

SIP-adus 2020



SIP-adus Workshop 2020

Session4



Study on Assessment and Strategy for Social and User Acceptance

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Study on Assessment and Strategy for Social and User Acceptance

INDEX



- 1. R&D Content**
- 2. Expectation & Anxiety**
- 3. Interest & Experience**
- 4. Awareness, Usage Status, User Understanding**
- 5. Acceptance of Automated Driving**
- 6. Actions for Consumer Acceptance**

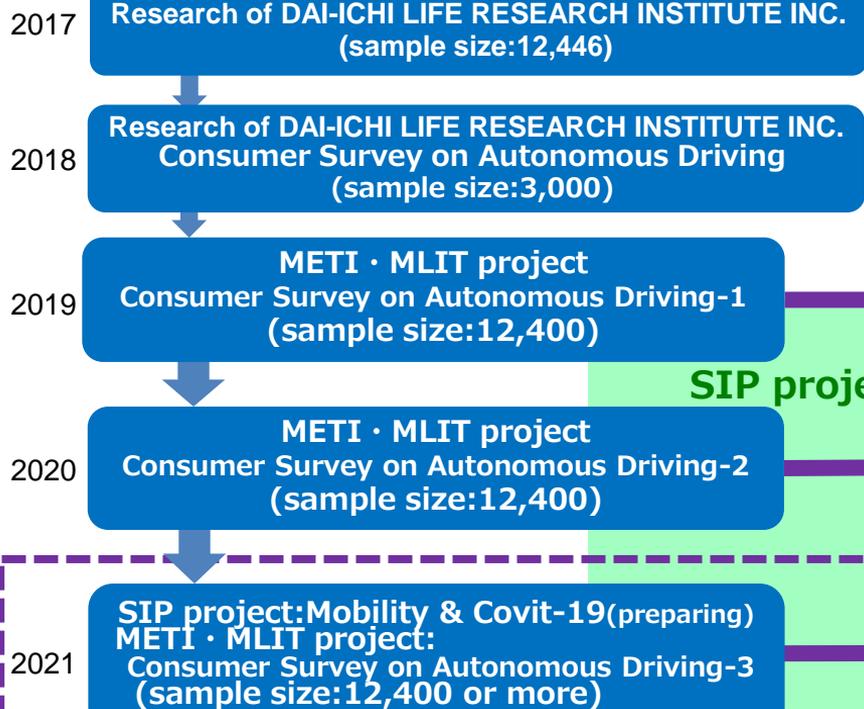
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R&D Content



Research Structure

【Questionnaire Survey】



* I am a members of the committee of
“Study on Social Acceptability and Civil Liability of
Automated Driving as a part of Research &
Development and Verification Project for Social
Deployment of Highly Automated Driving and Mobility
as a Services” from 2016.

【Qualitative Analysis】

- Work Shop in Eihe-ji(Hukui pref)
- Citizen Dialogue@SIP in Shodo-shima (Kagawa Pref)

- Work Shop in Himaka-jima(Aichi pref)
- Work Shop in Hitachi(Ibaraki pref)
- Work Shop & Trial Ride(Elementary school students) in Chatan(Okinawa pref)
- Trial Ride & Interview in Australia
- Citizen Dialogue@SIP in Ina(Nagano pref)

Now Preparing as a METI · MLIT project

4th(2022) & 5th(2023)



The questionnaire survey throughout Japan about the subject (periodically).

-Examination of KPI/KGI about social acceptance of the automated driving.

-Research of the changes in consumer awareness and behavior.

-Investigation for needed action, method and direction to make the social acceptance

Research through the following process:

(1) Setting of the factors of which compose the social acceptance

-Life style change

-Learning

-Cost

-Uniqueness of risk/Technology limitation

(2) Set the questions that make up each factor and conducted questionnaire survey

(3) Make scores of each factors based on the result of questionnaires

Through the reliability analysis, sum each score.

