

NGK SPARK PLUG CO., LTD.

# Sustainability Data Book 2022

# CONTENTS

<b>Management Message about Sustainability</b> .....	2
<b>CSR and Sustainability Charter</b> .....	2
<b>Priority Issues (Materiality)</b> .....	5

## Environment

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Eco Vision .....	7
Environmental Management .....	9
Environmental Burdens from Business Activities .....	11
Response to Climate Change .....	12
Information Disclosure Based on TCFD Recommendations .....	15
Management of Waste .....	19
Conservation of Water Resources .....	19
Environmentally-friendly Products .....	20
Management of Chemical Substances .....	22
Conservation of Biodiversity .....	24

## Society

---

Development of Technologies, Products, and Businesses for Contributing to the Resolution of Social Issues .....	25
Respect for Human Rights .....	27
Global Human Resource Management .....	29
Occupational Health and Safety .....	37
Quality .....	42
Proper Procurement .....	44
Social Contribution .....	46
Communication to Stakeholders .....	49

## Governance

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Corporate Governance .....	51
Risk Management .....	56
Information Security .....	58
Compliance .....	60
Appropriate Tax Payment .....	61

<b>Sustainability Data (Non-Financial Information)</b> ...	62
<b>Initiatives</b> .....	70
<b>External Evaluation of Our ESG Initiatives</b> .....	71
<b>GRI Content Index</b> .....	75
<b>SASB Content Index</b> .....	80

### Editorial policy

The Sustainability Data Book is a summary of the Sustainability pages of our website, published in PDF format for even easier reading and searching.

### Period Covered

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Fiscal 2021 (April 1, 2021 to March 31, 2022)

\*The report also includes information pertaining to other fiscal years.

### Recording Date

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As of February 28, 2023

### Scope of Report

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Niterra Group companies

\*The report also includes a non-consolidated information of Niterra Co., Ltd.



# Management Message about Sustainability

Our corporate philosophy, and the CSR and Sustainability Charter includes terms such as "offering new value" and "contributing" to the people over the world, expressing our desire to contribute to solving social issues through our businesses, which leads to sustainability. With this in mind, we recognize that our mission and raison d'être is to create products and services that contribute to finding solutions to various social issues.

To realize a sustainable society, we will build a promotion system based on our contribution to solving social issues through our businesses and express our endorsement on the international regulations, purposes, and guidelines such as the United Nations Global Compact, ISO26000, SDGs, TCFD. We will also proceed with the initiatives to identify Priority Issues (Materiality) regarding ESG (Environmental, Social, and Governance) to disseminate the information for our stakeholders in an easy-to-understand way.

In these times of great change and uncertainty, the NGK SPARK PLUG GROUP aims to increase our corporate value by contributing to the realization of a sustainable society while gaining the trust of all stakeholders by enhancing the transparency of management. We thank you in advance for your continued patronage and support for the NGK SPARK PLUG Group.

Shinichi Odo  
Representative Director Chairman of the Board

Takeshi Kawai  
President & Chief Operating Officer

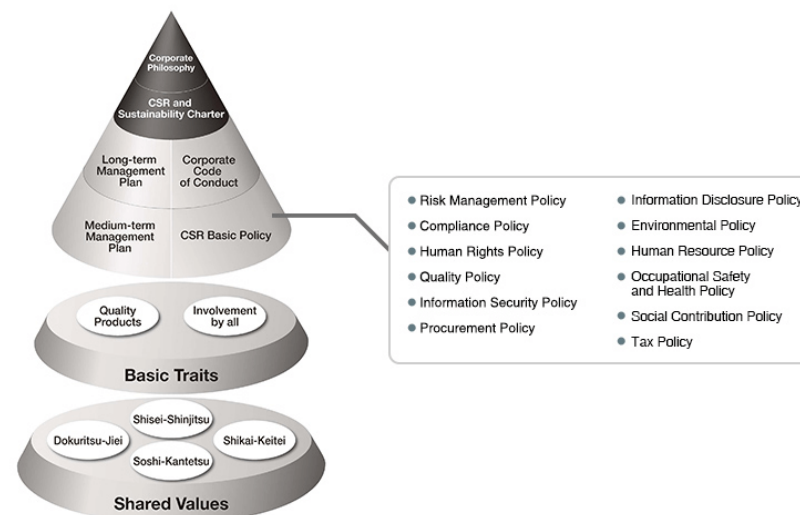
# CSR and Sustainability Charter

## CSR and Sustainability Charter

We contribute to develop a sustainable society, thereby improving our corporate value.

- We build relations of trust with our stakeholders while making highly transparent decisions and actions.
- We cocreate and provide new value to solving social issues.

Our corporate philosophy includes slogans like "proposing new value" and "contributing" to people around the world and shows our desire to contribute to society. This leads to sustainability, through our contributions to solving social issues through our business. In April 2020, we established the CSR and Sustainability Charter in order to present this idea in a ready-to-understand manner and for broad communication both internally and externally. At the same time, we changed the name of the CSR Policy to the CSR Basic Policy, which sets forth the Group's action guidelines for CSR.



[Corporate Philosophy >](#)

[Corporate Code of Conduct >](#)

[CSR Basic Policy 361KB](#)

[Long-Term Management Plan >](#)

[The Nittoku Way >](#)



## CSR and Sustainability Promotion System

To ensure sustainable growth for our group and society, we have established the CSR and Sustainability Committee to identify priority issues in each ESG (Environment, Society, and Governance) area and promote actions to resolve these issues.

The CSR and Sustainability Committee is positioned as an advisory committee to the Board of Directors and has two functions: to report and make recommendations in response to the Board of Directors' advising, and to supervise each special committee. In reports and recommendations, external experts will be invited as guest committee members to enhance the knowledge and perspective, and discussions will be held to promote sustainability management with a long-term perspective. For each special committee, whether or not each special committee, which is positioned on the business execution side, is functioning effectively will be closely watched and supervised as needed.

The important information from each special committee about the progress of reduction of CO<sub>2</sub> emissions and risk assessments is also shared with the CSR and Sustainability Committee. Important decisions made by special committees are reported to the board of directors through the Management Meeting which deliberates, decides, and supervises important matters in business execution.

### Corporate Governance System >



CSR and Sustainability Committee



Lecture by a guest committee member

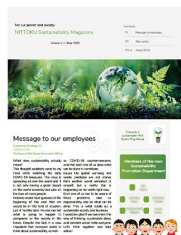
## CSR and Sustainability Awareness-raising Activities

We distribute SDGs badges to our executives to show our commitment towards the realization of a sustainable society, and we work to raise awareness of SDGs among our employees and the public.

Additionally, we conduct training by job classification, to ensure that each employee is aware of the connection between their work and society daily so that they are able to take actions that contribute to solving social issues through their work. We also continue to send out information through e-mail newsletters and other means.



CSR Training



A Sample of E-mail Magazine

## United Nations Global Compact Participation

NGK SPARK PLUG CO., LTD. Participated in United Nations Global Compact in November 2016.

"United Nations global compact" is a voluntary corporate citizenship in order to address various problems such as global warming, environmental problems, gap-widening society that are progressing on a global scale. They are also initiatives that were proposed by Kofi Annan, the Secretary-General of the United Nations in 1999, and established formally by the U.N. in July 2000.

NGK SPARK PLUG CO., LTD. will uphold ten principles consisted of four issues such as "Human rights, Labour, Environment, Anti-corruption" being advocated by the U.N. global compact as good members of society, and will make every effort to promote activities in order to contribute to building a sustainable society.

**WE SUPPORT**



### The Ten Principles of the UN Global Compact

#### 【Human Rights】

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.
- Principle 2: make sure that they are not complicit in human rights abuses.

#### 【Labour】

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
- Principle 4: the elimination of all forms of forced and compulsory labour.
- Principle 5: the effective abolition of child labour.
- Principle 6: the elimination of discrimination in respect of employment and occupation.

#### 【Environment】

- Principle 7: Businesses should support a precautionary approach to environmental challenges.
- Principle 8: undertake initiatives to promote greater environmental responsibility.
- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

#### 【Anti-Corruption】

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.



## Our Commitments to SDGs

As a signatory to the United Nations Global Compact, we are committed to doing what we can to contribute towards the achievement of the SDGs (Sustainable Development Goals), the goals set by the United Nations.

\*What are SDGs?

SDGs consist of the 17 goals and 169 targets that were adopted at the UN Summit in 2015 which aim to solve worldwide problems such as poverty, inequality, and climate change by 2030—pledging that “No one will be left behind.”



## CSR and Sustainability Progress

Nov. 1996 Adopted "Corporate Philosophy"

Feb. 1998 Adopted "Corporate Code of Conduct"

Oct. 2010 Established CSR Committee

Apr. 2011 Adopted "CSR Policy"

May. 2013 Published "CSR Procurement Guidelines"

Nov. 2016 Participated in "United Nations global compact"

Aug. 2017 Published "Integrated Report"

Jul. 2019 Published "Sustainability Data Book"

Apr. 2020 Adopted "CSR and Sustainability Charter"





# Priority Issues (Materiality)

## Basic Philosophy

We improve corporate value through contributions working towards the realization of a sustainable society.

To achieve this, after accurately grasping social issues, we believe it is important to define priority issues (materiality) in each area of ESG (Environmental, Social, and Governance), and set medium- to long-term goals to work towards them.

## The Process of Defining Priority Issues

STEP  
1

### Identify issues

We identify requests (issues) from society with reference to the United Nations Global Compact, SDGs, ISO 26000, GRI standards, ESG surveys, guidelines of industry organizations, and benchmarks of other companies.

STEP  
2

### Analyze and prioritize the issues

By evaluating the importance to stakeholders based on the international guidelines and ESG research in STEP 1 and the importance to the company based on past initiatives and future management plans, we create an analysis map draft.

STEP  
3











### Identify priority issues

With the approvals of the CSR and Sustainability Committee which includes outside directors, priority issues are identified.














## Priority Issues

We have identified eight priority issues. The CSR and Sustainability Committee confirms the progress and promotes initiatives.

	Item	Contribution to SDGs	Major Initiatives	Goals and Outputs (FY2029)	Progress in FY2021
Environment	Responding to Climate Change	  	Reduction of CO <sub>2</sub> emissions	CO <sub>2</sub> Emissions: 30% Reduction [compared to that of 2018]	8.87% reduction (265,100 tons)
	Providing Environmentally Friendly Products	  	Dissemination and expansion of environmentally friendly products	Sales ratio of precious metal plugs: not less than 50%  Sales ratio of wide range oxygen sensor: not less than 50%	40%  37%
Society	Development of Technology, Products, and Businesses for Contributing to the Resolution of Social Issues	   	Development of fuel cells	CO <sub>2</sub> dissemination of high-efficiency distributed power supplies with a view to use free hydrogen	Established a production system for full-scale mass production of SOFC cell stacks
			Development of applications for lead-free piezoelectric materials	Alternative promotion from lead piezoelectric materials	Continued to introduce and propose lead-free piezoelectric materials
			Development of sensing IoT business	Improve business efficiency through automation, optimization, and generalization	Set up a showroom for the water quality control system for land-based shrimp farming, and continued to introduce and propose it.
			Carbon Neutrality as a service	Establish and introduction of synthetic fuel (methane) production system	Completed the feasibility verifications of CO <sub>2</sub> recovery and hydrogen production technology



	Item	Contribution to SDGs	Major Initiatives	Goals and Outputs (FY2029)	Progress in FY2021
	Global Human Resource Management	  	Promotion of employment of women, foreign nationals, and career recruits	Ratio of women, foreign nationals, and career recruits in managerial positions: 25%	17.0%
			Examination of a New Personnel System	Improved results of employee satisfaction surveys	Satisfaction: 46.6% (response rate: 87.6%)
Governance	Corporate Governance	 	Increasing the ratio of female and foreign nationals to directors	Ratio of female directors and foreign nationals: not less than 30%	45% (5 out of 11) *As of June 24, 2022
			Increasing the ratio of external directors	Ratio of external directors: not less than 1/3	64% (7 out of 11) *As of June 24, 2022
	Risk Management	 	Management of serious incidents signs and prevention of their occurrence	Establishment of risk management system that contributes to management decision-making	Updated the risk map at the Risk Management Committee
	Compliance		Survey of employees' awareness and continuous education	Implementation of compliance questionnaires and disclosure of results	Conducted compliance questionnaire (targetting approximately 8,800 people, response rate was 83%)
	Information Security	  	Maintaining and strengthening incident response organizations and building preventive systems	Establishment of information security management system	Obtained TISAX certification for group companies in the United States and China (In Japan, the head office, and affiliated plants and group companies have already acquired certification in fiscal 2020.)



# Eco Vision

## Environmental Policy

As a globally developing core manufacturing corporation, we aim to promote environmental conservation activities linked with corporate management maintaining a good balance with corporate growth, based on the participation of all of our employees, in order to contribute to the construction of a sustainable society.

### Action guidelines

- Through all of our business activities, we make particular efforts to reduce CO<sub>2</sub> emissions toward the realization of a decarbonized society, conserve water resources, manage waste, and develop, offer and expand environmentally friendly products.
- We strive to conserve the ecosystem through the control of chemical substances that place a burden on the environment.
- We strive to raise environmental awareness among our employees to ensure that they all positively participate in activities.
- We observe the laws, ordinances and agreements concerning environmental conservation.
- We aim to substantiate information disclosure to stakeholders and communication activities, and also conduct activities for coexistence with the regional community.
- In order to achieve these targets, we will strive to make ongoing improvements to our environmental management system.





## Eco Vision 2030

Global environmental conservation is fundamental to a sustainable society, and is a key business challenge to be addressed head-on for all stakeholders.

On the premise of aiming for carbon neutrality in 2050, we have established "Eco Vision 2030," which shows the vision (or goal) of what we want to be by 2030 and the vision of what we will pursue until 2040.

For Eco Vision 2030, the impacts that our businesses and products would have on society and our company were analyzed, and 13 issues that would have a large impact were selected. Among them, the four issues that were considered to have a greater impact - "Responding to Climate Change", "Expanding Environmentally Friendly Products", "Conserving Water Resources", and "Waste Management" -were positioned as the four important issues, and numerical goals were set for them. Through the practice of Eco Vision 2030, our group will work together to contribute to the realization of global carbon neutrality and zero emissions.








## 4 important issues








Eco Vision 2030 issues	The milestone to be achieved in 2030	Our vision for 2040	Explanation
Responding to Climate Change 	CO <sub>2</sub> emissions 30% reduction compared to fiscal 2018.	Implementing activities toward realization of a decarbonized society. ※Achieving carbon neutrality by 2050	<ul style="list-style-type: none"> <li>• Reducing CO<sub>2</sub> emissions to mitigate climate change is a key global issue. Many countries and companies around the globe are seeking to build carbon-neutral societies and are committed to reduce CO<sub>2</sub> emissions throughout the supply chain.</li> <li>• Reducing CO<sub>2</sub> emissions is a critical issue for our group as a manufacturing company, and it is our responsibility to accomplish the goal.</li> <li>• Setting forth the CO<sub>2</sub> emissions reduction targets by 2030 toward the goal of attaining carbon neutrality by 2050, we will first work on Scopes 1 and 2, which we can directly control. We set targets to be consistent with the objective of "holding the temperature increase to well below 2°C above pre-industrial levels" in the Paris Agreement. We will make company-wide efforts to take proactive actions looking ahead to achieving carbon neutrality by 2050. The CO<sub>2</sub> Management Committee led by the Executive Officer, which people involved from all businesses join, will manage the progress. Also, we will promote reduction in Scope 3, including the supply chain.</li> </ul>
Expanding Environmentally Friendly Products 	Expand Nittoku Green Products	All products contribute to the improvement of the global environment and contribute to making sustainable society come true	<ul style="list-style-type: none"> <li>• Interest in a sustainable society is growing worldwide. Our group is responsible for contributing ourselves to making sustainable society come true through our business and products.</li> <li>• In approaching environmental issues, it is very important to be aware of the environmental impacts of the entire product life cycle, from raw material extraction to final disposal where the products complete their missions.</li> <li>• In fiscal 2021, our group established a certification system for environmentally friendly products to assess the environmental impact in the supply chain, including in-house production processes. We annually announce the products that satisfy the certification standards as Nittoku Green Products. Through these activities, we accelerate the creation of products that contribute to solve the environmental issues.</li> </ul>
Conserving Water Resources 	Water consumption intensity: Keep below FY2018 level	Implementing sustainable business operations in response to global water risks	<ul style="list-style-type: none"> <li>• Our Group has manufacturing bases around the world, and the water demand has been increasing in each base. Global water demand trends are an important environmental issue that should be monitored closely.</li> <li>• Water resources are unevenly distributed in the world, and some of the Group's manufacturing bases may face the drought risk in the future due to ongoing climate change. Therefore, we periodically conduct water risk assessments, to determine the current status and estimate the amount of resources required. In addition, our group is committed to protecting the environment into the future by promoting the efficient use of water as it is the essential resource.</li> </ul>
Waste Management 	Achieve over 95% effective utilization rate  Reduce at least 1% of waste intensity compared to FY2018  Promote 3R (reduce, reuse, recycle) activities	Contribute to a global recycle-oriented society by promoting zero emission	<ul style="list-style-type: none"> <li>• Our group uses a variety of raw materials, including ceramics and rare metals. Effective use of resources (reduce waste, reuse and recycle resources) is essential to protect the global environment.</li> <li>• It is important to reduce the amount of resources input by improving the manufacturing process, and to reduce the landfill of wastes by promoting recycling, for stable resource management into the future.</li> <li>• At all sites, we will keep promoting group-wide 3R activities for further enhancing effective use of resources and reduction of wastes.</li> </ul>





## Other issues

Eco Vision 2030 issues	The milestone to be achieved in 2030	Our vision for 2040	Explanation
<p>&lt;Enhancement of EMS&gt; Integration with Management</p> 	<p>Address global environmental issues as a business strategy</p> <p>Executive management takes responsibility for promoting Eco Vision 2030 and achieving environmental KPIs.</p>	<p>Continued efforts to address global environmental issues as a business strategy</p>	<ul style="list-style-type: none"> <li>Protecting the global environment is the basis for maintaining a sustainable society. Environmental issues are both management risks and business opportunities for us, and it is important to integrate environmental activities with management as a business strategy.</li> <li>We have established the Eco Vision 2030, which is aligned with our Long-term Management Plan, to address environmental issues as part of our business strategy. We also enhance management's engagement in EMSs by introducing incentives for executives based on achievement of CO2 reduction targets. All executives and employees work together to promote the "Eco Vision 2030" activities.</li> </ul>
<p>&lt;Enhancement of EMS&gt; Globalization of EMS</p> 	<p>Enhance systems for overseas affiliates to share environmental information and monitor and supervise their activities.</p>	<p>The entire group is able to share environmental information, and a monitoring and supervision system has been established for all Group companies.</p>	<ul style="list-style-type: none"> <li>Our Group has been expanding our business globally and has had more influence on society than ever. Therefore, our responsibilities as expected by society is also increasing. Stakeholders expect us to address ESG issues on a global basis.</li> <li>Eco Vision 2030 is an ambitious initiative that cannot be achieved without efforts of all our employees. The goals in Eco Vision 2030 are not quite easy to achieve. But we are confident of the achievement with all the efforts concentrated of each employee on our worldwide common EMS.</li> </ul>
<p>&lt;Enhancement of EMS&gt; Analysis of Climate-Related Risks and Opportunities</p>  	<p>Analyze climate change risks and opportunities and incorporate them into our business strategies.</p>	<p>Sustainable business growth by analyzing the impact of climate change on our business and incorporate them into our business strategies.</p>	<ul style="list-style-type: none"> <li>For sustainable business expansion in a carbon-neutral society, it is essential to analyze the impact of climate change on our business, determine our responses, and incorporate them into our business strategies.</li> <li>We have endorsed the TCFD's recommendations, and disclose the climate-related risks and opportunities and their impacts in accordance with the framework.</li> </ul>
<p>&lt;Enhancement of EMS&gt; Through environmental compliance (Compliance with environmental laws and eradication of environmental accidents)</p> 	<p>Achieve zero violations of environmental laws and regulations and zero environmental accidents.</p>	<p>We have become a socially trusted company by continuing to achieve zero violations of environmental laws and regulations and zero environmental accidents.</p>	<ul style="list-style-type: none"> <li>Ensuring thorough environmental compliance is a prerequisite for business continuity, it would not only prevent environmental accidents and maintain a safe and secure work environment, but also ensure the trust of stakeholders, including local residents and society.</li> <li>We have established internal regulations based on the Environmental Management System (ISO 14001) and are working on continuous improvement via the PDCA cycle. We carry out our business while ensuring that all employees understand and follow environmental laws and regulations.</li> </ul>
<p>&lt;Enhancement of EMS&gt; Greater Environmental Awareness</p>  	<p>All employees take environmental education programs and actively engage in environmental conservation activities.</p>	<p>All employees have a high level of environmental awareness and contribute to making sustainable society come true.</p>	<ul style="list-style-type: none"> <li>We focus on businesses in the environment and energy fields as stated in our Long-term Management Plan. For our business success, it is essential to improve the environmental consciousness of the entire Group, and to develop specialists who deeply understand the environmental risks that our business faces, such as responses to climate change, and connect them to business opportunities.</li> <li>We aim to ensure all employees deeply understand the purpose and importance of the Eco Vision 2030, by providing the learning programs on Intranet. We are committed to fostering corporate culture in which each and every one of us naturally acts in an environmentally friendly manner in our daily work.</li> </ul>

<p>Management of Chemical Substances</p>  	<p>Appropriately manage chemical substances to reduce environmental impact.</p>	<p>Contribute to the conservation of biodiversity through the continuous management of appropriate chemical substances.</p>	<ul style="list-style-type: none"> <li>Social concern about environmentally hazardous substances is increasing as their effects on the human body and on the environment become more obvious. While various regulations on chemical substances have been getting stricter over the world, our Group has been reducing the usage of chemical substances over time.</li> <li>Appropriate management of chemical substances is one of the social responsibilities of manufacturing companies that use chemical substances as raw materials, and is essential for the continuation of our business.</li> <li>Our Group works to thoroughly manage chemical substances in accordance with relevant laws and regulations, and to respond to customer requirements. We are committed to reducing the use and emission of environmentally hazardous substances and promoting substitute materials through R&amp;D and process improvement in order to minimize the impacts on humans and the environment.</li> </ul>
<p>Promoting Green Procurement</p>  	<p>Achieve 100% introduction of green procurement system</p>	<p>Implementing environmentally friendly procurement activity to making sustainable society come true.</p>	<ul style="list-style-type: none"> <li>Our Group is striving to reduce the environmental impacts of our products throughout their lifecycle, and is promoting the products with lower environmental impacts.</li> <li>We have been promoting a green procurement system with our suppliers by distributing the Green Procurement Guidelines, that describe our approaches to reducing environmental impact including the management of chemical substances. As our supply chain over the world is assumed to be getting more diversified, cooperation with our suppliers will be even more essential, in order to reduce CO2 emissions throughout the supply chain and meet the stricter regulations on chemical substances.</li> <li>We contribute to making sustainable society come true by establishing a global procurement system and further promoting a green procurement system.</li> </ul>
<p>Expanding Green Logistics</p>  	<p>Reduce CO2 emissions by promoting green logistics and optimizing logistics efficiency.</p>	<p>Our green logistics system develop globally.</p>	<ul style="list-style-type: none"> <li>Increased CO2 emissions through transportation process is one of our concerns related to the business expansion in the future. Reducing CO2 emissions in logistics is an issue in reducing the environmental impact of the entire supply chain.</li> <li>Our group has been improving the green logistics network in Japan, but establishing global green logistics system including overseas sites would be an upcoming challenge. We aim to develop our green logistics system globally and to achieve our target of reducing CO2 emissions in logistics by expanding our case studies (efficient transportation route construction, etc.) to overseas logistics networks.</li> </ul>
<p>Enhancing Our Disclosure of Environmental Information</p> 	<p>Responding to stakeholder requests and practicing communication that leads to dialogue with stakeholders.</p>	<p>Responding to stakeholder requests and practicing communication that leads to dialogue with stakeholders.</p>	<ul style="list-style-type: none"> <li>Now our Group gives big influences on society as our business expands. Stakeholders are showing growing interests in our Group and business. Opportunities to communicate with institutional investors are increasing. It is important for us to have stakeholders appropriately understand our business and support us for long term in the future. We will make information disclosure better both in quality and in quantity. We also enhance our transparency and accountability in response to great concerns to stakeholders, and promote communication opportunities with them.</li> </ul>

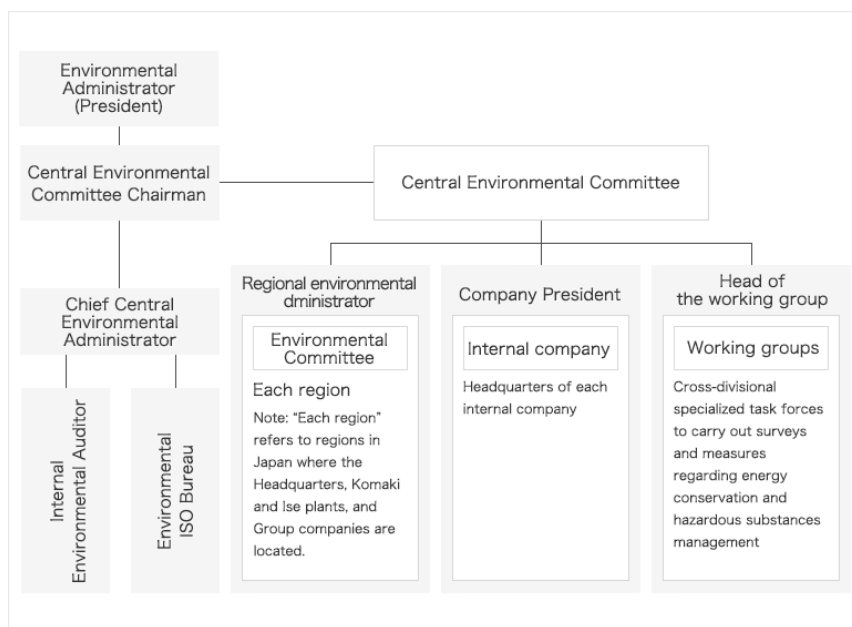


# Environmental Management

## Promotion System

Our group has a matrix-type structure including the internal company and respective regions, promoting environmental activities while having individual roles clarified. Each internal company is expected to manage its own targets on items relevant to business activities. Meanwhile, we take the initiatives to such activities as compliance of regulations, raising environmental awareness, and communication with local society mainly on the regional basis in accordance with action plans. Various working groups are set up as the cross-functional team across the internal company for promoting activities.

The activities will be confirmed with respect to the progress toward the target, and task in the Central Environmental Committee at which President, directors, company presidents, regional environmental administrators, and heads of the working group are present for continuous improvement.



## The Establishment Status of our Environmental Management System

We received ISO 14001 integrated certification for NGK SPARK PLUG CO., LTD. and 12 group companies (As of the end of FY2021) in Japan. Other domestic and overseas group companies have already been certified for environmental management systems including ISO14001 certification, individually, resulting in 17 overseas group companies which have received the certification in the end of the fiscal 2021. The employee acquisition rate is 96%.

## ISO14001 Certified Locations

### Certification covering multiple units (Scope of applicability)

Country	Name of factories and companies	
Japan	NGK SPARK PLUG CO., LTD.	Headquarters and Nagoya Plant
		Komaki Plant
		Satsuma Plant
		Ise Plant
		Inuyama Logistics Center
	SparkTec WKS CO., LTD.	Head Office Plant
		Nagoya Plant
		Satsuma Plant
		Satsuma Electrode Plant
		Nino Headquarters Plant
		Tono Plant
		Okusa Plant
NICHIWA KIKI CO., LTD.		
KAMIOKA CERAMIC CO., LTD.		
NTK CERAMIC CO., LTD.	Komaki Plant	
	Iijima Plant	
	Kani Plant	
CERAMIC SENSOR CO., LTD.	Komaki Plant	
	Ise Branch room	
	Nakatsugawa Plant	
NITTOKU ALPHA SERVICE CO., LTD.	Head Office	
	Komaki Office	

### Certification obtained individually

Country	Name of factories and companies	
Japan	NTK CERATEC CO., LTD.	Sendai Plant, Sendai West Plant
U.S.A.	NGK SPARK PLUGS (U.S.A.), INC.	WV Plant
		Wells Vehicle Electronics, L.P.
Mexico	BUJIAS NGK DE MEXICO S.A. DE C.V.	
Brazil	CERAMICA E VELAS DE IGNICAO NGK DO BRASIL LTDA.	
France	NGK SPARK PLUGS (FRANCE) S.A.S.	
U.K.	NGK SPARK PLUGS (UK) LTD.	
Germany	NGK SPARK PLUG EUROPE GmbH	
Thailand	SIAM NGK SPARK PLUG CO., LTD.	
	NGK SPARK PLUGS (THAILAND) CO., LTD.	
	NGK SPARK PLUGS (ASIA) CO., LTD.	
South Korea	NTK TECHNICAL CERAMICS KOREA CO., LTD.	
Malaysia	NGK SPARK PLUGS MALAYSIA BERHAD	
China	NGK SPARK PLUG (SHANGHAI) CO., LTD.	
	CHANGSHU NGK SPARK PLUG CO., LTD.	
Indonesia	PT NGK BUSI INDONESIA	
India	NGK SPARK PLUGS (INDIA) PVT. LTD.	
South Africa	NGK SPARK PLUGS SA (PTY) LTD.	



NANSEI CERAMIC CO., LTD.	Komaki Plant
	Ise Plant
NTK CERATEC CO., LTD.	Komaki Plant
MORIMURA SOFC TECHNOLOGY CO., LTD.	Komaki Plant
	Ise Plant
	Takenami Plant
NTK CUTTING TOOLS CO., LTD.	
NTK Medical CO., LTD.	

[Sustainability Data \(Non-Financial Information\) >](#)
[ISO14001 certificate !\[\]\(3e2231b1ad3ca8da8658228c00dd08e0\_img.jpg\) 2.9MB](#)

## Initiatives for Environmental Risk

Inherent in business activities are various risks including environmental incidents and pollution. NGK SPARK PLUG Group identifies these risks and endeavors to reduce and/or prevent them.

### PCB Control

PCB waste stored at our Nagoya Plant and Komaki Plant were disposed of in 2018. Only CERAMIC SENSOR CO., LTD.

Nakatsugawa Plant has PCB wastes and it is under strict control for proper disposal.

Last year, the government once again provided information on the find of high-concentration PCB waste. Based on this, we are investigating again that there are no target substances in our company and group companies.

### Drills for Emergency Situations

We hold regular drills for emergency situations to prepare for unforeseen accidents, etc. Each department identifies potential environmental accidents to prevent associated adverse environmental impacts.



Training using wastewater leakage drill (SparkTec WKS CO., LTD. Nino Headquarters Plant)

## Compliance with Environmental Laws and Regulations

To ensure compliance with environmental laws and regulations as well as agreements with local municipalities, we set stringent voluntary standards to prevent violations and complaints.

In FY 2021, there were 3 violations and 2 complaints. Against a violation or complaint that occurred, we take measures immediately, including those to prevent recurrence.

### Handling Violations and Complaints in Fiscal 2021

	Company	Situation	Countermeasures
Violation	NGK SPARK PLUG CO., LTD.	At the water treatment facility in the Komaki Plant, pottery sludge flowed out.	The cause was a pump failure, so we reviewed the piping to prevent the failure.
Complaint	NTK CERATEC CO., LTD.	At the Sendai West Plant, waste liquid flowed out of the premises from the storm drain on the premises.	The cause was forgetting to open the valve for collecting waste liquid, so we added an automatic stop function when the drainage pump is full and installed an outflow prevention wall around the tank.
Complaint	NGK SPARK PLUG CO., LTD.	At the Komaki Plant, we received a noise complaint when exhausting the boiler.	The cause was a failure of the safety valve, so we replaced the safety valve and installed a silencer.
Violation	SIAM NGK SPARK PLUG CO., LTD.	The law stipulates that an environmental manager should be assigned to the company for water, air pollution, and waste management, but it was not assigned.	We have assigned an environmental manager within the company.
Violation	NGK SPARK PLUG CO., LTD.	At the Egoshi Kita Plant, West Parking (former Technical Center), and Egoshi Minami Plant of the former head office, we conducted a soil and groundwater survey and confirmed that the standard values specified by the Soil Contamination Countermeasures Law were exceeded.	We reported to the administrative authorities based on the Soil Contamination Countermeasures Law.



