

**「Cross-ministerial Strategic Innovation Promotion Program (SIP)/
Automated Driving for Universal Services/
Construction of Collaboration Structure in Promotion of Joint Research
on Automated Driving with Overseas Research Institutions」**

Final Report Summary

The University of Tokyo
Mobility Innovation Collaborative Research Organization (UTmobI)

March 2023

“Construction of Collaboration Structure in Promotion of Joint Research on Automated Driving with Overseas Research Institutions” Contents

1. Promote collaboration environments with overseas research institutions and creation of research theme, as a main window of SIP-adus international cooperation

- 1) Developing environments of international cooperation with government level
- 2) Creating research themes for international cooperation with expert level
- 3) Expansion of the database of researchers regarding automated driving

2. Create the plan and arrange the establishment of research bodies for promoting international collaborative research in automated driving area

- 1) Studying future sustainable collaboration model
- 2) Creating the plan and arranging the establishment of research bodies

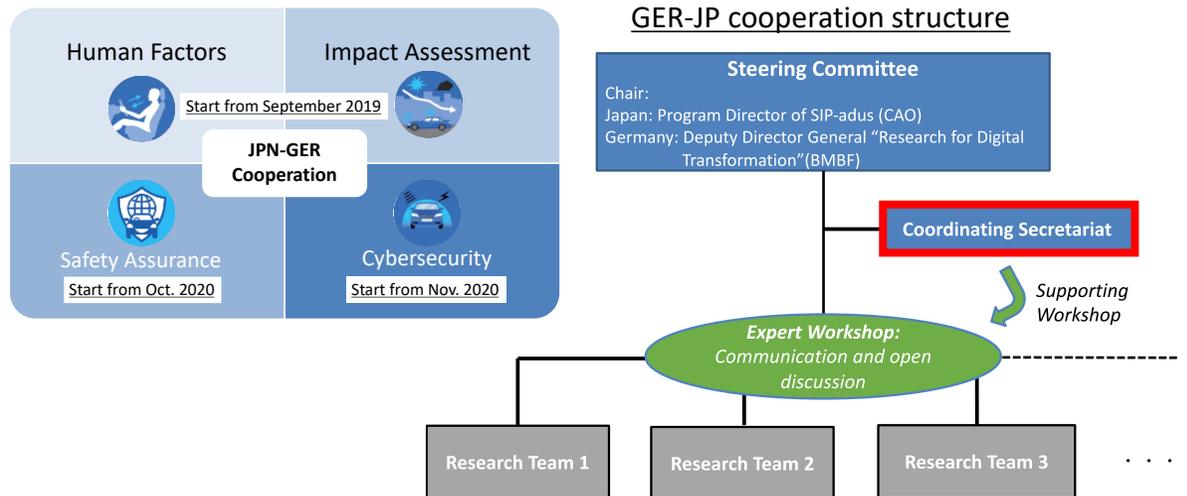
1. Promote collaboration environments with overseas research institutions and creation of research theme, as a main window of SIP-adus international cooperation

