



JATCO Sustainability Report  
**2023**

***Jatco***

## Editorial Policy

This Sustainability Report is intended for all JATCO's stakeholders, including customers, employees, business partners, and local communities. We hope to facilitate your understanding of JATCO's ongoing sustainability efforts and utilize your valuable feedback to uncover new challenges and inform future initiatives. We sincerely welcome any candid opinions or impressions you may have after reading this report.

<Survey>

<https://forms.office.com/r/32KDqbwgJn?origin=lprLink>



## Reference Guidelines

GRI Standards

## Reporting Period

April 2022 – March 2023

## Scope

JATCO Ltd and consolidated subsidiaries in Japan and overseas

## Reporting Cycle

Annually (previous report issued in October 2022)

## Date of Issue

December 2023

## Departments Responsible for Publication and Inquiries

Corporate Planning Department, Global Communications Department

[https://www.jatco.co.jp/english/inquiry/agreement\\_other.html](https://www.jatco.co.jp/english/inquiry/agreement_other.html)

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## Message from the CEO

# Strengthening sustainability management to contribute to the future of people, society, and the planet

At JATCO, we position sustainability at the core of our corporate activities. We believe it is integral for us to earn the trust of our stakeholders and achieve sustainable growth as a company. The world faces many pressing challenges, including climate change, resource dependency, and various human rights issues. As we fulfill our role as a corporation to help overcome these challenges, we also strive to provide diverse value to our stakeholders.

Central to this is our company purpose: "Driving the possibilities of mobility with technology and passion." Leveraging our proprietary technology cultivated over many years as an automatic transmission manufacturer, we take on the challenge of new mobility possibilities. By providing valuable products and services to customers and society, we will contribute to developing a more accessible and prosperous society made possible by mobility.

A key pillar is our contribution to vehicle electrification. Climate change is a serious social issue faced by many companies worldwide. As a specialized manufacturer of automatic transmissions for gasoline vehicles, JATCO has always pursued product efficiency and offered environmentally friendly products with excellent fuel economy. In the future, we will leverage our unique technologies, including in the area of electric vehicle powertrains, to widely provide the market with competitive electric powertrains in terms of transmission efficiency, quietness, energy management, and more. This will raise the value proposition of electric vehicles and contribute to realizing a clean and prosperous society through their popularization. The market launch of these products is planned for next fiscal year and we are strengthening our development and production system for electric powertrains with a target to produce 5 million units annually for electric vehicles by 2030.

Achieving carbon neutrality is another key theme for us. Across our entire value chain, including development, production, and logistics, we are making an all-out effort to attain carbon-neutral operations by 2050. We have partnered with Fuji City, Shizuoka Prefecture, home to our head office, signing an agreement to collaborate on realizing a zero-carbon city. We are also advancing various initiatives tailored to each region's specific circumstances at our overseas sites.

Additionally, JATCO intends to apply its technologies and expertise, including in electric powertrains, beyond automobiles to new mobility and business areas. For instance, we are working on commercializing a drive unit for electric bicycles utilizing our gear and control technologies. We are also conducting a proof of concept to verify a speed increaser for low-voltage wind-turbine power generation combining our transmission gear technology with reused parts from electric vehicles. Guided by an entrepreneurial spirit, we are exploring possibilities to apply JATCO technologies to help resolve various social issues and create new businesses. Through such endeavors, we will supply new value that is useful to society and contribute to sustainable societal development.

Driving and advancing these activities are JATCO's people. We cherish each employee as a precious asset and aim to be a company where all individuals working at sites worldwide can thrive and feel they are growing and making a valuable contribution. While respecting diversity, we promote the creation of workplaces that unlock possibilities and maximize the abilities of all, regardless of job type or workplace, by not limiting anyone based on gender, age, nationality, disability, or other such attributes. We also place our employees' physical and



JATCO Ltd  
President and CEO  
**Tomoyoshi Sato**

JATCO Sustainability Report 2023



## Message from the CEO



mental health among our foremost priorities, practicing health management aimed at employee well-being and sustainable company growth. Our efforts have earned us designation among Japan's "White 500" corporations for outstanding health and productivity management by the Ministry of Economy, Trade and Industry for five consecutive years.

Furthermore, earning societal trust requires all employees to comply with various laws and policies and act fairly and with integrity guided by a high sense of ethics. We strive for thorough compliance based on our Global Code of Conduct covering the JATCO Group worldwide.

In today's environment of drastic change, companies worldwide inevitably face difficult situations at times. However, this presents opportunities to create new businesses as well. At JATCO, we never lose sight of the importance of sustainability. We take on the challenges of solving social issues through sincere engagement with our stakeholders during business activities. We realize sustainable corporate growth and social advancement by listening closely to societal requests and swiftly providing corresponding value.

This fiscal year, we issue our first Sustainability Report as an evolution of our previous Environmental & Social Reports. We



Partnering with Fuji City on a pilot study to explore the possibilities of bicycle use

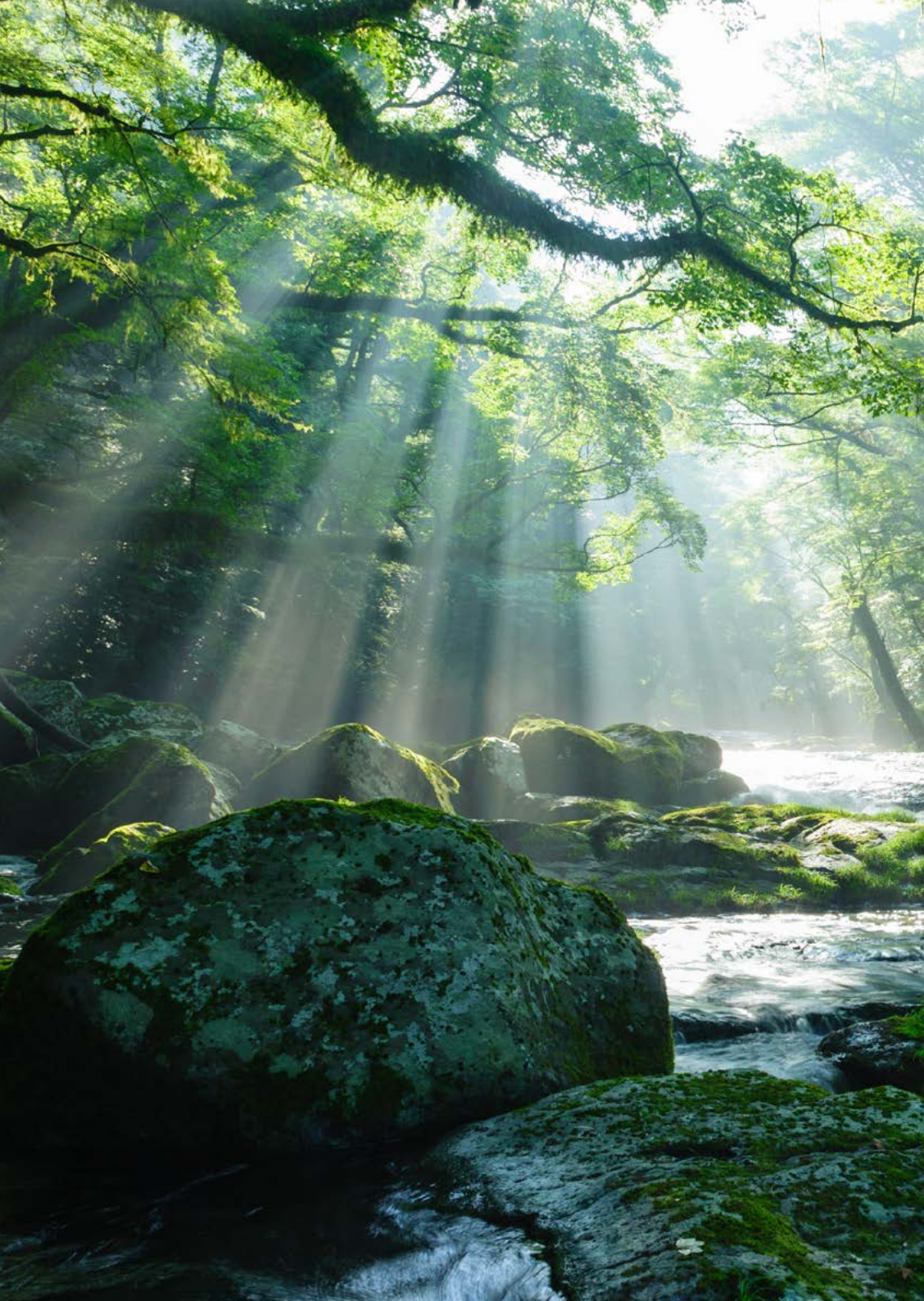


Press briefing at Automotive Engineering Exposition 2023 Yokohama

welcome your interest in JATCO's sustainability efforts and sincerely appreciate any feedback.

Confident our efforts will contribute to the future of people, society, and the planet, we will continue to strengthen sustainability management into the future.





# About JATCO

Corporate Information

Corporate Philosophy

History of Value Creation

Our Vision

Core Technologies

# Corporate Information

<b>Company Name</b>	JATCO Ltd
<b>Main Businesses Areas</b>	Development, manufacture, and sale of electrified powertrains, parts, and automobile transmissions
<b>Established</b>	June 28, 1999
<b>Headquarters Location</b>	700-1, Imaizumi, Fuji City, Shizuoka, Japan
<b>Number of Employees</b>	11,800 (as of March 31, 2023, consolidated)
<b>Representative</b>	President and CEO Tomoyoshi Sato
<b>Capitalization</b>	¥29,935.3 million
<b>Shareholders</b>	NISSAN MOTOR CO., LTD. (75%) MITSUBISHI MOTORS CORPORATION (15%) SUZUKI MOTOR CORPORATION (10%)

## Economic Aspects (consolidated)

	billion yen		
	FY 2020	FY 2021	FY 2022
Net revenues	542.8	561.3	540.0
Operating income	18.6	26.7	2.8
Net income	5.8	16.5	-4.8

(Reference)

## Affiliated Companies in Japan

### ● JATCO Engineering Ltd

125-1, Yodabashi, Fuji City, Shizuoka 417-0002, Japan

### ● JATCO Tool Ltd

1-1, Yoshiwaratakara-cho, Fuji City, Shizuoka 417-0023, Japan

### ● JATCO Plant Tec Ltd

1-1, Yoshiwaratakara-cho, Fuji City, Shizuoka 417-0023, Japan

## Affiliated Companies Overseas

### ● JATCO USA, Inc.

1974 Midway Lane, Smyrna, TN 37167, USA

### ● JATCO MEXICO S.A. DE C.V.

Carretera Panamericana Km 75, Col. Los Arellano, C.P. 20340.  
Aguascalientes, AGS., Mexico

### ● JATCO Korea Engineering Corporation

Lotte IT Castle 2-4F, 98, Gasan digital 2-ro, Geumcheon-gu, Seoul 08506, Korea

### ● JATCO Korea Service Corporation

Lotte IT Castle 2-412, 98, Gasan digital 2-ro, Geumcheon-gu, Seoul 08506, Korea

### ● JATCO (Guangzhou) Automatic Transmission Ltd.

NO.8, Lihong 2 Road, Science City, Guangzhou Hi-Tech Industrial Development Zone, Guangzhou, Guangdong, 510530, China

### ● JATCO (Suzhou) Automatic Transmission Ltd.

No.2 Tangqiao Road (M), Tangshi Community, Yangshe Town, Zhangjiagang City, Jiangsu Province, 215600, China

### ● JATCO France SAS

ZAC des Godets - Batiment C, 1-4 Impasse de la noisette, 91370 Verrières le Buisson, France

### ● JATCO (Thailand) Co., Ltd.

700/999 Moo 3, Amata Nakorn Industrial Estate, Thumbon Nongkakha, Amphur Phanthong, Chonburi 20160, Thailand



# Corporate Philosophy

—— Corporate Purpose ——

## Driving the possibilities of mobility with technology and passion

Mobility enables the movement of people and goods.  
Yet this movement is not just about moving.  
By moving in a limitless space, new experiences arise, and new worlds unfold.  
Hence, should the possibilities of mobility extend,  
allowing each and every person the movement they please,  
the hearts of all will be stirred, filling their interactions with energy and excitement.  
And thus, the world will become freer and more prosperous.  
To realize such a world, JATCO drives the possibilities of mobility  
with technology and passion.

—— Mission ——

We, as a corporation trusted by society, will provide  
new value to a mobility by providing clean, safe, comfortable,  
yet exciting products and services.

—— Values : T-E-A-M ——

**T**eam leadership by everybody    **E**xternal mindset    **A**spiration to win    **M**onozukuri excellence

Amidst a rapidly changing business environment, JATCO re-examined its reasons for existence in society. Our corporate purpose, “Driving the possibilities of mobility with technology and passion,” signifies our direction in an unpredictable future. It also encapsulates our desire to leverage our strengths to contribute to a better society through mobility. JATCO remains committed to delivering new value toward achieving our corporate purpose.

### Technology

Technology is JATCO's most important asset and source of value. We recognize the value of the technology we have cultivated, further deepen it, and open up our future.

### Passion

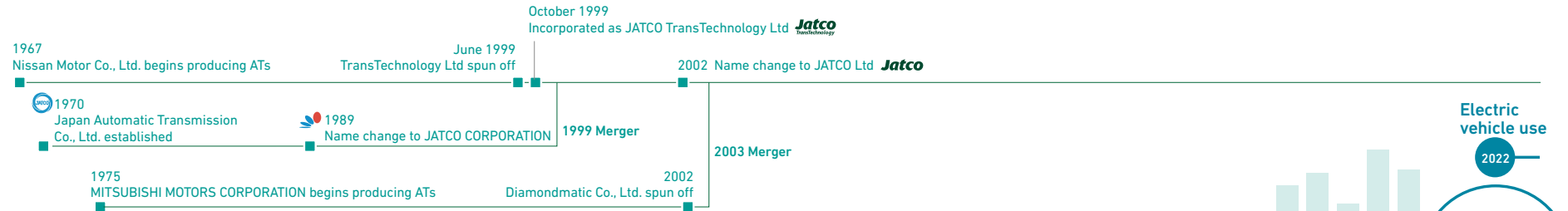
JATCO explores new possibilities with a passion for manufacturing, innovation, and our customers. Passion is the driving force behind our challenge mindset.

### Mobility

Mobility is all about movement and the means of movement in social activities. The scope of mobility is expanding, beyond the surface of the Earth where cars drive, to the sea, the sky, and outer space. JATCO's area of activities is also expanding steadily.



# History of Value Creation



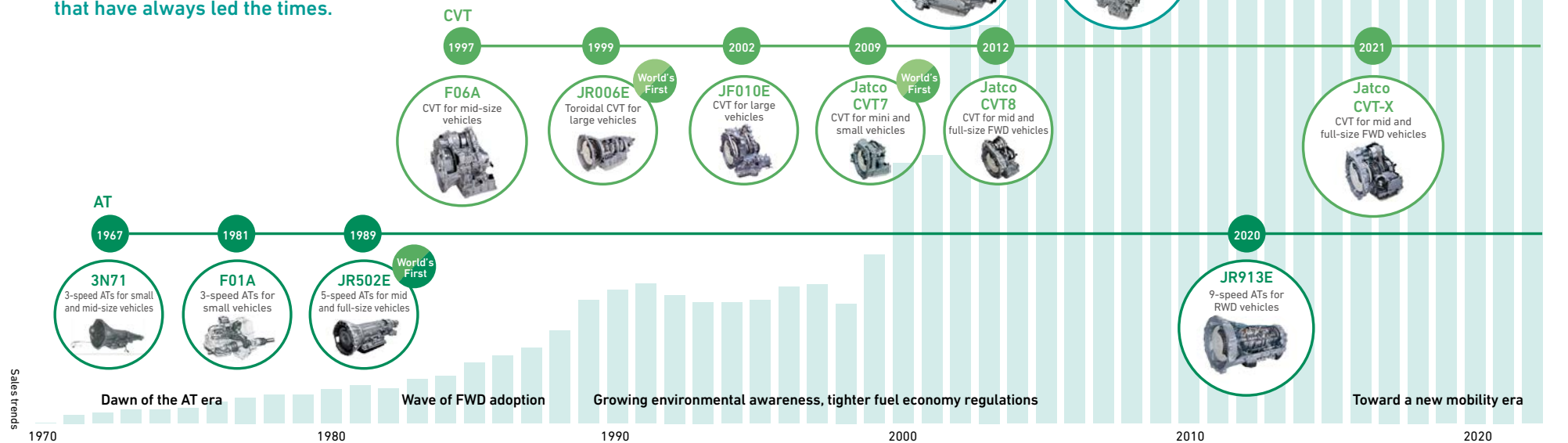
## Founding Principles

Cherish people

Maintain cleanliness in all matters

Supply only the highest quality

JATCO's history of evolution is one of innovative products and technologies that have always led the times.



# Our Vision

Guided by our corporate purpose, “Driving the possibilities of mobility with technology and passion,” JATCO seeks to leverage technology cultivated over many years as an automotive transmission manufacturer to contribute to developing a better society enabled by mobility. Amidst accelerating electrification, we will also supply competitive products that capitalize on our proprietary technologies as an electric powertrain maker. Additionally, we will expand our technologies to new types of mobility beyond automobiles, exploring possibilities to provide drive units for all kinds of mobility. Making full use of JATCO’s unique technical capabilities and expertise, we aim to balance sustainable societal growth with our own growth while keeping the resolution of environmental and social issues in view.

## Providing Drive Units for All Kinds of Mobility



X-in-1 (3-in-1)



X-in-1 (5-in-1)



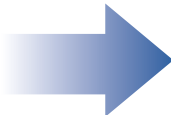
e-Axle (offset design)



e-Axle (with multi-speed transmission)

**Rising interest  
in sustainability**

Carbon neutrality  
Circular economy  
Shift in value  
from cars to mobility



**Realizing safe, comfortable mobility**



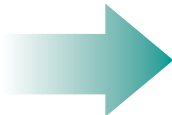
Wheelchair with  
transfer mechanism



Drive unit for e-bikes



Speed increaser for low-voltage  
wind turbines (nacelle)



**Contributing to  
a sustainable society**

# Core Technologies

We have delivered over 125 million automotive automatic transmissions since the founding of one of JATCO's predecessors, Japan Automatic Transmission Co., Ltd. Our strengths lie in development capabilities and production technologies for power transmission mechanisms, honed through R&D and production of ATs and CVTs.

In addition to designing and manufacturing units and components, we have always been involved in developing vehicle systems in collaboration with automakers. This allows us to handle aspects spanning vehicle control and communication to power performance, quietness, and thermal management. Our production strengths include precision design/machining technologies and the capability to mass-produce top-quality products at global sites, enabling stable supply.

Leveraging these core competencies to the fullest, we will pursue the provision of new value, including through electric powertrains and contributions to new types of mobility.

## Delivering value across vehicles, units, and components

### Vehicle system development

- Power performance
- Quietness
- Thermal management system



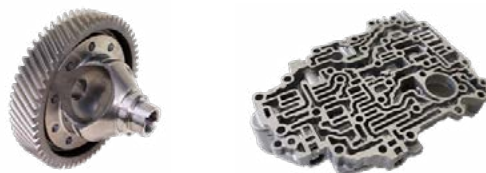
### Unit development

- Electrified unit systems
- AT and CVT unit systems

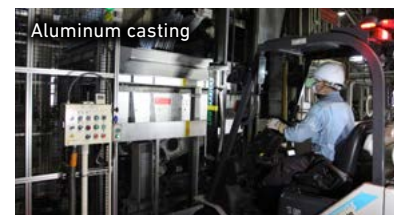


### Component development

- Core parts



## Design and manufacturing technologies for gears and other parts that transmit power in ATs and CVTs



Aluminum casting



Casting



Gear machining



Machining

## Technologies to stably supply high-quality products globally



Global mass production



Quality assurance





# Sustainability Management

JATCO's Sustainability

- Basic Sustainability Policy
- Materialities (key issues)

# JATCO's Sustainability

Guided by our corporate purpose, “Driving the possibilities of mobility with technology and passion,” JATCO provides valuable products and services leveraging our proprietary technologies cultivated through powertrain development and manufacturing. Regarding sustainability as fundamental to business management, we believe a vital role across all business activities is to grow as a corporation, contribute to economic development, and help overcome various societal challenges. Through dialogue with stakeholders, we understand their concerns and aim to contribute to sustainable societal advancement by continuously delivering new value.

## Basic Sustainability Policy

- Guided by our corporate purpose, “Driving the possibilities of mobility with technology and passion,” JATCO regards sustainability **as fundamental to business management and strives to contribute to economic growth and help overcome societal issues through all business activities and other undertakings.**
- **By providing unique value through innovative technologies, JATCO contributes to societal advancement brought about by clean, safe, comfortable, yet exciting mobility.**
- **In communication with all stakeholders,** including customers, employees, business partners, and local communities, JATCO **seeks to realize a sustainable society.**
- JATCO advances and raises the level of corporate sustainability activities **by ensuring every employee is aware of and voluntarily engages in sustainability.**

### Contributing to the Achievement of the SDGs

The 2030 Agenda for Sustainable Development was adopted at the United Nations Sustainable Development Summit in September 2015. JATCO endorses the globally shared Sustainable Development Goals (SDGs) and will contribute to their achievement. In April 2022, for instance, we signed on to the SDGs Future City Initiative declaration of Fuji City, Shizuoka Prefecture, home to our head office, and are doing our part to realize the vision of Fuji as an SDGs Future City.

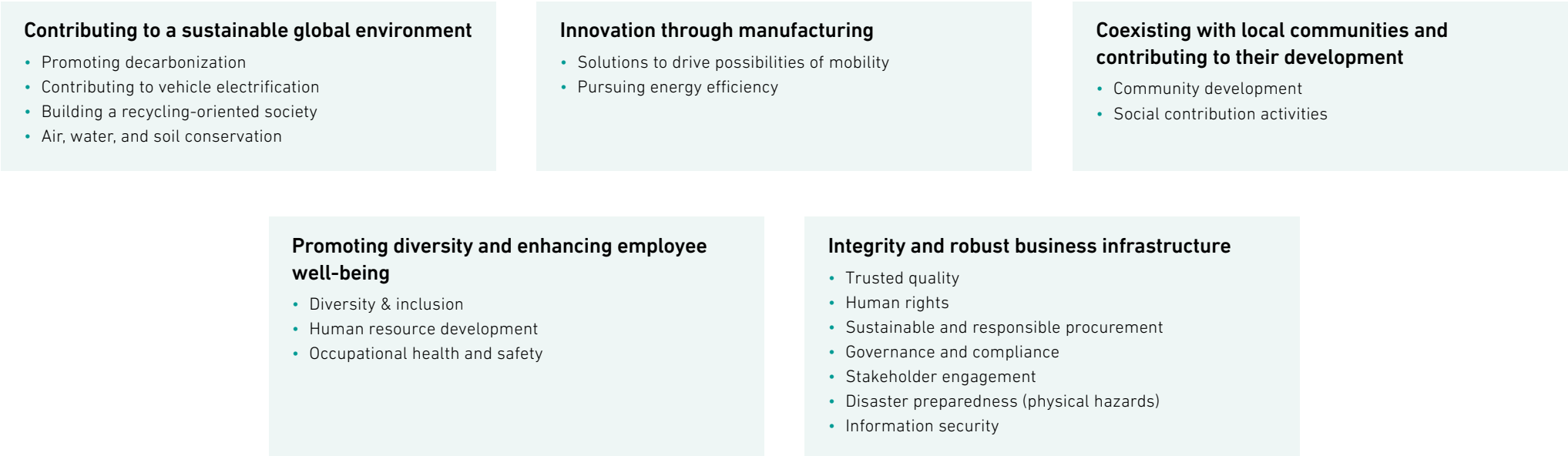
Pages in this report describing related initiatives display the respective goal icons to indicate connections with the SDGs.



# JATCO's Sustainability

## Materialities (key issues)

To align stakeholder concerns with the direction of our growth, JATCO has identified 18 key sustainability issues (materialities) in five categories that we should prioritize. These key issues are discussed in the executive committee and incorporated into business activities, ensuring progress on initiatives, leading to the creation of corporate value.



## Issue Identification Process

JATCO identified its materialities through the following process:







# Environment

## Contributing to a Sustainable Global Environment

Environmental Management

Promoting Decarbonization

Contributing to Vehicle Electrification

Building a Recycling-Oriented Society

Protecting Air, Water, and Soil

Environmental Communication and Biodiversity

# Environmental Management

## What JATCO can do for a sustainable future

JATCO leverages its collected experience in the transmission business and pursues both driving and environmental performance. Our technologies and experience provide that value through products such as our Jatco CVT-X, which overcame the 90% transmission efficiency barrier once considered difficult for CVTs, and our JR913E, a 9-speed AT that achieves ideal gear ratio settings and responsive shifting. Going forward, in anticipation of the age of electrification, we are also launching electric powertrains such as our e-Axles.

By leveraging these technologies and systems to provide innovative products for non-car mobility, we are contributing to a sustainable future.



In addition to its main CVT and AT products, JATCO is conducting research and development on e-Axles for electric vehicles.

## Environmental Policy

We aim “for the realization of a society where the environment and cars can coexist” through our environmentally-friendly products and facilities.

## For the realization of a society where the environment and cars can coexist

- **Technology:** Development of transmissions with efficient energy transfer
- **Prevention of pollution:** Prevention of environmental problems and legal compliance
- **Effective utilization of resources:** Minimization of the use of resources and energy
- **Continuous improvements:** Enhancing the effectiveness of the environmental management system

## Accounting for the environment in our global business activities

JATCO is globally expanding its production bases in order to ensure a stable supply of products to automobile manufacturers around the world. To minimize the impact on the environment imposed by our production bases, we apply the same environmental protection measures used in our production bases in Japan to all our bases around the world, and we are proactive in trying out unique ideas at each base. Furthermore, all of our bases have earned the new ISO 14001:2015 environmental management system certification. Going forward, we will continue engaging in production practices that minimize environmental impact across our bases all over the world.



