

EUCAD “International cooperation”

SIP Automated Driving System

SIP-adus ; Automated Driving System for universal service

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Society 5.0

Data convergence

high degree of convergence between cyberspace (virtual space) and physical space (real space).

Economic advancement

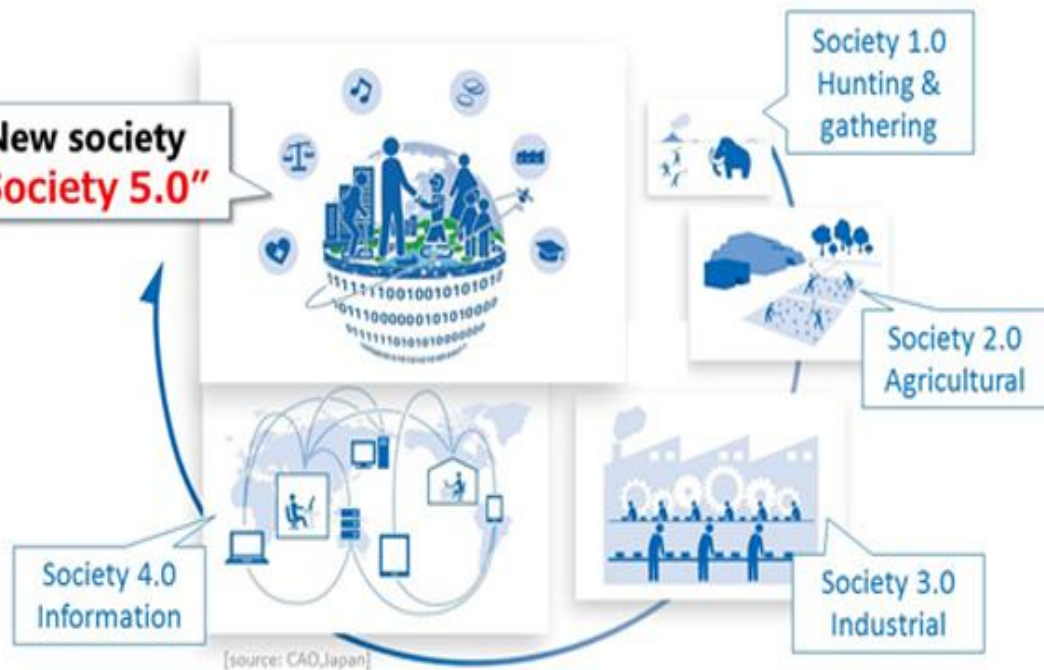
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Solution of social problems

provision of products and services that are needed to the people that need them at the time they are needed

human-centered society in which anyone can enjoy a high quality of life full of vigor

New society
"Society 5.0"



(Cabinet office HP)

Outline of SIP2

➤ Intensive R&D program

- ✓ promote 5-years R&D (FY2018 - FY2022)
- ✓ from fundamental research to practical and commercialization

➤ Promote cross-sector collaboration

- ✓ enhancing cross-ministerial cooperation
- ✓ promote industry-academia-government collaboration

➤ Leadership and total Budget

- ✓ CSTI appointed Program Directors and allocates the budget for each research theme.*

* \50bil in total per year
(65% for SIP 12 themes, 35% for medical R&D)



Cross-Ministerial Strategic Innovation Promotion Program

Council for Science, Technology, and Innovation

Governing board
(CSTI Executive Members)

