

Outline of SIP Smart Mobility Platform



Projects in SIP Smart Mobility Platform (tentative translations)

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No.1 : Research and development of support for preemptive prevention of traffic accidents through proactive risk notification



R&D Technical Issues	⑦ Development of safe, secure, and bustling road space and transportation system
Project Overview	In order to build a space where everyone, including VRU(Vulnerable Road Users), can move freely and safely, this research and development will focus on the aggregation of data that contributes to the study of road policy, the construction of a data base to integrate, the construction of transport infrastructure utilizing advanced technology, and the use of communication technology and traffic signal information distribution technology, etc. The research and development is carried out to solve social issues such as traffic accidents, verifying the practicality of the technology through demonstrations.
Partners	Traffic Accident Preemptive Prevention R&D Consortium on 3rd Phase Cross-ministerial Strategic Innovation Promotion Program NIPPON SIGNAL CO., LTD. (Lead organization) Honda R&D Co.,Ltd. Sumitomo Electric Industries, Ltd.
Target issues to be resolved	Traffic accidents with a focus on the following situations; <ul style="list-style-type: none"> • Accidents caused by insecure behaviour of vulnerable road users • Overlooked accidents in blind environments • Stuck of vulnerable road users at railroad crossings • Presence of signalized intersection crossing risk for various road users

No.2 : Development of infrastructure and onboard sensor systems that utilise compact LiDAR technology to understand the actual situations of streets in living areas and busy districts

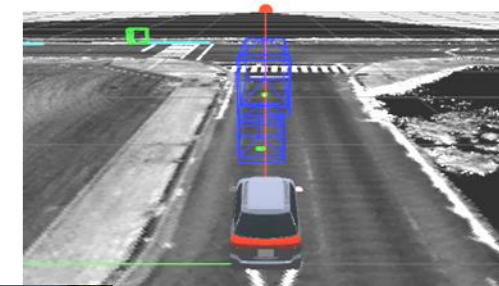


R&D Technical Issues	⑦ Development of safe, secure, and bustling road space and transportation system
Project Overview	<p>This research and development addresses the development of the 3D PCSEL*-LiDAR systems equipped with PCSELS. Considering infrastructure sensors and measuring ranging in the field of view of potential blind spots in the vicinity of vehicles, the R&D will first develop a prototype of a wide FOV mechanical 3D PCSEL-LiDAR system. Furthermore, a non-mechanical 3D PCSEL-LiDAR system will be prototyped and developed, which is expected to be smaller, lower cost and less power consuming in the future, and the project will aim at acquiring feasibility of achieving the same or better performance than typical benchmarks in the future. Recognition technology using 3D PCSEL-LiDAR systems will also be developed, and the effectiveness of PCSEL-LiDAR systems will be demonstrated through pilot tests utilizing them as infrastructure and onboard sensors.</p> <p>*PCSEL(Photonic Crystal Surface Emitting Laser)</p>
Partners	<p>Kanazawa University (Lead organisation)</p> <p>Kyoto University</p>
Target issues to be resolved	<ul style="list-style-type: none"> • Traffic accidents involving pedestrians, cyclists and others on minor urban roads. • Miniaturisation, cost reduction and low power consumption of 3D LiDAR sensors.

No.2 : Development of infrastructure and onboard sensor systems that utilise compact LiDAR technology to understand the actual situations of streets in living areas and busy districts

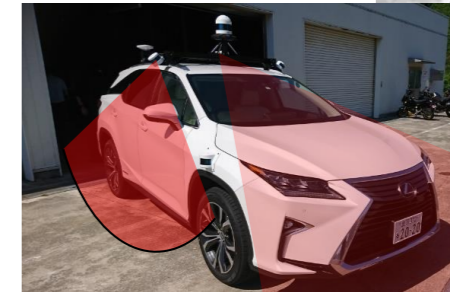
Wide FOV mechanical 3D PCSEL-LiDAR

All-semiconductor non-mechanical 3D PCSEL-LiDAR



Recognition in onboard environments

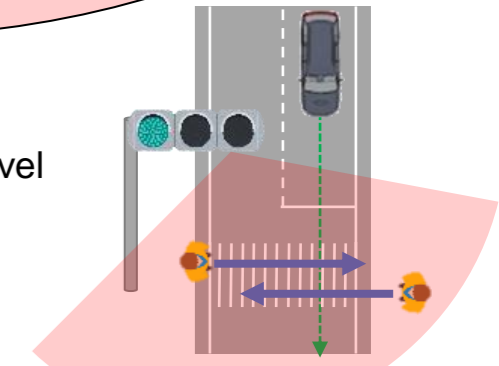
Infrastructure and onboard sensors fusion



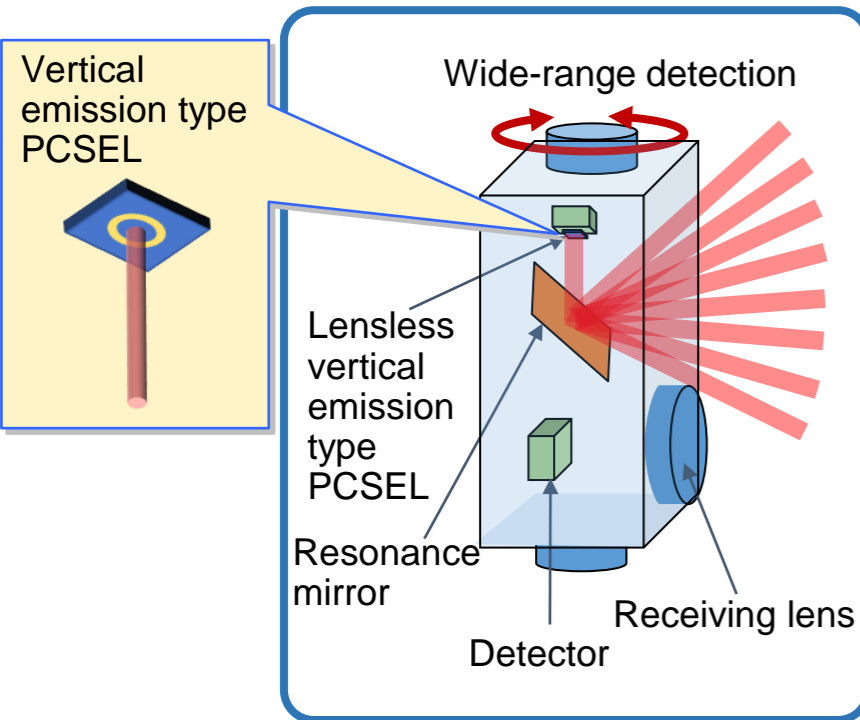
Blind spots monitoring in the vicinity of the vehicle (Wide FOV PCSEL-LiDAR)

Vehicle forward monitoring (non-mechanical PCSEL-LiDAR)

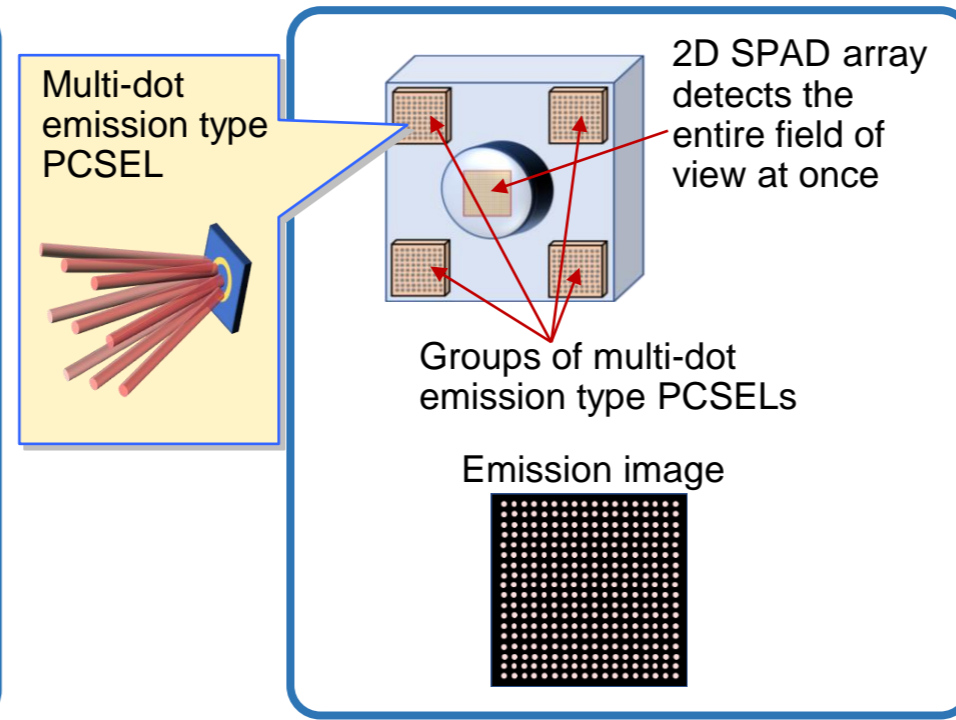
Pilot tests of Lv4 automated driving level



Crossing pedestrian detection (Wide FOV PCSEL-LiDAR)



Utilized as infrastructure sensors and as sensors capable of monitoring blind spots in the vicinity of the vehicle