(4) Analyze the trend of social acceptance

(5) Make a concrete strategy based on a result and continue the investigation by the same question to understand change of consumer's attitude

(6) Action suggestions and assessment based on a result

Consumer Survey on Transportation and Automated Driving 2020

Target : 12,400 residents in Japan

(Male and Female Age 18-79)

Survey : January 2020

Measure : Internet Survey

**Conducted by the Dai-ichi Life Research
Institute on behalf of METI/ MLIT project.**

[Survey Content]

- ◆ **Personal information (drivers license, family, etc.)**
- ◆ **Regional characteristics · Mobility need awareness**
- ◆ **Types of transportation**
- ◆ **Accident encountering experience**
- ◆ **Mobility in older age / issues with giving up driving license**
- ◆ **Understanding and Experience with ADS features**
- ◆ **Acceptance for ADS**
- ◆ **Free answer**

cooperation with;

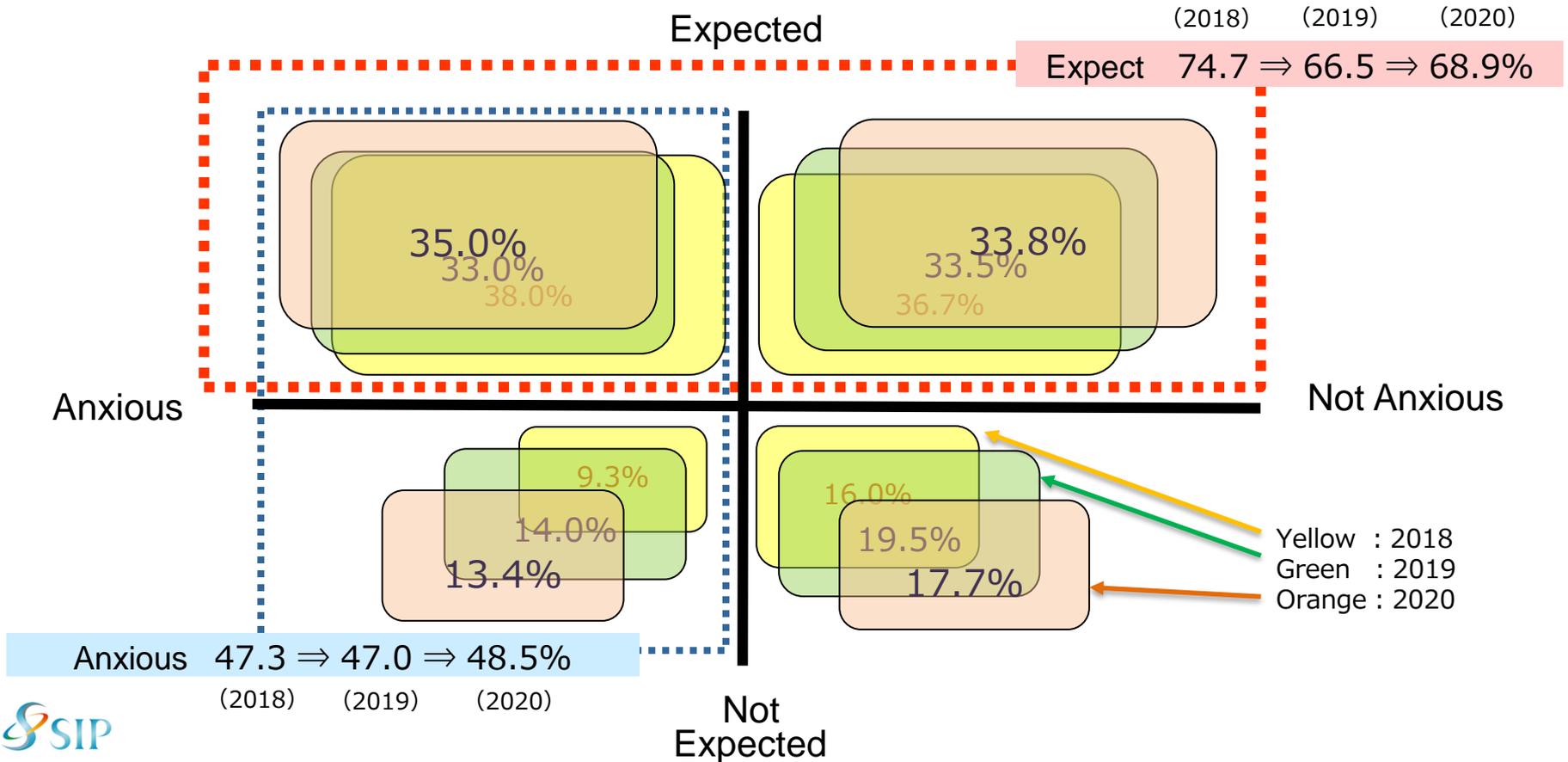
SIP-adus/National Police Agency/Consumer Affairs Agency/
Ministry of Economy, Trade and Industry/
Ministry of Land, Infrastructure and Transport