All of our global bases have acquired ISO 14001:2015 certification. (The certificates for two of our bases)

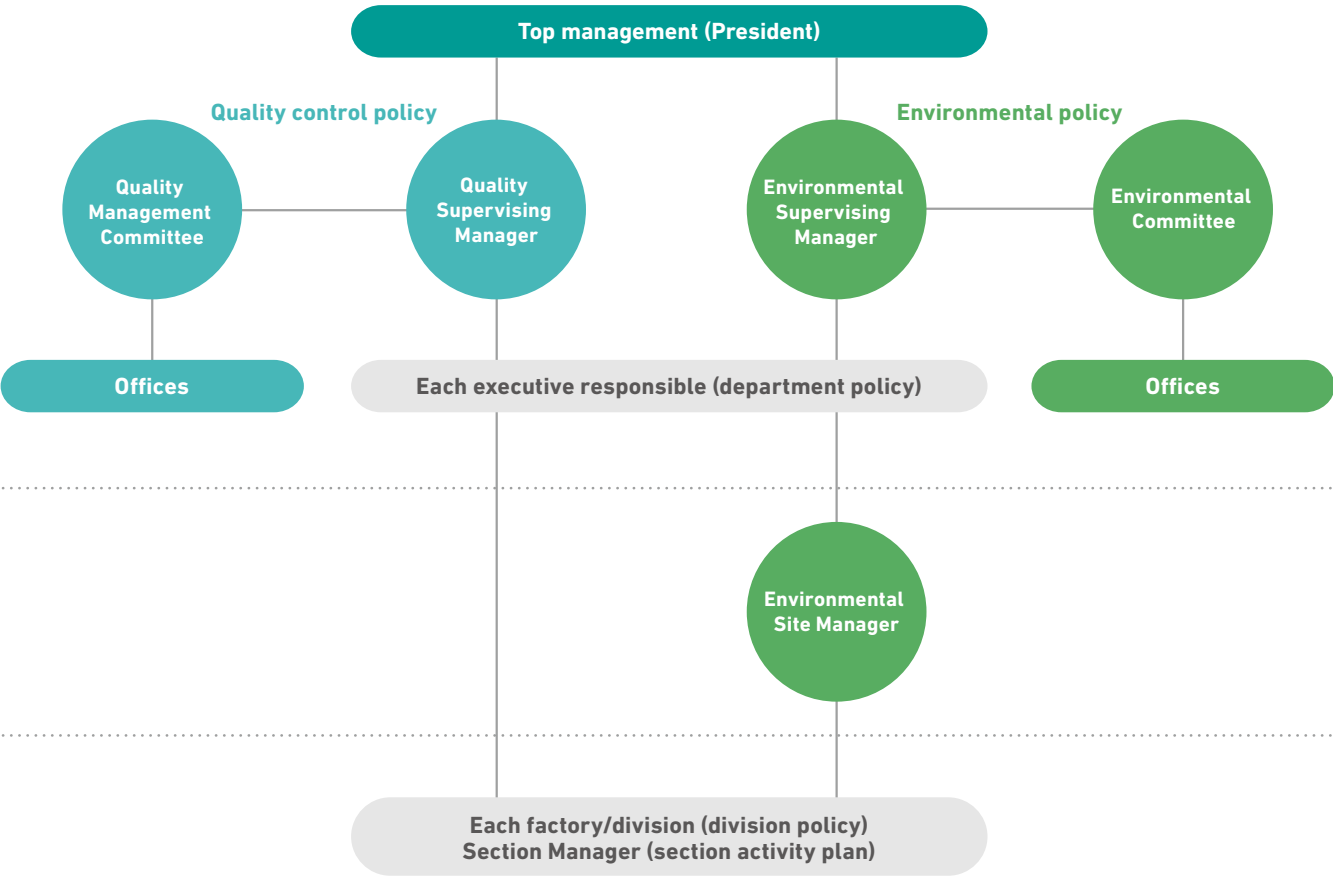
# Environmental Management

## Promotion system for environmental management

JATCO has earned ISO 14001 certification for its head office in Fuji City, Shizuoka Prefecture, and for its production bases in Japan. As part of our framework to promote our environmental management system (EMS), we appointed one environmental supervising manager, 9 site managers, and 3 deputy site managers. Under the management and authority of the environmental supervising manager, they promote our EMS at each production base and division. Furthermore, in 2011, we integrated our quality management system and our environmental management system. With regard to EMS promotion across the entirety of JATCO, comprehensive deliberation and assessment is carried out by a company-wide environmental committee comprised of the environmental supervising manager and environmental site managers, and a follow-up system is put in place. By applying the company-wide EMS to all divisions and production bases, we are able to align our efforts as a company, and strongly promote environmental management. This is a major characteristic of JATCO's EMS.

In terms of domestic JATCO group companies, JATCO Engineering Ltd independently earned its ISO 14001 certification. As for our overseas bases, JATCO MEXICO S.A. DE C.V., JATCO (Guangzhou) Automatic Transmission Ltd., and JATCO (Thailand) Co., Ltd., earned their ISO 14001 certifications in 2011, 2013, and FY2015 respectively. JATCO (Suzhou) Automatic Transmission Ltd., which began operations in 2019, acquired ISO 14001 certification in 2022 and is currently making progress on establishing an EMS.

JATCO's systems promoting quality and environmental management





# Environmental Management

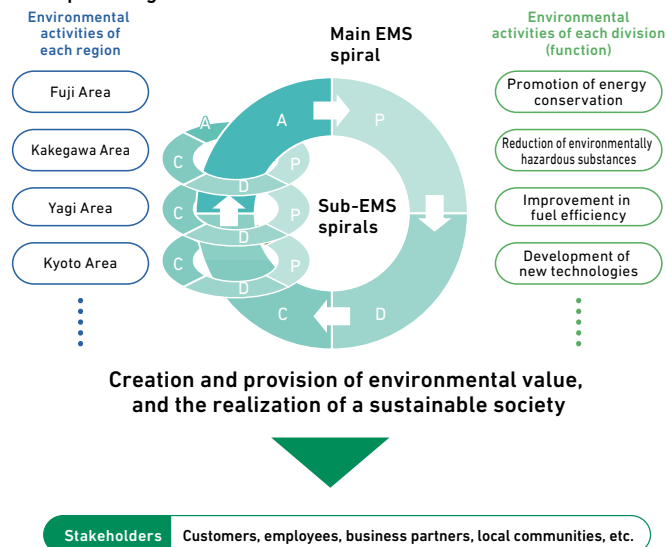
## Promotion system for environmental activities

### Promotion of activities that meet the needs of the local community by the Environmental Committees of each region

JATCO has established Environmental Committees in each region, and the Committees carry out environmental activities that meet the needs of the local community.

By mutually interlinking and operating two types of PDCA cycles—the PDCA cycle for the whole of JATCO (main EMS spiral) and the PDCA cycles for the regions and divisions (sub EMS spirals)—we strive to unite the direction of all the initiatives that are implemented. The aim is to create and provide environmental value to our stakeholders through continuous improvements, in order to improve the effectiveness of our activities.

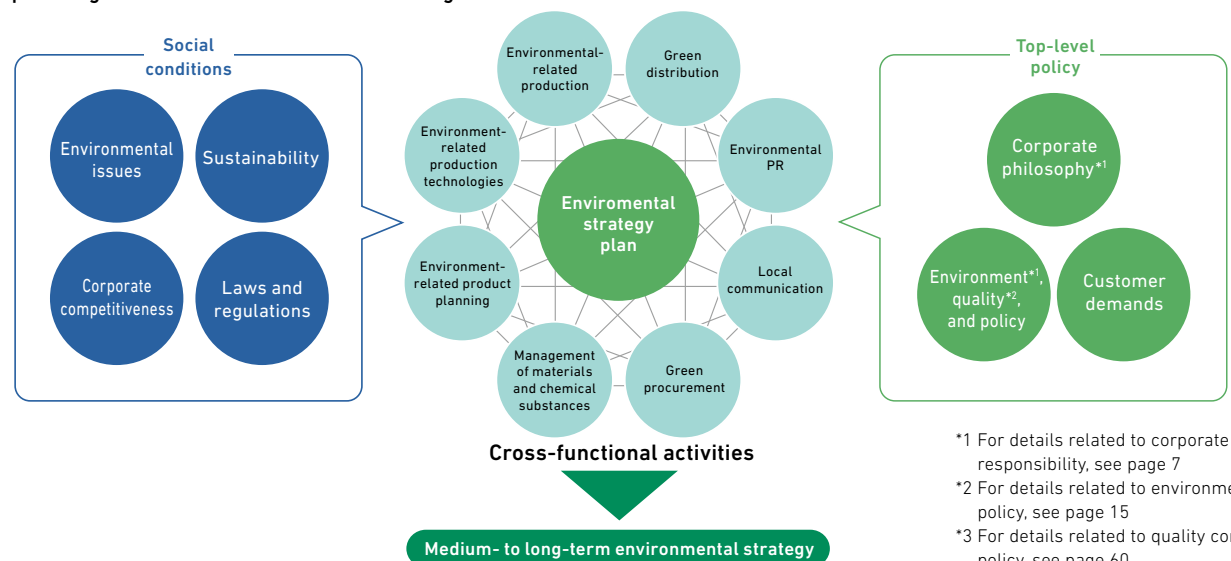
#### Conceptual diagram of JATCO's environmental activities



### Exploring medium- to long-term strategies through an environmental planning subcommittee

As an organization that explores medium- to long-term strategies for its environmental plan, JATCO established an environmental planning subcommittee in 2008. In contrast to the EMS promotion system that carries out environmental management by sector, the committee was formed to examine and promote medium- to long-term strategies related to the environment that JATCO should implement in response to social conditions and top-level policy. While examining JATCO as a whole, the committee performs management and planning across the company. They implement this strategy while coordinating the environmental activity planning and management of our overseas bases.

#### Conceptual diagram of JATCO's Environmental Planning Subcommittee



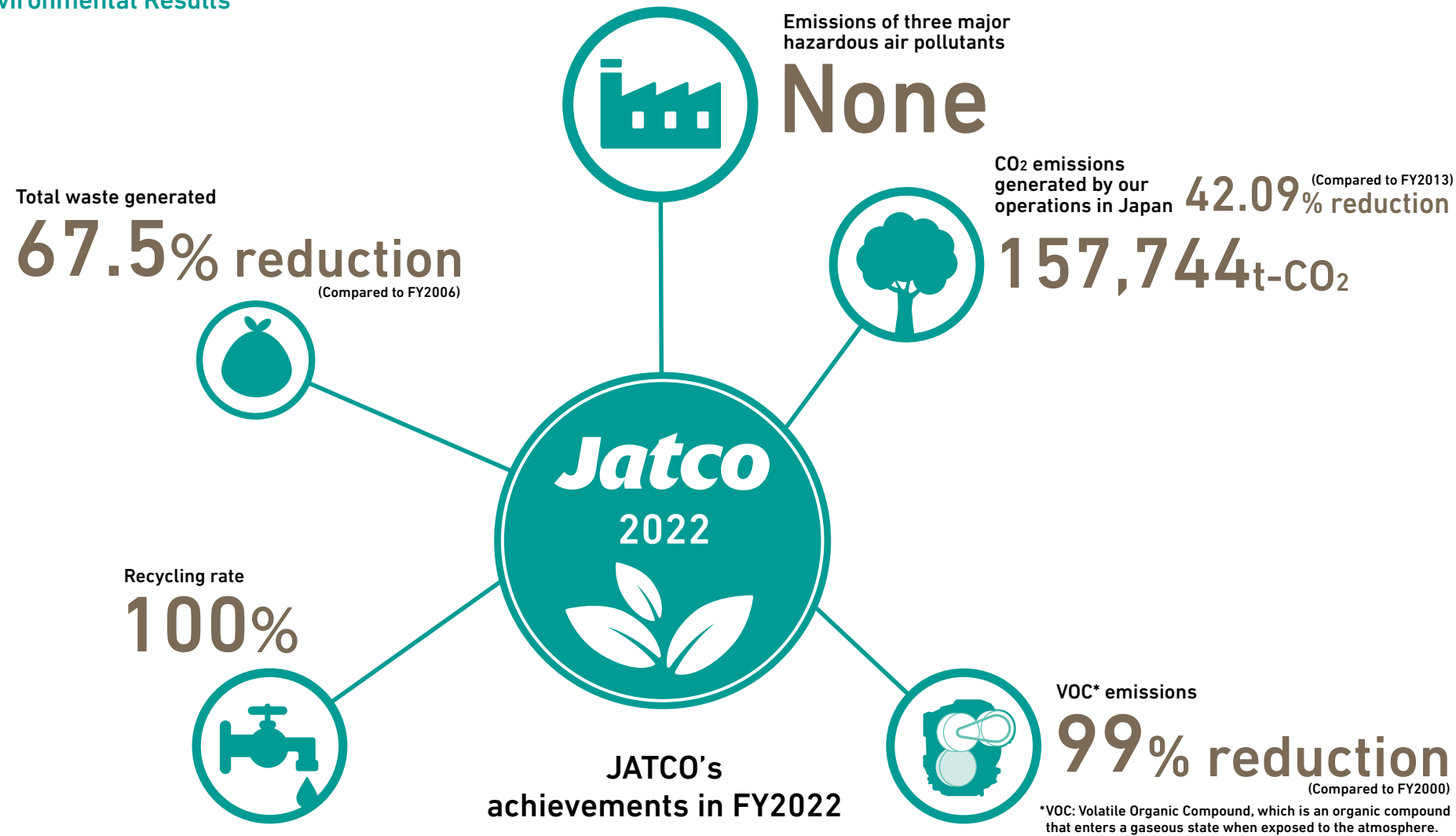
<sup>\*1</sup> For details related to corporate responsibility, see page 7

<sup>\*2</sup> For details related to environmental policy, see page 15

<sup>\*3</sup> For details related to quality control policy, see page 60

# Environmental Management

## FY2022 Environmental Results



# Environmental Management

## Material Balance

JATCO aims to create a recycling-oriented society by properly using resources and reducing emissions.

Input	Unit	2021	2022
Raw materials (aluminum)	kt	77	59
Raw materials (steel)	kt	174	137
Energy (LNG)	km <sup>2</sup>	10,059	10,059
Energy (LPG)	T	1,754	1,434
Energy (kerosene)	kL	5,913	4,562
Energy (other)	kL	125	224
Electricity	MW-h	605,669	513,001
Water resources (industrial water)	km <sup>2</sup>	1,262	1,060
Water resources (tap water)	km <sup>2</sup>	241	142
Water resources (ground water)	km <sup>2</sup>	949	904

Emissions/output	Unit	2021	2022
CO <sub>2</sub>	t-CO <sub>2</sub>	320,739	281,599
Gas emissions	kNm <sup>2</sup>	701,092	493,700
Water discharge	km <sup>2</sup>	2,207	2,204
Waste generated	t	499	584.8

(Global data)

# Environmental Management

## Material Management at Overseas Bases

### JATCO (Guangzhou) Automatic Transmission Ltd.

	2018	2019	2020	2021	2022
Electricity (kw/h)	113,679,974	105,640,590	109,968,489	87,337,703	61,967,997
Natural gas (m³)	–	–	–	–	–
Propane gas (t)	–	–	–	–	–
Water (m³)	175,520	156,462	161,703	131,685	102,045

Established in 2007, JATCO (Guangzhou) Automatic Transmission Ltd. began formulating its environmental management system in 2013 and acquired ISO 14001 certification in March 2014. While aiming “for the realization of a society where the environment and cars can coexist,” it established an Environmental Committee and an ISO Office to run the environmental management system. The Environmental Committee is comprised of general managers, assistant general managers, and representatives from each division, and it conducts comprehensive management, assessment, and follow-up on environmental activities. The ISO Office is under the engineering division, and carries out assessments on compliance with environmental legal requirements as well as the implementation of other everyday items.

### JATCO MEXICO S.A. DE C.V.

	2018	2019	2020	2021	2022
Electricity (kw/h)	215,265,568	231,490,755	169,617,431	172,062,929	160,110,000
Natural gas (m³)	2,626,992	2,010,198.67	796,922	1,290,724	1,500,000
Propane gas (t)	512.16	241	150	–	–
Water (m³)	353,924	372,382	307,989	329,334	326,700

Since its establishment in April 2003, JATCO MEXICO S.A. DE C.V. has promoted various environmental initiatives, including formulating an environmental policy, participating in the energy conservation initiatives of their power suppliers, and promotion of waste sorting to improve their recycling rate. In particular, it established an environmental management system in 2009, and acquired ISO 14001 certification in May 2011. Three committees have been established to oversee the environmental management system—the Environmental Committee, and under that, the Environmental Legal Requirements Sub-Committee and the Energy Conservation Sub-Committee. The Environmental Committee is led by the president and vice-president of the company, and is comprised of representatives from each division. It engages in comprehensive deliberations, assessments, and follow-up on activities related to the environment.

### JATCO (Suzhou) Automatic Transmission Ltd.

	2018	2019	2020	2021	2022
Electricity (kw/h)	–	–	29,598,000	27,699,000	18,875,000
Natural gas (m³)	–	–	36,000	36,000	43,000
Propane gas (t)	–	–	–	–	–
Water (m³)	–	–	43,438	43,156	24,690

JATCO (Suzhou) Automatic Transmission Ltd. began production in November 2019 and acquired its ISO 14001 certification in FY2022. Ongoing initiatives in this effort include the establishment of an environmental committee and joint environmental activities with local companies to contribute to the community. To reduce hazardous waste which can impact the environment, it is introducing equipment for separating shavings and cutting oil and for reducing VOCs in the exhaust from their heat treatment vacuum carburizing furnaces. While working with the environmental ministry, it is aiming to becoming an even more environmentally friendly company.

### JATCO (Thailand) Co., Ltd.

	2018	2019	2020	2021	2022
Electricity (kw/h)	31,704,800	27,119,912	14,555,600	19,590,020	13,106,000
Natural gas (m³)	–	–	–	–	–
Propane gas (t)	41.76	42.77	17.46	20.12	22,700
Water (m³)	72,201	58,891	34,025	42,824	39,000

JATCO (Thailand) Co., Ltd., which began production activities in September 2013, began formulating its environmental management system as soon as it was established, and in February 2016, acquired its ISO 14001 certification. It has also formulated a plan called “JATCO Thailand Green Action” with the aim of further reducing its environmental impacts. In line with this, it plans measures to reduce environmental impact in collaboration with local companies, such as bulk purchasing molten metal together with other companies, introducing a vacuum carburizing heat treatment facility, purifying water discharged from the production plant, reusing resource materials through sorting and recovery, and maximizing the proportion of green spaces on plant premises.



# Environmental Management

## Continuous efforts to reduce environmental impact, based on the PDCA (Plan-Do-Check-Act) cycle

JATCO sets forth initiatives every year aimed at reducing environmental burden as our environmental targets, and aims to achieve these targets. Based on the results of these initiatives every fiscal year, we establish our targets for the following fiscal years, thereby continuously improving our environmental performance. In FY2022, no major environmental accidents occurred.

Environmental objectives	Items	FY2022 targets	FY2022 results	Achieved	FY2023 targets
Continuous improvement of our environmental management system	Routine reviews	Receive regular audits: maintain certification Internal environmental audit: 1 time Environmental Committee meeting: 2 times	Received regular audits: maintained certification Internal environmental audit: 1 time Environmental Committee meeting: 2 times	○	Receive regular audits: maintain certification Internal environmental audit: 1 time Environmental Committee meeting: 2 times
	Internal environmental auditor training	Train people as needed	7 people trained	○	Train people as needed
Compliance with laws and preventive measures for environmental issues	Findings highlighted by administrative and government agencies	Number of findings: 0	Number of findings: 0	○	Number of findings: 0
	Maintenance of significant environmental characteristics	Accomplish 100% of regular reviews	Accomplished 100% of regular reviews	○	Accomplish 100% of regular reviews
	Education relating to environmental laws	Perform environmental training: 2 times	Performed environmental training: 2 times	○	Perform environmental training: 2 times
	Prevention of environmental accidents	Number of A & B rank accidents: 0 Number of C rank accidents: 1	Number of A & B rank accidents: 0 Number of C rank accidents: 1	○	Number of A & B rank accidents: 0 Number of C rank accidents: 0
Promotion of resource conservation	Promotion of energy conservation Energy per unit sales (CO <sub>2</sub> )	0.06015 t-CO <sub>2</sub> /unit	0.05917 t-CO <sub>2</sub> /unit	○	0.04819 t-CO <sub>2</sub> /unit
	Promotion of waste reduction Reduction in total waste generated	2.541 kg/unit	2.514 kg/unit	○	2.004 kg/unit
	Reduce water consumption	0.692 m <sup>2</sup> /unit	0.645 m <sup>2</sup> /unit	○	0.550 m <sup>2</sup> /unit
Technological development aimed at reducing environmental impact	Environmentally-friendly design [Contribution to environmental conservation and fuel-economy improvements]	Achieve 100% of goals for individual (product) issues	Achieved 100% of goals for individual (product) issues	○	Achieve 100% of goals for individual (product) issues
	Management and reduction of environmentally hazardous substances in products	Maintain product compliance with environmental laws and regulations at 100%	Maintained product compliance with environmental laws and regulations at 100%	○	Maintain product compliance with environmental laws and regulations at 100%

# Promoting Decarbonization



## Carbon Neutrality Initiatives

JATCO aims to achieve carbon neutrality across its entire value chain by 2050, focusing on initiatives in the four areas of entire life cycle, production, development, and environmental activities.

### Total Product Life Cycle Initiatives

From raw material procurement to final recycling, we evaluate the environmental effects of the entirety of our product life cycles and are tackling the reduction of CO<sub>2</sub> emissions from our supply chain and other business activities.



### Production Initiatives

We are working to realize smart factories through innovations in production technologies and by pushing digital transformations (DX), promoting reduced energy usage. Moreover, through the proactive adoption and generation of renewable energy, we are working to reduce the CO<sub>2</sub> emissions from our production processes.



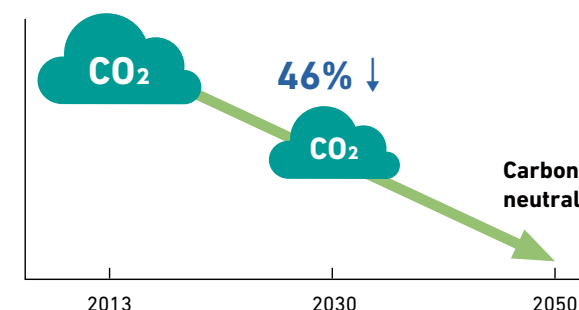
### Product Initiatives

We improve the efficiency of our transmissions to the utmost limit to achieve ever better fuel economies. In addition, with our core technologies, we accelerate the development of products for next generation electric and hybrid vehicles, contributing to the reduction of CO<sub>2</sub> emissions.



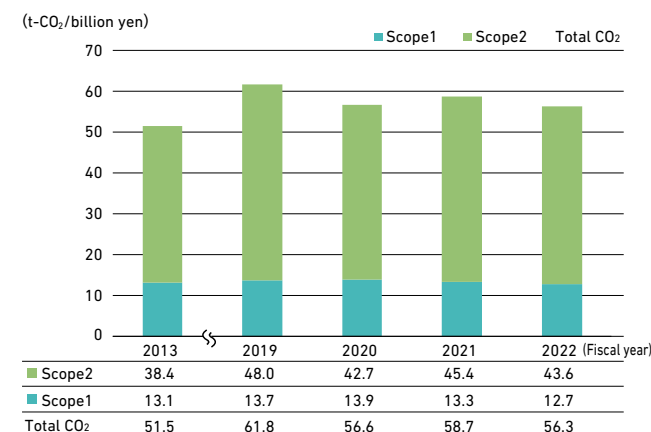
### Environmental Activities and Other General Initiatives

We are driving forward harder than ever with environmental activities such as tree planting in concert with governmental entities, local communities, and NPOs, working as a good corporate citizen to contribute to the reduction of carbon dioxide.



**Aiming to reduce CO<sub>2</sub> emissions by 46% by 2030** (compared to 2013)

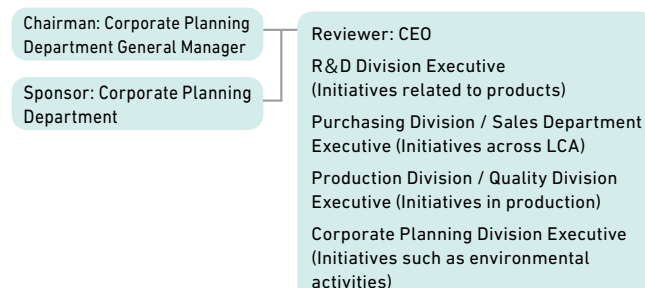
### CO<sub>2</sub> emissions



## Carbon Neutral Steering Committee

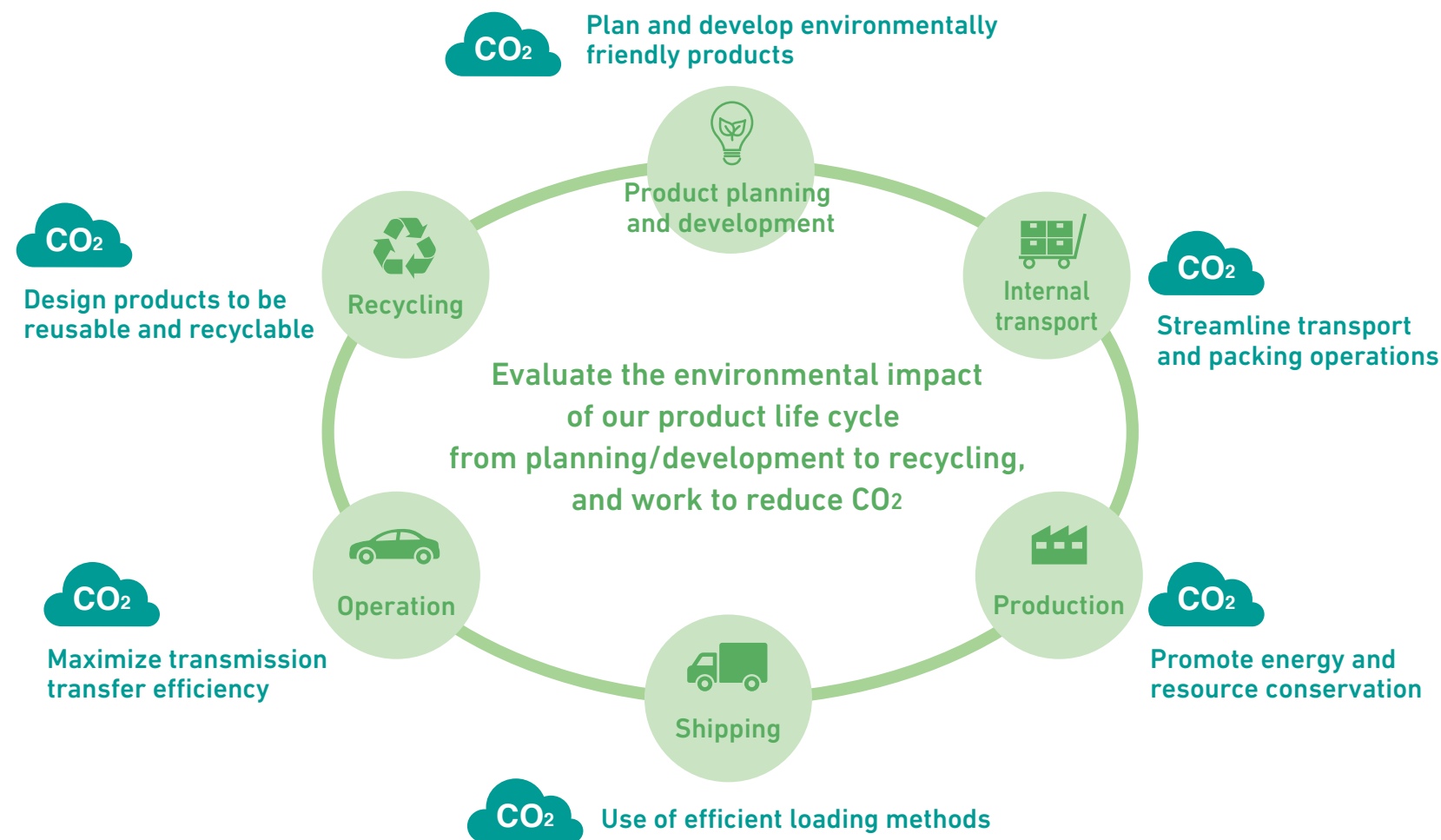
Once a month, JATCO executives discuss strategy formulation for and confirm progress towards realizing carbon neutrality at the Carbon Neutral Steering Committee. The Committee has the participation of the individuals responsible for total product life cycle, production, products, and environment, and aims to quickly solve problems and invigorate company-wide activities through support and decision-making by reviewers such as our President.