## Environmental Education

Environmental education is conducted to deepen employees' understanding of environmental issues and raise their environmental awareness.

In addition to rank-specific education, we hold four courses on "Environmental basics", "Environmental management system", "Calculation methods for substances with an environmental burden", and "Environmental laws and regulations (for facilities).

We went to the departments related to these four laws and regulations and provide on-site environmental law training focused on the necessary compliance.

From 2021, in consideration of the infection situation of COVID-19, we have been holding online education that can be taken at home.

In order to make Ecovision 2030 known to employees, we have launched an Ecovision site on the intranet, and posted the background of setting Ecovision 2030, the results obtained by achieving the Ecovision goals, and requests to employees. We also regularly send out activity topics to our employees.



Environmental education (SparkTec WKS CO., LTD. Satsuma Plant)

## Support for Suppliers

We offer our suppliers environmental education and support for establishing environmental management systems to acquire third-party certification.

## EMS Third-Party Certification Support Conducted

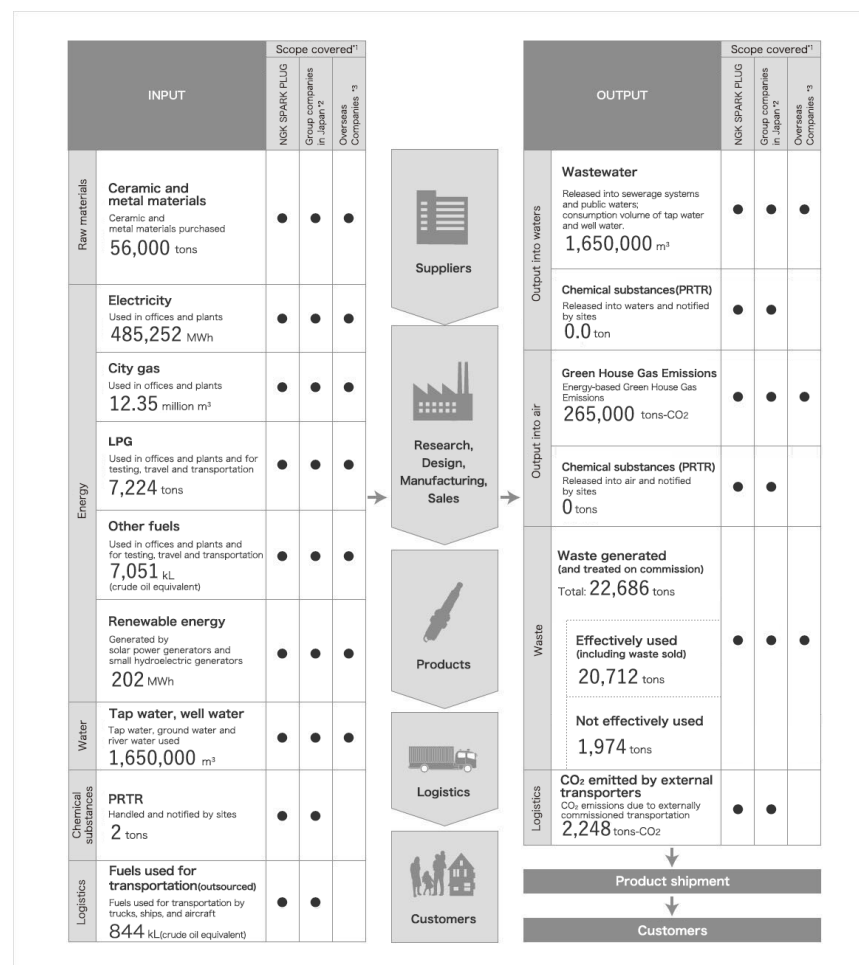
Topic	No. of Companies Attending (total sum)
ISO14001	6
Eco-Action 21	37

# Environmental Burdens from Business Activities

## Environmental Burdens from Business Activities

Knowing what impacts our business activities have on the environment is the first step in carrying out environmental preservation activities. We will work to reduce our environmental burden by grasping the amounts of our inputs (such as the raw materials and energy used by our Group) and the amounts of our outputs (such as the products shipped, CO<sub>2</sub> emissions and the wastes emitted outside the Group as the result of our business activities).

The material balance showing INPUT and OUTPUT is described below.





- \*1 The covered scope of each amount reported in INPUT and OUTPUT is indicated with ●.
- \*2 Group companies in Japan: (subject to integrated certification) SparkTec WKS CO., LTD., NICHIIWA KIKI CO., LTD., KAMIOKA CERAMIC CO., LTD., NTK CERAMIC CO., LTD., CERAMIC SENSOR CO., LTD., NITTOKU ALFA SERVICE CO., LTD., NANSEI CERAMIC CO., LTD., NTK CERATEC CO., LTD. (Komaki Plant), MORIMURA SOFC TECHNOLOGY Co., Ltd., NTK CUTTING TOOLS CO., LTD., NTK Medical CO., LTD. (not subject to integrated certification) NITTOKU SMILE CO., LTD., NITTOKU DENSHI CO., LTD., NTK CERATEC CO., LTD. (Sendai Plant), CECYLLS Co., Ltd., our domestic sales offices.
- \*3 Group companies overseas: (manufacturing & sales organization) NGK SPARK PLUG (SHANGHAI) CO., LTD., CHANGSHU NGK SPARK PLUG CO., LTD., NTK TECHNICAL CERAMICS KOREA CO., LTD., NGK SPARK PLUGS (THAILAND) CO., LTD., SIAM NGK SPARK PLUG CO., LTD., NGK SPARK PLUGS (ASIA) CO., LTD., NGK SPARK PLUGS MALAYSIA BERHAD, PT NGK BUSI INDONESIA, NGK SPARK PLUGS (INDIA) PVT. LTD., NGK SPARK PLUGS (U.S.A.), INC., Wells Vehicle Electronics, L.P., CERAMICA E VELAS DE IGNICAO NGK DO BRASIL LTDA., NGK SPARK PLUGS (FRANCE) S.A.S., NGK SPARK PLUGS SA (PTY) LTD; (sales organization) TAIWAN NGK SPARK PLUG CO., LTD., NGK SPARK PLUGS (VIETNAM) CO., LTD., NGK SPARK PLUGS (PHILIPPINES), INC., NGK SPARK PLUG (AUSTRALIA) PTY. LTD., NTK TECHNOLOGIES, INC., NGK SPARK PLUGS CANADA LIMITED, BUJIAS NGK DE MEXICO S.A. DE C.V., NGK SPARK PLUG EUROPE GmbH, NGK SPARK PLUGS (UK) LTD., LIMITED LIABILITY COMPANY NGK SPARK PLUGS (EURASIA), NGK SPARK PLUG MIDDLE EAST FZE.
- ※ Company names as of the end of FY2021

We have received a third-party verification report below from the Japan Quality Assurance Organization (JQA) regarding the calculation of energy consumption and the associated greenhouse gas emissions, and the amount of water usage and emissions/waste generation(Effective use and non-effective use), and greenhouse gas emissions from domestic inter-plant logistics (fuel consumption method) in FY2020.

Social and Environmental Information Verification Report  854KB

## Response to Climate Change



In the Eco Vision 2030 announced in April 2021, the NGK SPARK PLUG Group declared its intention to achieve carbon neutrality by 2050. Prior to this declaration, we announced, in 2020, our CO<sub>2</sub> emissions reduction target "30% reduction by FY 2030 compared to that of FY 2018." Our declaration of carbon neutrality encourages us to redouble our efforts.

### Our group's efforts to achieve carbon neutrality

#### Target for Scopes 1 and 2

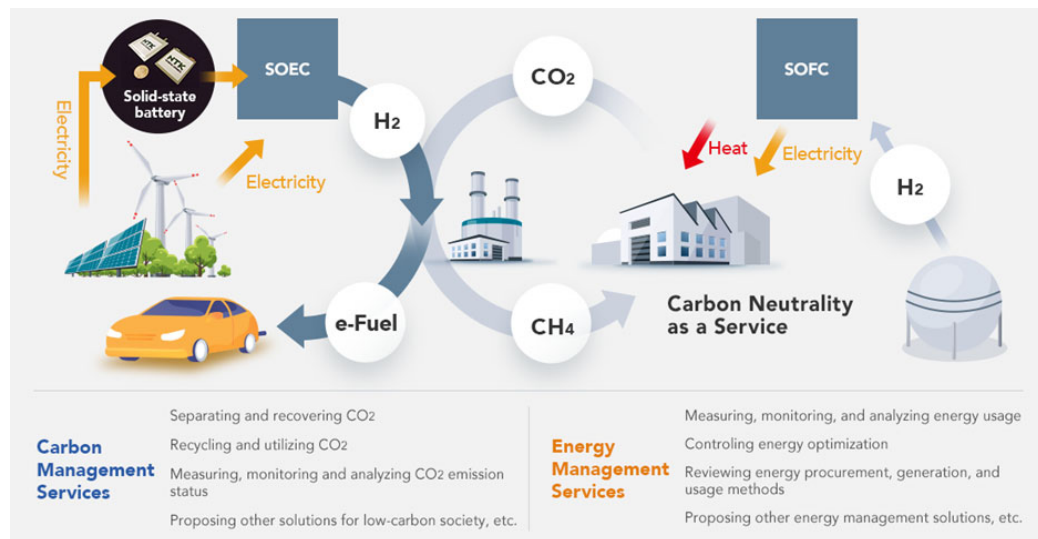
Item	Target
Scopes 1 and 2	• 30% reduction by FY 2030 (compared to that of FY 2018)

※ The target has been classified by the Science Based Targets initiative (SBTi) as SBT WB2°C (well below 2°C).



## Initiatives aimed at realizing a carbon recycle-oriented society (Carbon Neutral as a service)

In order to contribute to the realization of a carbon-neutral society, we are developing methanation-related technologies (hydrogen production technology that applies ceramic solid electrolytes and CO<sub>2</sub> recovery technology that applies oxygen concentrator technology).



Development of Technologies, Products, and Businesses for Contributing to the Resolution of Social Issues >

## Efforts at production sites

For the installation of production equipment, we create a checklist to ensure energy-efficient design. We take measures to reduce standby power consumption during holidays and at night. Manufacturing conditions are reviewed on an as-needed basis so as not to use excessive energy for production. In addition, to prevent air leaks and other energy loss due to aging equipment, we carry out periodic inspections and maintenance in a planned manner.

The amount of CO<sub>2</sub> emissions is visualized on an internal dashboard on a business company by business company basis. Each business base works to make improvements on a daily basis to increase energy efficiency in the production process to the extent possible. By applying successful cases of improvement to other business bases, our group makes a concerted effort to promote energy-saving activities.

## Efforts at offices

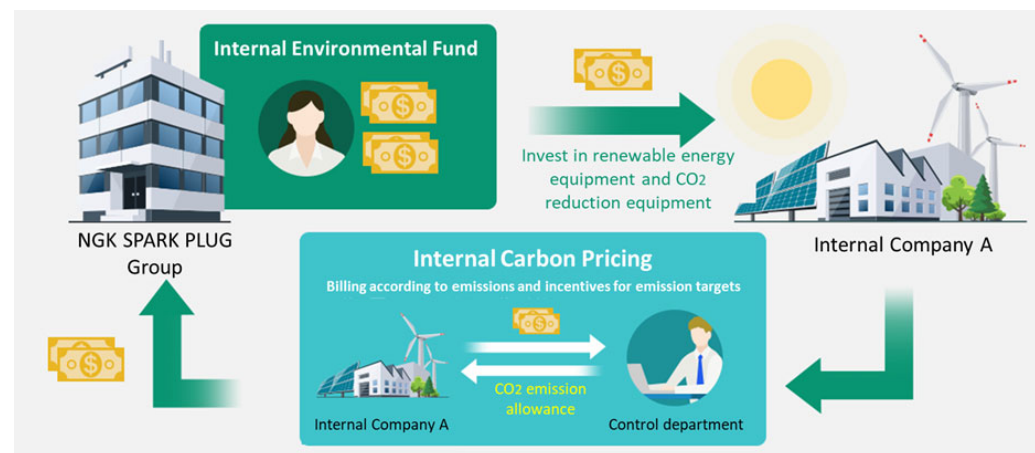
In the new office building at the Komaki plant, "N-FOREST," which started operations in September 2021, a solar power generation unit and a power generation system using a solid oxide fuel cell (SOFC) have been installed. On top of that, we save energy by replacing old lights with LED lighting, turning off lights and computers when taking a break, recommending observance of the Cool Biz dress code (e.g., for men, wearing short sleeve dress shirts and chinos, without a tie) in summer and the Warm Biz dress code (encouraging people to wear warm clothes) in winter, and controlling temperature, humidity, and ventilation as appropriate.

## Efforts to raise internal awareness (internal carbon pricing, internal carbon taxation, and internal environmental fund)

To reduce emissions in Scopes 1 and 2 with the aim of achieving carbon neutrality, we take the following awareness-raising measures: internal carbon pricing, internal carbon taxation, and an internal environmental fund.

For internal carbon pricing, our group has decided to collect 10,000 yen per ton of CO<sub>2</sub>. Internal carbon taxation is a system under which fees are collected from departments, including internal business companies and group companies, depending on the amount of their CO<sub>2</sub> emissions. This system is expected to further raise awareness of and accelerate CO<sub>2</sub> emissions reduction.

The internal environmental fund is a system to appropriate the fees collected through internal carbon taxation for capital investment as a grant to reduce CO<sub>2</sub> emissions. For example, in FY 2021, we provided a grant for a solar power generation unit to NGK Spark Plugs (India) Private Limited.







## Efforts to introduce renewable energy

We enhance the use of renewable energy, including solar energy, hydropower, and geothermal energy.

Ceramica e Velas de Ignicao NGK do Brasil Ltda. and NGK Spark Plugs (India) Private Limited are equipped with solar power generation units with a maximum power generation capacity of 793 kW and 514 kW, respectively.

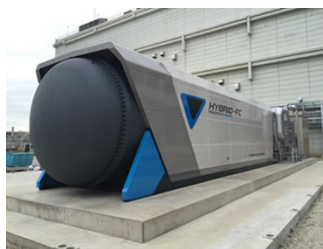
The Komaki plant has a solar power generation unit with a maximum power generation capacity of 120 kW and a small hydro generation unit. At the Okusa plant of Sparktec WKS Co., Ltd., a geothermal heat pump system is installed, and the Nagoya plant of the company is equipped with a solar power generation unit and a solar water heater. Our group's total renewable electricity output in FY 2021 was 2.02 million kWh, which is equivalent to a reduction of 358 tons of CO<sub>2</sub>.



Solar Power Generation Units  
(NGK SPARK PLUGS (INDIA) PVT. LTD.)

## Efforts to create energy

The Komaki plant already has a hybrid power system using a fuel cell with a rated power output of 250 kW and a compact fuel cell system with a rated power output of 20 kW. We will continue to take on the challenge of reducing CO<sub>2</sub> emissions through the creation of clean energy by studying the possibility of installing various energy devices, such as pure hydrogen fuel cell systems and storage batteries.



Pressurized hybrid power system

## Efforts to introduce CO<sub>2</sub>-free electricity

SparkTec WKS Co., Ltd. Satsuma Plant and Satsuma Electrode Plant have adopted CO<sub>2</sub>-free electricity. This initiative is expected to reduce CO<sub>2</sub> emissions by approximately 20,000 tons at the head office and 20,000 tons at the Satsuma Factory annually.

We will continue to reduce power consumption and systematically introduce CO<sub>2</sub>-free power.

## Efforts to achieve carbon neutrality in the supply chain

### Target setting for Scope 3

Item	Target
Scope 3: Category 1 "Purchased goods and services" Category 4 "Upstream transportation and distribution" (in part) Category 11 "Use of sold products"	• 30% reduction by FY 2030 (compared to that of FY 2018)

※ The target has been classified by the Science Based Targets initiative (SBTi) as SBT WB2°C (well below 2°C).

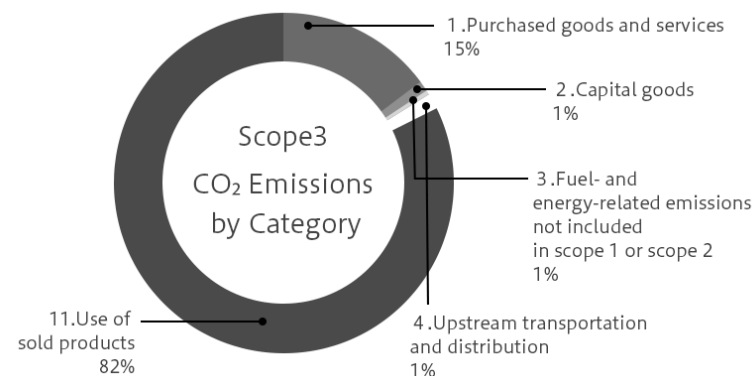
Scope 3 emissions are indirect greenhouse gas emissions excluding those in Scopes 1 and 2 (emissions from other companies associated with our business operations), divided into 15 categories.

Our emissions in Category 1 "Purchased goods and services," Category 4 "Upstream transportation and distribution," and Category 11 "Use of sold products" make up 97.6% of our total Scope 3 emissions. Therefore, we work on reducing CO<sub>2</sub> emissions by setting a target to be achieved by FY 2030 in terms of these three categories.

For Category 1 emissions, through the CSR and Sustainability Procurement Guidelines, we ask our business partners to set a target for reducing CO<sub>2</sub> emissions and work toward achieving the target. We also provide our business partners with support when needed.

For Category 4 emissions, as a specified consigner stipulated in the Act on the Rational Use of Energy, we work to reduce CO<sub>2</sub> emissions associated with transportation by reducing shipping distances through the restructuring/consolidation of plants and the reconsideration of waste-disposal service vendors.

For Category 11 emissions, which account for the largest portion of total Scope 3 emissions, we work on, for example, designing products to improve their energy efficiency while being used.





## Promoting disclosure of information about climate-related risks and opportunities

In July 2020, the NGK SPARK PLUG Group announced its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

We will examine the impact of climate change on our Group's business, strategies, and finance within the company-wide risk management framework based on TCFD Recommendations, and these topics will be discussed at the Risk Management Committee and the CSR and Sustainability Committee attended by the entire board of directors. We will also promote voluntary and proactive disclosure of information in accordance with the recommendations.



[Information Disclosure Based on TCFD Recommendations >](#)

## Participation in business organizations and initiatives

To enhance our efforts to mitigate climate change, our group participates in the following organizations and initiatives:

- Task Force on Climate-Related Financial Disclosures (TCFD)
- Science Based Targets initiative (SBTi)
- Japan Climate Initiative (JCI)
- GX League (established by the Ministry of Economy, Trade and Industry)

[Initiatives >](#)

# Information Disclosure Based on TCFD Recommendations

In July 2020, our group endorsed the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD). Based on the TCFD recommendations, we disclose important information related to climate change as outlined below.

## Governance

Our group is aware that climate change and other environmental issues are serious business issues.

With regard to our management direction related to climate change, the CSR and Sustainability Committee\* chaired by an outside director, which functions as an advisory body to the board of directors, forms an opinion in consideration of climate-related risks and opportunities and reports it to the board of directors (four times a year). A final decision is made by the board of directors.

Meanwhile, the progress of response to climate change and other priority issues (materiality) is reported to the CSR and Sustainability Committee by the sustainability department, and reviewed and monitored at the Committee. For detailed activities, such as reduction of CO<sub>2</sub> emissions, the Environmental Committee checks progress towards the targets and confirms issues to be addressed in order to make continuous improvement (twice a year). Furthermore, risks associated with climate change are assessed in light of company-wide risk management at the Risk Management Committee (twice a year).

The CSR and Sustainability Committee supervises the Environmental Committee, the Risk Management Committee, and other special committees. The information about the progress of reduction of CO<sub>2</sub> emissions and risk assessments is also shared with the CSR and Sustainability Committee. Important decisions made by special committees are reported to the board of directors through the Management Meeting which deliberates, decides, and supervises important matters in business execution.

※ We shifted to a company with an audit and supervisory committee in June 2022, and positioned the CSR and Sustainability Committee as an advisory body to the board of directors.

[Corporate Governance System >](#)

[CSR and Sustainability Promotion System >](#)

[Risk Management Promotion System >](#)

[Environmental Management Promotion System >](#)

## Examples of what was discussed and determined in terms of climate change

- Approval of the priority issue (materiality): "CO<sub>2</sub> Emissions: 30% Reduction [compared to that of 2018] (FY2030)"(CSR and Sustainability Committee in March 2020)
- Endorsement of the TCFD recommendations (Management Meeting in July 2020)
- Approval of "Eco Vision 2030"(Environmental Committee in March 2021)
- Approval of "Aiming for carbon neutrality in 2050"(CSR and Sustainability Committee in March 2021)



## Strategy (Risks & Opportunities)

### Climate-related risks

With regard to climate-related risks, the sustainability department made a proposal, and discussed and examined the following risks with the officer in charge of the sustainability department and other related departments according to the TCFD risk categories: risks related to the transition to a lower-carbon economy, which may emanate mainly in the course of a 2°C scenario; and risks related to the physical impacts of climate change, which may emanate under a 4°C scenario without achieving global targets for reducing CO<sub>2</sub> emissions.

< Main scenarios and projections used in the study >

2°C scenario: IPCC RCP2.6, IEA ETP 2DS, etc.

4°C scenario: IPCC RCP8.5, IHS Markit Automotive "Mobility and Energy Future" service data, etc.

The three terms used below, "short term," "medium term" and "long term," have the following meanings:

Short term: until around 2025 in line with the target year of our medium-term management plan

Medium term: until around 2030 in line with the target year of our long-term management plan

Long term: until around 2040 in line with the vision of our long-term management plan

Risk item		Business impact (risk)	Assessment (impact)	Timing of the impact	
Risks related to the transition to a lower-carbon economy	Policy and legal	Carbon tax	• If a carbon tax is introduced, taxes levied on fuel will increase procurement costs, resulting in a rise in the costs of energy and raw materials.	Large	Short to long term
		Carbon border tax	• If a carbon border tax is introduced, taxes will be levied on products to be exported, resulting in the reduction in the cost competitiveness of the products.	Large	Short to long term
		Regulations on carbon emissions	• The achievement of GHG reduction targets will be required, resulting in increases in the costs of, for example, making capital investments and purchasing electricity generated from renewable energy sources.	Large	Short to long term
		Sale of gasoline-powered vehicles	• In countries that ban the sale of gasoline-powered vehicles, OEM demand will disappear, resulting in a decrease in sales.	Large	Medium to long term
	Technology	Proliferation of energy-saving and renewable-energy technologies	• The introduction of new energy-saving and renewable-energy technologies will increase the cost of, for example, making capital investments.	Medium to large	Short to long term
		Development of new technologies	• Expenditures on the research and development of new technologies will increase.	Large	Short to long term

Risk item		Business impact (risk)	Assessment (impact)	Timing of the impact	
	Market	Shift in customer preferences	• After the 2030s, the number of people who choose ZEVs even as used cars will increase, resulting in a decline in demand for spark plug replacement and eventually a decrease in sales. • Products that emit less CO <sub>2</sub> in their life cycle will be chosen, resulting in a decrease in the sales of conventional products.	Large	Long term
	Reputation	Shift in investor preferences	• Investors' opinions will turn against internal combustion engines, resulting in divestments.	Small to medium	Medium to long term
		Shifts in job-seekers' preferences	• Job seekers' opinions will turn against internal combustion engines. Accordingly, job seekers will not choose us as their place to work.	Small to medium	Short to medium term
Risks related to the physical impacts of climate change	Acute	Increased severity of extreme weather events	• Typhoons and other extreme weather events will cause damage to plants and other facilities, resulting in shutdown or a decrease in production. Furthermore, additional costs will be incurred to restore equipment. Non-life insurance premiums will also increase.	Small to medium	Short to long term
		Chronic	Sea level rise	• Rising sea levels will increase the risk of flooding and storm surges. Plants and transport infrastructure located in coastal areas will be damaged and supply chains will be broken, resulting in the extra costs of addressing these problems.	Small to medium
	Changes in precipitation patterns and variability in weather patterns		• Plants in areas facing severe water shortage will be forced to shut or slow down operations due to limitations on water usage, resulting in the cost of shifting production to other plants, increased transportation costs and the like.	Small to medium	Long term
	Rising mean temperatures		• Employees who work in extreme heat will frequently get heat stroke. To reduce their increased physical burden, the cost of dealing with extreme heat and labor costs will increase.	Small to medium	Long term

For our key business bases, we carried out a risk potential assessment in terms of flooding, drought, storm surges and the like under the present circumstances. In consideration of expected damage severity and frequency, it has been found that severe damage is unlikely to occur.

We will continue to keep track of physical risks by, for example, making an assessment with consideration given to changes in future risks, and take measures when necessary.



## Climate-related opportunities

With regard to climate-related opportunities, we examined, according to the TCFD categories, opportunities for management reform to be accomplished through efforts to mitigate and adapt to climate change.

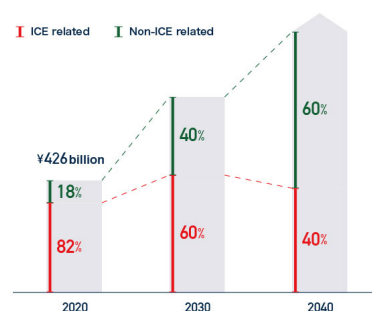
Aspect	Major opportunity
Resource efficiency	<ul style="list-style-type: none"> <li>The increasing adoption of new energy-saving and renewable-energy technologies will reduce energy costs.</li> </ul>
Energy source	<ul style="list-style-type: none"> <li>The increased demand for hydrogen as a fuel exempt from carbon tax will provide new opportunities in the hydrogen energy market.</li> </ul>
Products and services	<ul style="list-style-type: none"> <li>To conform to fuel efficiency regulations, demand for high value-added products will increase.</li> </ul>
	<ul style="list-style-type: none"> <li>The hydrogen energy market is expected to grow due to mandatory reduction of GHG emissions. Increased demand for hydrogen technologies and SOFCs will provide business opportunities.</li> </ul>
	<ul style="list-style-type: none"> <li>In disaster preparedness, local consumption of locally-produced energy (distributed power generation) will receive attention, resulting in increased demand for SOFCs.</li> </ul>
Markets	<ul style="list-style-type: none"> <li>The development of new climate-related technologies that meet social needs will provide business opportunities.</li> </ul>
Resilience	<ul style="list-style-type: none"> <li>In disaster preparedness, the continuous reinforcement of the BCM and BCP of our group, including our supply chain, will help enhance our resilience.</li> </ul>

## Business risks, opportunities and responses under the climate-related scenarios

To further clarify climate-related risks and opportunities, we examined business environments and responses by business type under both 2°C and 4°C scenarios.

As a result of our examination, no existential impact from physical risks has been identified.

With regard to our business related to internal combustion engines, whose sales revenue makes up 80% of the total at present, we are facing a major change. On the other hand, geared toward the realization of a decarbonized society, hydrogen-related and other new needs and markets are expected to arise. Therefore, in the 2030 Long-Term Management Plan NITTOKU BX, we take up "Environment & Energy" as one of the business fields to focus on. Toward 2040, we will push forward with a business portfolio conversion (40% ICE related business, 60% non-ICE related business).



Examined business	Product	Responses to future business risks and opportunities	Financial impact	Sales revenue target in our long-term management plan
Automotive related business	Spark plugs, glow plugs, sensors	<p>Under the 2°C scenario, sales of internal combustion engine parts are expected to decline in the future due to stricter regulations on vehicles with internal combustion engines.</p> <p>On the other hand, opportunities will arise in the electric vehicle market and other new markets.</p> <p>Under a 4°C scenario, further energy conservation and toxic-gas-emission control will be required in terms of internal combustion engines. Therefore, we will take measures to improve the performance of internal combustion engines.</p>	Impact on part of the sales revenue of 387.8 billion yen (FY2021)	450 billion yen (FY2029)
Fuel cell business	Fuel cells	<p>Under either a 2°C or 4°C scenario, demand for non-fossil energy sources is expected to grow. Therefore, we will continue to enhance our measures taken in the relevant markets.</p> <p>Under a 2°C scenario, the proliferation of hydrogen infrastructure is expected. Therefore, the market may grow at an increasing rate.</p>	Impact on part of the sales revenue of 106.0 billion yen (FY2021)	300 billion yen (FY2029)
Other businesses	SPE, packages, oxygen concentrators, cutting tools, bearing balls, etc.	Under either a 2°C or 4°C scenario, the impact on risks and opportunities is small.		

- For the automotive related business, under 2°C scenario, sales are expected to decline in the future due to stricter regulations. Therefore, a business portfolio conversion is required.
- For other business types, under either a 2°C or 4°C scenario, we will conduct business flexibly and strategically while keeping a close watch on market trends. Thus, we have high resilience in terms of both medium- and long-term perspectives.

[Long-term Management Plan >](#)



## Risk Management

Conducting business globally in many fields, our group faces various risks and opportunities in each type of business. Therefore, we grasp and respond to risks and opportunities on a business company by business company basis. We also respond to climate-related risks and opportunities by assessing impacts on the respective businesses while paying close attention to regulatory trends.

The Risk Management Committee conducts a risk assessment from a company-wide perspective in terms of whether or not the risk will have great impact on our business activities, by analyzing the level of impact, the probability of occurrence, and the status of countermeasures. A risk assessed as a key risk is considered a priority risk. For such a risk, a responsible department is assigned and the Risk Management Committee checks the status of risk reduction activities.

Meanwhile, the CSR and Sustainability Committee checks key opportunities. The Committee incorporates these opportunities into our management strategy and priority issues (materiality) when necessary.

[Risk Management >](#)

## Metrics and Targets

In the 2030 Long-Term Management Plan "NITTOKU BX", which was announced in May 2020, our group has set the target: "CO<sub>2</sub> Emissions: 30% Reduction [compared to that of 2018] (FY2030)."

Meanwhile, to enhance environmental conservation activities from a long-term perspective, we formulated Eco Vision 2030 in April 2021. It stipulates the achievement of carbon neutrality by 2050 as a long-term target.

To achieve these targets by further reducing CO<sub>2</sub> emissions, a performance-linked stock compensation plan for directors (excluding directors who are members of the audit and supervisory committee and outside directors) and executive officers (excluding employed executive officers) includes the reduction rate of CO<sub>2</sub> emissions as one of the performance indexes. In addition, to encourage our group to make a concerted effort to reduce CO<sub>2</sub> emissions, we have introduced an internal carbon pricing (ICP) system. We collect 10,000 yen per ton of CO<sub>2</sub> from CO<sub>2</sub>-emitting departments. The collected fees are used as an internal environmental fund to support investments toward decarbonization and infrastructure development. Furthermore, we are also working to reduce CO<sub>2</sub> emissions throughout the supply chain.

We ask our business partners (suppliers) to set a target for reducing CO<sub>2</sub> emissions and work toward achieving the target. We also offer support for them as deemed appropriate.

### <Targets and results of CO<sub>2</sub> emissions reduction>

Item	Target	Result
Scopes 1 and 2	30% reduction by FY 2030 (Compared to that of FY 2018)	8.87% reduction in FY 2021 (Compared to that of FY 2018) <Emissions: 265,100 tons>
Scope 3: Category 1 "Purchased goods and services" Category 4 "Upstream transportation and distribution" (in part) Category 11 "Use of sold products"	30% reduction by FY 2030 (Compared to that of FY 2018)	1.45% increase in FY 2021 (Compared to that of FY 2018) <Emissions: 11.23 million tons>

※ The CO<sub>2</sub> emissions reduction targets above were classified by the Science Based Targets (SBT) initiative as SBT WB2°C (well below 2°C) in June 2022.

[Priority Issues \(Materiality\) >](#)

[Eco Vision >](#)

[Response to Climate Change >](#)

[Sustainability Data \(Non-Financial Information\) >](#)



## Management of Waste

### Trends in Volume of Waste Generated

The amount of waste generated in FY2021 was 22,686 tons, 12.1% increase year on year.

