

# RESULT REPORT

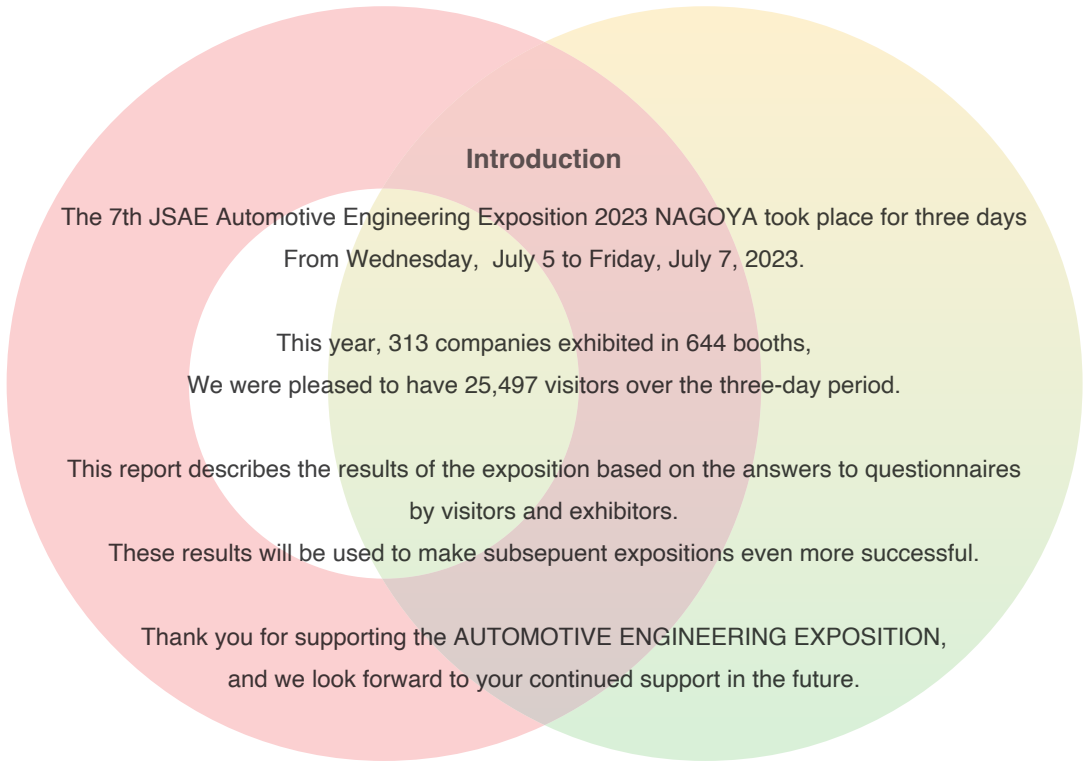
**Try  
the Next!**

技術者が交流し、つながり、  
未来をつくるイノベーションを

*Automotive Engineering Exposition*  
**人とくるまのテクノロジー展**  
**NAGOYA 2023**

---

**7/5<sup>WED</sup> 6<sup>THU</sup> 7<sup>FRI</sup>**  
**Aichi Sky Expo**  
**ONLINE STAGE 2 6/28<sup>WED</sup>-7/19<sup>WED</sup>**



**Introduction**

The 7th JSAE Automotive Engineering Exposition 2023 NAGOYA took place for three days  
From Wednesday, July 5 to Friday, July 7, 2023.

This year, 313 companies exhibited in 644 booths,  
We were pleased to have 25,497 visitors over the three-day period.

This report describes the results of the exposition based on the answers to questionnaires  
by visitors and exhibitors.

These results will be used to make subsequent expositions even more successful.

Thank you for supporting the AUTOMOTIVE ENGINEERING EXPOSITION,  
and we look forward to your continued support in the future.

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### SUMMARY REPORT

#### Exhibition Scale

Number of Exhibitors **313** 165 (2022)




Number of Booths **644** 406 (2022)

#### Registrations

**25,497**

16,414 (2022)

#### Breakdown of Visitors by Date

Date	Weather	Registrations	Registrations (2022)
Wednesday, July 5		<b>7,355</b>	4,602
Thursday, July 6		<b>8,248</b>	5,010
Friday, July 7		<b>9,894</b>	6,802
合 計		<b>25,497</b>	16,414

Exhibition Name AUTOMOTIVE ENGINEERING EXPOSITION 2023 NAGOYA

Dates Wednesday, July 5, through Friday, July 7, 2023  
 Wednesday & Thursday 10:00 - 18:00  
 Friday 10:00 - 17:00

Venue Aichi Sky Expo (Aichi International Exhibition Center) Exhibition Hall E・F

Organizer Society of Automotive Engineers of Japan, Inc. (JSAE)

Under the Auspice of METI Chubu, Aichi Prefecture

#### Supported by

Automobile Business Association of Japan  
 Flat Glass Manufacturers Association of Japan  
 Information Processing Society of Japan  
 Japan Aluminium Association  
 Japan Auto-Body Industries Association Inc.  
 Japan Auto Parts Industries Association  
 Japan Automobile Manufacturers Association, Inc.  
 Japan Automobile Research Institute  
 Japan Automobile Transport Technology Association  
 Japan Automotive Machinery and Tool Manufacturers Association  
 Association Japan Automotive Service Equipment Association  
 Japan Automotive Software Platform and Architecture  
 Japan Internal Combustion Engine Federation

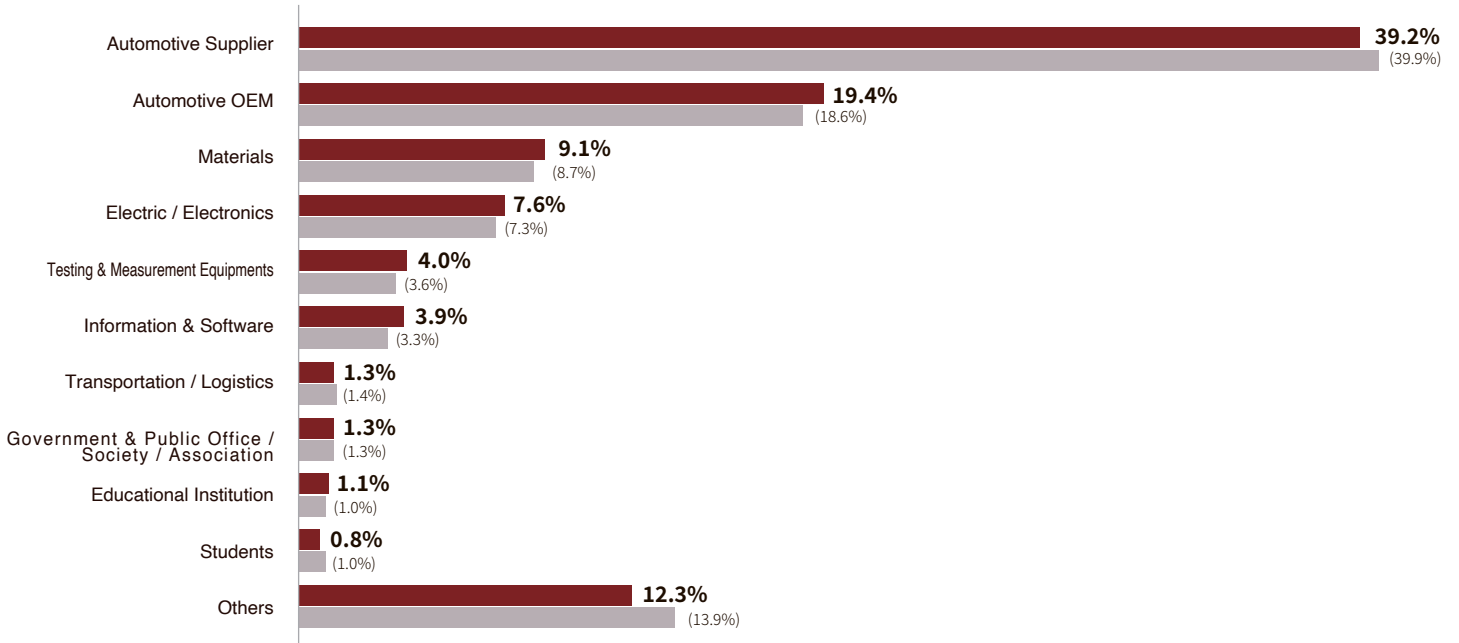
Japan Lubricating Oil Societies  
 Petroleum Association of Japan  
 The Institute of Electrical Engineers of Japan  
 The Iron and Steel Institute of Japan  
 The Japan Automobile Tyre Manufacturers Association, Inc.  
 The Japan Federation of Engineering Societies  
 The Japan Institute of Light Metals  
 The Japan Magnesium Association  
 The Japan Petroleum Institute  
 The Japanese Society for Artificial Intelligence  
 The Japan Society of Mechanical Engineers  
 The Society of Instrument and Control Engineers  
 The Society of Materials Science, Japan

Attendees Attendees consist of engineers, researchers, from the automobile, electronic, test & measurement equipment, information & software, logistics & transportation industries as well as educational & research institutes.