### Carbon Neutral Steering Committee Structure



# Promoting Decarbonization

## JATCO's overall life-cycle efforts





# Promoting Decarbonization

## Production Efforts

### Promoting energy and resource conservation in pursuit of greater efficiency in the production process

After purchasing the raw materials, JATCO carries out production in an integrated manner, from the casting, forging, machining, heat treating, and the assembly, to the completion of the unit, and, when planning for a new product or developing a new technology, we are mindful of Earth's resources. In particular, with the aim of tackling priority issues—such as CO<sub>2</sub> emissions reduction and hazardous substance management—through the active adoption of new technology and the recycling of goods by using idle facilities, we are putting effort into developing innovative technologies to shorten work processes and develop highly-efficient processes with low environmental impact, as well as making the shift toward low-energy and low-resource facilities.

### Adoption of production design into the machining and heat treatment lines

The production technology department promotes production designs in the product design process. By minimizing the number of processing stations on the pulley machining line, we significantly reduced the number of production machines and cycle time. By incorporating the requisite specifications in the heat treatment line, we also significantly cut cycle time on that line. These measures have dramatically increased our current production efficiency.

Machining line		Line for previous units		Line for new units		
Equipment numbers		49 machines × 3.5 modules	»	27 machines × 3.5 modules		−43%
Heat treatment line		Line for previous units		Line for new units		
Cycle time		100%	»	66.6%		−33%

### Switch from hydraulic press fitting to servo (electric) press fitting

In conventional hydraulic press fitting, which is a part of the assembly process, a hydraulic generator is constantly running. This consumes a large amount of electrical power and generates significant noise and heat, and as such, JATCO is switching to the use of electric press fitting using servos. As a servo does not require a pump to constantly be in operation like for a hydraulic press fitting, it successfully minimizes the electricity consumed, as well as the noise and heat generated.

### Enhancing production and engineering process innovation and inventive technology development

In our development of next-generation technologies, we established the elimination of CO<sub>2</sub> emissions as one of JATCO's principal goals, and have been putting in place initiatives to achieve our goal of zero greenhouse gas emissions by 2050, for both our production and development processes. With the production process for our latest CVT, we have further reviewed the processes used to date, and succeeded in reducing production lead-time significantly. With regard to our other parts, the development and production divisions are working together to minimize CO<sub>2</sub> emissions. Furthermore, we are working towards balancing product performance and improving productivity by promoting "production

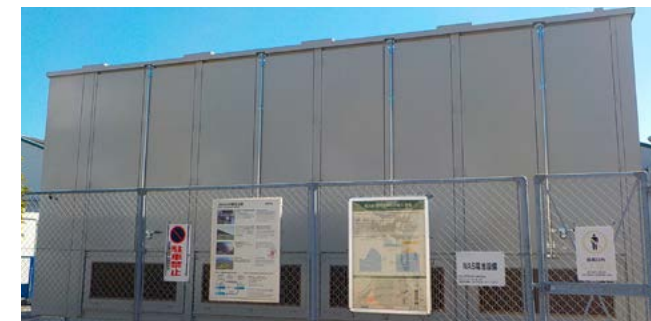
design," which gets the production technology division involved in the design of the product from the development phase. We challenge ourselves to achieve ever greater technological breakthroughs, such as the enabling of lower energy use for the production of our products through the purchase of molten metal at the die-casting stage, the abolishment of the shaving process for gear parts, the development of a vacuum carburizing furnace, the reduction of the weight of units through the use of alternative materials and thin-walled die-casting, and the downsizing of casting machines.

### Introducing NaS batteries to streamline power operation

JATCO is actively pushing its collaborations with companies from different industries as part of a new initiative for preserving the Earth's environment. Since FY2005, we have worked jointly with TEPCO Energy Partner, Incorporated, to introduce NaS battery\* facilities. The NaS batteries charge at night when power consumption is low, and this electric power is utilized during the day when load is high. This helps to reduce excess operation of power plants and brings about efficient power consumption. In FY2020, we upgraded our equipment, and when the power companies are short on power, we release stored power, contributing to the stability of power supply and demand.



Vacuum carburizing furnace



NaS battery facility

\*NaS battery: A storage battery composed of liquid sodium (Na), liquid sulfur (S), and special ceramics

# Promoting Decarbonization

## Logistics Efforts

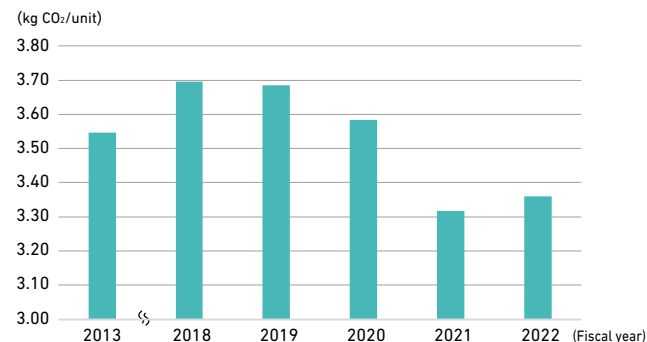
With the aim of reducing our CO<sub>2</sub> emissions, JATCO utilizes green logistics when transporting parts, and from 2013 to 2022 we have achieved a 5% reduction in CO<sub>2</sub> emissions. In order to reduce the CO<sub>2</sub> emissions due to the transportation of our parts, we have been implementing a modal shift in our logistics, while gaining the acceptance of our customers in Japan.

Specifically, we switched from using trucks to using railcars for transporting procured parts to JATCO's production bases in Shizuoka, starting from FY2009 for the route from Hiroshima (approximately 780 km away). As a result, we were able to reduce our CO<sub>2</sub> emissions by 83.3%.

Additionally, since September 2019 we have introduced double trailer trucks to transport JATCO production parts from the JATCO Fuji area to the Kyoto Yagi plant. Transporting at a high load factor led to a reduction in CO<sub>2</sub> emissions.

We will continue to pursue this modal shift and work to improve load efficiency to reduce the number of trucks and other vehicles used for shipping.

### CO<sub>2</sub> emissions per unit



Land transportation by railway



Double trailer truck (Photo provided by Vantec Corporation)

### FY2022 CO<sub>2</sub> emissions due to transport activities



### CO<sub>2</sub> emissions from logistics

		(Fiscal year)	
	Unit	2021	2022
Total	t-CO <sub>2</sub>	4,376	4,166
Inbound	t-CO <sub>2</sub>	3,127	2,824
Internal	t-CO <sub>2</sub>	1,108	1,262
Outbound	t-CO <sub>2</sub>	141	80

### Load ratio

		(Fiscal year)	
	Unit	2021	2022
Truck	%	92.9	94.0
Rail	%	7.1	6.0

# Promoting Decarbonization

## Various Environmental Initiatives

### Enhancing lighting facilities at each production plant

We are systemically reducing CO<sub>2</sub> emissions by improving our lighting equipment. As the energy consumption from lighting equipment in our production plants is by no means low, we have focused on improving the ceiling lights in each production plant. To ensure the brightness of the working environment, we have taken measures such as switching to energy-efficient equipment, using fewer lights, and turning off the lights when appropriate.

### Use of energy-regenerating and energy-efficient equipment, and visualization of power consumption

Through the use of regenerative energy from motors and the adoption of energy-efficient equipment such as LED lighting, we have succeeded in minimizing the amount of electricity consumed. We are also promoting activities to increase awareness of energy conservation via visualization of power consumption for the main and sub-lines respectively.



CO<sub>2</sub> emissions posted at the entrance of a conference room

### Implementing a green curtain project

At our Yagi Plant in Kyoto we are implementing a green curtain project by growing vines around the plant building to block direct sunlight. By using plants to block the sunlight, we are reducing the generation and penetration of radiant heat.



### Adoption of solar power systems and roof greening initiatives

JATCO has installed a solar power system (10 kW), on the rooftop of our head office in Fuji City. The power it generates is used to drive the air-conditioning equipment. We have also carried out roof greening initiatives that make use of the reduction of building temperature brought about by plants to reduce the amount of power consumed by air-conditioning facilities during summer. In FY2022 we reduced CO<sub>2</sub> emissions by approximately 5 metric tons.



Solar power system



Roof greening initiative

### Educating employees through the use of environmental content

With the aim of raising environmental awareness among employees, we set up a dedicated environmental topics webpage on our employee portal site. In addition to encouraging employees to participate in conservation events both within and without the company, we post content, such as JATCO's unique eco certification and eco-drive certification, to help employees learn about environmental issues in a fun and enjoyable manner. There is also a section with visualizations of our power consumption, which sheds light on our actual power consumption, and a section on electrical cost reduction, which provides information about energy conservation.

All of our employees can easily check the amount of electricity used in each area, thereby leading to spontaneous energy saving.



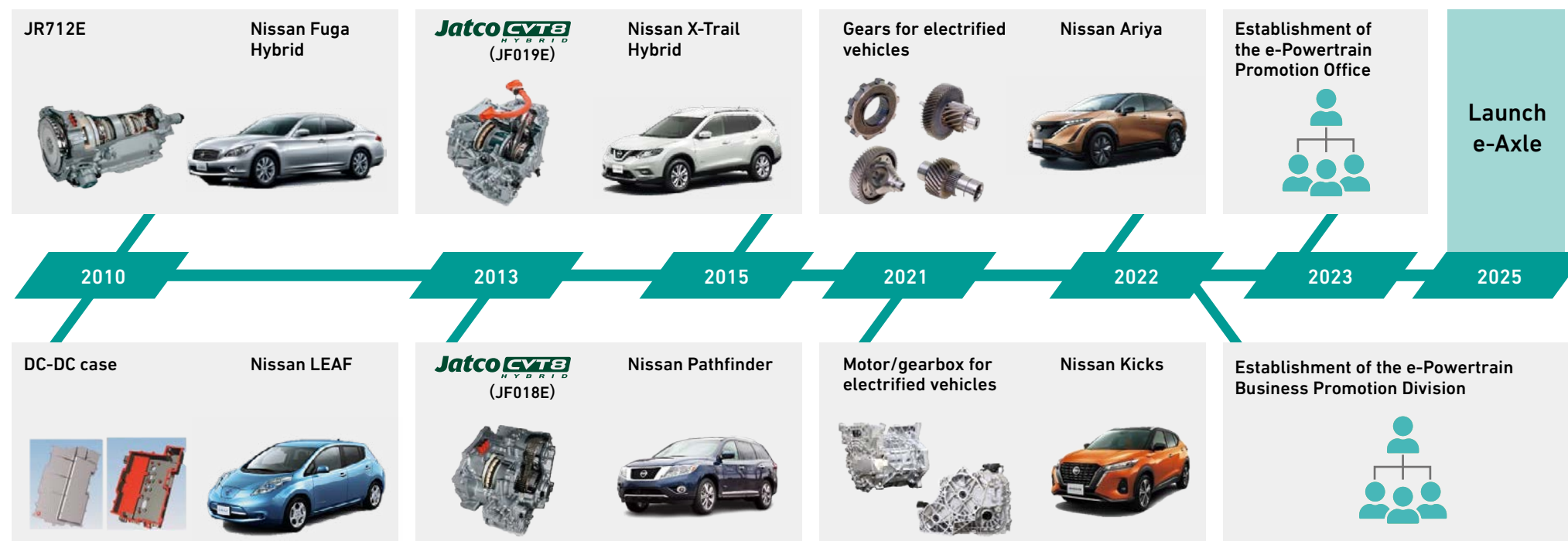
Our system for visualizing power consumption

# Contributing to Vehicle Electrification



## Introducing electrified products utilizing JATCO's proprietary technologies

For more than 10 years, JATCO has been accumulating know-how in preparation for the era of electrification. In 2010, we developed the JR712E, the world's first transmission for RWD hybrid vehicles that uses a one-motor, two-clutch system. In 2013, we launched the Jatco CVT8 HYBRID, the world's first transmission for FWD hybrid vehicles that uses a dry multi-plate clutch for the coupling between the engine and the motor in the same system. In addition, since 2021, JATCO (Thailand) Co., Ltd., has started producing motors and gearboxes for the Nissan Kicks. We are supplying gear parts for Nissan's new flagship EV, the Nissan Ariya, where we are contributing to vehicle quietness, one of the Ariya's characteristic features. Based on our accumulated know-how, by mid-2025 we will fully launch our e-Axles, drive units for electric vehicles that integrate a motor, gears, and an inverter.



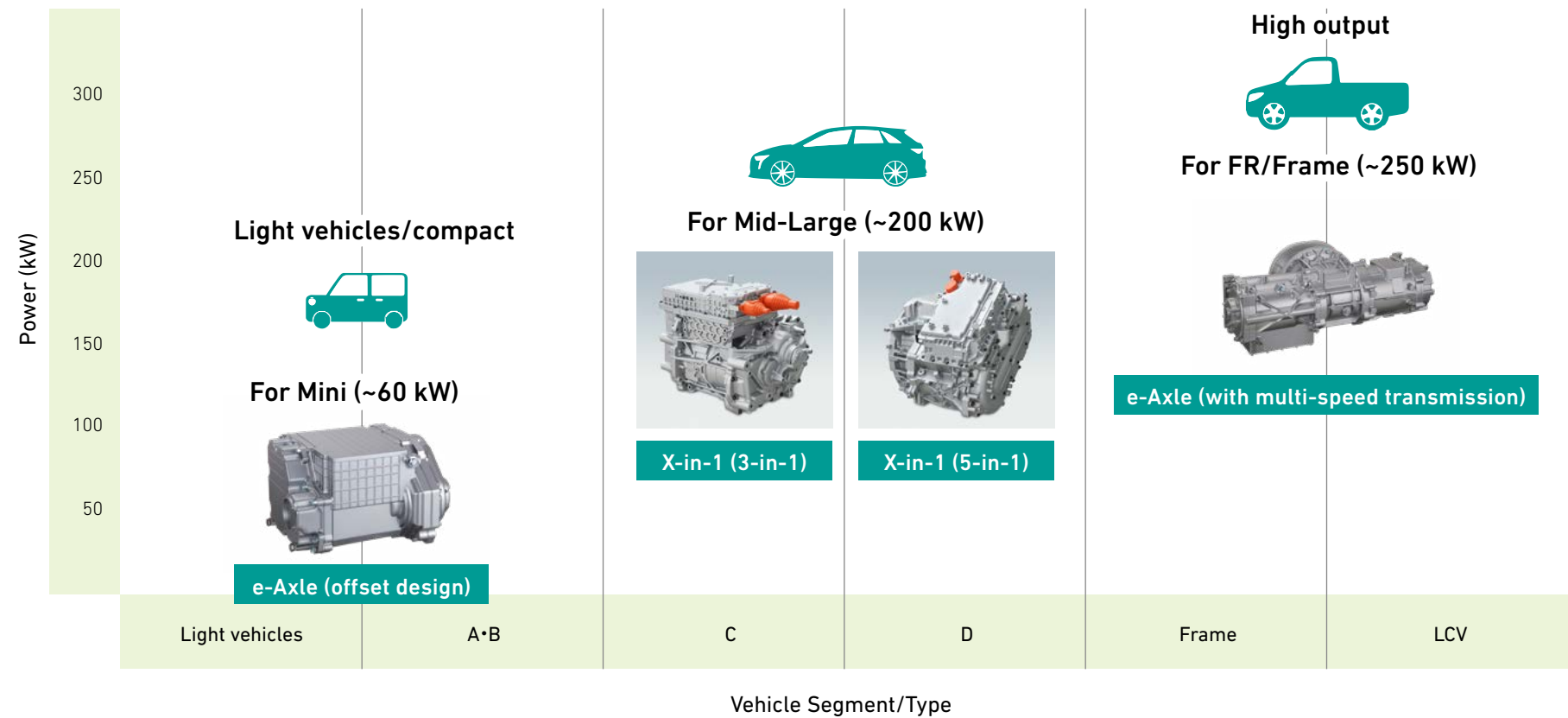


# Contributing to Vehicle Electrification

## Electrification Initiatives

### Meeting customer needs with a full lineup of electric powertrains

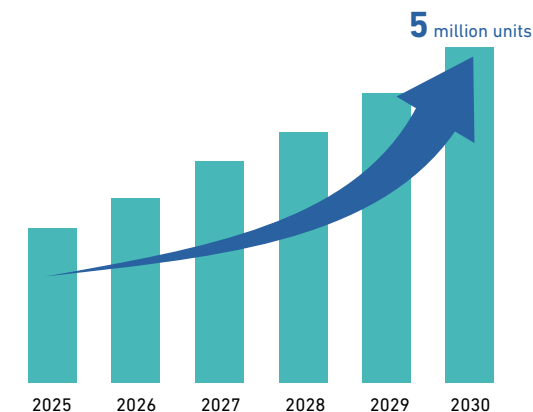
As the shift to electric vehicles accelerates, EV lineups will expand from the small and medium-sized car segments to light vehicles, compact cars, and large vehicles such as high-performance cars and pickup trucks. JATCO is also conducting various kinds of research and studies on these shifts, and the two models that we are focusing on are our offset design e-Axle, which is currently under research and development, and an e-Axle with multi-speed transmission, which is intended for installation in large pickup trucks and other vehicles.



# Contributing to Vehicle Electrification

## Strengthening our systems to achieve annual production of 5 million units for EVs by 2030

JATCO has set a goal of increasing annual production for EV units to 5 million units by 2030, and to achieve this goal we have been steadily strengthening our internal structure. In April 2023, we established a new e-Powertrain Business Promotion Division. We are planning and promoting our electrification business from a company-wide perspective and will vigorously move ahead with our electric powertrain business. In terms of development, we are continuing to expand our electric powertrain design and development capabilities, including the launch of an R&D center in Zama in October 2022. In order to achieve globally competitive production costs, we are moving away from production methods that are based on mass production, and are considering from scratch production methods that can flexibly respond to changes in production volume and increases or decreases in models.



### Launched a specialist division

April 2023: Established the e-Powertrain Business Promotion Division

### Strengthened our development system

Established the Zama R&D Center in October 2022

### Production system renewal

- Competitive factories
- Reducing all kinds of losses to zero
- Production system that can accommodate variable types and quantities
- Globally competitive production costs

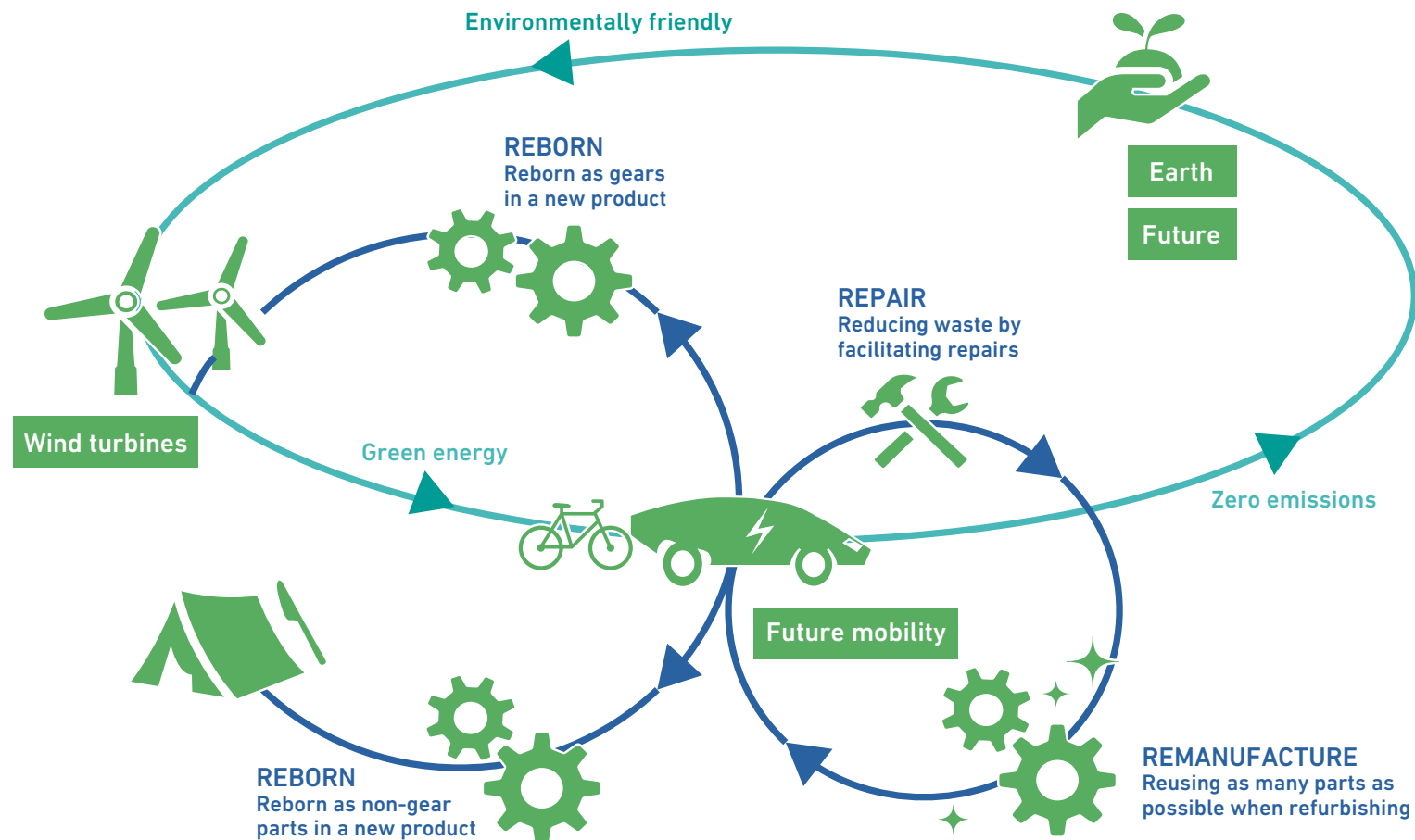


# Building a Recycling-Oriented Society



## JATCO Circular Economy Concept

As a manufacturing company, JATCO believes that it is important to make effective use of limited resources. For some time now, we have promoted a manufacturing style in which we collect used ATs/CVTs manufactured by us and then remanufacture and reuse them. Going forward, we will also focus on further promoting the circular economy. We will work to build effective mechanisms for a circular economy across our products and business activities, including minimizing resource dependence and reducing waste.

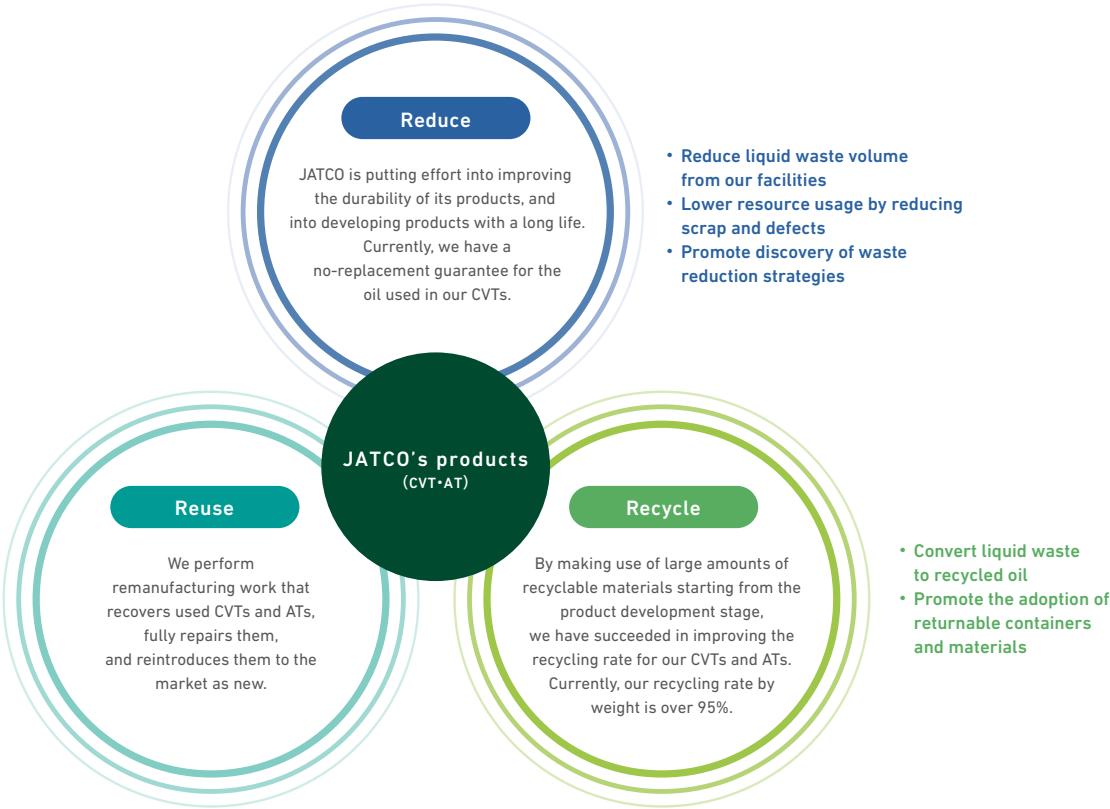


# Building a Recycling-Oriented Society

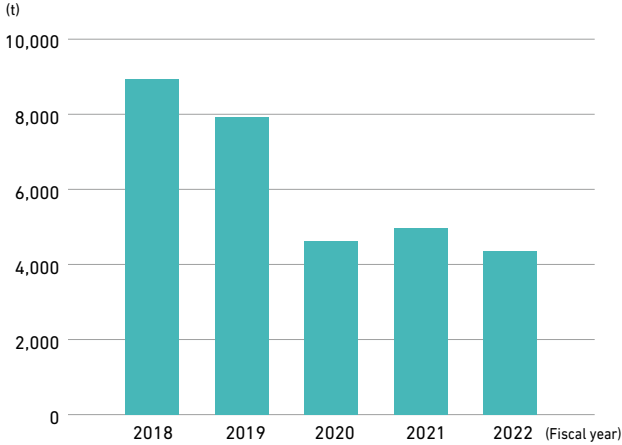
## Taking action to realize a recycling society

The term “3R” is derived from the first letters of the three keywords for building a recycling society—reduce, reuse, and recycle. JATCO designs and develops its products to ensure that they can be used for as long as possible, thus aiming for reductions in waste. JATCO also reuses usable parts from products that have been recovered from the marketplace. Finally, JATCO uses recyclable materials then recycles them into new resources. By doing so, JATCO ensures that it is contributing to the realization of a recycling-oriented society. As for our waste reduction efforts, we have set reduction targets and are working towards their achievement. JATCO aims to reduce the amount of waste products per unit it produces by 50% by 2050 (compared to 2016).