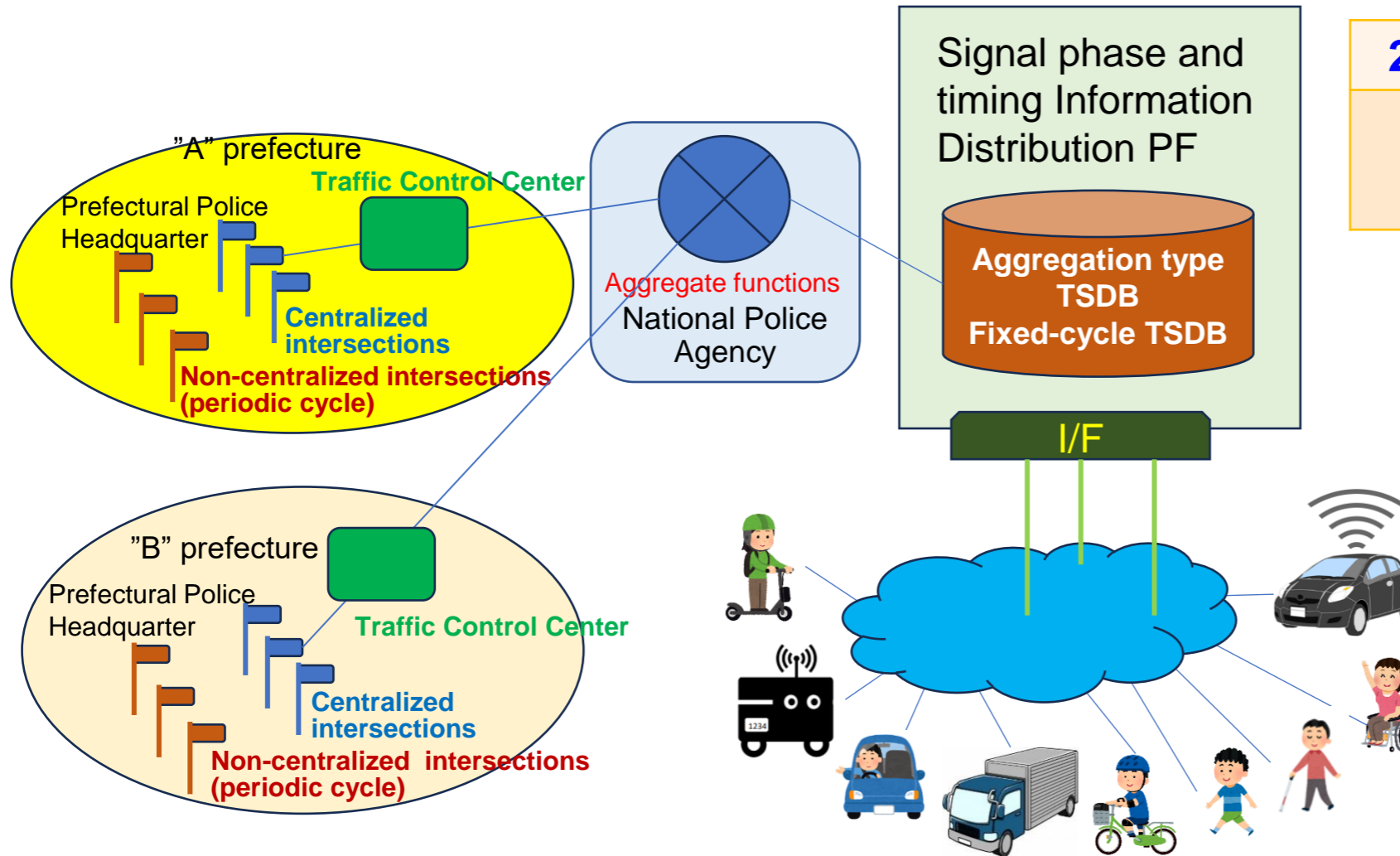
Expected to be compact and affordable owing to its construction as an all-semiconductor chip, and expected to be used as a sensor even for normal passenger vehicles.

No.3 : Research and development of a general traffic signal information provision platform using V2N



R&D Technical Issues	⑦ Development of safe, secure, and bustling road space and transportation system
Project Overview	In this R&D, a platform that provides traffic signal phase and timing information to various types of mobilities will be constructed, and R&D will be conducted with the aim of realizing an environment in which automated vehicles, freight, public transportation (buses, etc.), sidewalk delivery robots, pedestrians, bicycles, etc. (hereinafter referred to as "various mobilities") can smoothly utilize the transportation network. The project consists of the establishment of the technology necessary to build an open platform for providing traffic signal phase and timing information and pilot tests.
Partners	UTMS Society of Japan (Lead organization) OMRON SOCIAL SOLUTIONS CO.,LTD NIPPON SIGNAL CO.,LTD Panasonic Connect CO.,LTD
Target issues to be resolved	<ul style="list-style-type: none"> • Seamless provision of traffic signal phase and timing information in zones containing a variety of traffic signals, like centralized and non-centralized control-based method • Construction of a platform providing traffic signal phase and timing information for various mobilities • Standardization of platform-mobility interrelation interfaces • Diversification of mobilities received traffic signal phase and timing information <p>The safety, security and smoothness of road traffic, including pedestrian spaces, especially with regard to intersection traffic will be secured by solving above technical issues.</p>

No.3 : Research and development of a general traffic signal information provision platform using V2N



2023	2024	2025	2026	2027
Plan	Tech. development Preparation for leading technology pilot tests	Leading tech. pilot experiment	Comprehensive pilot experiments (Open call for participants)	

- **Technical issues to be resolved by FY2025**
 - ✓ Seamless provision of traffic signal phase and timing information in zones containing a variety of traffic signals, like centralized and non-centralized control-based method
 - ✓ Construction of a periodic TSDB and development of measures to ensure its accuracy
 - ✓ Construction of a platform providing traffic signal phase and timing information
 - ✓ Establishment of operations across multiple prefectures
 - ✓ Platform I/F construction
 - ✓ Construction of a platform I/F responding to various mobility demands

TSDB : Traffic signal Data Base

No.4 : Realization of a Smart Mobility Society using the Japan Mobility Data Space



R&D Technical Issues	<ul style="list-style-type: none"> ⑨ Establishment and demonstration of an infrastructure for integration and mutual use of various mobility platforms and related data ⑩ Construction of a cyber-physical road space digital system infrastructure (digital sandbox) to realize safe, comfortable, and affluent mobility ⑪ Development of mobility-enabled services on urban OS ⑯ Development of SSM (Shared Service for Mobility) that enables mobility data sharing among startups and other businesses
Project Overview	<ul style="list-style-type: none"> ⑨ Construction and social implementation of the "Japan Mobility Data Space", an integrated and mutual use platform for the realization of new mobility services ⑩ Establishment and social implementation of "digital sandbox" technology, a mechanism for simulation on a digital space, to efficiently and effectively advance the planning stage and facilitate consensus building among stakeholders and administrative procedures ⑪ Implementation and deployment in cities of service study technologies on urban OS that support the next generation living zones and bustling road spaces ⑯ Development and social implementation of SSMs that provide the MaaS and ERP functions needed by small and medium-sized mobility operators, represented by startup companies
Partners	NTT DATA Corporation
Target issues to be resolved	<ul style="list-style-type: none"> ⑨ Many individually optimized platforms exist, but they are not interconnected and therefore do not realize smart and re-designed mobility. ⑩ When estimating and predicting the effects of the new mobility introduction and building consensus among stakeholders in the city, the lack of similar cases prevents a better understanding among stakeholders, and estimation and prediction cannot be conducted adequately with a high accuracy. ⑪ The current approach does not adequately address the case of integrating mobility services with the services to the residents, such as administration, restaurants, purchase of household goods, medical care, parks, etc. ⑯ It is difficult to realize a set of functions that should be equipped for launching a mobility service business at low cost and in a short time, which prevents startups in the mobility sector from commercializing their business early.

No.4 : Realization of a Smart Mobility Society using the Japan Mobility Data Space

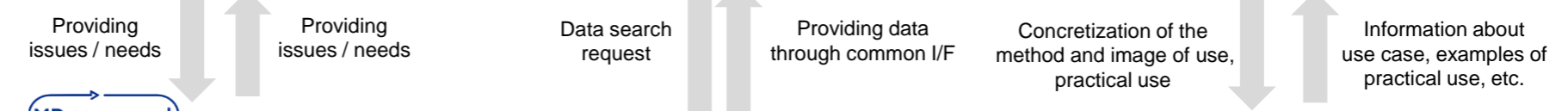
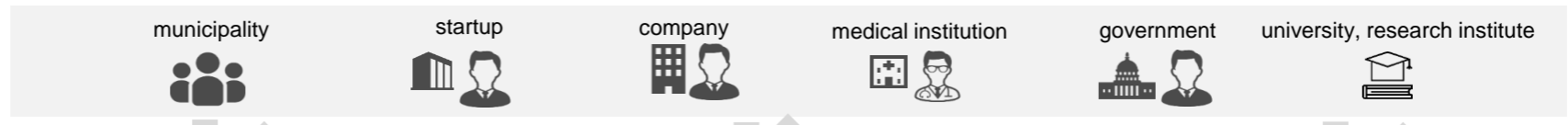


