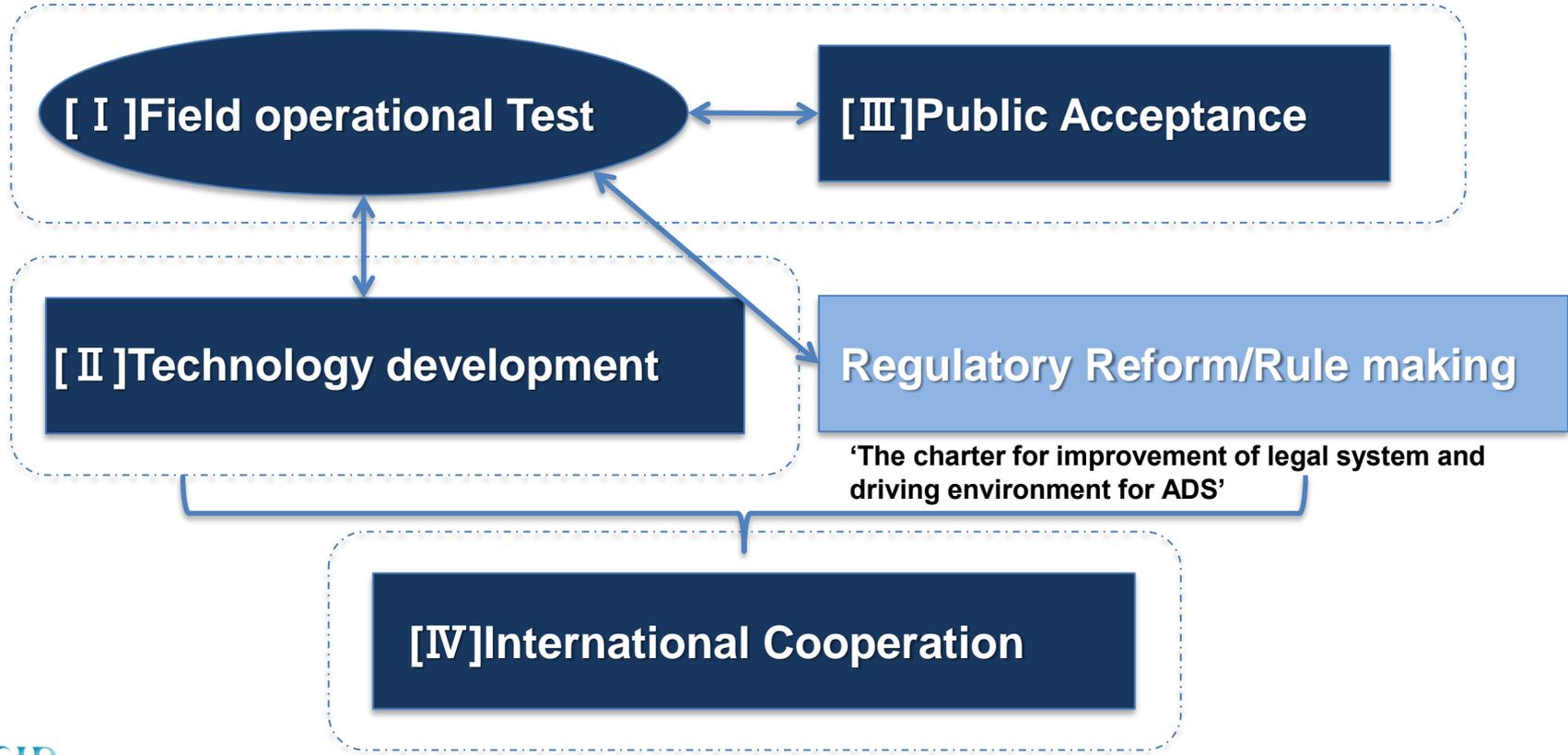
2nd Phase of SIP (FY2018-FY2022)

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- To establish the **cooperative areas** technologies essential for implementation by 2023

- To create **multiple example cases for commercialization through FOTs by** involving various **businesses and local government**

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4 Pillars of 2nd Phase of SIP-adus

[Ⅰ]Field operational Test

[Ⅲ]Public Acceptance

[Ⅱ]Technology development

Regulatory Reform/Rule making

'The charter for improvement of legal system and driving environment for ADS'

[Ⅳ]International Cooperation
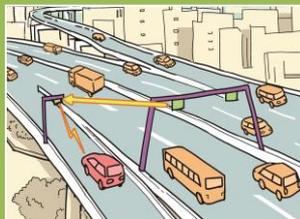
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FOTs (Tokyo Waterfront City–Haneda Area)

Tokyo Waterfront City area

➢ Signal display and change timing information via ITS infrastructure
➢ Precise 3D map linked with signal info. etc

Haneda Airport area

➢ Signal display and change timing information via ITS infrastructure
➢ Magnetic marker
➢ Bus stop, designated lane for bus service

Metropolitan Express way

➢ Merging assistance on the main lane of highways
➢ ETC gate open/close info.
➢ Lane level traffic flow regulation info. Etc.

Period; October 2019 – march 2021
Participants; Total 28 entities with about 100 vehicles

International cooperation

<u>Main themes of International Cooperation</u>

Dynamic map

Connected Vehicle

Human Factors

Cybersecurity

Safety Assurance

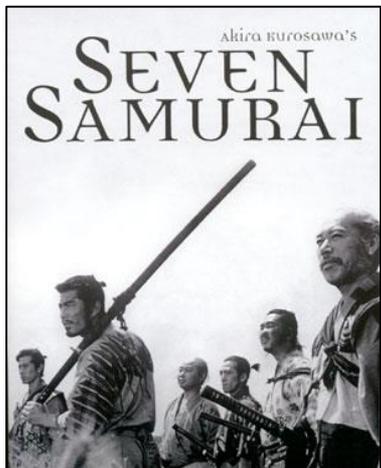FOT and Next gen. Transport

Standardization & Harmonization

Collaborative Research

Information Sharing

New "Seven samurai"

**Regional Activities
Hajime Amano**

**Dynamic Map
Satoru Nakajyo**

**Human Factors
Satoshi Kitazaki**

**Safety Assurance
Satoshi Taniguchi**

**Connected Vehicles
Norifumi Ogawa**

**Cybersecurity
Shigeru Uehara**

**FOT & NGT
Masayuki Kawamoto**

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