1) Developing environments of international cooperation with government level

Germany-Japan

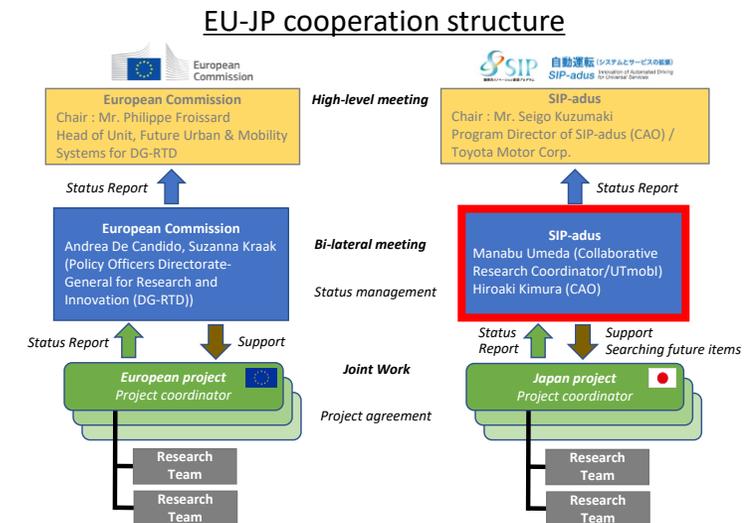
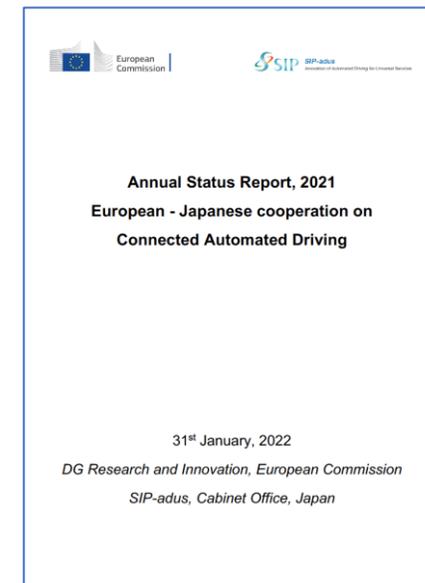
- Management of intergovernmental meeting
 - Steering Committee (Total 5 committees during FY2019-22)
 - Coordinating secretariat meeting (6-8 times annually)
- Publication of the joint brochure which summarizes outcomes of the collaboration

6 SC Meetings	27 Joint project workshops/webinars	58 Participating organizations from industry and academia	55 Researchers exchanged	3 Joint book publications	39 publications in reviewed journals
6 Expert Workshops			9 Joint topical task teams		
7 Joint proposals for standardization		81 academic theses	182 presentations in various conferences (JPN, GER, International)		



EU-Japan

- Establishment of cooperation structure and Management of intergovernmental meeting
 - Bi-lateral Meeting (Total 3 meetings during FY2019-22)
 - Coordinating secretariat meeting (3-5 times annually)
- Organized joint sessions in ITS World Congress (2021 in Hamburg, 2022 in Los Angeles) with EC
- Issued the Annual Status Report to summarize the progress of EU-Japan cooperation (in 2020, 2021, 2022)



1) Developing environments of international cooperation with government level

International cooperation window role of SIP-adus



■ Arranged overseas speakers for Keynote speech at SIP-adus workshop (USDOT, EC, BMBF)

Actual keynote speakers at SIP-adus Workshop

<SIP-adus Workshop 2019>

US : Harold W. Martin III (United States Department of Transportation)

EU : Ludger Rogge (Directorate-General for Research and Innovation, European Commission)

<SIP-adus Workshop 2020 (Recorded)>

US : Diana Elizabeth Furchtgott-Roth (United States Department of Transportation)

EU : Patrick Child (Directorate-General for Research and Innovation, European Commission)

<SIP-adus Workshop 2021 (Recorded)>

US : Kenneth M. Leonard (United States Department of Transportation)

EU : Rosalinde van der Vlies (Directorate-General for Research and Innovation, European Commission)

<SIP-adus Workshop 2022>

US (Recorded) : Vincent Gerard White (United States Department of Transportation)

EU : Andrea De Candido (Directorate-General for Research and Innovation, European Commission)

Germany : Stefan Mengel (German Federal Ministry of Education and Research)

■ Management and support of the session in SIP-adus workshop

- SIP-adus Workshop 2019 : Planning and management of the Breakout session in Regional Activities
- SIP-adus Workshop 2020 : Planning and management of the Plenary session in Regional Activities
- SIP-adus Workshop 2021 : Planning and management of the Plenary session in Regional Activities
- SIP-adus Workshop 2022 : Planning and management of the Plenary session in Regional Activities, Support of the Breakout session in Service and Business Implementation

1) Developing environments of international cooperation with government level

International cooperation window role of SIP-adus



- Dissemination of information on SIP-adus activities, collecting the latest information, and networking at international conferences