Provided value

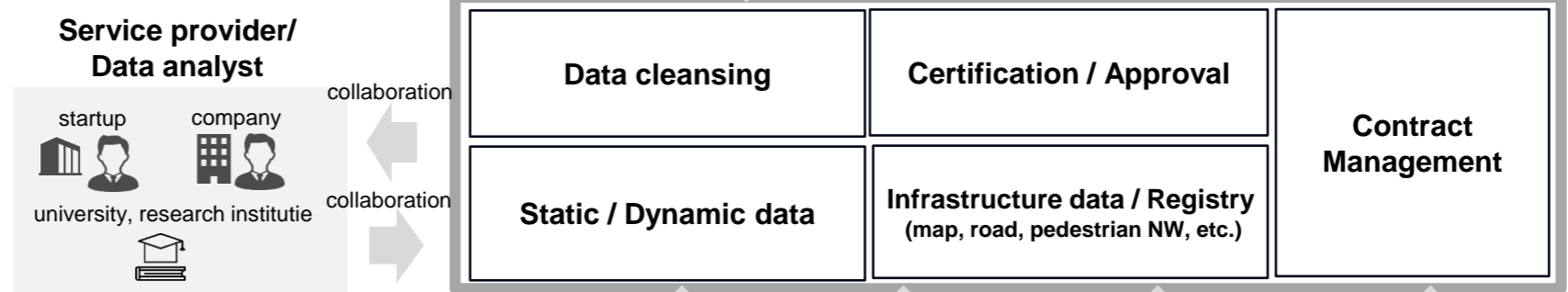
One-stop data acquisition - providing an environment can be analyzed, and accelerating service creation

Contribution to city development by mobility services through co-creation with partners

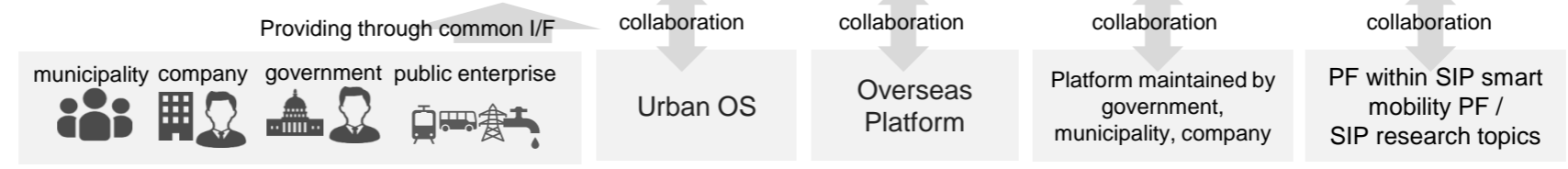
Data user



Development function service



Data provider



No.5 : Realization of Shared Space through Digital Smart Mobility



R&D Technical Issues	<ul style="list-style-type: none"> ⑦ Development of safe, secure, and bustling road space and transportation system ⑨ Establishment and demonstration of an infrastructure for integration and mutual use of various mobility platforms and related data ⑪ Development of mobility-enabled services on urban OS ⑫ Extraction of requirements for vehicles, infrastructure that contribute to re-design ⑬ Social systemization of automated driving
Project Overview	<p>Based on the concept that traffic actors such as cars and pedestrians pay attention to each other and communicate as typified by eye contact to share the road and a safe road is realized, in a shared space where traffic lights and signs are removed and traffic rules on the road are minimized, in Tsukuba City, under the framework of the Super City-type National Strategic Special Zones, the project aims to social implementation of a new shared space (space for pedestrians and vehicles to coexist) where cars, bicycles and pedestrians can access without special traffic zones.</p>
Partners	<p>University of Tsukuba (Lead organization) Tokyo Marine & Nichido Fire Insurance Co.,Ltd. NIPPON KOEI, NEC Corporation KDDI CORPORATION, Mitsubishi Electric Corporation</p>
Target issues to be resolved	<ul style="list-style-type: none"> ⑦ -Understanding the current status of minor roads in the city and establishment of a policy monitoring system. -Acquiring social acceptance and cooperativeness regarding the living and bustling roads, and rule-making ⑨ -Incubation for social implementation of “Mobility Data Space” (technical specification studies, demonstrations, etc.) ⑪ -Visualization of operational management status in different types of next-generation mobilities (automated driving vehicles, drones) ⑫ -Re-design of diverse mobility resources that promote the social participation of many people ⑬ -Safe and secure mobility operations on the living and bustling roads.

No.5 : Realization of Shared Space through Digital Smart Mobility

Realization of Shared Space through Digital Smart Mobility

Partners:
 University of Tsukuba
 (Lead organization),
 Tokio Marine & Nichido
 Fire Insurance,
 NIHON KOEI, NEC,
 KDDI and Mitsubishi
 Electric

NEC
 ⑨ Incubation of the "Mobility Data Space" in which existing or newly established data PFs are linked in a decentralized federal manner in order to contribute to smart mobility and the newly redefined mobility services aimed at under this theme in Japan.

東京海上日動
NIPPON KOEI
 ⑦ "Establishment of a safe and secure area management method for living roads" that can be deployed.

MITSUBISHI ELECTRIC
 Changes for the Better
 ⑬ Infrastructure integrated mobility platform to support automated driving utilizing information from various sensors and open data installed in the city

Collaboration with Tsukuba City
 IT/Data-Platform (Urban OS, operated)

PLATEAU
 by MLIT
 PLATEAU ·
 Metaverse integration

Tomorrow, Together
KDDI
 ⑪ Proposing 3D visualization mechanism considering the specification differences from different management platforms of next-generation mobilities

Public and private data utilization

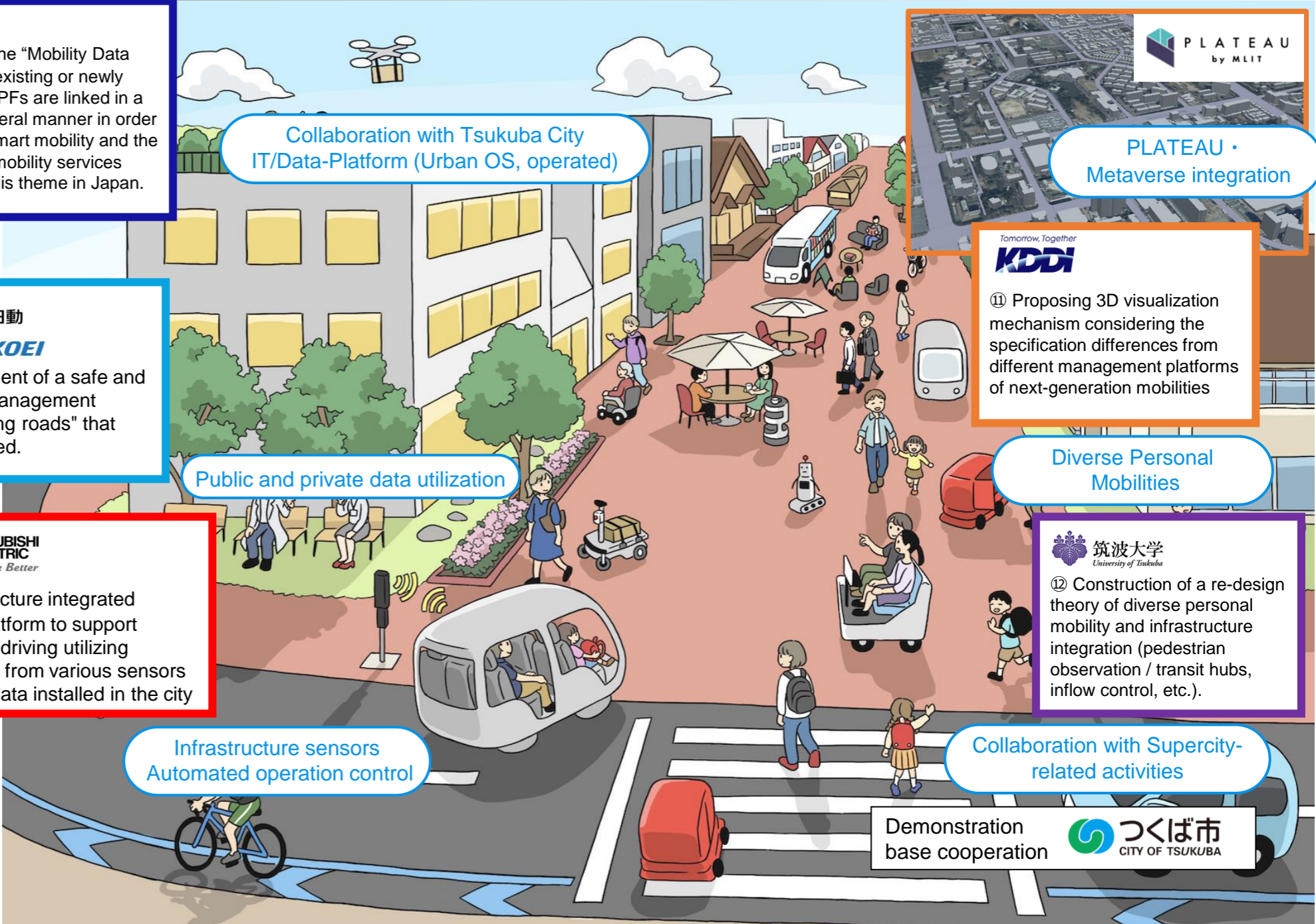
Diverse Personal
 Mobilities

筑波大学
 University of Tsukuba
 ⑫ Construction of a re-design theory of diverse personal mobility and infrastructure integration (pedestrian observation / transit hubs, inflow control, etc.).