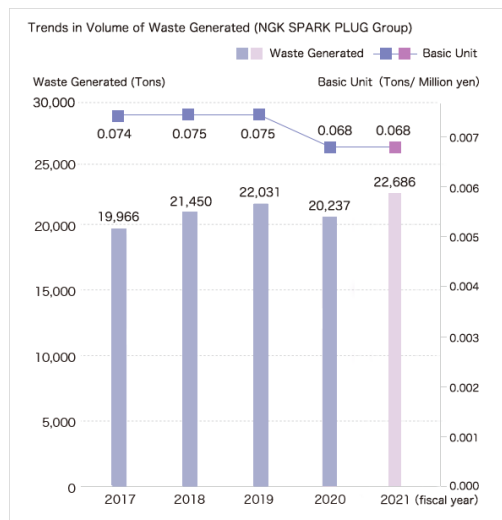
Eco Vision 2030, which we began implementing in FY2021, sets targets for waste management of an "effective utilization rate of 95% or more" and "reduction of 1% or more per year in basic unit compared to FY2018" by 2030.

The effective utilization rate in FY2021 was 91.3% for the entire group, an improvement of 1.3% from the previous year.

In order to achieve the target of 95% or more in FY2030, we will continue to share ideas with each base and work on effective utilization of waste.

In FY2021, the basic unit of waste was 0.068 tons / million yen for the entire group. We have reduced by 0.7% compared to FY2018, but we have not achieved our target. We will continue to improve our processes and take other measures to reduce emissions.

As part of the promotion of 3R activities in Komaki Plant, we have installed a stand PC with a display at the entrance of the recycling center to disseminate activity information to visitors.



Trends in Volume of Waste Generated(NGK SPARK PLUG Group)

### Proper Waste Disposal

We regularly visit our waste disposers to confirm that consigned waste materials are being processed in accordance with our agreement. In FY2021, we visited 39 companies and confirmed that their waste was properly disposed of.

## Conservation of Water Resources

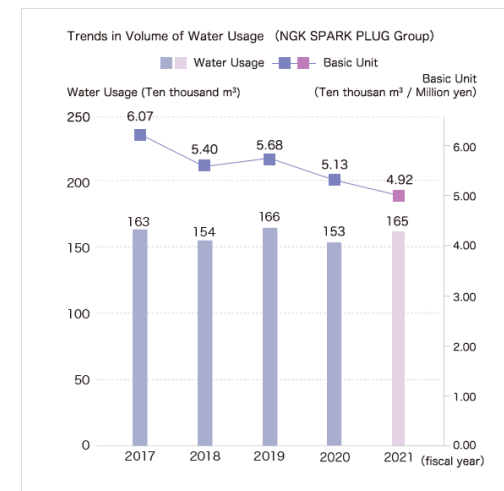
### Trends in Volume of Water Usage

The volume of drinking water, well water, and river water used in FY 2021 totaled 1.65 million m<sup>3</sup>. The total amount of water used was increased by 8% year on year due to increased production.

In Eco Vision 2030, which we began working on in FY2021, set a goal of "maintaining water usage per unit of production at or below the FY2018 level" by 2030.

The basic unit of group companies was 4.923m<sup>3</sup>/million yen, and we have achieved our target by reducing it by 8.8% compared to FY2018.

We will continue to promote the efficient use of water.



Trends in Volume of Water Usage (NGK SPARK PLUG Group)





# Environmentally-friendly Products

## Environmental Friendliness in the Product Lifecycle

To ensure that "All products contribute to the improvement of the global environment and contribute to making a sustainable society come true" as part of our vision for 2040, we develop and provide products designed in consideration of environmental friendliness.

With this background, we certify products demonstrating especially high environmental performance throughout their product lifecycles as "Nittoku Green Products" and strive to expand our lineup of such products.

	Examples of Environmentally Friendly Efforts	Examples of Environmental Effects
Manufacture of raw materials	Reduction in the use of materials	<ul style="list-style-type: none"> <li>● Effective use of resources</li> <li>● Reduction in CO<sub>2</sub> emissions at the time of manufacturing materials</li> </ul>
Transport of raw materials	Modal shift	<ul style="list-style-type: none"> <li>● Reduction in CO<sub>2</sub> emissions at the time of transportation for procurement</li> </ul>
Manufacture by our group	Increase in efficiency within our group	<ul style="list-style-type: none"> <li>● Reduction in CO<sub>2</sub> emissions at the time of manufacturing products / reduction in the use of resources</li> <li>● Reduction in the emissions of substances with environmental impact</li> </ul>
Shipment	Modal shift	<ul style="list-style-type: none"> <li>● Reduction in CO<sub>2</sub> emissions at the time of transporting products</li> </ul>
Use by customers	Reduction in the use of energy at the time of processing	<ul style="list-style-type: none"> <li>● Reduction in CO<sub>2</sub> emissions at the time of processing</li> </ul>
Use by endusers	Increase in product performance	<ul style="list-style-type: none"> <li>● Reduction in CO<sub>2</sub> emissions at the time of use</li> <li>● Reduction in the emissions of substances with environmental impact</li> </ul>
Disposal	Collection of after-use products	<ul style="list-style-type: none"> <li>● Reduction in the use of resources by recycling after-use products</li> </ul>

Product Lifecycle and Major Efforts

## Efforts Made when Designing and Developing Products and Services

Creating new products and services and improving them include the processes of research, development, process design, and packaging specification design.

When following these processes, we check the entire lifecycle to see if CO<sub>2</sub> emissions can be reduced, if reduced use of resources or more effective use of resources is possible, and if any substance with environmental impact is contained or used. If it is deemed that there is a significant impact on the environment, we implement the necessary measures.

In addition, we confirm that our products and services comply with environmental laws and regulations and other legal requirements and there are no ethical problems.

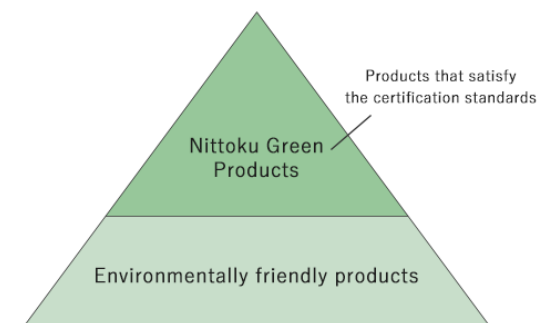


## Certification System for Environmentally Friendly Products - Nittoku Green Products

We develop and provide products designed in consideration of environmental friendliness. In that respect, all our products are environmentally friendly. Among them, products with especially highly environmental performance from the perspective of their product lifecycles has been certified as Nittoku Green Products since FY2021.

Under this certification system, the Environmentally Friendly Products Certification Committee, headed by the Chair of the Central Environmental Committee (and convened twice a year), assesses products in terms of the three environmental categories of reduced use of energy, reduced use of resources, and substances with environmental impact, and certifies the products that satisfy the certification standards as such.

We certified eight products. While leveraging this system for promoting environmental friendliness throughout product lifecycles, we would like to communicate to you the excellent environmental performance of our products.





### Assessment Categories










Categories	Assessment Points (from the Perspective of Product Lifecycles)
Reduced use of energy	Reduce the use of energy
Reduced use of resources	Reduce the weight, use recycled materials, and extend the product lifecycle
Substances with environmental impact	Use no substances with environmental impact, reduce the use of such substances

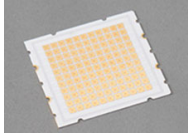









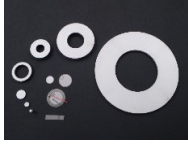









### Certification Standards

Must satisfy either of the following conditions:

- > Newly developed products whose environmental performance throughout their product lifecycles is above the standards; and
- > Improved products whose increase in environmental performance throughout their product lifecycles compared to that of existing products is above the standards.

### Examples of Nittoku Green Products

Products		Certification Reason	Relevant SDGs	Description
Spark plug using a precious metal (iridium alloy) for the center electrode		<ul style="list-style-type: none"> <li>Reduced use of resources</li> </ul>	 	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>
ZFAS®-U3 wide-range oxygen sensor		<ul style="list-style-type: none"> <li>Reduced use of energy</li> <li>Reduced use of resources</li> <li>Substances with environmental impact</li> </ul>	 	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>
OZAS®-S4 oxygen sensor		<ul style="list-style-type: none"> <li>Reduced use of energy</li> <li>Reduced use of resources</li> </ul>	 	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>

Products		Certification Reason	Relevant SDGs	Description
LED alumina high heat radiation package (thick Cu-plated specifications)		<ul style="list-style-type: none"> <li>Reduced use of resources</li> </ul>	  	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>
JX1, BIDE MICS for processing heat-resistant alloys		<ul style="list-style-type: none"> <li>Reduced use of energy</li> <li>Reduced use of resources</li> </ul>	 	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>
O2 Fresh-5G, an oxygen concentrator		<ul style="list-style-type: none"> <li>Reduced use of energy</li> <li>Reduced use of resources</li> </ul>	 	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>
Lead-free piezoelectric ceramics		<ul style="list-style-type: none"> <li>Substances with environmental impact</li> </ul>	   	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>
Ozone Air Purifier "Sumikaze"		<ul style="list-style-type: none"> <li>Reduced use of energy</li> <li>Reduced use of resources</li> <li>Substances with environmental impact</li> </ul>		<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>
Water quality management system		<ul style="list-style-type: none"> <li>Reduced use of resources</li> <li>Substances with environmental impact</li> </ul>	 	<ul style="list-style-type: none"> <li><a href="#">For details</a></li> </ul>



One of our Group's priority issues is "providing environmentally friendly products." To tackle this issue, we have set numerical targets to be achieved by 2030 in the fields of spark plugs and automotive oxygen sensors, which represent our environmentally friendly products that can contribute to improving automobile fuel efficiency and purifying exhaust gas.

For "development of technology, products and businesses for contributing to the resolution of social issues," we have set the following targets: realizing widespread use of fuel cells in anticipation of the use of CO<sub>2</sub>-free hydrogen; facilitating adoption of our proprietary lead-free piezoelectric ceramics to replace conventional lead-based equivalents; and increasing operating efficiency using sensing IoT technology.

Since these products are expected to contribute to solving social problems and boast high environmental performance, we have reaffirmed them as Nittoku Green Products.

[Priority Issues >](#)

# Management of Chemical Substances

## Chemical Substance Management System

Chemical substances are used in various aspects of our daily lives as well as in industrial fields due to their many excellent benefits, and we also use many chemical substances.

On the other hand, some of them are harmful to humans and the environment, and regulations on hazardous chemical substances have become increasingly severe year by year around the world in association with the growing public awareness of environmental issues.

We have a three-step management system for handling substances of environmental concern:

1. Answering requests from customers, 2. Handling within the Group, and 3. Procurement from suppliers.

Naturally we ensure compliance with laws and fulfill customer requests. More than that, we aim to reduce the use and emission of substances of environmental concern so as to minimize the impact of chemical substances on the environment and human health.

## Answering Requests from Customers

With the reinforcement of regulations on chemical substances contained in products, requests from customers in the automobile, electrical and electronics industry regarding improved compliance are increasing.

We are aware of the product content of subject chemicals such as the REACH regulation in Europe, the POPs Convention, and the TSCA regulation in the United States. When there is a request from a customer, we are taking all the appropriate measures including submission of Non-Containing Declarations, submission of various data with IMDS, JAPIA sheet, chemSHERPA, etc., and handling investigations and audits regarding our management systems.



## Handling within the Group

To respond appropriately to increasingly strict chemical substance regulations worldwide, we perform non-containment management for products and usage management within plants.

For hazardous chemical substances, we set hazard rankings according to toxicity and the strictness of regulations and establish handling standards for each rank.

From here on out, we will work toward substitution of hazardous chemical substances and the strengthening of management, to assure compliance with laws and with the demands of customer.

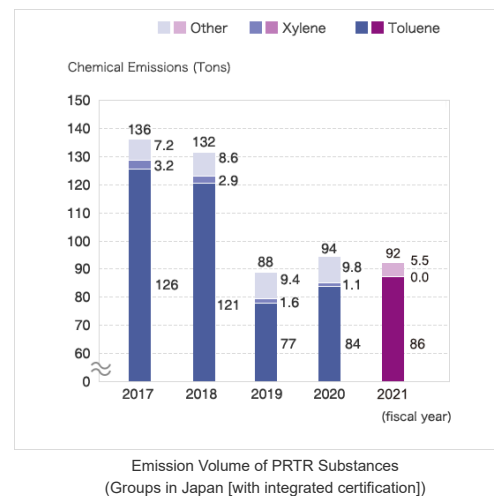


## Hazard Rank

Rank	Handling standard	Substances covered
Prohibited substances	Use is prohibited.	Substances prohibited from use or strongly restricted by regulations.
Restricted substances	Safer substitutes will be sought, while making efforts to reduce the use of current substances.	Hazard level and toxicity are equivalent to prohibited substances, but an immediate changeover is impossible due to its special characteristics.
Monitored substances	Supplies need to be examined to find existence / non-existence of applicable substances.	Those not prohibited or restricted but that require monitoring.

## Management of PRTR substance

Aiming at optimized management, the respective divisions have ensured to identify and totalize PRTR substances for clarifying handling volume, release volume, and transfer volume.



## Procurement from Suppliers

To manage chemical substances contained in products appropriately, it is imperative that we gain the cooperation of our suppliers.

For this reason, we request in our Green Procurement Guidelines that our suppliers not use hazardous chemical substances banned by NGK SPARK PLUG CO., LTD. We designate suppliers that meet our system and material standards as Green Suppliers.

In collaboration with our Green Suppliers, we promote appropriate management of hazardous chemical substances.

Our Eco Vision 2030 sets the goal of achieving 100% adoption of a green procurement system, and we will work to establish a green procurement system for the entire NGK SPARK PLUG Group. We have begun preparations to expand this initiative to overseas factories.

[Green Procurement Guidelines >](#)





# Conservation of Biodiversity

## Conservation of Biodiversity

Recognizing the conservation of biodiversity as a critical global challenge, NGK SPARK PLUG Group identifies it as a material environmental issue for us to address, along with global warming mitigation and resource recycling.

From this point of view, we established the NGK SPARK PLUG Group Biodiversity Action Guidelines in April 2013.

[Biodiversity Action Guidelines \(Japanese only\)](#)  12KB 

Using the guidelines as a guide, we are working to remain aware of the fact that our activities, particularly involving energy and resource usage, are inevitably causing impacts on biodiversity, and are taking appropriate measures to reduce such impacts throughout our business operations, in cooperation with business partners and external groups.

In addition, we fully comply with the law and do not pollute rivers or destroy forests.

To protect the rich nature of the surrounding area, the Ise Plant has introduced a "closed system" for production wastewater. Production wastewater is not discharged outside the plant site and is purified and reused on site.

As one of the measures outside the business activities, together with Komaki City, Komaki City Natural Environment Watchers (citizens registered with the city through an open application), and neighboring companies, we are working on extermination of the invasive alien species, lanceleaf coreopsis, in Komaki City every year.



Extermination of lanceleaf coreopsis



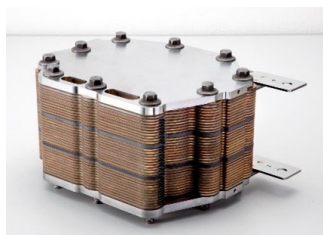
# Development of Technologies, Products, and Businesses for Contributing to the Resolution of Social Issues

## Development of Technologies, Products, and Businesses for Contributing to the Resolution of Social Issues

We are committed to developing technologies, products and businesses that meet the demands of society, with the aim of co-creating and providing new value to help solve social issues.

### Fuel Cells

Solid oxide fuel cells (SOFCs) are expected to be one of the cleanest energy sources because of their efficiency in high-power generation and effective reduction of carbon dioxide and other greenhouse gases compared to other fuel cells. NGK SPARK PLUG CO., LTD. is promoting the development of stacks that generate electricity from SOFCs, with the major business theme of contributing to the building of a future hydrogen society.



TECHNO GALAXY "PRODUCING FUEL CELLS OF THE HIGHEST GLOBAL STANDARD"

Our Stories Development of SOFC

Solid Oxide Fuel Cells (Movie)

### Lead-free piezoelectric materials

Piezoelectric ceramics are widely used in the devices for our daily use, but there are concerns that the presence of lead may have a negative impact on the environment and our health. We have developed lead-free piezoelectric ceramics, aiming to promote them for the replacement of current piezoelectric ceramics.

Lead-free piezoelectric materials

Lead-free piezoelectric materials (Movie)



### Sensing IoT

In the era of the Internet of Things (IoT), where various things are connected organically through the Internet, sensing technology is playing an increasingly important role.

By combining our wide range of sensing technologies with the IoT, we help improve business efficiency through automation, optimization, and generalization.

#### • Water quality sensing

We are working to supply a comprehensive solution for land-based aquaculture that facilitates the management of aquacultural work by applying sensing technologies, visualizing water quality data, integrating it with camera-based biological information, and implementing big-data analysis.

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Water quality sensing (Movie)

#### • Sensing technology

TECHNO GALAXY "SENSING AIR AND TEMPERATURE"





## Initiatives aimed at realizing a carbon recycle-oriented society (Carbon Neutral as a service)

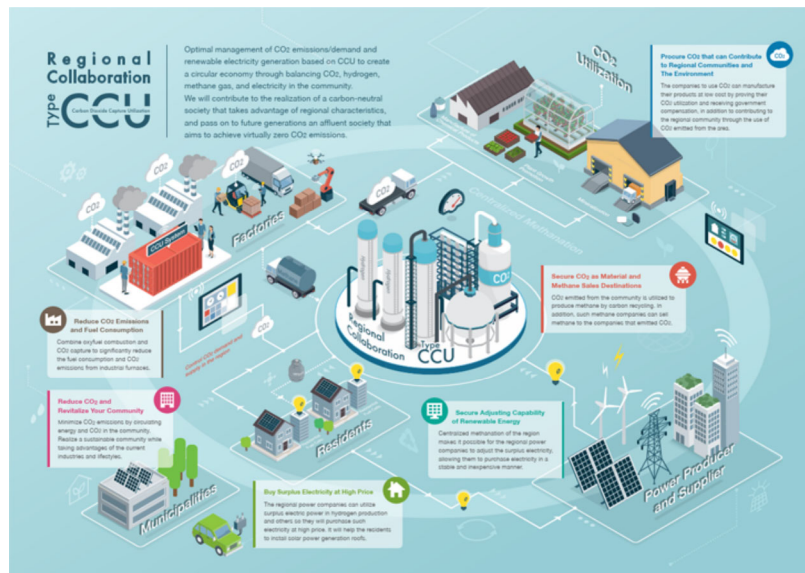
In order to contribute to the realization of a carbon-neutral society, we are developing methanation-related technologies (hydrogen production technology that applies ceramic solid electrolytes and CO<sub>2</sub> recovery technology that applies oxygen concentrator technology).

### • Regional CCU (Carbon dioxide Capture Utilization)

We are developing technologies that can contribute to the prevention of global warming by recovering CO<sub>2</sub> emitted from factories and commercial facilities and using it as a resource.

CO<sub>2</sub>, hydrogen, methane gas, and electricity are interchanged and circulated locally by optimally managing CO<sub>2</sub> emissions/demand and renewable electricity production centered on CCU (Carbon Capture and Utilization).

We will connect a prosperous society aiming for virtually zero CO<sub>2</sub> emissions to the next generation and contribute to the realization of a carbon-neutral society that takes advantage of regional characteristics.



## Searching and investigating themes that solve social issues

In order to grasp the demands of society, we participate in various organizations and projects to search and investigate new themes that contribute to help solve social issues.

### • Hydrogen Council

The Hydrogen Council is a global CEO-level advisory body with a long-term vision for the key role of hydrogen technology in the energy transition. We are participating as a supporting member.

Hydrogen Council

### • MATSURI

MATSURI is a corporate collaboration project that promotes the realization of carbon neutrality through the production of algae utilizing photosynthesis. Various companies from a wide variety of industries participate in this project. Partner companies are developing businesses in all roles from algae production to sales, including the development of equipment related to algae cultivation, the maintenance of logistics networks, and the development and sale of products, and are working together to build an algae industry.

MATSURI (Japanese Only)

### • eFuel Alliance

The eFuel Alliance is an organization whose goal is to establish and disseminate e-fuel, which contributes to the prevention of global warming, and to make it accepted all over the world.

\* e-fuel: Fuels produced by synthesizing carbon dioxide (CO<sub>2</sub>) and hydrogen (H<sub>2</sub>) are called synthetic fuels. Of these, synthetic fuels that use hydrogen derived from renewable energy sources are called "e-fuel". Since CO<sub>2</sub> in the atmosphere is used as raw material, burning e-fuel does not increase the amount of CO<sub>2</sub> in the atmosphere.

eFuel Alliance





# Respect for Human Rights

## Human Rights Policy

We are working to resolve various social issues to realize sustainable societies. We recognize that as a prerequisite for this, it is important to respect human rights of people who are affected by our business activities, and that it is essential to continuously fulfill such responsibilities in truly contributing to the realization of sustainable societies. To this end, we respect human rights set out in the Universal Declaration of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work, and make our best efforts to protect the dignity of these people based on the UN Global Compact, the UN Guiding Principles on Business and Human Rights, and the OECD Guidelines for Multinational Enterprises.

## Action Guidelines

- We comply with the laws and regulations of all countries and regions in which we conduct our business activities. If where national laws and international human rights differ, we seek ways to respect internationally recognized human rights wherever possible.
- We identify negative impacts that we could have on human rights through our business activities, and strive to prevent, mitigate, or eliminate the causes of such impacts.
- We establish a scheme for our employees and suppliers to access or report, and accept consultations and notifications concerning human rights. Upon receiving consultations or notifications, we investigate the facts, and if any problem is identified, we remedy it through appropriate response.
- We disclose efforts and progress promptly on human rights actions and keep updating ones through discussions and dialogues with various internal and external stakeholders.
- This policy applies to all Corporate Officers and employees of the Group. We provide appropriate education and trainings to ensure that all Corporate Officers and employees understand and act with this policy.
- We keep encouraging all of our business partners, including suppliers, to understand the Policy and join our efforts to respect human rights.

### <Appendix>

The Policy is top-ranked guideline on human rights actions and had been confirmed by our CSR and Sustainability Committee and approved by Board of Directors' meeting. The Policy shows the Group's approach on human rights and complements our Corporate Philosophy, CSR and Sustainability Charter, and Corporate Code of Conduct.

The Policy will be periodically updated in response to changing social and business environment and human right issues, through discussions and dialogues with stakeholders. We keep adequate management system and reflect updates on relevant business policies and procedures to integrate in entire business activities.

The human rights that the Group respects in its corporate activities include the following:

[Prohibition of forced labor]

We do not tolerate forced labor and human trafficking, and we employ employees on their own volition.

[Prohibition of inhumane treatment]

We do not engage in inhumane treatment such as abuse, corporal punishment, sexual harassment, or power abuse, and we respect the human rights of our employees.

[Prohibition of child labor]

We respect rights of children and do not employ them under the minimum age for employment in the country or region. Workers under the age of 18 shall not perform work that is likely jeopardize the healthy development.

[Prohibition of discrimination]

We prohibit discrimination of any kind, irrespective of race, color, age, gender, sexual orientation, gender identity, ethnicity, nationality, disability, pregnancy, religion, union membership, protected genetic information, or marital status.

[Working conditions and equal opportunities]

We comply with the laws and regulations of each country and region, and offer working conditions for a better life for our employees, and pay more than the legal minimum wage and do not unreasonably reduce wages. We also promote equal opportunities and equality in hiring, promotion, and compensation.

[Freedom of association and collective bargaining]

We respect freedom of association and the right to collective bargaining in accordance with the laws and regulations of each country and region.

[Responsible procurement of resources and materials]

We promote responsible procurement of resources and materials, taking into consideration human rights issues, including those relating to conflict minerals. If any use of such minerals is found, we will take appropriate measures.

[Respect for privacy]

We respect and do not infringe on the privacy of individuals.

[Comfortable workplace environment]

We comply with the laws and regulations concerning safety, hygiene and health in each country and region, and create a safe, healthy and comfortable workplace environment.

[Engagement with local communities]

To prevent negative impacts on the safety and health of local communities, we prevent environmental destruction and contamination, and conduct our business activities in consideration of the rights of local residents.

[Respect for the rights of indigenous peoples]

In business activities in areas where indigenous peoples reside, we recognize that indigenous peoples have their own unique cultures and histories, and we respect the rights of indigenous peoples as stipulated in international agreements.



## Promotion System

In our group, we confirm topics related to human rights and take action in the CSR and Sustainability Promotion System as part of issues to be addressed in terms of CSR and sustainability.

Labor and management work together to prevent harassment in the workplace. We offer consultation services through the contact point jointly established by labor and management at each of our plants and via the Corporate Ethics Helpline. The Anti-Harassment Committee promptly examines issues reported through the contacts and checks facts. It then takes corrective action and gives instructions as needed. The results of the action taken are reported to the Compliance Committee. Other matters related to human rights are handled by the Compliance Committee.

The effectiveness of the compliance system, including measures against harassment, is periodically reviewed and reported to the CSR and Sustainability Committee for confirmation.

[Compliance Promotion System >](#)

[CSR and Sustainability Promotion System >](#)

## Awareness-Raising Activities

We distribute the Compliance Guidebook to employees at our group.

The Compliance Guidebook is a booklet that compiles corporate and social rules. It is used to check correct action to be taken as a member of the NGK SPARK PLUG Group when it is difficult to make judgments. This guidebook also stipulates compliance matters related to human rights, including respect for human rights and prohibition of various types of harassment (e.g., harassment related to pregnancy, childbirth, childcare leave and long-term care leave, bullying, and mobbing, as well as sexual harassment, including that directed against people of the same gender and in relation to sexual orientation or identity). The guidebook is also used in daily awareness-raising activities, such as read-through at the workplace.

Since we signed the UN Global Compact in 2016, we have been creating more opportunities to provide education and information on human rights to our employees to raise their awareness. We have been recently increasing opportunities to raise awareness about gender equality and LGBT-related issues through our human-rights-related training and e-mail newsletters. We are also monitoring racial problems around the world.

## Human Rights Due Diligence

We are aware that various people, including employees of our group and our suppliers as well as local residents, are affected by the business operations of our group. For this reason, we have been working to identify and mitigate human rights risks related to the business operations of our group.

At present, potential human rights risks are assessed mainly on employees of our group and the supply chain, and efforts are made to mitigate and reduce such risks.

### 【Employees】

At our group, a compliance awareness survey is conducted to identify risks related to compliance, the degree of awareness and understanding, and the status of the organization, etc. The survey sheet has an open-ended response field. Respondents can anonymously write their opinions about compliance. Issues and potential human rights risks identified through the surveys are reported to heads of respective divisions to prevent them and make improvements.

We also conduct annual surveys on our group companies about human rights and labor issues to check for potential human rights risks.

### 【Supply Chain】

To promote CSR and sustainability efforts throughout our supply chain, we issued the CSR and Sustainability Procurement Guidelines, which have been deployed to suppliers. The guidelines include compliance matters related to human rights, including labor, safety, and health.

To monitor the status of implementation by suppliers, we conduct surveys every two years using a check list and provide feedback on the results. For suppliers that require follow-up activities, we visit them to check the situation. We also provide support as appropriate when improvements are needed.



## Complaint Handling Mechanism

We have contact points in place to accept opinions, questions, requests, etc. from stakeholders, including customers, suppliers, and employees.

Reports and consultation requests related to human rights from suppliers and employees are accepted by contact points for the whistle-blowing system. In response to consultation requests and reports accepted, facts are investigated with utmost care so that an employee or supplier who makes a report is not identified or does not feel anxious. If any problem is identified, action is taken promptly.

### 【Japan】

- Contact points for the Corporate Ethics Helpline (a whistle-blowing system) are in place internally and externally.
- External contact points offer consultation services and accept reports outside working hours and on holidays. Consultation requests are also accepted anonymously.
- The helpline is available for suppliers and our group employees.

### 【Outside Japan】

- Respective group companies have contact points for whistle-blowing.

[Corporate Ethics Helpline >](#)

## Showing Support to the “My Declaration of Human Rights” Project under the Auspices of the Ministry of Justice

In July 2021, we publicized “My Declaration of Human Rights” to show support for the “My Declaration of Human Rights” project promoted by the Ministry of Justice.



President Kawai holding a declaration card

“My Declaration of Human Rights” of NGK SPARK PLUG

[Special website for “My Declaration of Human Rights” of the Ministry of Justice](#)

# Global Human Resource Management

## Human Resource Policy

We acknowledge that our employees are our most important management resource. In light of this, we respect the diversity and individuality of our employees and strive to develop the group as a whole by ensuring that these self-leading and innovative human resources can fully demonstrate their capabilities.

### Action Guidelines

- We foster aspiring human resources who can act to bring about changes and also change themselves (self-leading and innovative human resources) and establish an environment where they can perform to the best of their abilities.
- We strive to nurture a corporate culture where human resources with different qualities can fully realize their own capabilities and ensure that the right human resources are assigned to the right posts.

### Diversity,Equity & Inclusion

Women’s empowerment initiatives, employee-friendly work environment, and more.

[View details >](#)

### Work-Life Balance

Work style reforms, work-life balance support, and more.

[View details >](#)

### Human Resource Development

Continuous education and training activities, development of managerial human resources, and more.

[View details >](#)



## Basic Philosophy

In our Long-term Management Plan "NITTOKU BX," we have set "Beyond ceramics, eXceeding imagination" as our vision for 2040. The core message of this vision is to be a company that coexists with a diverse range of human resources with aspirations. We are not only concerned with "What ceramics can do," but also with the acquisition and development of diverse and autonomous employees as a management strategy to take on challenges beyond the realm of ceramics and beyond the world and our own imagination.

Specifically, in January 2021, we announced the Work Style Reform Declaration to promote diverse work styles, and in April of the same year, we introduced an in-house company system and spun off some businesses. In addition to clarifying the responsibilities and authority of each business and individual, we have created an environment that facilitates the individuality and characteristics of each business. Some companies are operating a system to identify the individuality and abilities of employees and match them with jobs in their fields of interest. In addition, we continue to focus on the development of the younger generation through the HAGI Program for developing the next generation of managerial human resources and the Raise UP Program, which promotes the advancement of women. Looking outside the company, we are actively promoting open innovation such as the Venture Lab\*, which is intended to connect with industry, government, academia, or overseas advanced technologies and their groups.

In terms of human resource diversity, the Group has set numerical targets of 25% women, foreign nationals, and career hires in managerial posts and 30% or more women and foreign nationals on the Board of Directors by 2030. At the end of FY2021, the former is 17% and the latter is 18%. These indicators are not set with the intention of focusing solely on gender or nationality. We are committed as a management team to making efforts to create an organization that embraces and makes the most of the colorful individuality and characteristics of our employees.

Furthermore, in April 2022, the personnel system has undergone a major change. In order to accelerate the creation of self-disciplined creative human resources who can realize the themes of the Medium-term Management Plan, "Break to change" and "Change to create," we have incorporated the Group Human Resource Policy, which clearly defines the direction of human resource policies that the entire Group will pursue, and have created a highly fair personnel system that rewards achievements and challenges regardless of age or other backgrounds.

Also, we promote health and productivity management, believing that it is essential for the sustainable development of the Group that employees work in good physical and mental health. In addition to our annual employee satisfaction survey, we have introduced a quantitative indicator as a tool to visualize engagement that can be checked by line managers, along with the one-on-one meeting between superiors and subordinates, which have been introduced on a trial basis in FY2019. We have also introduced GOOD MORNING COLOR, developed by ignArt, a new company launched in 2020, and are actively working to improve workers' self-care and workplace communication.

In order to combine different "knowledge" to achieve a future that is beyond the current way, the Nittoku Group will continue to work to promote diversity, equity, and inclusion as its management strategy.

\* Bases for creation of new business pillars in Silicon Valley, Tokyo, and Germany

## Employee Satisfaction Survey

In order to grasp the Group's situation and challenges and make improvements, we have been conducting an employee satisfaction survey targeting employees of NGK SPARK PLUG and group companies in Japan.

