Niterra Co., Ltd. Integrated Report 2024

# Niterra Report 2024

Niterra

# – Change Drastically Beyond the Current Way –

In addition to technological changes such as the electrification of automobiles and expanded demand for semiconductors, other major changes such as protectionism and trade conflicts in major developed countries are occurring. Given these circumstances, in order to realize a sustainable society, we will need to make "changes that are not just an extension of the past."

In the past, we have focused on what we can do with ceramics as a manufacturing company, but going forward we will need to take on challenges facing the world that go beyond the realm of ceramics and beyond the imagination that already exists in the world and within ourselves, without relying only on what we can do with ceramics, to contribute to the realization of a better society.

By 2040 we aim to create a new Niterra Group with the vision of

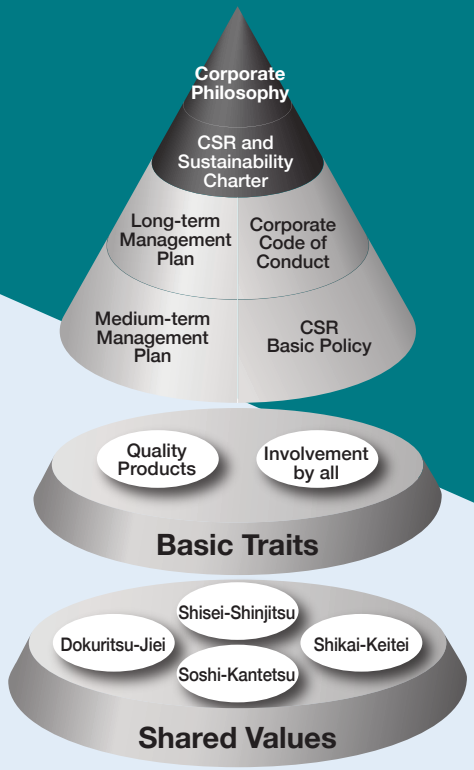
**"Beyond ceramics, eXceeding imagination."**

## Corporate Message

# IGNITE YOUR SPIRIT

## The Nittoku Way

The Nittoku Way refers to a set of philosophies that includes values that are shared by the entire Niterra Group, and the actions based on those philosophies, as well as the manner in which those actions are carried out.




## Corporate Philosophy

Three elements constitute our corporate philosophy.

### Commitment
With full use of the most suitable technology and our accumulated experience, we continue striving to offer new values to the peoples of the world.

### Management Policy
We offer a working environment in which each one of us is encouraged to make full use of his or her personality and capabilities.
With all our power we are dedicated to pursue management based on trust and confidence.

### Action Guideline
Ever onward!
Always mindful of what is the best course, we swiftly put it into action.




### 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.

## 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.

# Challenge and Transformation Steps and Business Models

## Decade

### Startup period (1930s)

**Domestic automobile industry depending on imports**

In Japan in the 1920s, when the domestic automobile industry was still in its infancy, the supply of automobiles was limited almost entirely to imports from the U.S. and Europe, and automotive parts, including spark plugs, were also imported. The first President, Magoemon Ezoe, decided to produce plugs using ceramics, a specialty product of Japan, and led initiatives to launch domestic plug manufacturing.

### Growth period (1940s)

**Automobile production growing rapidly**

In the 1940s, domestic automobile production rose to 46,000 cars, as automobiles and related parts manufacturing developed into a major industry. Accordingly, demand for plugs also increased. After WWII, Japan entered a period of high economic growth in the late 1950s, when the country was rapidly becoming motorized.

### Establishment period (1960s)

**Impact of high economic growth**

From the late 1960s, pollution problems emerged as a negative effect of the high economic growth, and the automobile industry was particularly called on to urgently address air pollution problems. Looking to fulfill needs related to such problems as well as resource conservation, we started research to develop new products that would help meet exhaust gas regulations. These regulations were made more stringent year by year, pushing up demand for high-performance plugs and sensors.

## History of Value Creation

### 1936
**NGK SPARK PLUG founded**

NGK SPARK PLUG was established through the spin-off of the spark plug division of NGK Insulators. The founding business of producing spark plugs has grown to make the company the world's top manufacturer of the product.



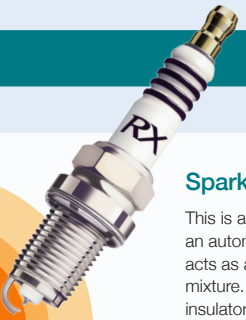
Magoemon Ezoe, first president

### 1959
**Overseas business expansion**

Exports increased as Japan entered a period of rapid economic growth. The company established its first overseas office in 1959 at the invitation of the Brazilian government. This led to our overseas advancement ahead of competitors to build strong global networks.



Cerâmica E Velas De Ignição NGK Do Brasil Ltda



### Spark Plugs

This is an indispensable component of an automobile's gasoline engine and acts as a lighter to ignite the gasoline mixture. Ceramics are used as insulators to withstand the harsh environment of engines.

Core Technology: Ceramic Material Technology

### Automotive Components

#### 1937
**Production of NGK Spark Plugs started**

In 1930, we released NG Spark Plugs, Japan's first domestically produced spark plug, and began producing NGK Spark Plugs in 1937.

NGK Spark Plug

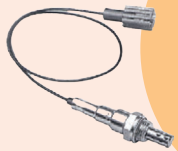


Core Technology: Disparate Material Bonding Technology

#### 1982
**Production of oxygen sensors for automobiles started**

In Japan in the 1960s, as the full-scale motorization of society progressed, environmental degradation such as air pollution became a social issue. In response, exhaust gas regulations were made stricter. To help related industries ensure regulatory compliance, we began developing various sensors, primarily in association with exhaust gas, such as zirconia oxygen sensors and wide range oxygen sensors.

Oxygen sensors for automobiles



Core Technology: Application Technology for Harsh Environments

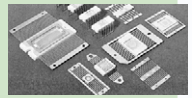
### Ceramics

#### 1949
**Production of NTK Technical Ceramics started**

After the post-war confusion had settled down and spark plug production had stabilized, we began applying ceramics to develop new technologies and products for the diversification of our business. The new segment development was promoted under the brand name of NTK. Following this, we gradually broadened our ceramic product range to include those for industrial and environmental uses.

#### 1967
**Production of ceramic substrates and IC packages started**

In the late 1960s, the silicon semiconductor integrated circuit (IC) became a mainstream standard and its mass production began in Japan and the US. Following this trend, we started manufacturing ceramic substrates and IC packages by applying our ceramics technologies.



IC packages

#### 1989
**Sales of electrostatic chucks started**

In the late 1980s, requirements for higher integration and lower cost of semiconductor elements intensified, which gave rise to a shift to ceramic components, characterized by the material's excellent heat and abrasion resistance, to be used for semiconductor production equipment. In response, we promptly introduced ceramic electrostatic chucks, and commenced mass production of the product in the 2000s to expand sales.



Electrostatic chucks

## Development period (1990s)

### Tackling new social challenges

From the 1990s, automakers began to focus on the development of electric vehicles, hybrid vehicles and fuel cell vehicles, as part of efforts to address environmental and energy issues. Those years also saw the explosive growth of information communication technologies bringing about significant changes in many people's lifestyle. In order to provide products that would meet new needs related to these societal trends, we promoted research and development based on our technologies built over many years.

## From present to future

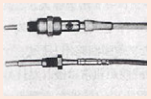
### Aiming to create a sustainable society

Our business environment is undergoing an enormous change brought about by a number of factors, such as AI and IoT-driven digitization, the once-in-a-century transformation of the automobile industry led by the concepts of CASE and MaaS, and mounting concerns over climate change and ESG-related issues. Recognizing this situation, we are striving to reduce our dependence on the production of automotive components for internal combustion engines, which account for 80% of our net sales, while creating new business projects aimed at achieving a sustainable society.

**2023**
**The English trade name was changed to Niterra**



Oxygen sensor



Temperature sensors for automobiles

Core Technology
Sensing Technology

**2000**
**NGK Iridium IX spark plug was released**



Hydrogen leak detection sensor

**1999**
**Sales of medical oxygen concentrators started**

We started research on the possibility of medical applications of bio ceramics in the 1970s, looking to future opportunities afforded by the progress of population aging. Related results included the rollout of the bone prosthesis Ceratite in 1990 and oxygen concentrators for medical use in 1999.



Medical oxygen concentrator



Solid oxide fuel cell (SOFC)

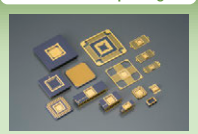
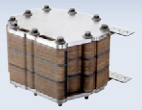
## New Businesses

**2000 -**
**Building new business pillars**

Under the NITTOKU SHINKARON long-term management plan started in FY2010, we accelerated efforts to establish new business pillars. The 2030 Long-term Management Plan "NITTOKU BX" also started in FY2020, aiming to transform our business portfolio by 2040. We continue with these challenging efforts, seeking out every possible new field by applying our core ceramics technologies including hydrogen leak detection sensors and the solid oxide fuel cell (SOFC).

* CASE (connected, autonomous, shared, electric): A new trend in the automotive industry.
* Mobility as a service (MaaS): A concept that considers mobility as a service.

## Business Model

| Business segments | Automotive Components | | Ceramics | | | New Businesses | |
|---|---|---|---|---|---|---|---|
| Main products | Plugs  | Sensors  | Products for semiconductor manufacturing equipment  | Oxygen concentrators  | Semiconductor packages  | SOFC cell stacks  | Silicon nitride ceramic bearing ball  |
| Strengths | ■ Integrated production system from materials development to manufacturing<br>■ Unique sales channels around the world | | ■ Ceramic material technology that can withstand high-power plasma<br>■ Ceramic sheet lamination technology that contributes to surface temperature homogenization, particle reduction, and wide-ranging surface temperatures | ■ Product lineup including portable and stationary oxygen concentrators and cardiopulmonary diagnostic equipment<br>■ Worldwide sales channels for rental operators and hospitals | ■ Ceramic multilayer technology customized for various applications<br>■ High reliability with excellent heat resistance and hermeticity<br>■ Short delivery times to meet customer needs | ■ Catalytic electrode and ceramic materials technologies cultivated in the sensor business<br>■ Disparate material bonding and film formation technologies for highly efficient power generation<br>■ Broad product lineup, from home use to industrial use | ■ Development capabilities, processing technology and mass production technology for ceramics<br>■ Production system that ensures stable supply in both quality and quantity |
| Customers | Automobile and motorcycle manufacturers; General purpose engine manufacturers; Components distributors | | Semiconductor production equipment manufacturers | Rental operators; Medical institutions | Semiconductor manufacturers; Assembly manufacturers; Semiconductor inspection components manufacturers | Machine manufacturers | Bearing manufacturers |
| End-users | Automobile and motorcycle manufacturers; General purpose engine manufacturers; Components distributors | | Semiconductor industry; Communication industry; Automobile industry | Home patients; Outpatients | Electronic device industry; Automobile industry | Power generation business operators; Plants; Data centers; Public facilities; Retail facilities; Households, etc. | Automobile industry; Wind power generators; Semiconductor production equipment manufacturers; Aircraft manufacturers; Machine tool manufacturers, etc. |
| Value offered | Higher fuel economy<br>Cleaner exhaust gas<br>Contribution to a convenient mobile society | | Enhanced performance of semiconductors<br>Contribution to a digital society | Improvement of symptoms<br>Higher quality of life | Higher performance of electronic devices | Distributed power sources<br>BCP preparedness<br>Contribution to a decarbonized society | Measures against electrochemical corrosion,<br>improvement of energy efficiency |

# Change of the English Trade Name and Group Name

**Our Group was renamed as the Niterra Group in accordance with the change of our English trade name to Niterra Co., Ltd., effective April 1, 2023.**

Niterra

Niterra is a word that we have coined by combining “niteo,” which means “shine” in Latin, and “terra,” which means “earth.” This name expresses our desire and stance to become a company that contributes to a sustainable society and lets the Earth shine.

## Background of the English trade name change

The Company has, since its inception, expanded its business, mainly the internal combustion engine related business such as spark plugs. Meanwhile, as outlined in the “2030 Long-Term Management Plan NITTOKU BX” formulated in 2020, the Company focuses on the four business domains of Environment & Energy, Mobility, Medical, and Communication, and aims to realize business portfolio transformation. Accordingly, we changed our English trade name, which used the spark plug brand, from ‘NGK SPARK PLUG CO., LTD.’ to ‘Niterra Co., Ltd.’ on April 1, 2023. Our group has made a brand new start as the Niterra Group, and the Group will work together to transform its business portfolio and accelerate global transformation and challenges.

# Business Fields to Focus On

## We take on challenges in new fields, striving to improve corporate value through ceramics materials technology and other core competencies.

We focus on four areas of business:
Environment & Energy, Mobility, Medical,
and Communication.
These areas include not only new business pillars,
but also current businesses.
Our core competencies consist of ceramics materials technology, sensing technology, global production and sales systems, and numerous other areas.
Leveraging these core technologies, we seek to add value through *Something New* and the use of open innovation to grow our four areas of business.