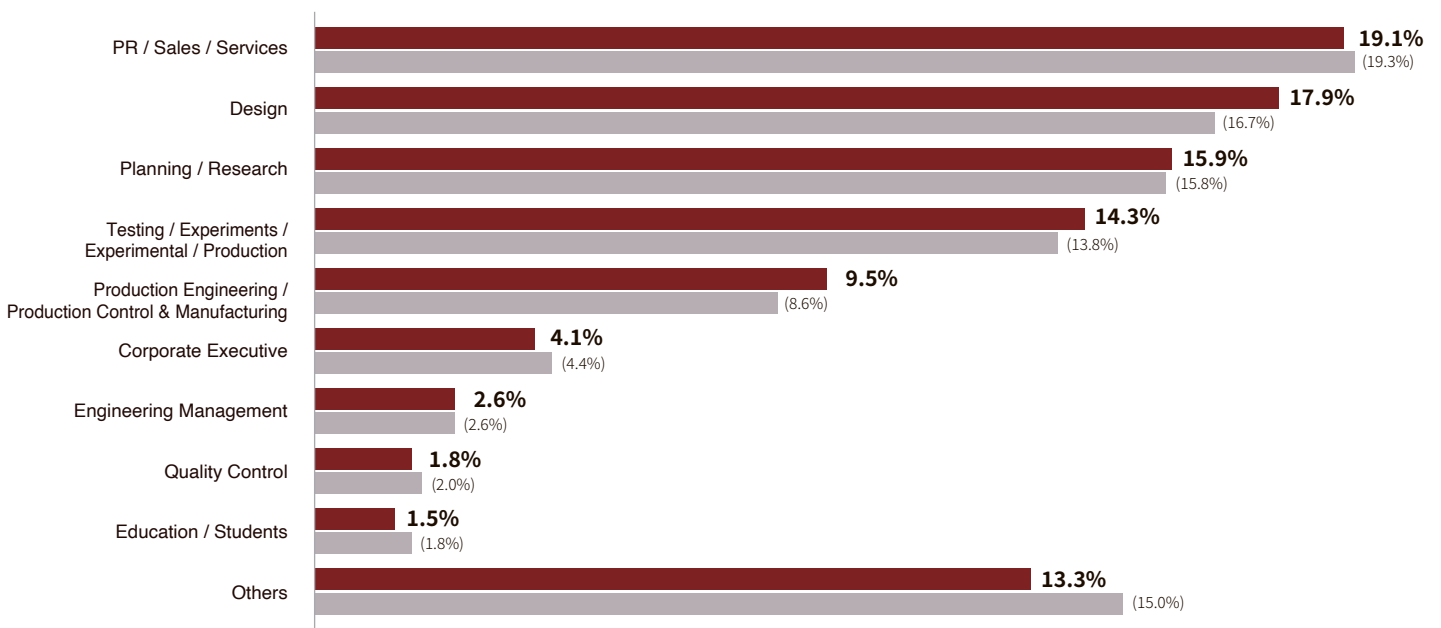
\* ( ) figures for 2022



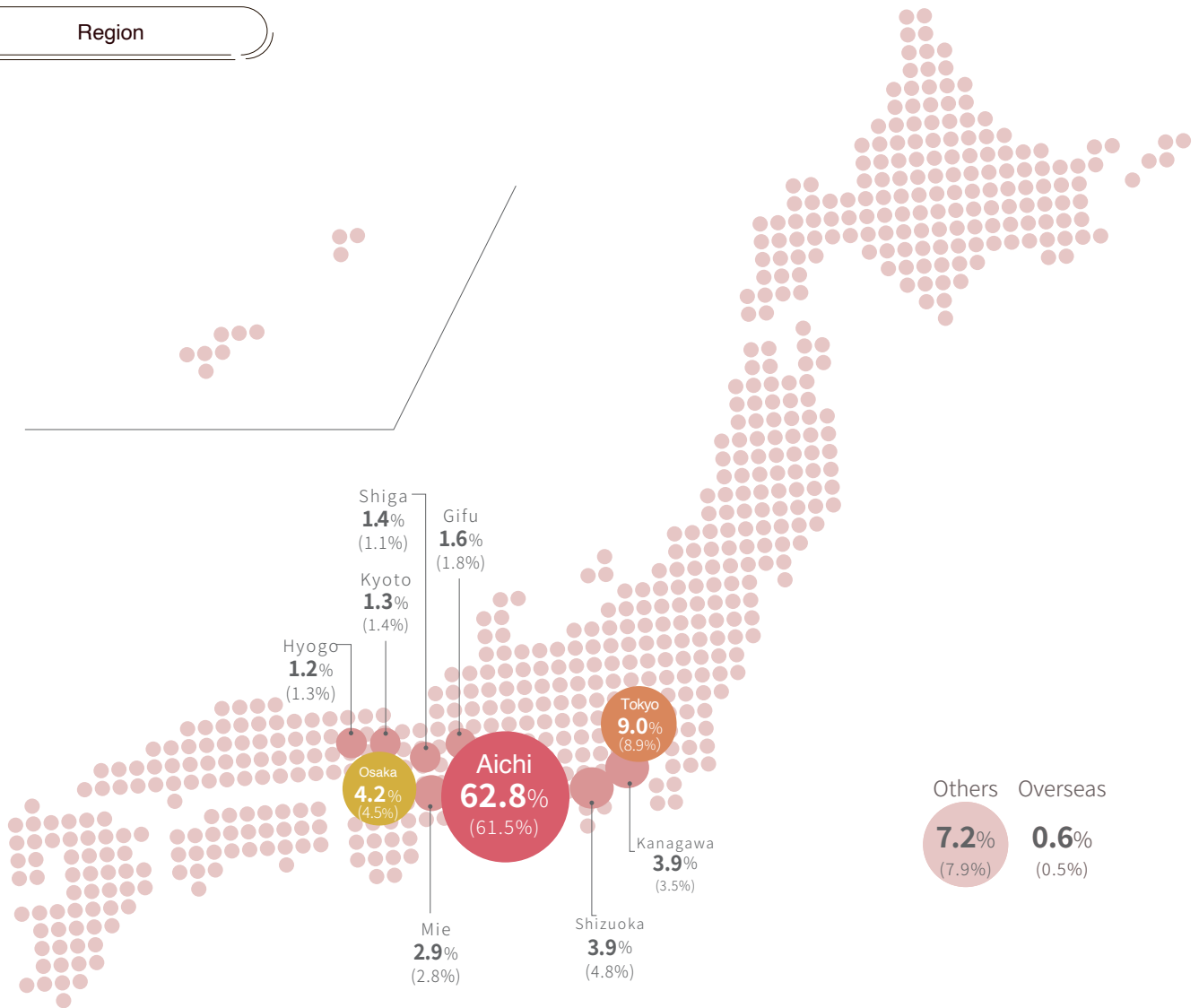
## Business Category



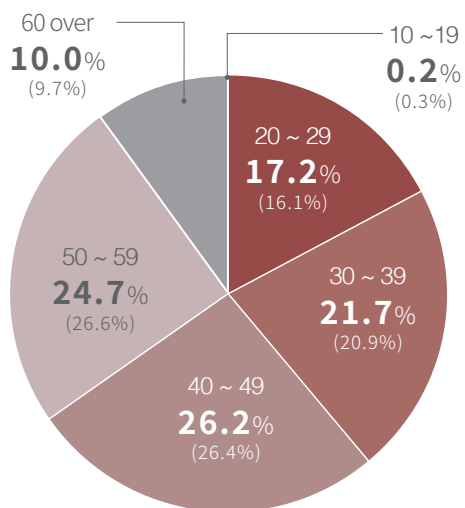
## Job Category



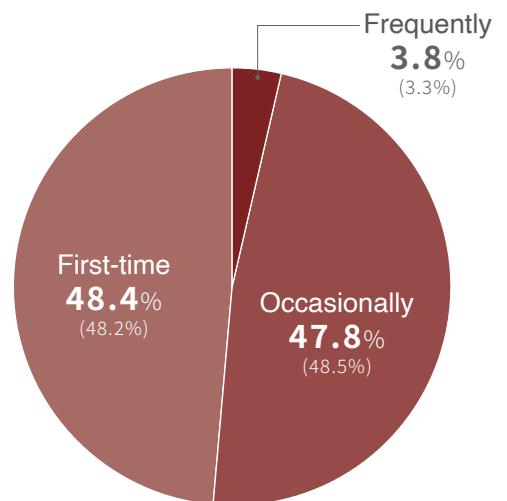
Region



Age



Frequency of Visits

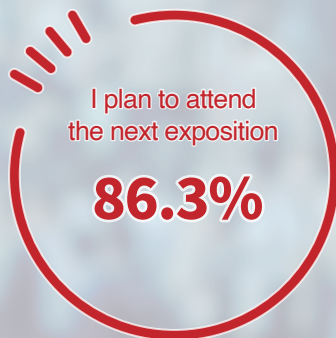


# VISITORS' VOICE

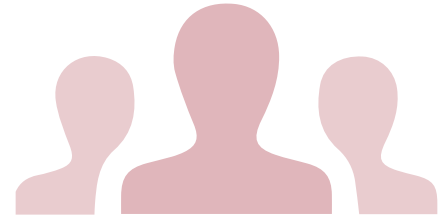
## Questionnaire Results

1,121 people answered the survey.

### Likelihood of attending the next exposition



**Positive comments were received from many visitors.**



## VISITORS' VOICE



I visited the exposition for the first time in a number of years because it was being held at a new venue. The venue was spacious and there were lots of exhibits. I was glad to see how lively it was.

The exhibitors were quite different from the last time and I had the chance to meet new people and things. The exposition also included vehicles, autonomous driving exhibits, and exhibits by start-ups. As well as the general exhibits, I enjoyed the whole of the exposition. I learned about the latest technologies and I'm looking forward to next year.



This was the first year at the Aichi Sky Expo, which I thought was an excellent venue. There was a shuttle bus from Nagoya Station, which took me to the exposition venue without any stress. There were more general exhibitors than last year and the exposition felt lively. I was also able to network with companies with a strong presence in Aichi and start-ups. I appreciated the passion of the exhibitors. I think that the exposition will encourage people to work together and raise excitement in the automotive industry in the future.



This year, there was an online exposition before the real exposition, which helped me narrow down the booths that I wanted to visit in advance. I was able to visit all these booths despite the limited time.

I also used the exhibitor, product, and technology search function to visit new booths when I had some spare time. As a result, I was able to find some unexpected companies. I was very happy to be able to visit the exposition efficiently within the limited time of my business trip. I looked at the online map at the venue on my mobile phone. The display was easy to read and easier to use than before.



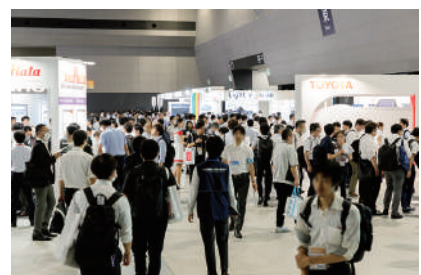
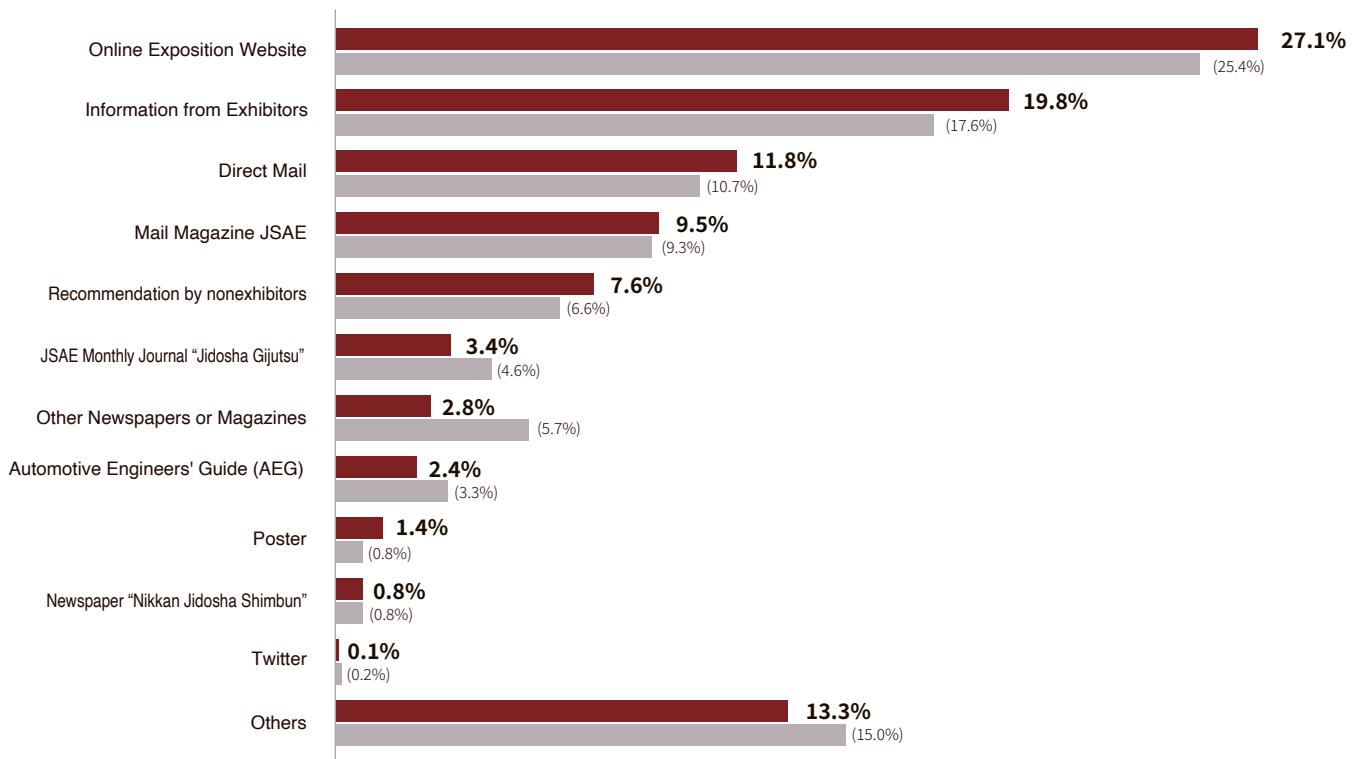
As this was a vehicle-based exposition, I knew that automotive technology would be the main focus. At the same time, I would have liked to see some technologies from related fields (not just technologies that are only used on cars).