The response rate for FY 2020 survey reached 88.0%, and the satisfaction rate was 46.2%, showing a decrease from the previous year.

The survey results are returned to the heads of each department who work on improvements based on the understanding of the department's situation and challenges indicated by the survey results. Also, the Human Resources department is working to create a better working environment by interviewing young employees in each workplace to identify issues.



# Diversity, Equity & Inclusion

## Basic Philosophy

We consider diversity, Equity and inclusion to be one of our most important management strategies as we believe that diversity and inclusion are essential for companies to attain sound growth and ensure happiness for all employees.

We acknowledge and accept different people regardless of their gender, sexual orientation, age, disabilities or nationality as well as of their lifestyles or personality. Then, we utilize new values and ideas coming from an employee-friendly workplace that accepts such people by combining different "knowledge."\*

\*Combining different "knowledge" means combining human resources with different attributes, values or ideas.

## Gender Equality Initiatives (Promoting Empowerment of Women)

Since 2013, as our first step toward diversity promotion, we have been putting effort in creating working environment across the company where women can truly thrive and play active roles. We are trying to change the mindset of both managers and female employees themselves, regarding the empowerment of women as a driver for the reform of our corporate culture. We will continue to make further efforts to increase the ratio of women in managerial positions.

### Raise UP Program (Selective Female Manager Promotion Training)

This is a selective training program for female employees whose next stage of growth will be managerial positions, to acquire the knowledge, skills, and attitude required to become what they want to be. The program embraces the concept "one step forward in a resilient manner while staying true to oneself," and the first word in the name of the program represents the components that make up the concept: Resilient, Active, I (true to oneself), Smart, and Exceed (one step forward). We have appointed several executives as advisory board members for the program, providing opportunities for trainees to voluntarily seek advice and support for their efforts in the program, and acquire multiple mentors. Trainees will gain the perspective required of managers, and at the end of the training, they will give a presentation in front of the chairman and president. Through the training, we help trainees get ready to become managers and to take on challenges with confidence.

### Lectures for those in managerial positions

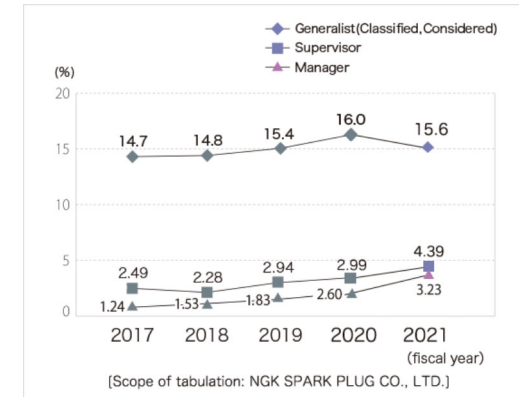
We hold annual lectures on diversity for executives, managers, and section chiefs, by inviting prominent outside lecturers. By providing opportunities to acquire knowledge of advanced cases, we help participants change the way they think and raise awareness while spreading the significance of promoting diversity.

## MT training

The name of this training, "*mimi-tako* (MT)," is derived from a Japanese phrase meaning "hear enough." To raise managers' awareness, the MT training is held repeatedly under the themes of, for example, diversity, the Nittoku Way, and compliance to the extent that trainees feel they have heard enough.



Number of Female Employees in a Managerial Posts



Proportion of Female Employees

## External commendation for the empowerment of women

- Selected to be a Nadeshiko Brand company (for FY2021)
- Signed the Women's Empowerment Principles (WEPIs)
- Granted Kurumin certification (for FY2020)
- Selected to be a Nadeshiko Brand company (for FY2018)
- Certified by Aichi Prefecture as an "Aichi Josei Kagayaki Company (Company Supporting Aichi Women's Career Success)" (for FY2017)
- Included in "New Diversity Management Selection 100" by the Ministry of Economy, Trade and Industry (for FY2017)
- Granted Eruboshi two-star certification based on the Act on Women's Participation and Advancement in the Workplace (for FY2016)
- Granted the 2015 Japan Productivity Center Incentive Award Empowerment Grand Prix for Activities by Women
- Received the 2014 Excellence Award, Nagoya City Accreditation and Commendation System for Companies that Promoted Increased Roles for Women

Information Disclosure Based on Promoting Empowerment of Women

External Evaluation of Our ESG Initiatives [>](#)





## Providing Workplaces Where Employees Can Continue to Exert Their Abilities

The growth of employees leads to the sustainable growth of the company. Based on this recognition, we are working to provide employees with workplaces where they can choose the right career for themselves, enhance their expertise and skills, and continue to make a meaningful contribution.

For example, we launched the Platinum Project targeting employees who are aged 60 and above, also known as the "platinum generation," to ensure that employees who wish to remain in the workforce after reaching the retirement age can continue to use their skills.

In the Platinum Project, we hold various seminars and provide information through an e-zine.

### Establishment of a career consultation helpline

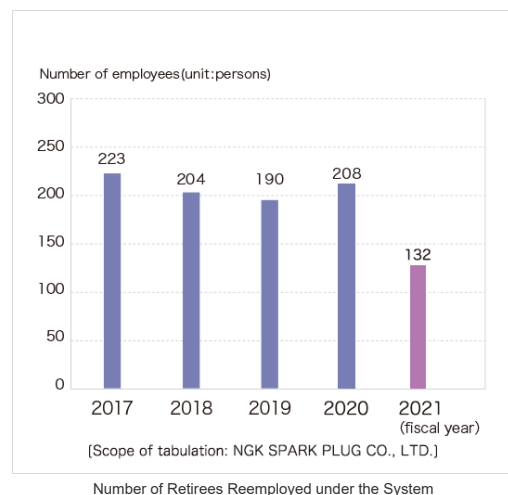
Through this contact, employees who have a national qualification for career consulting respond to calls for advice about career vision, work motivation, life events, etc. The career consultants do not provide solutions but instead help the questioners find answers for themselves.

### Promoting the use of "My Career"

As a tool to help employees to look back on their past, set their future vision and commit themselves to achieving the vision, we use "My Career." Employees annually input information about their career to date and their future aspirations into "My Career," which their managers then refer to in interviewing them to support their career development.

### Diversification of the work styles of the platinum generation

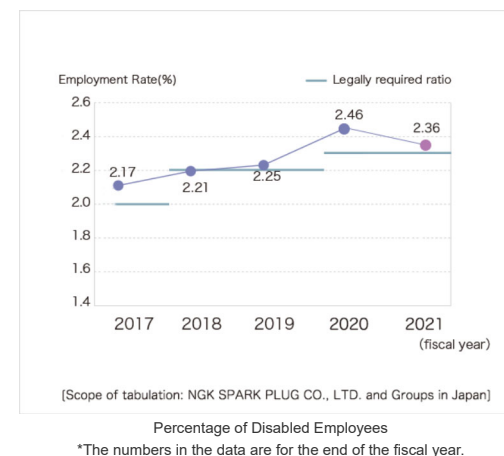
Some employees in the platinum generation are eager to work but do not have confidence in their physical stamina. In response, at some of our plants we have begun to exempt such employees from the night shift upon request, with other employees working at night instead.



## Employment of the Disabled

We established Nittoku Smile Co., Ltd. in order to promote employment of workers with disabilities and it was certified as a special subsidiary in January 2018. We aim to create a comfortable environment for workers with disabilities.

The percentage of employees with disabilities at the end of fiscal 2021 was 2.36%, reaching the mandated employment rate of 2.3%. We continue to create a better working environment by promoting understanding of employment of workers with disabilities within the company.



## Putting Focus on the Employment of New Graduates with Foreign Nationality

We are promoting the employment of foreign nationals in our effort to adapt to the rapid progress of globalization and encourage diverse talent to play active roles. For new graduates, we have been employing at least three foreign nationals every year, recently with a special focus on the employment of foreign nationals who have studied the Japanese language at overseas universities and want to work in Japan, in addition to those who have studied in Japan.

In order to help newly-hired foreign national employees smoothly adapt to life in Japan, we offer them various supports, including a help site Nittokupedia created by their senior colleagues, a work buddy program to work with Japanese peers, teaching of Japanese language and cross-cultural training. With non-Japanese new graduates and mid-career employees, including both engineers and office personnel, demonstrating their abilities at our workplaces, we can increase our diversity awareness across the company.

We are recognized as a company that has been proactively employing highly-skilled foreign professionals,\* and our efforts shown above are covered in "Fifty Japanese Companies Providing Successful Careers for Highly-skilled Foreign Professionals" released by the Ministry of Economy, Trade and Industry, and in a publication issued by the Ministry of Health, Labour and Welfare to introduce a collection of successful case examples that help improve employment management to create an attractive working environment for highly-skilled foreign professionals. In addition, we have been selected for the Japanese government project "Visionary Management 2021," which selects about 100 companies from all over Japan that are working on employing highly-skilled foreign IT personnel, that is to say, a new management method of hiring excellent talent regardless of nationality.

\*Highly-skilled foreign professionals: foreign human resources with advanced expertise and skills



## LGBTQ Initiatives

Our human resources policy states that we respect the diversity and individuality of our employees, and we aim to create a workplace where LGBTQ employees can play an active role with pride.

### Main initiatives

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We continuously provide employees with various training programs and raise their awareness through our in-house email newsletters so that they can acquire accurate knowledge. In addition, we are proceeding with initiatives such as adopting gender-neutral uniforms with unified designs and colors, and installing multipurpose toilets accessible to anyone.

### Countermeasures against harassment

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Our human rights policy explicitly states that we will not discriminate on the grounds of LGBTQ. In addition, consultations on LGBTQ and other sexual harassment are given by both labor and management at the consultation desks set up at each plant and via the Corporate Ethics Helpline. Prompt action is taken by the Harassment Control Committee.

In recognition of these efforts, in 2021 the company was awarded Silver Recognition in the PRIDE Index, an index established by the voluntary organization "work with PRIDE" to evaluate corporate LGBTQ initiatives.

# Work-Life Balance

## Work Style Reform

To improve productivity and develop self-disciplined human resources, we have formulated Work Style Reform Declaration based on two pillars: promoting comfortable remote work and creating new value with tools responding to change.

### Work Style Reform Declaration

We recommend "diversified work styles" for "Creating an organization comprised of passionate individuals working together" of Nittoku BX.

- Promote comfortable remote work to employees
  - Create an environment with a goal of a remote work rate of 70% or more.
- Prepare tools that respond to change and create new value
  - To that end, we will invest in digital solutions.

And we want you to find the best for yourself from the many options and become a "self-disciplined human resource who can continue to add value".

NGK SPARK PLUG Group respects each person's values and aspirations.

We are working to put in place a remote access environment and introduce a telephone extension system even available for employees working remotely or on business trips to realize the work style reforms.

We are also promoting the creation of working environment where employees can more easily work remotely by eliminating a requirement for attendance (clock-in time), offering a remote work allowance, putting in place satellite offices and sharing information on ingenious approaches for remote work taken at workplaces.

We will review the modality of organization as well as our business management through the promotion of remote work, and create self-disciplined human resources who are not tied down to tradition and capable of creating new value.

In October 2021, we launched a second job plan with the aim of providing more opportunities for employees to play an active role in various fields. This plan is available for employees who meet the requirements and are granted permission. We expect positive effects, including the formation of new networks, the acquisition of diverse work styles, self-development and self-actualization, and the expansion of business opportunities.



## Reduction in Working Hours

We are working to reduce overtime in order to reduce total working hours. When pre-planned overtime is known about, the company management and the labor union confirm the situation in the workplace and engage in consultation designed to keep working hours within the target. As a result of addressing the issues discussed at the labor reform committee, we are starting no-overtime Wednesdays and prohibiting overtime in excess of five hours per day.

Furthermore, as a measure of the labor reform committee, we added a new regulation for having 10-hour intermission between working hours, and failing to comply with the rules is expected to be subject of the labor-management consultation as a strategy for suppressing overtime work.

An annual variable working system was introduced from April 2020, allowing workers to set their monthly working hours according to the year's busy seasons, allowing for a reduction in overtime and a more flexible working style.

## Labor-Management Relations

Labor-management relations should be oriented to the combined employer-employee effort to contribute to society through the provision of good products and services. At NGK SPARK PLUG CO., LTD., both labor and management understand their respective responsibilities and strive to improve the work environment through mutual trust and cooperation.

Labor-management conferences are held three to four times a year on individual workplace and companywide bases, providing communication opportunities. These are chances to discuss various topics including the company's situation and how to improve the labor environment, and opportunities for employees to have their opinions heard. These conferences serve as opportunities to form a labor-management consensus through lively discussions on various issues, including the situation of the company and improvement of the working environment.

### NGK SPARK PLUG Group labor union

NGK SPARK PLUG Group labor union's participation rate	94% (As of March 31, 2022)
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\*Including CERAMIC SENSOR CO., LTD, SparkTech WKS CO., Ltd., NANSEI CERAMIC CO., LTD., NTK Medical CO., LTD., NTK CUTTING TOOLS CO., LTD., NTK CERATEC CO., LTD. (Komaki Plant)

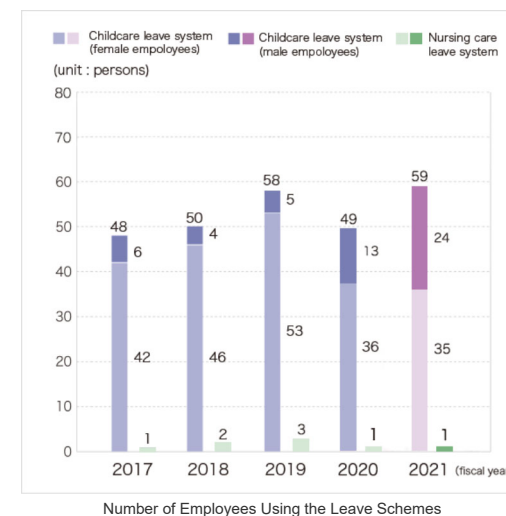
## Initiatives that Consider Work-Life Balance

We are promoting initiatives improve the work-life balance of employees.

The percentage of female employees taking childcare leave now exceeds 98%, and the number of male employees who take childcare leave has increased in recent years.

Through the revision of our reduced working hours plan, which used to be only available for those involved in childcare or long-term care, we have made the plan available without imposing any requirements, thereby expanding the work style options for employees.

For flextime working, we do not set core hours, and from April 2022, hourly leave can be taken, allowing employees to work in a more flexible manner.



Publication of information based on the Act on Advancement of Measures to Support Raising Next-Generation Children



## Plans

Plan	Overview
Flextime working plan	Employees can decide the start and end times as long as they work the prescribed total monthly working hours.
Hourly leave plan	Employees can take hourly leave (paid) for any reason.
Second job plan	Employees can be hired by another company or work freelance in accordance with the rules while making the job at our company their main job.
Telecommuting plan	We recommend telecommuting toward a target telecommuting rate of 70%. A remote work allowance is paid according to the number of telecommuting days.
Reemployment plan for employees retired due to their spouse's transfer	Those retired due to their spouse's transfer can be rehired.
Special leave for antenatal outpatient visits	Pregnant employees can take special leave as follows:- 12 to 23 weeks pregnant: one day every four weeks;- 24 to 35 weeks pregnant: one day every two weeks; and- 36 weeks pregnant onward: one day every week.
Special unpaid leave for fertility treatment	It is possible to take special leave (unpaid) for outpatient visits to undergo infertility treatment.
Childbirth leave	Employees can take leave 17 weeks before the expected date of delivery and eight weeks from the day after delivery.
Childcare leave	Employees can take leave after the birth of their child until the day before the child's first birthday.
Extension of the childcare leave period	The childcare leave period can be extended to the end of April after the child's second birthday if the child cannot enter a day-care center, or childcare while working has become difficult due to the death/injury/illness of the spouse engaged in childcare.
Reduced working hours (childcare)	On the grounds of childcare, employees can reduce their working hours by two hours from the prescribed working hours from the desired date until the end of the school year during which their child is in the third grade at elementary school.
Reduced working hours (long-term care)	On the grounds of long-term care, employees can reduce their working hours by two hours from the prescribed working hours from the desired date until the end of long-term care.
Reduced working hours (other reasons)	Regardless of the reason, employees can reduce their working hours by two hours from the prescribed working hours from the desired date to a predetermined date.
Child nursing care/long-term care leave plan	Employees can take special leave (unpaid) on an hourly basis to provide child nursing care or long-term care if they are raising a child in the third grade at elementary school or younger, or have a family member (in the first or second degree) in need of long-term care.
Special paid leave for employees with disabilities for their outpatient visits	Employees with disabilities who have notified the company of their disability can take special leave (paid) once a month when they need leave for their outpatient visit to undergo an examination or consult a doctor.

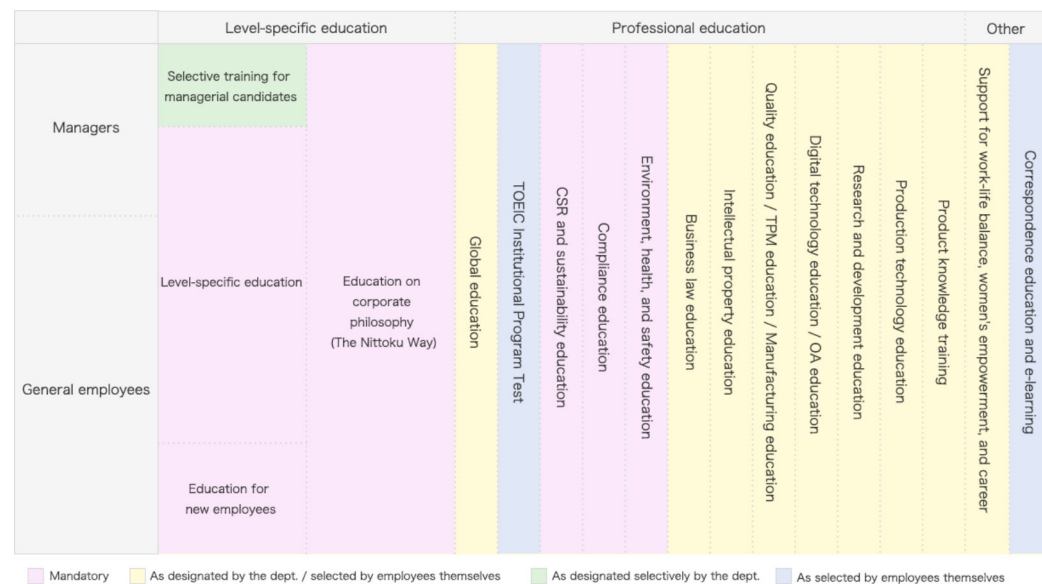
# Human Resource Development

## Continuous Education and Training Activities

Based on the Four Shared Values of the Nittoku Way (Shisei-Shinjitsu, Dokuritsu-Jiei, Shikai-Keitei and Soshi-Kantetsu) and on the "Quality Product" and "Participation by all" principles, we conduct education and training activities in a planned manner to continuously develop employees who can boldly deal with challenging internal and external changes as well as those with high levels of expertise.

Our education and training activities consist mainly of OJT (on-the-job training), through which employees can acquire technologies and knowledge through their hands-on work. We also offer OFF-JT (off-the-job training), providing employees with new technologies, knowledge and skills outside their respective workplaces. We have a wide range of OFF-JT programs that include training by organizational level and role to provide necessary knowledge and skills, product quality education, environment and safety & health education, manufacturing education, education in global business, and career development support.

In FY 2020, we had to cancel some training programs due to the spread of COVID-19. However, we implemented thorough measures against the spread, such as changing the training method from group training to online training, and a total of 3,706 employees took the courses.





## Development and Management of Managerial Human Resources

As we expanded our business globally, in 2016, we started a program to find and develop the next generation of global managerial human resources, targeting all Group companies.

This program is intended to facilitate the employment and promotion of candidates regardless of nationality and to provide them with opportunities and environments that allow them to demonstrate their abilities. It was named the “HAGI Program” after Hagi City in Yamaguchi Prefecture, where the Shoka Sonjuku school developed diverse human resources at the end of the Edo period.

Chairman Shinichi Odo serves as the head of the program. Under the program, seminars have been held on a continuous basis to provide employees with opportunities to learn together with a focus on gaining a big picture view encompassing the entire company.

We are thereby developing leaders with the will and sense of mission required to take the NGK SPARK PLUG Group into the future.

Targeting human resources in Japan, we run Nittoku Business School classes for employees who are almost qualified to participate in the HAGI Program. For these classes we have prepared a curriculum that helps participants develop logical thinking and acquire knowledge and skills regarding management strategies, marketing and presentations. It also includes case studies based on actual examples and is intended to help participants to develop the spirit, techniques and physical stamina required of leaders.

Employees who have completed the HAGI Program and the Nittoku Business School curriculum have already been making contributions in core positions within the Group.

We have also established a selective human resources development program for each of North America, Europe, Asia and other regions and implement the program four times a year for the local development of business leaders.

Moreover, in order to visualize the personal histories and skills of employees who are candidates to become business leaders, we have collected information about NGK SPARK PLUG’s managers and executives of overseas Group companies for input into our human resource databank, which is used in discussions by the Human Resources Committee. This committee is composed of the members of the management team and has been meeting monthly since FY2018. At the meeting the members discuss personnel affairs regarding core positions and work to place the right person in the right job for total optimization.

## Development of Managers

For the development of managers, we provide them with opportunities to review their past management approaches and observe the situation of their respective workplaces in an objective manner.

### Implementation of a 360-degree survey

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We implemented a 360-degree survey targeting departmental managers and those in higher positions in FY2018, and we will expand the survey target to include sectional managers and those in higher positions in FY2020.

In the survey, we examine leadership qualities of the respondents, including progressiveness, intelligence and sense of responsibility, as well as negative attributes that might hinder them from demonstrating their leadership, such as being avoidant. The survey results reveal the gaps between what the surveyed individuals think about themselves and what others think about them. We give feedback to the respondents to help them become aware of the importance of “observing” themselves.

### Use of an indicator to visualize workplace engagement

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Along with the “one-on-one meeting,” which we introduced on a trial basis in FY2019 to foster dialogue between managers and their subordinates for the development of workers able to work autonomously, we have also introduced a quantitative indicator as a tool to visualize workplace engagement. This engagement indicator numerically shows the level of employees’ eagerness to contribute to their organizations and jobs, and is designed for use by line managers to check the management level of their workplaces.



# Occupational Health and Safety

## Occupational Health and Safety Policy

With high respect to humanity, we act on occupational health and safety as the company's starting point.

### Action Guidelines

- To prevent health damage, injuries at work, and illnesses of employees, we will provide healthy and safety working environment and act to improve physical and mental health.
- We will comply with laws and voluntary regulations regarding Occupational Health and Safety.
- We will continuously improve occupational health and safety management system and health and safety performance.
- We will eradicate injury at work by eliminating hazards for occupational health and safety and by reducing risks.
- We will promote ability and awareness at occupational health and safety through education and enlightenment.
- We will inform all employees about this policy and engage in health and safety activities with the participation of all employees.

### Health and Safety Activities

Our approaches to elimination of occupational accidents, and more.

[View details >](#)

### Health Promotion Activities

Health and productivity management, health promotion activities, and more.

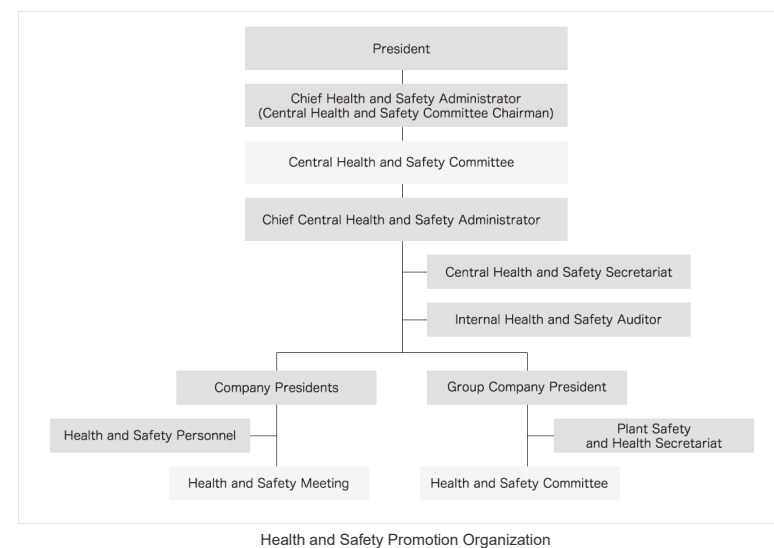
[View details >](#)

## Promotion System

With the aim of eliminating on-the-job injuries and creating a comfortable, safe work environment, we have established and implemented domestic occupational health and safety management system OHSMS (Occupational Health and Safety Management System). The company, headquarters, and the group companies in Japan set safety goals and safety plans in accordance with our OHSMS guidelines, aiming to conduct health and safety activities based on a "total involvement" principle. To attain a step-by-step improvement of our safety status, these progress and results of such OHSMS efforts are verified by our internal health and safety auditors as well as each health and safety committee and the central health and safety committee.

In FY 2021, our company acquired ISO 45001\*1 certification, an international standard for occupational health and safety management systems. From this time forward, the NGK SPARK PLUG Group, including domestic and overseas group companies, will work on health and safety activities so that these companies can also acquire ISO 45001 certification.

\*1 : ISO 45001 is the first international standard for occupational health and safety management systems issued by the International Organization for Standardization (ISO).





## Targets & Results for Fiscal 2021

Item		Fiscal 2021 Target	Fiscal 2021 Result	Evaluation
Health and Safety Activities	Person	Promotion of "Po-Ke-Te-Na-Shi"*1	In addition to spreading awareness of "Po-Ke-Te-Na-Shi" by, for example, placing crossing guards, pointing and calling points were specified in the procedure manuals for work that includes risk level IV and III tasks at each workplace.	○
		Communicate hazards and risks	At each workplace, the hazards and risks at risk levels IV and III were communicated to the workers on a priority basis.	○
		Implementation of traffic KYT (Kiken Yochi Training, or risk prediction training)	Conducted KYT (risk prediction training) activities related to traffic safety at each workplace to raise awareness. In addition, information on traffic safety was communicated at health and safety committees and by email.	○
	Machine / work	Procedure for removing safety covers	For the work of removing safety covers for maintenance or other purposes at each workplace, the workflow from removing the safety cover to putting it back was added to the work procedure manuals.	○
		Safety cover inspection to check for dislodgement or damage	At each workplace, a requirement for checking the condition of safety covers was added to the daily inspection items for machinery.	○
	Working environment	Improvement of management categories III and II, and maintenance of management category I	The working environment was measured, and then improved based on the measurement results.	○
	Health	Implementation of measures against lifestyle-related diseases	To reduce the risk of developing gastric cancer, Helicobacter pylori testing has been introduced in periodic health examinations.	○
Implementation of mental health measures		We dispatched occupational physicians to spin-off group companies, identified workers with mental disorders at these companies, and took appropriate measures.	○	
Implementation of passive smoking measures		A monthly non-smoking day (Suwan Day—"suwan" means "non-smoking" in Japanese) was established, and we also raised awareness of non-smoking through broadcasting on-site announcements.	○	

\*1: "Po-Ke-Te-Na-Shi" (Pocket-Phone-Handrail-Shortcut-Pointing) is a general term indicating precautions to protect workers from being involved in an accident while walking around the workplace and to reduce operational errors by conducting pointing and calling in practical operations, for example, "Do not walk with hands in pockets," "Do not use your cell phone while walking," "Make sure to hold the handrail while ascending or descending stairs," "Avoid crossing at an angle (shortcut)," and "Never fail to conduct pointing and calling at the points specified for this practice."

## Targets for Fiscal 2022

Item		Health and Safety Targets	Ideal Situation
Health and Safety	Person	Promotion of "Po · Ke · Te · Na · Shi"	Develop person who can act safely
		Communicate hazards and risks	
		Implementation of traffic KYT	
	Machine/ work	Setting pointing and calling points for work procedures	Provide safe work and machine procedures
		Checking differences in operations between workers through safety observation	
	Working environment	Improvement of management category III, II, maintenance of the management I category	Create a safe and comfortable working environment
Health	Implementation of measures against lifestyle related diseases	In a comfortable working environment, employees and their families raise their health awareness and work in good physical and mental health.	
	Implementation of mental health measures		
	Implementation of passive smoking measures		

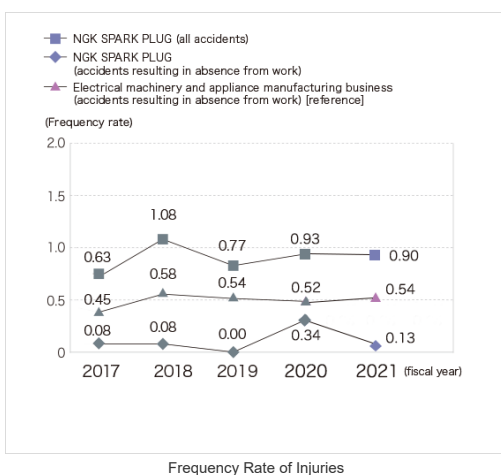




# Health and Safety Activities

## Toward Elimination of Occupational Accidents

In FY 2021, seven occupational accidents occurred (previous fiscal year: 11 accidents), and the total frequency rate was 0.90 (previous fiscal year: 0.93). Most accidents were caused due to non-routine work. The number of lost-time injuries was one (previous fiscal year: three). This injury was caused due to a rear-end collision with a following vehicle while traveling by car.



\* Our calculation of lost-time injuries frequency rate was reviewed by Japan Quality Assurance Organization (JQA) and we received the following verification report.

[Independent Verification Report](#) 910KB

## Procedures for Reporting Industrial Accidents, etc.

Upon the occurrence of an industrial accident, the workplace promptly reports this fact and prepares a preliminary report on the accident. In addition, the workplace conducts a fact-finding survey and prepares an accident witness report featuring permanent measures that could be taken to prevent a recurrence.

The preliminary report and the accident witness report are distributed to all employees of the NGK SPARK PLUG Group. In this way, we are raising awareness and taking measures to prevent similar accidents from occurring in the future.

## Risk Assessment (RA) Initiatives

Risk assessment (RA) is the core activity of our occupational health and safety management system (OHSMS). We have reviewed diverse potential risks resulting from workplace equipment, chemical substances, and work at every workplace and evaluated them to take hardware/software countermeasures (residual risk management), prioritizing the most dangerous risks.

Also, the head of the workplace has conducted work observations and reviewed the results of RA.

## Improvement of Working Environment

We conduct working environment measurements based on laws and regulations, targeting workplaces that handle chemical substances and workplaces subject to significant dust pollution and severe noise. Plants and workplaces that have been classified in the second or third management category are especially encouraged to implement effective solutions so that they can be reclassified in the first management category.

We also take measures to prevent cases of heat stroke in the summer by measuring the humidity and temperature in hot workplaces, encouraging an adequate intake of water and salt, providing cooling gear and the like.

In our offices, we appropriately control the level of lighting, temperature and humidity to ensure that the environment is suited to the work. In winter, we install humidifiers to help prevent the spread of colds and influenza. For COVID-19 as well, we take preventive measures against infection by issuing internal notices in accordance with the guidelines of the Ministry of Health, Labour and Welfare.

## Enhancement of Education, Training and Enlightenment

We conducted a variety of educational and training activities with the aim of building a safety culture from the view point of "people," "products" and "systems". Not only to prevent the recurrence of injuries, but to prevent them from occurring.

### Stratified training

The program is implemented for new employees, third year, tenth year, managers, section managers and supervisors, and is being rolled out progressively to domestic group companies.

### Specialized training

We are working to prevent industrial accidents by enhancing specialized training on chemical substances, dust, noise, and the like.



## Training with hazard simulation machine

The use of hazard simulation machines, which are designed for simulations of accidents that may occur in a workplace, such as being pinched or entangled, allows trainees to experience the fear of having an accident, which is difficult to describe in words. Trainees can also learn how to avoid accidents.

In addition to 29 types of hazard simulation machines, two types of machines to check the wearing of protective equipment are available.



Hazard simulation training :  
VR (virtual reality) + simulation machines

## Health and safety, environment exhibition

With the work style reform, we held the exhibition online. Efforts and case studies related to health and safety, environment are introduced to foster employees who will act on their own.