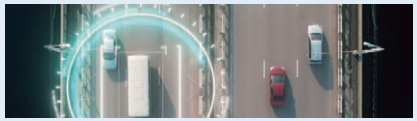
## Business areas to focus on



### Environment & Energy

**Energy and environmentally friendly**

- Use sensing technology that improves industrial efficiency
- Supply stable renewable energy



### Mobility

**Fun and convenient mobility**

- Services to meet the needs of users' lifestyles
- Improve electricity with ceramic components
- MaaS to meet special needs



### Medical

**Bring advanced medical care to people all over the world**

- Non-invasive diagnosis and treatment, provision of preventive equipment and services



### Communication

**High-speed communication to connect the real and the virtual**

- Support high-speed communication and its infrastructure

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## Editorial Policy

Niterra Co., Ltd., has issued annual integrated reports since 2017 to help all stakeholders deepen their understanding of our medium- to long-term value creation efforts. Our 2040 Vision is to change drastically beyond the current way, as established under our 2030 Long-term Management Plan NITTOKU BX, formulated in 2020. We additionally established our slogan “Beyond ceramics, eXceeding imagination” based on this vision. Our major strategic theme is to pursue business beyond ceramics while keeping ceramics at the core of our operation and transforming our business portfolio to focus on the Automotive Components Group. In FY2021, we formulated a Medium-term Management Plan, which ends in FY2024, to achieve our Long-term Management Plan. Our Integrated Report provides an overall explanation of these plans and their progress to help readers understand what sort of value our Group provides. This publication is also intended to serve as a tool to respond to the various opinions and inquiries we receive from stakeholders through our business and IR activities throughout the year. We look forward to receiving your honest opinions going forward.

**Period of Reporting**
FY2023 (From April 1, 2023 to March 31, 2024)
*Also includes certain information on our activities before and after FY2023.

**Scope of Reporting**
The Niterra Group
(Niterra Co., Ltd. and consolidated subsidiaries)

**Guidelines for Reference**
The International Integrated Reporting Framework, the International Financial Reporting Standards (IFRS) Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation, the Ministry of Economy, Trade and Industry

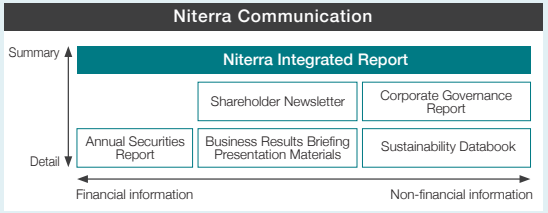
**Forward-looking Statements**
This report contains forward-looking statements regarding Niterra’s future plans, strategies, and performance. Actual results may differ substantially from those projected in this report.

**Third-party Certification**
Quantitative information with third-party certification is subject to verification by the Japan Quality Assurance Organization (JQA), an independent third-party organization.

https //ngkntk.disclosure site/resource/pdf/08en_Independent_verification_report pdf

**Niterra Report and Information System**

This report focuses on the information that is essential for the enhancement of our corporate value.




**Website**

The following detailed information is also available on our website.

■ Company Profile
Corporate profile, brand story, business descriptions, company history, etc.
URL: https://www.ngkntk.co.jp/english/

■ Our Businesses
Automotive Parts, Semiconductor Related Parts, Medical Equipment, Industrial Ceramic Parts, New Products/Services
URL: https://www.ngkntk.co.jp/english/business/

■ Technology
Vision, core technology, approach, and areas of focus
URL: https://www.ngkntk.co.jp/english/technology/

■ Sustainability
Niterra’s sustainability management, priority issues, ESG initiatives, sustainability data, etc.
URL: https://ngkntk.disclosure.site/en/

■ Investor Relations
Summary financial statements, annual securities reports, financial result briefings, corporate governance reports, etc.
URL: https://www.ngkntk.co.jp/english/ir/

01

Value Creation

# Niterra Value Creation

In 01, we will explain Niterra's value creation, including Where We Stand Today explained in quantitative terms, the Message from the President, and our Value Creation Process.

## Where We Stand Today (as of March 31, 2024)

### Group revenue

614.4 billion yen

### Paid-in capital

47,869 million yen

### Operating income ratio

17.5%

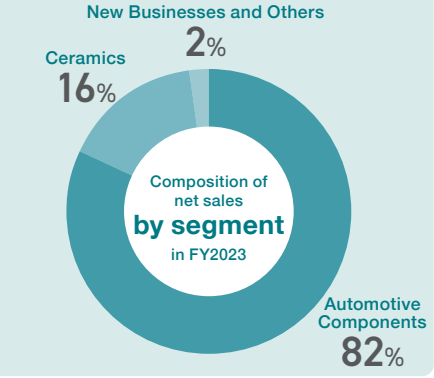
### Return on equity (ROE)

13.8%

### Return on invested capital (ROIC)

9.5%

### Composition of net sales




### Number of employees

Non-consolidated 3,622

Consolidated 15,980

### Main products

Global share in spark plugs
Global share in oxygen sensors
No.1

* Our estimate as of the end of March 2023

### Operating locations

Japan 32 locations

Overseas 61 locations

### Global expansion

| Number of countries where our products are sold | Overseas sales ratio | Overseas employee ratio |
|---|---|---|
| approx. 145 | 85% | approx. 47% |



# We aim to be a company capable of solving social issues by promoting business portfolio management that leverages our core competences to strengthen current businesses and establish new business pillars.

**Takeshi Kawai**, Representative Director, President and COO

## Proposing Solutions to Various Social Issues through Our Businesses

Soaring energy prices and supply crises, international conflicts that have revealed global divisions, inflation, the sluggish Chinese economy, and other issues continue to create a strong sense of uncertainty. It is within this context that we are beginning to see changes in the “EV shift,” which some refer to as a once-in-a-century revolution within the automotive industry. Even as EV sales are slowing mainly in Europe and North America, factors such as the emergence of highly price competitive Chinese EVs are accelerating a reorganization of the industry. According to surveys in the major markets, while sales of fully-electric EVs have declined from their peak as a percentage of total EV sales, sales of HEVs and PHEVs* are on an upward trend.

Though the situation in each country and region differs based on its energy situation, the suspension or reduction of subsidies for buying EVs, and other factors, most agree the market for EVs has levelled off now that an equilibrium has been reached between those looking to buy EVs and the infrastructure that supports their use. This may be in part due to criticism that, due to carbon emissions from their production and from the generation of the electricity they use, EVs do not necessarily lead to reduced environmental impact in areas where alternatives to fossil fuels are not the primary source of energy.

While it is not clear in what way EVs will spread, or which energy source will become the mainstream, the trend toward diversification of fuels used and a shift to clean energy is not likely to change. For this reason, the Niterra Group is continuing to work towards achieving carbon neutrality.

At a time when the Japanese automobile industry was in its infancy, we pioneered the domestic production of spark plugs. We remain committed to creating environmentally friendly, high-performance spark plugs and exhaust gas sensors with an eye on changes in society, pursuing the possibilities of ceramics, which is our core technology, and providing products that contribute to solving social issues.

* PHEV: Plug-in Hybrid Electric Vehicle, HEV: Hybrid Electric Vehicle

## Aiming to Become a Speedier Organization with an Assumption of Change

In 2020, we formulated our 2030 Long-term Management Plan "NITTOKU BX." Based on an assumption that demand for internal combustion engine parts such as spark plugs and sensors, which are our main products, will peak in the mid-2030s, the plan aims to create a business portfolio by 2030 in which the ICE business (currently accounting for 80% of sales) accounts for 60%, with the non-ICE business accounting for 40%. We are currently working to strengthen current businesses and establish new business pillars in accordance with this plan. One of the focus points of NITTOKU BX is Environment & Energy. In this area, we are working on the commercialization of hydrogen, which is attracting attention as an alternative energy source that does not emit $CO_2$, as well as carbon cycle projects related to the separation, recovery, and utilization of $CO_2$.

To symbolize our desire and commitment to creating a sustainable society and becoming a company that lets the Earth shine, we changed the name of our Group from NGK SPARK PLUG to Niterra in FY2023. The name Niterra combines "niteo," which means "shine" in Latin, and "terra," which means "earth." In other words, the name Niterra reflects our desire to be a company that brightens the Earth by taking on new challenges that increase its social significance.

Based on NITTOKU BX, we started the current Medium-term Management Plan in FY2021 with the slogan "Break to change. Change to create." In implementing the plan, we focused on fostering an awareness among employees that things would be changing. While this awareness has gradually taken hold within the company, I believe that mobilizing the Group as a whole will require experiencing both a sense of change and a series of successes. FY2024 is the last fiscal year of the current Medium-term Management Plan. While discerning what must be retained and what needs to be significantly changed, we will work to create systems and organizations that will enable us to take speedier action based on a "sense of crisis with an assumption of change."

## Achieving Record-High Revenue and Operating Profit through Action in Response to Market Change

In FY2023, we achieved record highs in both revenue and operating profit, achieving the Medium-term Management Plan performance goals of 600 billion yen in revenue and 100 billion yen in operating profit one year ahead of schedule. Factors behind this good performance include the tailwind provided by the weak yen, a YoY increase in the production of automobiles equipped with internal combustion engines, which are the main base of our business, and our success in passing-through inflation-related cost increases. Since FY2021, we began speedily conducting price negotiations in response to soaring prices of the precious metals we use as raw materials for our high-performance plugs. Since that time, we have continued to negotiate prices commensurate with the various cost increases. I attribute the above praiseworthy actions to the fact that, in FY2021, we introduced the in-house company system to clarify where responsibility and authority lies and that these and other measures have led to employees adopting an attitude of taking a personal interest in changes in the market environment and taking proactive action.

The forecast for FY2024, which assumes the yen will appreciate to 140 yen to the dollar and 150 yen to the euro, plans for record-high revenues and operating profits. This is based in part on an expectation of successful price pass-throughs by the Automotive Components Group. It is also based on an expectation of increased revenue in the ceramics business due to factors such as a recovery in the semiconductor market, which was poor in FY2023, as well as increased sales in the medical business.

As for our shareholder returns policy, starting in FY2024, we newly adopted dividend on equity ratio (DOE) as an indicator that is less susceptible to the effects of a single year's performance. We will achieve stable shareholder returns through a hybrid dividend structure that combines a stable portion with a minimum DOE of around 4% with a performance-linked portion with a target dividend payout ratio of around 10%.



## Optimizing and Streamlining Our Internal Combustion Engine Product Production System

The third year of the Medium-term Management Plan that started in FY2021 has ended. In the existing ICE business, we have worked towards the goal of maximizing cash generation through efficiency improvements. In FY2023, we signed a memorandum of understanding with DENSO CORPORATION beginning discussions and deliberations on the acquisition of its spark plug business and exhaust gas oxygen sensor-related businesses. Optimizing our internal combustion engine product production system will ensure a stable supply of products, and also create economies of scale. I believe that this will in turn contribute to solving social issues by, among other things, reducing the environmental impact of production processes for the industry as a whole.

Internally, we are working to integrate our plug part numbers and enhance our order management system. In the U.S., we began trials of a production system based on demand forecasting, which had a number of effects including reduced inventory levels. We plan to take advantage of the

current opportunity provided by steady production and sales volumes to deploy the system globally, improving efficiency and accuracy.

## Leveraging our Core Technology to Create and Develop New Businesses

We have been creating and nurturing new businesses in four priority areas: Environment & Energy, Mobility, Medical, and Communication. With FY2024 being the last fiscal year of the current Medium-term Management Plan, we are selecting and concentrating on businesses with higher probability of success, engaging in investment and product development towards full-scale commercialization starting with areas and businesses that have a high affinity with our strength, which is ceramics-related technologies. One such product we received many inquiries about and have put into production is EV motor bearing balls made using silicon nitride, a ceramic material. The demand for this product is increasing as EVs are operating on increasingly higher voltages. Another development in the area of silicon nitride is heat dissipation substrates for power semiconductors, which is one of our leading potential businesses.

In another area, Niterra Group subsidiary MORIMURA SOFC TECHNOLOGY Co., Ltd.* has been working on mass production of solid oxide fuel cells (SOFC) since 2020. At the same time, we have been working on the development of devices for solid oxide electrolysis cells (SOEC) and the creation of alternative energy businesses including the methanation of hydrogen generated with SOECs. Towards the realization of a hydrogen-powered and carbon-cycling society, we launched the "SUISO no MORI" (Hydrogen Forest) Project in May 2024 to invest in start-ups and support technological development and growth. As part of this project, we established a testing field in our Komaki Plant. We are considering the future possibility of engaging in open innovation with some of the startups, including conducting joint development projects with them, as well as allowing them to utilize our assets to launch their businesses. Another business endeavor we have decided to take on is the land-based shrimp aquaculture business, which leverages our decades of sensor technology expertise to manage water quality. This business contributes to the creation of a sustainable society by focusing on the world hunger problem, and more specifically the problem of limited water resources. In order to further accelerate commercialization of this business, we established a new company comprised of people who are strongly motivated to make it a success in the spirit of Dokuritsu-Jiei (believe in one's own ability, and take actions by oneself). I hope to link these businesses peripheral to our core technology together and develop them into the second pillar of our business after the ICE business.