2

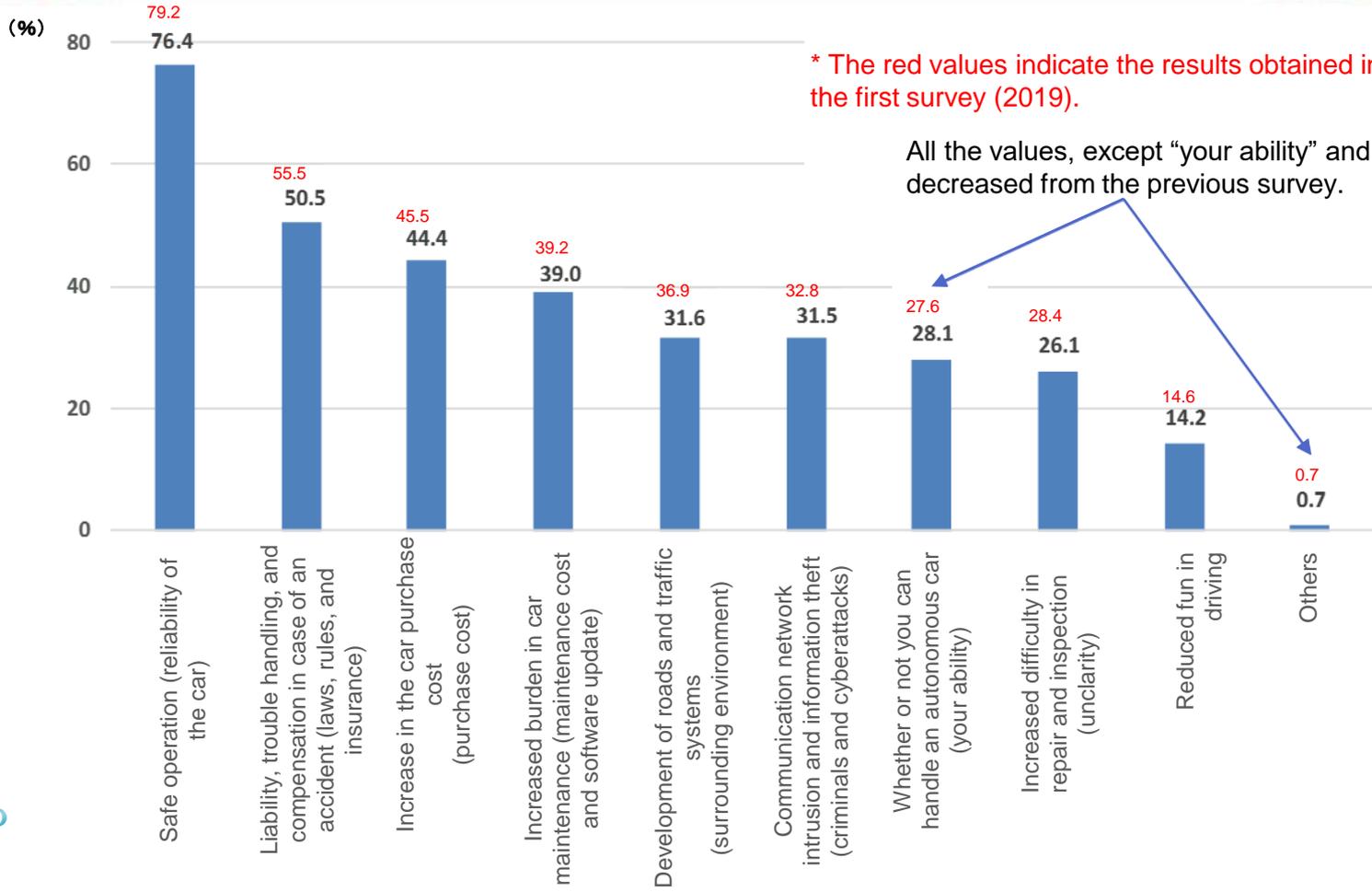


Expectation & Anxiety

Expectation & Anxiety to the Automated Driving Society



Concrete Anxiety about Automated Driving



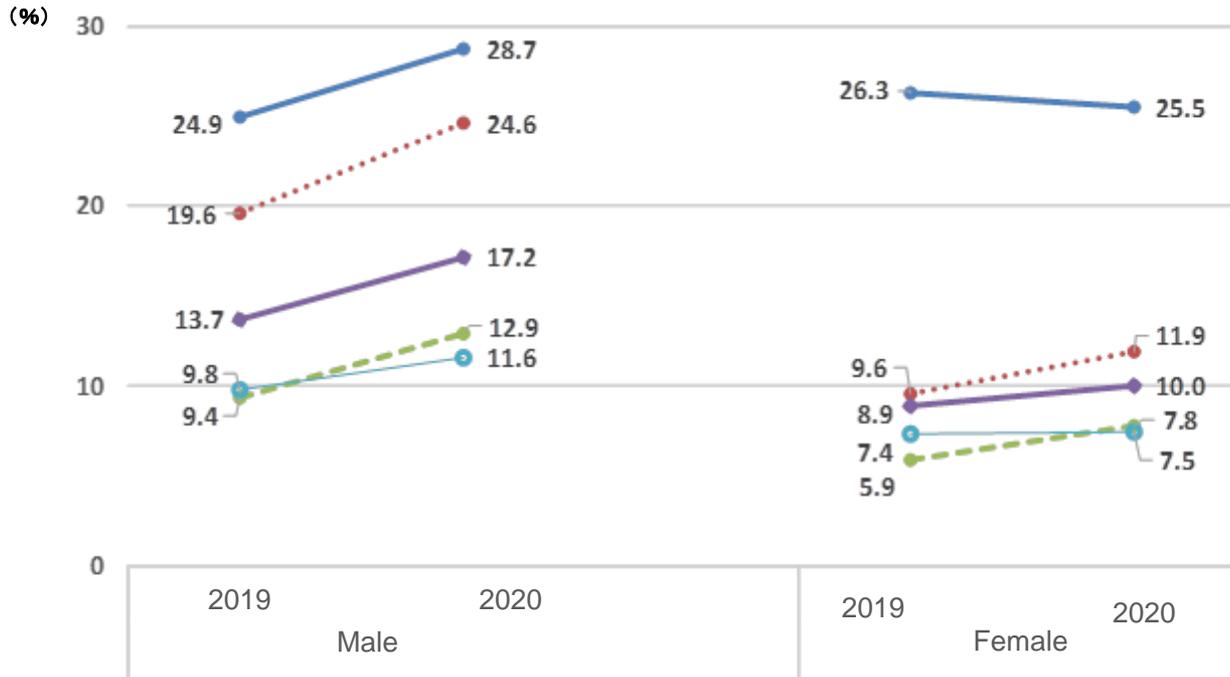
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Interest & Experience

According to the target,
need to effectively choose the content of
information to be transmitted
and the means of transmitting information.