Infrastructure sensors
 Automated operation control

Collaboration with Supercity-
 related activities

Demonstration
 base cooperation つくば市
 CITY OF TSUKUBA



No.6 : Development of a mobility social experiment Digital Twin incorporating geospatial information and pseudo people flow data



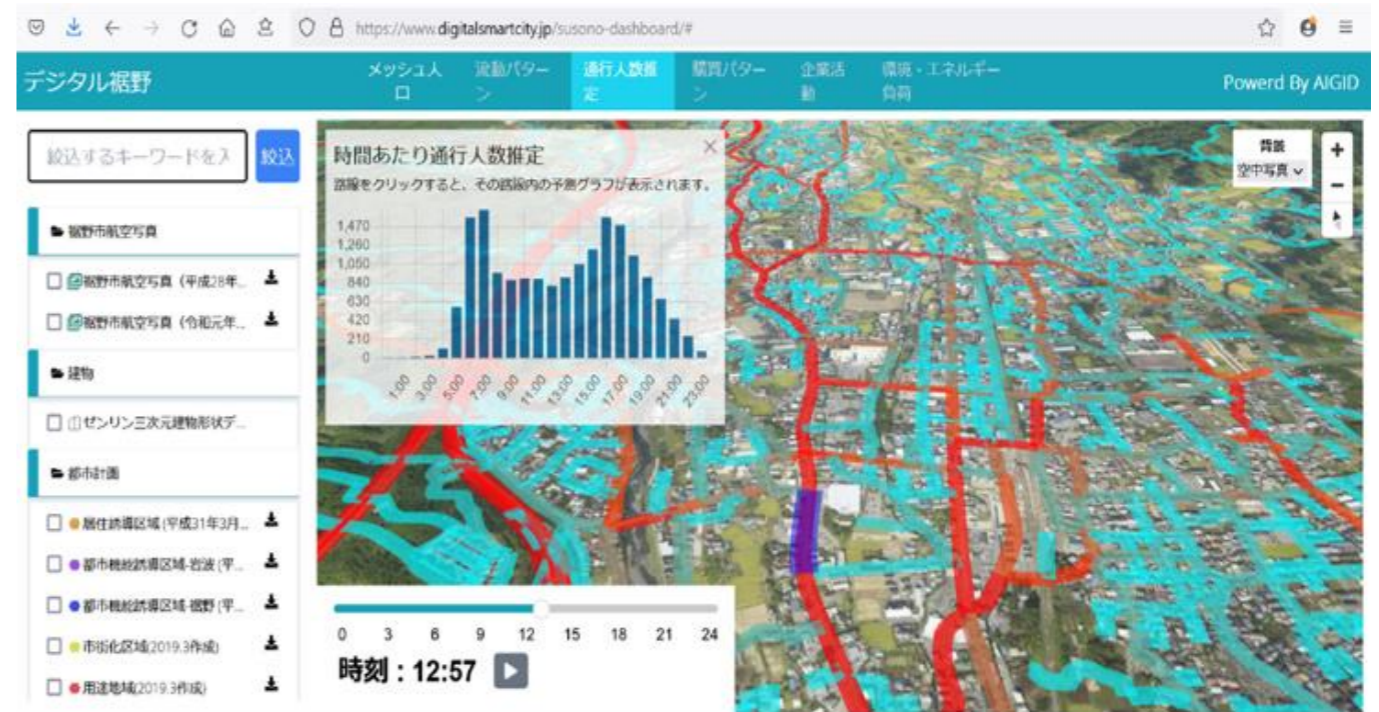
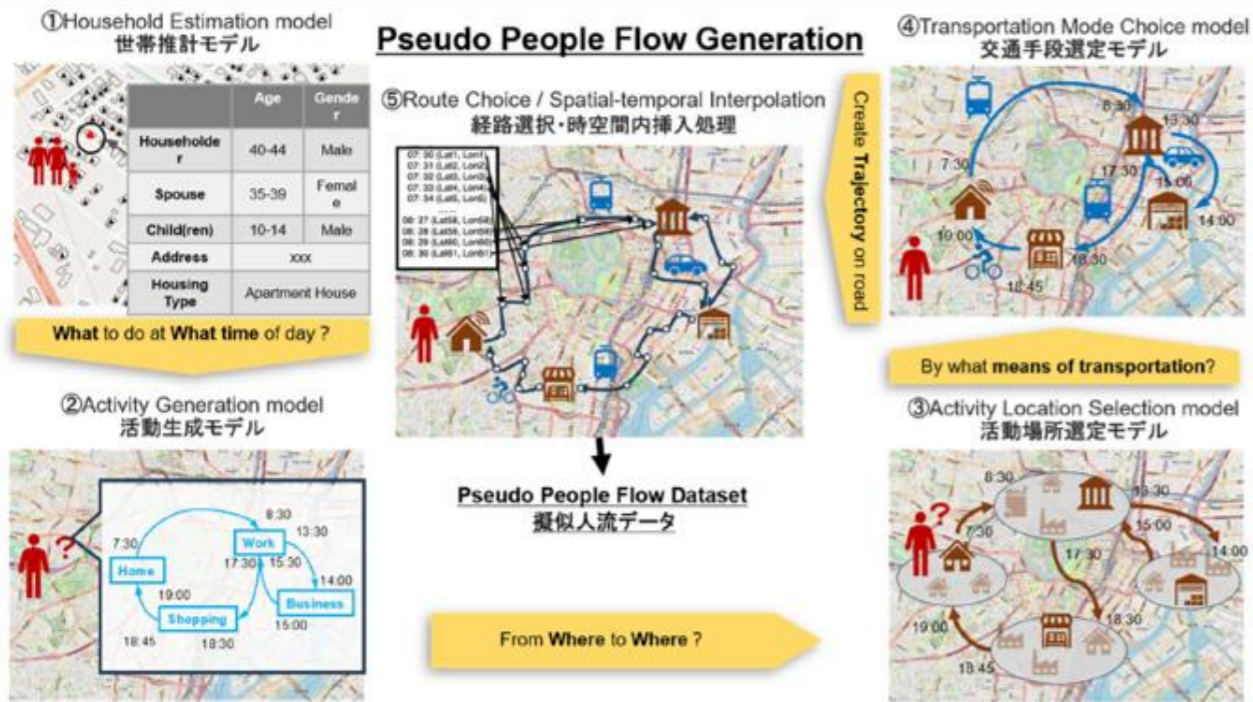
R&D Technical Issues	⑩ Construction of a cyber-physical road space digital system infrastructure (digital sandbox) to realize safe, comfortable, and affluent mobility
Project Overview	This research and development focuses on the realization of “newly redefined” mobility, and aims to realize a new vision of safe, comfortable, affluent and vibrant mobility in which pedestrians and micromobility smoothly mix and coexist with various types of vehicles and public transport. In order to realize this, the project establishes “digital sandbox” technology, a mechanism for embodying street spaces including various urban structure data, mobility vehicles, pedestrians and digital virtual spaces, and simulating on digital space in order to efficiently and effectively proceed the planning stage, facilitate consensus building among stakeholders and proceed administrative procedures.
Partners	The University of Tokyo (Lead organization) AIGID (Association for Promotion of Infrastructure Geospatial Information Distribution) SoftBank Corp. CTI Engineering Co., Ltd.
Target issues to be resolved	<ul style="list-style-type: none"> • Hypothesis verification and effect evaluation of behavior changes associated with the implementation of social experiments, etc. • Use as an explanatory tool for the public

No.6 : Development of a mobility social experiment Digital Twin incorporating geospatial information and pseudo people flow data



Methods for generating Pseudo People Flow Dataset

Sandboxes linked to various apps on digital city services.



No.7 : Practical mobility re-design

R&D Technical Issues	<ul style="list-style-type: none"> ① Identification of local mobility resources ② Development of local mobility diagnostic guidelines and mobility re-design simulation model ③ Creation of general mobilization tips (collection of tips) that contribute to local development ④ Development of local mobility re-design report and Japanese re-design index ⑥ Tactical mobility re-design practices
Project Overview	<p>In order to prepare and publish a local(regional) mobility re-design report (planning guidelines), this research and development establishes a method for understanding the actual situation of local(regional) mobility resources through actual field surveys, and investigates domestic and overseas tips that are addressed in general mobilization. In addition, a dashboard will be developed to enable local authorities to check the actual status of local(regional) mobility resources, and a re-design index from Japan will be developed through tactical mobility re-design practices. Planning guidelines will be developed from these practices.</p>
Partners	<p>The Institute of Behavioral Sciences (IBS, Lead organization) Yachiyo Engineering Co., Ltd. Japan Transport and Tourism Research Institute (JTTRI) Japan Transportation Planning Association (JTPA)</p>
Target issues to be resolved	<p><Responding to social challenges></p> <ul style="list-style-type: none"> • Climate crisis, achieving the vision zero policy, equity, reducing mobility disparities, diverse choices, creating opportunities for social participation. <p><Urgent issues in the mobility sector></p> <ul style="list-style-type: none"> • Creating the foundations support general mobilization of mobility, forming a society of knowledge circulation (knowledge loop), breaking down barriers surrounding the mobility sector

No.7 : Practical mobility re-design

Urgent issues in the mobility sector

Creating the foundations to support general mobilization of mobility

Forming a society of knowledge circulation (knowledge loop)

Breaking down barriers surrounding the mobility sector

Human resource development in mobility sector

Research theory : Development of methods for identification of local(regional) mobility resources

Analytical theory : Development of local(regional) mobility diagnostic guidelines

Policy theory : Development of mobility re-design simulation model

Evaluation theory : Development of mobility re-design evaluation index (KPI)

Dissemination theory : Development of organizations and programs for human resource development