I think that involving other industries in the exposition would lead to new discoveries.

\* ( ) figures for 2022



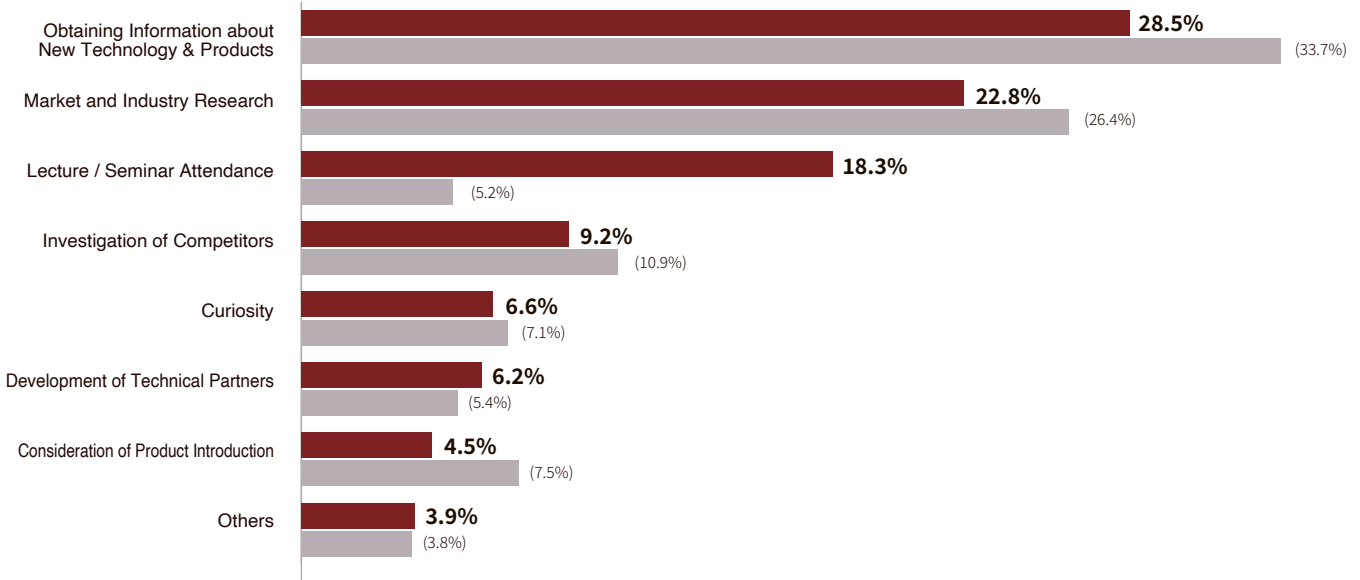
### How Visitors Knew about the Exposition