### 3R for products



### Waste generation



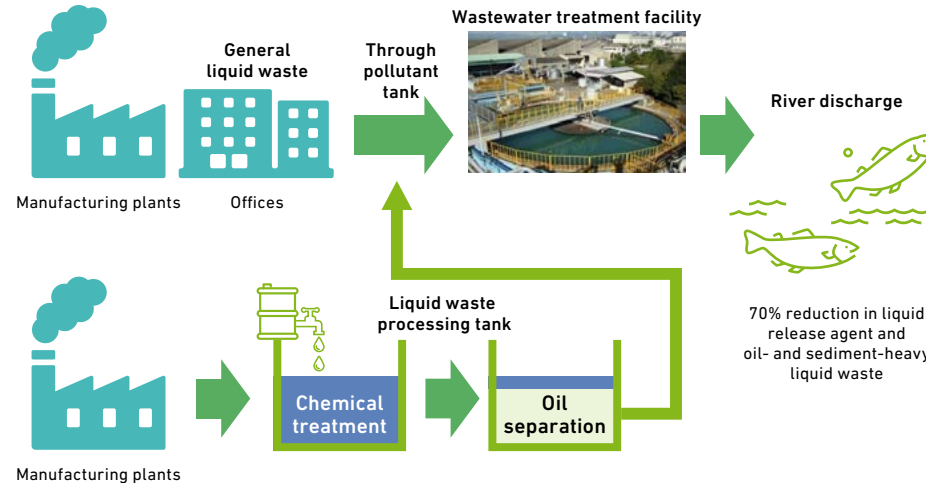


# Building a Recycling-Oriented Society

## Reduce liquid waste from manufacturing plants

Wastewater discharged from our manufacturing plants and offices is sent to in-house water treatment facilities, treated into safe water, and then discharged into rivers. However, liquid release agent or liquid waste with large amounts of oil or sediment, cannot be treated to safe levels at water treatment facilities, so they have been processed externally as waste.

Therefore, to make it possible to treat the liquid waste, we repeatedly reviewed the chemicals used and our purification methods, and reduced the amount of liquid release agent and liquid waste with large amounts of oil or sediment by 70%.



## Reducing environmental impact through direct carving of the mold

Due to the complicated shapes of the molds used in the die-casting and forging processes at JATCO, production had previously been carried out using electro-discharge machining. Today, however, we are moving toward direct carving with direct machining at the machining center. By improving the machining program and the cutting conditions, we have significantly reduced machining time and the amount of industrial waste generated.



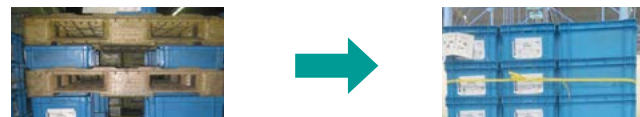
Die-cast mold produced through the direct carving process

## Improvements in the transportation and packing of materials

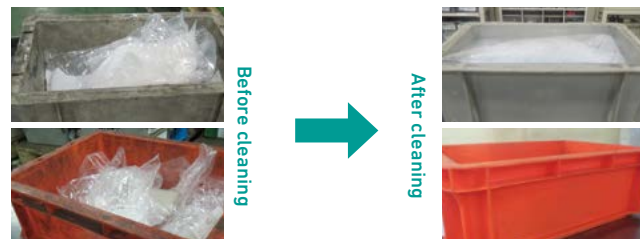
As part of our efforts to improve our loading ratio, which contributes to a reduction in the number of trucks used, JATCO is taking steps to improve the packing density of purchased parts for delivery.

Plastic containers and plastic cushioning material used to protect products during transportation and storage that had become unusable as a result of deterioration or product changes had previously been disposed of as industrial waste. However, after 2004, JATCO began reusing this material for other products. We have also gained the cooperation of companies engaged in the production of plastic to help us further reduce the waste we generate, such as by recycling our plastics into raw materials.

### Improving the packing density of parts purchased

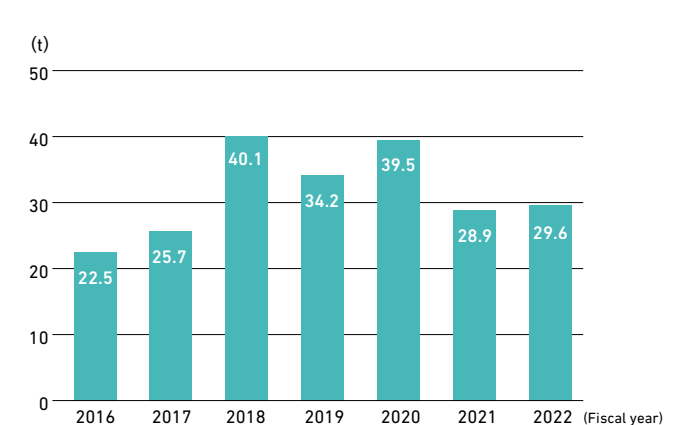


Eliminating wasted space not only improved transportation efficiency, but also made handling goods safer



Employees are also encouraged to keep containers clean

### Trend in amount of plastic containers recycled or reused



## Building a Recycling-Oriented Society

### Waste reduction activities

#### Efforts to sort waste thoroughly for recycling

As part of our zero-emission initiatives, JATCO has eliminated waste disposal through incineration and landfills, and is promoting thermal recycling (conversion to fuel) and material recycling (reuse and recycling). We are also putting efforts into sorting our waste in order to enable the effective reuse of this waste as resources. Through these initiatives, we have succeeded in attaining a 100% recycling rate at our locations in Japan.

Recycling rate

**100% attained**

#### Initiatives to reduce waste through companywide participation

JATCO employees are always asking, "Can it be reduced? Can it be reused? Can it be used for other purposes?" To make it easier to recycle items that we have no choice but to discard, we establish sorting standards and dispose of waste in line with these standards. At each location, we establish waste reduction targets, register ideas for initiatives implemented at each workplace, and share information on reducing waste to improve employee motivation at each workplace.

Total waste generated in FY2022

**67.5% reduction**

(Compared to FY2006)

# Building a Recycling-Oriented Society

## Remanufacturing system

JATCO has been developing its remanufacturing technologies since 1989 as part of its CVT/AT unit reuse business. Remanufacturing involves recovering used CVT and AT units produced by our company from the maintenance shops of automotive dealers. These are then disassembled, cleaned and inspected, with components exchanged as required. After reassembly, a functionality test is performed to ensure an after-sales product that is no different in quality from a brand-new product, despite being used. This system allows for products to be offered to automotive users at a very affordable price. Our inspection standards have led to a PDCA cycle that has created an increase in demand for remanufactured parts. This has led to lower resource and energy use, thereby contributing to reduced CO<sub>2</sub> emissions and the mitigation of global warming. By adding inspection items specifically for the used parts and confirming the functionality of the parts using the same tests performed on our mass-produced new parts, we can ensure a level of quality equivalent to a new part.

JATCO is also designing its products to make them both easy to reuse and repair, thereby increasing the proportion of recovered

CVT/AT units that can be reused. Furthermore, by performing detailed inspections of our recovered parts, we can feed these results back into our product development, thereby further improving product quality.

This initiative has been praised for its major contributions to the efficient use of environmental resources, and received the Director-General's Award of the Japan Environmental Management Association for Industry of the Ministry of Economy, Trade, and Industry at the FY2017 Resource Recycling Technologies and Systems Awards (hosted by the Japan Environmental Management Association for Industry with backing from the Ministry of Economy, Trade, and Industry).

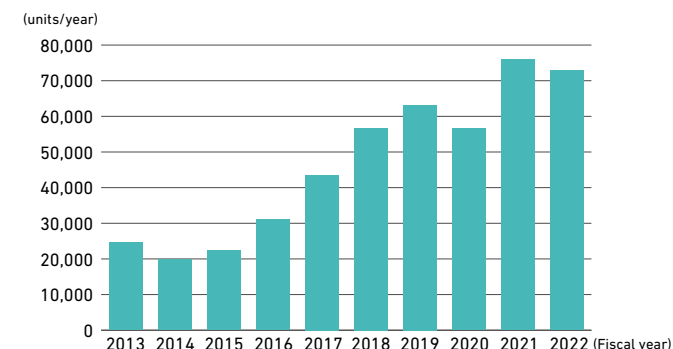


Received the Director-General's Award of the Industrial Science and Technology Policy and Environment Bureau of the Ministry of Economy, Trade, and Industry

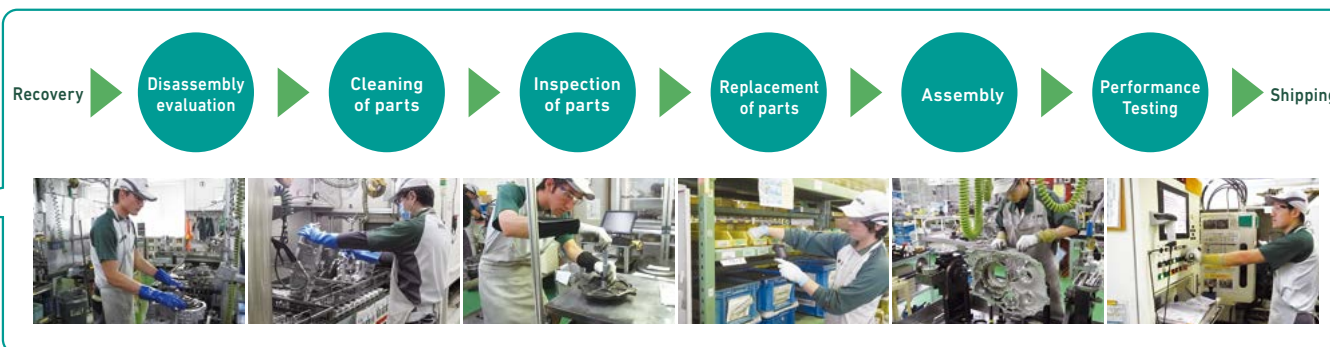
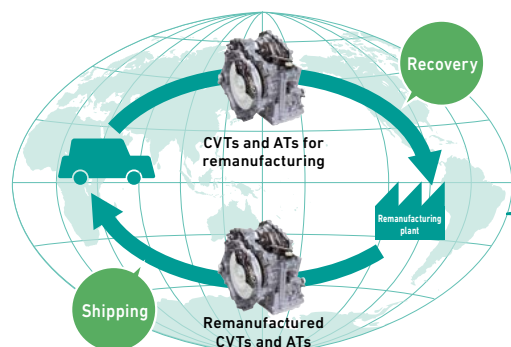
JATCO currently performs its remanufacturing in Japan (for the Japanese and European markets) and Mexico (for the North American market), while also coordinating with local repair companies in China, thereby working to improve its 3R initiatives globally.

JATCO will continue to expand these operations globally, thereby contributing to a higher-level of global environmental protection.

### Production of remanufactured units



### Processes in the remanufacturing



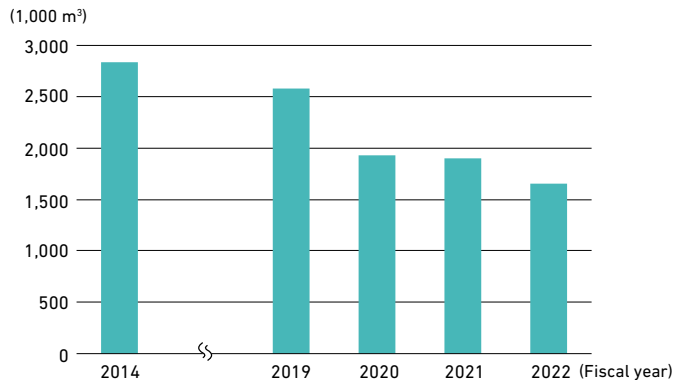
# Protecting Air, Water, and Soil



## Annual water consumption reduction target of 2%

JATCO tracks the amount of water used for production at our plants and is working to reduce it. In accordance with the "Nissan Green Program" formulated by our parent company, Nissan Motor Co., Ltd., we have been working on a comprehensive reduction of our water consumption since fiscal year 2014 as a countermeasure against global water depletion. With the goal of reducing the amount by 2% every year, we achieved a reduction of 42% in fiscal year 2022 compared to fiscal year 2014.

Water usage



## Maintaining high standards of purification

JATCO's production plants not only comply with the standards for water discharge established by national and municipal governments, but have also drawn up even more stringent purification standards for internal use. By combining facilities for activated carbon adsorption, ultrafiltration, high-speed aggregation precipitation, contact oxidation, sand filtration, and pressure flotation, we continue to maintain a high level of purification quality.

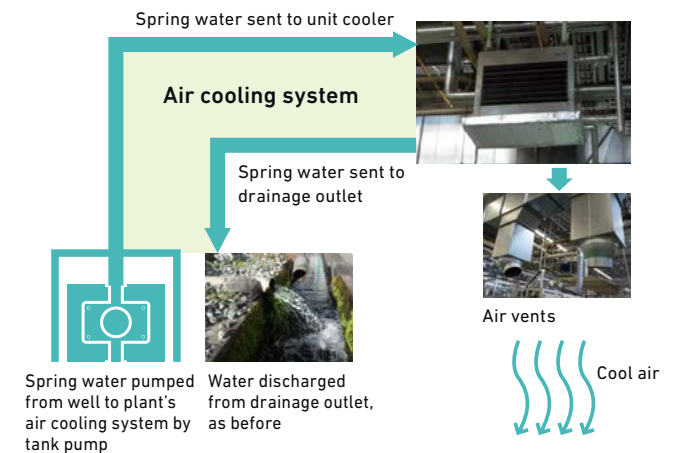
Furthermore, we have installed water-saving valves on the water faucets at each of our domestic offices to reduce our water usage.



Water treatment facilities

## Mt. Fuji spring water cooling

There is a natural spring within the grounds of Fuji Area 1 Plant at the foot of Mt. Fuji. This water used to be discharged through a drainage outlet, but since the temperature of the spring water stays at 15–17 degrees Celsius all year round, we use it as a natural cooler via the plant's air cooling system.





## Protecting Air, Water, and Soil

### Reusing discharged water through the adoption of cold water circulation equipment

JATCO promotes the reuse of discharged water, and has adopted the use of cold water circulation equipment to purify the water used for the cooling and cleaning of production equipment, as well as for the thinning of cutting oil.



Cold water circulation equipment at forging facilities

### Implementation of rainwater measures

Rainwater that falls on the premises of our production plants is discharged through drainage outlets directly into rivers. Employees use cameras to monitor the drainage outlets at all times to prevent rainwater that has been polluted by oil and grease from roads and buildings on the premises from flowing into rivers.

To enable prompt identification of the drainage outlets, employees have manually color-coded the outlets. This not only prevents the accidental use of these drains for polluted water, but also raises awareness among all employees that these drainage outlets lead to rivers.

In the unlikely event that oil leakage from employees' cars or from vehicles transporting parts and products within the premises should flow into the drainage outlets, gates have been installed where the drains connect with rivers in order to prevent these pollutants from flowing through.



Color-coding of drainage outlets by employees

### Safe and reliable transportation of polluted water

JATCO not only takes steps to reduce the incidences of water pollution, but also considers safety when transporting polluted water to treatment facilities. Measures have been put in place at the facilities where parts are cleaned to enable the repeated reuse of water after pollutants have been removed from it. After reusing this water for several months, it is then transported to a treatment facility by truck.

Given the fact that transportation of polluted water to treatment facilities through underground pipes and gutters is method that is easily impacted by the passage of time and has reliability issues, we are also making improvements by switching to transportation of this water using aboveground pipes that are visible to employees.



Transportation to a treatment facility via a dedicated waste transportation truck



## Protecting Air, Water, and Soil

### Management of chemical substances

#### Management of volatile organic compounds

We implemented volatile organic compound (VOC) countermeasures to achieve our target of reducing total VOC emissions by 30% (compared to FY2000) by FY2010, based on the action plan formulated by the Japan Auto Parts Industries Association (JAPIA). As a result of these countermeasures, we were able to reduce VOC emissions by 98% by FY2006, 99% in FY2010, and 99% again in FY2022.

#### VOC emissions for FY2021

**99% reduction**  
(Compared to FY2000)

#### Soil and groundwater pollution countermeasures

As part of our soil and groundwater pollution countermeasures, we completely abolished the use of organic chlorine-based solvents, and are currently monitoring our past usage of organic chlorine-based solvents and their impact on the environment.

#### Emissions of three major hazardous air pollutants

We were able to eliminate our emissions of three major hazardous air pollutants\*<sup>1</sup> in FY2006, and we have successfully prevented further emissions through FY2022.

#### FY2022 emissions of three major hazardous air pollutants

**None**  
(Compared to FY2000)

#### Management of PRTR\*<sup>2</sup> substances

The amount of PRTR chemical substances handled by JATCO, calculated as the amount discharged and transported by domestic production facilities, is shown in the following table.

#### Amount of PRTR substances handled and discharged (FY2022)

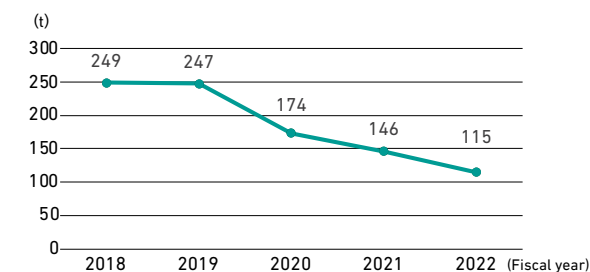
Classification	Chemical substance	Amount handled	Amount discharged			Waste transported
			Air	Water	Soil	
Specific Class I Designated Chemical Substances	Dioxin (mg-TEQ/yr)	0	21.3	0	0	0
	Benzene	800	1	0	0	0
Class I Designated Chemical Substances	Ethylbenzene	2,600	0.5	0	0	0
	Xylene	38,717	8.6	0	0	0
	1, 2, 4-Trimethylbenzene	33,919	0.4	0	0	0
	1, 3, 5-Trimethylbenzene	1,700	8.4	0	0	0
	N-hexane	1,600	28	0	0	0
	Toluene	35,703	100	0	0	0

Unit: kg (mg-TEQ/yr for dioxins)

\*<sup>1</sup> Three major hazardous air pollutants: Dichloromethane, trichloroethylene, and tetrachloroethylene

\*<sup>2</sup> PRTR: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

#### Amount of PRTR substances handled (t)



# Environmental Communication and Biodiversity

## Aiming for proactive information disclosure

### Publishing reports since 2005

JATCO aims to be proactive in disclosing information about its environmental initiatives.

In order to promote widespread understanding of our activities amongst our stakeholders, we have published our Environmental Report since 2005. From 2009 onwards, we expanded the focus to include societal topics, and changed the title to the “Environmental & Social Report.” From 2023, we consider sustainability to be the core of our management activities, and have revamped the structure of our Sustainability Report in order to more clearly convey information about our efforts to contribute to economic development and to resolve social issues through all of our business activities and other undertakings.



Environmental Activities page on JATCO's website (FY2022)

## Considering and nurturing the environment together with local communities

### Hosting of factory tours

JATCO hosts factory tours for numerous organizations, including local elementary, middle, and high school groups, as part of our open factory initiative. During our factory tours, we introduce our 3R (Reduce, Reuse, Recycle) stance, such as the fine-grained separation of production waste and use of any recyclable waste in new products. Furthermore, we run a program where visitors can experience the process of using lab equipment to filter waste water produced by our plant to create clean water. Additionally, in FY2021 we held online factory tours for local elementary schools. We have created an environment where visitors can experience an online factory tour when an in-person factory tour is not possible.



A factory tour

### Cleaning the neighborhoods around our locations

JATCO proactively contributes to society and engages in environmental conservation at each of its locations. For example, along the Taki River, which flows to the east of our headquarters, we are continuing to mow the banks and plant red spider lily bulbs. We are also working with local volunteers to develop a promenade and are aiming to create an environment where local residents can enjoy walking. At our office in the Motegi area of Tochigi prefecture, we began beautification activities in 2020 to protect the area's cultural sites, and we are working to protect the local environment.



Cleaning a Motegi Cultural Property



Mowing the grass along the Taki River

## Environmental Communication and Biodiversity

### Foster biodiversity

Together with children from Fuji City Imaizumi Kindergarten, every year in June JATCO releases sweetfish fry into the nearby Tajuku River to coincide with Environment Month. This activity, which we began in 1999, is aimed at protecting the ecosystem of the Tajuku River that runs through Fuji City where our head office is located, and undertaken in the hope that it will foster environmental awareness among the kindergarteners. The sweetfish fry released into the river are purchased with proceeds from the sale of aluminum cans collected by our employees. The proceeds from these sales are also used to fund social contribution activities, such as maintaining the flower beds at Jatco-mae Station on the Gakunan Railway.

Additionally, we collaborate with NPOs and nearby businesses to clean up nearby beaches, cut aquatic weeds in rivers, mow the grass along riverbanks, and plant flower bulbs.

We are aiming to conserve biodiversity and bring the blessings of nature into our daily lives.



Releasing sweetfish fry



Planting moss phlox flowers along the Shibuta River



Cleaning along the Katsura River



Cleaning along the Shibuta River



Cutting aquatic weeds in the Tajuku River



Cleaning Mihomasaki Beach





# Business

## Innovation through Manufacturing

Solutions to Drive the Possibilities of Mobility

Pursuing Energy Efficiency

Our Approach to Manufacturing

# Solutions to Drive the Possibilities of Mobility



## Toward achieving our corporate purpose

JATCO's corporate purpose is: "Driving the possibilities of mobility with technology and passion." By applying our proprietary technology to mobility beyond just automobiles, we intend to help resolve various societal issues. To realize such applications, our New Business Promotion Department examines commercialization feasibility.



Development team for an e-bike drive unit (Photo provided by Cycle Sports)

## Fostering entrepreneurship to "drive the possibilities of mobility"

JATCO must create new value and businesses and take on risks to continually grow toward our corporate purpose. This posture is that of entrepreneurship. Since 2022, led mainly by the Corporate Planning Department, we have held a business contest and companywide events to foster entrepreneurship. The business contest called for ideas from our global workforce for creating new businesses, attracting over 100 submissions. The management team took part in reviewing the proposals. The aims are to enhance individual flexibility and adaptability to change and to encourage individuals to achieve growth and self-fulfillment by proactively embracing new opportunities and challenges and thinking and acting independently to realize their own ideas.



Entrepreneurship event



## Solutions to Drive the Possibilities of Mobility

### Developing an e-bike drive unit

This drive unit combines an assist motor and transmission mechanism using our proprietary technology. We have also developed a smartphone app to monitor the remaining battery level and travel range and adjust the assist levels. Know-how from these initiatives may also inform our automotive electric powertrain business.

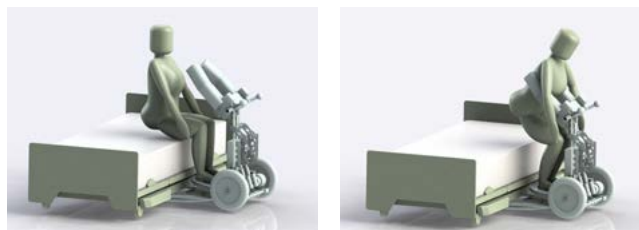


Drive unit integrating assist motor and transmission mechanism

Enhanced usability through linkage with smartphone app

### Developing a wheelchair with a transfer mechanism

The wheelchair with transfer mechanism that JATCO is developing integrates the functions of transfer and mobility. We are applying robotic control and ergonomics to challenges in nursing care recognized through our automotive business and integrating features needed in that field, informed by feedback from caregivers on the frontlines.



Allows standing up without an assistant

### Developing a nacelle for low-voltage wind turbine

A nacelle for low-voltage wind turbines is a part that converts the rotational energy of the blades into electrical energy. We have proposed a system that repurposes parts from used electric vehicles and combines them with gears developed by JATCO. Our advanced gear technology contributes to quiet operation and efficiency.



Low-voltage wind turbine undergoing verification testing in Kamisu City, Ibaraki Prefecture



# Pursuing Energy Efficiency



As a powertrain specialist manufacturer, JATCO has continually honed its technologies to supply increasingly energy-efficient units, delivering products that balance environmental performance and power. We will firmly carry these technologies forward into the electric powertrains we launch onto the market in the future.

## Jatco CVT-X

**CVT with dramatically improved environmental performance and drivability**

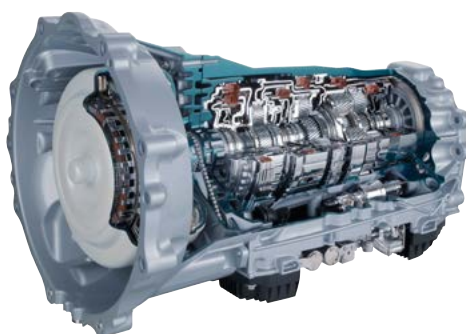
The Jatco CVT-X is a product that pushes the limits of our technologies as a transmission manufacturer and has dramatically improved environmental performance and drivability. It is also compatible with downsized turbocharged engines that achieve high fuel efficiency and features characteristics such as thoroughly reduced friction. The Jatco CVT-X reaches an unprecedented level of perfection, even surpassing the 90% transmission efficiency barrier, a feat considered difficult for CVTs to achieve.