Responding to social challenges

Responding to the climate crisis

Achieving the vision zero policy

Equity,
Reducing mobility disparities

Diverse choices, creating opportunities for social participation

practice

Planning guidelines for mobility re-design

International cooperation

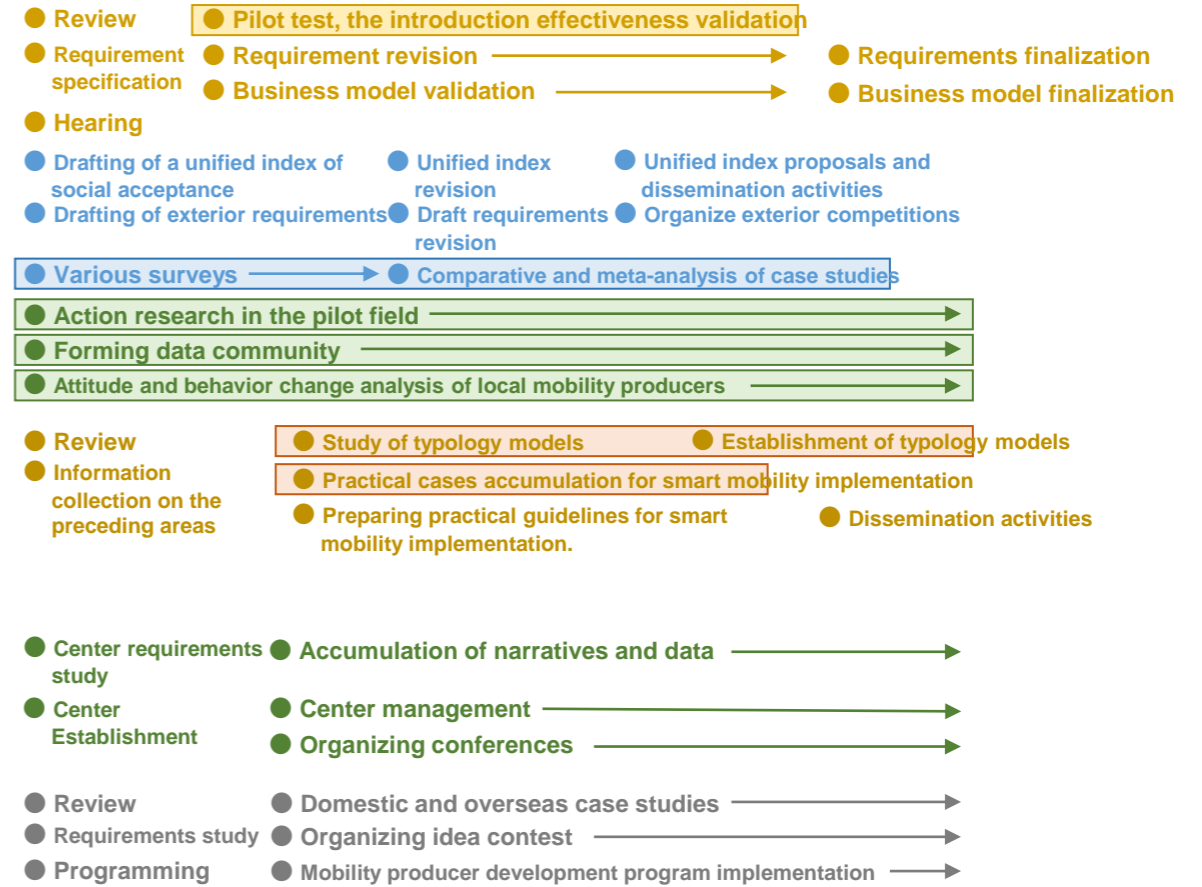
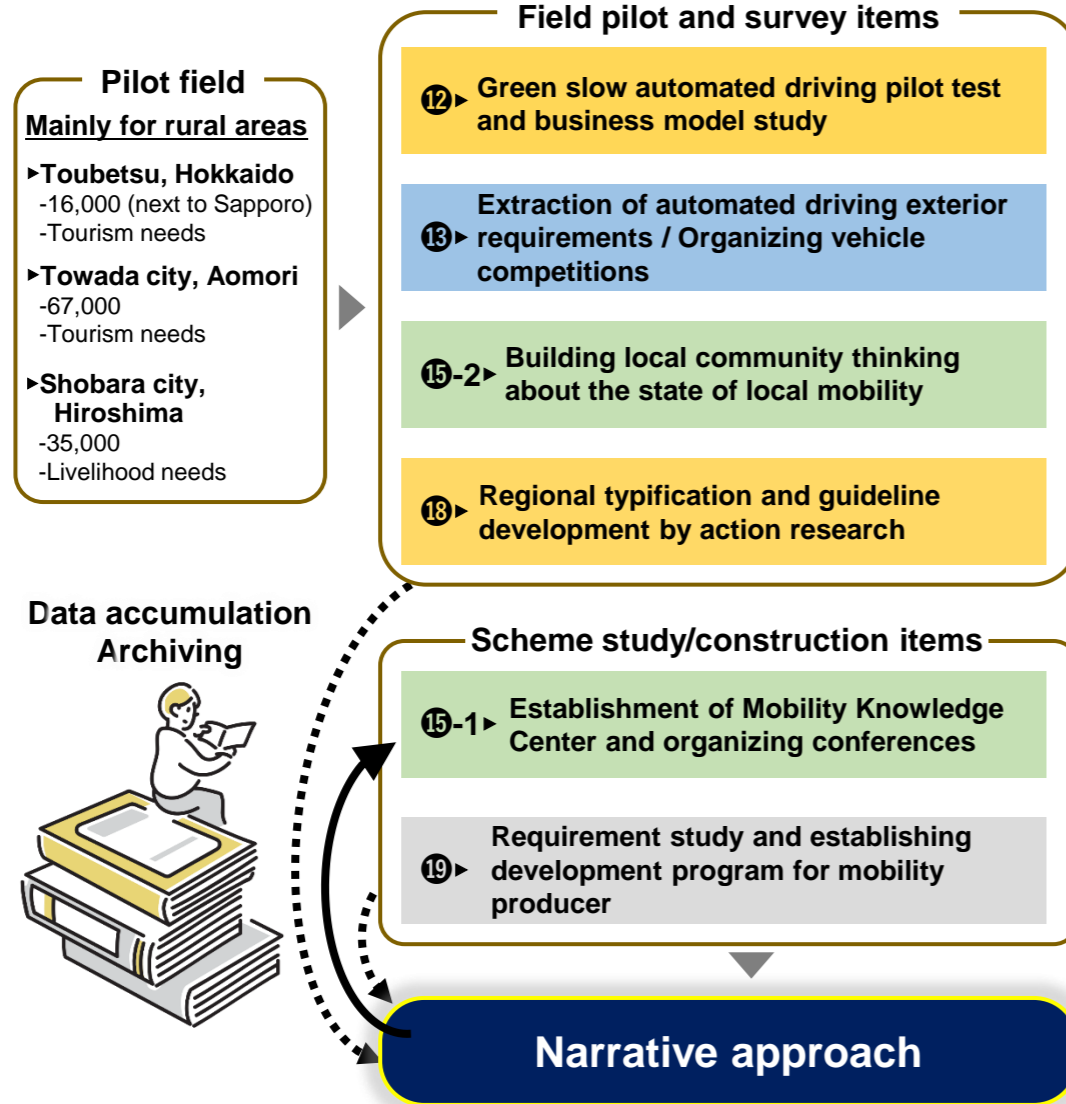
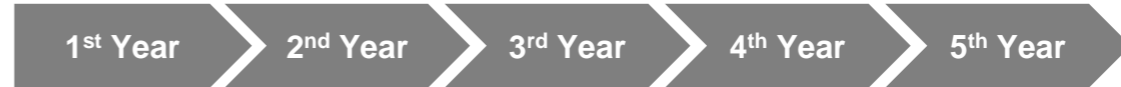
No.8 : Research and Development on local transportation community formulation and Human Resource Development Program with narrative approaches



R&D Technical Issues	<ul style="list-style-type: none"> ⑫ Extraction of requirements for vehicles, infrastructure that contribute to re-design ⑬ Social systemization of automated driving ⑮ Building local/mobility/business/data communities for service implementation of local mobility resources ⑱ Practical research (action research) and dissemination development activities to typify and identify areas utilizing local mobility resources ⑲ Human resource development for social implementation of services
Project Overview	<p>Through the pilot operation of green slow mobility and automated driving buses, this R&D will study and propose a unified index to measure the social acceptance of automated driving buses, and conduct a survey and study of exterior requirements for automated driving buses. Furthermore, the Mobility Knowledge Center will be established as a place to develop human resources and local communities, and local mobility producers will be developed. Furthermore, the know-how and processes of these activities and local mobility practices will be narrated, and will be accumulated, shared and utilized.</p>
Partners	<p>The University of Tsukuba (Lead organization) National Institute of Technology, Kure College Oriental Consultants Co., LTD. Hokkaido Development Engineering Center</p>
Target issues to be resolved	<ul style="list-style-type: none"> • Social implementation of automated driving buses and green slow mobility. • Maintenance and development of local mobility through the establishment of Mobility Knowledge Centers and the development of local mobility producers.