* The company is a joint venture between Noritake Co., Limited, Toto Ltd., NGK Insulators, LTD., Morimura Bros., Inc., and Niterra Co., Ltd.



## Leveraging the Strategic Port Folio Dept. to Better Manage Allocation of Resources to New Businesses

In the area of strengthening our management foundations, we have steered towards reforms that ensure the principle of competition continues to function in the face of a changing market environment. This includes the introduction of the in-house company system mentioned earlier, as well as a new personnel system. In order to manage our entire business portfolio, which is the future of our group, we established a new Strategic Port Folio Dept. in the Global Strategy Division of our headquarters. This department will carefully examine the future potential of new businesses launched by each of our companies, discuss whether to continue or withdraw from the business, and engage in selection and concentration in order to enhance our management of resource allocation. In this final fiscal year of the current Medium-term Management Plan, we intend to speedily optimize our business portfolio and raise employee awareness of the need to ensure our new businesses become established.

## Making Well-considered Decisions and Having the Courage to Take On Challenges, and the Courage to Withdraw

The sincerity of our employees' attitudes is one of our strengths. Even in a time of such change, I want our employees to cherish this attitude, not be afraid to take on new challenges, and have the unwavering strength to learn from failure and to get back up again. This is the message I occasionally convey to them. It is by first building the pillars of a small business and experiencing one small success that these pillars grow to the thick pillars of a bigger business. The continuation of this process will lead to the development of a culture that is both unique to the Niterra Group and in accordance with the changing times. In order to realize such a virtuous cycle, I would like to provide opportunities for dialog with employees where everyone can boldly express their ideas and opinions.

My personal management mottos are, "there is more to be gained by taking on a challenge and falling than by sitting and waiting to die," and "if the odds are 60%, take the bet." However, winning bets are made with information and knowledge, so we will continue to collect and scrutinize data meticulously, and when it is time to withdraw from a business, we will do so without hesitation. I want to have both the courage to take on challenges, and the courage to withdraw.

As the last fiscal year of the current Medium-term Management Plan, FY2024 is a preparatory period during which we will both generate solid results while also examining the content of the next Medium-term Management Plan. As set forth in our vision for 2040, we will "Change Drastically Beyond the Current Way" with a goal of achieving a size that will allow us to respond to a variety of demands from society in collaboration with our external network. In this way, we will grow into a company capable of further contributing to solving social issues.

I encourage you, our stakeholders, to look forward to the next five-year Medium-term Management Plan, and I ask for your continued support and guidance.

# Value Creation Process



The Niterra Group 2040 Vision is to change drastically beyond the current way.
We leverage ceramics technologies, as well as our global production and sales system, to engage in business activities in the four focus areas to achieve the sustainable enhancement of corporate value: Environment & Energy, Mobility, Medical, and Communication.

## 2040 Vision

**Change drastically beyond the current way**









## Outcomes

▶ P.13

Stakeholder Returns | Social Impacts

- **Customers**
- **Employees**
- **Partners**
- **Shareholders and Investors**
- **Local Communities**
- **Global Environment**

**Environment & Energy**
Energy and environmentally friendly

**Mobility**
Fun and convenient mobility

**Medical**
Bring advanced medical care to people all over the world

**Communication**
High-speed communication to connect the real and the virtual

## Outputs

▶ P.32-37

**Automotive Components**
Plugs
Sensors
▶ P.32

**Ceramics**
Semiconductor packages
SPE
Medical (oxygen concentrators), etc.
▶ P.35

**New Businesses**
SOFC cell stacks
Silicon nitride ceramic bearing ball, etc.
▶ P.37

## Business Activities

▶ P.4

### Sources of Competitive Advantage

- Various applied technologies with ceramic materials and ceramic technology at the core
- Global production and sales system

### Focus Areas

- Environment & Energy
- Medical
- Mobility
- Communication

## Inputs

▶ P.13

- Financial Capital
- Manufactured Capital
- Intellectual Capital
- Human Capital
- Social and Relationship Capital
- Natural Capital

Establishment of a society where global environmental issues/ international affairs/economic development and resolution of social issues are compatible

▶ P.14

Social issues and external environment

### 2030 Long-term Management Plan "NITTOKU BX"

▶ P.22

Medium-term Management Plan 2021-2024 ▶ P.26
Break to change. Change to create.

Medium-term Management Plan 2025-2029
Extend for the future. Spread out to exceed.

Management Innovation (DX) | Clarification of Responsibilities and Authorities | Willful Cultural Change

### Priority Issues

▶ P.15

- Environment: Responding to climate change; Providing environmentally friendly products
- Society: Development of technologies, products, and businesses for contributing to the resolution of social issues; Global human resource management
- Governance: Corporate governance; Risk management; Compliance; Information security

## Basic Approach

▶ P.2

**Corporate Philosophy**: Commitment/Management Policy/ Action Guideline

**CSR and Sustainability Charter**: We contribute to developing a sustainable society, thereby improving our corporate value.

## Inputs (Six Management Capitals)

### Financial Capital

**Encourage management for our next stage of growth while aiming to improve capital efficiency**

- Operating cash flow: 118,179 million yen
- Ratings: AA- (R&I), AA- (JCR)
- Equity ratio attributable to owners of the parent: 65.4%
- Interest bearing debt: 190,840 million yen

### Manufactured Capital

**Production systems that provide stable, high-quality, and highly reliable products**

- Bases in Japan: 32
- Bases overseas: 61
- Capital expenditures: 41,173 million yen

### Intellectual Capital

**Various applied technologies, expertise and innovative creation with ceramics material technologies and ceramics at the core**

- R&D expense: 27,848 million yen
- R&D expense ratio: 4.5%
- Patents owned: 5,188
- Open innovation centers: 3

### Human Capital

**A diverse base of self-directed and creative human resources who work independently and generate new ideas**

- Employees (consolidated): 15,980
- Ratio of employees overseas: Approx. 47%
- Ratio of employees with overseas secondment experience: 10.3%
- Number of DX Training participants: Basic training 7,516; Selective training 50.
- Number of female managers: 41

### Social and Relationship Capital

**A global sales structure supplying products to more than 145 countries around the world, collaborative relationships with stakeholders**

- Distributors association: Membership consisting of approximately 380 parts dealers. This provides possible business relationships with nearly 80% of more than 70,000 maintenance shops across Japan
- Investments in startups: 24 companies
- Global sales presence: Approx. 145 countries

### Natural Capital

**Electricity, raw materials, water resources, etc., required for business activities**

- Electricity: 442,680,000 kWh
- Raw material input: 50,000 tons
- Water input: 1,460,000 m³

## Business Activities

▶ P.4

## Outputs

▶ P.32-37

## Outcomes (Return to Stakeholders and Social Impact)

### Customers

- Help customers improve product quality by providing high-quality materials and components (help customers increase their competitive stance)
- Improve customer satisfaction

### Employees

- Help employees acquire skills (provide growth opportunities)
- Foster job satisfaction and motivation

### Partners

- Improve the sustainability of business activities through transparency and stable transactions (strengthen profit base)
- Continue with good partnerships

### Shareholders and Investors

- Stable shareholder returns
- Increase share price and market capitalization

### Local Communities

- Hold and sponsor community events
- Pay taxes
- Create employment opportunities

### Global Environment

- Reduce $CO_2$ emissions
- Reduce our environmental footprint across the value chain

### Environment & Energy

Energy and environmentally friendly



### Mobility

Fun and convenient mobility



### Medical

Bring advanced medical care to people all over the world



### Communication

High-speed communication to connect the real and the virtual



The Niterra Group believes it is important to identify materialities under each area of ESG, setting medium- to long-term goals to address these materialities.
Therefore, we identified eight materialities to address by defining the market environments, stakeholder expectations, risks, opportunities, and activities that affect the Niterra Group's growth.

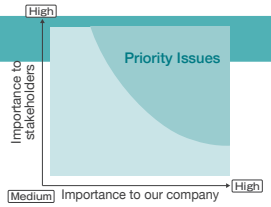
## Steps to define priority issues

**STEP 1 Understand the external environment**

Identify social requirements (issues) in reference to the United Nations Global Compact, SDGs, ISO 26000, GRI Standards, ESG surveys, industry guidelines and other companies' benchmarks.

**STEP 2 Analyze and prioritize issues**

Through discussions among related departments, we assess materiality for stakeholders in reference to international guidelines and ESG surveys used in STEP 1. We also assess materiality for our company by considering risks and opportunities, past activities and management plans. All this is done to create an assessment results map.




**STEP 3 Identify priority issues**

Using the map made in STEP 2, we identify materialities of higher priority subject to discussions within the CSR and Sustainability Committees, attended by outside directors, and the approval of the Board of Directors. We review and assess these materialities every year.

### Social issues and external environment

**Global environmental issues**
- Climate change
- Decarbonized and carbon-circulating society
- Biodiversity
- Environmental destruction
- Circular economy

**International issues**
- Protectionism
- International conflict
- Emerging economies
- Global South
- Disparities in society
- Human rights

**Establishment of a society where economic development and resolution of social issues are compatible**
- Robots, automation, labor saving
- Artificial intelligence (AI)
- Sensing IoT
- Nanotechnology
- Biotechnology
- Aging society with a decreasing birthrate/Population explosion
- Diversity
- Work-life balance
- Pandemic
- Earthquakes

### Risks and opportunities

| | | | Short term* | Medium term* | Long term* |
|---|---|---|---|---|---|
| Environment | Reduction of greenhouse gas emissions (through investments in energy conservation, renewable energy technologies, and environmentally friendly technologies) | Risk, Opportunity | ● | | → |
| | Efficient use of $CO_2$ for a decarbonized and carbon-circulating society | Opportunity | | ● | → |
| | Expansion of environmentally friendly products | Opportunity | ● | | → |
| | Effective use of renewable energy | Opportunity | ● | | → |
| | Distributed power sources, and local production and consumption of energy | Opportunity | | ● | → |
| | Biodiversity conservation | Risk, Opportunity | ● | | → |
| | Stricter environmental regulations (carbon tax, recycling regulations, chemical regulations, etc.) | Risk, Opportunity | ● | → | |
| Society | Decline in the number of internal combustion engine vehicles | Risk | | | ● |
| | Expanding demand for automobiles in emerging economies and the Global South | Opportunity | ● | → | |
| | Change in people's preferences regarding transportation means and consumption | Risk, Opportunity | ● | | → |
| | Development of technologies, products, and businesses for contributing to the resolution of social issues | Opportunity | ● | | → |
| | Securing diverse human resources | Risk, Opportunity | ● | → | |
| | Diversification of work styles and values | Risk, Opportunity | ● | → | |
| | Well-being | Opportunity | | ● | → |
| | Respect for human rights | Risk | ● | | → |
| | Maintenance of the Quality Management System | Risk | ● | | → |
| Governance | Diversification of management personnel | Risk, Opportunity | ● | → | |
| | Stable procurement of raw materials | Risk | ● | | → |
| | Geopolitical risks | Risk | ● | | → |
| | Disasters caused by earthquakes and climate change | Risk | ● | | → |
| | Implementation of compliance | Risk | ● | | → |
| | Measures for information security (cyberattacks) | Risk | ● | | → |

* Short term: Short term until around 2025 in line with the target year of our Medium-term Management Plan
* Medium term: Medium term until around 2030 in line with the target year of our Long-term Management Plan
* Long term: Long term until around 2040 in line with the vision of our Long-term Management Plan

# Priority Issues (Materiality)

The priority issues identified are listed in the table below.