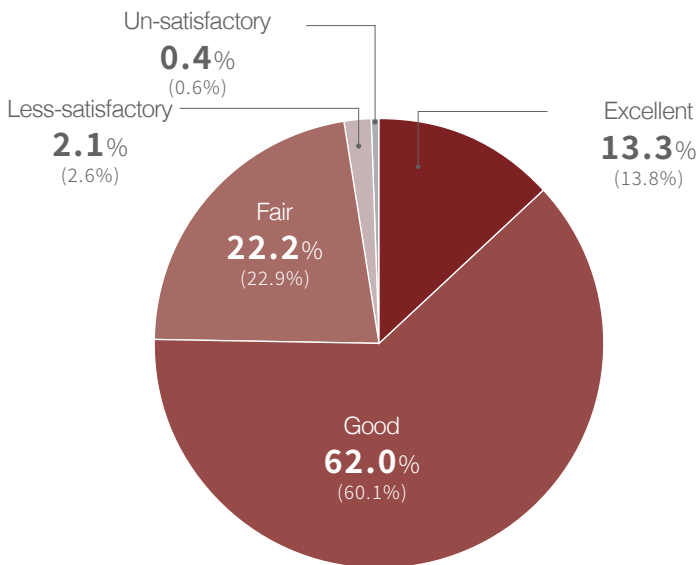
\* ( ) figures for 2022



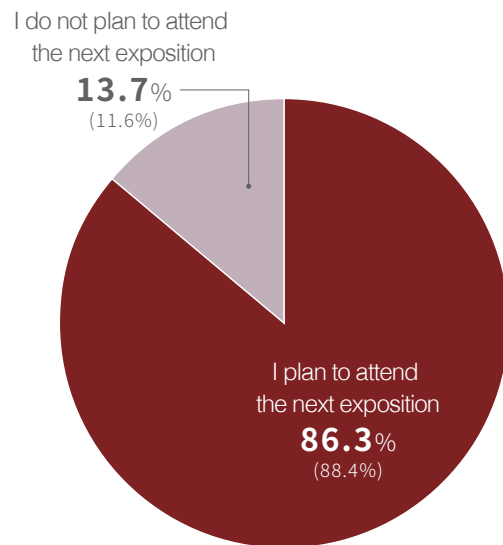
## Purpose of Visit



## Satisfaction with Visit

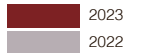


## Likelihood of attending the next exposition

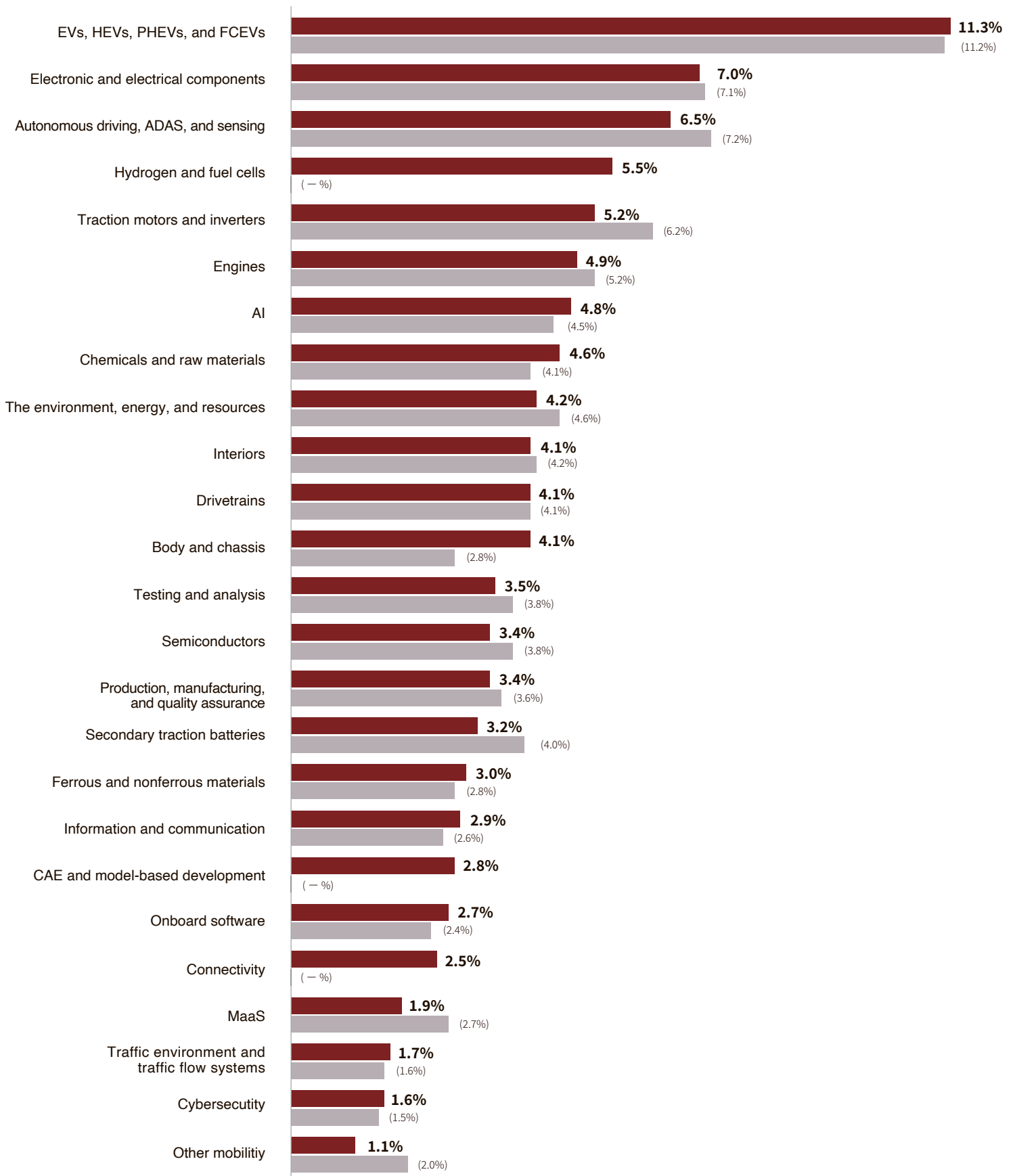




\*(): figures for 2022 (- %): new figures calculated starting in 2023



Exhibition Categories of Interest

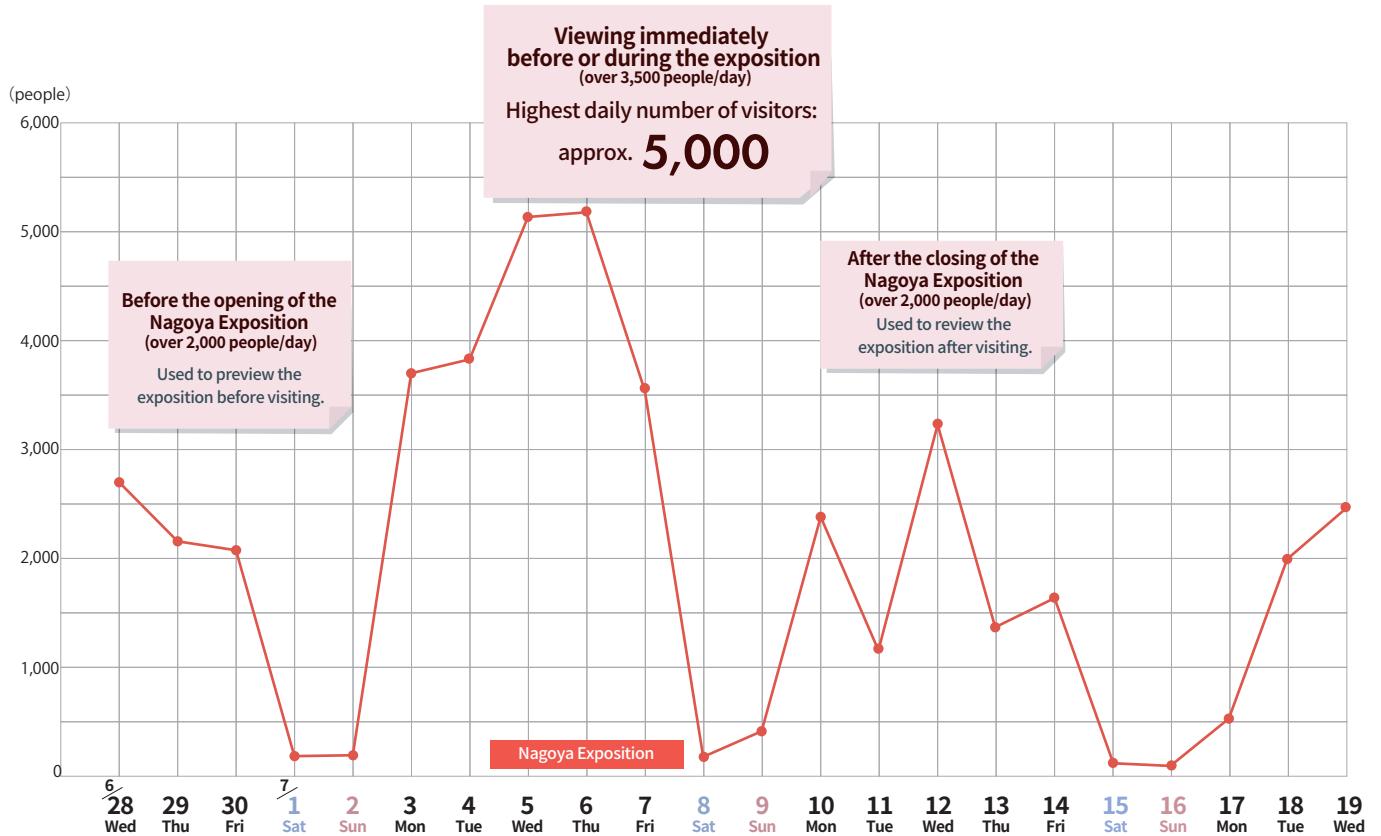


\*2022 Design and development (5.0%)  
5G and IoT (3.0%)

### Utilization of online portion of hybrid exposition

#### Visitor trends for Online Exposition Stage 1

\* The number of visitors refers to the number of times registered participants accessed the online exposition website. (One visit was defined as one access per day. If a registered participants accessed the website multiple times per day, this was counted as one visit.)



#### Visitor comments



By checking out interesting exhibits in advance online, I was able to experience the exposition more efficiently. I was able to maximize the time I spent at the most interesting exhibits.



I was able to narrow down the booths at the real exposition that I wanted to visit the most and check out the layout of the exhibits. I made a great deal of use of the online exposition. I could find certain products and exhibits to see at the actual venue. I could visit the exposition more efficiently.



I used the online exposition before visiting the real exposition. Unfortunately, some companies didn't post a lot of information and I couldn't carry out a thorough preview. I'd like to see more information posted at the online exposition.

**NEW Status of Utilization: Digital Map**

Digital map function

Approximately one in three visitors stated that they used the digital map (calculated from the Nagoya visitor questionnaire.)



A large proportion of visitors used this function.

Percentage of pinned exhibition booths:


**95.2%** of total


(total exhibitor accounts: 543 companies)


Average number of pinned booths per user:

**9** companies per user

**Visitor comments**

- 

The reflection of the visit list on the digital map was extremely convenient, and I printed the digital map out before arriving. The function that allows you to pin interesting booths was extremely useful.
- 

After the exposition, I was able to use the function when I reviewed the exposition and made my internal company report. I entered the details of discussions I had at the booth in the visit notes and used them in my internal company report. It would be even better to have a function that allows you to download the notes together with the companies you visited.
- 

The function was good because I could review the technologies that I saw at the exposition. However, there were some companies that were at the venue but did not have their information available online, so I thought it would be more user-friendly if all the companies exhibiting at the venue also had their information available online.

Which exhibits left the best impression in the general exhibits?

Ranking

No.1	<b>eAxles</b>
No.2	<b>FCEV-related technologies</b>
No.3	<b>Autonomous driving technologies</b>
No.4	<b>Plant-derived material</b>
No.5	<b>Next-generation mobility concepts</b>

- |                                     |   |
|-------------------------------------|---|
| 3D scanners                         | Heat dissipation materials                    |
| Acoustic vibration analysis systems | High-durability aluminum wiring               |
| Actual vehicle cut models           | Highly functional front grilles               |
| Actual vehicle exhibits             | Highly functional seats                       |
| ADAS technologies                   | Highly functional windshield glass            |
| Adhesive technologies               | Inverter                                      |
| AI-related technologies             | Line of sight measurement                     |
| Aluminum products                   | Meta-materials                                |
| Battery materials                   | Next-generation PCUs                          |
| Biomass material technologies       | Noise source probing systems                  |
| Carbon neutrality                   | Non-contact test devices                      |
| Compact EVs                         | Piezoelectric actuators                       |
| Connectors                          | Plastic materials                             |
| Dimming panorama roof glass         | Power supply systems                          |
| Driving scoring apps                | Recycling technologies                        |
| ECU testing tools                   | Regenerative cooperative brake systems        |
| Electric bicycles                   | SUV exhibits                                  |
| Electric motorcycles                | Synthetic leather                             |
| Electrolyte leakage sensors         | Temperature sensors                           |
| EV batteries                        | Thermal conductors                            |
| EV motor technologies               | Three-dimensional center of gravity detection |
| Fatigue stress gauges               | Vibration speaker systems                     |
| Fuel cells                          | Weight reduction technologies                 |

Which themes and products would visitors like exhibitors to show in future exhibitions?

Ranking

No.1	<b>BEVs</b>
No.2	<b>EV batteries</b>
No.3	<b>European vehicle/parts manufacturers</b>
No.4	<b>Carbon neutrality</b>
No.5	<b>Drive Motors</b>

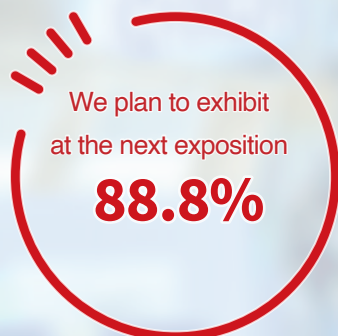
AI	High-speed cameras
American vehicle/parts manufacturers	Hydrogen engines
Ammonia fuels	Hydrogen tanks
ARAS	Industrial robots
Autonomous driving technologies	Inverter
Biotechnology	IoT
CASE	Korean vehicle/parts manufacturers
CFRP	LiDAR
Chinese EV manufacturers	MaaS
Circular economy	Motor sports
Commercial vehicles	Motorcycles
Communications carriers	Next-generation energy
Concept vehicles	Non-Japanese automakers
Cut bodies	On-board cameras
Cybersecurity	Plastic material technologies
eAxe	Power Semiconductors
ECU testing tools	Prospects for a hydrogen energy based society
FCEV	Recycling technologies
Flying cars	SDGs
Future visions of automakers	Sensors
Gigacasting	Start-ups
Heat dissipation materials	Test measurement systems
HEV	V2X

# EXHIBITORS' VOICE

## Questionnaire Results

80 company answered the survey.

### Likelihood of exhibiting at the next exposition



Positive comments were received from many exhibitors.



## EXHIBITORS' VOICE



This was the first exposition to be held at the Aichi Sky Expo, so the expectations of both exhibitors and visitors were high.

This was the first time our company exhibited at the exposition, so we were a little anxious. However, by the end of the exposition, we had been visited and contacted by many local automakers and major parts suppliers.



We also exhibited at Yokohama. We compared the results of both expositions and noticed different trends for exhibits and visitors. Although the names of the expositions are the same, we think they should be treated as completely different events. We were visited by many engineers with specific purposes and our impression is that few of the visitors were there just for the sake of it.



We selected the Value Plan because we hadn't exhibited at the exposition before and didn't have much knowledge about how it works. Although our booth was slightly smaller than companies who selected the normal exhibition plan, the basic booth space and necessary facilities like power were handed over in a ready-to-use state. As a result, we didn't need to spend much effort on the pre-event design and removal processes, which meant we were able to spend our time at the exposition very effectively.

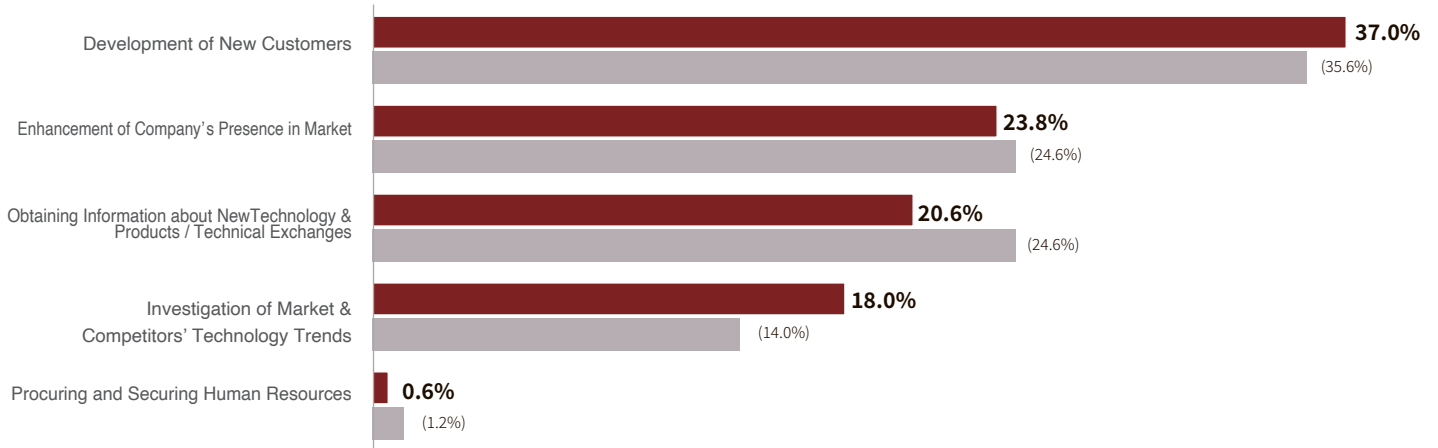


The site area and facilities were better than the previous venue. The new venue is not any further from the Tokyo metropolitan area and is accessible by airplane, so visitors have more choices. I think that the shuttle bus service from Nagoya Station and the bus service for companies in the Chubu region helped to increase the number of visitors. We hope that the scale of the Nagoya Exposition will continue to grow in the future.