No.8 : Research and Development on local transportation community formulation and Human Resource Development Program with narrative approaches

[R&D overview and schedule]

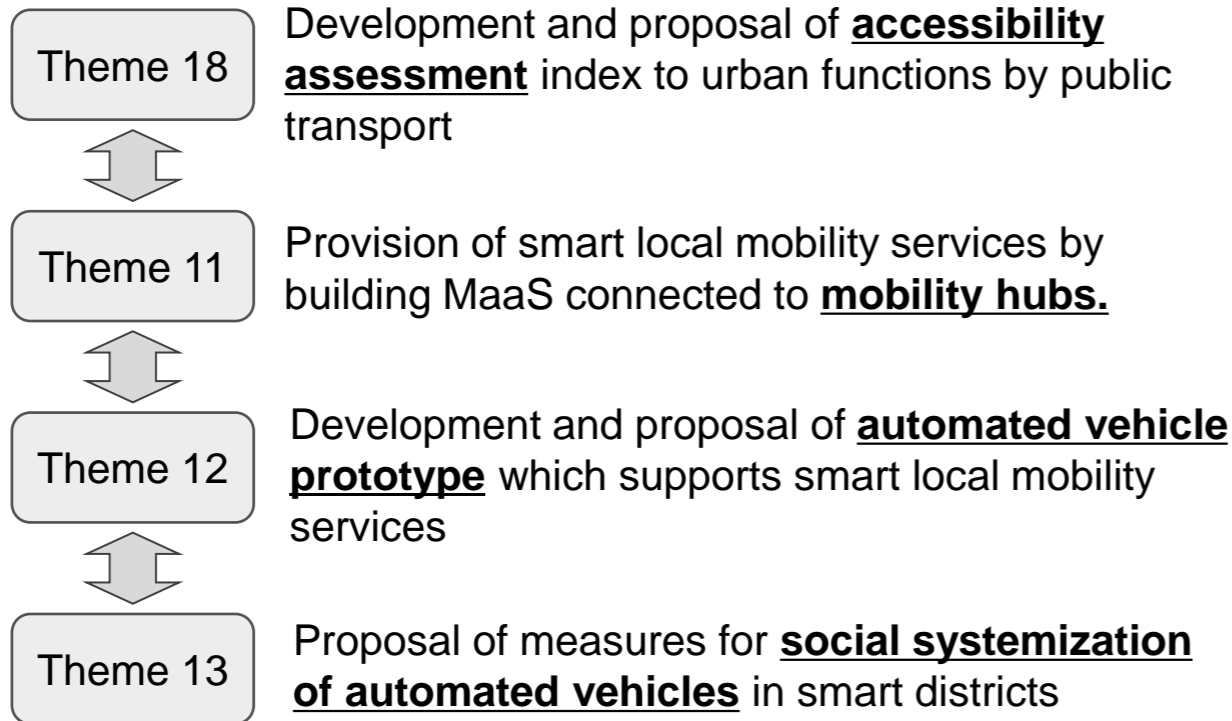


Going into the pocket as a local actor,
Accumulating and utilizing by narrative of know-how and processes
that are not visible from outside of the community

No.9 : Building smart districts with advanced mobility systems

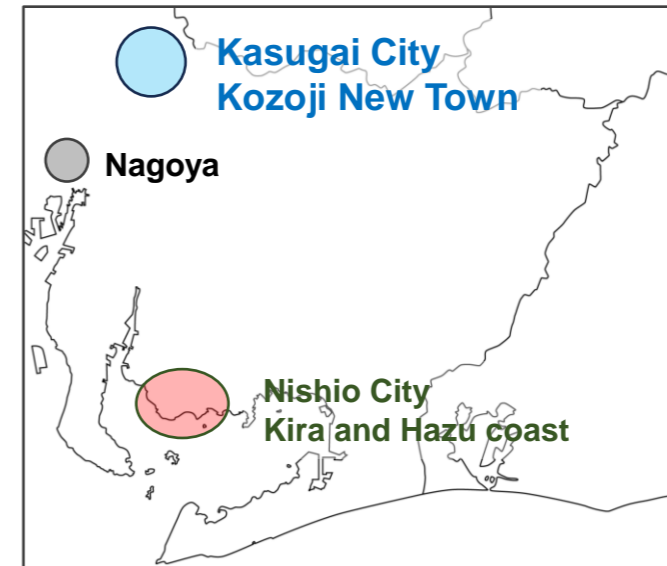
R&D Technical Issues	<ul style="list-style-type: none"> ⑪ Development of mobility-enabled services on urban OS ⑫ Extraction of requirements for vehicles, infrastructure that contribute to re-design ⑬ Social systemization of automated driving ⑰ Promoting international collaboration ⑱ Practical surveys (action research) and dissemination development activities to typify and identify areas utilizing local mobility resources
Project Overview	<p>The purpose of this R&D is to create a "Smart District" that facilitates intra-district transportation and access to mainline public transportation by enhancing mobility services in the district and reducing automobile traffic in the district, with the aim of realizing a society where people can move freely and independently without using their personal cars. Specifically, the project will provide smart local mobility services connected to mobility hubs, develop and socialize automated vehicles for intra-district transportation, and develop accessibility indicators for the district with smart mobility in mind. As a test bed for the Smart District, the project will conduct demonstrations and address social implementation in the Kozoji New Town in Kasugai City and the Kira and Hazu coast areas in Nishio City.</p>
Partners	Nagoya University
Target issues to be resolved	<ul style="list-style-type: none"> • Construction of a non-trunk transportation system that connects to mainline transportation to improve convenience of regional transportation. • Reduction of automobile traffic in the district

Demonstrate at “Model District” in two locations in Aichi prefecture



Theme 17

- ❑ Promoting development through international cooperation
- ❑ Addressing international standardization of specifications, etc.



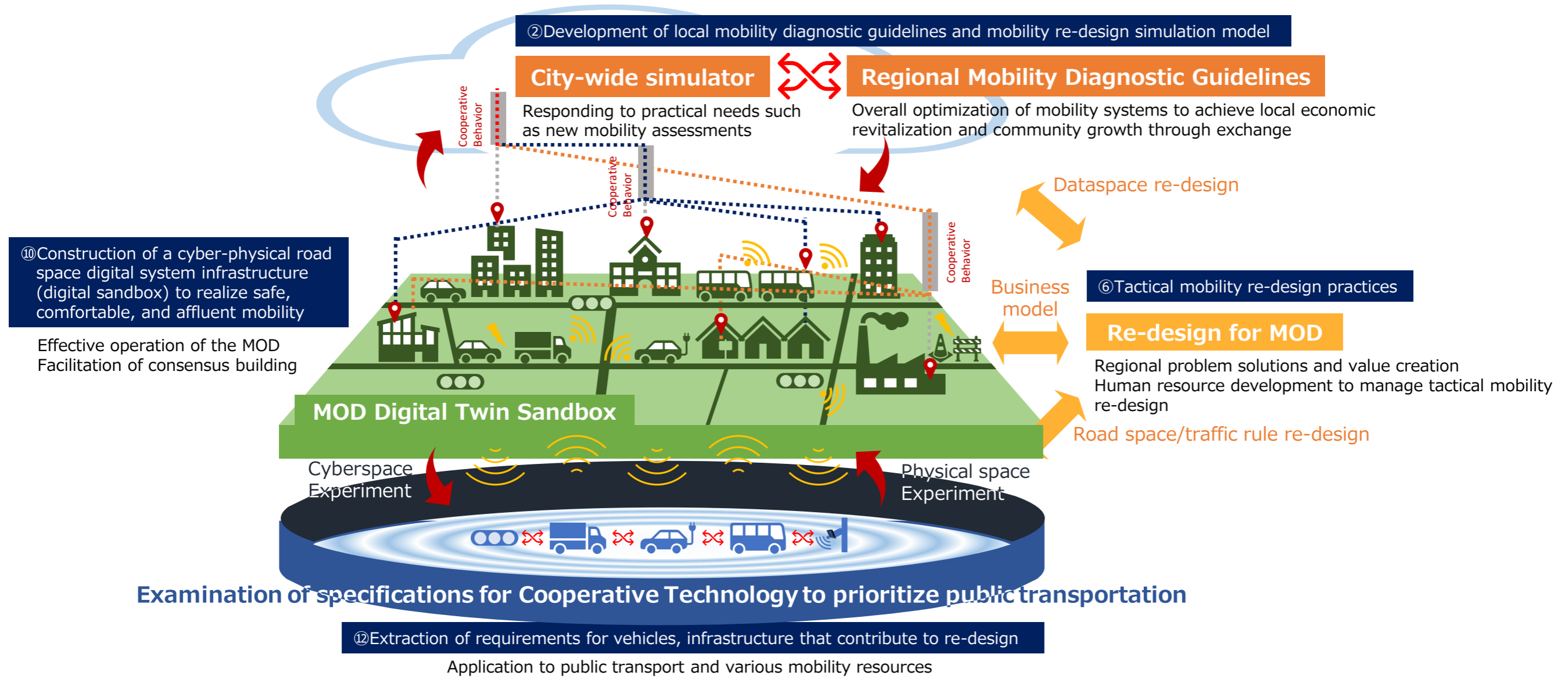
White map: <https://www.freemap.jp/itemFreeDIPage.php?b=aichi&s=aichi>

No.10 : Development of a new mobility-oriented city with an agglomeration of Places for Social Exchange



<p>R&D Technical Issues</p>	<ul style="list-style-type: none"> ② Development of local mobility diagnostic guidelines and mobility re-design simulation model ⑥ Tactical mobility re-design practices ⑩ Construction of a cyber-physical road space digital system infrastructure (digital sandbox) to realize safe, comfortable, and affluent mobility ⑫ Extraction of requirements for vehicles, infrastructure that contribute to re-design
<p>Project Overview</p>	<p>This research and development will redefine public transport from local mobility resources by developing mobility diagnostic guidelines and simulation models for the redefinition and implementation of local mobility, and promote the actual deployment of tactical mobility re-design through the introduction and use of new mobility services. Furthermore, this project aims to realize a mobility-oriented city with an agglomeration for social exchange through the mobility re-design by building a digital twin sandbox as a cyber-physical road space digital system, evaluating the effectiveness and economic efficiency of introducing new mobility in cyberspace, and studying requirements for the re-design of new vehicles for public transport and infrastructure.</p>
<p>Partners</p>	<p>Hiroshima University (Lead organization) National Institute of Technology, Kure College The University of Tokyo Vital Lead Pacific Consultants</p>
<p>Target issues to be resolved</p>	<ul style="list-style-type: none"> • Local mobility resources are not fully utilised. • Lack of status of manifestation of results in pilot tests. • Lack of human resources responsible for mobility re-design • No progress about building consensus with residents for new mobility-oriented development • Lack of legislations and operational rules suitable for cooperative systems for public transport and infrastructure