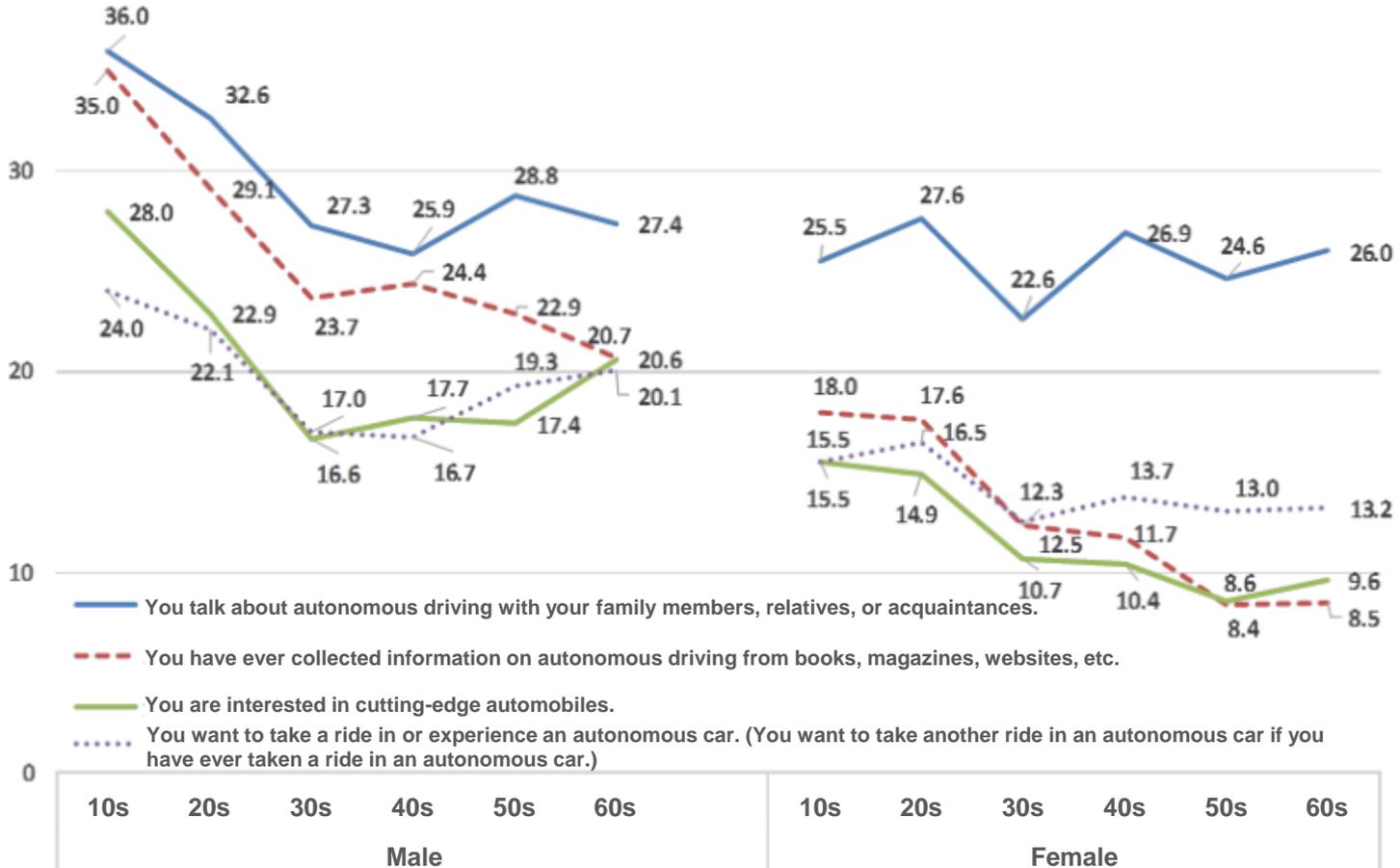
Interest / Information Gathering / Experience about Automated Driving -1



- : You talk about autonomous driving with your family members, relatives, or acquaintances.
- .-●- : You have ever collected information on autonomous driving from books, magazines, websites, etc.
- .-●- : You have ever participated in seminars and symposiums on autonomous driving.
- ◆— : You have ever seen autonomous cars (e.g. in motor shows).
- : You have ever taken a ride in an autonomous car for demonstration experiments.

