"Strategic Innovation Promotion Program 2nd Term / Automated Driving (Expansion of System and Service) / Strategic Planning for the Advancement of Social Acceptance and Survey regarding its Evaluation"

Progress Report 2020 Fiscal Year

Abstract

Dentsu Meitetsu Communications Inc.
SC-ABeam Automotive Consulting

March 2021

1) Dentsu Meitetsu Communications part

1. Details and outputs of the Joint Research

(1) SIP-adus Exhibition- sharing the achievements (by Dentsu Meitetsu Communications)

Other than the 4 main topics such as the traffic environment data curation and transmission, the construction of a virtual safety assurance environment, the establishment of the evaluation method of intrusion detection system for cyber security, and the building of a portal to distribute geographical data, the program showed its activities such as the development of technologies for building and distribution of information to support joining highways and traffic environment information generated with probe data among others, the field operation test in Tokyo waterfront area and semi-mountainous areas, the creation of social acceptance environment, along with the enforcement of international cooperation. Due to the Coivd-19 outbreak, all events were planned and implemented for both of face-to-face and online. Also, to deepen the participants' understanding, some guided tours for both were carried out.

-Event Name: Strategic Innovation Promotion Program (SIP)
              Automated Driving Showcase to change the future

-Event Date: March 25th, 2021 (Thursday)
               10:00 – 13:00   Pre-event press conference
                                 Preview for symposium / summit attendees
               13:00 – 17:00   Events open to the public
               March 16th, 2021 (Friday)
               10:00 – 17:00   Events open to the public

-Event Venue: Tokyo Fashion Town Building (TFT) Hall 1000

-Objectives: To give the attendees experience of touching and feeling the latest world of
                automated driving technologies through the exhibitions, as the results of
                research and development by SIP-adus projects, which proceed the
                implementation of Automated Driving.

-How to attend: at the venue or online

-Fee: Free

-Attendance: Total 1,097 people (at the venue + online + online guided tour)
*Both of online and guided tours numbers are accumulated, for all the online attendees are not included in the tours.

Number of attendees at the venue

	Media	General	Staff etc.	Preview	Guides	Total
25th, Thu.	12	67	29	53	45	206
26th, Fri.	7	89	11		46	153
Total	19	156	40	53	91	359

Online

	Registered
25th, Thu.	397
26th, Fri.	175
Total	572

Online Guided Tour

	Real	Online	Total
25th, Thu.	30	68	98
26th, Fri.	46	98	144
Total	76	166	242

-Media Coverage

Response, cliccar, carview, Nikkan Kogyo Shimbun, NEXT MOBILITY, Yahoo News (Reprint) etc.

- What you can see at the exhibition

[Welcome Zone (Society 5.0 and Automated Driving)]

You can enjoy the image of future society with Society 5.0 as a goal through the implementation of automated driving technologies, and various attempts by SIP-adus projects.

[01 Technologies Aiming to Realize a Society with Automated Driving]

You can find out the traffic environment information built through the Tokyo Waterfront field tests to realize automated driving connected with infrastructures, the virtual environment for safety evaluation, the result of researches of the intrusion detection system for cybersecurity, among others.

[02 Social Implementation of Automated Driving]

The displays are related to the Field Operational Tests (FOTs) and the studies on sustainable business models, aiming to implement automated driving transportation service in depopulating semi-mountainous areas . Additionally, the displays, concerning building of a portal site for wider transmission of geographical data looking over the future with automated driving becoming more popular, are ready for you.

[03 Automated Driving in Harmony with People]

The displays are to show a society where anyone can appreciate safe and secure traffic, through the studies on basic knowledge and its educational methods essential for people to know for automated vehicles and driver-assistance systems becoming widespread, and the studies on effectivity of the advanced driver-assistance systems for people with vision disturbance.

[04 SIP-adus in step with Society]

The displays introduce the SIP-adus activities concerning their communication with citizens to gain wider social acceptance and their attempts to promote industry / academia / government collaborations as well as global cooperation.

- Online Exhibition

To make possible attendance online, a website is constructed and an environment where displays in the real-world venue are replicated is compiled. Also, various routes to enjoy displays as preferences of the viewers are prepared.

[Registration for access]

A few general data input at the first access to the website as a registration process is required to issue a password. (URL and password are sent after registration by email)

[3D Walk-through]

For all unable to access to the venue, to maximize their experience, a 3D virtual area which closely resembles the venue by utilizing Matter Port's web application is created.

Other than giving the viewing experience in-sync with all the contents at the venue by filming it with a 360-degree camera, it is also possible to virtually walk around the area just like in the real venue.