List of international conferences attended to collecting the latest trend

Time	Name of Conference	Location
October 2019	ITS World Congress	Singapore
January 2020	Transportation Research Board, Annual Meeting	Washington D.C, US
July 2020	Automated Vehicle Symposium	US (Web conference)
September 2020	European Transport Conference	Europe (Web conference)
Sep.-Oct. 2020	EUCAD Webinar	Europe (Web conference)
November 2020	ITS European Congress	Europe (Web conference)
January 2021	Transportation Research Board, Annual Meeting	US (Web conference)
April 2021	ITS Asia-Pacific Forum	Australia (Web conference)
July 2021	Automated Road Transportation Symposium	US (Web conference)
November 2021	ITS World Congress	Hamburg, Germany
January 2022	Transportation Research Board, Annual Meeting	Washington D.C, US
May-June 2022	ITS European Congress	Toulouse, France
July 2022	Automated Road Transportation Symposium	Garden Grove, US
September 2022	ITS World Congress	Los Angeles, US
November 2022	Transport Research Arena	Lisbon, Portugal
January 2023	Transportation Research Board, Annual Meeting	Washington D.C, US

2) Creating research themes for international cooperation with expert level

Sustainable international collaborative research themes

■ Level 4 Mobility Service Practical Research

- Organized a session to discuss the practical application of Level 4 mobility services at the ITS World Congress (October 2021 @ Hamburg, Germany, September 2022 @ Los Angeles, US)
- Collaborative activities with the SHOW project in Europe



Source : <https://show-project.eu/2021/10/22/show-broadens-international-collaboration-and-signs-mou-with-its-japan-and-utmobi/>

Management of international expert workshop

- Management of GER-JP Expert Workshop on Connected and Automated Driving (Total 4 WSs during FY2019-22)



Support of individual collaborative research themes

- Support for cooperation activities with the HEADSTART project in Europe

- Issued joint white paper in December 2021



HEADSTART project : <https://www.headstart-project.eu/2021/12/14/towards-the-harmonization-of-safety-assessment-methods-of-automated-driving/>

SAKURA project : https://www.sakura-prj.go.jp/Portals/0/images/Publications/HEADSTARTSAKURA_WP.pdf

SIP-adus : https://en.sip-adus.go.jp/evt/theme/safety_assurance.html#jump03

2. Create the plan and arrange the establishment of research bodies for promoting international collaborative research in automated driving area

1) Studying future sustainable collaboration model

Action items and issues towards establishment of a new research body

- The table below summarizes the action items and issues necessary to establish a research body that inherits the role of the APMI*, which has been active in the second phase of SIP-adus, from FY2023.