## Health and Safety Guidelines

All employees are given this book, and it is read together in each workplace, leading to safe behavior for each employee. In response to diversification, the book is translated into English and Portuguese. A web version is also available.

## Health and safety committee activities for rule compliance

We conduct activities that comply with the rules to create safe and secure workplaces and employees. To prevent walking related injuries with a focus on "Po · Ke · Te · Na · Shi" awareness. In particular, we are promoting pointing and calling.

Managers and supervisors on the workplace also carry out workplace patrols, risk prediction and share examples of Hiyari-Hatto (near misses), acting as the leaders of workplace health and safety management.



"Po · Ke · Te · Na · Shi" awareness poster

# Health Promotion Activities

## Health and Productivity Management

NGK SPARK PLUG regards the health of employees as one of its important managerial resources for sustainable corporate growth and is fostering the health of individual employees for "health and productivity management." In December 2017, we made a declaration on health and productivity management as the entire NGK SPARK PLUG Group and are implementing preventive and other measures against lifestyle-related diseases, mental disorders and passive smoking to proactively support the health of employees.

Thanks to the evaluation with respect to our activities, we have been certified as an "Outstanding Health & Productivity Management Organization" sponsored by the Ministry of Economy, Trade and Industry, and Nippon Kenko Kaigi.

In recognition of these efforts, we have been selected as one of the 50 enterprises under the Health & Productivity Stock Selection, a program jointly sponsored by the Ministry of Economy, Trade and Industry and the Tokyo Stock Exchange.

In addition, we have been certified as one of the Health & Productivity Management Outstanding Organizations (Large Enterprise Category) under a program jointly sponsored by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi, for the sixth consecutive year since 2017, and in 2022, we were even recognized as one of the "White 500" top-ranking enterprises.



## Declaration on health and productivity management

- I . The NGK SPARK PLUG CO., LTD. Group declares that we will support the health of each and every employee and promote Kenkoieiei (Health and productivity) by viewing the health of our employees as one of the most important management resources in order to realize sustainable growth.
- II . We will respect the diversity and individuality of each employee and promote the creation of a workplace in which each employee can fully demonstrate his or her abilities as well as work energetically.
- III . We will work together with the labor and health insurance unions to actively engage in health promotion activities that include employees' families from a long-term perspective.

Takeshi Kawai  
President & Chief Operating Officer



#### Priority Measures

##### 1) Prevention of lifestyle-related diseases

- Review of diet and exercise habits
- Follow up on those requiring special attention
- Group education and activities

##### 2) Mental health

- Prevention through self-care
- Subordinate care enhancement
- Work environment improvement

##### 3) Secondhand smoke prevention

- Promote quitting smoking
- Prevent secondhand smoke

\*Kenkokeiei is a registered trademark of NPO Kenkokeiei.



## Prevention of Lifestyle-Related Diseases

To prevent lifestyle-related diseases regular health checks are essential.

To help employees maintain and promote their health, we task industrial physicians, medical doctors and nurses with following up with employees who have been found to have problems as a result of undergoing health checkups. Such employees are also referred to appropriate medical institutions as needed. Moreover, we provide employees with a smartphone app, which is linked with the internal health management system, and employees are using the various functions of the app to promote their health.

## Enhancing Mental Healthcare

We are working on in-house and external Line-Care educational programs for managers and implementing to read the Self-care handbook in our workplace to make our employee prevent awareness of disease and self-management of health.

Also, we carry out stress checks to analyze the impact of work environments on employees. Based on the results, we provide them with a safe and comfortable workplace and prevent employees from suffering mental disorders due to stress.



The Self-Care Handbook

## Prevention of Passive Smoking

NGK SPARK PLUG has declared that it will totally ban smoking on the premises of all its sites in and after April 2023. Toward this goal we have been gradually limiting smoking hours as well as giving support to those who want to quit smoking, such as by referring them to smoking cessation clinics. Some business sites are moving ahead with implementing a total smoking ban on their premises.



## Initiative to Prevent Infectious Diseases

To protect employees from the seasonal influenza every year, we strive to prevent the spread of infection. Particularly regarding group infection at workplaces, which may affect our daily operations, we are ready to cooperate with the relevant divisions to implement immediate and intensive measures. During the flu season, we issue weekly reports so that all employees can share the information and take effective countermeasures.

In addition, we are continuing to gather information on new infectious diseases (novel influenza, novel coronavirus, etc.). We stockpile facial masks, disinfectants, and other countermeasures, and have formulated infection prevention measures and guidelines for dealing with infections in the workplace to ensure that all employees are aware of them.

## Efforts by NGK SPARK PLUG CO., LTD. Health Insurance Society

Working together with the company and the labor union, the health insurance society provides a wide variety of programs to support the mental and physical good health of member workers and their families.

Specifically, health management and disease prevention efforts conducted by the health insurance society include: metabolic syndrome improvement / prevention programs; subsidies for flu vaccination; and other health management promotion programs such as walking tours. As an employer, we also promote collaborative health by providing support for specific health guidance and gynecological checkups, etc.

In recognition of these efforts, the NGK SPARK PLUG CO., LTD. Health Insurance Society was selected as one of the 2022 Certified Health & Productivity Management Outstanding Organizations (Small and Medium-Sized Enterprise Category) under a program jointly sponsored by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.

# Quality

## Quality Policy

We continue to cocreate value with customers and contribute to society in accordance with basic traits of "Quality Product" & "Involvement by all".

## Action Guidelines

- We constantly consider what we should do to please our customers with our products and services, with a view to increasing our organizational capability.
- We are engaged in quality improvement activities across the company and encourage our employees to achieve higher goals by making the best use of their individual abilities and creativity and uniting their wisdom to address problems and challenging issues.

## Promoting Total Quality Management

NGK SPARK PLUG CO., LTD. is working to share and practice the concepts of TQM (Total Quality Management) in order to become a group company that creates value for all stakeholders and has a system that can respond flexibly and swiftly to change. Based on our CSR Policy, we have updated NGK SPARK PLUG CO., LTD.'s Corporate Quality Rules and identified the following five areas as the mainstays of total quality management (TQM).

### 1) Quality assurance

In order to provide products and services that meet the needs of our customers and society, NGK SPARK PLUG CO., LTD. will establish all operations and guarantee their safety and reliability and promote development activities aimed at creating new value.

### 2) Daily management

NGK SPARK PLUG CO., LTD. will consider methods and indicators to measure the quality of all our operations and promptly investigate the causes when results that differ from normal are obtained as well as taking countermeasures to maintain and improve quality.

### 3) Policy management

NGK SPARK PLUG CO., LTD. will further improve and innovate activities to maintain and enhance quality. We will establish strategies and objectives for creating new value for customers and responding to the evolving internal and external business environment and explicitly identify issues and problems that need to be tackled as we work towards achieving our strategies and objectives.



#### 4) Small group improvement activities

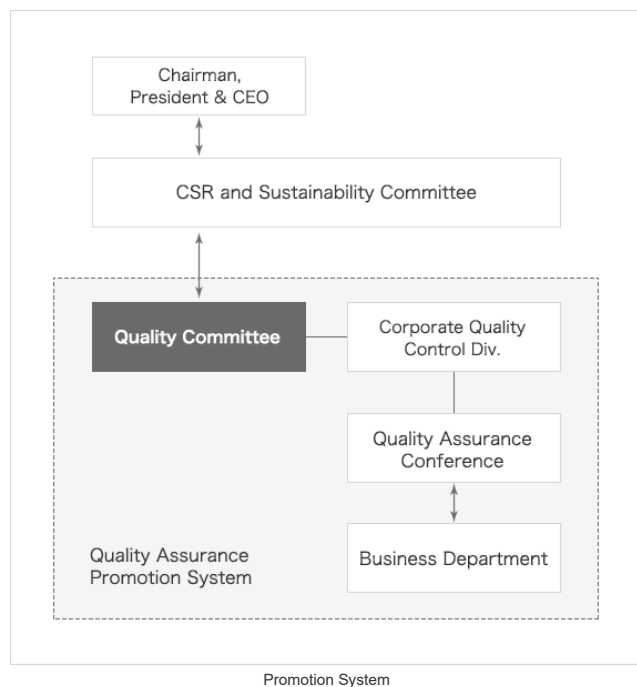
NGK SPARK PLUG CO., LTD. will use small group teams to solve the various issues and problems identified through daily management and policy management, thereby developing human resources.

#### 5) Quality control education

NGK SPARK PLUG CO., LTD. will create the understanding and awareness of the mainstays of TQM, which are the prerequisites for maintaining and enhancing quality and activating improvements and innovation and then establish and implement a grade-specific education system.

### Promotion System

We have established a Quality Committee to promote quality management, chaired by the officer in charge of the Quality Management Division, who is the chief executive in charge of quality management. The Quality Committee formulates and issues policies and guidelines to optimize our functions from a company-wide perspective. The Quality Assurance Conference is responsible for raising the level of quality assurance by sharing, discussing the causes of quality defects and promoting countermeasures.



### Quality Management System

To continue providing products and services that meet customer needs, the "Quality Management System (QMS)" is essential. The QMS helps us promote systems that differentiates our business and improve our organizational structure as well as acquiring ISO 9001 certification.

For medical device products, we are working to obtain ISO 13485 certification, an international standard for the medical device industry, by developing the systems and conducting internal audits, focusing on compliance with applicable laws and regulations.

### Small Group Improvement Activities

As part of our small group improvement activities, we are developing QC circle activities as "NQC Activities." (N denotes an initial letter of Nittoku).

NQC activities organize teams according to the problems and challenges at hand, with activities aimed at solving and achieving them. In addition to making tangible and intangible contributions to management, they also contribute to fostering employees.

The level of our activities has improved, with a gold medal at the All-Japan QC Circle Competition and the QC Circle Kaoru Ishikawa Award.

In addition, we are introducing the NQC Station, an IT tool for interactive communication, in order to strengthen NQC activities. We have systematized the proceedings of our activities and made it easy to understand the situation at hand. A portal site function has also been provided to enable circle members to obtain useful information and materials for their activities at any time.

### Quality Control Education

To improve our employee's quality control and foster employees capable of creating products and services that meet the needs of our customers and society, a variety of training is conducted related to quality control based on the concept of "manufacturing is fostering people".

Beginning with training for engineers to acquire practical skills in product realization concepts and procedures and quality control methods, as well as periodic training sessions, depending on the type of job and level of responsibility. Also, to improve through continuous upgrading of knowledge and practical skills required to maintain and improve quality. Aiming to improve the overall quality of the product.

We also offer our suppliers quality training and practical support for problem-solving so that they provide us with consistently high-quality parts and materials based on continuous quality improvement.



## Awareness through Quality Activity Events

We hold quality activity events during Japan's Quality Month in November, and also throughout the year.

Past quality exhibitions were held at our sites, but in consideration of preventative measures against COVID-19 and for convenience we have changed to holding exhibitions online.

We share our approaches to quality as well as the diverse quality-related initiatives in workplaces in order to maintain and improve quality awareness.

We also promote activities to maintain and enhance quality while engaging all employees through quality slogans and a range of other events.

## Measurement Management

Appropriate measurement is an essential part of manufacturing. In order to obtain reliable measurements, it is important that employees involved in manufacturing know the correct measurement techniques and proper measurement management.

Therefore, we are strengthening our quality assurance system by nurturing human resources who understand the importance of measurement management and have correct measurement techniques, managing the accuracy of measuring instruments, and improving the measurement management system to improve and stabilize accuracy.

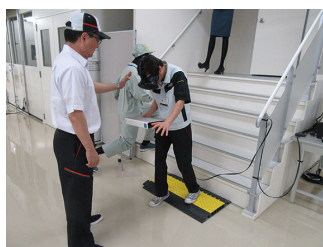
## Monozukuri (Manufacturing) Education

To help trainees, acquire the necessary knowledge and skills at the right time, the Monozukuri Education and Training Center has a curriculum that covers the topics of safety, quality, maintenance, and improvement. We provide pre-assignment training, for new employees, that places "discipline" as the foundation of training, in order to cultivate human resources that become socially responsible, follow procedures, and place importance on quality.

Safety training is conducted with zero industrial accidents in mind, with the guideline of "cultivating employees who can think and anticipate danger by honing their sensitivity before they act". We are working to improve the content of our education and training by introducing virtual reality (VR) and incorporating hands-on training to give employees more realistic experience of accidents such as falls and other accidents. We are striving to provide valuable education while being flexible. We responded to the COVID-19 pandemic by introducing web-based lectures and other methods.



Monozukuri Education and Training



VR experience

# Proper Procurement

## Procurement Policy

We aim to realize globally optimal procurement based on our quality products principle. To this end, we focus on strengthening cooperation with suppliers and promoting our CSR and sustainability efforts throughout our supply chain system, while at the same time striving to carry out proper purchasing transactions when procuring materials and parts, based on the following guidelines:

### Action Guidelines

- We conduct rational transactions based on fair, transparent, and open competition.
- We comply with procurement-related laws and regulations and foster responsible procurement. We select suppliers based on comprehensive assessment of product quality, technology, prices, deliveries, CSR and sustainability initiatives, and efforts to continuously make improvements.
- Aiming to procure more eco-friendly products, we strive to promote our green supplier system.
- We enhance mutual trust with our suppliers, who are good partners for us, and strive to realize mutual development.

## Promoting Responsible Procurement

Taking seriously the recent social and environmental issues related to our supply chain, we are promoting responsible procurement activities that not only comply with various laws and regulations, such as the Subcontracting Act, but also give due consideration to human rights and the environment. By responding to expectations from society in cooperation with our diverse suppliers across the supply chain, we contribute to the realization of a sustainable society.

### Promoting CSR and sustainability procurement

To foster CSR and sustainability measures across the supply chain, we issued our CSR and Sustainability Procurement Guidelines and have been distributing copies to suppliers.





## CSR and Sustainability Procurement Guidelines

The CSR and Sustainability Procurement Guidelines set the rules that our suppliers are requested to comply with concerning the environment, human rights and labor, business continuity planning (BCP), business ethics, information security, occupational health and safety, product quality and safety, and management systems. We ask our suppliers to put them into practice together with the NGK SPARK PLUG Group. We also ask our suppliers to distribute copies of the Guidelines to their own suppliers.

To monitor the status of implementation by the suppliers, we conduct surveys every two years using a check list and provide feedback on the results. For the survey we conducted in fiscal 2019, we received responses from 98% of the subject suppliers. For some suppliers, we held interviews with management and provided other follow-ups, thereby asking for improvement.

NGK SPARK PLUG Group CSR and Sustainability Procurement Guidelines  June 2021 NGK SPARK PLUG CO.,LTD.	English version: CSR and Sustainability Procurement Guidelines	465KB
	Japanese version: CSR and Sustainability Procurement Guidelines	701KB

## Ensuring green procurement

In order to reduce our environmental impact throughout the supply chain, we issued the Green Procurement Guidelines to request that suppliers build environmental management systems and ensure the strict management of environmentally hazardous substances.

## Green Procurement Guidelines

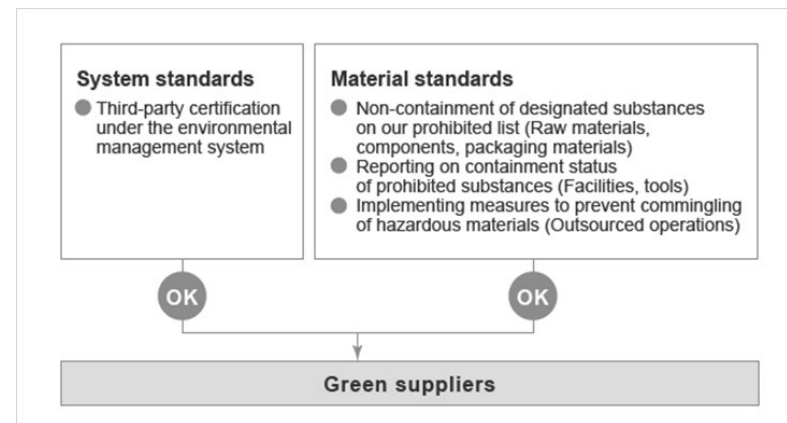
These guidelines explain the basic concepts of our green procurement based on our environmental policies. We reviewed the list of related chemical substances in July 2021 and released version 11.01 of the guidelines. We ask our suppliers to study the guidelines and cooperate with our green procurement.

	Japanese version: Green Procurement Guidelines	1.51MB
	<b>survey sheet</b>	
	Japanese version: appendix table-1 Survey regarding the presence or absence of "substances of environmental concern"	27KB
	Japanese version: appendix table-2 Non-use Declarations	29KB

## Green Suppliers

We certify suppliers that meet our system and material standards prescribed in "Green Procurement Guidelines" as "green suppliers," and give priority to these in purchasing.

As of fiscal 2020, we have certified 104 suppliers involved in facilities/jigs and tools, building/incidental facilities, and 153 suppliers involved in raw/subsidiary materials, parts, processing and outsourcing.



## Measures against conflict minerals

There are concerns that some mineral resources mined in the Democratic Republic of the Congo and surrounding countries provide a source of funding to local armed forces, thereby promoting conflicts and infringements of human rights. This issue of conflict minerals is recognized as a serious social issue in relation to the procurement of resources and materials.

Accordingly, we annually conduct surveys on the use of conflict minerals targeting the upstream section of our supply chain and avoid the use of any with related risks.

## Measures to respect human rights

To ensure respect for human rights of all people who are related to our suppliers and their suppliers, we have specified prohibited actions regarding human rights in the CSR and Sustainability Procurement Guidelines, and we check the status of compliance of our suppliers on a regular basis.

## Measures to tackle climate change

To foster measures across the supply chain, including our suppliers, toward achieving "carbon neutral," the CSR and Sustainability Procurement Guidelines require suppliers to set targets for reduction of greenhouse gas emissions and promote efforts for reduction.





## Activities to Support Suppliers

By conducting activities to help suppliers enhance their business foundation and engaging in follow-up activities after our regular evaluation of them, we make joint efforts for improvement with suppliers, thereby building greater trust.

### Activities to help suppliers enhance their business foundation (through classroom seminars and practical seminars held on-site)

For suppliers, we organize classroom seminars on themes such as process improvement, QC, occupational health & safety and the environment and also hold practical seminars at their own manufacturing facilities to foster improvements. We have been conducting these activities to help suppliers develop their workers in order to build a more robust business foundation. In FY2020, we held a total of 24 such seminars, including online seminars that we newly introduced. We are thus implementing our "Quality Product" policy and improving our manufacturing abilities in cooperation with suppliers.

### Follow-up activities conducted after the regular evaluation of suppliers

We annually conduct evaluation on some suppliers and inform them of the results. For suppliers that require follow-up activities, we visit them to provide targeted advice and inspect their sites in order to work with them in thinking about how to rectify any weak points. We also award suppliers who have been evaluated as excellent.

## Declaration of Partnership Building

In support of the Declaration of Partnership Building established by the Council on Promoting Partnership Building for Cultivating the Future\*, we have released our own declaration. We are committed to promoting the coexistence and co-prosperity of the entire supply chain, building new partnerships regardless of the size of business and beyond the boundaries of business affiliations, and ensuring compliance with the "promotion standards." At the same time, we implement proper purchasing transactions in accordance with the Procurement Policy.



\* The members are the Chairman of the Japan Business Federation (KEIDANREN), the Chairman of the Japan Chamber of Commerce and Industry, the President of the Japanese Trade Union Confederation (RENGO), and relevant Ministers (Cabinet Office, Ministry of Economy, Trade and Industry, Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Land, Infrastructure, Transport and Tourism).

Declaration of Partnership Building (Japanese only) 147KB

## Helpline for Suppliers

We have opened a Helpline as the contact point for suppliers to report any violation by managers or employees of the NGK SPARK PLUG Group.

Details are provided in the pamphlet distributed to the suppliers.

# Social Contribution

## Social Contribution Policy

As a good corporate citizen, we at the NGK SPARK PLUG Group aim to contribute to society through the effective use of management resources.

### Action Guidelines

- We focus on the following activities:
  - ・ Activities closely related to our business fields
  - ・ Activities that respect the cultures of individual countries and local communities, as well as activities that contribute to society such as traffic safety education programs
  - ・ Activities that contribute to the future of society, focusing on environmental conservation, science, and education (in particular the development of next-generation human resources), as well as cultures to be bequeathed to the next generation, etc.
- We strive to create a corporate culture that encourages executives and employees to participate together in social contribution activities as social citizens. We also respect and support their active involvement in society.

### Cultural Activities

With the naming rights for the NTK Hall, we will further contribute to the cultural promotion and the regional activities.

[View details >](#)

### Sports Activities

We will contribute to local communities by supporting Sports Activities.

[View details >](#)



# Cultural Activities

We have established our "Social Contribution Policy" as part of our CSR basic policy, and as a responsible corporate citizen we are engaged in various activities such as culture and welfare promotion.

Our company is an NTK-Hall Naming Rights Partner



Our thoughts to the NTK Hall

**NGK NTK** 日本特殊陶業市民会館  
スーパーフラグ ニューセラミック

Since our foundation in 1936, our headquarters has been located in Nagoya City, and we have been engaged in various activities on the basis of our corporate code of conduct which is "As a good responsible corporate citizen, we actively participate in philanthropic activities and other social action programs. "NTK Hall is a traditional and prestigious cultural building representative of Nagoya. It is popular as a meeting point for cultural exchange. We would like to contribute to the further promotion of culture and arts, as well as regional revitalization through the NTK-Hall naming rights.

## Respecting Connections with Local Communities

From 2013, we have been holding family musical events every year as our company sponsored event. We have invited a total of 3,500 people including families affected by the Great East Japan Earthquake, as well as general visitors, local elementary school children, kindergarten children, and children from welfare facilities in Aichi Prefecture.



## About Naming Rights

Previous Name	New Name
Nagoya Citizens' Auditorium	NTK Hall
Large Hall	FOREST HALL
Medium Hall	VILLAGE HALL
Passage to subway station	NTK Hall Passage

We renamed the Large Hall and Medium Hall of the NTK Hall "FOREST HALL" and "VILLAGE HALL," respectively. We selected these names because our company is a member of the Morimura Group and we wanted the NTK Hall to serve effectively as a "mori (forest)" or "mura (village)" for nurturing rich culture and arts.

 **フォレストホール**  
FOREST HALL

 **ビレッジホール**  
VILLAGE HALL

[NTK Hall web site](#)



# Sports Activities

We conduct a wide variety of cultural and sports activities for the benefit of the local community as a good corporate citizen in accordance with the "social contribution policy" that we established as part of our CSR basic policy.

## Supporting Local Sports as a Top Partner of FC GIFU

### Our Expectations for FC GIFU

NGK SPARK PLUG has three group companies in Gifu, an important region in terms of manufacturing. Based in Gifu Prefecture, FC GIFU actively promotes socially beneficial activities under the theme of "a team for the citizens of Gifu Prefecture." We share this spirit of contribution and seek to foster a prosperous community through sports as a sponsor of the team. All of our employees, including employees of group companies, are vocal supporters of FC GIFU.



[FC GIFU Website](#)

On July 3rd, 2016, we named the 21st game of the season as the "NGK SPARK PLUG thank you match" and 1,000 of our employees (and members of their families) came and enjoyed the occasion.



## Contributing to the Development of Motor Sports

We Show Our Support at Motorsport Events, often also in the Form of Booth exhibitions.

Our main products, NGK SPARK PLUG, are important components that determine the performance of engines. We have provided high-quality spark plugs for motor sports for many years.

Furthermore, in the NGK SPARK PLUG Cup (the last race in Suzuka Sunday Road Race), of which we are a proud sponsor, many ambitious riders from beginners to professionals test their skill, aiming to join the All Japan Road Race Championship - the top race in the country. This event is a gateway to success for riders aiming to be the best in the world.

As the people behind the top brand of spark plugs, we will continue to support these motorsport-related events. Beyond this, we will also contribute to the reliability and development of the motorized society.



## Contributing to the Vitality of Local Regions through Marathon Festivals.

As we wish to contribute to the vitality of local regions, we also support regional marathon festivals. Of particular note is the Marathon Festival Nagoya-Aichi. We have supported this event since 2015 and to further develop our theme of "promoting women's activities," we will continue to show our commitment through our idea of "supporting women who challenge their best."

- Marathon Festival Nagoya-Aichi
- Komaki City Marathon





# Communication to Stakeholders

## Information Disclosure Policy

Aiming to become an enterprise capable of receiving great support and popularity from people around the world, we strive to conduct transparent business operations and fair information disclosure.

### Action Guidelines

- We disclose any corporate information required to be disclosed by the Financial Instruments and Exchange Act and other laws and regulations, in an accurate and timely manner.
- We actively disclose our corporate information, which is not subject to laws and regulations however deemed to be important for stakeholders, through our daily actions, such as issuance of press releases and updates of our website.
- We focus on enhancing communication with our shareholders, investors, and other stakeholders to further promote mutual understanding with them.

## Communication with Shareholders and Investors

We disclose information in compliance with the law and also disclose information promptly via the media and at our website.

### Holding of the Annual Ordinary General Shareholders' Meeting

We hold an annual Ordinary General Shareholders' meeting in June every year.

We send out the notice of convocation for our Ordinary General Shareholders' Meeting even earlier than the legal deadline so that shareholders can give adequate consideration to the reports and resolutions. Additionally, we try to carry out earlier disclosure by releasing the information on the company website before sending out of the notice. We also translate part of the notice of convocation into English for overseas shareholders and post it on the company website in parallel with the Japanese version. Furthermore, we are striving to create a suitable environment for the exercise of shareholders' rights, including making it possible to exercise rights from a PC or a mobile phone in addition to the exercise of rights in writing. Also, the meeting was later posted on this website for a certain period of time.

### Dialogue with institutional investors and securities analysts

We hold various dialogues with internal and external institutional investors and analysts in a variety of formats. These include quarterly financial results briefings, conference calls, individual interviews, and individual teleconferences, to explain our financial and non-financial situations in detail, in order to gain an accurate understanding of our situation.

### Organization of briefings on our technologies for institutional investors and securities analysts

We host a technology orientation for investors and analysts to gain a deeper understanding of our technologies. We also invite them to see the actual manufacturing process.

### Organization of briefings on the company for personal investors

We hold briefings for investors in major cities across the country, and strive to provide the information that investors are looking for in an easy-to-understand manner.

[Investor Relations >](#)

## Communication with Customers

We offer information meaningful to customers at our website and through exhibitions so that they can purchase and use our products and services with peace of mind.

### Sending Information on Website

"NGK SPARKPLUGS PLUG STUDIO" is a website that disseminates detailed information about our products including NGK spark plugs. Customers can also search for the part number that matches their vehicle and model. The website also features information on motor sports, primarily teams supported by NGK SPARK PLUG CO., LTD. as well as upcoming exhibitions and events. We have set up an official Facebook account for NGK SPARK PLUG CO., LTD. to further inform more customers of the NGK spark plug brand.

[NGK SPARK PLUGS PLUG STUDIO](#)

[Facebook NGK SPARK PLUGS <Official>](#)

[Instagram NGK SPARK PLUGS <Official>](#)

We launched the "NTK Cutting Tools" site specifically for NTK cutting tools. It provides easy-to-understand information such as videos related to cutting, a cutting tool search system that allows for searching by application and shape, along with the latest event information.

[NTK Cutting tools](#)



## Exhibitions and Events

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We make sure to have PR booths at exhibits and motor sports events.

These provide valuable opportunities that allow us to meet with customers and explain our products and technologies directly, and we also use these opportunities to identify constantly evolving needs.

## Responding to Product Defects

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We make it a rule that any product defect we have detected and found to possibly cause harm to customers be immediately announced to the public through our websites, newspapers, trade journals and other media as appropriate and that we simultaneously implement countermeasures against such defects to protect all users.

## Communication with Suppliers

We are working to build relationships of trust with suppliers as their sound partner and achieve growth together. To this end we conduct activities across the supply chain, such as holding briefing sessions on our corporate policies.

## Organization of briefings on the corporate principles

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We hold a corporate policy conference with our main suppliers, offering them an opportunity to deepen their understanding of the present situation of our company and our goals. We introduce our business results, the company's policy, and the policies of each department which are based on the basic policy, procurement policy and initiatives, and request implementation to enhance quality and promote CSR and Sustainability initiatives.

[Proper Procurement >](#)

## Communication with Local Communities

We respect the local culture and customs at each of our bases located across the world and work for smooth communication with local communities. We also participate in various social contribution activities to help create a comfortable society as a corporate citizen.

## Social meetings on the environment

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We host environmental meetings with local residents as a venue for communication. At these meetings, we explain our daily environmental activities as well as hear opinions and comments from participants on how we can further improve things.

## Local cleanup activity

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We regularly hold clean-up activities in the areas near the offices to preserve the local environment. We also continue to participate in beautifying activities hosted by local municipalities, etc.



Cleanup activities (Komaki Plant)



Cleanup activities (SparkTec WKS CO., LTD.)

[CSR and Sustainability Initiatives >](#)





# Corporate Governance

## Basic Philosophy

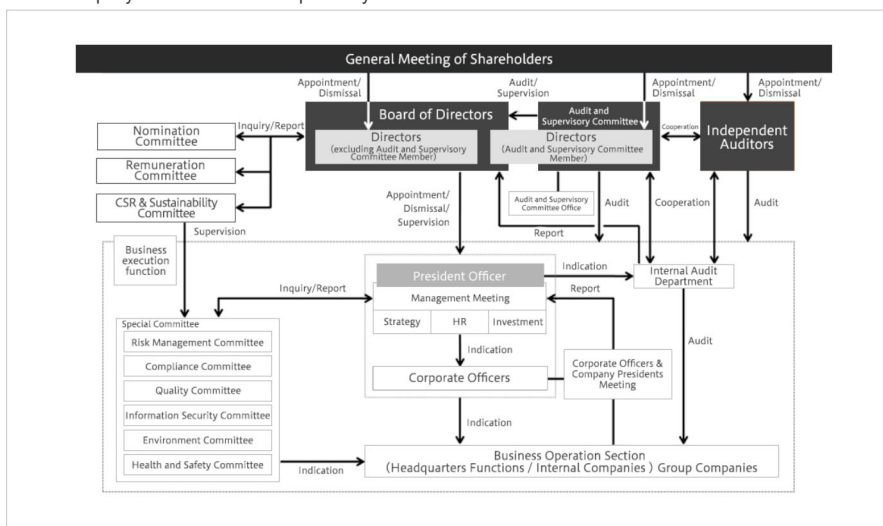
Guided by our corporate philosophy under the slogan “With established trust and confidence inside and outside the company, we aim to contribute to the peoples of the world by creating and putting at their disposal new values for the future”, we have established, and are working to enhance, our corporate governance system to promote management aimed at increasing our corporate value over the medium to long term. Our basic view on corporate governance is to build relationships of trust with our shareholders, customers, business partners, employees, local communities, and other stakeholders through management that ensures fairness and a high degree of transparency, and to develop and operate management framework and internal control system to achieve sustainable growth through efficient and sound management.

Corporate Governance Report 946KB

## Corporate Governance System

The Company has selected a company with an Audit and Supervisory Committee for the purpose of further enhancing discussions on management policies and strategies at the Board of Directors, strengthening the supervisory function, and further speeding up management decision-making and execution of business. Each organization is set up within the framework of a company with an Audit and Supervisory Committee.

\* With the resolution of the 122nd Ordinary General Meeting of Shareholders (held on June 24, 2022), the Company has transitioned to a company with an Audit and supervisory committee.



Corporate Governance System

## Board of Directors

The Board of Directors comprises eleven members (of which seven are outside directors), which in principle meets regularly once every month and holds ad hoc meetings when necessary.

The Board of Directors deliberates and makes decisions on matters specified in laws and regulations and other important management issues, receives reports from each member and supervises the status of business execution. A majority of independent outside directors are appointed in order to strengthen the supervisory functions of the Board of Directors and secure transparency of management.

<Views on Balance and Diversity of Knowledge, Experience, and Skills within and Size of the Board of Directors as a Whole>

The Company's Board of Directors believes that it is important for the Board to comprise diverse human resources with different backgrounds, including specialized knowledge and experience, in order to achieve sustainable growth and increases in corporate value over the medium to long term. The Board is made up of human resources with extensive experience, high levels of knowledge, and advanced specialization, with consideration given to gender, nationality, work experience, and age, to achieve a good balance according to the business environment at a given time.