Interest / Information Gathering / Experience about Automated Driving -2

(%) 40



4

**Awareness,
Usage Status,
User Understanding**

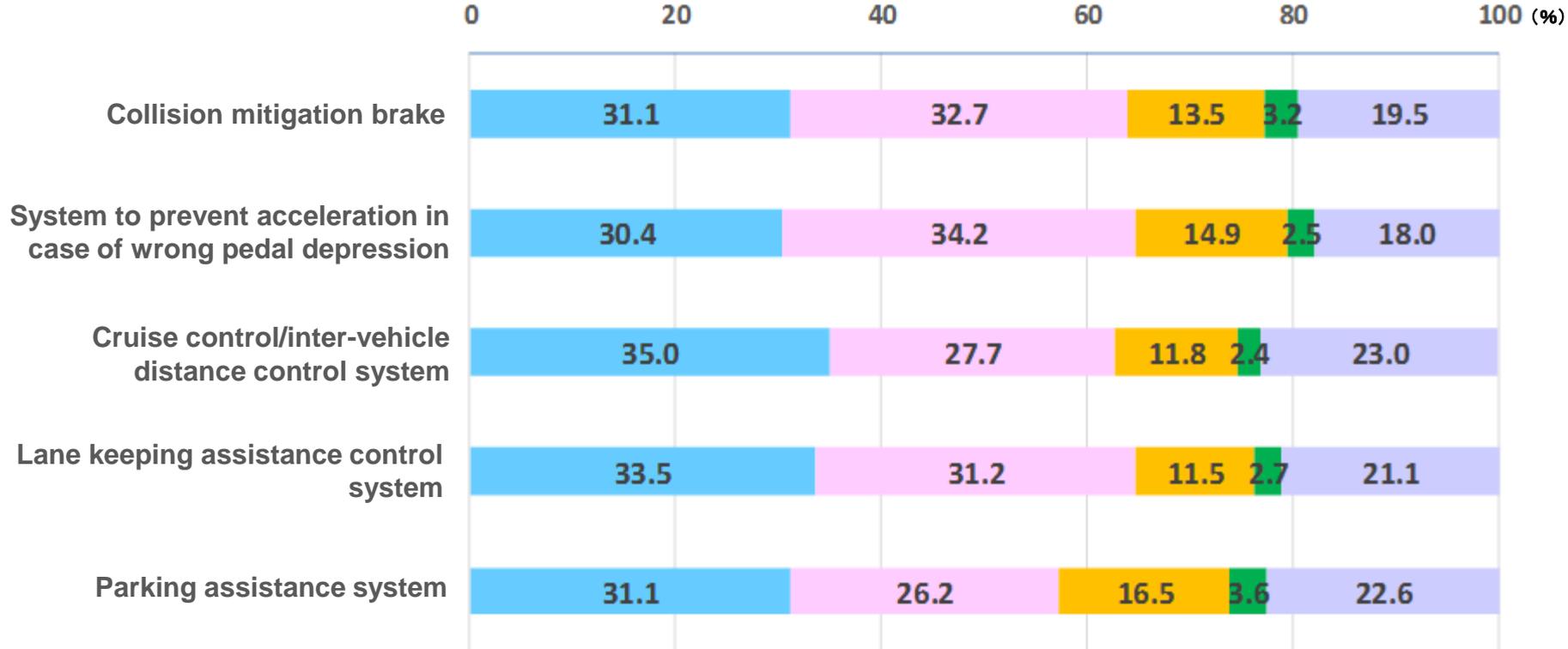


The awareness of automated driving technology has increased, but the number of users has not increased. Also, their awareness and understanding of the functions of their cars are quite low.

Awareness and Usage of Driving Support Functions

	Percentage of the respondents who know each feature	Percentage of the respondents who use a car with each feature	Among these respondents	(%)
Collision mitigation brake	2019 → 2020 68.8 → 73.8	2019 → 2020 17.8 → 18.5	⇒	56.1 ← Always aware of the feature.
System to prevent acceleration in case of wrong pedal depression	49.8 → 61.1	7.9 → 7.5	⇒	56.7 ← Always aware of the feature.
Cruise control/inter-vehicle distance control system	48.9 → 54.1	10.5 → 10.7	⇒	55.2 ← The feature is often used.
Lane keeping assistance control system	44.5 → 50.6	7.8 → 9.1	⇒	52.3 ← The feature is often used.
Parking assistance system	48.2 → 52.0	3.9 → 4.8	⇒	42.5 ← The feature is often used.
Not equipped with any of these features	24.2 → 20.4	51.7		
It is unknown which feature is provided.	-	23.7		