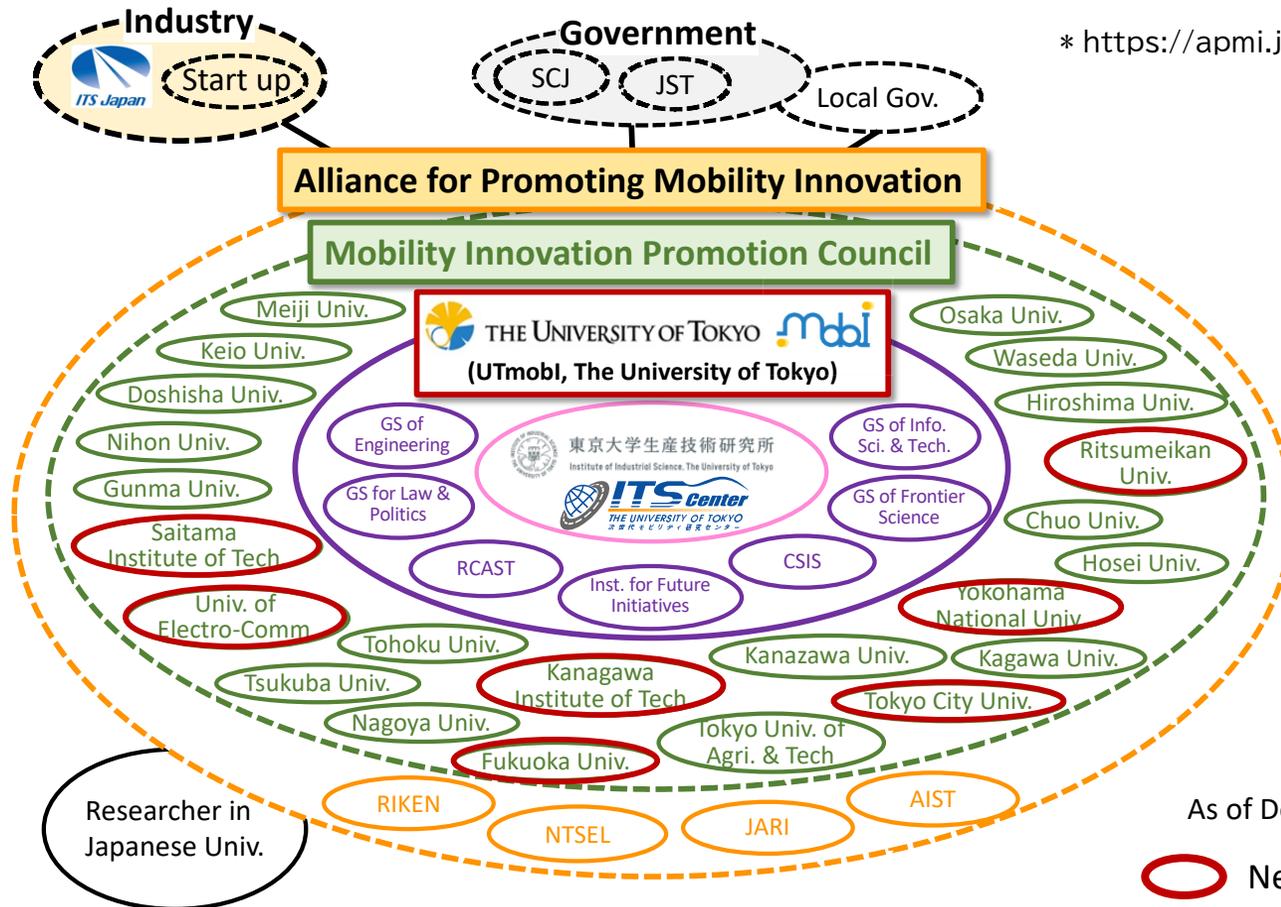
*APMI : Alliance for Promoting Mobility Innovation

Action Items	Issues
① Study on the role and position of the new body	• Clarification of differences from existing organizations
② Study on the activity plan of the new body	• Balance with operational scale and expected financial balance
③ Trial of activities <ul style="list-style-type: none">• Establishment of joint research structure• Creation of researchers' database• Trial of human resources development activities• Trial of public relations activities, etc.	• Coordination in specific project
④ Study of organizational form	• Clarification of participation merits and data collection
⑤ Coordination with related stakeholders including ministries and agencies regarding ① to ④	• Planning and implementation of specific projects
⑥ Preparation for establishment of the new body based on ④	• Opportunities for public relations activities as a succession organization
	• Securing sustainable operating resources
	• Collecting various opinions
	• Confirmation of necessary legal procedures and preparation of documents

1) Studying future sustainable collaboration model

Strengthening academic collaboration

- Holding the APMI meeting (Total 12 meetings during FY2019-22)
- Expansion of Alliance members (+7 universities from start)
- Launched APMI website* (Aug. 2021) and updated