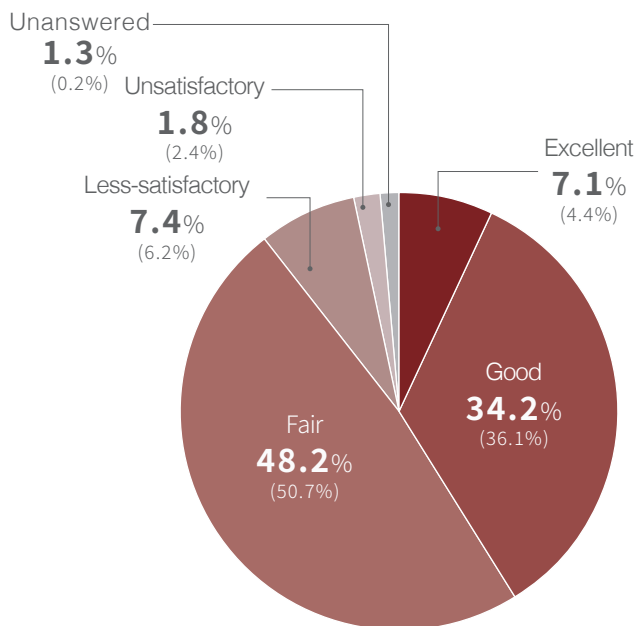
\* ( ) figures for 2022



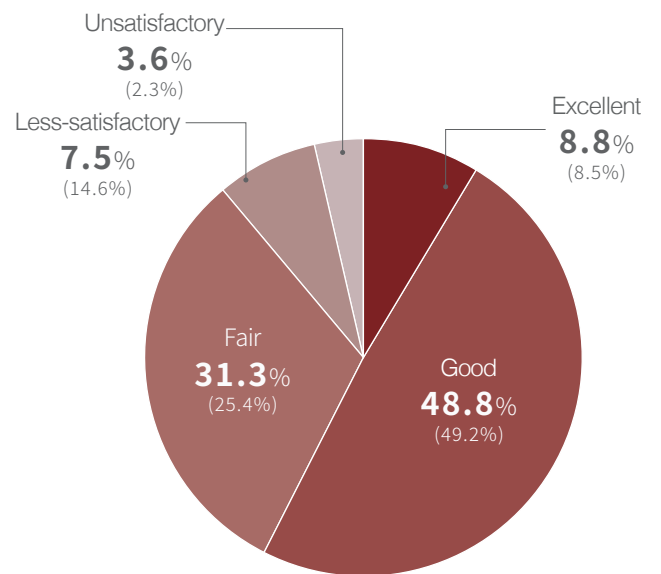
### Purpose of Exhibit



### Satisfaction with Exhibit

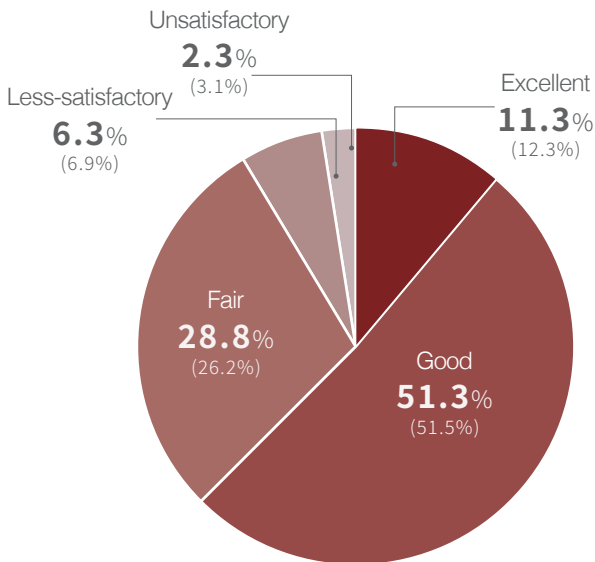


### Impression of Visitors

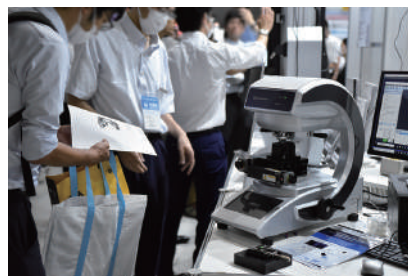
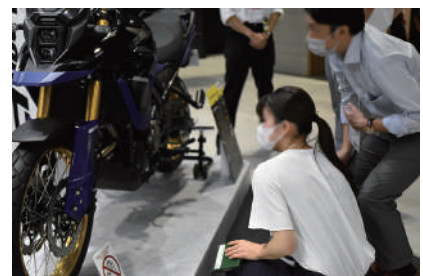
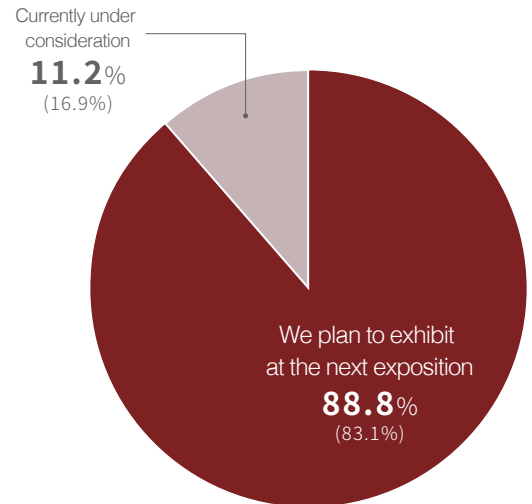


( ) figures for 2022

### Comprehensive Evaluation



### Likelihood of exhibiting at the next exposition





# JSAE NAGOYA BEST 30

The visitors selected the exhibitors that made the biggest impression.

**2,942** votes were received from the visitors. 2,631 (2022)

<b>1位</b>	DENSO CORPORATION	<b>16位</b>	INOAC CORPORATION
<b>2位</b>	AISIN CORPORATION	<b>17位</b>	KOBELCO Group (Kobe Steel, Ltd.)
<b>3位</b>	Toyota Motor Corporation	<b>18位</b>	FURUKAWA ELECTRIC Co., Ltd.
<b>4位</b>	Nissan Motor Co., Ltd.	<b>19位</b>	MEIDENSHA Corp.
<b>5位</b>	AGC Inc.	<b>20位</b>	GeoTechnologies Inc.
<b>6位</b>	Honda Motor Co., Ltd.	<b>21位</b>	HORIBA Ltd.
<b>7位</b>	Toray Industries, Inc.	<b>22位</b>	Murata Manufacturing Co., Ltd.
<b>8位</b>	Mazda Motor Corporation	<b>23位</b>	UNIPULSE Corp.
<b>9位</b>	ISUZU MOTORS LIMITED	<b>24位</b>	Sumitomo Electric Industries Ltd.
<b>10位</b>	TOYOTA AUTO BODY Co., Ltd.	<b>25位</b>	UNIVANCE Corp.
<b>11位</b>	Hino Motors Ltd.	<b>26位</b>	igus k.k.
<b>12位</b>	Mitsubishi Chemical Corporation	<b>27位</b>	Mitsubishi Motors Co., Ltd.
<b>13位</b>	Mitsui Chemicals, Inc.	<b>28位</b>	Miyakichi Glass Co., Ltd.
<b>14位</b>	Meiji Electric Industries Co., Ltd.	<b>29位</b>	TSUBAKIMOTO CHAIN Co., Ltd.
<b>15位</b>	SUBARU Co., Ltd.	<b>30位</b>	Topia Co., Ltd.

## Other Exhibitors of Interest

ONO SOKKI Co., Ltd.  
 SUZUKI MOTOR Corp.  
 Sumitomo Bakelite Co., Ltd.  
 Nature Architects Inc.,  
 Moriroku Group  
 Sumitomo Chemical Co., Ltd.  
 Kuraray Co., Ltd.  
 DAIHATSU MOTOR Co., Ltd.  
 TAIHO KOGYO Co., Ltd.



# Exhibitor Awards for Outstanding Contribution

As a token of its deep gratitude, the JSAE awarded certificates of thanks to exhibitors who have made a valuable contribution to the successful running of the exposition.

*Congratulations*



KEEPER Co., Ltd.



TOBII TECHNOLOGY K.K.



HEAD acoustics Japan K.K.



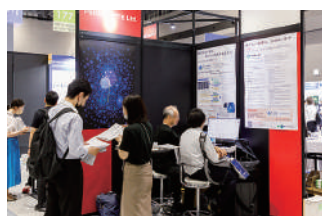
Henkel Japan Ltd.

Awarding  
Criteria

Exhibitors who joined the exhibition 15 times or whose number of exhibit booths reached 50 in total.

## STARTUP / ACADEMIC LAB

The 2023 Nagoya exposition saw a new exhibition area for start-ups and academia. This area featured exhibitions and presentations from the startup companies that will lead the industry in the future and academic institutions aiming to implement the results of their research in society.



## Presentation stage for STARTUP / ACADEMIC LAB

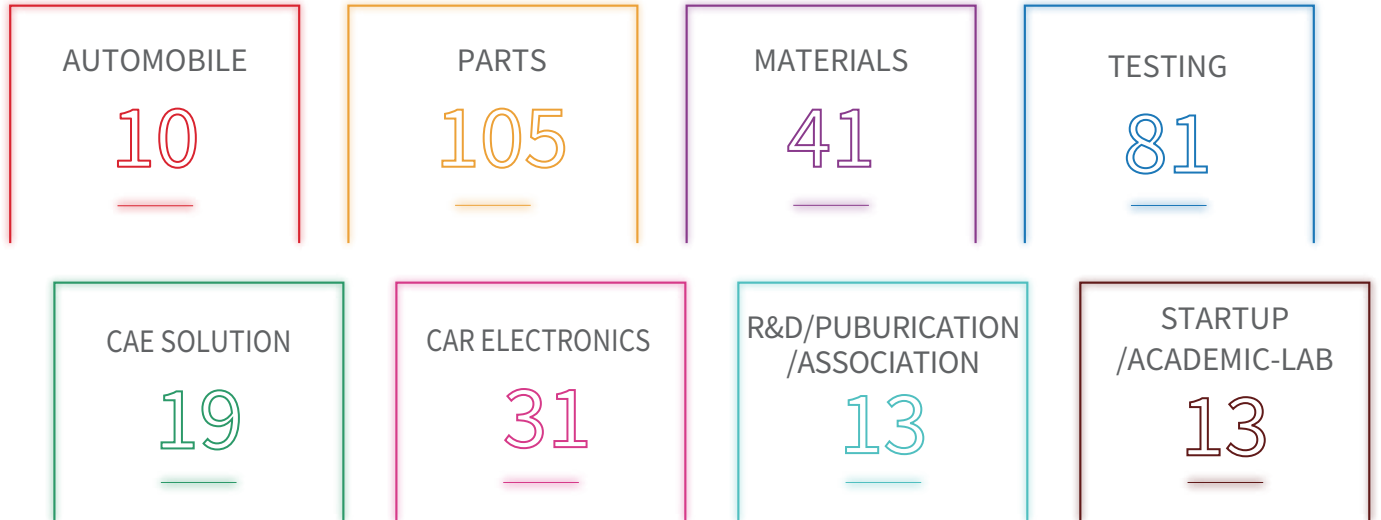
Presentations were held in the exhibition area for start-ups and academia (1 presentation per day for each company over the three days on application).