[Keyword Search and Map]

For easier search of contents which viewers are interested in, the detailed information of the displays are incorporated beforehand in the search engine. Also, a map linked with information of each display is prepared for overview of the exhibition.

[Movies]

For online attendees' better understanding, a little ingenuity is added on movies streamed at the venue. Also, overviews and highlights of contents in the exhibition are transmitted by making and uploading movies to share the atmosphere of the venue before and during the event period.

[Link with Other Contents]

A content viewed by an attendee has a function to show its related keywords below the page and an automatic suggestion system is also incorporated to the system to automatically show contents which viewers might be interested in based on their viewing history.

- Survey Results

[Respondent Profile]
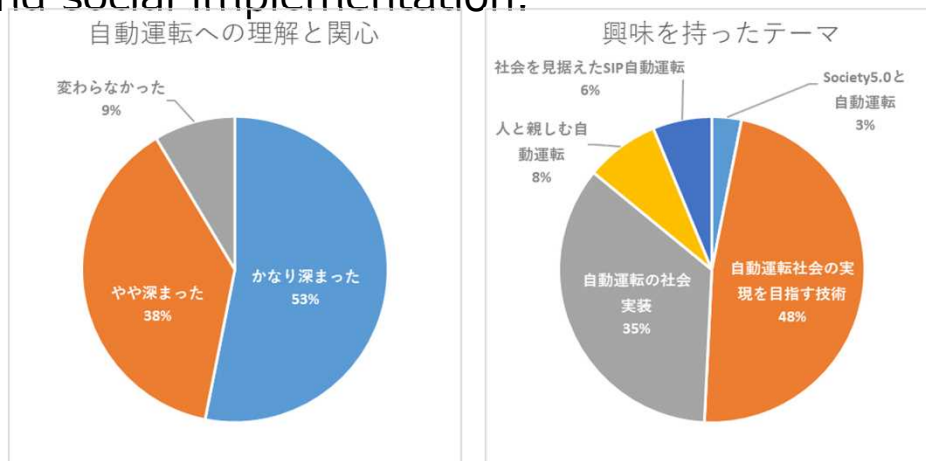Number of Answers 128
Male 91% Female 9%

Age:20s	30s	40s	50s	60s
4%	12%	30%	31%	23%

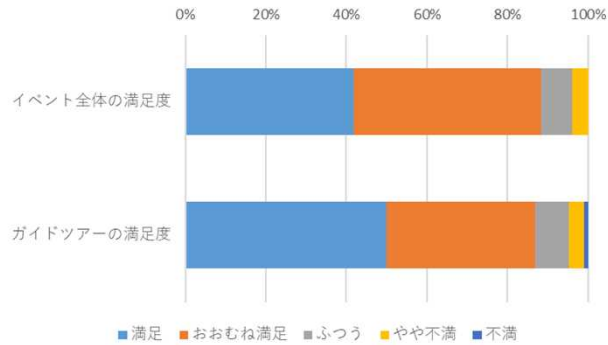98% holds a valid driver's license, 82% owns a car

Driving frequencies: 32% drive daily or 3,4 days a week, 54% drive once a week or few a month.

[Survey Result (excerpt)]

Over 90% of the respondents had their knowledge of automated driving considerably or slightly deepened. The most attractive themes were about technology and social implementation.

自動運転への理解と関心

変わらなかった 9%
やや深まった 38%
かなり深まった 53%

興味を持ったテーマ

社会を見据えたSIP自動運転 6%
人と親しむ自動運転 8%
Society5.0と自動運転 3%
自動運転の社会実装 35%
自動運転社会の実現を目指す技術 48%

イベントとガイドツアーの満足度

Level of satisfaction regarding both the whole event and the guided tour was high, close to 90% said well satisfied or almost satisfied (excluding non-participants). Our attitude toward automated vehicles and a society with them was positively accepted based on basic knowledge highly learned and interest keenly shown.