* <https://apmi.jp/eng/index.html>

As of December 2022

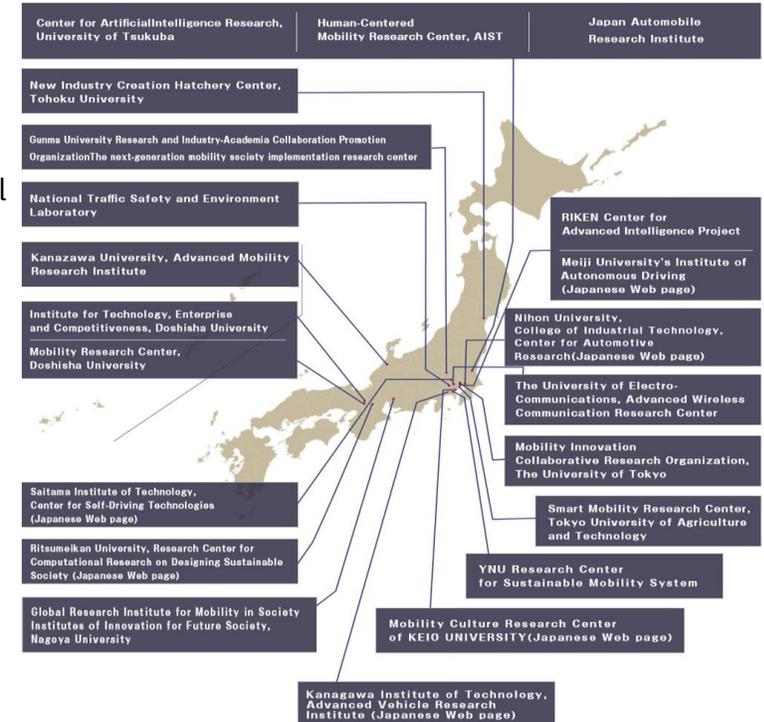
New members



Members

Member list of "Alliance for Promoting Mobility Innovation"
(As of December 21st, 2022)

Institution member's location / web site



Secretariat

Mobility Innovation Collaborative Research Organization, The University of Tokyo (UTmobi)
5-1-5 Kashiwanoha Kashiwa-shi, Chiba 277-8574, Japan
utmobi-sec@its.iis.u-tokyo.ac.jp

This project is partly funded by "Establishment of a cooperation system for promoting joint research on automated driving with overseas research institutes in the second phase of SIP-adus (Automated Driving for Universal Services)" (an investigation project under the auspices of the New Energy and Industrial Technology Development Organization [NEDO]).

1) Studying future sustainable collaboration model

Joint research structure centered on academic collaboration

- Regarding the Level 4 Mobility Service practical application research that has been carried out in collaboration with ITS Japan, a consortium consisting of related universities and research institutes applied for and adopted a project under the METI & MLIT.

Major consortium member of RoAD to the L4 theme 4 (Cool4) as of 2022



< University >

The University of Tokyo, Mobility Innovation Collaborative Research Organization (UTmobl)

Nagoya University, Global Research Institute for Mobility in Society, Institutes of Innovation for Future Society (GREMO)

The University of Electro-Communications, Advanced Wireless Communication Research Center

Doshisha University, Mobility Research Center

< Research Institute >

AIST, Information Technology and Human Factors

Japan Automobile Research Institute

< Industry >

ITS Japan
Mitsubishi Research Institute
Mitsui Fudosan
Panasonic
Shimizu Corporation
BOLDLY

< Local >

Kashiwa City
UDCK (Urban Design Center Kashiwa-no-ha)

* Blue letter : Member of "Alliance for Promoting Mobility Innovation"

2) Creating the plan and arranging the establishment of research bodies

Start activities by the new body



The “Mobility Innovation Alliance Japan” was established with the aim of becoming “a member-led organization that launches innovative mobility-related technology development and social implementation”, by taking over the activities of the Alliance for Promoting Mobility Innovation, which was a part of the second phase of the SIP-adus.

Date of establishment : July 1st, 2022

Representative Director : Hajime Amano
(Former ITS Japan President, former visiting professor of the University of Tokyo)

Vice Representative Director : Prof. Yoshihiro Suda
(Director, Mobility Innovation Collaborative Research Organization, The University of Tokyo (UTmobl))

Activities

 Formulate cross-sectoral academic activities Taking over the activities of the “Alliance for Promoting Mobility Innovation” in SIP-adus