## JR913E

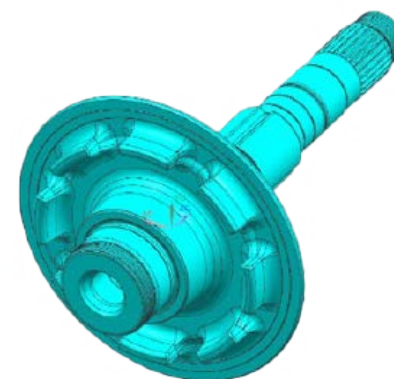
**9-speed transmission that provides both fuel efficiency and driving performance**

The JR913E automatic transmission, built with a hydraulic system that selects the ideal gear ratios and enables responsive shifting, was developed for highly fuel efficient and highly responsive RWD vehicles. To reduce weight, we used magnesium for the transmission case, aluminum for the bolts around the transmission, and resin for the oil pan. Furthermore, to improve fuel efficiency, we minimized the mechanical losses from oil pumps, gears, clutches, and other parts, and optimally supply lubrication to each component according to the driving conditions, thereby achieving better fuel efficiency.



## Weight reduction at the component level

Improving energy efficiency and fuel economy requires reducing the weight of individual components. Pulleys are especially heavy CVT components, so reducing their weight poses an important challenge. While we previously integrated the parking gear and fixed pulley into a single forged part to cut weight, we achieved further reductions by eliminating the parking gear root. By accumulating technologies this way, JATCO seeks continuous improvements in unit and vehicle energy efficiency.

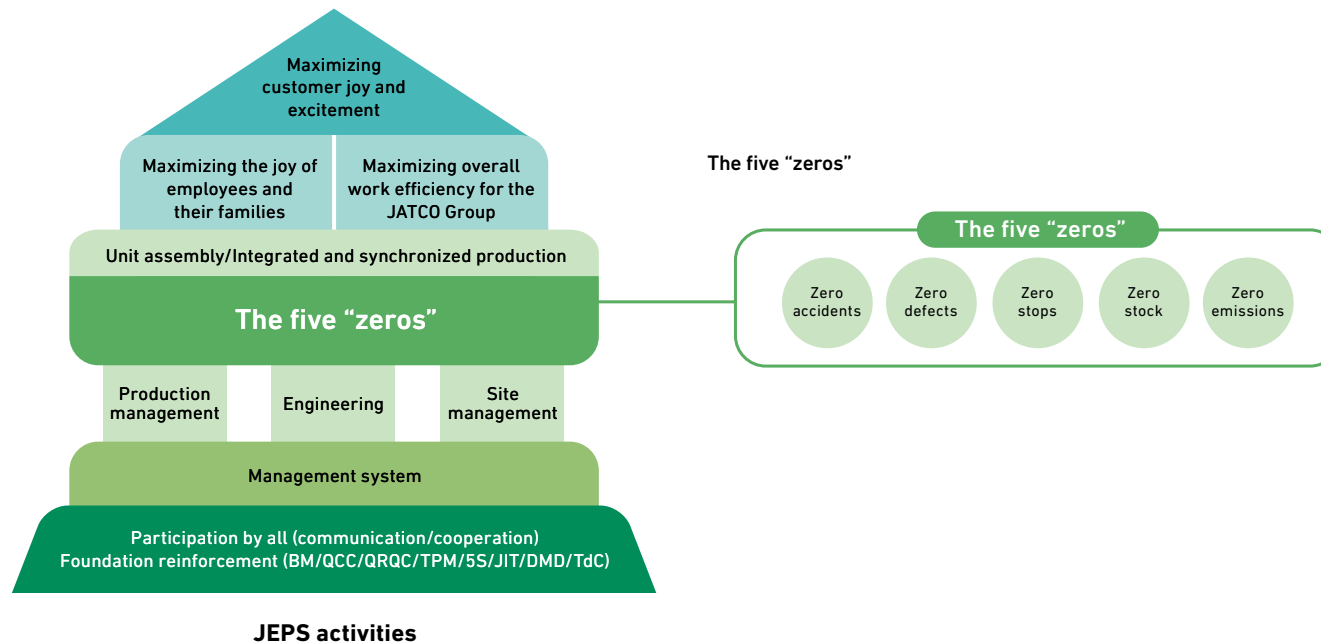


# Our Approach to Manufacturing

## Aiming from a customer's perspective to be the world's no. 1 in monozukuri

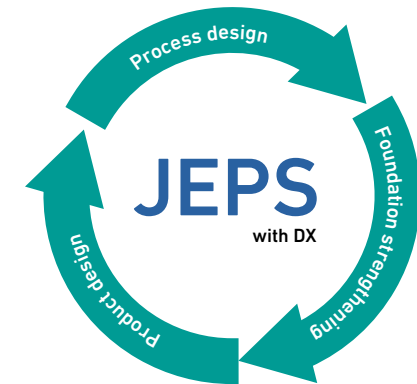
JATCO aims to respond swiftly to changing customers and to be the world's no. 1 in monozukuri in the aspects of quality, time, and cost. To that end, we have established, and are utilizing, a unique production system known as the JATCO Excellent Production System (JEPS). JEPS eliminates all waste by operating the entire series of processes, from assembly to shipping, at the same speed and in the same order as if they were on a single line, and carrying out production and transportation in a timely manner. Through JEPS, we bring about the realization of two "unlimiteds" across our whole supply chain—unlimited synchronization with our customers, and unlimited innovation and realization of challenges.

### JEPS overview



### Promoting JEPS innovation

The basic concept of JEPS can be summed up in the following two points: unlimited synchronization with our customers, and unlimited innovation and realization of challenges. To pursue these two "unlimiteds," JATCO has established clear metrics in the form of the five "zeros." Toward the achievement of these metrics, JATCO continuously improves JEPS and promotes energy and resource conservation.



### Pursuing higher competitiveness in all SQTCE\* aspects

#### Achieving good monozukuri from the start (MP cycle)

We practice quality design that leaves no residual "quality risks" after mass production commencement and process design that produces as-planned results.

#### Contributing to greater efficiency by developing and utilizing DX tools

We foresee, prevent, and quickly act on various downtime loss issues (inspections, measurements, adjustments, etc.)

#### Strengthening foundations via all-hands TPM to produce results

We continually execute improvements and develop personnel (manufacturing, maintenance, engineering, quality assurance, etc.) who are proficient with equipment.

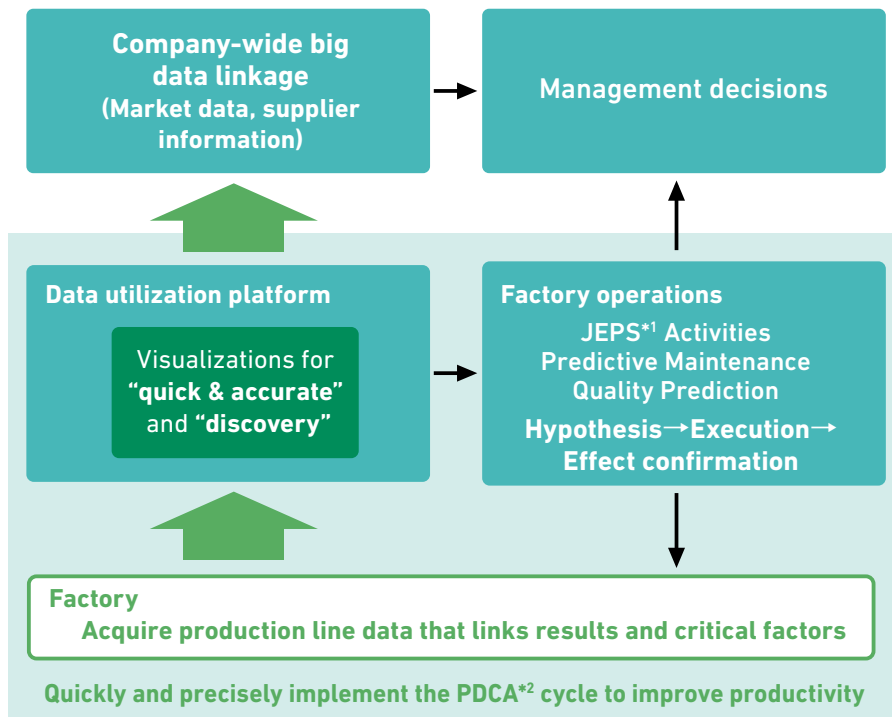
\*Safety, Quality, Time, Cost, Environment

# Our Approach to Manufacturing

## Working towards a smart factory

JATCO aims to turn its factories into smart factories. Led by our Digital Solution Department, we are advancing DX (digital transformation) in manufacturing and promoting productivity improvements and energy conservation.

## JATCO Smart Factory Concept



\*1 JATCO Excellent Production System

\*2 Plan-Do-Check-Act

**Factories that continuously maintain maximum efficiency**



Hypotheses based on experience are backed up with reliable data, quickly and accurately verified, and new, future-oriented value is created.

## Visualizing equipment operational status

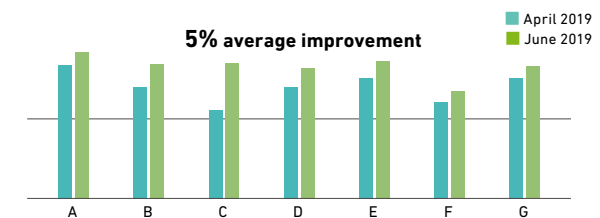
JATCO's plants have a system that eliminates any waste by synchronizing the series of processes from material procurement, processing, assembly, inspection, and shipping as if they were a single line. If production stops due to an error, it will affect the next process and then the one after that. In order to eliminate these effects, we aim to create "factories that never stop" by making the state of equipment in the production process visible at all times. Based on QRQC\*, which quickly solves quality problems that occur in the workplace, we have created an in-house operation management software that allows us to see our operational status at a glance. This has made it possible to reduce production losses by quickly identifying phenomena such as short stoppages and breakdowns and implementing countermeasures. The introduction of the operational status monitor has improved the efficiency of our production lines by 5%.



QRQC using our operation management software

JATCO is aiming for the ultimate in efficiency and quality, and by expanding the scope of its digital technology to create a smart factory, we will also contribute to the realization of carbon neutrality by minimizing the energy per unit used to manufacture our products.

## Example improvements in line efficiency due to use of the status monitor



\*Quick Response Quality Control



## Our Approach to Manufacturing

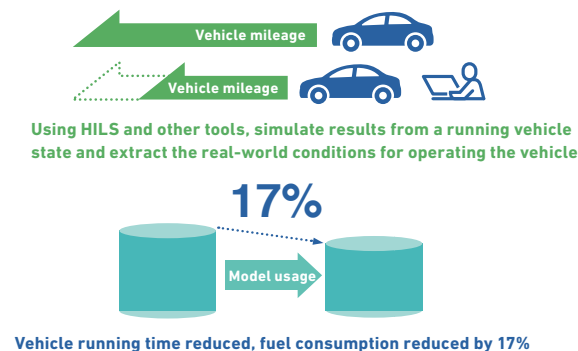
JATCO helps reduce society's environmental impact by pursuing energy efficiency in its products and business activities.

### Using virtual evaluations to reduce environmental load

By using computer simulation to predict the phenomena that occur in each functional component when a car is actually driven, we are replacing what had previously been our real-world vehicle tests with virtual experiments (HILS\*, etc.). In addition, by checking the new control system virtually, it has become possible to develop it without having to rework it when it is installed in an actual vehicle. By proceeding with these virtual evaluations, not only is the development period shortened, but also the number of experiments using actual vehicles are reduced, leading to positive environmental effects such as reduced prototyping and reduced use of fuel for experiments.

In addition, by applying the systems engineering methodology to our existing and next-generation products and expanding it

#### Example results of virtual evaluations



globally, it is expected that our rework rate will be improved by 50%, which will not only shorten the development period but also reduce the amount of gasoline used by reducing the number of physical experiments.

\*Hardware In The Loop Simulation



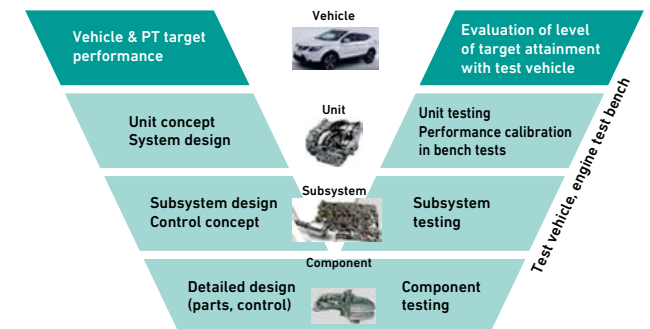
Virtual evaluation using HILS

### Contributing to the SDGs through participation in external organizations such as JAMBE

JATCO participates in JAMBE (Japan Automotive Model-Based Engineering center), comprising Japanese automakers and parts manufacturers, to expand the manufacturing sphere and contribute to developing Japan's automotive industry. Through participation in JAMBE, we aim to avoid rework and achieve world-leading development efficiency by aligning models created by universities with those used by automobile and parts manufacturers, using the same models in development to enhance efficiency. This promotes vehicle technology innovations for carbon neutrality, CASE, and more, contributing to SDGs.

### Development through the V-model of systems engineering

We have adopted the concept of the V-model of systems engineering to reduce design and testing iterations. We employ MBD (model-based development) methodologies and take a virtual development approach.





# Society

## Coexisting with Local Communities and Contributing to their Development

Community Development

Social Contribution Activities



# Community Development



## With Local Communities

The JATCO Group's aim is to become a "good corporate citizen" that is loved by local communities. Corporate activities are conducted through our involvement with local communities. JATCO considers it an important responsibility to be proactively involved with society as a community member and contribute to the local community in a variety of ways.

Participating actively in resolving local issues leveraging the JATCO Group's technologies and assets creates a situation where our presence is appreciated by the community, which is beneficial to the company. This leads to mutual growth and development of the community and company. For instance, by developing a drive unit for e-bikes using automotive technologies, we can help address community challenges, such as promoting local tourism and health enhancement, and provide opportunities for children to think through the mechanism of automotive gears and experience the intrigue of things that move.

While responding to increasingly complex societal issues, the JATCO Group continually seeks coexistence with local communities.



Hana-saku JATCO-MAE Station Project



Supporting a powerchair soccer tournament with JATCO's technology



Conveying the mechanisms and fun of gears to children



E-bike test ride in Fuji City

# Social Contribution Activities



## Our three key categories: environment, education, and welfare

The JATCO Group has established the environment, education, and welfare as the three key categories for our community contribution initiatives.



### Contribution activities for the environment

Together with Fuji City Hall, we organize volunteers to pick up trash along a climbing route running from the coast to the summit of Mt. Fuji. This not only protects the environment of Mt. Fuji, a World Heritage Site, but also helps preserve the mountain's ecosystem.



Mt. Fuji Clean Route 3776 activity

### Contribution activities for education

In cooperation with local schools, JATCO Group companies assist in youth development. Employees visit nearby junior high schools as lecturers, introducing the manufacturing processes at our plants through videos and sharing the passion, motivation, and challenges in their work. We create opportunities for students to learn about the real world, with the hope that it helps in their future career formation.



Lecture at Kakegawa Municipal Kita Junior High School

### Contribution activities for welfare

Soccer players with intellectual disabilities have only limited opportunities to demonstrate the results of their training. Therefore, JATCO has been organizing the JATCO × Yokohama F. Marinos Futuro Cup together with the Yokohama F. Marinos soccer club since FY2015. We continue to support many athletes with intellectual disabilities, along with their teams, with the goal of them participating in this tournament and having an opportunity to know the joy of soccer once again.



Soccer tournament for players with intellectual disabilities



# Social Contribution Activities

## 17,000 participants globally

The JATCO Group conducts social contribution activities globally, tailoring efforts to the needs of local communities around the world. In FY2022, 17,000 employees worldwide participated in these activities. Below are some representative activities in the areas of the environment, education, and welfare.

### A selection of activity examples

Area	Activity example	Region
Education	Kids Engineer	Japan
	Middle and high school company visit program	Japan
	Visiting lectures for schools	Japan
	Career talks	Japan
	Donating picture books to kindergartens	Japan
	Providing part-time high school education	Mexico
	Webinar quality education program	U.S.A., Mexico, China
	Donating supplies to schools	U.S.A., Mexico, China
	Manufacturing events for children	China
	JATCO Class industry-academia collaboration with local schools	China
Environment	Mt. Fuji Clean Route 3776 cleaning	Japan
	Cutting aquatic weeds in the Tajuku River	Japan
	Cleaning a Motegi Cultural Property	Japan
	Cleaning Mihomasaki Beach	Japan
	Cleaning Yoshitomi Station	Japan
	Cleaning Shibuta River	Japan
	Hana-saku JATCO-MAE Station Project	Japan
	Cleaning the San Pedro River	Mexico
	Environmental protection in Zhangjiagang Port	China
	Guangzhou Nansha Binhai Park	China
	Environmental protection in Zhangjiagang Port	China
	Waste recycling	China
	Cleaning Anyangcheon Stream	South Korea
	Planting herbs	Thailand
	Plastic bottle cap recycling	France, South Korea, Japan

Area	Activity example	Region
Welfare	Support for Ukraine	Japan
	Donating proceeds from selling collected aluminum cans	Japan
	Movement to donate picture books to South Asia	Japan
	Sustainable living	Japan
	Donating items to guide dog association	Japan
	Donating to Fuji City Food Bank	Japan
	Supporting powerchair soccer	Japan
	Supporting soccer for people with intellectual disabilities	Japan
	Donating sports equipment	Mexico
	Donating food for pilgrims	Mexico
	Distributing items to the needy	Mexico
	Donating hair	Mexico
	Distributing Christmas cards	Mexico
	Food distribution volunteering	U.S.A., Mexico, South Korea
	Donating through fundraising and recycling	U.S.A., Mexico, South Korea
	Donating Christmas presents for children	U.S.A.
	Donating used PCs	France
	Donating used batteries	France
	Turning beverage cartons into roofing for the needy	Thailand
	Donating used lottery tickets to temples	Thailand
	Zoo volunteering	China
	Donating towels to an animal protection group	South Korea
	Charcoal distribution volunteering	South Korea



Cleaning the San Pedro River (JATCO Mexico)



Donating school supplies (JATCO USA)



Charcoal distribution volunteering (JATCO Korea Engineering / JATCO Korea Service)



Food distribution event (JATCO USA)





# Human Capital

## Promoting Diversity and Enhancing Employee Well-being

Diversity & Inclusion

Human Resource Development

Occupational Health and Safety

# Diversity & Inclusion



## Diversity at JATCO

In order to expand our business globally in response to changing times, JATCO positions diversity as a value to be cherished by our employees. JATCO's diversity involves engaging in a variety of initiatives with the objective of generating new ideas and providing better value to our customers by having employees with a wide range of values work together and exchange opinions while treating one another with respect. Since FY2008, we have been conducting regular reviews by management personnel led by our president and actively promoting hiring and employee deployment that does not discriminate based on gender, nationality, or other such criteria.

## Diverse work styles

JATCO aims to build a workplace environment that enhances productivity and enables everyone to work enthusiastically with a sense of security, improving the quality of life (QoL) for all employees. We have been early adopters of flex time; life support leave for a wide range of family assistance encompassing childcare, nursing care, and fertility treatments; telecommuting; and work interval systems, which many employees actively utilize. In July 2015, in recognition of our achievements, JATCO received the Special Certification Based on the Revised Act on Advancement of Measures to Support Raising Next-Generation Children (commonly known as the Platinum Kurumin Certification). In March 2016, the Ministry of Economy, Trade and Industry selected JATCO as one of the Diversity Management Selection 100 for its example of "utilizing diverse human resources and providing opportunities for them to maximize their abilities, generate innovation, and create value." In both cases, we were the first company headquartered in Shizuoka Prefecture to be certified or selected.



Logo for the special certification based on the Act on Advancement of Measures to Support Raising Next-Generation Children, commonly known in Japan as "Platinum Kurumin"



Logo for the New Diversity Management Selection 100

## Empowering women

JATCO works to empower women as one of the pillars of its diversity promotion efforts. The ratio of women in managerial positions currently stands at 4.8% (FY2022), surpassing the Ministry of Health, Labour and Welfare's published cross-industry average of 2.6% for women in management. We also encourage male employees to take childcare leave to participate in parenting and are working to top the 16.5% male childcare leave rate achieved in FY2022. Additionally, women's roles are advancing at our manufacturing facilities. Women can demonstrate leadership on our diversity lines, where everyone is made to feel welcome.



## Diverse nationalities playing active roles

JATCO staffs its facilities without discriminating based on nationality and actively encourages employee and technology exchanges with our overseas bases. Employees of various nationalities including Chinese, Korean, Mexican and Thai play an active role in Japan. Employees with a wide variety of values working at the same workplace and growing by learning something new from each other leads to the provision of new value to our customers.

## Promoting the active participation of individuals with disabilities

JATCO emphasizes the assignment of human resources that match the working abilities of individuals with disabilities, and hires people without restricting their job categories. Establishing workplaces (diversity lines and indoor farms) that accommodate diverse work styles and personnel has led to providing new value, enabling employees to participate vibrantly for a long time. Our employment rate for individuals with disabilities is currently 2.47%, surpassing the statutory rate, and our retention rate is over 90%.



# Human Resource Development



## Achieving the mutual growth of our company and employees

JATCO regards each and every employee as important human capital that makes up the company, and we respect the diversity of each and every employee while proactively working to develop human resources with the aim of becoming a company where all employees can experience personal growth and job satisfaction. Employees grow not only by gaining experience in their roles and solving problems in the workplace, but also by taking full advantage of a wide range of growth opportunities that are provided on an ongoing basis, including role-based skill development programs and trainings for problem-solving and communications skills. Supervisors support employees' growth through interview programs and ongoing on-the-job training. For new employees who have taken their first steps into the workforce at JATCO, we have introduced a Freshman Leader System in which senior employees give daily consultations, guidance, and advice, providing support so that these new employees can enjoy a fulfilling corporate life at their assigned workplace and can take on work assignments with confidence.

## Fostering a global mindset from an early stage

JATCO is working to develop employees that can handle global business. Overseas training for employees in their second year at the company fosters a global mindset and a desire for continuous self-growth by taking on a variety of tasks in an environment with a completely different language and culture.

We also actively promote employee exchanges with overseas offices. Through short-term dispatch programs in which young employees are sent to overseas offices for several months to a year, we aim to have them build strong relationships with the overseas offices and to acquire a sense of global standards through a variety of experiences, not only in business but also in their daily lives.

In recent years, the use of DX tools has made it extremely easy to communicate with people overseas, so we have also started operating a new global training program that allows simultaneous online participation from multiple overseas offices.



Global training program

## QC circle activities competing to make workplace improvements

JATCO's 208 QC circles (2,067 members\*) drive improvement through small group activities. The activity policy is to raise operational quality and secure several improvements, aiming to lead change and initiate transformations independently, think based on principles, quantify verifications, and achieve growth together through continual improvement.

Internally, JATCO Group QC Circle Conventions are held twice annually to report on examples of improvement. Overseas group companies in Mexico, Thailand, and China also participate. Top circles from these conventions enter external presentation competitions for the Tokai Branch Shizuoka Region, Kinki Branch Keiji Region, National Convention, and the Nissan Group Convention to showcase their improvement results. We have received numerous Inspirational Awards and Branch Director Awards thus far.

\*As of July 2023



Proactively entering external QC circle conventions

# Human Resource Development

## Diverse educational programs at manufacturing sites

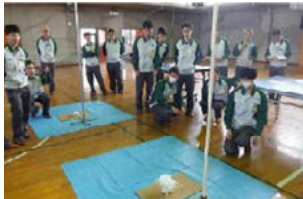
In an ever-changing environment, we must continually enhance techniques and skills at our manufacturing sites for JATCO to reliably deliver competitive, top-quality products to customers worldwide. JATCO provides systematic education from the time new employees join the company until they become managers and supervisors, ensuring manufacturing personnel can continually enhance the techniques and skills that are the foundation of monozukuri.

## New employee training

Before assigning new hires to a production department, we have them experience various workplaces. While having fun, they become accustomed to occupational life and firmly acquire a fundamental grounding in monozukuri along with morals and manners as JATCO employees and members of society. They also deepen bonds with peers through social contribution activities and various exercises and learn about JATCO's mission to deliver valuable products to customers.



Skills development training



Egg bang



Core skills competition

## Skills development training

We have staged courses tailored to skill levels across job types so that employees can incrementally acquire techniques from monozukuri fundamentals to the specialized skills in each field and put them into practice at manufacturing sites.



Beginner: Grasp the basics of monozukuri and learn to work responsibly



Intermediate: Acquire improvement skills and basic management capabilities as mid-level leaders



Advanced: Cultivate management skills as workplace leaders



# Human Resource Development

## Instructor development course

Employees with hands-on experience acquire the practical abilities to act as workplace leaders. With guidance and advice from instructors, they learn in a practical manner about the management cycle, including standardizing tasks, teaching tasks, and post-teaching confirmation. This expands their awareness of others, sensitivity, and strength of character while learning the basics of communication and human skills.



Proficiency planning and instruction



Practice toward goals



Checking improvement effects and reflecting them in future actions



Quantitative reflection and sharing with all

## GMT/MT/RT\* development course

This course fosters personnel capable of correctly teaching manufacturing line tasks to enable the launch of new units as planned. GMTs, MTs, and RTs have defined evaluation items for certification, including knowledge, skills, and instructional abilities, according to their respective roles. MTs and RTs at overseas sites are certified under the same assessment criteria. Playing vital roles in unit launches at overseas sites, they contribute to JATCO maintaining uniform high quality at locations worldwide.

Currently, there are 15 GMTs, 173 MTs, and 87 RTs in Japan and 12 MTs and 12 RTs overseas.

\* GMT: Global Master Trainer, MT: Master Trainer, RT: Regional Trainer

### MTs and RTs at overseas sites



General training (Mexico)



Specialized assembly core skills (Thailand)



Specialized machining core skills (Mexico)

## Human resource development for electrification

As an electric powertrain manufacturer, we are committed to developing personnel who can handle electrified products. Building on JATCO's unique manufacturing expertise cultivated in ATs and CVTs, we are steadily advancing preparations to achieve the higher levels of safety and quality required in electrified products by sufficiently understanding functional and structural aspects unique to these goods. We have also established electrified-product training dojos in our plants.