← Outside experts

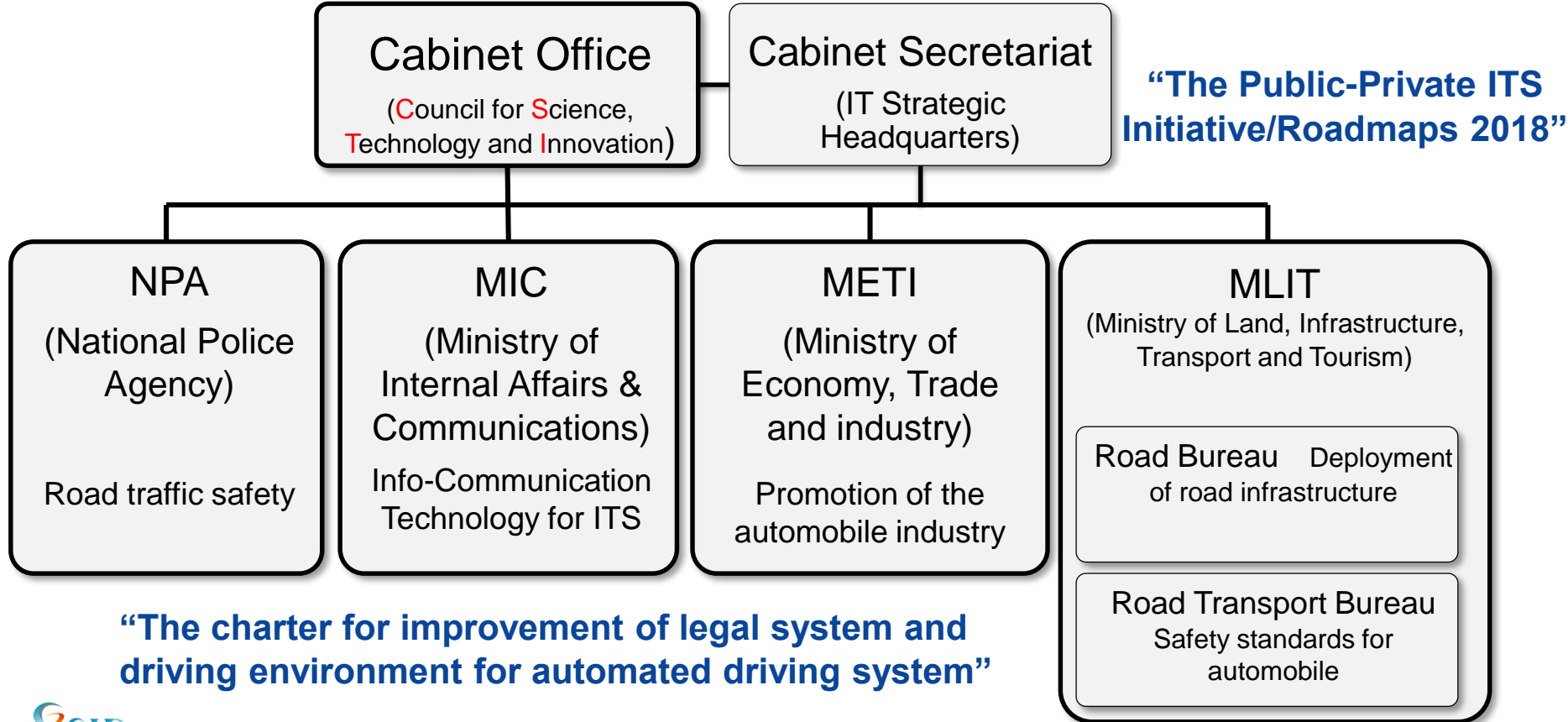
Executive Director of SIP (Assigned from 2018)