NeumaticAI: Hybrid technology incorporating CFD and AI - Highly reliable and high-speed prediction solutions for aerodynamics	Araya Inc.
Fastest Autonomous Cornering without Causing Rollover based on the Detection of Three-Dimensional Center of Gravity (D3DCG): Winner of gold medal at the Student Safety Technology Design Competition (SSTDC) hosted by the U.S. government at ESV 2023.	Tokyo University of Marine Science and Technology Laboratory of Detection of Tree-Dimensional Center of Gravity
Toward the realization of people-friendly human-machine interfaces	Tanaka Lab., Graduate school of Eng., Nagasaki Univ.
Introduction of testing house for onboard network communications and EMC performance	NAGOYA INSTITUTE OF TECHNOLOGY
Innovative meta-materials for onboard applications	Nature Architects
Introduction of Eureka, a new product incorporated into the Patent DNA, PUM, and PatSnap GPT patent reading and technology visualization products developed by PatSnap	PatSnap PTE Ltd.
The issue of rapidly increasing vehicle combinations that cannot be handled by mainstream parts lists	Babieca
MLOps: The front line of data-centric development	FastLabel.inc
Car connectivity supported by NFC technology	FIME JAPAN Co., Ltd.

# EXHIBITORS LIST ☰

THE NUMBER OF EXHIBITORS / **313**

THE NUMBER OF EXHIBIT BOOTHS / **644**



Alphabetical order in each category.  
\* The "\*" mark indicates a joint exhibitor or a group exhibitor.

AUTOMOBILE		
DAIHATSU MOTOR Co., Ltd.	• WAFIOS AG	Illumination Co., Ltd.
Hino Motors Ltd.	CPE ELECTRONICS Co., Ltd.	IRISO Electronics Co., Ltd.
Honda Motor Co., Ltd.	Daido Metal Co., Ltd.	ITT CANNON Ltd.
ISUZU MOTORS LIMITED	DENSO Corp.	• Wolverine Advanced Materials
Mazda Motor Corporation	DuPont Group	JAPAN 3D PRINTER Co., Ltd.
Mitsubishi Motors Co., Ltd.	FUJIKURA COMPOSITES Inc.	JL MAG RARE-EARTH JAPAN Co., Ltd.
Nissan Motor Co., Ltd.	FUKOKU Co., Ltd.	KATO SEISAKUSHO Co., Ltd.
SUBARU Co., Ltd.	Fukui Byora Co., Ltd.	KEEPER Co., Ltd.
SUZUKI MOTOR Corp.	FURUKAWA ELECTRIC Co., Ltd.	KEYENCE Corp.
Toyota Motor Corporation	GEOSURF CORPORATION	Kimura Foundry Co., Ltd.
	• Aeva Inc.	Knowles Electronics Japan, K.K.
	Globetech Inc.	KoyoHighPrecision
PARTS		
Aiko Spring Co., Ltd.	GOHSYU CORPORATION	Kurashiki Kako Co., Ltd.
AISIN CORPORATION	HASHIBA INTERNATIONAL Inc.	KURIMOTO Co., Ltd.
Amphenol Japan Ltd.	HIROSE ELECTRIC Co., Ltd.	Martinrea Automotive Japan Inc.
BOCAR Group Auma Engineered Product K.K.	HONDA TSUSHIN KOGYO Co., Ltd.	Matsumoto Kosan Co., Ltd.
Caillau	Honortech International Limited Ltd.	METALART CORPORATION
CORRENS CORPORATION	HOTTY POLYMER Co., Ltd.	MICRO FASTENERS Co., Ltd.
• PSTproducts GmbH	I-PEX Inc.	Microtech Laboratory Inc.
• Laubinger Rickmann GmbH & Co. KG	igus k.k.	MinebeaMitsumi Inc.
• Loeser GmbH	IJTT Co., Ltd.	MITEC Co.,LTD
	IKUYO Co., Ltd.	Miyakichi Glass Co., Ltd.

Moriroku Group	TODA RACING Co., Ltd.	Taica Corp.
Murata Manufacturing Co., Ltd.	TOP Co., Ltd.	TEIJIN Ltd.
Muratec Mechatronics, co., Ltd. / Muratec Frontier, LTD	Topia Co., Ltd.	TOBATASEISAKUSHO CO., LTD.
• Muratec Frontier, LTD	TOYO DRILUBE.LTD Co., Ltd.	Toray Industries, Inc.
Nakashima Sangyo Co., Ltd.	TOYOTA AUTO BODY Co., Ltd.	TOYO INK GROUP
• Aixtal Corp.	TRIS Inc.	• TOYOICHEM CO., LTD.
• U-MAP Inc.	TSUBAKIMOTO CHAIN Co., Ltd.	• Toyo-Morton, Ltd.
NHK SPRING Co., Ltd.	UNIVANCE Corp.	• TOYO INK CO., LTD.
NICHICON CORPORATION	Witzenmann Japan K.K.	UACJ Corporation Corp.
NIHON PLAST Co., Ltd.		
Nippon Cannon Inc.	<b>MATERIALS</b>	<b>TESTING</b>
NIPPON DONALDSON, Ltd.	ACHILLES Corp.	A&D Corp.
Nippon Light Metal Company Ltd.	AGC Inc.	• BEST INSTRUMENTS CO., Ltd.
Nippon Tanshi Co., Ltd.	Air Water Inc.	ADVANTEST Corp.
Niterra Co., Ltd.	• AIR WATER PERFORMANCE CEMICAL INC.	ANRITSU CORPORATION
ogawa Inc.	• AIR WATER NV INC.	aptpod, Inc.
OILES Corp.	Arkema K.K.	ATESTEO Japan K.K.
Okayama Prefecture Industrial Promotion Foundation	Ascend Performance Materials Japan K.K.	AUTO TECHNIC JAPAN Co., Ltd.
• Teslam Co., Ltd	ATG Lanka Pvt Ltd.	Automax Co., Ltd.
• Aida engineering Co., Ltd	Bax Inc.	Daitron Co., Ltd.
• Hiruta kogyo Co., Ltd	Celanese Japan Ltd.	DENSHIJIKI INDUSTRY Co., Ltd.
• KAWAMURAKAKOU Corp.	Chunichi Craft Co., Ltd.	DEWEJapan Co., Ltd.
• KOKUSEI SEIMITSU CO.,LTD	Covestro Japan Co., Ltd.	DIRECT Corp.
• Ibara seiki Co., Ltd	DAIDO KOGYO KAISYA,LTD.	DTS INSIGHT Corp.
Okazaki Manufacturing Company	DaiwaProTech	Easy Measure Co., Ltd.
OSG SYSTEM PRODUCTS Co., Ltd.	GEOMATEC Co., Ltd.	EKO INSTRUMENTS Co., Ltd.
SEAFORCE CO LTD	Hashimotoya Co., Ltd.	ETAS K.K.
SEKIDAI KOGYO Co., Ltd.	Henkel Japan Ltd.	• HIOKI E.E. Corporation
SGK CO., LTD	HOEI METAL Co., Ltd.	EVIDENT Corp.
SINO-JAPAN ELECTRIC HEATER Co., Ltd.	INOAC CORPORATION	Fuji Technical Research Inc.
SJM CO., LTD.	KOBELCO Group (Kobe Steel, Ltd.)	GAFS Co., Ltd.
SPAL JAPAN K.K.	Kurabo Industries Ltd.	• Blueke Ltd.
SPC ELECTRONICS Corp.	Kuraray Co., Ltd.	Gailogic Corp.
Sumitomo Electric Industries Ltd.	LINTEC Corp.	HEAD acoustics Japan K.K.
Sun Ken Industrial Techniqui Co., Ltd	Mitsubishi Chemical Corporation	HIOKI E.E. Corporation
T.FUKASE Co., Ltd.	Mitsui Chemicals, Inc.	HORIBA Ltd.
• DSE Test Solutions A/S	SABIC Japan	Humanetics Innovative Solutions Japan K.K.
• WITELS-ALBERT	SAN FANG CHEMICAL INDUSTRY Co., Ltd.	IR System Co., Ltd.
• AUGUST STRECKER	SEIKO ADVANCE Ltd.	ITACCESS Co., Ltd.
• FMS	Sekisui Fuller Co., Ltd.	Japan Quality Assurance Organization
TAIHO KOGYO Co., Ltd.	Sumitomo Bakelite Co., Ltd.	JFE Techno Research Corporation
TAIYO YUDEN Co., Ltd.	Sumitomo Chemical Co., Ltd.	JOMESA Japan K.K.
TE Connectivity Gr.	SWCC Corporation	Keycom Corp.