No.10 : Development of a new mobility-oriented city with an agglomeration of Places for Social Exchange



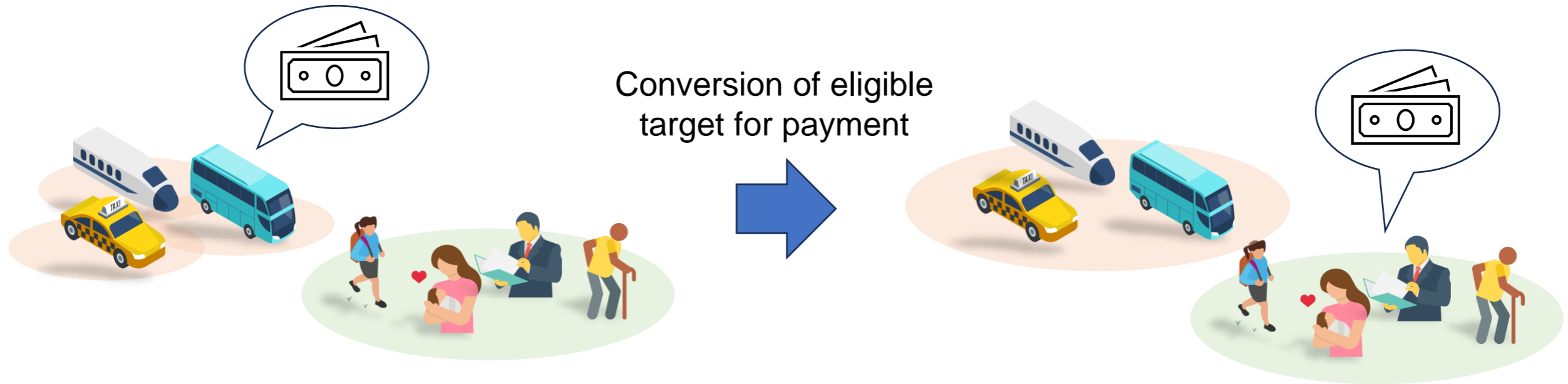
No.11 : Economic and mathematical engineering study by market design for SMP construction



R&D Technical Issues	⑧ Economic study of market design that brings easier service provision of smart mobility services
Project Overview	This research and development applies the market design concept and organizes the trading rules for mobility services on platforms. The interim goal of the project is to summarize the subsidy system in the mobility service market (in particular, the issues of the subsidy system in Japan, including comparisons with overseas) and the impact of safety index displayed on the platform on the feasibility of the platform. The final goal of the project is to contribute by providing a theoretical basis for the preparation of diagnostic guidelines and mobility re-design reports as an implementation plan, reflecting numerical calculation experiments including mathematical engineering perspectives.
Partners	Tohoku University (Lead organization) Keio University
Target issues to be resolved	<ul style="list-style-type: none">• Inefficiencies caused by generating the multiple, diverse and non-uniform platforms due to current subsidies for businesses• Loss of opportunities to provide mobility services that meet the user needs, due to unprofitable businesses being survived by subsidies

Subsidies for businesses by purpose

Mobility subsidies for users



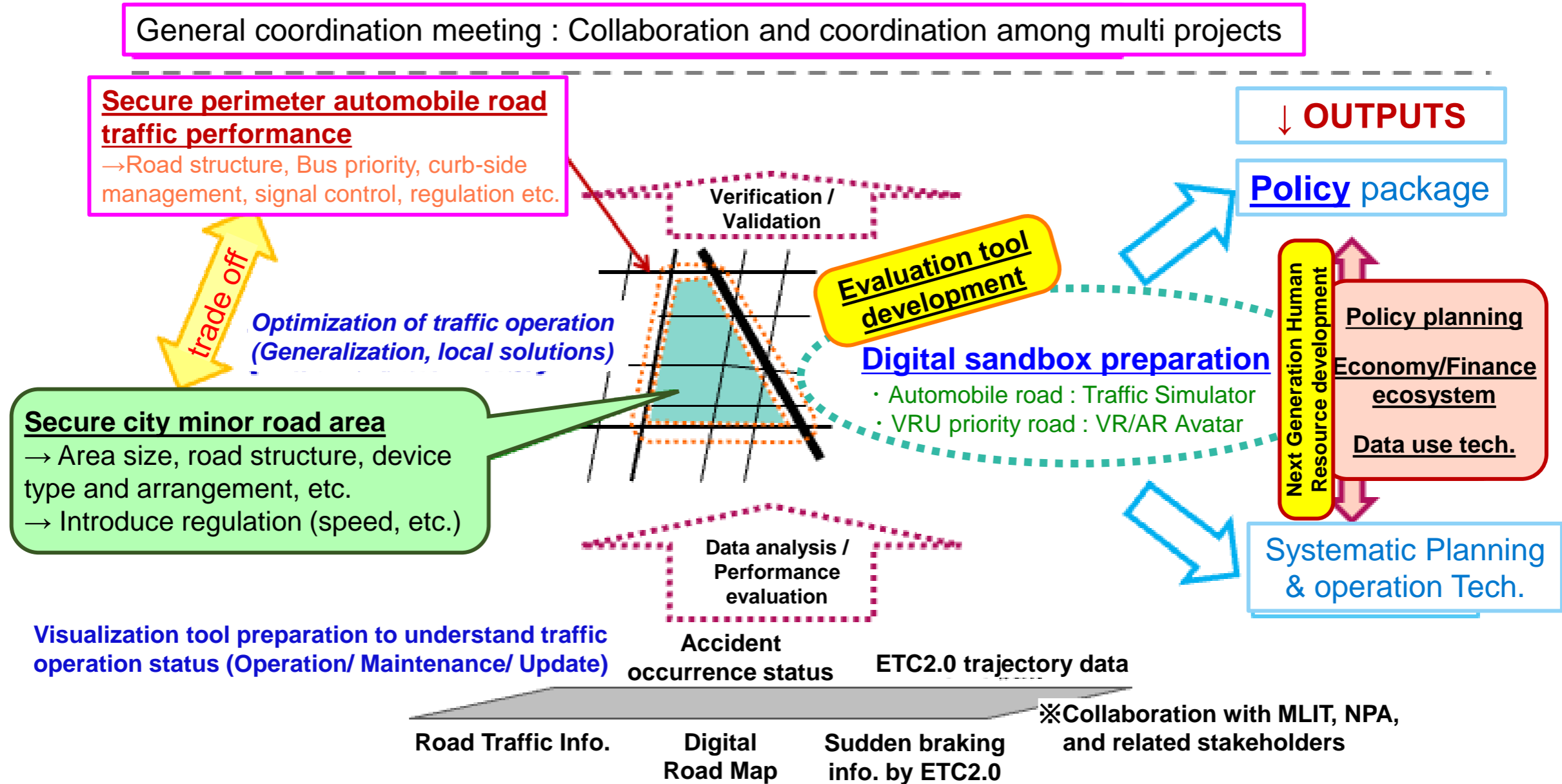
- ✓ Feasibility of a platform to unify different mobilities cross-sectionally
- ✓ Enabling more choice of transportation freely
→ Reflecting user needs
- ✓ Enabling to allocate subsidies focused on (necessary) vulnerable transport users
- ✓ Market decision of provided mobility services

No.12 : Development of a technology and policy package for re-designing urban street transportation



R&D Technical Issues	<ul style="list-style-type: none"> ⑦ Development of safe, secure, and bustling road space and transportation system ⑩ Construction of a cyber-physical road space digital system infrastructure (digital sandbox) to realize safe, comfortable, and affluent mobility
Project Overview	<p>In this research project, in order to address issues such as frequent traffic accidents due to the intrusion of motor vehicles onto city minor roads and the loss of liveliness in city centers, a comprehensive monitoring system including motorways as well as minor roads (narrow streets) will be constructed, and the basic theories for realizing multi-dimensional hierarchical traffic operation that integrates means of transport will be developed. Furthermore, the project will address a systematic social implementation of the technical items comprising the policy package, process proposals for the actual implementation of the policy package and social implementation, and proposals on the realization of the policy package considering issues of institutions and rules.</p>
Partners	<p>Oriental Consultants Co., LTD (Lead organization) Japan Institute of Country-ology and Engineering (Collaborator : The University of Tokyo)</p>
Target issues to be resolved	<ul style="list-style-type: none"> • Building a society in which everyone can live safely and securely in the city, and where everyone can enjoy free mobility in a lively and vibrant environment. • Building a society in which local authorities can understand the current situation and issues regarding a road transport in their jurisdiction and make timely improvements, even under limited resource circumstances. • Building a society in which high quality inner-city road transport is realized by providing new, high value-added technical services by specialist engineers responsible for road transport planning and management.