See Review of Priority Issues Activities for more details ▶ P.42-43

| | Priority Issues | Reasons for Identification as a Priority Issue | Major Initiatives | Goals and Outputs (FY2029) | Reference Page | Contribution to SDGs |
|---|---|---|---|---|---|---|
| Environment | Responding to climate change | The impact of climate change, including the increased severity of natural disasters, hinders the sustainable development of society. For this reason, the world faces the common challenge of reducing $CO_2$ and other greenhouse gas emissions that cause climate change, while aiming to realize a decarbonized society. The Group also recognizes that reducing $CO_2$ emissions from business activities and supply chains is an important issue. | Reduction of $CO_2$ emissions | • $CO_2$ emissions: 30% reduction from the FY2018 level by FY2030 | ▶ P.47 | |
| | Providing environmentally friendly products | The Earth's resources are limited. To preserve the Earth's limited resources for future generations, we must minimize the environmental impact of the products and services used by the current generation. The Group has a bird's-eye view of the entire lifecycle, from when products and services are used to when they are disposed of. We will use that position to contribute to the sustainable development of society by providing products and services with lower environmental impact. | Dissemination and expansion of environmentally friendly products | • Sales ratio of precious metal plugs: at least 50%<br>• Sales ratio of wide range oxygen sensors: at least 50% | ▶ P.42 | |
| Society | Development of technologies, products, and businesses for contributing to the resolution of social issues | The Group is committed to taking on the challenges of the world. We will cocreate and provide new value to help solve these challenges, so that we can contribute to realizing a better society. The world faces various challenges from climate change to food shortages. We continue to use our technology and our accumulated experience to offer new value to people around the world. | Development of fuel cells | • Dissemination of high-efficiency distributed power supply systems with an eye on the use of $CO_2$-free hydrogen fuel | ▶ P.42 | |
| | | | Development of applications for lead-free piezoelectric materials | • Promoting substitution for lead-based piezoelectric materials | ▶ P.42 | |
| | | | Development of sensing IoT business | • Improving operational efficiency through automation, optimization and generalization | ▶ P.42 | |
| | | | Carbon neutrality as a service | • Establishing and introducing a synthetic fuel (methane) production system | ▶ P.44 | |
| | Global human resource management | The Group acknowledges that employees are the most important management resources. We believe that the development of the Group can be achieved by respecting the diversity and individuality of our approximately16,000 employees around the world and creating an environment in which each of them can play an active role. | Promotion of employment of women, foreign nationals, and careers | • Percentage of female/foreign national/mid-career employees in managerial posts: 25% | ▶ P.56 | |
| | | | Examination of a new personnel system | • Improved results of employee satisfaction surveys | ▶ P.54 | |
| Governance | Corporate governance | To achieve sustained growth and improve medium- and long-term corporate value, we believe that it is important to structure the Board of Directors with a team of people from different backgrounds with a variety of expertise and experience. We also focus on enhancing the supervisory function of the Board of Directors and ensuring transparency in decision-making by improving the percentage of outside directors on the Board of Directors. | Increasing the ratio of female and foreign nationals to directors | • Percentage of female and foreign national directors: at least 30% | ▶ P.61 | |
| | | | Increasing the ratio of outside directors | • Percentage of outside directors: at least one-third | | |
| | Risk management | In the modern era of dramatic changes in the environment surrounding business, the risks that companies face are also diversifying. Responding to risks the wrong way could put a company's survival at risk. The Group strives to carry out risk management from day to day, so that it can enhance its corporate value. | Management of serious incidents signs and prevention of their occurrence | • Establishing a risk management system that contributes to management decision making | ▶ P.74 | |
| | Compliance | To develop the business of our Group, we must continue to be a company that is trusted by society. With recognition that our Group is a member of society, we aim to be a company that is trusted by all our stakeholders by appropriately meeting social demand. | Survey of employees' awareness and continuous education | • Conducting compliance awareness surveys and disclosing the results | ▶ P.75 | |
| | Information security | Information technology is becoming more sophisticated every day, and we handle a variety of information assets in our business. Meanwhile, as cyberattacks and other risks increase, bolstering information security is key. The Group will also enhance information security by positioning information assets as one of its management resources. We will make effective use of them while protecting them appropriately. | Maintaining and strengthening incident response organizations and building preventive systems | • Establishing an information security management system | ▶ P.77 | |

* Goals and Outputs are set for the last year of the Long-term Management Plan, unless a different fiscal year is indicated in the table.

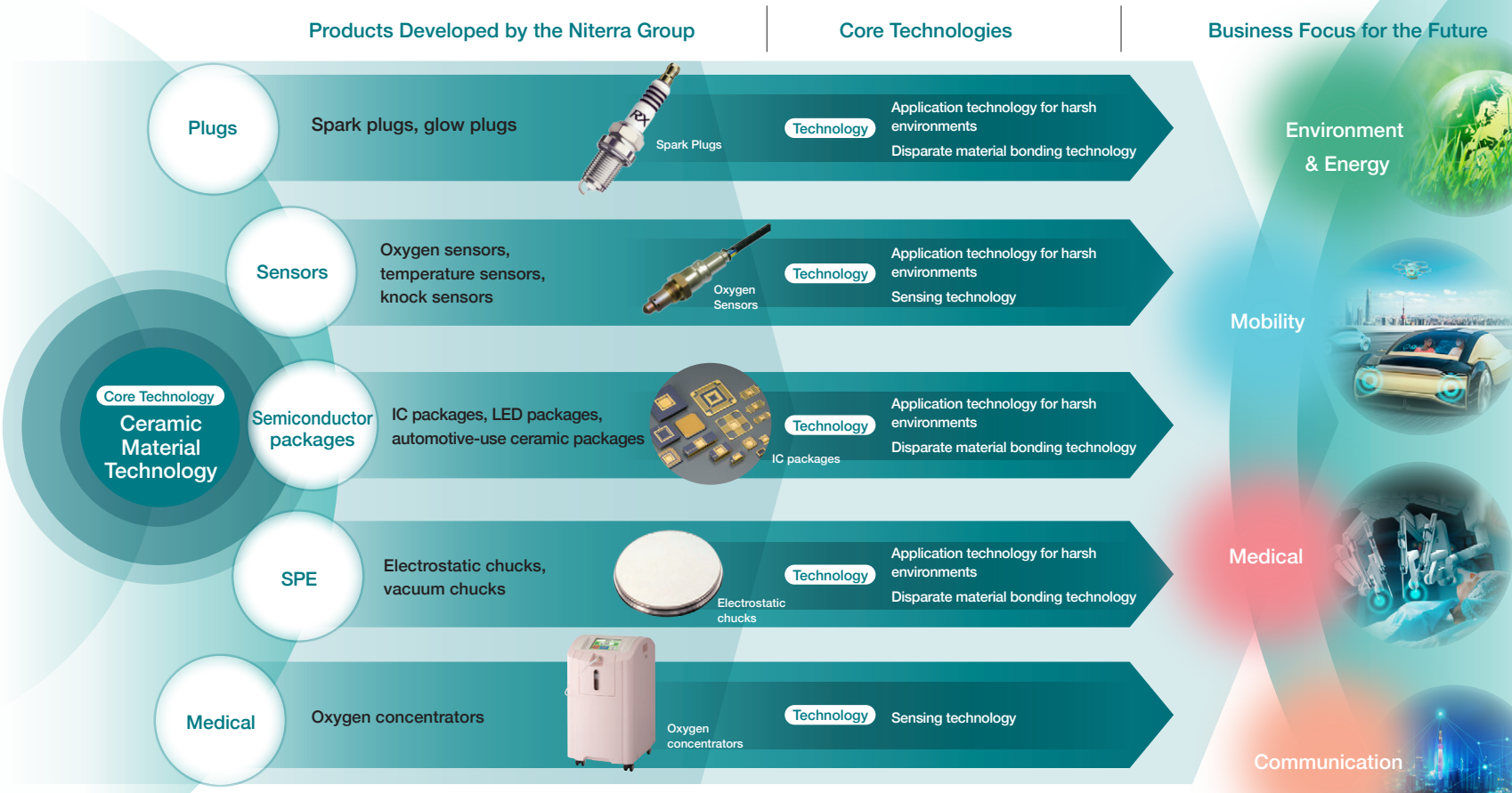
# 1. Technology and Development Capabilities



In our more than 80 years of history, we have cultivated a wide variety of applied technologies with ceramic material and ceramics at their core.
We aim to transform our business portfolio by strengthening and utilizing these technologies to create new businesses in four business domains: Environmental & Energy, Mobility, Medical, and Communication.

## Commercialization Strategy Utilizing Our Core Technologies

To achieve the portfolio transformation described in our 2030 Long-term Management Plan "NITTOKU BX," we will actively work to strengthen our core technologies and create new businesses that leverage them. Specifically, we plan to establish a division (Scientific Research Laboratory Division) to explore and create industry-leading and world-class technologies. At the same time, we will upgrade core technologies and create new core technologies from a medium- to long-term perspective to support our future. We established a new division in FY2023 (Business Implementation Division) to develop businesses leveraging our core technologies. This division will create new businesses rapidly by identifying technologies necessary to solve market issues and collaborating actively with our Scientific Research Laboratory Division and other companies.




* View our product introduction video for more on Niterra production technologies
https://www.ngkntk.co jp/english/corporate/advertising/

**COLUMN** Commitment to Quality That Supports Technology

We are all committed to producing consistent products

**"Even if only one product in a thousand is defective, the customer who buys it has a 100% defective rate"**



Magoemon Ezoe, the first president, demanded discipline and a high level of commitment from his employees to produce products without variation that consistently delivered the performance desired by customers. Each employee is dedicated to performing their job at their workplace to produce quality products. This tradition, embodied in our basic traits "quality products" and "involvement by all," is still alive and well at Niterra.

**TOPICS** Ceramic Material Technology

We established "Niterra x Tohoku Univ. MIRAI no ME Co-creation Research Center" with Tohoku University, a national university corporation. The center will continuously create innovative ceramic materials designed at the atomic and molecular scale by maximizing the use of "NanoTerasu," a high-brightness synchrotron radiation facility that began its operation in April 2024. Furthermore this will be done by integrating it with cutting-edge measurement technologies such as electron microscopes, as well as computational and information sciences.

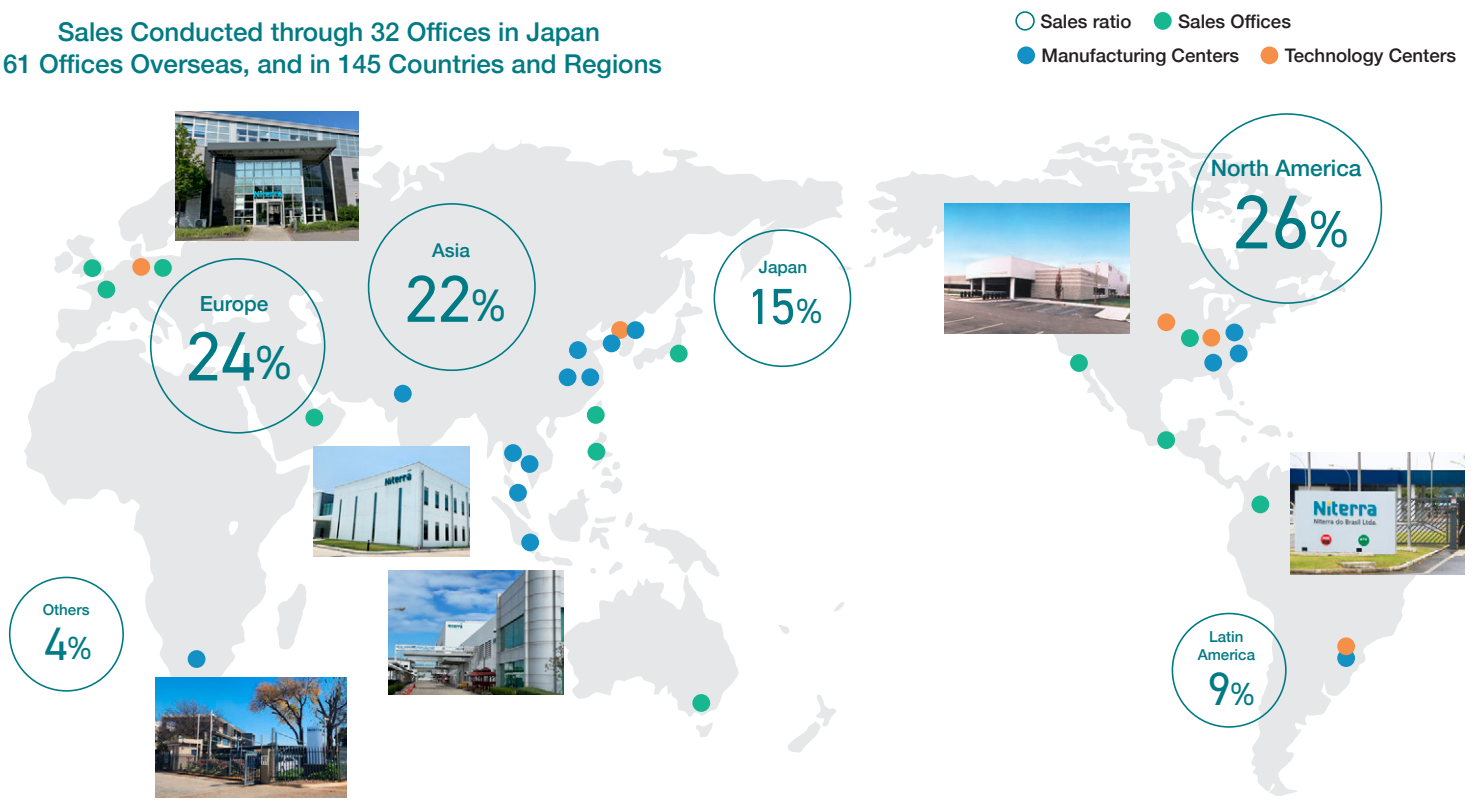


We established a global production and sales system that supplies products to more than 145 countries. Through this system, we provide the same standard and high-quality products from anywhere on the planet in cooperation with Niterra Group companies around the world. The sales channels we developed over the years for NGK Spark Plug have become the source of our revenue.