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

Promotion framework of Japanese Government

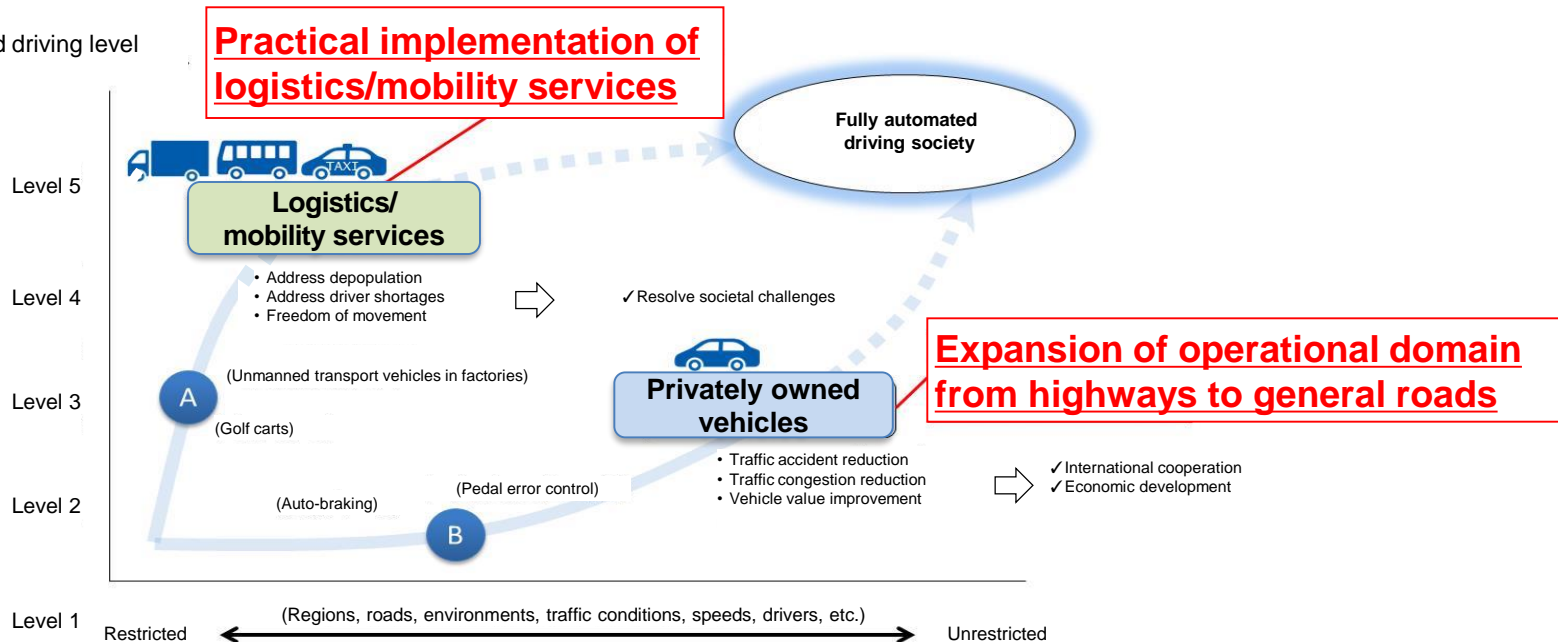


Overview of 2nd Phase of SIP-adus

The operational domain of automated driving will be **extended from highways to arterial and general public roads**, and automated driving systems will be **implemented in mobility services including public transport and logistic operations**.

⇒ Safe and comfortable mobility for everyone in society.

SAE* automated driving level

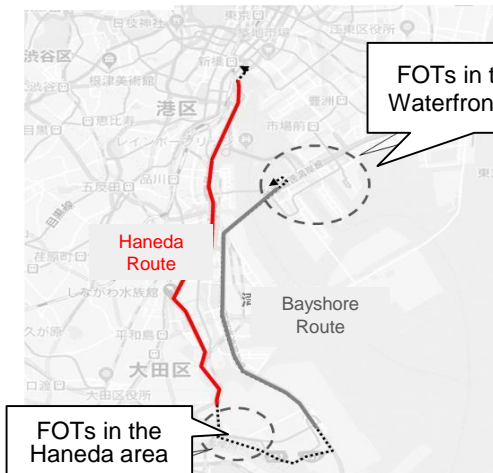


Deployment Milestones

Investment and business planning by private operators will be promoted by:

- 1) taking full advantage of the Olympic and Paralympic Games Tokyo 2020
- 2) conducting FOTs based on the business plans of entrepreneurs and local government