# Occupational Health and Safety



## ABSOLUTE SAFETY

1. Safety has priority over all works.
2. Safety is the most important in any operation.
3. Absolute safety means that safety has priority over work efficiency at all times.
4. Safety is the basis of work efficiency, and safety and efficiency never contradict each other.
5. Safety first begins with the 2S (*Seiri & Seiton*) in the work area.

**Jatco**

## “Absolute Safety” is our key phrase

JATCO aims to move from “zero accidents” to “zero danger,” so promotes the development of a workplace where all employees can work safely and comfortably through measures such as the active completion of risk assessments at workplaces and the promotion of health management for employees. We recognize the task of ensuring safety as a priority in all our work, and have established “Absolute Safety” as our motto. In line with this, we engage in safety activities with a focus on on-site inspection, such as risk assessments, SES I\*<sup>1</sup>, 5S patrols\*<sup>2</sup>, plant (division) safety patrols, public work inspections, and safety commitment inspections. Particular emphasis is placed on eliminating non-standard processes that have a high risk of causing work accidents and may also cause losses in our production activities. The assessed risks of each production activity are summarized in a list. We establish the degree of priority and the appropriate countermeasures based on the size of the risk, and then speedily implement hard countermeasures, such as improving facilities, and soft countermeasures, such as training and guidance.

\*<sup>1</sup> SES I: Safety Evaluation System I. Our system for quantitatively assessing safety levels at the workplace

\*<sup>2</sup> 5S patrols: Patrols of our sites on a regular basis to ensure compliance with the 5S methodology (Seiri [Sort], Seiton [Set in order], Seisō [Shine], Seiketsu [Standardize], Shitsuke [Sustain])

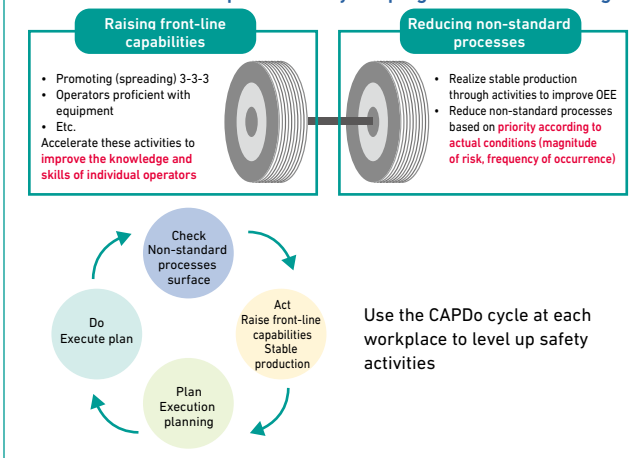


Implementing SES through our global members

## Approach to Eradicating Disasters from non-standard processes

- Practice “Stop, Call, Wait”
- Promoting elimination of non-standard processes

### Accelerating elimination of disasters from non-standard processes by keeping two wheels turning



Execute and advance risk assessment activities at each site, focusing on eliminating non-standard processes

# Occupational Health and Safety

## Declaration on Health Management

The JATCO Group considers the physical and mental health of employees to be an invaluable asset of the company. We have established the JATCO Group's Declaration on Health Management, intending to be a company where employees can work enthusiastically and comfortably.

### The JATCO Group's "Declaration on Health Management"

Developing advanced products that reflect the needs of our customers by enabling each and every employee to demonstrate their leadership. Improving manufacturing technology to achieve a level of quality exceeding that of our global competitors. Contributing to the revitalization of communities by running our business fairly and valuing our connections with local communities. These are the driving forces that give energy to every JATCO Group employee.

Such energy is founded on our employees' physical and mental health.

The JATCO Group considers the well-being of its employees to be invaluable assets, so we aim to promote the well-being of both our employees and our company by working to improve quality of life (QoL) so that employees can feel fulfilled, both in and out of the workplace. We believe that ensuring the health of every employee and their family is not only the cornerstone of the JATCO Group's continued growth, but also an answer to societal demands for extending healthy life expectancy.

Acknowledging health care as a significant management task, the JATCO Group declares it will continue working to promote the health of each and every employee and become a company with a healthy and supporting work environment.

Tomoyoshi Sato  
President and CEO of JATCO Ltd

## External evaluations

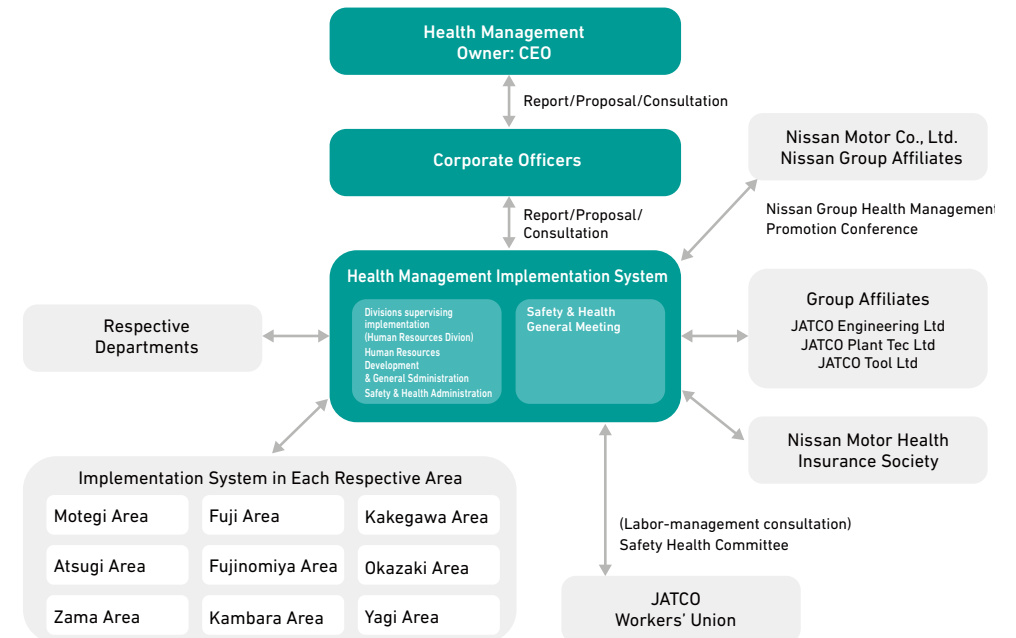
JATCO has been a Certified Health & Productivity Management Organization (White 500) for five consecutive years since 2019.



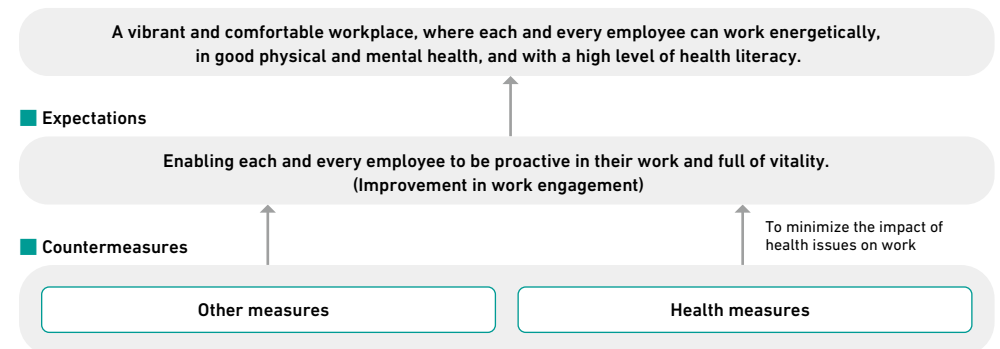
JATCO has been certified as a "Sports Yell Company" for four straight years since 2020.



## Health management implementation system



## Ideal state



## Occupational Health and Safety

### Initiatives to promote employee health

We are working to improve measures to combat lifestyle-related diseases and metabolic syndrome and to raise employee health literacy through health guidance, events focused on diet and exercise awareness, and workplace visits by occupational health staff. We also put effort into mental health measures. Occupational health staff plan events expected to encourage employee health improvements based on periodic checkup results and other data, then leverage participant questionnaires and other feedback to drive continuous improvements.



Food education event in collaboration with Green House Co., Ltd., and a healthy meal featuring plenty of vegetables



An exercise event in collaboration with RIZAP



Workplace visits by occupational health staff





# **Business Foundation**

## **Integrity and Robust Business Infrastructure**

Trusted Quality

Human Rights

Sustainable and Responsible Procurement

Governance and Compliance

Stakeholder Engagement

Disaster Preparedness (Physical Hazards)

Information Security

# Trusted Quality



## Policy and approach for product safety and quality

It is no exaggeration to say that quality assessments by customers determine the valuation of products and the brand value of a powertrain manufacturer. In the modern world of remarkable technological innovation, the level of quality sought by our customers is increasing more and more.

At a time when the structure of the global economy is changing greatly and urbanization is progressing in each region, needs with respect to mobility are also growing.

As an electric powertrain manufacturer, JATCO believes that in addition to fulfilling our mission of providing the abundance brought about by mobility to people throughout the world, we have a major responsibility to provide quality that satisfies our customers at all times.

JATCO understands quality to be an issue for the entire company; is continuing activities to provide superior quality in all of the situations involving the customers, from planning of the products to development, production, logistics, sales, after-sales service, etc.; and is aiming to be a company which is trusted by its customers.

## Policy and approach for “quality”

The content of quality is wide-ranging.

JATCO is collaborating across departments and regions to make company-wide efforts to provide superior quality in all situations involving our products, from the useability of the products themselves to the response when there is a defect in a product, etc.

Based on a philosophy centered on the customers, JATCO is making efforts for both “product quality” and “service quality” with the goal of “putting the opinions of our customers first and enhancing the quality of our products and services so that our customers will feel deep satisfaction, in order to ensure that they choose JATCO-made products for many years to come.”

The “product quality” of the products themselves is the fundamental quality that enables our customers to use the products comfortably and with peace of mind for a long time.

We aim for the provision of quality which can meet the expectations of our customers in all of the life cycle of the product, such as the “initial quality” of the product delivered to the customer and the “durable quality” felt when using a product for a long time, etc.

Furthermore, in “service quality,” the pursuit of quality in our responses to our customers, we carry out activities to make inspections and repairs easy to do at dealers.

In order to satisfy our customers in all of the processes, JATCO has introduced initiatives to incorporate the opinions of our customers and give feedback throughout the company.

## Management of product safety and quality

JATCO understands securing the safety of our customers and providing quality which satisfies them at all times to be important issues. In order to realize sustained growth as a trusted company, we have built systems to promote quality enhancement globally and all of our employees are working together on quality activities. We clearly stipulate and apply globally the responsible persons and processes for wide-ranging quality enhancement activities in a quality management system that is compliant with IATF 16949. Moreover, we revise manuals appropriately as necessary to ensure that this leads to the thorough implementation of quality management with respect to all of those quality items. Furthermore, we implement training every year regarding the guidelines for building and implementing a quality management system. All of our employees are required to take this training.

Note that regarding our production bases, all 13 bases have acquired IATF 16949 certification.

## Management system for product safety and quality

In order to achieve the goal of becoming top level in quality, JATCO appoints a corporate officer dedicated to quality to the position of Chief Quality Officer. A Quality Committee chaired by the Chief Quality Officer meets every month, the officers of the respective divisions participate, and the committee promotes the quick solution of issues with product quality and service quality and also promotes quality improvement activities.

Furthermore, in order to realize the thorough implementation of compliance, we have built a monitoring and auditing system with a three-tiered structure and are making efforts to strengthen our auditing activities. In the first tier, the respective divisions implement monitoring with responsibility for compliance with laws and regulations and standards. In the second tier, the Corporate Quality Assurance Division implements audits concerning compliance with laws and regulations and standards. In the third tier, the Internal Audit Office carries out audits based on the fiscal year plan in accordance with the risks.

## JATCO's quality



# Trusted Quality

## Product safety and quality initiatives

### Reflection of the opinions of our customers in quality enhancement activities

In order to provide the value expected by our customers and respond quickly to the dissatisfaction, etc., felt by customers, we listen to all of the opinions from our customers and reflect them in all of our quality improvement activities, from development to servicing.

#### Quick responses to the opinions of our customers and timely information sharing

JATCO responds to inquiries and consultations from our customers through the automobile manufacturers.

Furthermore, we share the opinions of our customers in the market by posting them on the in-house intranet so that they can be viewed by our employees at any time.

#### Reflection of the opinions of our customers in our products and services

We have put in place mechanisms to reliably share the opinions of our customers in the market with all of our divisions including planning, development, production, sales, etc., and reflect the opinions in our products and services. Elements which make our customers feel dissatisfaction even though they are not malfunctions also influence the quality of the products. JATCO understands responding to the dissatisfaction of our customers to also be the subject of quality enhancement activities and is working on improvement.

The expected value that our customers require from our products differs depending on the customers' region, age, tastes, etc., and sometimes is also affected by market characteristics such as the degree of adoption of the product and the climate, etc. JATCO uses global design as its basic specifications while also responding in accordance to the needs of the regions.

The person who bears responsibility for this role is the Chief Quality Engineer (CQE). The CQE is involved from the planning stage to product creation and works on reducing the dissatisfaction of our

customers and the number of defects.

We endeavor to extract the opinions of our customers from market information, etc., decide the order of priorities from the planning and development processes onward in order to consider response measures, and reflect the opinions in our products and services.

#### Initiatives to foster a customer perspective

We believe that it is important for each and every employee to take the perspective of our customers and work on their operations with an awareness of "realization of superior quality that continues to be trusted by customers" so we are promoting a variety of initiatives such as companywide training to foster good mindsets and initiatives to give our employees opportunities to encounter the opinions of our customers on a daily basis.

Furthermore, we have been holding the JATCO Quality Forum for our officers and employees since 2006. This forum introduces the current state of quality, the opinions of our customers in the market, improvement activities based on the opinions of our customers, and activities for the achievement of our goals, using panels, videos, and displays of actual components. It is jointly held by all of the divisions involved in development and services and in recent years hands-



The JATCO Quality Forum held since 2006

on events have been incorporated to encourage our employees to think and take action from a customer perspective, and initiatives have been carried out to foster the customer awareness of all of our employees and confirm the importance of quality.

### Enhancement of "product quality"

"Product quality" is the fundamental quality that enables our customers to use the products comfortably and with peace of mind for a long time. For JATCO, which has carried forth Japanese "monozukuri," "product quality" is the foundation which supports the sustainability of the company. We are endeavoring to think about quality from the customer perspective at all times, respond quickly when a defect occurs, and prevent recurrence of the defect. Furthermore, we are enhancing "product quality" to satisfy as many of our customers as possible, by reliably ascertaining the dissatisfactions of our customers and implementing countermeasure activities in all of our processes to eliminate them.

#### Market quality improvement activities

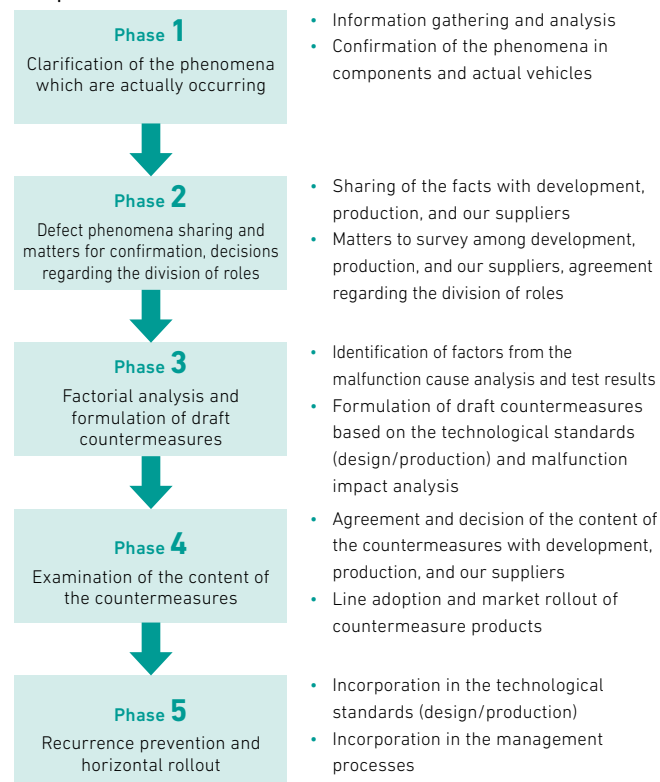
##### Initiatives for quick quality improvement in the market

JATCO has taken permanent countermeasures such as ascertaining the state of complaints and defects, through the automobile manufacturers, of sales companies and of customers who have entered the Customer Service Office, etc., sharing the information with the Development Department and the Production Department, and investigating the cause and considering countermeasures, etc., in order to encourage prevention of the spread of the defects.

Furthermore, as a consequence of the corporate activities of JATCO expanding globally, there is a possibility that the complaints and defects could occur in regions around the world. In order to quickly analyze those kinds of defects and analyze the factors behind them locally, JATCO has established survey bases in seven locations: Japan, the United States, Europe, China, South Korea, Mexico, and Thailand. At these survey bases, we are implementing market quality survey and analysis activities divided into five phases.

# Trusted Quality

The concept of market quality survey and analysis activities in five phases



## Enhancement of initial quality

We are strengthening initiatives to deliver superior quality products to our customers. We confirm that quality has been improved for each process and visualize the risks which could possibly occur from the planning stage to consider measures to alleviate the risks. We are guaranteeing superior quality at the time of the launch of new products by implementing all of the processes using transparent judgments in this way.

## Improvement of durable quality

In order to have our customers ride in comfort for a long time, we are promoting initiatives with respect to deterioration that occurs due to use over many years.

In order to reduce not only the defects which occur during the warranty period but even the defects which occur after the warranty period, JATCO recovers secondhand cars and components that were actually used by our customers to implement quality confirmation, obtain and analyze a variety of data for utilization in the early detection of defects, etc., and strengthen the development of technologies which are resistant to deterioration.

## Regarding fair and quick responses to serious defects

We understand that it is our responsibility to make our best effort to ensure that defects do not occur in the products, and at the same time it is also our responsibility to prepare for emergencies in the building of powertrains, which are a complex industrial product. JATCO's basic position is to mount a transparent, fair, and quick response. Specifically, we give top priority to ensuring the safety of our customers, minimizing inconvenience to them, and complying with laws and regulations, which leads to quick repairs.

## Initiatives with suppliers

JATCO works together with our suppliers to tackle quality enhancement in all of the production bases from the component design stage, including the risk response concerning the quality and supply of the components.

## Management of risk evaluation and reduction promoted with our suppliers

We are strengthening global quality management, confirming the quality management status of the production processes in each of the bases of our suppliers on-site and with the actual products, and supporting the improvement activities of our suppliers so that they can satisfy the JATCO's required levels.

Furthermore, we are working on a variety of quality enhancement measures such as carrying out joint improvement activities which involve not only our suppliers who deliver components to JATCO but also the secondary suppliers who produce the constituent components of those components.



## Trusted Quality

### **Auditing and training of suppliers for product safety and quality enhancement**

In order to ensure product safety, JATCO works together with our suppliers to implement audits of not only the products but also the delivered components.

A variety of processes are necessary before one component is delivered from a supplier to JATCO, from the confirmations of the planning stage to production of design drawings, construction of prototypes, checks of performance, ensuring the system of mass production, among others. JATCO has stipulated the quality assurance activities necessary in this series of steps as the quality management standards for its business partners, and has put in place mechanisms to ensure that accurate components are delivered by executing these activities for all of the components, one by one.

JATCO is supporting suppliers who are compliant with the Supplier Health Check, which is JATCO's own supplier quality evaluation standard. We confirm the worksites of our suppliers, including confirmation of whether or not there are clear identification methods for good products and defective products, and mechanisms for trouble prevention, etc.

Furthermore, we use a quality management system in collaboration with our suppliers to confirm that materials certification has been acquired for all of the components with regards to not only the manufacturing processes but also the materials of the components. We have built a system which ensures that accurate components are delivered by implementing training about the quality management standards for business partners in all of our suppliers and rolling out and executing the standards inside our suppliers.

Furthermore, we are implementing diagnoses of delivery quality and market quality, etc., using the supplier scorecard, and we are also implementing supplier plant audits to confirm management systems. Through these diagnoses and audits, we are regularly

confirming the mechanisms for the stable supply of good quality components and the implementation status of continuous quality improvement activities.

### **Enhancement of “service quality”**

JATCO is working on optimization of inspection and repair methods. Specifically, we are providing quick, cheap, and reliable repair methods such as alleviation of the customer burden by keeping replacement components to a minimum, alleviation of the repair burden of dealers by optimizing inspection and repair methods, etc.

# Human Rights



## Our approach regarding human rights

In order to realize our corporate purpose to “drive the possibilities of mobility with technology and passion,” JATCO recognizes that it is essential to respect the human rights of all of our stakeholders and comply with the applicable laws and regulations and standards, and for our employees to act based on the highest ethical standards stipulated in our in-house rules. Furthermore, we respect the human rights stated in the Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work (an ILO core labor standard). For that reason, we have positioned the United Nations Guiding Principles on Business and Human Rights (UNGPs) as international standards to which we should refer in order to manage the risks that could possibly arise in our business activities and actively prevent all impacts on human rights, and we are taking initiatives for the respect of human rights in accordance with the UNGPs. JATCO has previously stated clearly in our Global Code of Conduct our stance that we do not tolerate any forms of discrimination. We are working on development of the Basic Policy concerning Respect for Human Rights to make this approach concerning respect for human rights clearer and more robust, including in the supply chain, and on development of the Global Human Rights Guidelines which have the objective of explaining our commitment to human rights and ensuring that human rights are respected in all of our business activities, so that JATCO employees in each country and region can work with greater peace of mind.

## Initiatives for human rights

We believe that it is important for all of the officers and employees of JATCO to understand and apply the principles stipulated in our Global Code of Conduct when advancing activities concerning human rights. For that reason, we implement regular education so that they can understand the principles of the Code of Conduct correctly. For example, every year we implement education for our global employees regarding the Code of Conduct using e-learning. In Japan, we implement harassment training for managers every year. Furthermore, as a company in the Nissan Group, we implement a human rights due diligence process and carry out risk management in order to prevent negative impacts on human rights in advance. Issues and risks concerning human rights are discussed in our Management Council as necessary. Furthermore, we recognize the importance of implementing initiatives concerning human rights over a scope that exceeds the activities of our own company, so we have set the goal of realizing ethically, socially and environmentally friendly business activities in all of the stages of the global supply chain. In order to achieve this goal, we cooperate with all of our business partners, including suppliers and contracted operators, to conduct our business in a manner that takes into consideration human rights.

## Social data

		(FY)			
JATCO Ltd		Unit	2020	2021	2022
Number of employees		People	5,399	5,250	5,000
	Men	People	4,956	4,811	4,570
	Women		443	439	430
Average age		Years old	43	44	44
	Men	Years old	44	44	44
	Women		38	39	39
Years of service		Years	20.3	20.8	21.0
	Men	Years	20.4	21.4	21.8
	Women		14.6	16.4	15.9
Employment rate for individuals with disabilities		%	2.26%	2.48%	2.47%
Percentage of men taking childcare leave		%	0.9	0.9	16.5
Percentage of employees returning to work after taking childcare leave		%	95.8	95.7	100
	Men	%	100	100	100
	Women		95.7	95.5	100
Number of days of annual leave taken		Days	14.7	18.8	16.8
Average overtime hours		Hours/month	11.9	17.7	17.9
Female managers	No. of people	People	13	13	13
	Ratio	%	4.5%	4.6%	4.8%
Number of new hires		People	69	45	50
	Men		58	38	42
	Women		11	7	8

\* Percentage of men taking childcare leave = male employees who took one day or more of childcare leave in the applicable fiscal year ÷ the number of male employees whose spouse gave birth in the applicable fiscal year

\* The total number of union members includes general employees and senior union members (people reemployed after their retirement upon mandatory retirement age)

# Sustainable and Responsible Procurement



## JATCO's basic approach with respect to the supply chain

JATCO is aiming to take into consideration our constantly changing society and environment and fulfill our responsibilities as a company while complying with laws and regulations, protecting human rights, and communicating with a variety of stakeholders. Furthermore, based on our corporate purpose to “drive the possibilities of mobility with technology and passion,” we are challenging ourselves to start new businesses and we will continue to expand our customer base throughout the world going forward.

The products and services we provide to those customers are only viable due to the cooperation of our many suppliers, who are our business partners.

JATCO believes that sharing its vision and policies with its suppliers and gaining their support for the vision and policies is important in order for JATCO to fulfill its own company responsibilities.

## Measures to deepen mutual trust with our suppliers

In 2022 JATCO endorsed the purpose of the Declaration of Partnership Building and signed this declaration.

In accordance with this declaration, JATCO strives for coexistence and coprosperity and new collaborations which transcend scale and business affiliations throughout the entire supply chain, and is actively working to correct trading practices and commercial practices which obstruct the building of partnerships with our suppliers.

We are contributing to the achievement of the following five sustainable development goals (SDGs) by complying with this declaration.



Furthermore, JATCO's corporate activities are only viable due to our relationships of trust with our suppliers, and we believe that it is building long-term business partnerships which are beneficial to both parties in particular which enables JATCO to achieve the goals it has set.

For that reason, it is important for us to clearly state in writing our vision and policies and company responsibilities and share them with all of the many Tier 1 suppliers engaged in direct transactions with JATCO and Tier 2 or higher suppliers who have transactions with us indirectly, and for us to gain the understanding of all of our suppliers regarding them.

For that reason, we have established the “values which we should have as a company” based on the basic principles of the JATCO Purchasing Way—“trust,” “respect for the other party” and “transparency”—as a variety of guidelines, and we are striving to build a supply chain based on mutual understanding.

## Carbon Neutrality Initiatives

JATCO has set the goals of reducing CO<sub>2</sub> emissions by 46% compared to 2013 levels by 2030 and to zero in 2050.

Of course the scope of JATCO's initiatives includes activities at our own locations but we are also aiming for the realization of carbon neutrality, including in the supply chain.

We will accelerate activities for carbon neutrality going forward and we will also work together with our suppliers, who are our environmental improvement partners, to reduce CO<sub>2</sub> emissions and contribute to the realization of a sustainable society.

## Cooperation with the BCPs of our suppliers and support at times of disaster

JATCO has built a supply chain which can respond when unpredictable natural disasters occur by using BCPs which are integrated with our suppliers.