## Strong Overseas Sales of over 80%

Beginning with our entry into Brazil in 1959, we have steadily expanded our overseas sales channels ahead of other Japanese companies. Today, we operate 32 bases in Japan and 61 overseas corporate entities, including manufacturing companies, sales companies, technical centers, and other facilities. Our robust global production and sales system provides high-quality products worldwide. We developed sales channels to distribute products not only to car manufacturers in Japan and overseas, but also to repair and parts shops. These channels contribute to sales of our products in both the new car assembly and repair parts markets. We believe we operate a well-balanced business across the world, with overseas sales accounting for more than 80% of total sales.

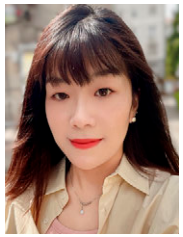
## Sales Conducted through 32 Offices in Japan 61 Offices Overseas, and in 145 Countries and Regions




**TOPICS** Employee Comments

**Y.Y., Administration Section, Production Department, Niterra (Shanghai) Co., Ltd.**

I am a member of the Administration Section of the Production Department. I have been with the company for 13 years. What I pay special attention to in my work is the management of delivery dates to customers. This is because it affects not only customer satisfaction, but also the reputation of the company. To meet deadlines, it is essential to have trust and mutual support among team members. Even when we face a difficult situation, we actively work together to solve the problem. We hope to continue to grow and shine with Niterra as we are inspired by the philosophy of teamwork and innovation that Niterra promotes.



**B.E., National Sales Manager, Aftermarket Division, Niterra North America, Inc.**

I highly value the dynamic nature of my company and its constant evolution. Our strong brand history provides a solid foundation for us to innovate and adapt in a rapidly changing marketplace. Cooperation and solidarity with team members is another important factor for me. The spirit of mutual support and cooperation with my colleagues is the impetus that drives us to achieve excellence. We not only achieve our goals but push the boundaries to ensure that Niterra remains at the forefront of the industry. I am proud to be part of a team that embodies dedication, innovation, and shared success.



# Diverse Human Resources That Support Our Competitive Advantage



Having a diverse group of self-disciplined creative human resources who can work and create independently is essential for us to take advantage of our competitive edge and change drastically beyond the current way. We are pleased to introduce the diverse human resources that actively support our competitive advantage in the field. Human Capital Management ▶ P.51

## We maintain reliable quality.



**K.Y.,**
IGNITE Company

Our main products, spark plugs, are made of metal and ceramics. Used as insulators, ceramics must withstand the harsh environment of high temperatures, high pressures, and high voltages in engines. To maintain the quality of insulators, which are critical parts of the engine, I evaluate products and analyze data on a daily basis.

I was involved in the start-up of a new insulator manufacturing plant. Based on the knowledge and experience I had gained since joining the company, I worked on creating manufacturing conditions and new management methods, with a focus on quality. I still remember the sense of accomplishment I felt when the plant was up and running. I am also currently working on reducing the baking time of insulators by 20% to reduce $CO_2$ emissions. I would like to use my accumulated knowledge of insulators to propose a quality-oriented process design that maintains the existing quality and production stability even when conditions change. I am committed to maintaining the quality of our spark plugs, which have the largest market share in the world, so that our customers can continue to use them with confidence.

## We will try to develop new products by utilizing our accumulated know-how.



**Y.K.,**
Business Implementation Division

We are developing silicon nitride heat sinks for power semiconductors used in electric vehicles and industrial equipment, leveraging our technology for silicon nitride products such as glow plugs and bearing balls.

We face one challenge after another when developing a new product. For example, ceramic and metal are bonded together in heat sinks, but it has been difficult to establish a technology for bonding materials with completely different properties without defects. However, we have accumulated the know-how through the development of many ceramic products. We solved the bonding challenge by exchanging information with our Group's engineers and by using our machinery. The joy I experienced at that moment, and the sense that we were getting closer to commercialization have been motivating me to do my job as an engineer.

It is predicted that the market for heat sinks will expand in the future, and the demand for silicon nitride heat sinks will also increase. I would like to deepen my technical knowledge so that I can develop products that are attractive to customers. This will help us gain a larger market share.

## We will collaborate with external organizations to ensure that our core technologies continue to evolve.



**T.H.,**
Strategic Portfolio Office, Global Strategy Division

I have been a researcher engaged in ceramic analysis and development for many years. With my knowledge and experience, I am currently involved in the preparation of the next Medium-term Management Plan. In addition, at Tohoku University, I promote and oversee joint research with other universities and research institutions.

Ceramics are materials that have always grown and evolved with mankind. Their function varies depending on the composition and the way they are made. The possibilities for combinations are endless. Traditionally, accelerating the development and design of ceramics has been considered difficult compared to other materials because they have been developed through trial and error based on the experience and knowledge of developers. To expand opportunities to meet this challenge and develop innovative materials that respond rapidly to societal needs, we collaborate with external research institutions to integrate our ceramic materials development technologies with cutting-edge analytical technologies and knowledge.

We are committed to advancing our ceramic materials development methods to ensure that our core technologies continue to evolve.

## Dialogue: The President and Three Outside Directors

# How should we redefine our “strengths” in order to transform ourselves? Discussion on how to foster a corporate culture that encourages taking on new challenges.




**Takeshi Kawai**
Representative Director, President, and Chief Operating Officer

**Miwako Doi**
Outside Director

**Chiharu Takakura**
Outside Director

**Takayoshi Mimura**
Outside Director

**As we approach the five years of our next Medium-term Management Plan, how should we achieve the “Change Drastically Beyond the Current Way” set forth in our Vision 2040? What should we consider our strengths and what should we change? Three outside directors and Takeshi Kawai, Representative Director and President, discuss these issues in an open dialogue.**

### By Leveraging Our Inherited DNA and Strengths, We Will Combine Business Activities with a Sense of Transformation That Has Begun to Take Root

**Kawai** With ceramics at the core of our more than 80-year history, we provide high-performance spark plugs and sensors that meet society’s needs. At the same time, we are managing our portfolio, including the creation of new businesses that leverage our technological and other strengths to optimize and update our business. We are also working to foster a corporate culture that encourages taking on new challenges. New businesses are gradually beginning to take off. However, I feel that we still have some way to go to achieve the “Making Changes That Are Not Just an Extension of the Past” as stated in our 2040 Vision. What should we sharpen as our strengths and what should we change? In this dialogue, we would like to clarify these issues with your input as outside directors. First, please tell me your honest opinion of our company today.

**Doi** During these five years as an outside director, I feel that I have gradually seen the results of your efforts to fulfill the slogan of the current Medium-term Management Plan, “Break to change. Change to create.” Let me tell you an experience. Last year and this year, I had the opportunity to visit several overseas offices and talk to young employees. We had various discussions in connection with the change of the English trade name to “Niterra,” which conveys the Company’s message to the world, “Becoming a company that brightens the Earth.” During these discussions, I was asked questions such as how they should change now that everything, from environmental considerations to the manufacturing process, was undergoing major changes. This gave me a sense of the young employees’ awareness of change.

**Mimura** I became an outside director in FY2023, and over the past year, I strongly feel that the Company has changed its corporate composition with an awareness of the need for transformation. For example, Niterra used to hire new graduates as full-time employees and train them to maintain its unique technologies. Now, Niterra is

# From an era when technology led the world to an era when fun and uniqueness will change society.



significantly changing its organizational culture by proactively recruiting and promoting mid-career employees to bring in a new style. When this sense of transformation is extended to business activities, you can more clearly visualize the next stage to strive for.

**Takakura** I recently had the opportunity to trace the history of the Morimura Group, the roots of Niterra. I was once again impressed that Ichizaemon Morimura had been promoting the value of "Shikai-Keitei" (all people of the world working together as brothers and sisters) since the early Meiji era. Niterra's unwavering strengths in technology, as well as in global production and sales systems, are based on these values. I believe that in the future it will be necessary to look closer at the inherited core competence and redefine it as a "strength" that is appropriate for the times.

## Set Concrete, Exciting Goals and Try Transformations in a Backcasting Approach

**Kawai** In recent years, there has been a major shift from "an era when a serious commitment to manufacturing was highly valued and technological progress led the world" to "an era where the pursuit of fun and uniqueness is changing society." Our company also needs to transform itself to respond to changing times, and not only maintain its traditional strengths. To this end, I believe it is important to have a renewed awareness of our cherished shared values. These include "Dokuritsu-Jiei" (believing in one's own abilities and working on one's own initiative) and "Soshi-Kantetsu" (having an unyielding will and working hard), in addition to the "Shikai-Keitei" mentioned by Mr. Takakura.

**Takakura** While seriousness is a strength, it can also be a weakness. In trying to achieve transformation without losing the good parts, the most important impetus is actually self-affirmation or self-confidence. When you are truly confident in yourself, you are ready to face challenges. You can also critique yourself in a positive way to find out what you lack now and how you need to change. The key is to overcome your lack of confidence and fear of failure and unleash your potential. My belief is that it is the management's responsibility to guide employees to make the best use of their individual talents.

**Mimura** Traditional manufacturing companies have long had an established process for improving their core technologies and extending their reach to create new products. What is required today, however, is the ability to plan for business development. This includes materializing what the company can do to solve social problems and bringing in resources that the company lacks from outside sources. I also come from a manufacturing background, but in my previous job I expanded the business through mergers and acquisitions to complement the technological development. On the other hand, Niterra has expanded its domain with proprietary technologies and products that competitors cannot match. In order for Niterra to further develop in the future, it must acquire not only technologies but also planning skills.

**Doi** Whether in experimentation or development, engineers find it easier to accumulate results in a forecasting approach than to set a goal first. However, that approach would make it difficult to "Change Drastically Beyond the Current Way." Given that the pursuit of fun drives the era, it is critical to engage all employees in thinking about and setting a specific and exciting goal, for example, "This is what the Niterra Group will be in 2050." To reach that goal, they think about what to change and what to do from a backcasting perspective. This approach will be effective, won't it? Some attempts may not be commercialized immediately, but you can continue trial-and-error efforts to create new businesses, while the existing businesses are performing well. It is important that engineers work diligently to satisfy customers. However, I think it is also important to go a step beyond that style. In other words, to foster a culture where they enjoy themselves first.

# Positive self-criticism drives transformation.



## Every Employee Is Encouraged to Think for Themselves and Develop Their Own Vision for the Future

**Kawai** The current Long-term Management Plan was also formulated using a backcasting approach. However, I don't feel that every employee embraces the true meaning of the plan. After all, if they do not think and describe their own vision of what they want to be, they will have no will, no cause, and much less fun. For this reason, we focus on developing human resources who can act to bring about changes and also change themselves (self-disciplined creative human resources).

**Mimura** I don't think a perfect vision needs to be created from the beginning. Japanese companies are said to lack creativity, but the visions of overseas start-ups and other companies start out as dreamlike, non-financial goals. They gradually materialize and become financial goals. When it comes to creating and developing human resources that can dream and create visions of the future, it is essential to develop engineers into generalists who have a bird's-eye view of the entire business, not just to help them master the technology.

**It is essential to develop generalists who have a bird's-eye view of the entire business.**



**Doi** In addition, if it is difficult to require many skills from one person, it would be helpful to create a system that allows team members to complement each other on a project-by-project basis. For example, startups present their goals and the resources they currently lack to judges at competitions and other events in order to attract investment and additional human resources, for example, a researcher dedicated to technological development, a vision creator, and someone who is good at obtaining budgets.

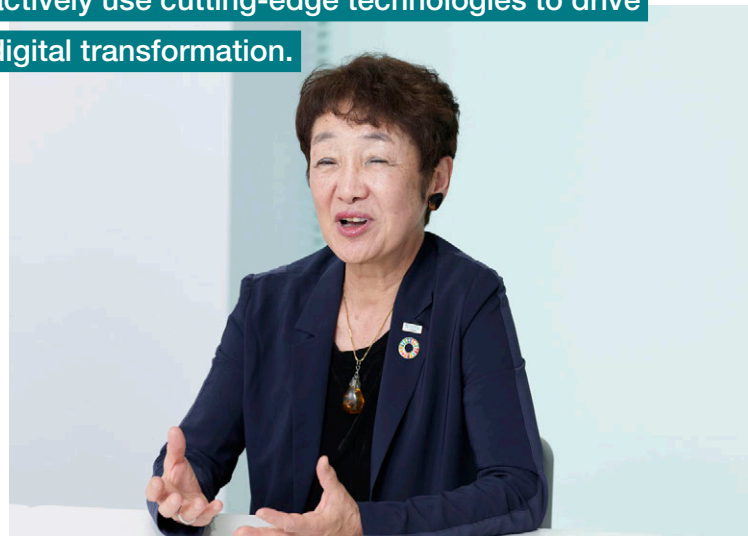
## Leverage Cutting-Edge Technologies and Drive Digital Transformation to Improve Productivity and Make Innovations

**Takakura** To move away from traditional forecasting thinking, I think it is necessary to create a system that optimizes operational efficiency through AI and other technologies. This will allow employees to use the time saved to communicate with people in other departments or study other areas of expertise. The Company needs to further advance digital transformation for its future. I think it is important to promote the use of technology in terms of improving productivity in areas other than product development.