In addition, by making up the majority of the Board of Directors with outside directors who have experience and specialized knowledge gained under environments that differ from the Company, the Board can strengthen its supervisory function and engage in deliberations from various perspectives in an effort to ensure transparency and objectivity in decision making.

Director candidates are not excluded from consideration on the basis of their race, ethnicity, nationality, country of birth, cultural background, etc.



### <Skill Matrix of Directors>

Based on the above views, considering the business and management system of the Group, the Board of Directors identified the knowledge and experience which it should possess from "Basic areas from the perspective of important management decision-making and business execution supervision" and "Areas that need to be particularly promoted and supervised to realize the medium-term management plan". According to this, Directors are assigned in well-balanced manner with consideration for diversity.

		Board of Directors									
Name	Shinichi Odo	Takeshi Kawai	Toru Matsui	Morihiro Otaki	Mackenzie Donald Clugston	Miwako Doi	Chiharu Takakura	Mikihiko Kato	Kanemaru Yasui	Fumiko Nagatomi	Christina L. Ahmadjian
Position	Representative Director and Chairman of the Board	Representative Director and President	Representative Director	Outside Director	Outside Director	Outside Director	Outside Director	Director	Outside Director	Outside Director	Outside Director
Gender/Nationality	Male	Male	Male	Male	Male/Foreign nationality	Female	Female	Male	Male	Female	Female/Foreign nationality
Independence				●	●	●	●		●	●	●
Total Service of Years (At the end of the next general meeting of shareholders)	16 Years	8 Years	5 Years	10 Years	4 Years	3 Years	2 Years (Of these, 1 year in office as an outside corporate auditor)	6 Years	9 Years	6 Years (Of these, 5 years in office as an outside corporate auditor)	1 Years
Management	○	○	○	○				○			○
Finance/Accounting								○	○		
Governance/Legal/Risk management *1	○	○	○					○	○	○	○
Global Experience	○		○	○	○			○	○		○
Technology/R & D		○				○					
Sales/Marketing	○		○	○							
New Business Development/M & A	○	○	○			○					
Human Resource *2					○		○	○			○
IT/Digital Transformation	○	○				○					
SCM		○									
Attendance at Board of Directors Meetings in Fiscal 2021	12/12	12/12	12/12	12/12	12/12	12/12	10/10	12/12	12/12	11/12	-
Attendance Rate at Board of Directors Meetings in Fiscal 2021	100%	100%	100%	100%	100%	100%	100%	100%	100%	91.7%	-
Number of Shares Held	34,981 shares	17,291 shares	12,067 shares	5,361 shares	0 shares	1,138 shares	478 shares	11,672 shares	2,474 shares	2,753 shares	0 shares

\*1 : Basic areas from the perspective of important management decision-making and business execution supervision

\*2 : Areas that need to be particularly promoted and supervised to realize the medium-term management plan

\*3 : The skill matrix above shows the areas of expertise particularly expected for each director / audit and supervisory board member, and does not indicate all of the knowledge and experience held by each director / audit and supervisory board member.

### Audit and Supervisory Committee

The Audit and Supervisory Committee comprises four members (of which three are outside members) and as an independent body entrusted by the shareholders, audits and supervises the execution of business by the directors. Full-time Audit and Supervisory Committee members are selected from the perspective of maintaining the audit environment, gathering information from within the Company, and monitoring and verifying the establishment and operation of internal control systems on a daily basis and share such information with other members to ensure the effectiveness of organizational audits. The Audit and Supervisory Committee also confirms the appropriateness and suitability of the nominations and remuneration of directors (excluding directors who are Audit and Supervisory Committee members) by attending Nomination Committee and Remuneration Committee meetings and receiving explanations from the representative directors and forms opinions on these matters.

#### <Establishment of the Audit and Supervisory Committee Office>

To support the execution of duties by the Audit and Supervisory Committee, the Audit and Supervisory Committee Office was established, and four employees were assigned to the office full-time. These employees receive instruction from the Audit and Supervisory Committee members, liaise and coordinate internally, and gather and provide the necessary information. The Audit and Supervisory Committee Office works under the supervision and direction of the Audit and Supervisory Committee and their independence in relation to supervision and direction from directors (excluding directors who are Audit and Supervisory Committee members), corporate officers and employees is ensured. In addition, transfers, personnel evaluations, etc. require the prior consent of the Audit and Supervisory Committee.

### Nomination Committee

To ensure reasonableness and transparency and conduct efficient and fulfilling discussion with regard to director nomination and determination of remuneration, a Nomination Committee was established as advisory bodies to the Board of Directors.

Based on the Board of Directors' request for opinion, the Nomination Committee deliberates on matters including proposals on the appointment of directors to be submitted to the General Meeting of Shareholders, the appointment and dismissal of executive officers, the Company's performance evaluations, and, based on such evaluations, evaluation of the management's performance, and then delivers its opinions to the Board of Directors.

In addition, directors who are Audit and Supervisory Committee members also attend a Nomination Committee as observers.





## Remuneration Committee

To ensure reasonableness and transparency and conduct efficient and fulfilling discussion with regard to director nomination and determination of remuneration, a Remuneration Committee was established as advisory bodies to the Board of Directors.

Based on the Board of Directors' request for opinions, the Remuneration Committee deliberates on matters related to remuneration of directors (excluding directors who are Audit and Supervisory Committee members) and executive officers, including the appropriateness of policies, procedures, and systems, as well as the appropriateness of the proposed remuneration of each director (excluding directors who are Audit and Supervisory Committee members) and executive officer, and delivers its opinions to the Board of Directors.

In addition, directors who are Audit and Supervisory Committee members also attend a Remuneration Committee as observers.

## CSR and Sustainability Committee

To ensure sustainable growth for our group and society, we have established the CSR and Sustainability Committee, chaired by an outside director, as an advisory committee to the Board of Directors, to identify priority issues in each area of ESG (Environment, Society, and Governance) area and promote actions to resolve these issues.

[CSR and Sustainability Promotion System >](#)

### Members of the Committees

Name	Directors							Directors who are Audit and Supervisory Committee members			
	Shinichi Odo	Takeshi Kawai	Toru Matsui	Morihiko Otaki	Mackenzie Donald Clugston	Miwako Doi	Chiharu Takakura	Mikihiko Kato	Kanemaru Yasui	Fumiko Nagatomi	Christina L. Ahmadjian
Independence				●	●	●	●		●	●	●
Nomination Committee	○	○	○	○	○	○	○	Attends the meeting	Attends the meeting	Attends the meeting	Attends the meeting
Remuneration committee	○	○	○	○	○	○	○	Attends the meeting	Attends the meeting	Attends the meeting	Attends the meeting
CSR and Sustainability Committee	-	-	○	-	-	-	○	○	-	-	-

## Management Meeting

The Management Meeting, comprising representative directors and some executive officers, was established to make decisions on and supervise important matters relating to business execution in accordance with the basic management policies determined by the Board of Directors, to discuss and understand in advance management issues to be addressed and risks that the Group is facing, and to promptly respond to changes in the management environment. The Management Meeting addresses management strategy and other important matters relating to overall management and also focuses its deliberations on important human resource strategies and measures relating to the assignment and development of human resources as well as significant investments including capital expenditures, equity contributions, acquisitions, and capital tie-ups.

## Corporate Officers and Company Presidents Meeting

The Company adopts the Corporate Officer framework, the objective of which is to expedite execution of business operations based on policies determined by the Board of Directors and clarify responsibilities for the results. The corporate officers are elected by the Board of Directors, and meet monthly at Corporate Officers and Company Presidents Meeting to report on the status of business execution for cross-divisional sharing and exchange of information.

## Cooperation among Audit and Supervisory Committee, Independent Auditors and Internal Audit Departments

The Company strives to improve the effectiveness of audits by having Audit and Supervisory Committee members attend audits conducted by the independent auditor and by having the Audit and Supervisory Committee, independent auditor, and Internal Audit Department meet regularly and as necessary to exchange information on audit policies, audit plans, audit implementation status, accounting system revisions, etc. and to work in close collaboration with one another.

The Audit and Supervisory Committee and Internal Audit Department meet regularly and as necessary to provide direct reports and exchange information on audit policies, audit plans, audit implementation status, and other matters and to work in close collaboration with one another.

In addition, Audit and Supervisory Committee members attend audits conducted by the Internal Audit Department when necessary, and the Internal Audit Department conducts investigations and makes reports as requested by the Audit and Supervisory Committee, improving the quality of audits by both bodies.

## Evaluation of the effectiveness of the Board of Directors

The company conducts an evaluation on the effectiveness of the Board of Directors once a year.

### < 1 . Method of evaluation >

Evaluation was conducted by the Board of Directors based on a survey of directors and Audit & Supervisory Board members.

### < 2 . Overview of evaluation results >

We confirmed that the effectiveness of the Board of Directors has been sufficiently secured, and more specifically we have confirmed that the effective

measures are being taken in the following areas:

- ① Skills that the Board of Directors should have in light of management strategies were identified, and we confirmed that the Board of Directors comprises members who have the knowledge, skills, experience, and diversity necessary to fulfill their roles and responsibilities.
- ② All the directors share how important it is to reinforce the supervisory function of the Board of Directors and how outside directors should act therein.
- ③ The Board of Directors has established suitable internal controls and risk management structures to ensure proper compliance and support risk taking and supervises the status of operations through the Internal Auditing Office, Compliance Committee, Risk Management Committee, and other bodies.
- ④ We confirmed that the Board of Directors is cognizant that responses to global environmental issues including climate change and responses regarding sustainability including respect for human rights are crucial from the perspective of increasing corporate value over the medium to long term and that the management team is actively engaged in responding to these issues.



③To ensure that remuneration is set in a manner that provides appropriate incentives, the Remuneration Committee evaluates whether the execution of duties by management is appropriate from the perspectives of sustainable growth and enhancement of corporate value.

④The Board of Directors implements appropriate improvement measures regarding key issues identified through evaluation of the effectiveness of the Board of Directors and strives to enhance its effectiveness.

With regard to “performance of supervisory functions in light of the introduction of a company system,” one of the issues identified through the evaluation of effectiveness in FY2020, a company system was introduced in April 2021 for the purpose of clarifying the responsibilities and authority of business execution divisions and facilitating flexible decision making, and based on the opinions of the outside directors, the Board of Directors verified whether the expected effects have been achieved and confirmed that it will continue to perform periodic verification.

With regard to “reinforcement of monitoring functions for non-financial management indicators,” non-financial indicators as indicators for the performance linked stock compensation program were introduced in FY2021, and the CSR and Sustainability Committee, which is attended by all directors and Audit & Supervisory Board members, reviewed the status of responses to group priority issues (materiality) and discussed the introduction of an internal carbon tax and environmental fund.

Items for which further improvement of the effectiveness of the Board of Directors would be desirable based on the results of the current effectiveness evaluation include further enhancing deliberation within the Board of Directors regarding medium to long term management strategies and monitoring of Medium-term Management Plan as well as improvement of the prior distribution of materials and provision of explanations to outside directors. Going forward, the company will continue to maintain and enhance the effectiveness of the Board of Directors by addressing these issues.

## Roles and Independence of Outside Directors

To enhance the supervisory function of the Board of Directors and to ensure the transparency and objectivity of decision-making through discussions from multifaceted viewpoints, outside directors make up the majority of the Board of Directors, which comprises diverse talent who have abundant experience, tremendous insight and a high degree of professionalism. We appoint all the independent outside directors as independent officers and notify the Tokyo Stock Exchange and the Nagoya Stock Exchange of their appointment. In order to ensure that candidates have neither special relationships with the management team and major shareholders nor conflicts of interest with general shareholders, we designate those who meet all the followings as independent officers: our own criteria for the appointment of independent officers; the requirement of independent officers set by the Companies Act; and the rules and regulations stipulated by the financial instruments exchanges.

Outside directors attend the Board of Directors meetings and non-statutory advisory bodies to demonstrate their supervisory function by becoming involved in the important decision-making of the company from an independent standpoint, while providing advice from an overall perspective based on their abundant experience and insight when formulating and confirming the progress of medium- to long-term management policies at the Board of Directors meetings. Outside directors who are Audit and Supervisory Committee members serve as a supervisory and auditing function based on their independence and expert knowledge.

## Succession Plan

NGK SPARK PLUG’s Board of Directors engages in the formulation and implementation of the succession plan, which includes programs such as that to develop global managerial human resources (“HAGI Program”), such as future CEOs and other business leaders. The members of the Board see to it that sufficient time and resources are committed to developing their successors in a planned manner.

### Specific involvement by the Board of Directors

Representative directors as well as outside directors proactively participate in the development of managerial human resources, including serving as lecturers for the HAGI Program.

### Details of human resource development for CEO candidates

We are implementing the HAGI Program and a training program in which internal directors and corporate officers participate. These programs are designed to develop future CEO candidates in a planned and strategic manner by devoting adequate time and resources to the task.

## Training for officers

We provide the directors with sufficient assistance to fulfill their expected roles and responsibilities where applicable. For the internal directors, we encourage them to take external seminars to acquire additional knowledge to meet their obligations, while the internal directors and corporate officers are required to attend an executive training session to share the managerial issues and seek out the solution. In order for the outside directors to deepen understanding of the Group, each department explains the businesses and operations in addition to providing them with opportunities to visit major sites of the businesses. Directors who are Audit and Supervisory Committee members periodically take external sessions to gain understanding of what roles the Audit and Supervisory Committee members fulfill, the audit methods, the relevant laws and regulations, and financial accounting knowledge required for the accounting audit.

## Remuneration for Director

Officer remuneration comprises fixed remuneration paid in cash, bonuses linked to the degree of achievement of the Company’s performance over the course of a single year and other factors, and performance-linked, stock-based remuneration that is determined according to rank and the degree of achievement of performance targets set forth in the Medium-Term Management Plan and so on.

This structure is intended to raise awareness regarding the contribution to improving corporate performance and maximizing corporate value over the medium- to long-term and is based on a fundamental policy of officers sharing interests with shareholders through ownership of Company shares. However, remuneration for director who is an Audit and Supervisory Committee members comprise only fixed remuneration.



## Fixed remuneration

Fixed remuneration is determined holistically according to the position and responsibilities, by taking into account peers' levels, the company performance, and the level of employee salaries, and then paid.

## Policy on the payment of bonus

As for bonuses, in addition to the base amount set for each position, an amount to be decided as follows is paid to each person: decided comprehensively in consideration of the quantitative targets set for corporate performance such as consolidated revenue and consolidated operating income ratio, which reflect the results of sales activities, and based on the qualitative evaluation of the individual performance of the person. For FY2021, the numerical targets for consolidated revenue and consolidated operating income ratio were 492.0 billion yen and 10.2%, while the actual results were 491.7 billion yen and 15.4%.

## Performance-linked stock remuneration system

We introduced the performance-linked stock remuneration for directors (excluding directors who are Audit and Supervisory Committee members and outside directors) and corporate officers (excluding employment-type corporate officers) to further clarify the link between the compensation of directors and the value of the Company's stock, and to have them share interests with shareholders, so as to incentivize them to contribute to the improvement of the Company's medium- to long-term performance and to increasing corporate value. Under the system, the Board Incentive Plan (BIP) is adopted, where points are given to directors based on their position and the level of achievement against the targets set in the Medium-term Management Plan. Points are calculated according to the method stipulated in share granting regulations, which were determined by the Board of Directors after the deliberation of the Remuneration Committee. After the end of the period, shares of the company and money in the amount equivalent to the value of the shares are to be given or granted based on granted points.

Indicators against which the achievement of the performance targets is assessed are set based on single-year performance goals, medium-term performance goals, and non-financial measures goals. The single-year performance goals are based on consolidated revenue and consolidated operating income, which reflect the results of sales activities. The medium-term performance goals are based on the targets set in the Medium-term Management Plan, which are consolidated revenue, consolidated operating income, and ROIC, an indicator of whether we have efficiently earned profits relative to invested capital. For non-financial measures goals, sales from non-ICE business and rate of reduction of CO<sub>2</sub> emissions are used as indicators to reflect the results of efforts for sustainable growth and corporate value enhancement, and to facilitate the transformation of our business portfolio.

## Remuneration and bonus paid to directors and auditors in fiscal 2021

	Total remuneration (million yen)	Total remuneration by type (million yen)			Number of recipients (persons)
		Fixed remuneration	Bonus	Performance-linked, stock-based remuneration	
Directors (excluding outside directors)	594	365	152	76	7
Auditors (except for outside auditors)	31	31	-	-	2
Outside directors	57	57	-	-	4
Outside auditors	39	39	-	-	3

\*1 The following limits are set on the remuneration paid to directors according to the resolution made at the 117th general meeting of shareholders held on June 29, 2017.

Total amount of remuneration (excluding bonus):	60 million yen or below per month
Total amount of bonus:	180 million yen or below per year

According to the resolution made at the 117th general meeting of shareholders, a performance-linked stock remuneration system is to be implemented for four fiscal years from FY2020, targeting the company's directors and corporate officers, with the upper limit on the total payment amount set at 1,000 million yen.

\*2 The following limits are set on remuneration paid to audit and supervisory Board members according to the resolution made at the 106th general meeting of shareholders held on June 29, 2006.

Total amount of remuneration (excluding bonus):	10 million yen or below per month
Total amount of bonus:	10 million yen or below per year

\*3 "Bonus" corresponds to "performance-linked remuneration, etc.", and "performance-linked, stock-based remuneration, etc." corresponds to "performance-linked remuneration, etc." and "non-monetary remuneration, etc." The total amount of "bonuses" and "performance-linked, stock-based remuneration" shown in the table was recorded as an expense for FY2021.



## Stocks Held for Reasons Other than Pure Investment Purposes

### Policy on the stocks held for reasons other than pure investment purposes

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NGK SPARK PLUG holds the stocks of its suppliers and others basically to maintain and enhance stable business relationships with them, when the company decides that holding the stocks will help increase its corporate value after verifying the economic rationality from medium- to long-term viewpoints. The Board of Directors annually checks whether it is rational and useful in terms of enhancing its corporate value to keep the stocks individually for each of the investee companies, in consideration of the capital cost and comparing the related risks and returns on a medium- to long-term basis. When the Board decides that the company should not continue to hold any of the stocks, the company will sell them as appropriate, in consideration of the market trend.

### Criteria for the exercise of voting rights

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For the exercise of voting rights for the stocks owned by our company, we will decide whether to exercise the rights for each item of the agenda, considering whether it will contribute to increasing the corporate value of the investee company and of our own company. In particular for the selection of directors, appropriation of retained earnings and other items that have a large impact on shareholder value, we will exercise the voting rights according to the criteria set for the rights.

## Enhancement of Group Governance

NGK SPARK PLUG has corporate officers who were locally recruited at its regional headquarters (RHQs) for the Americas and EMEA in order to ensure that speedy and accurate managerial decisions are made at bases closer to the markets they serve in view of the company's globally expanding business environment. We have also formed unique governance teams at the RHQs to build an optimal decentralized system on a group-wide basis and enhance corporate governance as the entire Group.

Moreover, the Global Group Governance Division is in place as an organization that audits the effectiveness of the Group's governance as an entity that is separate from its business execution. This organization formulates and implements measures to carry out audits on the management of Group companies and RHQs and on the core business operations of each department. It also formulates and implements measures to enhance internal control across the Group and thus plays an important role for the enhancement of the Group's governance.

# Risk Management

## Risk Management Policy

We adapt from a global viewpoint to changes in the management environment surrounding our group and to the diversification of risks and will foster risk management to reduce or avoid the loss of managerial resources, thereby improving our corporate value.

### Action Guidelines

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- We identify the risks that might hamper the achievement of our management targets from a global and long-term viewpoint and strive to prevent the actualization of these risks in a planned and organization-based manner.
- In the event that such a risk materializes, we strive to minimize the impact on our stakeholders, maintain their trust and prevent the recurrence of similar incidents.

## Promotion System

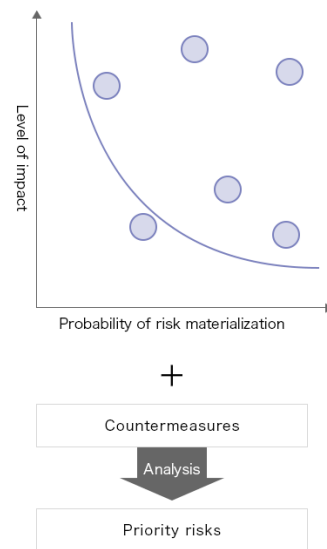
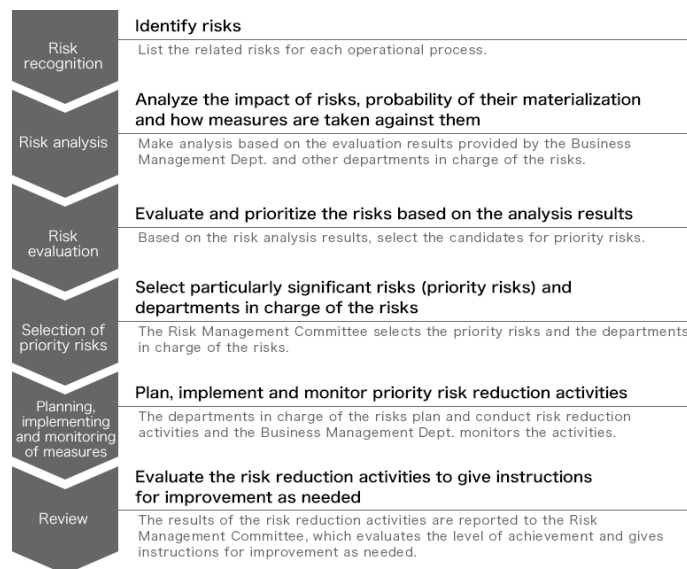
For risk management, we have appointed the President as "Chief Administrator" and the Director in charge of the Business Management Dept. as "Promotion Manager". We are making efforts to improve our risk management system and its operation and create one that integrates risk management to prevent risk with crisis management, to handle serious risks when they occur. Moreover, we have established the Risk Management Committee, which is chaired by the corporate officer appointed by the Chief Administrator. This committee regularly makes improvements on the risk management system and monitors its operation. The effectiveness of the system has been also regularly reviewed and reported to the CSR and Sustainability Committee for its confirmation.

[CSR and Sustainability Promotion System >](#)



## Company-Wide Risk Management

In order to identify and limit those risks that could have serious impacts on our business continuity and on the achievement of our targets, we follow the risk management process as described below. We also evaluate the ESG-related risks including those concerning climate change and human rights.



## Handling Crisis

If there is an apparent risk that causes a serious impact on business continuity, a crisis response team with the president as the chief executive officer is immediately formed to handle the situation. The crisis response team will respond to emergencies by collecting and analyzing information, deciding and instructing countermeasures, and contacting and coordinating with related organizations.

Moreover, in the event of an important incident, accident, disaster, etc., we have prepared an emergency contact email system that allows the department in which the incident occurred to notify the officers, the Business Management Office, and related departments simultaneously.

## Business Continuity Management (BCM)

In preparation against possible earthquakes and other large-scale disasters, we are conducting BCM activities. Specifically, we are making business continuity plans and working on disaster control and reduction in a group-wide basis to minimize damage in the event of a large-scale disaster and resume production as soon as possible if operation is suspended, thereby helping customers maintain their supply chains.

We are also implementing measures against infectious diseases. To deal with COVID-19, we expanded our work at home system and reviewed work shifts in line, thereby continuing to operate our business while preventing infection. In addition, we will revise the business continuity guidelines for infectious disease threat and establish a system to prepare for future emergencies.

### Major initiatives related to business continuity plans (BCPs)

We have made a BCP for each of our departments. Each plan defines the initial response to be made and recovery procedures to be followed in case of emergency.

<IT departments>

To ensure our business continuity, we are continuously working to minimize the damage that might be caused to our IT systems in the event of a disaster and speed up the time required for recovery.

Specifically, we aim to minimize the damage by moving the system to a highly robust data center. Also, to shorten the recovery time, we are shifting to cloud backups so that we can recover and restart the systems by using undamaged backups, including domestic group companies. In the future, we will continue to move the system to the cloud and further strengthen our business continuity.

Moreover, we are regularly providing more specific and practical education and training so that employees can make better responses in case of a disaster.

<Procurement departments>

We are fostering BCP measures for key procurement items such as materials and parts, including purchasing from multiple suppliers. In view of the fact that we need a range of materials and parts to manufacture our products, we have built up a system to implement BCP measures across the supply chain in cooperation with suppliers.

<Buildings and facilities departments>

We are implementing earthquake-resistant measures for our buildings and facilities in preparation for the Nankai Trough Earthquake. We have a checklist to ensure if entering the building is possible in the event of an earthquake, and we are promoting building inspection drills at each site.

Once entering the building, the recovery team inspects the infrastructure, ancillary facilities, and equipment according to the procedures stipulated in the BCP and implements recovery activities according to the priorities.

<Business departments>

In the BCP made for each department, we set a limit for the recovery time required for our major products. We also formulate action plans for the recovery teams to achieve early recovery.



### <BCP training>

We conduct BCP training every December for the purpose of resuming business as soon as possible in the event of a disaster. BCP training is designed to improve the effectiveness of BCPs by formulating recovery plans for the major businesses, organizing recovery teams and implementing recovery activities. To prepare for a situation where our internal network is unavailable, we conduct training on communicating with the emergency headquarters using IP wireless equipment and sharing information via the Internet.



Information transmission training between sales offices and the emergency headquarters



Report session at the emergency headquarters

## Major disaster control and disaster reduction activities

### <Implementation of the joint disaster prevention drill>

In anticipation of a Nankai Trough Megathrust Earthquake, we are implementing the Company-wide Disaster Prevention Drill as a joint drill for domestic Group companies. The drill includes training for evacuation, confirmation of employees' safety, incipient stage firefighting, and inspection of damage caused to facilities and equipment and is designed for early recovery in the event of an emergency.



Evacuation training (Komaki Plant.)



Evacuation training (Nagoya Plant.)

### <Measures against storm and flood damage>

Recently, climate change has been causing more extensive storm and flood damage. In response, we will work to minimize damage by making disaster-specific timelines for each of our business locations and checking local hazard maps annually, etc.

### <Raising employees' awareness of disaster prevention>

In order to enhance the disaster response capabilities of our employees and foster our business continuity, we distribute to employees copies of the booklet titled "NGK Spark Plug Disaster Prevention," which shows the action guidelines to be followed in the event of a disaster.



Disaster Prevention Booklet, 'NGK Spark Plug Disaster Prevention'

# Information Security

## Information Security Policy

We regard all of our own information assets as one of our management resources. Through the proper protection and effective use of our information assets, we pursue healthy maintenance and development of our business.

### Action Guidelines

- We establish rules that clearly define the system and responsibilities for the protection and management of all the information assets including the information we keep for our customers, the know-how and intellectual properties owned by our group, and personal information.
- We comply with laws, ordinances, and regulations regarding information security.
- We educate all executives and employees who handle information assets about the importance of information security, and about specific items to be observed.
- We continuously update the information infrastructure for the maintenance and improvement of the confidentiality, integrity, and availability of all the information assets.
- We promote measures to prevent accidents in order to address the risks of information leakage associated with the continuous advancement and sophistication of information technology. Should an accident occur, we will strive to minimize the damage and take preventive measures against recurrence.

## Promotion System

The director in charge of the Information System Dept. serves as the Chief Administrator to ensure information security.

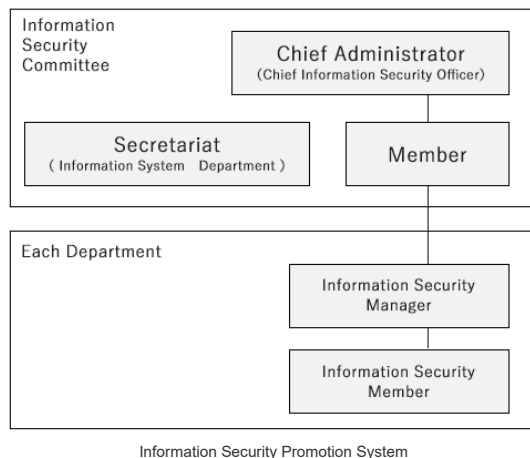
We also have our Information Security Committee chaired by the Chief Administrator with an eye to increasing the effectiveness of our information security management and reducing security risks regarding the NGK SPARK PLUG Group's information assets through the concerted effort of the management team and on-site workers.

We also have our Information Security Committee chaired by the Chief Administrator of DX strategy dept. appointed to Chief Information Security Officer and the members are the information security manager of each department.

We hold the Information Committee at least twice a year and we foster appropriate measures by checking how information security activities are conducted across the Group.

In addition, information security managers and information security members are assigned to each department to lead information security activities in each department.





For confidentiality management, we have a working group on confidentiality management that reports to the Risk Management Committee. The working group is tasked with identifying and reducing the risks related to the management of confidential information and protection of personal information.

[CSR and Sustainability Promotion System >](#)

## Information Security Management System

In order to continuously respond to information security risks that threaten companies and organizations, we have set information security as a priority issue (materiality) and are building an information security management system.

As one of them, we are in the process of establishing an information security management system. In 2020, we obtained TISAX (Trusted Information Security Assessment Exchange) certification, an information security assessment standard for the German automotive industry supply chain.

In FY2021, group companies in the United States and China also completed the acquisition of TISAX certification.

[Priority Issues \(Materiality\) >](#)

## Responding to Information Security Incidents

We have established a Computer Security Incident Response Team (CSIRT).

When an incident occurs, the CSIRT promptly organizes and confirms the facts, determines the level of the incident, and then responds. We also accumulate and share knowledge as a measure to prevent recurrence.

In addition to responding after an incident occurs, we are also striving to defend in advance, and we are trying to improve the level and maturity.

In fiscal 2021, in response to the increase in damage caused by cyber attacks around the world, we conducted a comprehensive inspection of the servers used by our company and group companies. The servers with security concerns were extracted and countermeasures were taken.

In addition, CSIRT publishes "CSIRT communication" every month to inform employees of the latest information on information security and to alert them.

When it becomes necessary to call attention with a high degree of urgency, we are working to prevent incidents by issuing a bulletin version that describes specific precautions.

## Confidentiality Management

The working group on confidentiality management annually inspects the company-wide status of confidentiality management based on the confidentiality management rules set by the company.

Regarding the self-inspection results by each department, the secretariat of the confidentiality management subcommittee confirms its validity for the enhancement of the checking function.

The inspection includes self-inspection by each department and mutual inspection between departments. The inspection items are reviewed according to the broader progress of informatization in society for the enhancement of the checking function.

Furthermore, in addition to the rules on the in-house handling of confidential information, we have also established rules on the use of confidential information outside the company in order to prevent the leaking of such information, including rules on the use of portable computers and cloud services, and we monitor compliance with the rules.

## Protection of Personal Information

As exemplified by the General Data Protection Regulation (GDPR) enforced in Europe, measures to protect personal information have been enhanced globally. In response, the NGK SPARK PLUG Group has set a range of internal rules to appropriately protect, manage and handle the personal information of its customers and employees.

In addition, as a response to the revised Personal Information Protection Law that came into effect in April 2022, we pre-assess risks based on the type and the number of personal information and take measures to reduce the risks.

See the policy regarding the handling of personal information (Privacy Policy) below.

[Privacy Policy >](#)







## Initiatives to Prevent Corruption

We are striving to prevent corruption in line with the statement made in our Corporate Code of Conduct: "We shall promote fair, transparent, free competition and sound trade. We shall also ensure that our relationships and contacts with government agencies and political bodies are of a sound and proper nature."

We issued the Compliance Guidebook in 2012, in which we set the rules concerning the prevention of corruption, including the prohibition of involvement in political contributions or bribery, and made employees aware of these rules.

Subsequently, in 2013, we issued the Conduct Guidelines Concerning the Giving and Receiving of Gifts and Entertainment to raise employees' awareness of the issues and prevent them from becoming involved in misconduct. Further, in 2016, we signed the UN Global Compact, openly reaffirming our commitment to preventing corruption. We also confirm that the content and use of charitable donations do not violate the law.

We are thus working to prevent corruption in line with the guidelines and others. We respond to any violations of the anti-corruption rules mainly through the Compliance Committee. Our overseas Group companies are also taking action to prevent corruption, especially to prohibit and prevent bribery of civil servants, including providing employees with related education and conducting surveys on local laws.