In recent years, natural disasters and events with wide-ranging and prolonged impacts have occurred frequently, including business closures and suspensions of operations due to infectious disease pandemics, so further strengthening of the supply chain is required.

JATCO of course provides humanitarian aid and life-saving and support for the restoration of businesses when there is an emergency, but we also endeavor to stabilize the supply chain at normal times by providing support for the BCPs of our suppliers through a variety of initiatives.

# Sustainable and Responsible Procurement

## Guidelines in the supply chain

### JATCO Purchasing Way

The goals set by JATCO will only be achieved if we build long-term business partnerships with all of our suppliers which are beneficial to both parties, for enhancement of performance, growth, and profit creation.

JATCO has the know-how, tools, processes, etc., for building an optimal supply chain with our all of our suppliers.

Based on this stance, JATCO's Procurement Department has summarized in writing the value and process which it considers important when carrying out transactions, so that all of our suppliers can produce their best performance.

We promise to build cooperative relationships with and support all of our suppliers through this value and process. We are confident that these kinds of relationships are strengths which are unique to JATCO.



JATCO Purchasing Way

### Supplier CSR Guidelines

We explain the important matters for which the elements for fulfilling our continuous and developing corporate social responsibilities should be considered and handled from the perspectives of "compliance," "safety and quality," "human rights and labor," "environment" and "information disclosure," and encourage initiatives in each of our suppliers regarding these social issues.

Furthermore, we also ask our suppliers to build management systems for substances of concern and conflict minerals from the perspectives of human rights and the environment.



JATCO Supplier CSR Guidelines

### Green Procurement Guideline

In accordance with our environmental policy of "realization of a society where the environment and cars can coexist," JATCO is promoting environmentally-friendly initiatives throughout the lifecycle of products, from their development to raw materials procurement, manufacturing, transportation, use, disposal, and recycling.

For that reason, we have established the policies and standards which should be shared with our suppliers as the Green Procurement Guideline.

In this guideline, we ask suppliers to input data into the IMDS (International Material Data System) in order to strengthen initiatives concerning the environment and the management of substances of concern. JATCO confirms the management of the substances of concern used in the products and compliance with the full range of regulations based on this IMDS data.

### Initiatives based on the guidelines

We ask suppliers who agree to the Supplier CSR Guidelines and the Green Procurement Guideline to submit an Agreement Confirmation Form.

In the case that a new transaction occurs, we receive submission of the agreement form from the applicable suppliers and commence the transaction.

We make the input of IMDS data a required clause of the quality approval step with respect to new components as well. In this way JATCO is carrying out initiatives based on guidelines with all of our suppliers in a variety of processes.



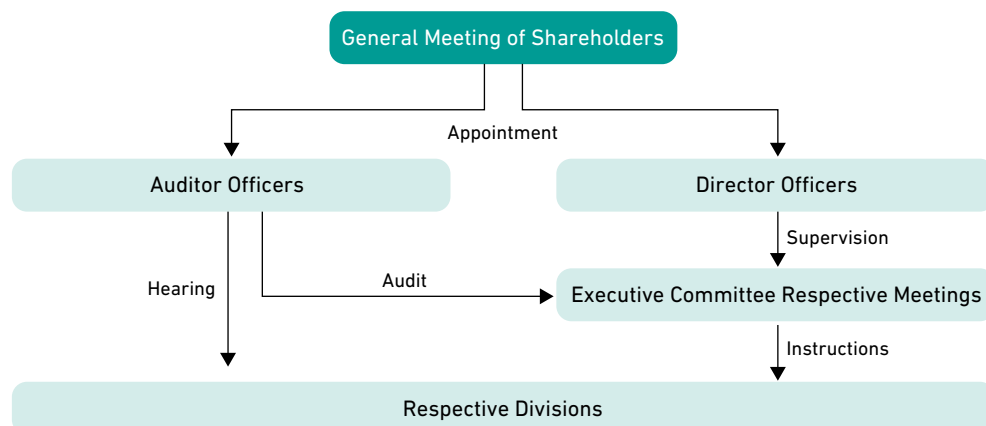
# Governance and Compliance



## Commitment to corporate governance and compliance with laws and regulations

### Corporate governance system

JATCO is a “Company with Board of Company Auditors” as defined in the Companies Act, and is established as a legal entity with a General Meeting of Shareholders, a Board of Directors, and a Board of Auditors. In principle, the Board of Directors convenes once a month to decide on important management matters as well as to preside over the details of the operations being executed. The Board of Directors is composed not only of the directors who execute our operations, but also several directors from outside the company in order to create a system that allows for objective supervision of the execution status of our operations. A Corporate Officer system has also been introduced to facilitate efficient and flexible management, and authority has been delegated to Corporate Officers in clearly defined ways in the management of the business.



### Strengthening our internal control system

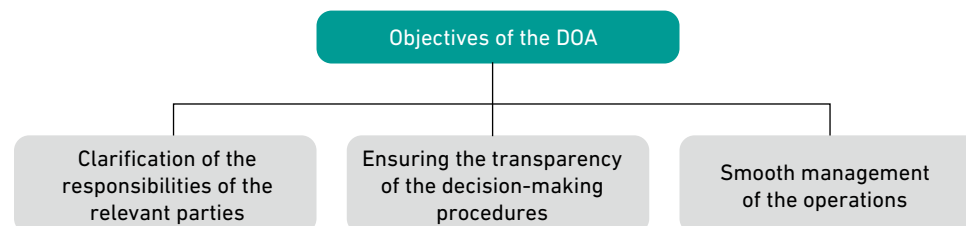
JATCO maintains and strengthens its internal control system based on the Basic Policy on Internal Control System passed by our Board of Directors in order to ensure proper and efficient corporate activities. This policy lays out the following items as its major items and checks are conducted every six months to verify that the internal control system is functioning effectively, and the results are reported to the Board of Directors.

#### Major items of the Basic Policy on Internal Control System

- Compliance with laws and regulations and the Articles of Incorporation in the execution of work by the directors and employees
- Storage and management of information pertaining to the execution of work by the directors
- Appropriate risk management
- Efficient execution of the work of the directors
- Ensuring that the work in the corporate group (the parent company and the subsidiaries) is performed properly
- Ensuring the effectiveness of the audits by the auditors, etc.

### Important operational matters and decisions

The authority standards pertaining to important operational matters and decisions are stipulated in the Delegation of Authority (DOA). The objectives of establishing the DOA are clarification of the responsibilities of the relevant parties, ensuring the transparency of the decision-making procedures, and smooth management of the operations.



# Governance and Compliance

## Strengthening compliance

### Basic stance on compliance

The JATCO Group considers strict compliance with the laws of each country and region to be a minimum requirement for being trusted by society. In addition to strict compliance with laws, we consider it important for all employees of our Group to act fairly and honestly with a strong sense of ethics. JATCO has instituted a Global Code of Conduct, and we put effort into ensuring thorough compliance by providing action guidelines for all employees to abide by.

### Standards in the Global Code of Conduct

1. Comply with all laws and rules  
JATCO employees will abide by all laws of the country, and all regulations of the Company, in which they work.
2. Promote Safety  
JATCO is committed to employee safety and wellness. JATCO employees are expected to engage in safe work practices to promote a healthy work environment. JATCO is also committed to the safety of our customers and JATCO employees are expected to continually promote safety of JATCO products.
3. Avoid Conflict of Interest  
The best interests of JATCO are expected to be foremost in the minds of employees. It is prohibited to behave, act or use information in a way conflicting with Company interests.
4. Preserve Company Assets  
JATCO employees are personally accountable for preserving and safeguarding Company assets. Unauthorized use or diversion of Company assets, including funds, information and intellectual property, is prohibited.
5. Be Impartial and Fair  
JATCO employees must maintain impartial and fair relationships with business partners, including automobile manufacturers, suppliers, and other third parties.
6. Be Transparent and Accountable  
JATCO employees shall make fair, transparent, timely and appropriate disclosure of the Company's business activities to our stakeholders, including stockholders, customers, local communities and other employees.
7. Value Diversity and Provide Equal Opportunity  
We value and respect the diversity of suppliers, customers, communities and our employees. Discrimination or harassment, in any form or degree, will not be tolerated.
8. Be Environmentally Responsible  
JATCO employees shall strive, within the business objectives of JATCO, to consider environmental protection when developing products and services, to promote recycling and to conserve materials and energy.
9. Be Active; Report Violations  
JATCO employees are expected to carry out their work in accordance with the Code of Conduct. Employees who suspect that a violation of the Code of Conduct has occurred are obligated to report it as soon as possible, and such employees shall be protected from any disadvantage.

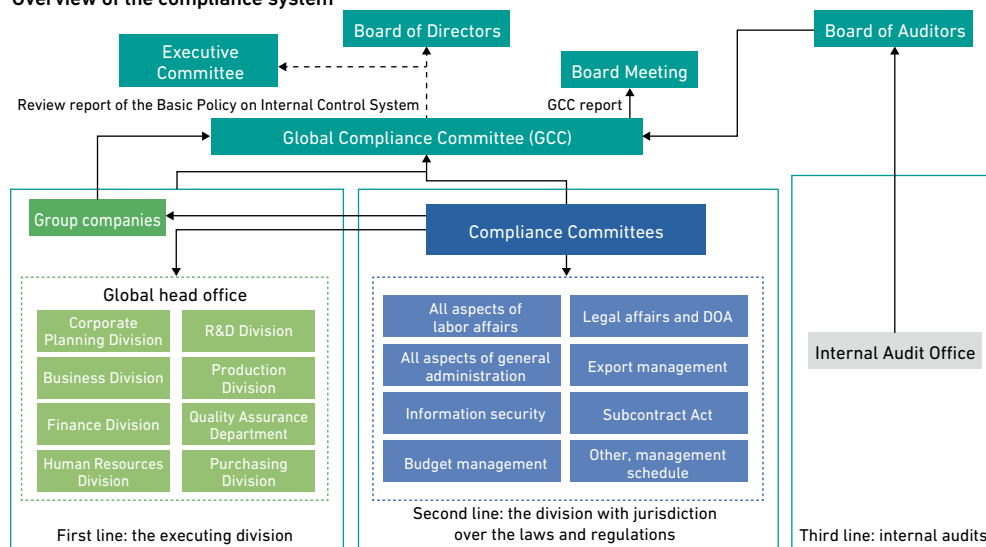
# Governance and Compliance

## Strengthening compliance

### Promotion system for compliance

The compliance activities of the JATCO Group are promoted through (i) formulation of the activities policy, (ii) monitoring of the status of the activities, (iii) internal reporting response, and (iv) compliance education and enlightenment, with the Compliance Secretariat organized by the Legal & Intellectual Property Department and the Human Resources Development & General Administration Department as the center. Furthermore, the Compliance Secretariat supports the promotion of each individual activity in collaboration with the compliance promoters appointed to the respective divisions and each subsidiary.

### Overview of the compliance system



### Governance

JATCO has organized a Global Compliance Committee (GCC) comprised of representative executives from each division and the presidents of Group Companies in Japan and overseas, and meetings of the GCC are held four times a year by the Compliance Secretariat. The GCC puts effort into ensuring the proper implementation of the PDCA cycle, such as by sharing common global matters related to compliance, sharing specific cases of incidents that have actually occurred, and checking the details of the compliance activities of each company.

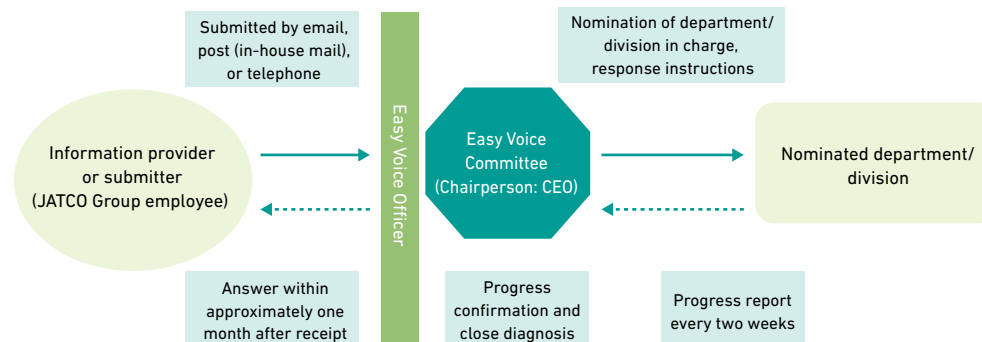
### Monitoring

Every year, as a part of a comprehensive compliance inspection, we implement confirmations, etc., with respect to the division with jurisdiction over the laws and regulations, which is the second line, regarding the process for responding when there is a violation of laws or regulations, and implement monitoring of the status of the activities.

### Internal reporting response

The JATCO Group has established the Easy Voice System for responding in-house, which is an internal reporting system that allows employees to report directly to the company on matters such as compliance violations, and SpeakUp, a window outside the company (Nissan Group), as part of our efforts to develop an environment where employees can take a proactive stance toward reporting violations.

### Overview of the Easy Voice System



### Compliance education and awareness-raising

Code of Conduct training is provided every year for all employees in the Group through the use of the e-Learning system.

The attendance rate at Code of Conduct training is reported in the Global Compliance Committee and follow-up is carried out until the implementation rate reaches 100% every year.

As compliance education other than the above, with regard to information security policies, harassment, export and import control, the Anti-Monopoly Act, prevention of the giving or acceptance of a bribe, trade secrets, DOA, the Subcontract Act, and company rules, etc., the division with jurisdiction over the laws and regulations, which is the second line, draws up and implements programs to educate employees.

# Governance and Compliance

## Risk management initiatives

### Promoting risk management

In order to respond to the diversifying risks accompanying the global expansion of our business, JATCO carries out a risk management audit as part of its internal control system. Specifically, we hold interviews with the relevant parties, including the officers, regarding the 12 items of product, production and marketing strategies, business continuity, the quality of products, services, information and management, ethics and wrongful acts, human resources, finance and market risks, adaptability to external environmental changes, and legal risks, identify risks each year, determine the items that should be tackled in the Executive Committee meetings, assign personnel to take charge of each item, and formulate and implement measures to mitigate the risks. The progress of initiatives for each item are reported at the Executive Committee meetings, and a control-level assessment for each item is conducted at the end of the fiscal year.

### Initiatives through the BCM\* Committee

There are scenarios that endanger business continuity, such as earthquakes, typhoons, or other natural disasters. JATCO predicts the various risks that may arise, and has established a BCM Committee to implement measures to eliminate risks before they develop and to mitigate risks when incidents do occur. If a situation arises that has continuous impact on production, the relevant parties are notified immediately, and the BCM Committee takes a central role in resolving the problem with the cooperation of the respective divisions across the company. BCM simulation training is carried out every year to help employees learn how to react to a large-scale earthquake, and how to appropriately respond in order to achieve quick recovery.

\* BCM: Business Continuity Management. This involves determining the countermeasures to take in situations where the company becomes unable to continue operations due to large-scale disasters, epidemics and the like and conducting the needed training and other activities to execute these countermeasures.

### Risk management system for JATCO Group companies

With regard to Group companies, including our overseas production bases, risk management is performed by implementing countermeasures for the expected risks to each company. The experience and know-how that JATCO has built up through its BCM activities are disseminated to the Group companies, and for risks that are common to all our facilities across the world, risk management is carried out in cooperation with other Group companies.

Annual Plan for Corporate Risk Management	
Risk identification through officer interviews, etc.	January to February
Evaluation through risk assessment and selection of issue candidates	February
CRM* issues definitions and determination of the issue owners (Executive Committee)	March to April
Interim report: agreement of the direction of measures	September to October
Final report: completion of execution of measures	March

\*CRM: Corporate Risk Management



# Stakeholder Engagement



## Dialogue with stakeholders

JATCO's corporate activities are founded upon the trust between the company and all of its various stakeholders. In order to align our corporate activities with the direction of social demands, we engage in business activities while considering the opinions of our stakeholders and the needs of society, and we consider it important to build our relationships based on trust. By understanding the opinions of our stakeholders and reflecting them in our business activities, we are able to combine the growth of our company with the development of a better society. JATCO has established opportunities to engage in dialogue with our stakeholders in order to understand and incorporate more of their opinions.

We pursue original value and true customer satisfaction by responding to the changing needs of customers and through products and services which give top priority to safety and peace of mind.

Through fair trade with our business partners based on mutual trust, we are working to achieve mutual growth.

We also aim to implement respect for diversity and human resources development and to create a motivated workplace where each and every employee can experience growth.

We will continue to contribute to local communities and engage in communication activities deeply rooted in local communities in order to be a good corporate citizen in all the regions in which JATCO conducts business.

Stakeholders	Opportunities for dialogue	Main themes	Main initiatives
Customers	Information provision through communication in daily business activities, policy briefings, the corporate website, social media, the mass media, etc., and the establishment of inquiry windows, etc.	<ul style="list-style-type: none"> <li>The quality of the products and services</li> <li>Support for customers</li> </ul>	<ul style="list-style-type: none"> <li>Policy briefings</li> <li>Technology briefings, test-ride events</li> <li>Responses to customer requirements</li> <li>Analysis and improvement of the evaluation of JATCO by customers</li> </ul>
Employees	The in-house reporting system, the intranet, labor-management councils, events for employees, interviews (evaluations, career development), a full range of surveys of employees, etc.	<ul style="list-style-type: none"> <li>The business performance and issues of our company</li> <li>In-house diversity</li> <li>Diverse work styles</li> <li>The workplace environment and occupational health and safety</li> <li>Careers, education</li> </ul>	<ul style="list-style-type: none"> <li>In-house reporting system (Easy Voice, SpeakUp)</li> <li>Sharing of management information with all of our employees by the officers (Global Employees Meeting)</li> <li>Meetings to exchange opinions with officers by business theme</li> <li>Business performance evaluation interviews</li> <li>Employee surveys</li> </ul>
Business partners	Communication in daily business activities, policy briefings, the websites of our business partners, a full range of guidelines, etc.	<ul style="list-style-type: none"> <li>Fair transactions</li> <li>Procurement policy</li> <li>Sustainability policy</li> <li>Medium-term management plan</li> </ul>	<ul style="list-style-type: none"> <li>Business partner policy briefings</li> <li>Business partner awards</li> </ul>
Local communities	Communication with local governments and regional organizations, social contribution activities by our employees, events involving local residents, etc.	<ul style="list-style-type: none"> <li>Contributions to local communities</li> <li>Working together with local governments and regional organizations for the solution of social issues</li> </ul>	<ul style="list-style-type: none"> <li>Volunteer activities by our employees</li> <li>Events at our locations involving local residents (JATCO Festa)</li> </ul>
Shareholders	General Meeting of Shareholders	<ul style="list-style-type: none"> <li>JATCO's business strategies, business performance, company value enhancement</li> </ul>	<ul style="list-style-type: none"> <li>General Meeting of Shareholders</li> </ul>

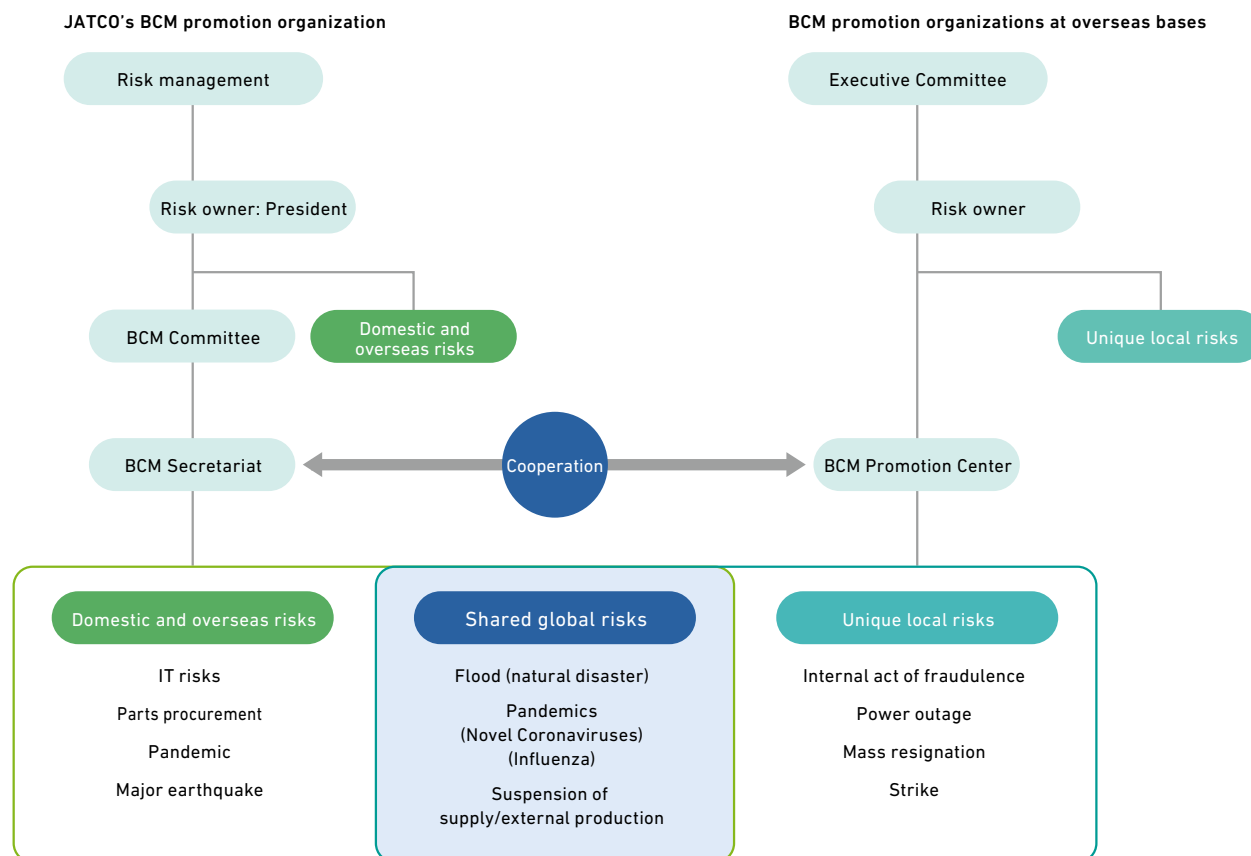
# Disaster Preparedness (Physical Hazards)



## Ensuring business continuity in the event of a large-scale earthquake

As part of JATCO's BCM initiatives, we organize disaster preparedness activities with regards to a large-scale earthquake (seismic intensity of 6 Upper or greater) that is feared to occur in the near future. These activities are aimed first towards saving lives, preventing secondary disasters, and a prompt and effective recovery to aid in the recovery of our business. Our BCM formulations are being reviewed and strengthened through our experience from such disasters as the Niigata Chuetsu-oki Earthquake in July 2007, the Great East Japan Earthquake in March 2011, and the earthquake in eastern Shizuoka Prefecture in March 2011, which resulted in significant damage to one of our plants. The disasters that we prepare for are not limited to just earthquakes. They cover a wide range that includes novel strains of coronavirus, IT failures, and supply chain stoppages. We also apply the experience that we have gained in developing BCM in Japan to the risks facing our overseas locations, including Mexico, China, and Thailand to extend our BCM practices globally across the entire JATCO Group. In order to promote activities focused on our supply chain in light of our experience during past disasters, we have made efforts to strengthen our overall supply chain by performing diagnoses of the BCM systems of each Group company. JATCO's highly effective BCM is driven by the repeated use of training. We have been conducting BCM simulation training every year since FY2008, through which we confirm our initial disaster response and recovery system for business continuity. This training is based on expected levels of damage and involves the relevant departments and company bases working together to solve problems related to business recovery. These problems include how to respond to automobile manufacturers, business partners, local communities, and the media. Through the repeated use of this training, we aim to provide a speedy response in the event of a disaster. This emphasis on simulation training with a focus on cooperation between bases has already yielded results at our Fujinomiya Plant, when during the earthquake in eastern Shizuoka Prefecture, the plant was able to easily receive assistance from our other bases and make a rapid recovery.

### BCM promotion organization

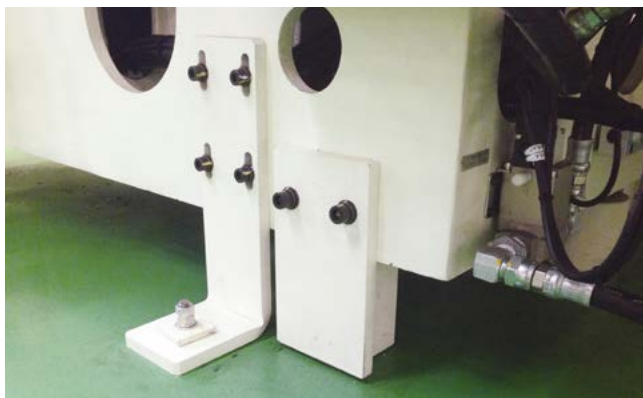


# Disaster Preparedness (Physical Hazards)

## Ensuring the safety of employees and the local community

### Earthquake measures for buildings and facilities in Japan

In order to prevent damage to buildings and facilities and harm to employees in the event of a large-scale earthquake, as well as to achieve early recovery of production plant functions, we have taken a wide range of earthquake countermeasures that include securing production equipment at and strengthening the earthquake resistance of our main production bases in Japan, and taking measures to prevent objects from falling from ceilings or cranes. As a member of the supply chain, we are constantly coming up with countermeasures to minimize our impact on the production activities of our customers.



Newly added support leg on equipment

### Earthquake countermeasures at overseas bases

JATCO operates globally and has implemented BCM activities at our overseas bases similar to those at our domestic bases to prepare them for earthquakes or other large-scale disasters. At JATCO (Thailand) Co., Ltd., which commenced operations in July 2013, we have drawn lessons from the major floods that occurred in 2011, and raised the foundation filling of the building by 50 cm compared to the initial plans, in preparation for tsunami and floods.

### Ensuring the safety of employees

In order to ensure the safety of employees in the event of a large-scale earthquake, JATCO has established detailed procedures with regard to evacuation actions and evacuation shelters. In order to ensure that employees have a good grasp of this information, regular drills are conducted based on a variety of day and night emergency situations that we expect could occur.



Building site where the filling was carried out

Given the possibility of having employees at each facility who are unable to return home during an emergency, we have prepared supplies such as water, food, helmets, blankets, sleeping bags, and portable toilets at each facility.

### Securing safety and peace of mind for local residents

JATCO is a company that stands together with local residents. Hence, we cooperate actively to secure safety and peace of mind for local residents. We are working to be included on municipal emergency shelter lists and to establish a system that allows us to provide company facilities as emergency shelters for local residents who have nowhere to evacuate to in the event of a large-scale disaster.