**Mimura** It is also important to consider what the entire Company should be so that it can move forward with digital transformation toward that direction. As Mr. Doi mentioned earlier, while existing businesses are still strong, you must visualize where you are going and then aggressively pursue further transformation. As an outside director, I will also actively make suggestions.

**Doi** Even in cases where it is difficult for an individual employee to develop a vision on their own, they can now consult generative AI for feedback. To set a vision and link it to innovations, you should actively use cutting-edge technologies to think about how to drive digital transformation.

**To link to innovations, actively use cutting-edge technologies to drive digital transformation.**



## Gain Successful Experience, Build Up Confidence and Advance Further Transformation

**Kawai** Thank you for your feedback regarding various challenges. Niterra is such a diverse and inclusive company that they appointed me, a maverick, as president. We must protect and enhance the business and products that are the legacy of our predecessors. At the same time, we must consider new workforce design and training policies. For example, we can create a team that is agile to meet a challenge. I believe that our Company's typical approach is to first gain new successful experience in a field, build confidence, and ensure steady progress. We will stabilize new businesses to some degree within FY2024, and will continue to take on challenges tirelessly from a medium- to long-term perspective.

# 02 Growth Strategy

Growth Strategy

In FY2020, Niterra formulated the 2030 Long-term Management Plan, called NITTOKU BX, deeming 2030 as a milestone year for the growth of the company over the next two decades.

The 2030 Long-term Management Plan “NITTOKU BX” consists of three Medium-term Management Plans: the 7th Medium-term Management Plan (the last year of which was the first year of the Long-term Management Plan), a four-year medium-term management plan and a five-year medium-term management plan. We will put more specifics to this 10-year plan as we work together to achieve our 2040 Vision.

02 Growth Strategy describes each of these plans.

## Long-term Management Plan: Course of Our Growth Strategy

### 2040 Vision and the 2030 Long-term Management Plan

2010 — 2020 — 2024 — 2025 — 2030 — 2040

**Long-term Management Plan “NITTOKU SHINKARON”** (from FY2010 to FY2019)

- Delving (FY2010 to 2012): Delve into existing business and seek new business
- Renovating (FY2013 to 2015): Launch new products or new business
- Evolving (FY2016 to 2018): Develop existing and new business at an accelerated rate
- Real Value

**2030 Long-term Management Plan “NITTOKU BX”** ▶ P.23 (from FY2020 to FY2029)

“Transformation of Our Business Portfolio” for Growth

**7th Medium-term Management Plan**

1. Strengthen current businesses
2. Establishing new business pillars
3. Establish strong business infrastructures

**Medium-term Management Plan (4 years)**

Break to change.
Change to create.

Respect Dokuritsu Jiei (independent spirit).
Start from scratch.

**Medium-term Management Plan (5 years)**

Extend for the future.
Spread out to exceed.

To foster a new corporate culture, we will work toward sustainable growth.

| Operating income ratio | ROE | ROIC |
|---|---|---|
| 15% or more | 12% or more | 10% or more |
| (FY2023: 17.5%) | (FY2023: 13.8%) | (FY2023: 9.5%) |

Management Innovation (DX) | Clarification of Responsibilities and Authorities | Willful Cultural Change

Priority Issues (Materiality) ▶ P.15

Environment | Society | Governance

**Niterra in 10 years** (from FY2010)

■ A distinguished monozukuri company ■ A highly profitable company
■ A progressive company ■ A human “assets” company

Backcast → **2040 Vision**

Change drastically beyond the current way

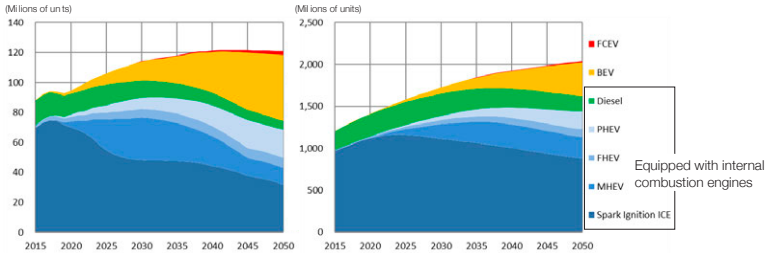
***Beyond ceramics, eXceeding imagination***

**Beyond ceramics, eXceeding imagination**

To solve various social issues, we will further evolve ceramics or find other options than ceramics. We will construct a new Niterra that creates a completely new future. We will take on challenges that exceed the imagination of society and ourselves. In doing so, we will make drastic changes beyond the current way.

## Changes in the external business environment

According to these graphs, which forecast the sales volume of new automobiles and the numbers of vehicles in operation around the world, the n mber of automobiles with internal combustion engines will continue to increase until around 2030. However, in the mid-2030s, the number will begin to decline. It is, therefore, necessary to transition to a business structure that is not dependent solely on the sales of products used in internal combustion engines.

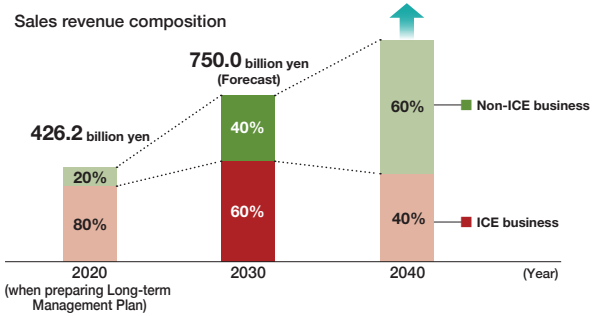



Worldwide sales of new automobiles　　Number of automobiles owned around the world

* Source: Forecasts made by Niterra based on data provided by IHS Markit Automotive through its "Mobility and Energy Future" service
* Forecast at the time of formulation of the Long-term Management Plan (2020)

## Transformation of the business portfolio

We are currently doing business with a focus on internal combustion engines (ICE), however, in the future, we need to be involved in more than the ICE business and embrace the challenge of starting new businesses to transform our business structure. Specifically, as the 2040 targets, we aim to decrease the proportion of the ICE business in our total sales revenue from the current 80% to 40% while raising that of the non-ICE business from the current 20% to 60%, thereby transforming our business portfolio. To achieve these targets, we will decrease the ratio to 60% and increase the ratio to 40 % for the ICE business and non-ICE business, respectively, as milestone targets for 2030 under the 2030 Long-term Management Plan "NITTOKU BX."




## Guiding principle

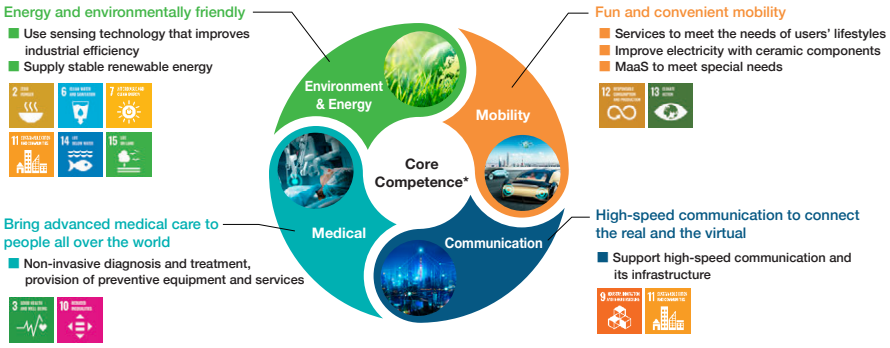
In our Long-term Management Plan, we have upheld "Change with Will !!" as the guiding principle, meaning "with a strong commitment ("Will"), we will foster "Change" for coexistence with society and people." We aim to reform our organization and business structure with speed to make our company one that can coexist with stakeholders from a global perspective.




## Business fields to focus on

We focus on four areas of business: Environment & Energy, Mobility, Medical, and Communications.

Our core competencies consist of ceramics materials technology, sensing technology, global production and sales systems, and numerous other areas. Leveraging these core technologies, we seek to add value through *Something New* and the use of open innovation to grow our four areas of business.

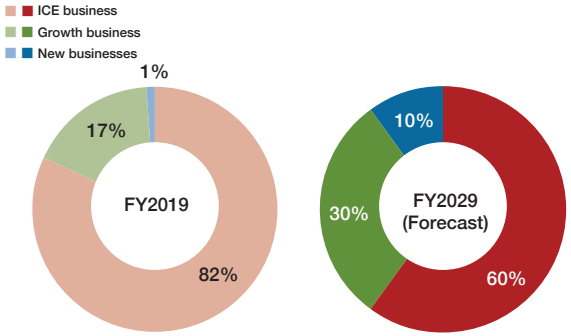



* Ceramic material technology, application technology in harsh environments, disparate material bonding technology, sensing technology, rapid high-temperature heating technology, and global production and sales system

## Transformation of Our Business Portfolio for Growth

As the mainstay of the Long-term Management Plan, we will foster the transformation of our business portfolio. As for the ICE-related business, we will be able to expand revenue and operating income until 2030 in line with an increase in the number of ICE-equipped automobiles. However, in anticipation of the business environment in 2040, we need to pursue rationalization, higher efficiency and selection and concentration. As part of this initiative, we have shifted to an in-house company system in April 2021, while some departments were spun off. With more clarification of responsibilities and authorities, we will transform ourselves with speed. In new businesses, we aim to achieve a business value of 200 billion yen by 2030, working to achieve growth in each area for sales and profitability. We aim to turn these businesses into our profit pillars in 2040, although their operating income margin might still be low in that year. We will increase efficiency in our ICE-related business with a focus on making profit, use the cash gained in that business for the growth businesses and achieve a profit growth rate that is higher than the market growth rate for these businesses. For the new businesses, we will strictly screen the themes to be continued, thereby revitalizing the new businesses. In order to promote this kind of business portfolio transformation, it is essential to achieve the following three aims: management innovation (digital transformation), clarification of responsibilities and authorities, and willful cultural change. We will break our dependence on the ICE-related business based on this recognition.

### Sales revenue composition




### Secure profit while transforming the business portfolio

| | |
|---|---|
| ICE business | Super efficiency and cash generation |
| Growth business | Drastic development exceeding market growth rate |
| New businesses | Selecting and choosing theme and commercializing cutting-edge themes |

### Specific measures

**1 Management Innovation (DX)**

- Small, strong and agile head office to support the transformation of our business portfolio
- Quick management decisions supported by DX

**2 Clarification of Responsibilities and Authorities**

- Clarification of responsibilities and authorities to promote the transformation of our business portfolio
- Build an optimized structure and system for each business

**3 Willful Cultural Change**

- Undertake culture reform and strengthen the Group's abilities

### FY2029 management targets

The 2030 Long-term Management Plan "NITTOKU BX" indicates the midway milestone for our 2040 Vision. Under this plan, we strive for business portfolio transformation, clarification of responsibilities and authorities, and investment in new businesses. In line with the guiding principle, Change with Will!!, which should be followed by all employees, we will achieve Beyond ceramics, eXceeding imagination to be reborn as a new Niterra Group. For the management targets for FY2029, we aim to achieve an operating income ratio of 15% or more, ROE of 12% or more, and ROIC of 10% or more.

| Operating income ratio | ROE | ROIC |
|---|---|---|
| 15% or more | 12% or more | 10% or more |
| (FY2023: 17.5%) | (FY2023: 13.8%) | (FY2023: 9.5%) |



# We will redefine our strengths to drive the transformation of our business portfolio

**Keiji Suzuki,** Executive Officer

Our Company has built a strong presence in the ceramics industry, with a particular focus on spark plugs. I see our activities as a contribution to solving contemporary social issues. I believe that this social role will not change and will continue into the future. Additionally, brightening the Earth with our technology and ideas will lead to an increase in our corporate value. During the current Medium-term Management Plan period, however, the internal combustion business has achieved significant results, while business transformation for the future has not progressed as planned. Although we have established four main areas, we have not yet created a pillar to focus on. This is because we have placed the highest priority on free thinking without any particular restrictions on our activities. From now on, we will redefine the technologies and ideas that are our strengths and drive the transformation of our business portfolio in a more concrete way.

To build a framework for this, we have established the Strategic Port Folio Dept. as an administrative unit to create new businesses and shape our future.

## Asset-based Setting of Focus Areas and Resource Control

Business is not only a solution to social issues, but also a battle to continue to be chosen by society. It can be said that only a company chosen by society can contribute to society. We view the various assets we have developed as important weapons or strengths that will enable us to continue to be chosen by society. We then determined where our strengths would be best utilized and established areas of focus for success.

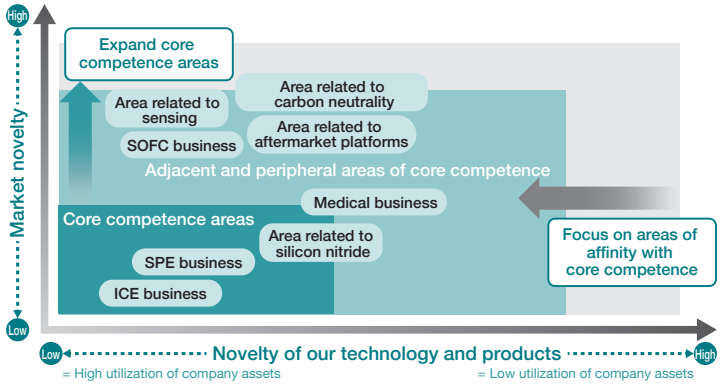
One such area is ceramics. The area that can leverage the strengths of ceramics will lead to shorter-term returns and allow for larger investments. On the other hand, in areas where our current position is less robust, we need to make small but long-term, multifaceted investments to build future strength. Therefore, I believe it is important to strategically implement resource control based on areas and the presence or absence of strengths.