We also request that suppliers refrain from acts of bribery through our CSR Procurement Guidelines. In FY2021, there were no violations of related laws and regulations across the Group.

Participation in "United Nations Global Compact" >

## Initiatives Concerning Competition Laws

Taking seriously our violation of the Anti-Monopoly Act of Japan, as uncovered in FY2014, we have established a system to promote compliance with competition laws and to ensure legal compliance both within and outside the country.

In Japan, we formulated the Anti-Monopoly Act Compliance Manual and distributed copies to employees while holding a range of related seminars internally for both executives and employees. Moreover, we have introduced an in-house e-mail inspection system to monitor and prevent recurring violations of the competition law.

Our overseas Group companies are required to report the activity status regarding compliance with competition laws to NGK SPARK PLUG on a regular basis. In addition, the company's teams in charge of affairs concerning competition laws and compliance visit the Group companies, where they audit the companies' compliance systems and implementation status and check whether local employees are sufficiently aware of the related rules. Seminars featuring guest speakers are also held.

We will continue our education and auditing activities to ensure compliance with competition laws both in Japan and abroad.

## Export Control

We comply with domestic laws and regulations based on the Foreign Exchange and Foreign Trade Act in accordance with the multilateral export control regime (MECR) established for international peace and safety. In addition, we have established related internal rules and an in-house export control organization.

We also conduct awareness-raising and inspection activities targeting departments engaged in export control, thereby ensuring and enhancing our export control in compliance with the related laws and regulations. We are working to prevent the destabilization of international affairs by focusing on preventing the outflow of sensitive technology as well as cargo that can be diverted to military use.

# Appropriate Tax Payment

## Tax Policy

By understanding the spirit and purpose of taxation laws and regulations, we respond appropriately to the demands of society and aim to become a company trusted by the international community.

## Action Guidelines

- We fulfill our social responsibilities by observing laws on corporate taxation and other tax laws in every country, as well as international taxation standards including the OECD Transfer Pricing Guidelines, the Action Plan on Base Erosion and Profit Shifting, and the arm's length principle of transfer pricing.
- In order to ensure compliance with taxation laws and regulations, we work toward improving our knowledge and gaining a proper understanding of taxation and adopt an attitude of sincerity toward tax authorities to enhance our reliability and transparency.
- We properly manage taxation risks by working toward appropriate declaration and payment of taxes in each country, thereby enhancing shareholder value.
- We never engage in profit shifting to tax havens and other low-tax countries or implement other measures for the purpose of tax avoidance.



# Sustainability Data (Non-Financial Information)

Environmental Management ∨ Environmental Accounting ∨ Environment Data ∨

Compliance with Environmental Laws and Regulations ∨ Providing Environmentally Friendly Products ∨

Global Human Resource Management ∨ Human Resource Development ∨ Diversity ∨ Work-life Balance ∨

Occupational Safety and Health ∨ Product Quality ∨ Social Contribution Activities ∨

Communication with Stakeholders ∨ Corporate Governance ∨ Compliance ∨ R&D ∨

## Environmental Management

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Acquisition rate of ISO14001	%	NGK SPARK PLUG Group	—	—	93	93	93

[Calculation method] Percentage of employees working at ISO14001-certified sites

## Environmental Accounting

<Economic benefits associated with environmental conservation activities >

Area of recognized effect		Unit	Scope of tabulation	2020	2021
Revenue	Revenue generated from the recycling of waste generated in operations or used products	million yen	NGK SPARK PLUG CO., LTD. and Groups in Japan (with integrated certification)	135.1	724.2
Cost saving	Energy cost saving achieved from energy conservation efforts			123.8	111.9
	Reduction of water expenses through water saving			1.5	341.3
	Waste disposal cost saving achieved by resource conservation and recycling efforts			0.4	3.0
Total				260.8	1,180

<Quantity of environmental conservation benefits>

Effect measured in the business area	Types of effect		Unit	Scope of tabulation	2020	2021	Difference from the previous fiscal year
Effect measured with respect to resource input into operations	Energy consumption	Purchased electricity	GWh	NGK SPARK PLUG CO., LTD. and Groups in Japan (with integrated certification)	331	350	19
		Gas	million m <sup>3</sup>		11.0	11.6	0.6
		LGP	tons		6,533	6,593	60
	Water consumption	Tap water	m <sup>3</sup>		770,428	821,362	50,934
		Well water	m <sup>3</sup>		346,995	358,895	11,900
Amount of PRTR substances treated		tons	640		704	64	
Effect measured with respect to environmental load and waste from business activities	CO <sub>2</sub> emission from energy consumption		tons		184,426.0	194,207	9,781
	Waste	Effectively used	tons		10,267.0	11,727	1,762
		Not effectively used	tons		69	66	-3
	Amount of PRTR substances released into air and water		tons		94.5	91.7	-2.8

[Calculation method] Energy consumption. CO<sub>2</sub> emission from energy consumption : Excluding the amount used for and CO<sub>2</sub> emitted from the transportation activities



## Environment Data

		Unit	Scope of tabulation	2017	2018	2019	2020	2021
Management of Water	Total water consumption	10,000m <sup>3</sup>	NGK SPARK PLUG Group	163	154	166	153	165
	Basic Unit	10,000m <sup>3</sup> /Million yen	NGK SPARK PLUG Group	6.07	5.40	5.68	5.13	4.92
	Total water discharge	10,000m <sup>3</sup>	NGK SPARK PLUG Group	163	154	166	153	165
Management of Waste	Total waste generated	tons	NGK SPARK PLUG Group	19,966	21,450	22,031	20,237	22,686
	Basic Unit	Tons/Million yen	NGK SPARK PLUG Group	0.074	0.075	0.075	0.068	0.068
	Effectively used	tons	NGK SPARK PLUG Group	17,447	19,490	19,212	18,223	20,712
	Not effectively used	tons	NGK SPARK PLUG Group	2,519	1,960	2,662	2,014	1,974
	Not effectively used	%	NGK SPARK PLUG Group	87.4	90.9	87.3	90.0	91.3
	On-site inspection at waste disposal company facilities	cases	NGK SPARK PLUG CO., LTD. and Groups in Japan	74	84	82	57	39
Management of Chemical Substances	Amount of PRTR substances treated	tons	NGK SPARK PLUG CO., LTD. and Groups in Japan	862.7	920.0	763.8	640.4	704.4
	Amount of PRTR substances released	tons	NGK SPARK PLUG CO., LTD. and Groups in Japan	136.0	132.3	88.1	94.5	91.7
	(Toluene)	tons	NGK SPARK PLUG CO., LTD. and Groups in Japan	125.6	120.9	77.1	83.6	86.1
	(Xylene)	tons	NGK SPARK PLUG CO., LTD. and Groups in Japan	3.2	2.9	1.6	1.1	0.0
	(Other)	tons	NGK SPARK PLUG CO., LTD. and Groups in Japan	7.2	8.6	9.4	9.8	5.5
Energy consumption	Total energy consumption	MWh	NGK SPARK PLUG Group	802,660	830,834	799,541	780,112	825,807
	Total nonrenewable energy consumption	MWh	NGK SPARK PLUG Group	802,269	830,258	799,263	779,822	823,783
	(Fuels)	MWh	NGK SPARK PLUG Group	357,555	367,018	339,823	326,302	338,530
	(Electricity)	MWh	NGK SPARK PLUG Group	444,714	463,241	459,440	453,520	485,252
	Total renewable energy generation	MWh	NGK SPARK PLUG Group	391	576	278	290	2,024

Greenhouse gas emissions (Scope 1,2)	Total direct GHG emissions [Scope 1]	10,000 tons-CO <sub>2</sub>	NGK SPARK PLUG Group	6.83	7.01	6.47	6.21	6.44
	Total indirect GHG emissions [Scope 2]	10,000 tons-CO <sub>2</sub>	NGK SPARK PLUG Group	21.6	22.1	21.1	19.5	20.1
	Scope 1+2	10,000 tons-CO <sub>2</sub>	NGK SPARK PLUG Group	28.5	29.1	27.6	25.7	26.5

[Calculation method]

Scope 1 : Calculated by using the global warming potential as provided for in the Act on Promotion of Global Warming Countermeasures.

Scope 2 : Calculated by using the emission factor as provided by each electric power company in Japan, while in other countries calculated by using the emission factor of each country by the IEA.

<Greenhouse gas emissions (Scope 3)>

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
1. Purchased goods and services	10,000 tons-CO <sub>2</sub>	NGK SPARK PLUG Group	—	119.16	—	122.01	169.03
2. Capital goods			—	20.23	—	11.08	11.49
3. Fuel- and energy-related emissions not included in scope 1 or scope 2			—	4.42	—	4.29	4.60
4. Upstream transportation and distribution			—	17.15	—	12.86	14.36
5. Waste generated in operations			—	0.57	—	0.71	0.77
6. Business travel			—	0.21	—	0.21	0.21
7. Employee commuting			—	2.06	—	2.10	1.47
8. Upstream leased assets			0				
9. Downstream transportation and distribution			—	—	—	—	—
10. Processing of sold products			—	—	—	—	—
11. Use of sold products			—	970.32	—	878.07	939.95
12. End-of-life treatment of sold products			—	0.06	—	0.05	0.06
13. Downstream leased assets			0				
14. Franchises			0				
15. Investments			0				



## [Calculation method]

1 : Calculated by multiplying the figures shown in the material balance sheet by the relevant values retrieved from the database of emissions unit values built for the calculation of organizations' greenhouse gas emissions across their supply chains

2 : Calculated by multiplying the cost of acquiring tangible fixed assets (shown in the financial statements) by the relevant value retrieved from the database of emissions unit values built for the calculation of organizations' greenhouse gas emissions across their supply chains

3 : For power consumption, calculated by multiplying the amount used by the relevant value retrieved from the database of emissions unit values built for the calculation of organizations' greenhouse gas emissions across their supply chains. For gases, etc., calculated by multiplying the amount used with the relevant value retrieved from the IDEA LCA database.

4 : Extracted from the data notified (for products) by shippers specified under the Act on Rationalizing Energy Use

5 : Calculated by totaling CO<sub>2</sub> emissions from the transportation of the company's waste (extracted from the data notified (for waste) by shippers specified under the Act on Rationalizing Energy Use and CO<sub>2</sub> emissions from the treatment of waste (calculated by multiplying the cost of waste treatment (for fiscal years up to fiscal 2018) or the amount of waste treated (for after fiscal 2019) by the relevant value retrieved from the IDEA LCA database)

6 : Calculated by multiplying the number of employees by the relevant value retrieved from the database of emissions unit values built for the calculation of organizations' greenhouse gas emissions across their supply chains

7 : Calculated by multiplying the result of multiplying the number of employees by the number of their working days by the relevant value retrieved from the database of emissions unit values built for the calculation of organizations' greenhouse gas emissions across their supply chains

11 : Calculated by multiplying the amount of CO<sub>2</sub> emissions per one ton of products calculated by using the Japan Auto Parts Industries Association's LCA tool by the weight of shipped products

12 : Calculated by multiplying the weight of shipped products by the relevant value retrieved from the IDEA LCA database

15 : Calculated by multiplying the amount of CO<sub>2</sub> emitted by the five companies that are ranked in the top five in terms of the monetary value of the stocks owned by NGK SPARK PLUG by the stockholding ratio

※ "0" is indicated for non-applicable items, and "-" is indicated for difficult-to-calculate items.

## &lt;Proportion by region in FY2021&gt;

		Unit	Japan	Asia	North America	South America	Europe	Africa
Water	Consumption	10,000 m <sup>3</sup>	123	26.2	1.8	13.4	0.6	0.2
		%	74.4	15.9	1.1	8.1	0.4	0.1
	Emissions	10,000 m <sup>3</sup>	123	26.2	1.8	13.4	0.6	0.2
		%	74.4	15.9	1.1	8.1	0.4	0.1
Waste	Emissions	t	12,800	3,365	2,250	3,231	963	76
		%	56.4	14.8	9.9	14.2	4.2	0.3
Greenhouse gas	Emissions	10,000 tons-CO <sub>2</sub>	21	2.6	1.0	1.5	0.3	0.1
		%	79.1	9.8	3.8	5.7	1.3	0.3

## Compliance with Environmental Laws and Regulations

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Environment-related non-compliance	cases	NGK SPARK PLUG Group	0	0	3	2	3
Environment-related fine	yen	NGK SPARK PLUG Group	—	0	0	0	0
Environment-related complaints	cases	NGK SPARK PLUG CO., LTD. and Groups in Japan	1	3	1	2	2

## Providing Environmentally Friendly Products

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Sales ratio of precious metal plugs*	%	NGK SPARK PLUG Group	37	39	39	41	40
Sales ratio of wide range oxygen sensor*	%	NGK SPARK PLUG Group	22	27	34	37	37

※ "Precious metal plug" and "wide range oxygen sensor" are types of environmentally friendly products and are selected as priority issues.

We aim to increase each of the "sales ratio of precious metal plugs" and the "sales ratio of wide range oxygen sensor" to not less than 50%



## Global Human Resource Management

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Number of workers ※Number of employees as of March 31	people	NGK SPARK PLUG Group	15,322	15,994	16,430 ※ Adopted IFRS for fiscal	16,391 ※ Adopted IFRS for fiscal	16,094 ※ Adopted IFRS for fiscal
	people	NGK SPARK PLUG CO., LTD.	5,851	5,863	5,883	5,891	3,617
Number of temporary workers ※Number of employees as of March 31	people	NGK SPARK PLUG CO., LTD.	303	505	649	473	108
Average age ※Number of employees as of March 31	Men	aged	38.6	39.0	39.7	41.5	41.5
	Women	aged	35.9	36.9	37.6	38.7	39.6
	Total	aged	38.2	38.6	39.3	41.0	41.0
No of years of service ※Number of employees as of March 31	Men	aged	16.4	16.8	17.1	17.8	16.7
	Women	aged	15.2	16.1	16.4	17.2	16.9
	Total	aged	16.2	16.7	16.9	17.7	16.7
Average annual salary	yen	NGK SPARK PLUG CO., LTD.	6,570,683	6,912,014	6,759,462	6,362,393	6,725,908
Turnover rate	Total employee turnover rate	%	2.06	2.62	3.12	3.59	4.71
	Voluntary employee turnover rate	%	1.42	1.53	1.90	2.12	3.51
New graduate hiring	Men	people	139	116	101	84	40
	Women	people	43	27	27	26	21
	Total	people	182	143	128	110	61
	Foreign nationality	people	4	4	5	5	6
Career hiring	Men	people	28	40	30	26	30
	Women	people	6	4	8	9	3
	Total	people	34	44	38	35	33
	Foreign nationality	people	1	0	1	0	0
	Hired as a manager	people	—	—	7	6	8

Rate of employees with high work satisfaction	Men	%	NGK SPARK PLUG CO., LTD. and Groups in Japan	—	—	—	45.5	44.9
	Total	%	NGK SPARK PLUG CO., LTD. and Groups in Japan	—	—	—	50.5	56.8
	Total	%	NGK SPARK PLUG CO., LTD. and Groups in Japan	73.2	67.3	54.1	46.2	46.6
	Response rate	%	NGK SPARK PLUG CO., LTD. and Groups in Japan	70.4	88.1	90.9	88.0	87.6

[Calculation method] Average age/No. of years of service : Calculated based on the number of regular employees as of March 31

Average annual salary Including bonuses and extra wages

Total employee turnover rate : Calculated based on the number of employees who retired / quit the company

Voluntary employee turnover rate : Calculated based on the number of employees who quit the company for personal reasons

## Human Resource Development

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Average hours of training	hours	NGK SPARK PLUG CO., LTD.	—	8	9	3	4
Average amount spent on training	yen	NGK SPARK PLUG CO., LTD.	—	23,310	18,321	8,324	10,809

[Calculation method] Calculated for the training (level-specific, global, etc.) provided by the Strategic Human Resources Department



## Diversity

		Unit	Scope of tabulation	2017	2018	2019	2020	2021
Regular employees ※As of March 31	Men	people	NGK SPARK PLUG CO., LTD.	4,701	4,730	4,784	4,734	3,017
	Women	people	NGK SPARK PLUG CO., LTD.	1,028	1,037	1,045	1,057	600
	Percentage of women	%	NGK SPARK PLUG CO., LTD.	17.9	18.0	17.9	18.3	16.6
Manager ※As of April 1	Men	people	NGK SPARK PLUG CO., LTD.	955	966	963	978	780
	Women	people	NGK SPARK PLUG CO., LTD.	12	15	18	26	26
	Percentage of women	%	NGK SPARK PLUG CO., LTD.	1.24	1.53	1.83	2.60	3.23
Supervisor ※As of April 1	Men	people	NGK SPARK PLUG CO., LTD.	1,058	1,112	1,221	1,264	1,024
	Women	people	NGK SPARK PLUG CO., LTD.	27	26	37	39	47
	Percentage of women	%	NGK SPARK PLUG CO., LTD.	2.49	2.28	2.94	2.99	4.39
Generalist(Classified, Considered) ※As of April 1	Men	people	NGK SPARK PLUG CO., LTD.	3,438	3,427	3,305	3,202	1,383
	Women	people	NGK SPARK PLUG CO., LTD.	593	597	601	612	255
	Percentage of women	%	NGK SPARK PLUG CO., LTD.	14.7	14.8	15.4	16.0	15.6
Ratio of women, foreign nationals and career recruits in managerial positions*		%	NGK SPARK PLUG CO., LTD.	11.7	12.5	13.6	14.5	17.0
Percentage of disabled employees ※As of March 31		%	NGK SPARK PLUG CO., LTD. and Groups in Japan	2.17	2.21	2.25	2.46	2.36
Employee age group	Under 30 years old	%	NGK SPARK PLUG CO., LTD.	27	24	22	17	17
	30 to 50 years old	%	NGK SPARK PLUG CO., LTD.	57	59	60	62	61
	50 years and over	%	NGK SPARK PLUG CO., LTD.	16	17	18	21	22
Reemployed ※As of March 31		people	NGK SPARK PLUG CO., LTD.	223	204	190	208	132

### [Calculation method]

Regular employees : Excluding employees temporarily transferred to Group companies

Manager, Supervisor, Generalist : including employees temporarily transferred to Group companies

Percentage of Disabled Employees : Including employees temporarily transferred to Group companies and the special subsidiary in Japan

Reemployed : Including employees temporarily transferred to Group companies

Employee age group: Including employees temporarily transferred to Group companies

\*We aim to increase the "ratio of women, foreign nationals and career recruits in managerial positions" to 25% in fiscal 2030.

## Work-life Balance

		Unit	Scope of tabulation	2017	2018	2019	2020	2021
Maternity/ Child care	Employees who took maternity leave	people	NGK SPARK PLUG CO., LTD.	35	61	47	47	30
	Employees who took child care leave (Men)	people	NGK SPARK PLUG CO., LTD.	6	4	5	13	24
	Employees who took child care leave (Women)	people	NGK SPARK PLUG CO., LTD.	42	46	53	36	35
	Percentage of employees who returned to work after taking child care leave	%	NGK SPARK PLUG CO., LTD.	95	100	96	94	94
Long-term nursing care leave	Users of the short working hour system for child care	people	NGK SPARK PLUG CO., LTD.	35	42	30	41	23
	Employees who took nursing care leave	people	NGK SPARK PLUG CO., LTD.	1	2	3	1	2
Working hours	Users of the short working hour system for nursing care	people	NGK SPARK PLUG CO., LTD.	0	0	1	1	1
	Prescribed working hours	hours/year and person	NGK SPARK PLUG CO., LTD.	1,899	1,899	1,899	1,899	1,899
	Actual working hours	hours/year and person	NGK SPARK PLUG CO., LTD.	1,993	2,008	1,982	1,884	1,955
Paid holidays	Average overtime working hours	hours/month	NGK SPARK PLUG CO., LTD.	21	22	19	8	10.8
	Paid holidays granted to employees	day(s)	NGK SPARK PLUG CO., LTD.	19.3	19.6	19.5	—	19.6
	Paid holidays taken by employees	day(s)	NGK SPARK PLUG CO., LTD.	15.4	16.6	16.7	—	14.0
Rate of usage		%	NGK SPARK PLUG CO., LTD.	78.5	84.4	85.6	—	71.2
NGK SPARK PLUG Group labor union participation rate ※Number of employees as of March 31		%	NGK SPARK PLUG CO., SparkTec WKS CO., LTD., NANSEI CERAMIC CO., LTD., NTK CERATEC CO., LTD. (Komaki), NTK Medical CO., LTD. NTK CUTTING TOOLS CO., LTD	96 ※NGK SPARK PLUG CO only	92	92	92	94





[Calculation method]

Working hours : Excluding managers, employees temporarily transferred to Group companies and those on leave

Paid holidays : Calculated for a fiscal year from October to next September (example : fiscal 2019 was started in October 2019 and ended in September 2020), excluding managers, employees temporarily transferred to Group companies and those on leave

Employees who took child care leave : Number of employees whose child care leave started in the fiscal year

Percentage of employees who returned to work after taking child care leave : Percentage of employees who returned to work among those whose child care leave period expired in the fiscal year

Users of the short working hour system for child care : Number of employees who became users of the system in the fiscal year

Employees who took nursing care leave : Number of employees whose nursing care leave started in the fiscal year

Users of the short working hour system for nursing care : Number of employees who became users of the system in the fiscal year

## Occupational Safety and Health

		Unit	Scope of tabulation	2017	2018	2019	2020	2021
Total accident frequency rate			NGK SPARK PLUG CO., LTD. (Including temporary employees)	0.63	1.08	0.77	0.93	0.90
Frequency rate of accidents requiring leave from work	Total		NGK SPARK PLUG CO., LTD.	0.08	0.08	0.00	0.34	0.13
	Employees		NGK SPARK PLUG CO., LTD.	0.08	0.08	0.00	0.27	0.13
	Temporary employees		NGK SPARK PLUG CO., LTD.	1.20	0.00	0.00	1.13	0.00
Frequency rate of occupational diseases			NGK SPARK PLUG CO., LTD. (Including temporary employees)	0.00	0.00	0.00	0.00	0.00

[Calculation method]

Total accident frequency rate : Total number of victims per 1million working hours

Total accident frequency rate=Number of victims of all occupational accidents÷Total working hours×1million hours

Frequency rate of accidents requiring leave from work : Number of victims who took leave per 1million working hours

Frequency rate of accidents requiring leave from work=Number of victims of accidents requiring leave from work÷Total working hours×1million hours

Frequency rate of occupational diseases : Number of employees who took leave due to occupational diseases per 1million working hours

Frequency rate of occupational diseases=Number of employees who took leave due to occupational diseases÷Total working hours×1million hours

## Product Quality

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Number of vehicles recalled	vehicles	NGK SPARK PLUG Group	0	0	0	0	0
Expenses incurred due to recalls issued in the corresponding fiscal year	yen		0	0	0	0	0
Number of vehicles recalled that were Mandated	vehicles		0	0	0	0	0
Cost of recalls as a percentage of annual revenues	%		0	0	0	0	0

## Social Contribution Activities

Type of contribution	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Cash contributions	million yen	NGK SPARK PLUG Group	314.9	248.5	394.6	496.1	464.8
Time: employee volunteering during paid working hours			14.5	13.4	7.6	8.4	10.6
In-kind giving: product or services donations, projects / partnerships or similar			5.3	1.7	51.3	1.3	11.3
Management overheads			13.9	35.2	29.7	0.03	0.01

## Communication with Stakeholders

Stakeholder	Communication	Major activities	Frequency & no. of participants per year		
			2019	2020	2021
Shareholders and investors	We disclose information in compliance with the law and also disclose information promptly via the media and at our website.	●Organization of the ordinary general meeting of shareholders	June	June	June
		●Dialogue with institutional investors and securities analysts	336 times	197 times	258 times
		●Conference call for institutional investors and securities analysts	—	4 times (A total of 242 people)	4 times (A total of 288 people)
		●Organization of briefings on our technologies for institutional investors and securities analysts	Postpone	Canceled due to the spread of the COVID-19	1 time
		●Organization of briefings on the company for personal investors	3 times (A total of 900 people)	2 times (A total of 411 people)	2 times (A total of 1,720 people)
		●Publication of the newsletters for shareholders	1 time	1 time	1 time
		●Publication of an annual integrated report	Aug.	Oct.	Oct.
		●Provision of information via the website	From time to time		



Customers	We offer information meaningful to customers at our website and through exhibitions so that they can purchase and use our products and services with peace of mind.	●Communication through sales activities	From time to time		
		●Provision of information via the website (on products, events, etc.)	From time to time		
		●Explanation about products and technologies at exhibitions	From time to time		
		●Communication at venues of events, such as racing events	From time to time		
Suppliers	We are working to build relationships of trust with suppliers as their sound partners and achieve growth together. To this end we conduct activities across the supply chain, such as holding briefing sessions on our corporate policies.	●Communication through daily procurement activities	From time to time		
		●Organization of briefings on the corporate principles	June	June	June
		●Organization of seminars on practical issues	34 seminars	24 seminars	7 seminars
		●Communication through social meetings and events	From time to time		
Local communities	We respect the local culture and customs at each of our bases located across the world and work for smooth communication with local communities. We also participate in various social contribution activities to help create a comfortable society as a corporate citizen.	●Participation in local events such as festivals	From time to time		
		●Local cleanup activity	From time to time (A total of 931 people)	From time to time (A total of 464 people)	From time to time (A total of 558 people)
		●Environment-related plant tours	From time to time (A total of 867 people)	From time to time (A total of 71 people)	From time to time (A total of 324 people)
		●Environmental meetings	From time to time (A total of 302 people)	From time to time (A total of 4 people)	From time to time (A total of 7 people)
		●Communication through cultural and sport events	—	—	—
		· 2020 NGK SPARK PLUG Suzuka 2&4 Race	Canceled due to the spread of the COVID-19	Canceled due to the spread of the COVID-19	Apr.
		· NGK SPARK PLUG FC Gifu football class for children	June	Canceled due to the spread of the COVID-19	Oct.
		· Musical for families held in the NTK Hall	Dec.	Dec. (Scale down due to the spread of the COVID-19)	Dec.
		· Marathon Festival Nagoya Aichi	Mar.	Mar.	Mar.
		●Provision of information via the website (environmental information, etc.)	From time to time		

Employees	To maintain safe and sound workplaces and help employees work with vigor, the management team proactively visits work sites to have dialogues with on-site employees.	●Communication through daily operations and at workplaces	From time to time		
		●Publication of an in-house magazine	Booklet : 8 times Website : from time to time	Booklet : 4 times Website : from time to time	Booklet : 2 times Website : from time to time
		●Organization of various labor-management meetings	From time to time		
		●Utilization of the corporate ethics helpline (for employees)	80 calls received	63 calls received	32 calls received
		●Organization of various training sessions	From time to time (A total of 8,192 people)	From time to time	From time to time
		●Employee satisfaction survey	All employees, from Nov.	All employees, from Oct. to Nov.	All employees, from Oct. to Nov.

## Corporate Governance

### <Board of Directors and Board of Auditors>

		Unit	Scope of tabulation	2017	2018	2019	2020	2021
Directors	Men	people	NGK SPARK PLUG CO., LTD.	9	9	10	10	10
	Women	people		1	1	0	1	1
	Percentage of women	%		10	10	0	9	9
	Outside directors (independent officers)	people		3	3	3	4	4
	Percentage of outside directors ※	%		30	30	30	36	36
	Percentage of female and non-Japanese directors ※	%		10	10	10	18	18
	Average tenure	years		5.4	3.2	3.8	4.8	5.8
Auditors	Men	people	3	3	3	3	2	
	Women	people	1	1	1	1	2	
	Percentage of women	%	25	25	25	25	50	
	Outside directors (independent officers)	people	2	2	2	2	2	
Board of directors	Frequency	times	14	12	12	12	12	
	Average attendance rate	%	98.5	99.4	98.3	99.2	100	
Board of auditors	Frequency	times	14	13	13	13	14	
	Average attendance rate	%	96	100	100	100	98	

※ We aim to increase the rate of outside directors and the percentage of female and non-Japanese directors to at least one-third and 30% of the total number of directors, respectively, by fiscal 2030.



### <Remuneration and bonus paid to directors and auditors in fiscal 2021>

Officer classification	Total remuneration (million yen)	Total remuneration of compensation by type (million yen)			Number of eligible executives (number of people)
		Fixed remuneration	Bonus	Performance-linked stock compensation	
Directors (excluding outside directors)	594	365	152	76	7
Auditors (excluding outside auditors)	31	31	-	-	2
Outside directors	57	57	-	-	4
Outside auditors	39	39	-	-	3

\*1 : The amount of compensation to be paid to directors has the following limits based on the resolution made at the 117th Ordinary General Meeting of Shareholders (held on June 29, 2017).

Total amount of compensation (excluding the total amount of bonuses): Up to 60 million yen a month

Total amount of bonuses: Up to 180 million yen a year Also based on the resolution made at the 117th Ordinary General Meeting of Shareholders, performance-linked stock compensation of up to 1,000 million yen in total will be paid to directors and corporate officers over four fiscal years from April 1, 2017 to March 31, 2021.

\*2 : The amount of compensation paid to auditors has the following limits based on the resolution made at the 106th Ordinary General Meeting of Shareholders (held on June 29, 2006):

Total amount of compensation (excluding total amount of bonuses): Up to 10 million yen a month

Total amount of bonuses: Up to 10 million yen a year

## Compliance

### <In-house Reporting System>

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Consultation requests/ reports made internally	cases	NGK SPARK PLUG CO., LTD. and Groups in Japan	65	73	80	63	41

[Calculation method] Number of cases of consultation requests/reports received through the Corporate Ethics Helpline

### <Anti-corruption>

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Violations of laws related to anti-corruption	cases	NGK SPARK PLUG Group	0	0	0	0	0

### <Political Donation>

	Unit	Scope of tabulation	2017	2018	2019	2020	2021
Political organizations	cases	NGK SPARK PLUG CO., LTD.	0	0	0	0	0
	yen		0	0	0	0	0
Lobbyists or lobbying organizations	cases		0	0	0	0	0
	yen		0	0	0	0	0
Trade associations	cases		0	0	0	0	0
	yen		0	0	0	0	0

## R&D




	Unit	Scope of tabulation	2017	2018	2019	2020	2021
R&D expenses	millions of yen	NGK SPARK PLUG Group	25,283	28,071	28,315	26,115	23,685
Ratio of R&D	%		6.17	6.60	6.64	6.11	4.82





[Calculation method] Including expenses for improving existing products and for applied research as well as the development cost recognized as the cost of an intangible asset



# Initiatives

NGK SPARK PLUG CO., LTD. is actively participating in sustainability initiatives.