自動運転車や自動運転社会への態度
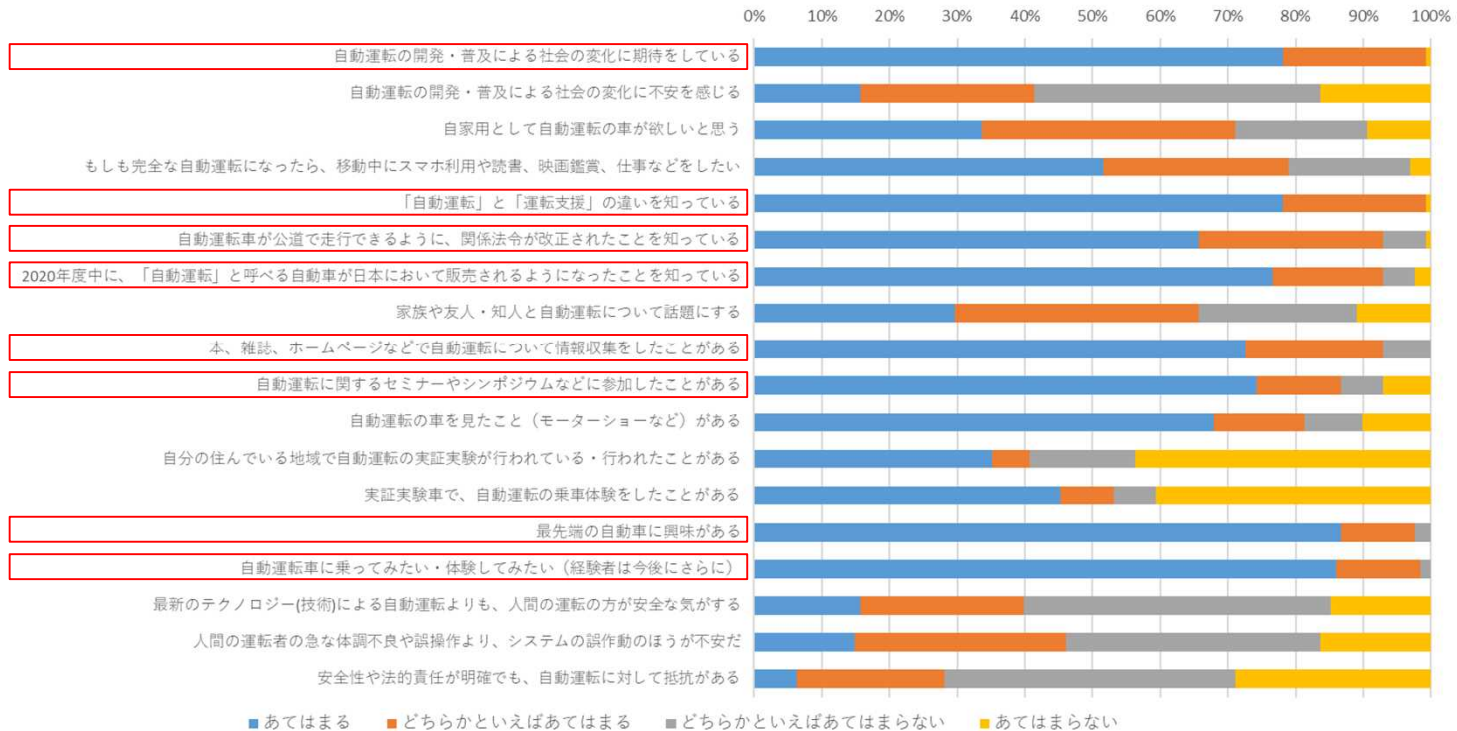
2）SC-Abeam Automotive Consulting part

Agenda

1. Background and objectives

2. Outline of the activities

3. Details of the activities in 2020

4. Details of the events

5. Summary

1. Background and objectives

Background

Increase the social acceptability for the implementation of the automated driving technology

- Need to Utilize the automated driving technology to improve the lack of human resource and to advance the logistics and transportation service.
- Need to appeal and communicate relevant and right information about autonomous driving technology, as one of the most critical topics to increase the social acceptability.

Objectives

Establish the cooperative relationship with local communities

- Communicate and discuss with the variety of citizens face to face and/or online, to establish a cooperative relationship in local community.

Promote the implementation of the automated driving(AD), enhancing the alliance among the regions and the start-ups engaged in AD

- Share, discuss and improve the issues among relevant stakeholders of the regions/the start-ups, to jointly promote and realize the implementation of the autonomous driving, disclosing those discussions and results to the public for increasing the social acceptability.

2. Outline of the activities

Outline

1) Dialogue with the citizen
- Area : Maebashi-city, Gunma pref.
- Time/Date : 13:00〜16:30, Jan 27, 2021
- Method : Online meeting
- Discussion theme : Ideal form of the city with the automated driving

2) Summit for the automated driving system in the regions
- Time/Date : 14:50〜17:30, Mar 25, 2021
- Place : TOC Ariake Hall, Tokyo
- Method : Online and onsite (Hybrid discussion)
  - From each region : Remotely join through web meeting system
  - From the start-ups, SIP and others : Join at TOC Ariake Hall
  - Onlookers : Watch YouTube Live
- Discussion theme : Automated driving showcase to shift the future〜 Share and discuss the current issues, among the stakeholders, aiming for the implementation of the autonomous driving in order to improve and solve the issues
- No. of onsite visitors : 105, no. of audience on YouTube Live : 556

3. Details of the activities in 2020

■ Two events were held in FY2020, one is the dialogue with the citizen and the other is the summit for the automated driving system in the regions.