## Establishment of Commercialization Guidelines

Earlier, I described the assets we have built so far as our strengths. We also defined competitive advantage as the ability to use these strengths to formulate hypotheses for success. We have had some new business proposals aimed at solving social issues that did not demonstrate a strong competitive advantage. We have therefore decided to instruct each new business unit that securing competitive advantage is a condition for continuing to seek new business.

In order to maintain this competitive advantage, it was also necessary to clarify the direction of research and development for the future. Accordingly, in collaboration with young members of our scientific research, who are in charge of our R&D, we have also outlined our vision and a roadmap for the development of core technologies over the next 100 years.

For example, one of our SPE businesses, electrostatic chucks, is already a successful business. This is an example of successfully overcoming a challenge by securing a competitive advantage through the use of a number of strengths, including ceramic firing technology, sheet lamination technology, and technology that brings out the functions of ceramics in combination with metals. Another new challenge is the maintenance platform business. This business is designed to create a competitive advantage, as we believe that the relationships we have built with repair shops and parts suppliers in the plug aftermarket business represents our strength in solving complicated procedures related to car maintenance by connecting them through a software platform.



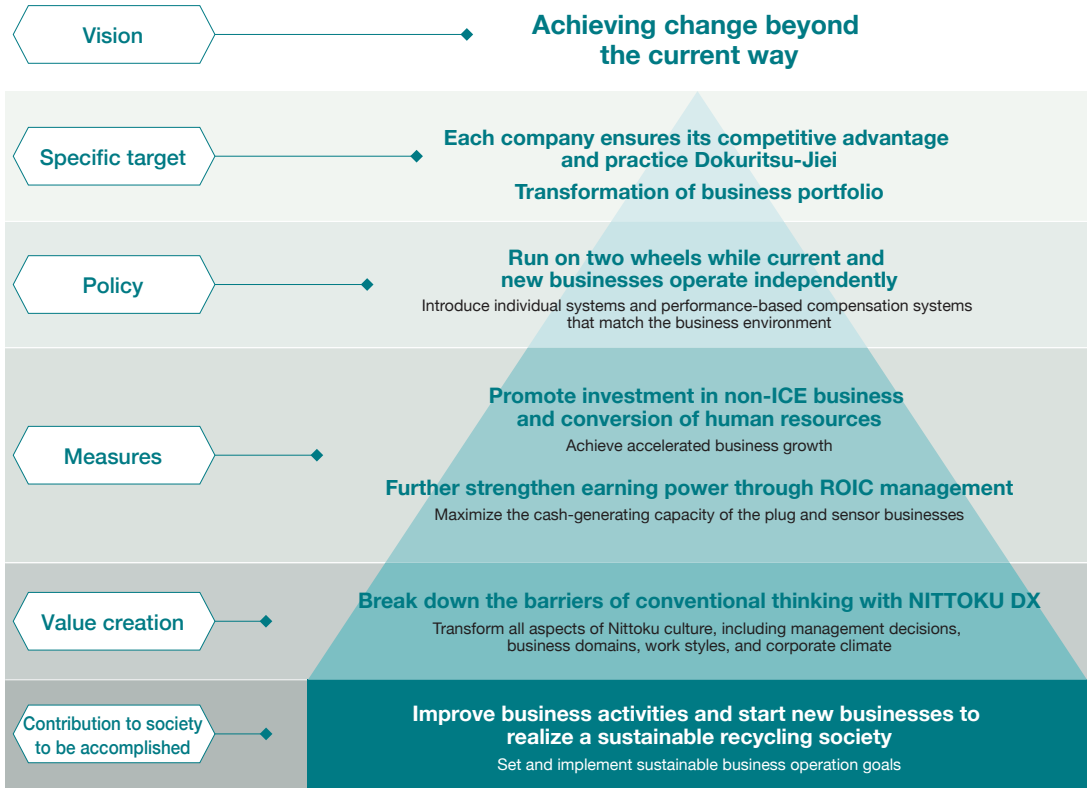

## To Our Stakeholders

We very much regret that the creation of new businesses under the current Medium-term Management Plan has not yet yielded significant results. However, as a result of the lessons we have learned over the past few years, we now believe we can be more strategic and effective in creating new business. We are determined to move forward with our efforts with unwavering resolve.

# Medium-term Management Plan



In our Medium-term Management Plan, we will work on zero-based reforms to achieve our 2040 Vision and the 2030 Long-term Management Plan “NITTOKU BX,” which will be the milestone for the vision.




## Key Initiatives

To transform of our business portfolio, we will maximize cash generation in current businesses and proactively allocate management resources optimally to growth and new businesses.

### Business strategy

| | |
|---|---|
| ICE business | Determine an appropriate business scale and maximize cash generation through ultra-efficiency |
| Growth business | Achieve business growth that exceeds the market growth rate |
| New businesses | Realize new businesses pillars and shorten the business creation cycle |

### Cross-company operations

- Invest in non-ICE business
- Promote transformation of human resources portfolio
- Strengthen earning power through ROIC management

**Performance Goals**

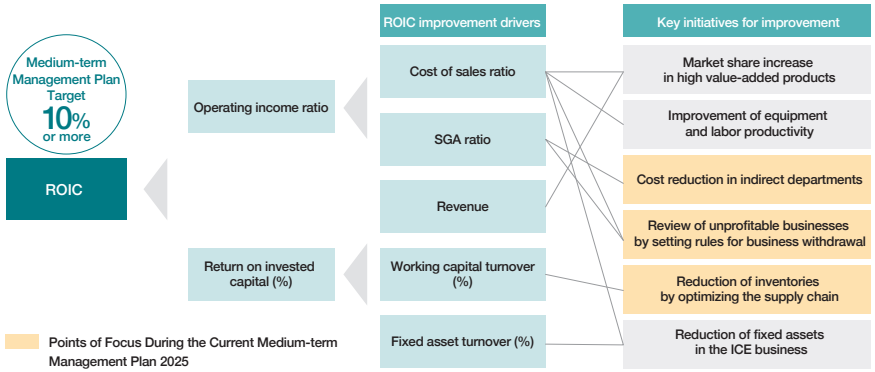
**We aim to achieve revenue of 600 billion yen and an operating income of 100 billion yen in fiscal year 2024, the final year of our 2025 Medium-term Management Plan.**

Due in part to the depreciation of the yen, we in general achieved our Medium-term Management Plan target of 600 billion yen in revenue and other indicators in FY2023, one year earlier than the final year of our plan. At the same time, we encountered delays in creating new businesses, but results have begun to emerge in FY2022. We will move forward with our plan under a greater sense of urgency to recoup progress over the remaining year of our Medium-term Management Plan.

| | FY2020 Previous Medium-term Management Plan Final-Year Results | FY2021 Medium-term Management Plan First-Year Results | FY2022 Medium-term Management Plan Second-Year Results | FY2023 Medium-term Management Plan Third-Year Results | FY2024 Medium-term Management Plan Final-Year Forecast | FY2029 targets |
|---|---|---|---|---|---|---|
| Revenue (billions of yen) | 427.5 | 491.7 | 562.6 | 614.5 | 600.0 | 750.0 |
| Operating income (billions of yen) | 47.4 | 75.5 | 89.2 | 107.6 | 100.0 | - |
| Operating income ratio | 11% | 15% | 16% | 18% | 17% or more | 15% or more |
| Non-internal combustion revenue (billions of yen) | 88.9 | 104.0 | 118.6 | 109.1 | 150.0 | 300.0 |
| ROIC | 6% | 8% | 9% | 10% | 10% | 10% or more |
| ROE | 9% | 13% | 12% | 14% | 13% | 12% or more |

## Efforts to Improve Capital Efficiency

Regarding the ROIC management that was not fully in place throughout the Group during the period of the previous Medium-term Management Plan, we have identified priority measures that should be undertaken to improve investment efficiency. We will achieve 10% or higher ROIC by subdividing the challenges and responsibilities that must be undertaken at individual businesses and monitoring KPIs. We will continue to work on increasing our market share in high-value-added products, improving equipment and labor productivity as well as reducing fixed assets in the internal combustion engine business over the medium to long term. In particular, during the current Medium-term Management Plan, we will focus on the following priority measures: Cost reduction in indirect departments, review of unprofitable businesses by setting rules for business withdrawal, and reduction of inventories by optimizing the supply chain.



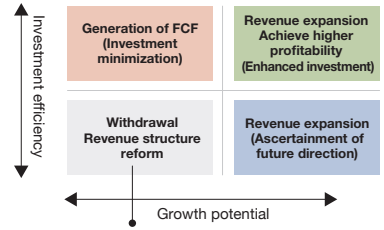

## Introduction of an In-house Company System

As part of our initiatives to transform the business portfolio, we introduced an in-house company system in April 2021. We have introduced this system not only for business departments but also for functions at headquarters. The organization that used to be a corporate domain or function division has been reorganized into the Global Strategy Division and Business Partner (BP) / Company, and a small number of strategic staff are assigned to the Global Strategy Division. The organizational structure is designed to position each business and function department as an independent pseudo-company. Through this organizational change, each company receives internal capital allocated by the headquarters, and will be responsible not only for PL, but also for BS and CF, thereby clarifying responsibility for return on investment as well as a decision to invest. In addition, the responsibilities and authorities, which were ambiguous in the past under the division system, will be clearly defined; for example optimizing the structure and rules to match the standards of the industry to which each company belongs. The Global Strategic Headquarters will promote global group management and accelerate the maximization of the business value according to its business position under the policy of Dokuritsu-Jiei.

| Traditional organization | New organizations from April 2021 | Roles |
|---|---|---|
| Corporate Domain | Corporate division<br>Global Strategy Division | ›› Planning of company-wide strategies<br>›› Enhancement of global governance<br>›› Promotion of business portfolio transformation through optimal allocation of management resources<br>›› Business withdrawal/continuity governance |
| | Business support department<br>Business Partner (BP) / Company | ›› Contribution to the maximization of company-wide earning capacity<br>›› Advancement of the services provided<br>›› Cost reduction through efficiency improvement<br>Improvement of company-wide earning capacity contributed by Business Partners (BP) / Company |
| Divisions | Business department<br>Business company/spin-off | ›› Improvement of the ability to adapt to changes by introducing systems and structures tailored to each market environment<br>›› Achievement of KPIs and KGIs at each company |

## Business Portfolio Management

We will strengthen business portfolio management by setting hurdle rates for each business segment. Assessing the businesses using the two axes of growth potential and investment efficiency, we determine the future direction. KPIs and KGIs are set for each company after defining expected roles based on ratings in accordance with each company's position in the market.



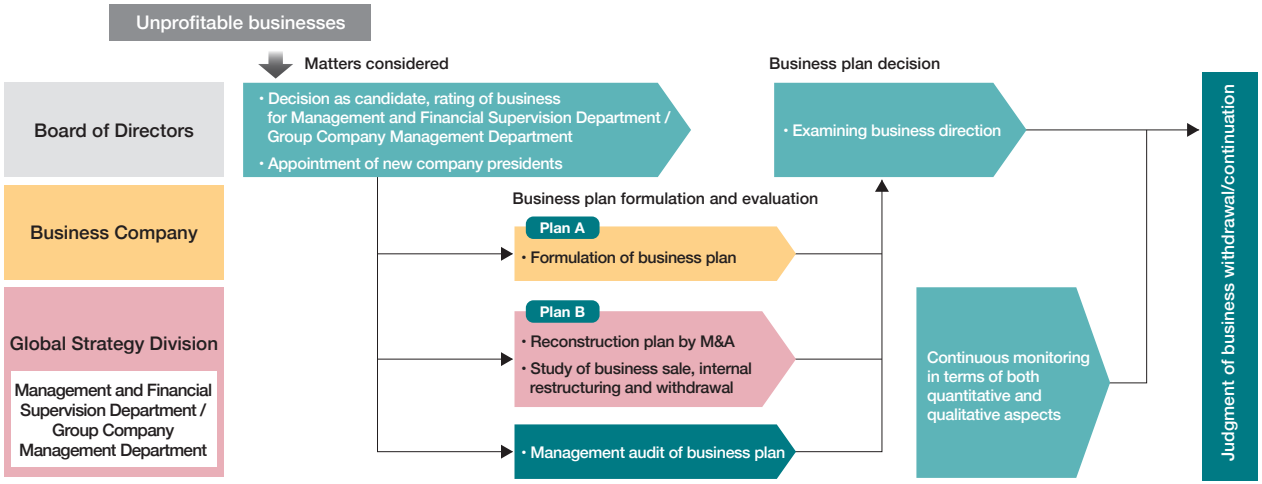

**Business Continuity/Withdrawal Examination Flow**

▶ P.28

| Disclosure segments | | Medium- to long-term direction |
|---|---|---|
| ICE business | Automotive components | Enhance cash generation and aim for even higher profits |
| Growth business | Ceramics | Build a profitable structure that is resilient to changes in the external environment and expand sales<br>Business scale growth exceeding the market growth rate and improvement of profitability |
| New businesses | New businesses | Discover new businesses that will be the pillars of new businesses and build scenarios for commercialization |

## Business Continuity/ Withdrawal Examination Flow

The Management and Financial Supervision Department / Group Company Management Department formulate and execute either the Business Revitalization or the Withdrawal or Sale of Business plans to judge whether to continue or withdraw from unprofitable businesses. In the event that a company comes under the organization of the Management and Financial Supervision Department / Group Company Management Department, a revitalization plan will be formulated under the new company president. Simultaneously, the Management and Financial Supervision Department / Group Company Management Department formulates another revitalization plan from a different point of view. Finally, the Global Strategy Division assesses these plans in respect of probability, thereby enabling us to implement the best business strategy from multiple perspectives. We strengthened the organization of both the Global Strategy Division and Management and Financial Supervision Department / Group Company Management Department with outside human resources to establish a system that enables rational decision-making.