Understanding of People Using the Driving Support Function



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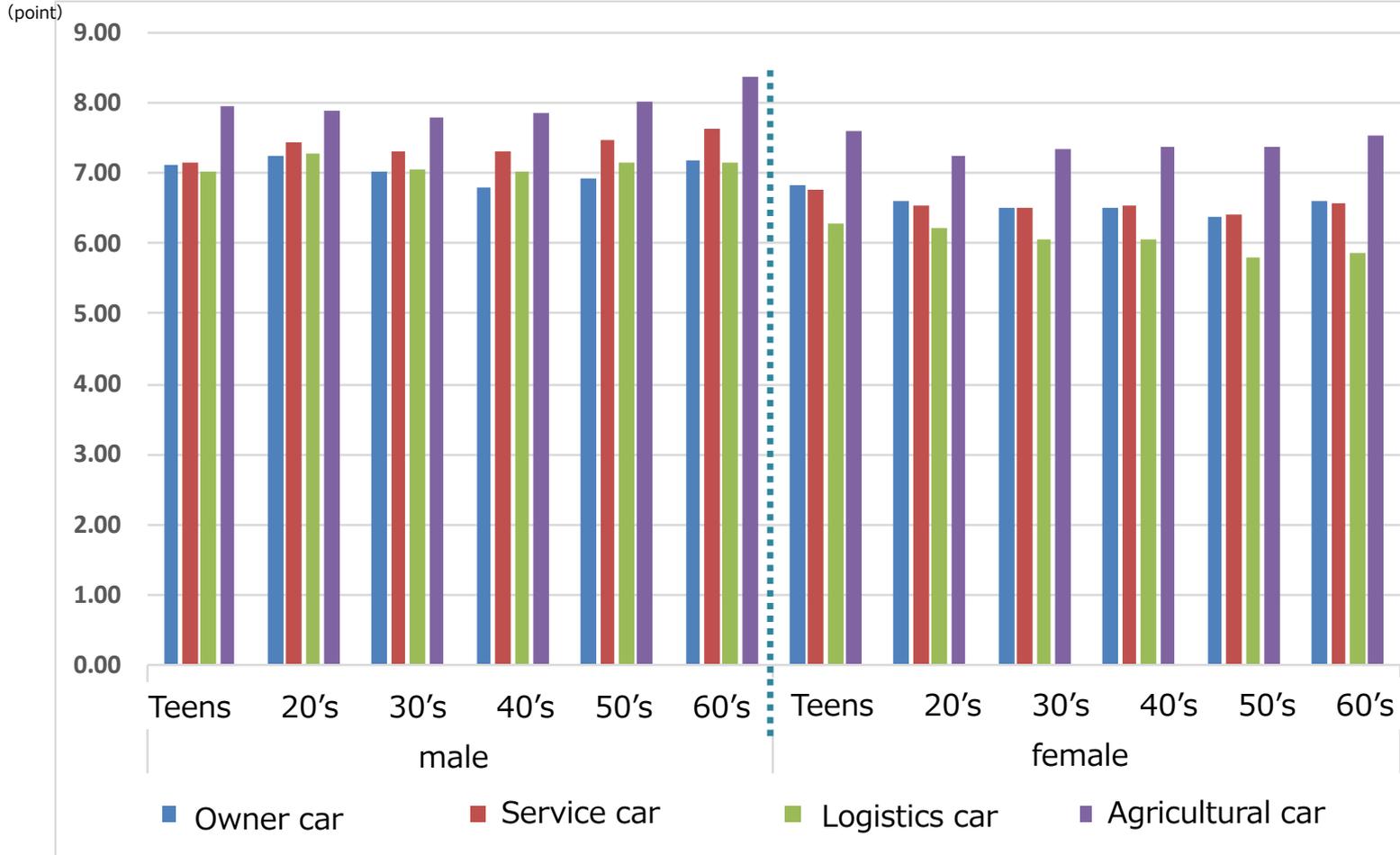
Acceptance of Automated Driving



Acceptability of automated driving varies depending on the type.

Regarding the changes and situations caused by the spread of automated driving, it is necessary to consider what can and cannot be accepted for each attribute / characteristic.

Acceptance Score (Owner car, Service car, Logistics car, Agricultural car)



Acceptance Score (Each Size of the City & Mobility Problem)

[Owner cars]

[Service cars]

[Distribution cars]



6

Actions for Consumer Acceptance



Actions Required to Increase Acceptance

Create an opportunity to experience automated driving or to contact information.

It must be done effectively according to the attributes and characteristics.

Increase the satisfaction of those who are already using it.

As a result, consider a system that consumers want to use more actively.

Effectively collaborate with different industries and other areas and design strategies to increase acceptance from various perspectives.

Action & Assessment List

Phase	Action	
Foundation Making	1	Frame and Strategy Making, alignment
	2	Collecting Information and Understanding Targets
Publication	3	Investigateing and Editing Information
	4	Defining Means
	5	Making Experiential Opportunities
Reception and Diffusion	6	Communicating with Other Sections
	7	Spreading Information and Enhancing Social Interests
Goal	8	Improvement of Users' Understanding Level
	9	Improvement of Users' Behaviour
	10	Improvement of Social Acceptance

Process of Consumer's Acceptance

WHAT

What is
"Automated Driving" for us?
<Possibility>

WHY

Why do we need
"Automated Driving" ?
<Solution>

HOW

How do we use
"Automated Driving" ?
<Way>

Thank you