	<p><b>The United Nations Global Compact (UNGC)</b></p> <p>The UN Global Compact was proposed by the UN Secretary-General Kofi Annan in 1999 to address a variety of issues such as global warming, environmental problems, and social inequality that have been ongoing on a global scale. It is an initiative formally launched at UN headquarters in July 2000 and is a voluntary corporate principle of action.</p> <p>We participated in the United Nations Global Compact in November 2016.</p> <p>We support the 10 principles of the United Nations Global Compact in the four fields of "human rights," "labor," "environment," and "anti-corruption," and promote various activities as a "good member of society."</p> <p><a href="#">United Nations Global Compact Participation &gt;</a></p>
	<p><b>Sustainable Development Goals (SDGs)</b></p> <p>The SDGs consist of 17 goals and 169 targets for achieving a sustainable society by 2030, adopted at the United Nations Summit in 2015. They aim to solve global problems and challenges such as poverty, inequality and climate change, and to "leave no one behind".</p> <p>As a signatory to the United Nations Global Compact, we are committed to doing what we can to contribute towards the achievement of the SDGs.</p> <p><a href="#">Our Commitments to SDGs &gt;</a></p>
<p>In support of</p>  <p><small>Established by UN Women and the UN Global Compact Office</small></p>	<p><b>Women's Empowerment Principles (WEPs)</b></p> <p>WEPs are principles for businesses to work voluntarily on promoting the advancement of women. They provide a holistic framework for companies to promote gender equality and women's empowerment in the workplace, marketplace and community and drive positive outcomes for society and business. The UN Global Compact and UN Women collaborated to develop and established WEPs in 2010 through multi-stakeholder international consultations.</p> <p>We signed this Code of Conduct in October 2020 and expressed our strong intention to create a working and social environment in which women can exert their strengths socially.</p>

	<p><b>Task Force on Climate-related Financial Disclosures (TCFD)</b></p> <p>The TCFD is a task force established by the Financial Stability Board (FSB), an international organization of central banks and financial regulators from major countries, to provide a framework for disclosing information on climate change. In June 2017, the TCFD released a report recommending disclosure of information about risks and opportunities related to climate change. Governments, financial institutions, and companies around the world have endorsed the TCFD's recommendations. We have announced its endorsement of the recommendations of TCFD in July 2020. Based on the TCFD recommendations, we will assess and proactively disclose the financial impacts of climate-related risks and opportunities.</p> <p><a href="#">Support for the TCFD Recommendations &gt;</a></p>
	<p><b>CDP</b></p> <p>CDP is an international non-governmental organization (NGO) launched in 2000 to collect, analyze, and evaluate information on the environmental activities of the world's leading companies and share these results with institutional investors. We answered questions on climate change and water security.</p> <p><a href="#">CDP 〓</a></p>
	<p><b>Science Based Targets initiative (SBTi)</b></p> <p>The SBTi is a collaboration between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF). The SBTi defines and promotes best practice in science-based target setting and independently assesses companies' targets. In June 2022, our group's greenhouse gas reduction targets were approved by SBTi as meeting the level "well-below 2°C" of the Paris Agreement.</p>
	<p><b>Declaration of Partnership Building</b></p> <p>The Declaration of Partnership Building was established by the Committee for the Promotion of Partnership Building for the Future, whose members include the Chairman of Keidanren (Federation of Economic Organizations), the Chairman of JCCI (Japan Chamber of Commerce and Industry), the Chairman of JTUC (Japanese Trade Union Confederation) and related ministers (Cabinet Office, Ministry of Economy, Trade and Industry, Ministry of Health, Labor and Welfare, Ministry of Agriculture, Forestry and Fisheries, and Ministry of Land, Infrastructure, Transport and Tourism).</p> <p>It is a declaration in the name of the representative of a company to build a new partnership by promoting cooperation and coexistence and co-prosperity with business partners and value-creating companies in the supply chain.</p> <p>We registered in the "Declaration of Partnership Building" in October 2020.</p> <p><a href="#">Declaration of Partnership Building &gt;</a></p>





# External Evaluation of Our ESG Initiatives


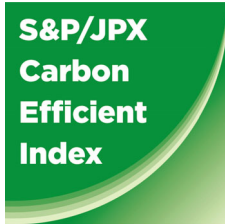
## Corporate evaluation of ESG investment

ESG investment refers to investment that selects investment targets not only in terms of finance but also in consideration of ESG (environment, society, governance) factors that are non-financial information. Numerous ESG investment evaluations have been conducted at home and abroad.

The Company continues to be selected as a constituent of all ESG indices for Japanese Equities adopted by the Government Pension Investment Fund (GPIF).

<Status of Inclusion in the ESG Index>

 <p><b>FTSE4Good</b></p>	<p><b>FTSE4Good Index Series</b></p> <p>We are selected as a member company of the FTSE4Good Index Series since 2003.</p> <p>FTSE4Good Index is created by FTSE Russell (UK), a leading global index provider, and organized by companies that meet global standards concerning the environment, society, and governance based.</p> <p><a href="#">About FTSE4Good Index</a></p>
 <p><b>FTSE Blossom Japan</b></p>	<p><b>FTSE Blossom Japan Index</b></p> <p>We are selected as a member company of the FTSE Blossom Japan Index since 2017.</p> <p>The index for Japanese equities is created by FTSE Russell (UK) and organized by companies that meet diverse standards concerning the environment, society, and governance based on ESG evaluation.</p> <p><a href="#">FTSE Blossom Japan Index Series</a></p>

 <p><b>FTSE Blossom Japan Sector Relative Index</b></p>	<p><b>FTSE Blossom Japan Sector Relative Index</b></p> <p>We are selected as a member company of the FTSE Blossom Japan Sector Relative Index since 2022.</p> <p>The index for Japanese equities created by FTSE Russell (UK), is designed to measure the performance of Japanese companies that demonstrate strong ESG practices. The index is constructed so that sector weights align with the Japanese equity market.</p> <p><a href="#">FTSE Blossom Japan Index Series</a></p>
<p><b>2022 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX</b></p>	<p><b>MSCI JAPAN ESG SELECT LEADERS INDEX</b></p> <p>We are selected as a member company of the MSCI JAPAN ESG SELECT LEADERS INDEX since 2017.</p> <p>The index for Japanese equities is created by MSCI (U.S.A.) and composed of companies with high ESG ratings from each industry.</p> <p><a href="#">MSCI JAPAN ESG SELECT LEADERS INDEX</a></p>
<p><b>2022 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)</b></p>	<p><b>MSCI JAPAN EMPOWERING WOMEN INDEX</b></p> <p>We are selected as a member company of the MSCI JAPAN EMPOWERING WOMEN INDEX. The index for Japanese equities is created by MSCI (U.S.A.) and designed by companies with excellent gender diversity in each industry.</p> <p><a href="#">MSCI JAPAN EMPOWERING WOMEN INDEX</a></p>
 <p><b>S&amp;P/JPX Carbon Efficient Index</b></p>	<p><b>S&amp;P/JPX Carbon Efficient Index</b></p> <p>We have been selected as a member company of the S&amp;P/JPX Carbon Efficient Index since 2018. An ESG index jointly developed by S &amp; P Dow Jones Indices and Japan Exchange Group (JPX). For the constituent stocks of Tokyo Stock Price Index (TOPIX), the inclusion ratio in the index will be determined in consideration of the disclosure status of environmental information and carbon efficiency (carbon emissions per unit of revenue).</p> <p><a href="#">S&amp;P/JPX Carbon Efficient Index</a></p>



2022



Sompo Sustainability Index

**SOMPO Sustainability Index**

We are selected as a member company of the SOMPO Sustainability Index. The index for Japanese equities is created by SOMPO Asset Management Co., Ltd. and composed of companies with outstanding ESG-related initiatives. We have been adopted for the third consecutive year since 2020.

\*The inclusion of NGK SPARK PLUG CO., LTD. in any MSCI index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of NGK SPARK PLUG CO., LTD. by MSCI or any of its affiliates. The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

## &lt;Evaluation of Major External Surveys&gt;

**CDP**

CDP is an evaluation for the environmental activities of the world's leading companies and these results are disclosed to institutional investors. We had responded to climate change and water security fields and received the following ratings;

	2020	2021	2022
Climate Change	A-	B	B
Water Security	B	B	B

CDP

**MSCI ESG Ratings**

MSCI ESG Rating is provided by MSCI (USA). It's designed to measure a company's resilience to long-term industry material ESG risks. How well ESG risk is managed compared to other companies in the same industry is evaluated on a 7-point scale (leader: AAA, AA, average: A, BBB, BB, laggard: B, CCC). We received an AA rating in 2022.

2020	2021	2022
A	A	AA

MSCI  
ESG RATINGS

CCC	B	BB	BBB	A	AA	AAA
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**NIKKEI SDGs Management Survey**

The survey has been sponsored by Nikkei Inc. since 2019. It targets listed companies and leading unlisted companies nationwide, and evaluates the company's "SDGs management" on a five-star scale from the four pillars of "SDGs strategy / economic value," "social value," "environmental value," and "governance."

We have been received 4 stars for the third consecutive years since 2020.

2020	2021	2022
★★★★	★★★★	★★★★



経営調査 2022 ★★★★★

**NIKKEI Smart Work Management Survey**

The survey has been sponsored by Nikkei Inc. since 2017. It targets listed companies and leading unlisted companies nationwide, and evaluated by adding a management base such as corporate governance to "Smart Work Management" that is defined from the three elements of "Realization of diverse and flexible working styles," "System to create new businesses," and "Ability to develop markets" for maximize the performance of the organization.

2020	2021	2022
★★★★	★★★★	★★★★



★★★★★ 2023

**Toyo Keizai CSR Survey**

The survey has been sponsored by Toyo Keizai Inc. since 2005, and it evaluates companies from the four perspectives of "human resources utilization," "environment," "corporate governance + sociality," and "finance" related to CSR. In 2022, it was implemented for 1,631 companies, it was implemented for 1,631 companies, and our company was ranked 133rd.



2020	2021	2022
150th	146th	133rd






## Major Award and Certification

The following are the main awards and certification received by our Group for our CSR-related initiatives.

### In Fiscal 2022

Recipient	Award	Organizer
NGK SPARK PLUG CO., LTD.	Certified as "SPORTS YELL COMPANY" for 2023 	JAPAN SPORTS AGENCY
NGK SPARK PLUG CO., LTD.	selected as an AA Website in Sector Ranking and All Markets Ranking of "All Japanese Listed Companies' Website Ranking 2022"	Nikko Investor Relations Co., Ltd.
NGK SPARK PLUG CO., LTD.	Received Bronze Class in the Sustainability Site Awards 2023	Association for Sustainability Communication
NITTOKU SMILE CO., LTD.	Certified as "Monisu". 	Ministry of Health, Labour and Welfare
NGK SPARK PLUG CO., LTD. Ise Plant	Certified as "Japanese Red Cross Society Golden Order of Merit"	Japanese Red Cross Society

### In Fiscal 2021

Recipient	Award	Organizer
NGK SPARK PLUG CO., LTD.	Selected to the "Dow Jones Sustainability Asia Pacific Index"	S&P Dow Jones Indices
NGK SPARK PLUG CO., LTD.	Received Bronze Class in overall category and in glass and ceramics products of the "SUSTAINA ESG AWARDS 2021" 	SUSTAINA
NGK SPARK PLUG CO., LTD.	Certified as a Silver Rating, of "PRIDE Index 2021" 	work with Pride
NGK SPARK PLUG CO., LTD.	Received the Excellence award, of the "22th Telework Promotion Awards"	Japan Telework Association
NGK SPARK PLUGS (INDIA) PVT. LTD.	Selected as one of the Top 25 Safest Workplaces in India at the KelpHR Posh Awards® 2021 *Posh: Prevention of Sexual Harassment at Workplace	KelpHR
NGK SPARK PLUG CO., LTD.	Certified as "Nagoya City Childcare Support Company Certification" and received the Excellence award 	Nagoya City
NGK SPARK PLUG CO., LTD.	Certified as "SPORTS YELL COMPANY" for 2022	JAPAN SPORTS AGENCY





	 <p><b>SPORTS YELL COMPANY 2022</b></p>	
NGK SPARK PLUG CO., LTD.	Received the "Aichi Family Friendly Company Award"	Aichi Prefecture
NGK SPARK PLUG CO., LTD.	Selected as "2022 the Health & Productivity Stock Selection"  <p>2022 健康経営銘柄 Health and Productivity</p>	Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange
NGK SPARK PLUG CO., LTD.	Certified as Health & Productivity Management Outstanding Organizations Recognition Program for 2022 (White500)  <p>2022 健康経営優良法人 Health and Productivity ホワイト500</p>	Ministry of Economy, Trade and Industry (METI) and Nippon Kenko Kaigi (Japan Health Conference)
NGK SPARK PLUG CO., LTD.	Selected as one of the Nadeshiko Brands  <p><b>NADE SHI KO</b> BRAND 2022</p>	Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange



# GRI Content Index

100 series (Universal) 200 series (Economic) 300 series (Environmental) 400 series (Social)

## 100 series (Universal)

Disclosures		References
<b>GRI 102: General Disclosures 2016</b>		
<b>1. Organizational profile</b>		
102-1	Name of the organization	- <a href="#">Overview</a>
102-2	Activities, brands, products, and services	- <a href="#">Our Brands</a> - <a href="#">Products</a>
102-3	Location of headquarters	- <a href="#">Overview</a>
102-4	Location of operations	- <a href="#">Global Networks</a>
102-5	Ownership and legal form	- <a href="#">Overview</a>
102-6	Markets served	- <a href="#">Global Networks</a> - <a href="#">Our Brands</a>
102-7	Scale of the organization	- <a href="#">Overview</a> - <a href="#">Financial and Business Results Information</a>
102-8	Information on employees and other workers	- <a href="#">Global Human Resource Management</a> - <a href="#">Sustainability Data (Non-Financial Information)</a> > <a href="#">Global Human Resource Management</a>
102-9	Supply chain	- <a href="#">Proper Procurement</a>
102-10	Significant changes to the organization and its supply chain	—
102-11	Precautionary Principle or approach	- <a href="#">Risk Management</a> - <a href="#">Compliance</a>
102-12	External initiatives	- <a href="#">Initiatives</a>
102-13	Membership of associations	- <a href="#">Initiatives</a>

<b>2. Strategy</b>		
102-14	Statement from senior decision-maker	- <a href="#">Management Message about Sustainability</a> - <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, Message from the Chairman</a> - <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, Message from the President</a> - <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, Message from the Sustainability Officer</a>
102-15	Key impacts, risks, and opportunities	- <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, Priority Issues (Materiality)</a> - <a href="#">Risk Management</a>
<b>3. Ethics and integrity</b>		
102-16	Values, principles, standards, and norms of behavior	- <a href="#">Philosophy and Strategy</a> - <a href="#">CSR and Sustainability Charter</a>
102-17	Mechanisms for advice and concerns about ethics	- <a href="#">Compliance &gt; Corporate Ethics Helpline</a>
<b>4. Governance</b>		
102-18	Governance structure	- <a href="#">Corporate Governance &gt; Corporate Governance System</a>
102-19	Delegating authority	- <a href="#">Corporate Governance &gt; Corporate Governance System</a> - <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>
102-20	Executive-level responsibility for economic, environmental, and social topics	- <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, Message from the Sustainability Officer</a> - <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>
102-21	Consulting stakeholders on economic, environmental, and social topics	- <a href="#">Corporate Governance &gt; Corporate Governance System</a> - <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>
102-22	Composition of the highest governance body and its committees	- <a href="#">Corporate Governance &gt; Corporate Governance System</a> - <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>
102-23	Chair of the highest governance body	- <a href="#">"Corporate Governance Report"</a>
102-24	Nominating and selecting the highest governance body	- <a href="#">Corporate Governance &gt; Corporate Governance System</a>
102-25	Conflicts of interest	- <a href="#">"Corporate Governance Report"</a> - <a href="#">Corporate Governance &gt; Roles and Independence of Outside Directors</a>



102-26	Role of highest governance body in setting purpose, values, and strategy	- <a href="#">Corporate Governance &gt; Corporate Governance System</a> - <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a> - <a href="#">Priority Issues (Materiality) &gt; The Process of Defining Priority Issues</a>
102-27	Collective knowledge of highest governance body	- <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>
102-28	Evaluating the highest governance body's performance	- <a href="#">Corporate Governance &gt; Evaluation of the effectiveness of the Board of Directors</a>
102-29	Identifying and managing economic, environmental, and social impacts	- <a href="#">Priority Issues (Materiality) &gt; The Process of Defining Priority Issues</a> - <a href="#">Risk Management &gt; Process to identify priority risks</a>
102-30	Effectiveness of risk management processes	- <a href="#">Priority Issues (Materiality) &gt; The Process of Defining Priority Issues</a> - <a href="#">Risk Management &gt; Process to Identify Priority Risks</a>
102-31	Review of economic, environmental, and social topics	- <a href="#">Priority Issues (Materiality) &gt; The Process of Defining Priority Issues</a> - <a href="#">Risk Management &gt; Process to Identify Priority Risks</a>
102-32	Highest governance body's role in sustainability reporting	- <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>
102-33	Communicating critical concerns	- <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a> - <a href="#">Risk Management &gt; Promotion System</a>
102-34	Nature and total number of critical concerns	- <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a> - <a href="#">Risk Management &gt; Promotion System</a>
102-35	Remuneration policies	- <a href="#">Corporate Governance &gt; Remuneration for Director Annual Securities Report The 122nd Fiscal Year (From April 1, 2021 to March 31, 2022)</a>
102-36	Process for determining remuneration	- <a href="#">Corporate Governance &gt; Remuneration for Director and Auditor</a> - <a href="#">"Corporate Governance Report"</a>
102-37	Stakeholders' involvement in remuneration	-
102-38	Annual total compensation ratio	-
102-39	Percentage increase in annual total compensation ratio	-

<b>5. Stakeholder engagement</b>		
102-40	List of stakeholder groups	- <a href="#">Sustainability Data (Non-Financial Information) &gt; Communication with Stakeholders</a> - <a href="#">Communication to Stakeholders</a>
102-41	Collective bargaining agreements	- <a href="#">Work-Life Balance &gt; Labor-Management Relations</a> - <a href="#">Sustainability Data (Non-Financial Information) &gt; Work-life Balance Management</a>
102-42	Identifying and selecting stakeholders	- <a href="#">Sustainability Data (Non-Financial Information) &gt; Communication with Stakeholders</a> - <a href="#">Communication to Stakeholders</a>
102-43	Approach to stakeholder engagement	- <a href="#">Sustainability Data (Non-Financial Information) &gt; Communication with Stakeholders</a> - <a href="#">Communication to Stakeholders</a>
102-44	Key topics and concerns raised	-
<b>6. Reporting practice</b>		
102-45	Entities included in the consolidated financial statements	- <a href="#">Overview</a>
102-46	Defining report content and topic Boundaries	- <a href="#">"Integrated Report 2022", Editorial Policy</a>
102-47	List of material topics	- <a href="#">Priority Issues (Materiality) &gt; The Process of Defining Priority Issues</a>
102-48	Restatements of information	-
102-49	Changes in reporting	- <a href="#">"Integrated Report 2022", Editorial Policy</a>
102-50	Reporting period	- <a href="#">"Integrated Report 2022", Editorial Policy</a>
102-51	Date of most recent report	-
102-52	Reporting cycle	- <a href="#">"Integrated Report 2022", Editorial Policy</a>
102-53	Contact point for questions regarding the report	- <a href="#">"Integrated Report 2022", Back cover</a> - <a href="#">Contact Us</a>
102-54	Claims of reporting in accordance with the GRI Standards	-
102-55	GRI content index	- <a href="#">GRI Content Index</a>
102-56	External assurance	- <a href="#">Environment &gt; Environmental Burden from Business Activities &gt; Independent Verification Report</a>
<b>GRI 103: Management Approach 2016</b>		
103-1	Explanation of the material topic and its Boundary	- <a href="#">Priority Issues (Materiality)</a>
103-2	The management approach and its components	- <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, CSR and Sustainability Committee</a> - <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>
103-3	Evaluation of the management approach	- <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, CSR and Sustainability Committee</a> - <a href="#">CSR and Sustainability Charter &gt; CSR and Sustainability Promotion System</a>



## 200 series (Economic)

Disclosures		References
<b>GRI 201: Economic Performance 2016</b>		
201-1	Direct economic value generated and distributed	- <a href="#">Annual Securities Report The 122nd Fiscal Year (From April 1, 2021 to March 31, 2022)</a>
201-2	Financial implications and other risks and opportunities due to climate change	- <a href="#">"Integrated Report 2022", NGK SPARK PLUG's Sustainability, Priority Issues (Materiality)</a> - <a href="#">Annual Securities Report The 122nd Fiscal Year (From April 1, 2021 to March 31, 2022)</a>
201-3	Defined benefit plan obligations and other retirement plans	- <a href="#">Annual Securities Report The 122nd Fiscal Year (From April 1, 2021 to March 31, 2022)</a>
201-4	Financial assistance received from government	–
<b>GRI 202: Market Presence 2016</b>		
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	–
<b>GRI 203: Indirect Economic Impacts 2016</b>		
203-1	Infrastructure investments and services supported	- <a href="#">Social Contribution</a>
203-2	Significant indirect economic impacts	–
<b>GRI 204: Procurement Practices 2016</b>		
204-1	Proportion of spending on local suppliers	–
<b>GRI 205: Anti-corruption 2016</b>		
205-1	Operations assessed for risks related to corruption	- <a href="#">Compliance &gt; Initiatives to Prevent Corruption</a>
205-2	Communication and training about anti-corruption policies and procedures	- <a href="#">Compliance &gt; Initiatives to Prevent Corruption</a>
205-3	Confirmed incidents of corruption and actions taken	- <a href="#">Compliance &gt; Initiatives to Prevent Corruption</a>
<b>GRI 206: Anti-competitive Behavior 2016</b>		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	- <a href="#">Compliance &gt; Activities Concerning Competition Laws</a>
<b>GRI 207: Tax 2019</b>		
207-1	Approach to tax	- <a href="#">Appropriate Tax Payment</a>
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	–

## 300 series (Environmental)

Disclosures		References
<b>GRI 301: Materials 2016</b>		
301-1	Materials used by weight or volume	- <a href="#">Environmental Burdens from Business Activities</a>
301-2	Recycled input materials used	–
301-3	Reclaimed products and their packaging materials	–
<b>GRI 302: Energy 2016</b>		
302-1	Energy consumption within the organization	- <a href="#">Environmental Burdens from Business Activities</a> - <a href="#">Sustainability Data (Non-Financial Information) &gt;Environment Data</a>
302-2	Energy consumption outside of the organization	–
302-3	Energy intensity	–
302-4	Reduction of energy consumption	–
302-5	Reductions in energy requirements of products and services	–
<b>GRI 303: Water and Effluents 2018</b>		
303-1	Interactions with water as a shared resource	- <a href="#">Conservation of Water Resources</a>
303-2	Management of water discharge-related impacts	- <a href="#">Environmental Management &gt; Compliance with Environmental Laws and Regulations</a>
303-3	Water withdrawal	- <a href="#">Conservation of Water Resources &gt; Trends in Volume of Water Usage</a>
303-4	Water discharge	- <a href="#">Environmental Burdens from Business Activities</a>
303-5	Water consumption	- <a href="#">Conservation of Water Resources</a>
<b>GRI 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	- <a href="#">Conservation of Biodiversity</a>
304-2	Significant impacts of activities, products, and services on biodiversity	- <a href="#">Conservation of Biodiversity</a>
304-3	Habitats protected or restored	- <a href="#">Conservation of Biodiversity</a>
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	–



GRI 305: Emissions 2016		
305-1	Direct (Scope 1) GHG emissions	- <a href="#">Sustainability Data (Non-Financial Information) &gt;Environment Data</a>
305-2	Energy indirect (Scope 2) GHG emissions	- <a href="#">Sustainability Data (Non-Financial Information) &gt;Environment Data</a>
305-3	Other indirect (Scope 3) GHG emissions	- <a href="#">Sustainability Data (Non-Financial Information) &gt;Environment Data</a>
305-4	GHG emissions intensity	- <a href="#">Sustainability Data (Non-Financial Information) &gt;Environment Data</a>
305-5	Reduction of GHG emissions	- <a href="#">Sustainability Data (Non-Financial Information) &gt;Environment Data</a>
305-6	Emissions of ozone-depleting substances (ODS)	–
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	- <a href="#">Environmental Burdens from Business Activities</a>
GRI 306: Effluents and Waste 2016		
306-1	Water discharge by quality and destination	- <a href="#">Environmental Burdens from Business Activities</a>
306-2	Waste by type and disposal method	- <a href="#">Environmental Burdens from Business Activities</a>
306-3	Significant spills	- <a href="#">Environmental Management &gt; Compliance with Environmental Laws and Regulations</a> - <a href="#">Sustainability Data (Non-Financial Information) &gt;Compliance with Environmental Laws and Regulations</a>
306-4	Transport of hazardous waste	–
306-5	Water bodies affected by water discharges and/or runoff	–
GRI 307: Environmental Compliance 2016		
307-1	Non-compliance with environmental laws and regulations	- <a href="#">Environmental Management &gt; Compliance with Environmental Laws and Regulations</a> - <a href="#">Sustainability Data (Non-Financial Information) &gt;Compliance with Environmental Laws and Regulations</a>
GRI 308: Supplier Environmental Assessment 2016		
308-1	New suppliers that were screened using environmental criteria	
308-2	Negative environmental impacts in the supply chain and actions taken	- <a href="#">Proper Procurement &gt; Promoting Responsible Procurement</a>

## 400 series (Social)

Disclosures		References
GRI 401: Employment 2016		
401-1	New employee hires and employee turnover	- <a href="#">Sustainability Data (Non-Financial Information) &gt;Global Human Resource Management</a>
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	–
401-3	Parental leave	- <a href="#">Work-Life Balance &gt; Initiatives that Consider Work-Life Balance</a> - <a href="#">Sustainability Data (Non-Financial Information) &gt;Work-life BalanceManagement</a>
GRI 402: Labor/Management Relations 2016		
402-1	Minimum notice periods regarding operational changes	–
GRI 403: Occupational Health and Safety 2018		
403-1	Occupational health and safety management system	- <a href="#">Occupational Health and Safety &gt; Promotion System</a>
403-2	Hazard identification, risk assessment, and incident investigation	- <a href="#">Occupational Health and Safety &gt; Promotion System</a> - <a href="#">Diversity &gt; Providing Workplaces Where Employees Can Continue to Exert Their Abilities</a>
403-3	Occupational health services	- <a href="#">Health Promotion Activities</a>
403-4	Worker participation, consultation, and communication on occupational health and safety	- <a href="#">Occupational Health and Safety &gt; Promotion System</a>
403-5	Worker training on occupational health and safety	- <a href="#">Health and Safety Activities &gt; Enhancement of Education, Training and Enlightenment</a>
403-6	Promotion of worker health	- <a href="#">Health Promotion Activities</a>
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	- <a href="#">Occupational Health and Safety &gt; Promotion System</a> - <a href="#">Health and Safety Activities &gt; Risk Assessment (RA) Initiatives</a>
403-8	Workers covered by an occupational health and safety management system	- <a href="#">Occupational Health and Safety &gt; Promotion System</a>
403-9	Work-related injuries	- <a href="#">Health and Safety Activities &gt; Toward Elimination of Occupational Accidents</a> - <a href="#">Sustainability Data (Non-Financial Information) &gt;Occupational Safety and Health</a>
403-10	Work-related ill health	- <a href="#">Health Promotion Activities</a> - <a href="#">Sustainability Data (Non-Financial Information) &gt;Occupational Safety and Health</a>



GRI 404: Training and Education 2016		
404-1	Average hours of training per year per employee	- <a href="#">Human Resource Development</a> - <a href="#">Sustainability Data (Non-Financial Information)</a> > <a href="#">Human Resource Development</a>
404-2	Programs for upgrading employee skills and transition assistance programs	- <a href="#">Human Resource Development</a> - <a href="#">Diversity &amp; Inclusion</a> > <a href="#">Providing Workplaces Where Employees Can Continue to Exert Their Abilities</a>
404-3	Percentage of employees receiving regular performance and career development reviews	—
GRI 405: Diversity and Equal Opportunity 2016		
405-1	Diversity of governance bodies and employees	- <a href="#">Global Human Resource Management</a> - <a href="#">Sustainability Data (Non-Financial Information)</a> > <a href="#">Global Human Resource Management</a> - <a href="#">Sustainability Data (Non-Financial Information)</a> > <a href="#">Diversity</a>
405-2	Ratio of basic salary and remuneration of women to men	—
GRI 406: Non-discrimination 2016		
406-1	Incidents of discrimination and corrective actions taken	—
GRI 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	- <a href="#">Work-Life Balance</a> > <a href="#">Labor -Management Relations</a>
GRI 408: Child Labor 2016		
408-1	Operations and suppliers at significant risk for incidents of child labor	- <a href="#">Respect for Human Rights</a>
GRI 409: Forced or Compulsory Labor 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	- <a href="#">Respect for Human Rights</a>
GRI 410: Security Practices 2016		
410-1	Security personnel trained in human rights policies or procedures	—
GRI 411: Rights of Indigenous Peoples 2016		
411-1	Incidents of violations involving rights of indigenous peoples	—

GRI 412: Human Rights Assessment 2016		
412-1	Operations that have been subject to human rights reviews or impact assessments	- <a href="#">Respect for Human Rights</a>
412-2	Employee training on human rights policies or procedures	- <a href="#">Respect for Human Rights</a>
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—
GRI 413: Local Communities 2016		
413-1	Operations with local community engagement, impact assessments, and development programs	- <a href="#">Social Contribution</a> - <a href="#">Communication to Stakeholders</a>
413-2	Operations with significant actual and potential negative impacts on local communities	—
GRI 414: Supplier Social Assessment 2016		
414-1	New suppliers that were screened using social criteria	- <a href="#">Proper Procurement</a>
414-2	Negative social impacts in the supply chain and actions taken	- <a href="#">Proper Procurement</a>
GRI 415: Public Policy 2016		
415-1	Political contributions	- <a href="#">Compliance</a> > <a href="#">Initiatives to Prevent Corruption</a> - <a href="#">Sustainability Data (Non-Financial Information)</a> > <a href="#">Compliance</a>
GRI 416: Customer Health and Safety 2016		
416-1	Assessment of the health and safety impacts of product and service categories	—
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	—
GRI 417: Marketing and Labeling 2016		
417-1	Requirements for product and service information and labeling	- <a href="#">Environmentally-friendly Products</a> > <a href="#">Development of Environmentally Friendly Products</a>
417-2	Incidents of non-compliance concerning product and service information and labeling	—
417-3	Incidents of non-compliance concerning marketing communications	—
GRI 418: Customer Privacy 2016		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	—
GRI 419: Socioeconomic Compliance 2016		
419-1	Non-compliance with laws and regulations in the social and economic area	—



# SASB Content Index

\*Information is disclosed in units different from those required by SASB.

Topic	Accounting Metric	SASB Code	Unit of Measure	References
Energy Management	(1) Total energy consumed	TR-AP-130a.1	MWh*	<a href="#">Sustainability Data (Non-Financial Information) &gt; Environment Data</a> <a href="#">Environment &gt; Environmental Burdens from Business Activities</a>
	(2) percentage grid electricity		MWh*	
	(3) percentage renewable		MWh*	
Waste Management	(1) Total amount of waste from manufacturing	TR-AP-150a.1	ton	<a href="#">Sustainability Data (Non-Financial Information) &gt; Environment Data</a> <a href="#">Environment &gt; Environmental Burdens from Business Activities</a> <a href="#">Environment &gt; Management of Waste</a>
	(2) percentage hazardous			Not disclosed
	(3) percentage recycled		%*	<a href="#">Sustainability Data (Non-Financial Information) &gt; Environment Data</a>
Product Safety	Number of recalls issued, total units recalled	TR-AP-250a.1	Number	<a href="#">Sustainability Data (Non-Financial Information) &gt; Product Quality</a>
Design for Fuel Efficiency	Revenue from products designed to increase fuel efficiency and/or reduce emissions	TR-AP-410a.1	%*	<a href="#">Priority Issues (Materiality)</a> <a href="#">Sustainability Data (Non-Financial Information) &gt; Providing Environmentally Friendly Products</a> <a href="#">Society &gt; Development of Technologies, Products, and Businesses for Contributing to the Resolution of Social Issues</a>
Materials Sourcing	Description of the management of risks associated with the use of critical materials	TR-AP-440a.1	Discussion and Analysis	<a href="#">Society &gt; Proper Procurement &gt; Promoting Responsible Procurement</a> <a href="#">Environment &gt; Eco Vision &gt; Eco Vision 2030</a> <a href="#">Environment &gt; Management of Chemical Substances &gt; Handling within the Group</a>

Materials Efficiency	Percentage of products sold that are recyclable	TR-AP-440b.1		Not disclosed
	Percentage of input materials from recycled or remanufactured content	TR-AP-440b.2		Not disclosed
Competitive Behavior	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	TR-AP-520a.1		Not disclosed
Number of parts produced		TR-AP-000.A		Not disclosed
Weight of parts produced		TR-AP-000.B		Not disclosed
Area of manufacturing plants		TR-AP-000.C	thousands of m <sup>2</sup>	<a href="#">Annual Securities Report (The 122nd Fiscal Year) &gt; P.25, 3. Equipment and Facilities</a> <a href="#">About Us &gt; Global Networks</a>



# **NGK SPARK PLUG CO., LTD.**

URBANNET NAGOYA NEXTA Bldg.  
1-1-1 Higashisakura, Higashi-ku, Nagoya 461-0005

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