■ Course



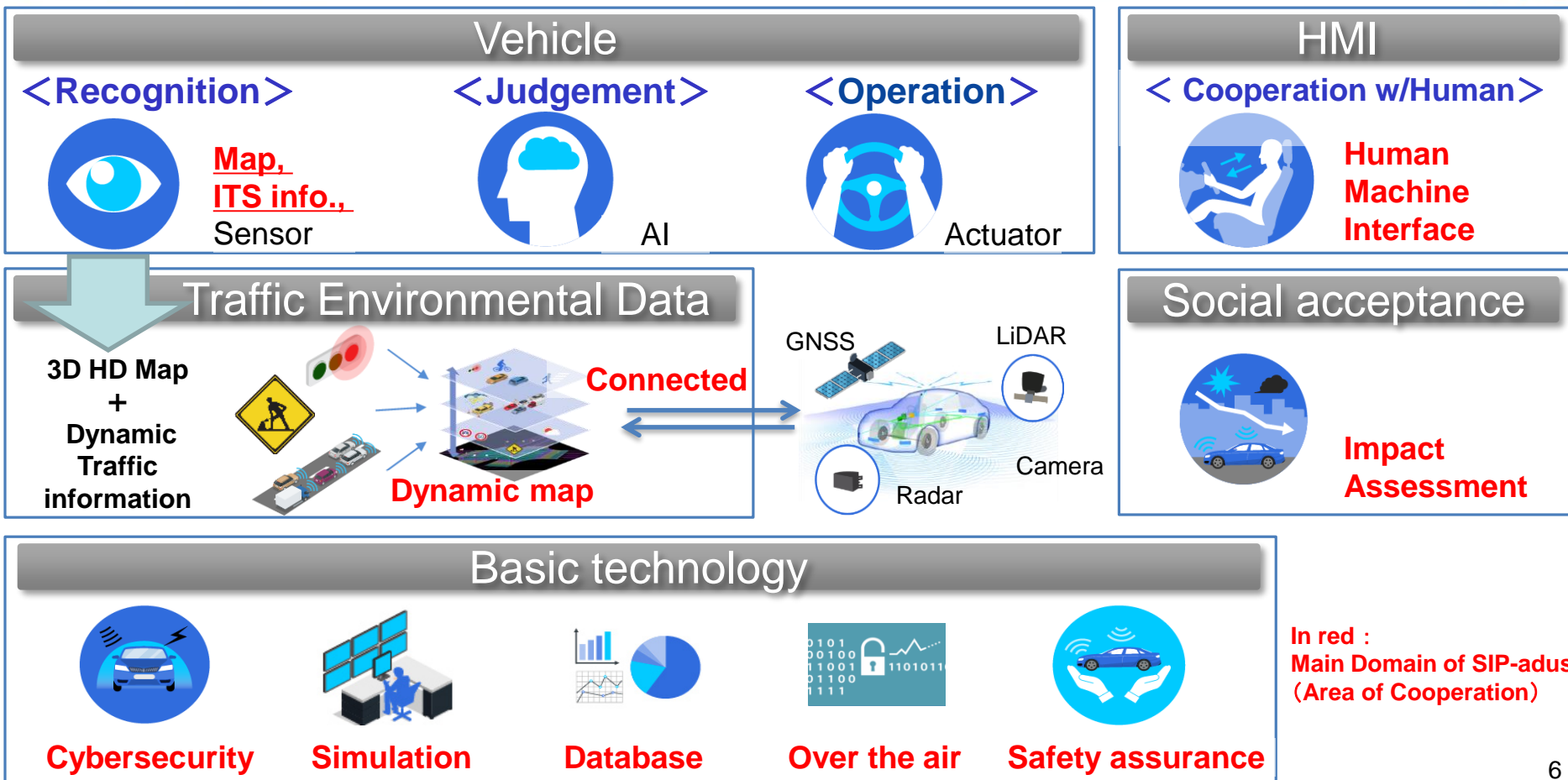
FOTs with matching fund



Local FOTs involve **entrepreneurs and local government.**

Open discussion for promoting international standardization and R&D

Main domain of SIP-adus' R&D



FOTs (Tokyo Waterfront City–Haneda Area)