KIKUSUI ELECTRONICS Corp.	TESCO Corp.	• KUSUMOTO CHEMICALS,LTD.
KYOWA ELECTRONIC INSTRUMENTS Co., Ltd.	Tokyo Measuring Instruments Laboratory Co., Ltd.	• Chroma Japan Corp.
Laser Measurement Corporation Corp.	TOYO Corp.	• TEXIO TECHNOLOGY CORPORATION
Lasertec Corp.	TOYOTA TECHNICAL DEVELOPMENT Corp.	• Technical Support Corporation
Lauterbach Japan, Ltd.	UL Japan Inc.	• Teledyne LeCroy
Loccioni Japan Co., Ltd.	UNIPULSE Corp.	• Japan Novel Corporation
Marubeni Information Systems Co., Ltd.	VIOS System Co., Ltd.	• HIOKI E.E. CORPORATION
MARUBUN Corp.		• MATSUURA DENKOSHA Co.,Ltd.
MEIDENSHA Corp.	<b>CAE SOLUSTION</b>	• AVSimulation
Meiji Electric Industries Co., Ltd.	Ansys Japan K.K.	• Mamezou Co.,Ltd.
• ART-HIKARI Co., Ltd.	• Dell Technologies Japan Inc.	MUSASHI ENGINEERING, INC.
• Anton Paar Japan K.K.	BETA CAE Systems Japan Inc.	NEC Solution Innovators, Ltd.
• KEN AUTOMATION Inc.	Dell Technologies Japan Inc.	Nikon-Trimble Co., Ltd.
• Comet Technologies Japan K.K.	Foundation for Computational Science	NIRA Dynamics AB
• ZENERAL HEATPUMP INDUSTRY CO., Ltd.	GeoTechnologies Inc.	OPSOC Inc.
• TANIDA LTD.	Hitachi Industry&Control Solutions Ltd.	SOLIZE Corporation
• Yokogawa Test & Measurement Corporation	IDAJ Co., Ltd.	Sumika Chemical Anarysis Service Co., Ltd.
Moog Japan Inc.	Japan Radio Co., Ltd.	Teledyne LeCroy
Myway Plus Corporation	MCOR Co., Ltd.	Texas Instruments Japan Ltd.
nac Image Technology Inc.	NewtonWorks Corp.	TOBII TECHNOLOGY K.K.
NI	rFpro Limited	wolfSSL Inc.
Nikon Corporation /Nikon Solutions Co., Ltd.	RICOS Co., Ltd.	
NIPPO CORPORATION Co., Ltd.	RPV Co., Ltd.	<b>R&amp;D/PUBLICATION/ASSOCIATION</b>
Nobby Tech. Ltd.	Satyam Venture Engineering Services Private Limited	ARCHIVETIPS Inc.
OHTE GIKEN, Inc.	SCSK Corp.	DAD Co., Ltd.
ONO SOKKI Co., Ltd.	SMT JAPAN	DM Card Japan Co.,Ltd.
PHOTRON LIMITED	Solidray Co., Ltd.	IP Agent Corp.
Pulstec Industrial Co., Ltd.	SOLIDWORKS JAPAN K.K.	Matsuo Sangyo Co., Ltd.
QMAIL	TASKING Japan Co., Ltd.	Misaki Design
RIGOL JAPAN Co., Ltd.		NIPPON TELEVISION NETWORK Corp.
RION Co., Ltd.	<b>CAR ELECTRONICS</b>	• NTT DATA Corporation
SANKO Co., Ltd.	A2MAC1 JAPAN K.K.	OTA CITY INDUSTRIAL PROMOTION ORGANIZATION
• NOISE LABORATORY CO.,LTD.	ANALOG DEVICES K.K.	S&P Global Mobility
• NST Co., Ltd.	Canon IT Solutions Inc.	SAN-EI Co., Ltd.
• HAKKO Automation Co. Ltd.,	CRI Middleware Co., Ltd.	Tsutsui Industry Co., Ltd
• NST Co., Ltd.	FORUM8 Co., Ltd.	Yukai Engineering Inc.
• EKO INSTRUMENTS CO., LTD.	JEOL Ltd.	
Sanyo Trading Co., Ltd.	MAC SYSTEMS CORPORATION Co., Ltd.	
SGS Japan Inc.	• Accretech Powertro System Co., Ltd., LTD.	
SHIMADZU Corp.	• Avera Technologies Inc	
• Shimadzu Techno-Research Inc.	• IWATSU ELECTRIC CO.,LTD.	
Stringo Co., Ltd.	• SMFL Rental Company, Limited	
TAKASAGO, Ltd.	• NF CORPORATION	

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## STARTUP / ACADEMIC LAB

Araya Inc.

Babieca

FastLabel.inc

FIME JAPAN Co., Ltd. / NFC FORUM

K6GmbH

NAGOYA INSTITUTE OF TECHNOLOGY

Nature Architects

PatSnap

Tanaka Lab., Graduate school of Eng., Nagasaki Univ.

Tebiki Inc.

Tokyo University of Marine Science and Technology Laboratory of Detection of Tree-Dimensional Center of Gravity

transmit inc.



## Gathering the collective wisdom of the automotive industry for carbon neutrality and the recycling-oriented society of the future.

As the world accelerates its efforts to realize decarbonization and sustainability, Japan as well as many other countries and regions are making progress toward carbon neutrality. Recycling and creative collaboration are the keys for overcoming global-scale issues and achieving a sustainable society. The automotive industry has a wide-ranging and powerful impact on society as a whole, and initiatives to eliminate carbon over the whole vehicle life cycle are absolutely essential for achieving carbon neutrality. To successfully implement these initiatives, the automotive industry must move on from the conventional linear process of resource exploitation, manufacturing, and disposal, to a socially oriented recycling-based system focused on the 3Rs (reduce, reuse, and recycle). Although we are standing at the crossroads of transformation, it will be no easy matter to change our common values. For this reason, we have to question conventional wisdom, look at things from new perspectives, and take on this challenge through a process of creative collaboration with new partners. We must ask ourselves, “What technologies will make people and the world happy?” and broaden our value chain to help create new value. We hope that everyone involved in the world of cars was able to meet at the Automotive Engineering Exposition 2023 and gather together our collective wisdom.

## Using our knowledge, skill, and craftsmanship to create new value chains for achieving a recycling-oriented society!



This exhibition showcases new ways to expand the value chains of the automotive industry to support the shift from a conventional linear society to a circular recycling-oriented society. Based on the theme of a circular economy, exhibits have been prepared about natural resource technologies, recycling schemes of other industries, steel recycling, regenerative technologies for chemicals in plastics, carbon recycling technologies, and technologies enabling the re-use of resources at production sites. This is the ideal forum for the whole industry to come together and consider how we can use our knowledge, skill, and craftsmanship to help achieve a recycling-oriented society.

### Exhibit Collaborators and organizations

Air Water Inc. / AGC Inc. / Dai Nippon Printing Co., Ltd. / DENSO Corp. / Honda R&D Co.,Ltd / JGC HOLDINGS CORPORATION / Mazda Motor Corporation / MIRAI-LABO CO.,Ltd. / Mitsubishi Corporation / Mitsubishi Corporation Clean Energy Ltd. / Mitsubishi Motors Co., Ltd. / NIPPON STEEL CORPORATION / NISSAN MOTOR CO.,LTD. / Resonac Corporation. / SUBARU Co., Ltd. / TOYOTA METAL CO. ,LTD. / Toyota Motor Corporation / TOYOTA TSUSHO CORPORATION (in alphabetical order)





## JSAE Special Presentations

A lecture was given based on the theme of the JSAE special exhibition.

<p><b>7/5</b> WED</p>	<p><b>11:00</b> ~ <b>12:00</b></p>	<p><b>Studying the Decarbonization of Vehicle Recycling</b></p> <p><b>Takeshi Sakaguchi</b> Deputy Director Office for Recycling Promotion, Policy and Coordination Division, Environment Regeneration and Resource Circulation Bureau Ministry of the Environment Government of Japan</p>
<p><b>7/7</b> FRI</p>	<p><b>11:00</b> ~ <b>12:00</b></p>	<p><b>Trends and Issues of LCAs of Steel and Other Key Materials</b></p> <p><b>Takeo Hoshino</b> Graduate School of Engineering, Department of Material Science University of Tokyo</p>

## The Japan Automotive AI Challenge Events

A presentation was held about the Japan Automotive AI Challenge.

<p><b>7/6</b> THU</p>	<p><b>11:00</b> ~ <b>12:00</b></p>	<p><b>Current Status of Autonomous Driving Technology and Expectations for Japan Automotive AI Challenge</b></p> <p><b>Yoshiki Ninomiya</b> Designated Professor Global Research Institute for Mobility in Society, Institutes of Innovation for Future Society Nagoya University</p>
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Workshop on the Japan Automotive AI Challenge was held.

<p><b>7/6</b> THU</p>	<p><b>14:00</b> ~ <b>16:00</b></p>	<p><b>Direction and Prospects for Software Engineer Development Targeted by the JSAE</b></p> <p><b>Nobuo Kawaguchi</b> [ Moderator ] Professor Global Research Institute for Mobility in Society, Institutes of Innovation for Future Society Nagoya University</p>
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## JSAE Chubu Branch Special Presentations

This presentation was carried out by the Chubu Branch of the JSAE.

<p><b>7/5</b> WED</p>	<p><b>13:30</b> ~ <b>14:30</b></p>	<p><b>The Carbon Neutrality Declaration of the Mitsubishi Heavy Industries Group: Initiatives for Achieving MISSION NET ZERO</b></p> <p><b>Masayuki Morihara</b> Department General Manager Carbon Neutrality Promotion Department Mitsubishi Heavy Industries</p>
<p><b>7/5</b> WED</p>	<p><b>16:00</b> ~ <b>17:00</b></p>	<p><b>Technical Trends for Onboard Power Electronics and Example Applications for Higher Performance</b></p> <p><b>Jun Imaoka</b> Associate Professor Institute of Materials and Systems for Sustainability Nagoya University</p>

## Special Presentations about Technological Development

Available online only: Special presentations were arranged in which vehicle developers described the passion and dedication they bring to carmaking.

<p><b>7/7</b> FRI</p> <p><b>14:00 ~15:30</b></p>	<p><b>Development of the Mazda CX-60</b> </p>
<ol style="list-style-type: none"> <li>1. Strategy of MAZDA and CX-60 features..... <b>Kohei Shibata</b> [Program Manager, Product Development Div.]</li> <li>2. New 7th generation large FR platform..... <b>Yasuyoshi Mushitani</b> [Senior Principal Engineer, Chassis Dynamics Development Dep. Vehicle Development Div.]</li> <li>3. New 3.3L Inline-6 diesel engine..... <b>Kazuhiro Tomizawa</b> [Program Manager, Powertrain Development Div.]</li> <li>4. New 8-speed automatic transmission, Hybrid technology..... <b>Junichi Doi</b> [Program Manager, Powertrain Development Div.]</li> <li>5. Mixed production technology for multiple models..... <b>Naomichi Okabayashi</b> [Staff Manager, Trim &amp; Final Assembly Engineering Gr. Painting, Trim &amp; Final Assembly Engineering Dept. Production Engineering Div.]</li> </ol>	

## JSAE Chubu Branch Research Report Sessions

Research reports were presented primarily presented by engineers belonging to the Chubu Branch of the JSAE.