Designated by Fuji City as a designated emergency evacuation site and wide-area evacuation area

# Information Security



## Strengthening compliance

### Strengthening information security

JATCO has enacted an Information Security Policy and conducts itself appropriately with regards to information security.

The Information Security Policy comprehensively presents the basic policies of JATCO concerning information security, and has been established for the objective of maintaining the confidentiality, completeness, and availability of information, as follows:

- 1) Confidentiality: only people who have been given access permission can access the information
- 2) Completeness: maintaining the accuracy of the information and maintaining the accuracy and transparency of processing methods
- 3) Availability: ensuring that the users with permission can use the information when necessary

JATCO has established the Information Security Committee and has built a promotion system to ensure that information leakages, releases of erroneous information, and situations in which the information can no longer be used are not caused as a result of these features being damaged. Through the committee, we share problems common to and solutions applicable across the Group companies, and check on the implementation of these solutions in each Group company and division.

### Commitment to information management, and promotion of training activities and activities to raise awareness

In order for us to maintain growth, more robust information security will be required.

JATCO is putting effort into further strengthening our information infrastructure.

To prepare for cyber attacks, we are implementing various technical measures to prevent external attacks, while engaging in thorough information management to prevent information from leaking out in the event of a security breach.

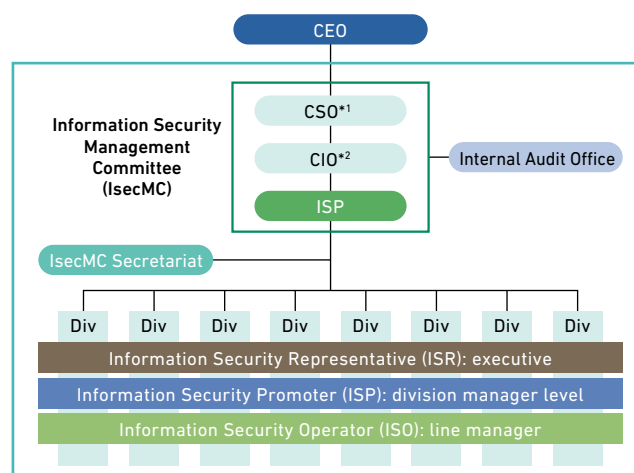
Information security is dependent on there being a proper awareness of information management by those who must handle the information—each and every one of our employees. Hence, we work to reduce the risk of information leakages with respect to new threats through a full range of training, and

continuously strive to raise awareness about information security management, including thorough management of information assets using information asset management ledgers, regular provision of information security education to all employees in the JATCO Group, etc.

### Information security activities in each division and Group company

In order to ensure the appropriate management of information security, it is vital to properly continue the PDCA cycle by having each division and Group company correctly grasp the current state of and risks pertaining to information security, then formulate and implement countermeasures, and review the results.

Details on the information security activities undertaken by each division and Group company and incident cases which have occurred are shared with the Information Security Committee, which meets three times a year. By encouraging the divisions and Group companies to incorporate each other's best practices, we are striving to further enhance information security across all the Group companies.



\*1 CSO: Chief Security Officer \*2 CIO: Chief Information Officer





## **Environmental Data for Each Production Base**

# Environmental Data for Each Production Base



## Fuji Area

[Including the Head Office]  
Site: 580,440 m<sup>2</sup>  
Buildings (Total): 389,403 m<sup>2</sup>



## Kambara Area

Site: 78,423 m<sup>2</sup>  
Buildings (Total): 58,033 m<sup>2</sup>



## Fujinomiya Area

Site: 67,698 m<sup>2</sup>  
Buildings (Total): 66,756 m<sup>2</sup>

### Air pollution

NOx: Nitrogen oxide, SOx: Sulfur oxide

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Compact boiler (22 units)	Dust and soot	g/Nm <sup>3</sup>	0.05	0.007	0.0006
	NOx	ppm	100	46	27
	SOx	Nm <sup>3</sup> /h	0.002	0	0
Metal-heating furnace (17 units)	Dust and soot	g/Nm <sup>3</sup>	0.05	0.016	0.007
	NOx	ppm	150	21	12
	SOx	Nm <sup>3</sup> /h	0.018	0	0
Steel-heating furnace (9 units)	Dust and soot	g/Nm <sup>3</sup>	0.05	0.003	0.0010
	NOx	ppm	150	7	3
	SOx	Nm <sup>3</sup> /h	0.026	0	0
Aluminum-melting furnace (9 units)	Dust and soot	g/Nm <sup>3</sup>	0.06	0.019	0.005
	NOx	ppm	150	43	9.81
	SOx	Nm <sup>3</sup> /h	0.019	0	0
	Dioxin	ng-TEQ/Nm <sup>3</sup>	5	0.52	0.12
Drying kiln (1 unit)	Dust and soot	g/Nm <sup>3</sup>	0.05	0.028	0.022
	NOx	ppm	56	24	22
	SOx	Nm <sup>3</sup> /h	0.0048	0	0
Drying combustion furnace (1 unit)	Dioxin	ng-TEQ/Nm <sup>3</sup>	5	0.0000063	0.00000063
	Dioxin	ng-TEQ/Nm <sup>3</sup>	5	0.0000044	0.00000044

### Water quality

Figures shown in brackets ( ) for the regulatory limit are daily averages

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	5.8 - 8.6	7.3	7.2
Biochemical oxygen demand (BOD)	mg/L	20 (15)	8	5.5
Chemical oxygen demand (COD)	mg/L	20 (15)	9.3	7.3
Suspended solids (SS)	mg/L	20 (10)	1	1
n-hexane extracts (mineral oils)	mg/L	4	0	0
Copper	mg/L	0.1	0	0
Zinc	mg/L	1.0	0.09	0.07
Coliform count	units/mL	3,000	6	6
Trichloroethylene	mg/L	0.3	0	0
Dichloromethane	mg/L	0.02	0	0
Boron	mg/L	10	0.1	0.1
Fluorine	mg/L	15	0	0
Ammoniacal nitrogen			1.7	1.4
Nitrate-nitrogen	mg/L	100	2.6	2.6
Nitrite-nitrogen			2.84	1.605

### Air pollution

NOx: Nitrogen oxide, SOx: Sulfur oxide

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Kerosene boiler (2 units)	Dust and soot	g/Nm <sup>3</sup>	0.1	0	0
	NOx	ppm	130	63	46
	SOx	Nm <sup>3</sup> /h	0.045	0	0

### Water quality

Figures shown in brackets ( ) for the regulatory limit are daily averages

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	5.8 - 8.6	7.5	7.4
Biochemical oxygen demand (BOD)	mg/L	20 (15)	2	1.5
Chemical oxygen demand (COD)	mg/L	25 (20)	2.9	2.45
Suspended solids (SS)	mg/L	40 (30)	1	1
n-hexane extracts (mineral oils)	mg/L	5	0	0
Coliform count	units/mL	1,000	12	8.0
Dichloromethane	mg/L	0.02	0	0
Boron	mg/L	10	0	0
Fluorine	mg/L	8	0	0
Ammoniacal nitrogen			0	0.0
Nitrate-nitrogen	mg/L	100	7.2	7.2
Nitrite-nitrogen			0.06	0.06

### Air pollution

NOx: Nitrogen oxide, SOx: Sulfur oxide

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Compact boiler (6 units)	Dust and soot	g/Nm <sup>3</sup>	0.05	0.007	0.001166667
	NOx	ppm	100	92	76
	SOx	Nm <sup>3</sup> /h	0.01	0	0
Metal-heating furnace (3 units)	Dust and soot	g/Nm <sup>3</sup>	0.05	0.016	0.00525
	NOx	ppm	150	72	33
	SOx	Nm <sup>3</sup> /h	0.01	0	0

### Water quality

Figures shown in brackets ( ) for the regulatory limit are daily averages

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	5.8 - 8.6	7.4	7.3
Biochemical oxygen demand (BOD)	mg/L	20 (15)	3	2.5
Chemical oxygen demand (COD)	mg/L	20 (15)	2.6	1.9
Suspended solids (SS)	mg/L	20 (15)	0	0
n-hexane extracts (mineral oils)	mg/L	5	0	0
Phenols	mg/L	5	0	0
Copper	mg/L	3	0	0
Zinc	mg/L	2	0.18	0.18
Soluble iron	mg/L	10	0	0
Soluble manganese	mg/L	10	0	0
Chromium	mg/L	2	0	0
Coliform count	units/mL	3,000	0	0.0
1, 1, 1-trichloroethane	mg/L	0.001	0.001	0
Boron	mg/L	10	0	0
Ammoniacal nitrogen			0.4	0.40
Nitrate-nitrogen	mg/L	100	0	0
Nitrite-nitrogen			0.02	0

## Environmental Data for Each Production Base

### Takegawa Area

Site: 95,522 m<sup>2</sup>  
Buildings (Total):  
14,954 m<sup>2</sup>



### Yagi Area

Site: 233,323 m<sup>2</sup>  
Buildings (Total):  
68,277 m<sup>2</sup>



### Air pollution

NOx: Nitrogen oxide, SOx: Sulfur oxide

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Compact boiler (2 units)	Dust and soot	g/Nm <sup>3</sup>	0.05	0	0.0000
	NOx	ppm	100	60	60
	SOx	Nm <sup>3</sup> /h	0.01	0	0

### Water quality

Figures shown in brackets ( ) for the regulatory limit are daily averages

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	5.8 - 8.6	7.4	7.2
Biochemical oxygen demand (BOD)	mg/L	20 (15)	10	4.9
Chemical oxygen demand (COD)	mg/L	80 (60)	14.2	9.9
Suspended solids (SS)	mg/L	20 (10)	4	1.3
n-hexane extracts (mineral oils)	mg/L	3	0	0
Phenols	mg/L	2.5	0	0
Copper	mg/L	0.5	0	0
Zinc	mg/L	2	0.17	0.17
Soluble iron	mg/L	5	0.76	0.45
Soluble manganese	mg/L	5	0	0
Chromium	mg/L	1	0	0
Coliform count	units/mL	3,000	125	25.5
Cadmium	mg/L	0.03	0	0
Cyanide	mg/L	0.5	0	0
Organic phosphorus	mg/L	1	0	0
Lead	mg/L	0.1	0	0
Hexavalent chromium	mg/L	0.25	0	0
Arsenic	mg/L	0.1	0	0
Total mercury	mg/L	0.0005	0	0
Alkyl mercury	mg/L	Undetected	Undetected	Undetected
PCB	mg/L	0.001	0	0
Trichloroethylene	mg/L	0.1	0	0
Tetrachloroethylene	mg/L	0.05	0	0
Carbon tetrachloride	mg/L	0.01	0	0
1, 1, 1-trichloroethane	mg/L	1	0	0
Boron	mg/L	10	0	0
Ammoniacal nitrogen				
Nitrate-nitrogen	mg/L	100	9.6	6.05
Nitrite-nitrogen				

### Air pollution

NOx: Nitrogen oxide, SOx: Sulfur oxide

Equipment	Item	Unit	Regulatory limit (including exceptions)	FY2021		FY2022	
				Measured values		Measured values	
				Maximum	Average	Maximum	Average
Compact boiler	Dust and soot	g/Nm <sup>3</sup>	0.1	ND	ND	ND	ND
	NOx	ppm	150	51	41	50	37
	SOx	Nm <sup>3</sup> /h	0.00	ND	ND	ND	ND
Continuous carburizing furnace	Dust and soot	g/Nm <sup>3</sup>	0.1	ND	ND	ND	ND
	NOx	ppm	150	63	43	66	67
	SOx	Nm <sup>3</sup> /h	5.00	ND	ND	ND	ND

### Water quality

Figures shown in brackets ( ) for the regulatory limit are daily averages

Item	Unit	Regulatory limit (including exceptions)	FY2021		FY2022	
			Measured values		Measured values	
			Maximum	Average	Maximum	Average
Hydrogen ion concentration (pH)	—	5.8 - 8.6	7.5	7.4	7.5	7.2
Biochemical oxygen demand (BOD)	mg/L	20 (10)	2	1.5	3	1.3
Chemical oxygen demand (COD)	mg/L	30 (20)	1.1	0.8	2.9	1.3
Suspended solids (SS)	mg/L	30 (20)	0.8	0.5	3.8	0.8
n-hexane extracts (mineral oils)	mg/L	2.5	Undetected	Undetected	Undetected	Undetected
Phenols	mg/L	0.5	Undetected	Undetected	Undetected	Undetected
Copper	mg/L	1.5	Undetected	Undetected	Undetected	Undetected
Zinc	mg/L	2.5	Undetected	Undetected	Undetected	Undetected
Soluble iron	mg/L	5	Undetected	Undetected	Undetected	Undetected
Soluble manganese	mg/L	5	Undetected	Undetected	Undetected	Undetected
Chromium	mg/L	1	Undetected	Undetected	Undetected	Undetected
Coliform count	units/mL	1,500	Undetected	Undetected	Undetected	Undetected
Nitrogen	mg/L	16 (12)	9.6	9.2	9.6	7.6
Nickel	mg/L	1	Undetected	Undetected	Undetected	Undetected
Phosphorus	mg/L	1 (0.5)	Undetected	Undetected	Undetected	Undetected
Boron	mg/L	10	0	0	0	0
Fluorine	mg/L	7.5	0	0	0	0



# Environmental Data for Each Production Base



## Air pollution

NOx: Nitrogen oxide

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Metal-heating furnace	Dust and soot	g/Nm <sup>3</sup>	1,022.5	0.31986	0.05308
	NOx	ppm	—	—	—
Aluminum-melting furnace	Dust and soot	g/Nm <sup>3</sup>	—	0.1	0.1
	NOx	ppm	375.0	72.6	40.9
Metal-heating furnace	Dust and soot	g/Nm <sup>3</sup>	1,113.8	0.97900	0.31006
	NOx	ppm	—	—	—

## Water quality

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	5–10	7.6	7.1
Biochemical oxygen demand (BOD)	mg/L	150	67.0	63.0
Chemical oxygen demand (COD)	mg/L	320	145.6	81.3
Suspended solids (SS)	mg/L	150	34.2	19.9
n-hexane extracts (mineral oils)	mg/L	15	7.0	5.5
Phenols	mg/L	n/a	0.0	0.0
Copper	mg/L	4	0.2	0.2
Zinc	mg/L	10	0.2	0.2



## Air pollution

TSP: Total suspended particulates

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Heat treatment line	TSP	mg/m <sup>3</sup>	120	2.9	1.4
	Nonmethane hydrocarbons	mg/m <sup>3</sup>	120	3.02	2.1
Machining line	TSP	mg/m <sup>3</sup>	120	1.6	1.4
	Nonmethane hydrocarbons	mg/m <sup>3</sup>	—	—	—

## Water quality

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	6.0–9.0	7.9	7.4
Biochemical oxygen demand (BOD)	mg/L	300	48	28
Chemical oxygen demand (COD)	mg/L	500	423	139.0
Suspended solids (SS)	mg/L	400	136	95
n-hexane extracts (mineral oils)	mg/L	20	0.33	0.18



## Air pollution

TSP: Total suspended particulates

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Vacuum carburizing furnace VF No. 1	TSP	mg/m <sup>3</sup>	400	1.42	—
Vacuum carburizing furnace VF No. 2	TSP	mg/m <sup>3</sup>	400	0.61	—

## Water quality

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	5.5–9.0	7.80	7.57
Biochemical oxygen demand (BOD)	mg/L	500	38	26.80
Chemical oxygen demand (COD)	mg/L	750	159	95.5
Suspended solids (SS)	mg/L	200	51	19.44
n-hexane extracts (mineral oils)	mg/L	10	5.53	3.20

## Air pollution

TSP: Total suspended particulates

Equipment	Item	Unit	Regulatory limit (including exceptions)	Measured values	
				Maximum	Average
Heat treatment line	TSP	mg/m <sup>3</sup>	120	1.9	1.8
	Nonmethane hydrocarbons	mg/m <sup>3</sup>	60	2.3	1.1
Machining line	TSP	mg/m <sup>3</sup>	120	19.6	13.4
	Nonmethane hydrocarbons	mg/m <sup>3</sup>	60	8.9	7.1

## Water quality

Item	Unit	Regulatory limit (including exceptions)	Measured values	
			Maximum	Average
Hydrogen ion concentration (pH)	—	6.0–9.0	7.9	7.3
Biochemical oxygen demand (BOD)	mg/L	300	—	—
Chemical oxygen demand (COD)	mg/L	500	492	250.0
Suspended solids (SS)	mg/L	400	365	76.5
n-hexane extracts (mineral oils)	mg/L	100	54	16





## **GRI Standards Reference Table**

# GRI Standards Reference Table

## GRI 1: Foundation

Statement of use	JATCO uses the GRI Sustainability Reporting Standards as a reference when reporting on sustainability. The following table presents our activities related to the disclosure requirements of these guidelines (as of December 2023).
GRI used	GRI 1: Foundation 2021

## GRI 2: General Disclosures 2021

Disclosure		Location	Pages
<b>1.The organization and its reporting practices</b>			
2-1	Organizational details	Corporate Information	6
2-2	Entities included in the organization's sustainability reporting	Editorial Policy	2
2-3	Reporting period, frequency and contact point	Editorial Policy	2
2-4	Restatements of information	—	
2-5	External assurance	—	
<b>2.Activities and workers</b>			
2-6	Activities, value chain and other business relationships	—	
2-7	Employees	Social data	64
2-8	Workers who are not employees	—	
<b>3.Governance</b>			
2-9	Governance structure and composition	Commitment to corporate governance and compliance with laws and regulations	67
2-10	Nomination and selection of the highest governance body	Commitment to corporate governance and compliance with laws and regulations	67
2-11	Chair of the highest governance body	Commitment to corporate governance and compliance with laws and regulations	67
2-12	Role of the highest governance body in overseeing the management of impacts	Commitment to corporate governance and compliance with laws and regulations	67
2-13	Delegation of responsibility for managing impacts	Commitment to corporate governance and compliance with laws and regulations	67
2-14	Role of the highest governance body in sustainability reporting	JATCO's Sustainability	12
2-15	Conflicts of interest	Strengthening compliance	68
2-16	Communication of critical concerns	Risk management initiatives	70
2-17	Collective knowledge of the highest governance body	—	
2-18	Evaluation of the performance of the highest governance body	Commitment to corporate governance and compliance with laws and regulations	67

Disclosure			Location	Pages
	2-19	Remuneration policies	—	
	2-20	Process to determine remuneration	—	
	2-21	Annual total compensation ratio	—	
<b>4. Strategy, policies and practices</b>				
	2-22	Statement on sustainable development strategy	Message from the CEO	3-4
	2-23	Policy commitments	Corporate Philosophy	7
			Basic Sustainability Policy	12
			Environmental Management	15
			Policy and approach for product safety and quality	60
	2-24	Embedding policy commitments	Basic Sustainability Policy	12
			Environmental Management	15
			Policy and approach for product safety and quality	60
	2-25	Processes to remediate negative impacts	Initiatives for human rights	64
			Strengthening compliance	68
	2-26	Mechanisms for seeking advice and raising concerns	Strengthening compliance	68
	2-27	Compliance with laws and regulations	Strengthening compliance	68
	2-28	Membership associations	—	
<b>5. Stakeholder engagement</b>				
	2-29	Approach to stakeholder engagement	Stakeholder Engagement	71
	2-30	Collective bargaining agreements	Social data	64

### GRI 3: Material Topics 2021

Disclosure			Location	Pages
<b>1. Guidance to determine material topics</b>				
	3-1	Process to determine material topics	Issue Identification Process	13
	3-2	List of material topics	Materialities (key issues)	13
	3-3	Management of material topics	JATCO's Sustainability	12
			Materialities (key issues)	13
			Contributing to a Sustainable Global Environment	14-39
			Promoting Diversity and Enhancing Employee Well-being	51-58
			Integrity and Robust Business Infrastructure	59-74

## GRI Topic Standards

		Disclosure	Location	Pages
201	Economic Performance 2016	201-1	Direct economic value generated and distributed	History of Value Creation Remanufacturing system
				8 34
		201-2	Financial implications and other risks and opportunities due to climate change	—
		201-3	Defined benefit plan obligations and other retirement plans	—
		201-4	Financial assistance received from government	—
202	Market Presence 2016	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	—
		202-2	Proportion of senior management hired from the local community	—
203	Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	Foster biodiversity Social Contribution Activities
				39 49
		203-2	Significant indirect economic impacts	—
204	Procurement Practices 2016	204-1	Proportion of spending on local suppliers	—
205	Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	Strengthening compliance
				68-69
		205-2	Communication and training about anti-corruption policies and procedures	Strengthening compliance
				68-69
		205-3	Confirmed incidents of corruption and actions taken	—
206	Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	—
207	Tax 2019	207-1	Approach to tax	—
		207-2	Tax governance, control, and risk management	—
		207-3	Stakeholder engagement and management of concerns related to tax	—
		207-4	Country-by-country reporting	—
301	Materials 2016	301-1	Materials used by weight or volume	Material Balance
				19
		301-2	Recycled input materials used	Building a Recycling-Oriented Society
				30-34
		301-3	Reclaimed products and their packaging materials	Building a Recycling-Oriented Society
				30-34
302	Energy 2016	302-1	Energy consumption within the organization	Material Balance
				19
			Continuous efforts to reduce environmental impact, based on the PDCA (Plan-Do-Check-Act) cycle	21
		302-2	Energy consumption outside of the organization	Promoting Decarbonization
				22
			Logistics Efforts	25



	Disclosure	Location	Pages
	302-3 Energy intensity	Continuous efforts to reduce environmental impact, based on the PDCA (Plan-Do-Check-Act) cycle	21
	302-4 Reduction of energy consumption	Material Balance	19
	302-5 Reductions in energy requirements of products and services	Continuous efforts to reduce environmental impact, based on the PDCA (Plan-Do-Check-Act) cycle	21
		Carbon Neutrality Initiatives	22
		Pursuing Energy Efficiency	43
<b>303 Water and Effluents 2018</b>	303-1 Interactions with water as a shared resource	Building a Recycling-Oriented Society	30-34
	303-2 Management of water discharge-related impacts	Protecting Air, Water, and Soil	35-37
	303-3 Water withdrawal	Material Balance	19
	303-4 Water discharge	Material Balance	19
	303-5 Water consumption	Material Balance	19
		Continuous efforts to reduce environmental impact, based on the PDCA (Plan-Do-Check-Act) cycle	21
		Protecting Air, Water, and Soil	35
<b>304 Biodiversity 2016</b>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Foster biodiversity	39
	304-2 Significant impacts of activities, products and services on biodiversity	—	—
	304-3 Habitats protected or restored	Foster biodiversity	39
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	—	—
<b>305 Emissions 2016</b>	305-1 Direct (Scope 1) GHG emissions	Carbon Neutrality Initiatives	22
	305-2 Energy indirect (Scope 2) GHG emissions	Carbon Neutrality Initiatives	22
	305-3 Other indirect (Scope 3) GHG emissions	—	—
	305-4 GHG emissions intensity	Continuous efforts to reduce environmental impact, based on the PDCA (Plan-Do-Check-Act) cycle	21
	305-5 Reduction of GHG emissions	FY2022 Environmental Results	18
		Carbon Neutrality Initiatives	22
	305-6 Emissions of ozone-depleting substances (ODS)	—	—
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Management of chemical substances	37
		Environmental Data for Each Production Base	76-78

		Disclosure	Location	Pages	
306	Waste 2020	306-1	Waste generation and significant waste-related impacts	Waste reduction activities	33
		306-2	Management of significant waste-related impacts	Management of chemical substances	37
		306-3	Waste generated	Waste reduction activities	33
				Management of chemical substances	37
		306-4	Waste diverted from disposal	Waste reduction activities	33
		306-5	Waste directed to disposal	Waste reduction activities	33
307	Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	Continuous efforts to reduce environmental impact, based on the PDCA (Plan-Do-Check-Act) cycle	21
308	Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	Sustainable and Responsible Procurement	65-66
		308-2	Negative environmental impacts in the supply chain and actions taken	Logistics Efforts	25
	Guidelines in the supply chain			66	
401	Employment 2016	401-1	New employee hires and employee turnover	Social data	64
		401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	—	
		401-3	Parental leave	Social data	64
402	Labor/Management Relations 2016	402-1	Minimum notice periods regarding operational changes	—	
403	Occupational Health and Safety 2018	403-1	Occupational health and safety management system	Occupational Health and Safety	56-58
		403-2	Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety	56-58
		403-3	Occupational health services	Occupational Health and Safety	56-58
		403-4	Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety	56-58
		403-5	Worker training on occupational health and safety	Occupational Health and Safety	56-58
		403-6	Promotion of worker health	Occupational Health and Safety	56-58
		403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Occupational Health and Safety	56-58
		403-8	Workers covered by an occupational health and safety management system	Occupational Health and Safety	58
		403-9	Work-related injuries	—	
		403-10	Work-related ill health	—	
404	Training and Education 2016	404-1	Average hours of training per year per employee	—	
		404-2	Programs for upgrading employee skills and transition assistance programs	Human Resource Development	53-55
		404-3	Percentage of employees receiving regular performance and career development reviews	Human Resource Development	53-55

		Disclosure	Location	Pages
405	Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	52
			Commitment to corporate governance and compliance with laws and regulations	67
		405-2	Ratio of basic salary and remuneration of women to men	—
406	Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	—
407	Freedom of Association and Collective Bargaining 2016	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	—
408	Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	—
409	Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	—
410	Security Practices 2016	410-1	Security personnel trained in human rights policies or procedures	—
411	Rights of Indigenous Peoples 2016	411-1	Incidents of violations involving rights of indigenous peoples	—
412	Human Rights Assessment 2016	412-1	Operations that have been subject to human rights reviews or impact assessments	—
		412-2	Employee training on human rights policies or procedures	Human Rights 64
		412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—
413	Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	Community Development 48 Social Contribution Activities 49-50
		413-2	Operations with significant actual and potential negative impacts on local communities	—
414	Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	Sustainable and Responsible Procurement 65-66
		414-2	Negative social impacts in the supply chain and actions taken	Trusted Quality 60-63 Sustainable and Responsible Procurement 65-66
415	Public Policy 2016	415-1	Political contributions	—
416	Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	Trusted Quality 60-63
		416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	—
417	Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	Trusted Quality 60-63
		417-2	Incidents of non-compliance concerning product and service information and labeling	—
		417-3	Incidents of non-compliance concerning marketing communications	—
418	Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Information Security 74
419	Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	Strengthening compliance 68-69

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