■ FOTs will start in autumn 2019 in the Tokyo waterfront city area (general roads and Metropolitan Expressway / Haneda area) with recruiting participants widely

Providing traffic signal information

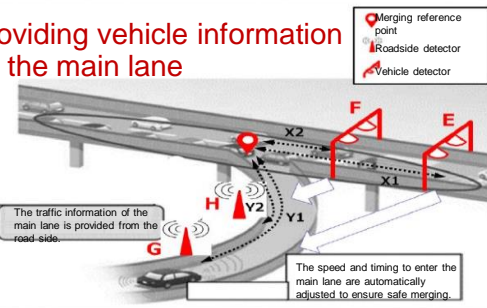
Providing the signal display and change timing information even in environments where recognition is difficult using in-vehicle cameras.



Merging assistance on the main lane of highways

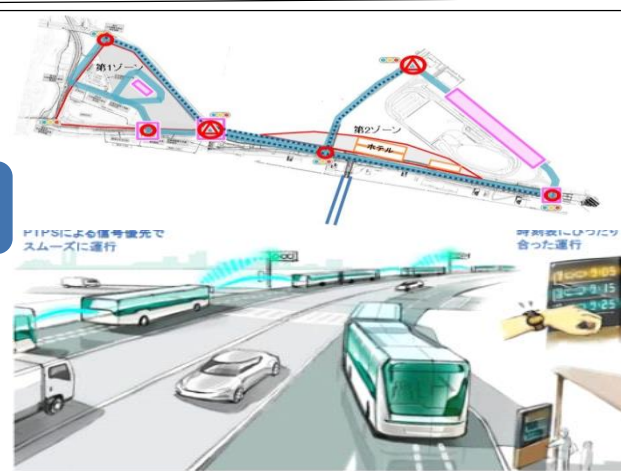


Providing vehicle information on the main lane

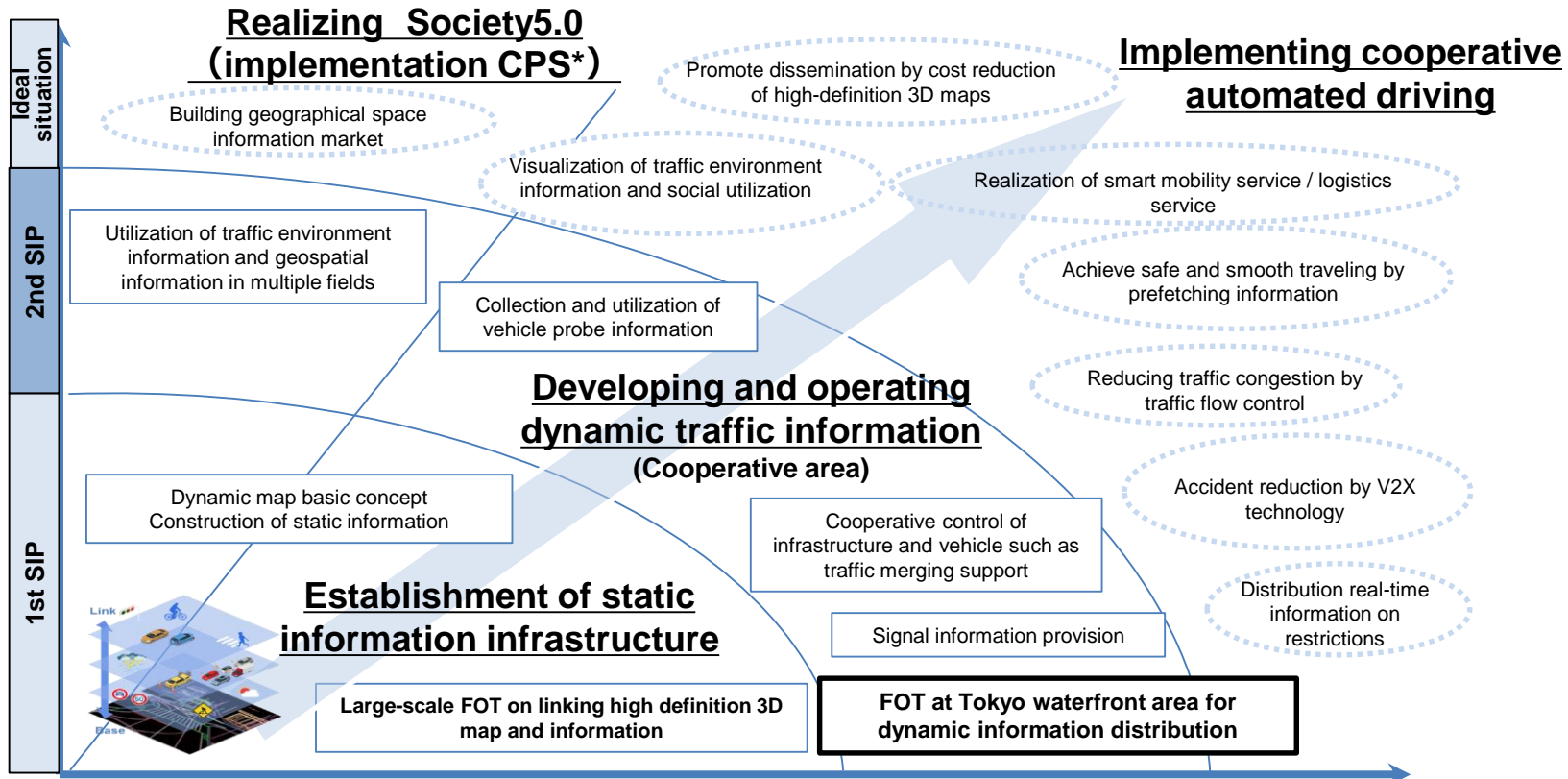


Public transport system (self-driving buses)

FOTs for the next-generation ART by using automated driving technology in mixed traffic flow.

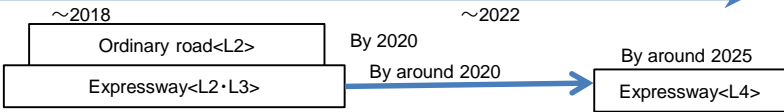


Building the Traffic Environmental Info. Framework



*CPS : Cyber Physical System

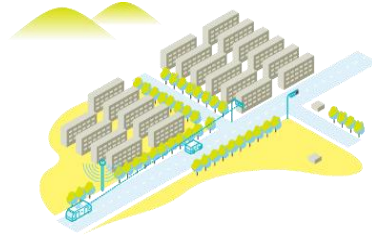
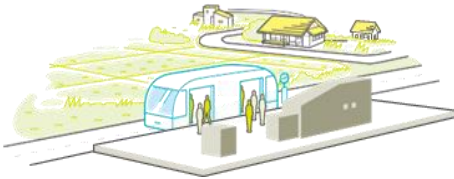
[Scenario for private car]



FOTs (Local Transportation)

- **Long-term FOTs** will be implemented in underpopulated areas, local communities, etc. through collaboration **with entrepreneurs and local government** to validate business feasibility of automated driving in terms of logistics and mobility services.

Mobility/logistics services in underpopulated areas, etc.



FOTs for technologies

FOTs for implementation and commercialization



Long-term FOTs on public roads toward commercialization as means of local logistics and mobility services for citizens



International cooperation

SIP-adus Workshop 2019 November 12-14 @ Tokyo International Exchange Center

Regular annual international conference for Info.
Sharing & discussion

【Themes at Breakout WS】
Dynamic map, Connected, Human Factors
Cybersecurity, , Safety Assurance, FOT



FOT in Tokyo Bay area Start from Oct. 2019

Recruit participants widely including overseas
⇒ Discuss about standardization openly with
various entities like OEMs, suppliers, academia.
More than 25 participants are expected to join.



(1st SIP FOT participants)



Collaborative research with research institutes overseas is under discussion

Thank you <http://www.sip-adus.go.jp/>