1）Dialogue with the citizen
Remote discussion with the citizen living in Maebashi-city, Gunma pref. utilizing the web meeting system, under the declaration of a state of emergency due to COVID-19.

2）Summit for the automated driving system in the regions
Share and discuss the current issues among the stakeholders, aiming for the implementation of the autonomous driving system in order to efficiently and effectively improve and solve the issues based on the cooperative relationship among those.

4. Details of the events

	1. Dialogue with the citizen	2. Summit for the automated driving system in the regions
Time/Date	13:00〜16:30, Jan 27, 2021	14:50〜17:30, Mar 25, 2021
Place/ Method	Online meeting	TOC Ariake Hall, Tokyo/Online and onsite (Hybrid discussion)
Moderators	Ms. Rumiko Iwasada, SIP-adus	Ms. Rumiko Iwasada, SIP-adus
Discussion theme	Ideal form of the city with the automated driving	Automated driving showcase to shift the future
Participants	Citizens of Maebashi-city (15 people) Mr. Ogitsu, Associate Prof. of Gunma Univ. Mr. Nagumo, Deputy MGR of Maebashi-city Mr. Oguchi, Prof. Of Tokyo Univ./SIP-adus Mr. Arimoto, Sub PD of SIP-adus Mr. Shimizu, SIP-adus Ms. Iwasada, SIP-adus Mr. Ishii, SIP-adus	Cabinet Office : Deputy Minister, Mr. Mitsubayashi METI : Deputy Minister, Mr. Ejima MLIT : Deputy Minister, Mr. Onishi SIP-adus: PD, Mr. Kuzumaki Iinan town, Shimane: Mayoe, Mr. Tsukahara Eiheiji town, Fukui: Mayor, Mr. Kawai Kamikoani town, Akita: Mayor, Mr. Kobayashi Chatan town, Okinawa: Mayor, Mr. Noguni Higashioumi city, Shiga: Mayor, Mr. Ogura
Visitors	—	No. of onsite visitors : 105, no. of audience on YouTube Live : 556
communication by media	2 articles by Jomo Shimbun and Kotsu Mainichi Shimbun	3 articles by Kotsu Mainichi Shimbun, Response, and Merkmal

4. Details of the events
4-1. Dialogue with the citizen

■ Active and live discussions were realized among a variety of the citizens about ideal form of the city with the automated driving.

4. Details of the events
4-2. Dialogue with the citizen : Graphic Recording

■ The visualization of the discussion as Graphic Recording was introduced to facilitate the meeting.

4. Details of the events

4-3. Dialogue with the citizen : Communication by media

■ Outcome of the event was communicated through media, aiming for the increase of the social awareness and acceptability.

Jomo Shimbun（Jan 28, 2021）

Kotsu Mainichi Shimbun（Feb 1, 2021）

4. Details of the events
4-4. Summit for the region

■ The presentations and the panel discussions among the relevant experts were followed by Q&A sessions with the audience.

■ The visualization of the discussion as Graphic Recording was introduced to facilitate the meeting.

4. Details of the events
4-6. Summit for the region : Communication by media

Response（Mar 30, 2021）

Merkmal（Apr 3, 2021）

5. Summary

1）Opinions at the dialogue with the citizen in Maebashi-city
High expectation for automated on-demand/last mile transportation was shown because of the current high dependency on the personally owned vehicles, as well as for safer traffic/less traffic accidents with automated driving busses. Some elderly audiences are worried about unmanned vehicles in case of sudden accidents or illness happened without driver who can help them. Expectations for making city more compact/centralized as well as for inviting more people to downtown area are also mentioned.

2）Opinions at the summit for the automated driving system in the regions
The local municipality pointed out issues such as enhancement of customer service quality, social acceptability in the region and feasibility as business.
The start-ups suggested that the AD is not only accepted but also accelerated toward the implementation in the region when it can gain understanding, cooperation and ownership of the citizens.

3) New normal during COVID-19 period
Nearly 600 people viewed online, while approx. 100 people visited onsite.
More than half of them joined from outside of Tokyo metropolitan area, this was resulted from the increase of the touchpoints owing to the digital advantage.
For the next step, It will be promoted to make a sustainable system, which can communicate more with citizens based on our know-how, raising the reliability and the efficiency of event management, securing more touchpoints with citizens by our experienced teams, and utilizing advantage of online event to gain more audience.