No.12 : Development of a technology and policy package for re-designing urban street transportation



No.13 : Verification of welfare effects caused by mobility service provision on community building and activities



R&D Technical Issues	<p>⑥ Tactical mobility re-design practices</p> <p>⑱ Practical research (action research) and dissemination development activities to typify and identify areas utilizing local mobility resources</p>
Project Overview	<p>In the two regions where are aiming for residents' well-being, this research and development aims to reconstruct the means of transportation while providing means of transportation to continue future city development and community activities. In the four regions where local residents are proactively addressing to secure the means of transportation, local requirements for the introduction of smart mobility services that can meet the needs of life support services including medical and nursing care, will be summarized and categorized. At the same time, through these activities, indicators and methods will be established to quantitatively derive the welfare effects of ensuring mobility, etc.</p>
Partners	<p>Japan Automobile Research Institute (Lead organization) Institute for Health Economics and Policy</p>
Target issues to be resolved	<ul style="list-style-type: none"> • Maintaining community in a shrinking population society • Providing the means of transportation to support residents' community activities • Visualizing the effects of mobility service provision • Maximizing the utilization of transportation resources

R&D Technical Issues ⑥ Tactical mobility re-design practices

Areas where strategies for community building and community activities are in progress

Yabu City : Creating a small basement
Niyodogawa Town: Frailty prevention
/Haturattsu Activities

×

Providing the means of transportation to support community activities

- Demand-responsive transportation
- Transportation for mutual aid by residents, etc.
- Restructuring of public transportation

R&D Technical Issues ⑱ Practical research (action research) and dissemination development activities to typify and identify areas utilizing local mobility resources

Areas where use of transportation is not sufficient

Matsudo City (near Tokyo)
Fujieda City (local city)
Kannami Town (villa area)
Ikeda Town, Hokkaido
(heavy snow area)

Community bus
Demand-responsive transportation
Resident mutual aid transportation
Welfare transportation, etc.

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Creating a purpose for outing, connecting to the location

- Frailty prevention and improving physical fitness
- Creation of new experiential opportunities
- Strengthening of use of local resources and the matching function with services
- Creating opportunities to connect in the community and beyond the community, etc.

No.14 : Social implementation of Smart Mobility Platform based on social acceptance and stakeholder coordination



R&D Technical Issues	<p>⑦ Development of safe, secure, and bustling road space and transportation system</p> <p>⑱ Human resource development for social implementation of services</p>
Project Overview	<p><⑦ Development of safe, secure, and bustling road space and transportation system></p> <p>The project will propose methods to acquire social acceptance and cooperation in local communities, develop necessary systems, and calculate economic benefits, with the aim of realizing a society in which automated vehicles are integrated into daily life as a means of life mobility, and safety and convenience are enhanced. Research and demonstrations will be conducted in four areas where year-round operation is already underway (Sakai Town - Ibaraki, Kamishihoro Town - Hokkaido, Nisshin City - Aichi, and Ota Ward - Tokyo(Haneda Innovation City)). The know-how to promote social implementation will be made public as a re-design guideline to be utilized for implementation in other areas.</p> <p><⑱ Human resource development for social implementation of services></p> <p>The project will compile the know-how required to find, train, and retain human resources in the four areas where automated bus services have been deployed as year-round operations mentioned above, and develop an e-learning program and establish a Mobility Knowledge Center.</p>
Partners	<p>BOLDLY, Inc. (Lead organization), SUMITOMO CORPORATION Doshisha University, Tama University, Muroran Institute of Technology, Meiji University</p>
Target issues to be resolved	<p><⑦ Development of safe, secure, and bustling road space and transportation system></p> <ul style="list-style-type: none"> • Traffic accidents involving pedestrians, bicycles, etc. are more common on living roads in Japan than in other countries. • In many cases, activities for automated driving in Japan are limited to experiments and do not reach the stage of implementation (year-round operation business). Only technology demonstrations are being conducted, and the establishment of business models is lagging behind. • Evaluating the value of public transportation by its fares is limited, and only deficit compensation will not stop the closure or reduction of operating lines. <p><⑱ Human resource development for social implementation of services></p> <ul style="list-style-type: none"> • In the process of integrating mobility service such as automated driving Level 4 safely and quickly into the area, there is a lack of human resources who are experienced in issue solving and can be on site with a sense of responsibility. • There is a lack of human resources to produce not just mobility operations, but also cooperation with the community. • There is no mechanism to collect and deploy know-how among local human resources.

No.14 : Social implementation of Smart Mobility Platform based on social acceptance and stakeholder coordination

⑦ Development of safe, secure, and bustling road space and transportation system

Survey in 4 areas (Sakai-Ibaraki, Kamishihoro-Hokkaido, Nisshin-Aichi, Ota-ku -Tokyo (Haneda Innovation City))

- Route to school
- Tourist area, many pedestrians
- Zone 30 downtown area



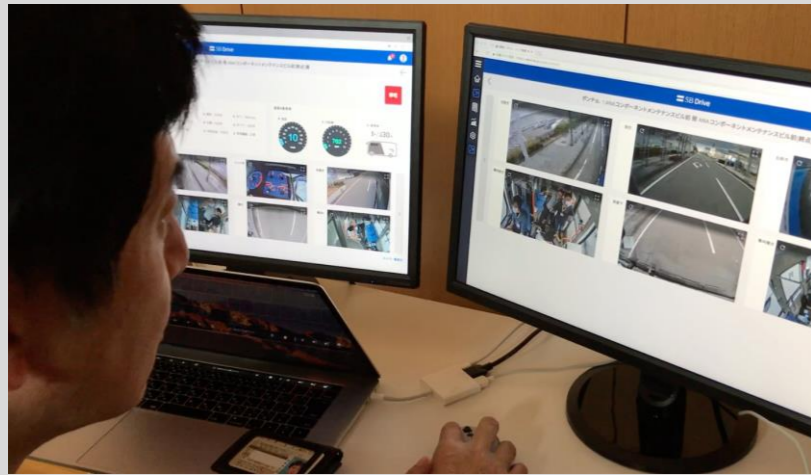
Re-design Guidelines

Proposals for methods to acquire social acceptance and cooperation in local communities, calculate economic benefits, etc.

Reflected in legislation, standards, directives, government reports, etc.

No.14 : Social implementation of Smart Mobility Platform based on social acceptance and stakeholder coordination

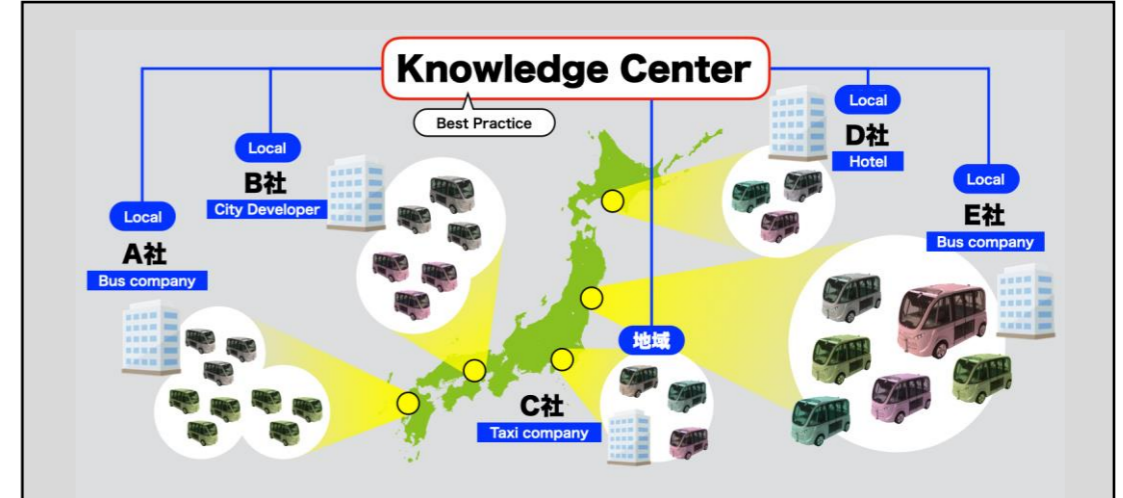
19) Human resource development for social implementation of services



Re-design human resource development Program
E-learning and on-site training



Operate mobility services on site and be active as a local producer



Re-design human resource development Program

Collect knowledge to Mobility Knowledge Center and deploy to other areas



No.15 : Promoting international research collaboration and dissemination activities toward the Development of Smart Mobility Platform



R&D Technical Issues	<ul style="list-style-type: none"> ① Identification of local mobility resources ⑰ Promoting international collaboration
Project Overview	<p>In order to promote international collaborative activities in the third phase of SiP, the development of the smart mobility platform, this project will expand the international network cultivated under the second phase of SiP (automated driving for universal services) to the research areas aimed at social implementation of mobility services, and promote a wider range of international collaborative activities, including collaboration with government and research institutions that are actively working on social implementation of mobility services. In addition, dissemination activities of the SiP third phase Smart Mobility Platform will be promoted by utilizing the annual international workshops hosted by the Mobility Innovation Alliance Japan to enhance Japan’s presence in this research area. Moreover, the project will support international collaborative activities among experts by serving as contact points for Japanese involvement and facilitating interactions with experts from overseas.</p>
Partners	<p>The University of Tokyo (Lead organization) Mobility Innovation Alliance Japan</p>
Target issues to be resolved	<ul style="list-style-type: none"> • Lack of international research collaboration and dissemination activities • Lack of an opportunity for exchange among experts to enable the mobility service deployment globally • Difficulty in negotiations with overseas governments, etc. towards global deployment and research collaboration by individual business units

No.15 : Promoting international research collaboration and dissemination activities toward the Development of Smart Mobility Platform