### Venue 1

1	<b>Core Technology (1)</b> 10:30 - 11:40	Advics Co., Ltd.	Kazuma Tozawa	Development of AHB-G heavy flow rate gear pump
2		Aisin Takaoka Co., Ltd.	Yoshiya Tanaka	Development of FC stack terminals for FCEVs
3		Tokai Rika Co., Ltd.	Kento Kataoka	Development of highly accurate position measuring technology for digital keys using UWB wireless system
4	<b>Chassis·Body/Non section</b> 12:10 - 12:55	JTEKT Corporation	Harutaka Tamaizumi	Development of link-free steer-by-wire system
5		Toyoda Gosei Co., Ltd.	Takaaki Kamijo	UVC-LED antiviral ducts for air conditioners
6	<b>Core Technology (2)</b> 13:40 - 14:25	Toyota Auto Body Co., Ltd.	Takayuki Ikeda	Development toward the general adoption of plant-based materials in vehicles
7		Aisin Corporation	Katsuya Nozue	Development of pneumatic mechanical valve
8	<b>Core Technology (3)</b> 14:55 - 16:05	Taiho Kogyo Co., Ltd.	Yuto Kodama	Utilization of boundary films by the application of lubricating oil additives - copper alloys for engine bearings
9		Jatco Ltd.	Toshihiro Oda	Development of gear material and manufacturing method - improve yield strength under lubrication-poor environments
10		Niterra Co., Ltd.	Kentaro Ichihashi	Introduction of piezoelectric ceramics/devices and applicability - next-generation mobility fields

### Venue 2

1	<b>Powertrain (1)</b> 10:30 - 11:40	Toyota Central R&D Labs., Inc.	Takato Ikedo	State estimation of aftertreatment system using modeling method based on machine learning– Proposal of NOx storage reduction catalyst model and evaluation of estimation accuracy using actual engine data –
2		Nissan Automotive Technology Co., Ltd.	Tomoyoshi Chiba	Battery cooling and quick-charge control optimization for long-distance trip in Kei-EV
3		Daido Metal Co., Ltd.	Akira Ando	Development of multi-layer bismuth-antimony overlay bearings for vehicle engines
4	<b>Powertrain (2)</b> 12:10 - 12:55	Toyota Motor Corporation	Yoshinori Miyamoto	A study of the mechanism of abnormal ignition in H2 engine
5		Toyota Boshoku Corporation	Tatsuya Goto	Development of plastic timing chain cover
6	<b>Stability/Non section</b> 13:40 - 14:25	Yamaha Motor Company Limited	Shota Yamaguchi	Reproduction of equations of motion for motorcycles including concentrated stiffness using multi-body dynamics model
7		Toyota Technical Development Corporation (TTDC)	Kazuhiro Muraguchi	Development of FPGA-to-FPGA communication technology for a large-scale real-time simulator of electric vehicles
8	<b>Electronics/ Environment Technology</b> 14:55 - 16:05	Denso Corporation	Yusei Nakayashiki	Novel automatic switching technology for transmitter coil of dynamic wireless power transfer system
9		Suzuki Motor Corporation.	Hiroki Osanai	Development of street lights reusing onboard lithium-ion batteries

## The Japan Automotive AI Challenge Events

The theme of this showcase was the Japan Automotive AI Challenge, a project hosted by the JSAE to foster the development of engineers. This showcase was designed as a forum to encourage networking between software engineers and the automotive industry. Event held with support from: Nagoya University (TMI) / AISAN TECHNOLOGY CO.,LTD.



## Exhibition of Vehicles Featuring the Latest Technologies

This was a brand new exhibition for Nagoya's new exposition venue. It featured a collection of exhibits of the latest passenger vehicles, heavy-duty trucks, and motorcycles.

### — Exhibited Vehicles —

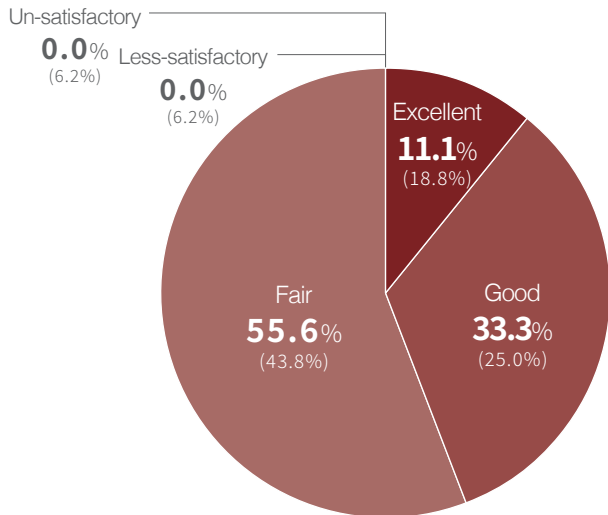
- HONDA** ZR-V e:HEV
- MAZDA** CX-60 Biofuel
- MAZDA** MX-30 e-SKYACTIV R-EV (European specification)
- NISSAN** X-TRAIL
- TOYOTA** PRIUS
- HINO** DUTRO Z EV
- HONDA** EM1 e:
- ISUZU** GIGA
- HINO** Fuel cell electric heavy-duty truck



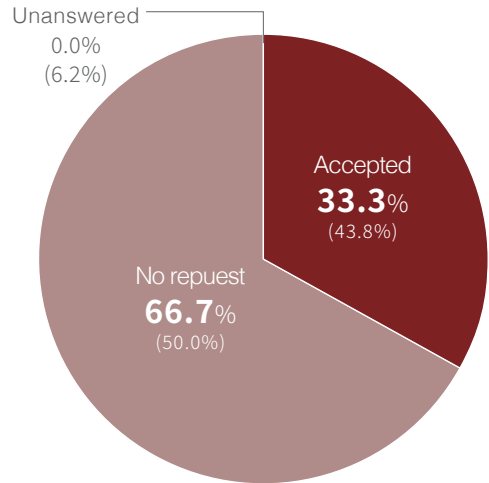
Exhibitors were asked about the PR activities.

\* The figures in the parentheses denote results from 2022.

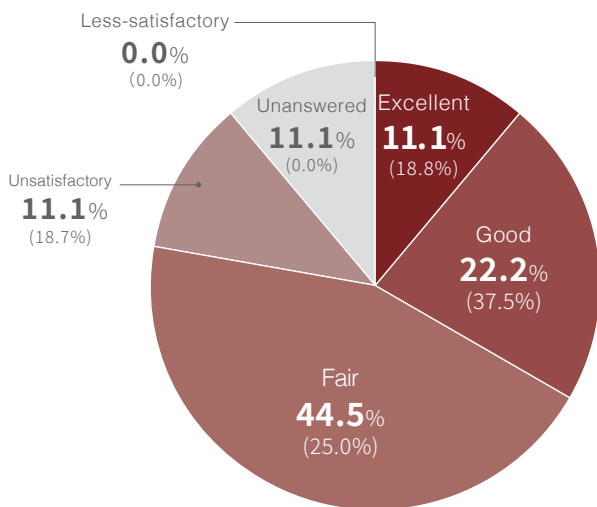
Public Relation Activities as Exposition Management Coordinator



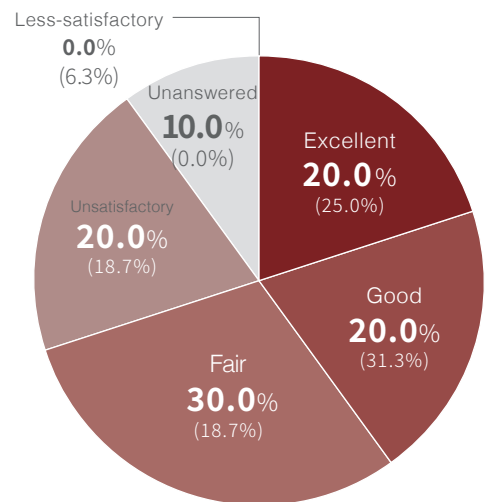
Media Interview to Your Company



Impression of Press Release



Impression of PR Entry Sheet



This exposition was covered in a wide range of media.

### Newspaper / magazine

•Nikkan Jidosha Shimbun	6/16
•AUTOMOBILE DEALERS	7/1
•Seibi in Tokyo	7/5
•THE MID-JAPAN ECONOMIST	7/6
•Nikkan Kogyo Shimbun	7/6
•Fer Service Shop	7/26
•Nirinsha Shimbun	7/28
•JAPAN GLASS NEWS	8/5
•Seikei-Kakou	9/20

### WEB

•Sankei Shimbun	6/12	•Nikkan Kogyo Shimbun	7/6、8/2
•JIJI.COM	6/13、6/29、7/13	•Converting Technical Institute	7/6
•BIGLOBE News	6/13、6/19、6/21、6/26、6/28	•Nikkei Digital	7/6
•Dream News	6/13、6/19、6/28、7/6	•ITS-P21	7/9
•YAHOO! News	6/13、7/13	•Kuruma no News	7/13
•Car Watch	6/14	•THE OWNER DRIVER	7/19
•MOTA	6/14、6/21、6/29、6/30、7/13	•Tech-T	7/24
•carview!	6/14、6/17、7/6	•Fer Service Shop	7/26
•THE MOTOR WEEKLY	6/17	•Nirinsha Shimbun	7/28
•zakzak	6/19	•JAPAN GLASS NEWS	8/5
•EXHIBITION & MICE	6/19	•Seikei-Kakou	9/20
•Chunichi BIZ Navi	6/23、6/26、7/3		
•Gomu times	6/26、7/10		
•Mapion news	6/28、7/13		
•goo News	6/30		
•dmenu News	6/30		
•ekitan	6/30		
•for cross	7/3		
•Motor-Fan	7/3		
•Nikkan Jidosha Shimbun Digital	7/3、7/6、7/8、7/11		
•BIGLOBE travel	7/4		
•Walkerplus+	7/4		
•Response	7/4、7/7、7/10、7/11、7/12、7/14		
•Car & Leisure	7/4		
•Chemical-News	7/5		
•THE MID-JAPAN ECONOMIST	7/6		
•xTECH	7/6		

This exposition was covered in a wide range of media.

Total **34**\*Including freelancers **78** (2022)  
(in alphabetical order)

ar photo

Chunichi Shimbun Co., Ltd.

Connect Beyond co.,ltd.

Dempa Publications, Inc.

Fastening journal

Glass News

IID, Inc.

ITS-Platform 21

Japan Broadcasting Corporation Nagoya Station

Jiho, Inc.

Kanamori Industries Co.,ltd

Kigyo Kaihatsu Center Co.,Ltd.

KINSAN FASTENER NEWS

KOJIMA INDUSTRIES CORPORATION

MarkLines Co., Ltd.

mediavague Co., Ltd.

NEWS DIGEST PUBLISHING CO., LTD.

NIKKAN JIDOSHA SHIMBUN,LTD.

Nikkei Business Publications, Inc.

Nikkei Inc.

Nippon Television Network Corporation

Office Tech-T Corp.

planning office marga

SAN-EI CORPORATION

SANGYO PRESS CO., LTD.

SANGYO PRESS CO., LTD. CHUBU OFFICE

Sangyo Times, Inc.

Tekko Shimbun Corp.

The Asahi Shimbun Company

The Chemical Daily Co., Ltd.

THE DIE CASTING NEWS

The Nikkan Kogyo Shimbun

The Nikkan Kogyo Shimbun Gifu

The Nikkan Kogyo Shimbun Nagoya

## Automotive Engineering Exposition 2024 YOKOHAMA

2024

5/ 22 (WED) 23 (THU) 24 (FRI)

PACIFICO Yokohama

## Automotive Engineering Exposition 2024 NAGOYA

2024

7/ 17 (WED) 18 (THU) 19 (FRI)

Aichi Sky Expo

The start of exhibitor applications is scheduled for some time in the autumn.



Any inquiries about the exposition should be directed to the Exposition Office.

T E L : 03-5542-0811  
E-mail : [exhib-expo@taiseisha.co.jp](mailto:exhib-expo@taiseisha.co.jp)

Taiseisha Ltd.  
Shintomi Mihama Bldg., 6F, 1-15-3 Shintomi, Chuo-ku, Tokyo  
104-0041 Japan

**【Organizer】**

Society of Automotive Engineering of Japan, Inc. (JSAE)

**【Exposition Management Coordinator】**

Taiseisha Ltd.

Shintomi Mihama Bldg., 6F, 1-15-3 Shintomi, Chuo-ku, Tokyo 104-0041 Japan

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🌐 <https://aee.expo-info.jsae.or.jp/ja/>