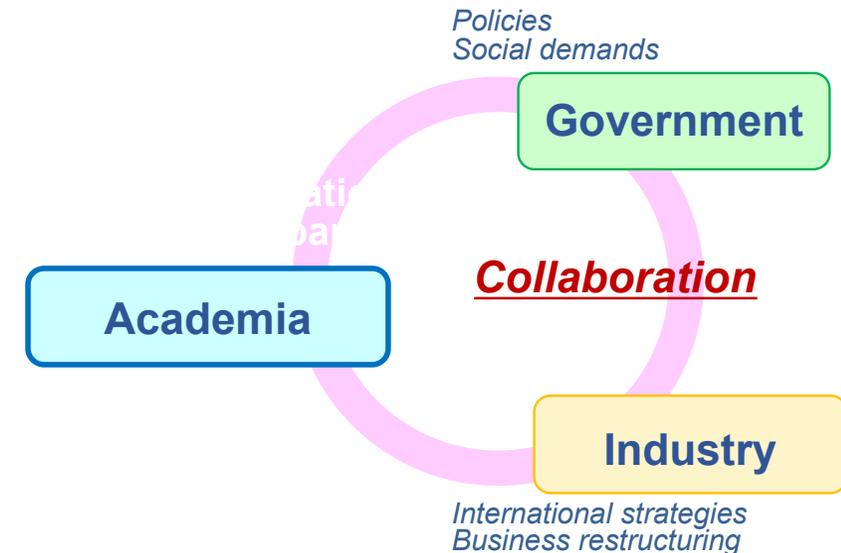
 Discuss and advance proposals on cross-ministerial policies

 Create collaborations over researchers, industries and public sectors

 Promote international joint research through annual workshops in Japan Taking over the activities of SIP-adus Workshop

 Launch activities to integrate technologies and societal changes

 Hold competitions to foster young researchers and start ups 



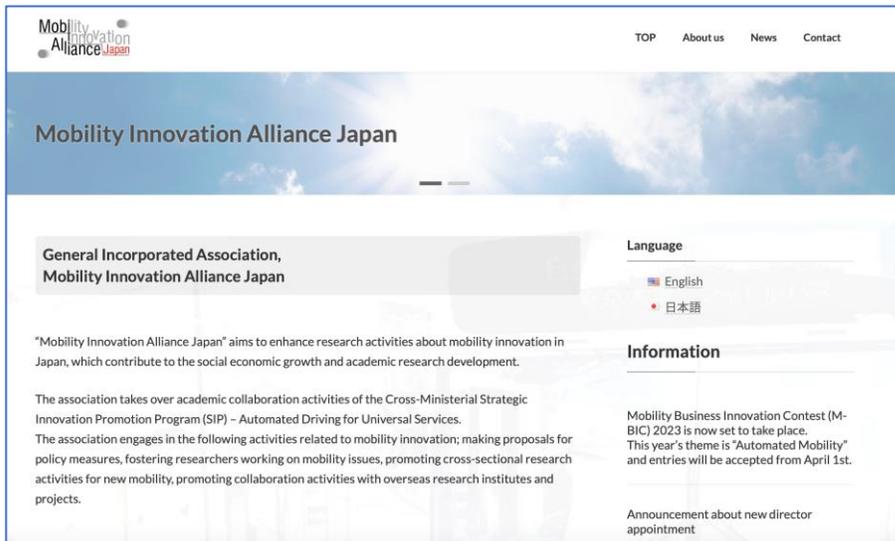
2) Creating the plan and arranging the establishment of research bodies

Start activities by the new body



Following activities were conducted after the establishment of “Mobility Innovation Alliance Japan”

- Promotion of the new body (Launching web-site, Poster at several events, etc.)
- Recruiting of supporting member (from Oct. 2022)
- Co-hosting SIP-adus Workshop 2022 and Mobility Business Innovation Contest (M-BIC) 2022
- Announcement of taking over SIP-adus Workshop and one-stop window for international cooperation activities



君のアイデアで加速する
未来の社会と自動運転



* URL : <https://mobilityinnovationalliance.org/en/>

Source : <https://webpark5061.sakura.ne.jp/2022/自動運転を活用したビジネスアイデアのコンテスト/>

END

This report documents the results of Cross-ministerial Strategic Innovation Promotion Program (SIP) 2nd Phase, Automated Driving for Universal Services (SIP-adus, NEDO management number: JPNP18012) that was implemented by the Cabinet Office and was served by the New Energy and Industrial Technology Development Organization (NEDO) as a secretariat.