## Improvement of Company-wide Profitability by Introducing the Business Partner (BP) System

The Business Partner (BP) System aims at providing high-value-added services that are market-competitive in order to contribute to enhancement of the business companies' profitability. By introducing the in-house company system, we became able to visualize the costs of each organization and its contribution to the business, which have been difficult to come to surface. Also, the services will not be evaluated based on internal standards, and will be compared with those of market. By grasping the service levels of other companies and identifying areas for improvement, we will improve the quality of our services step by step. At the same time, we will also expedite cost reduction by separating services with high added value from those that should pursue higher efficiency.

Business Partner (BP) / Company Aims

### Providing market-competitive, high-value-added services

Implementation process

Procurement / Accounting / Human Resources / Labor / IT /
General Affairs / Intellectual Property Management / Quality Control / Environmental Safety

| | FY2021 | FY2022 | FY2023 | FY2024 |
|---|---|---|---|---|
| | **Grasp**<br>Understanding the current situation | **Change**<br>Business improvement | **Improvement**<br>Improving the quality of service | **Expansion**<br>Expansion of range |
| Improvement of expertise + Cost reduction | ■ Recognize the current situation of our department compared with the service level of other companies and make improvements<br>■ Raise BP's awareness of being a profit center by watching its own income statement | ■ Strengthen professional skills by educating employees<br>■ Identify problems and implement countermeasures | ■ Start preparing for external sales<br>■ Improve professional skills by educating employees<br>■ Continuation of business evaluation and improvement | ■ Achieve both maximization of operational efficiency and improvement of quality<br>■ Consider and implement drastic measures in the event that service improvement and cost reduction cannot be achieved during the medium-term management plan period |

## Overview of Niterra DX

We formulated Niterra DX as our vision to promote digital transformation (DX) and to achieve our vision and goals established in the Niterra Group's Medium-to Long-term Management Plan. We will establish basic strategies for each layer of this plan to transform our operations, business, and existing concepts.

### ① IT Infrastructure to Support Transformation

We will establish flexible, secure, and safe IT infrastructure to support the digital transformation of the Niterra Group, encourage synergies between businesses, and support new business growth.

### ② Human Resources to Support Transformation

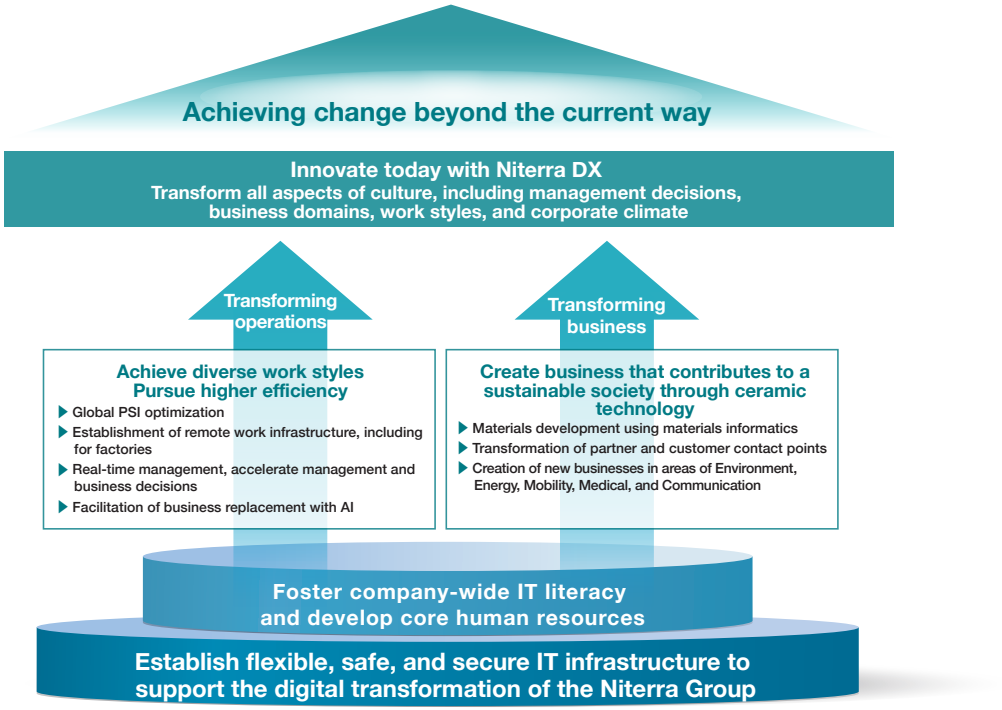
We will develop educational programs for all group companies and core human resources to foster a culture that is open to change and innovation through education and that proactively embraces and utilizes digital technology.

### ③ Transformation of Operations

We will introduce various work styles in both offices and factories, as well as pursue higher business efficiency through the use of data and AI to speed up various decisions and encourage business replacement.

### ④ Transformation of Business

We will create businesses that contribute to achieving a sustainable society based on Niterra Group ceramic technologies cultivated to date.



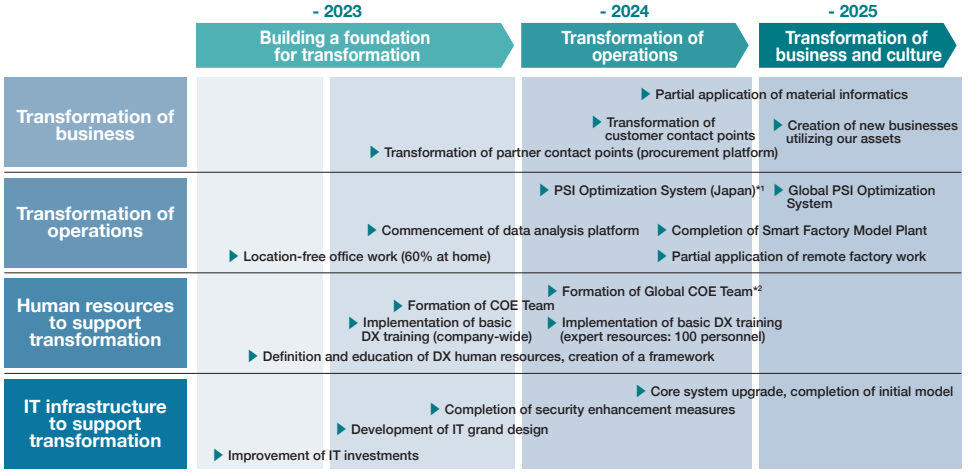

## Road to Transformation

Niterra DX divides the execution steps of our basic strategy into three phases, implementing themes and KPIs for each layer. We will use this period through 2023 to build the foundation of our transformation. Currently, we are focusing on strengthening the IT infrastructure and human resources that will support our transformation. Once we establish a solid foundation, we will begin implementing operational, business, and cultural changes.

### Declaration of Niterra DX Promotion

We, the Niterra Group, declare that we will promote Niterra DX as our management strategy to transform through digital technology, contribute to a sustainable society, and achieve our goals set in the Medium- to Long-term Management Plan.

**Takeshi Kawai**
Representative Director President, Chief Operating Officer




*1 PSI: Production (P), Sales (S), Inventory (I)
*2 COE: Refers to consolidating management resources, such as talented human resources, expertise, and facilities scattered throughout the organization (within the company) in one place as a cross-functional structure to achieve company objectives and goals



## In order to improve capital efficiency and enhance corporate value, we will focus on thorough ROIC management and strengthening business portfolio management.

**Koji Suzuki**, Executive Officer

### Current Market Environment and Progress in Medium-term Management Plan

We have finished the third year of our Medium-term Management Plan, which started in FY2021, and are approaching the final fiscal year. Looking back on the business environment over the past three years, the global economy and supply chain disruption triggered by the COVID-19 pandemic and the shortage of semiconductors have had an impact. In addition, the external environment continues to be challenging, such as the surge in raw material prices and worsening inflation from the second half of FY2023.

Despite these circumstances, the Group was able to achieve record highs in both revenue and operating income in FY2023, continuing from the previous fiscal year. It is true that the continued depreciation of the yen provided a tailwind, but we were able to steadily pass on price changes from inflation, and even excluding foreign exchange factors, we were able to increase profits. Thanks to this strong performance, we were able to achieve the performance targets set in the Medium-term Management Plan one year ahead of schedule without waiting for the final fiscal year of the plan. There was also an effort in the field to pass on price changes. The soaring prices of raw materials such as precious metals have been noticeable since about two years ago, but we believe that the significant results have been achieved by striving for global consensus and persistently negotiating to pass on price changes. As a result, we acknowledge that there was an increase in profit of about 15 billion yen in monetary terms compared to FY2022.

### Strengthening Strategic Investments and Business Portfolio Management

Our Medium-term Management Plan states the direction of determining the appropriate business scale and maximizing cash generation through ultra-efficiency improvements in the ICE business. If there are business opportunities, we will make appropriate investments to generate and expand cash. As an example of a strategy in the aftermarket plug business, we are steadily progressing with the replacement to environmentally friendly high value-added precious metal plugs, taking into account regional characteristics. In addition, in order to ensure a stable supply in the medium to long term for the ICE business, we signed a memorandum of understanding with DENSO CORPORATION in July 2023 to start discussions and considerations regarding the acquisition of the Spark Plug business and the Exhaust Gas Oxygen Sensor business. Through the realization of this initiative, further contributions to solving social issues such as reducing environmental impact across the industry in the production process can also be expected.

On the other hand, there are still challenges to launch and expand non-ICE businesses. For new businesses, we have made a wide range of investments, including those from a long-term perspective, but we regret that these investments have not led to tangible results. In light of this situation, we are considering narrowing down the investment areas of new businesses with an eye to the next Medium-term Management Plan. Specifically, we will invest in areas that are more closely compatible with our assets, such as the core competencies of the Group, including silicon nitride-related businesses, the semiconductor manufacturing equipment business, and the ICE business, as well as areas adjacent to them. At the same time, we will increase new investments in the Group's core competence areas with the aim of further expanding the scale of operations. In particular, we intend to make generous investments in the ceramics field, which is expected to grow in the future. In addition to these business investments, we will also focus on investing in human capital to support future business growth.

To strengthen the management of our business portfolio, we have established business portfolio management based on the setting of hurdle rates for each business segment in the Medium-term Management Plan, and are operating with financial discipline. If we see a business where ROIC and growth potential are declining, we consider it as a target for our structural reform business, formulate a plan including selection and focus, form partnerships with external parties, and repeat the review. For example, in the medical business, the dissolution of the capital and business alliance with Japan Medical Dynamic Marketing, INC. and the associated share transfer conducted in January 2022, and the withdrawal from the implant (artificial bone) business, as well as the business capital alliance with IMC in the machine tool business, fall into this category.

### Improved Capital Efficiency and Better Cash Allocation

In terms of improving capital efficiency, we have set a target of 13% for ROE in the Medium-term Management Plan, but in FY2023, ROE

was 13.8% due to strong performance. We recognize that our cost of shareholder equity is around 8.5% to 10%, and that ROE during the period of the Medium-term Management Plan has remained at a level of 12% or more, so we believe that we have been able to maintain a positive equity spread. In order to improve ROIC, we are working on various priority measures to improve the operating income ratio and the invested capital turnover ratio based on the ROIC tree. To improve the operating income ratio, we are working to increase our share of high-value-added products, improve equipment and labor productivity, and reduce costs in indirect departments. On the other hand, we are focusing on reducing inventories by optimizing the supply chain.

The reduction of inventories is generally progressing as planned. While we have accumulated inventories due to the emergence of global geopolitical risks, we are also advancing supply chain reforms. In order to ensure a stable supply, we are aiming to further reduce inventories by centrally managing everything from raw material procurement to sales forecasts, and working on logistics reform and supply-demand reform. Our basic approach to cash allocation is to allocate the cash generated in the ICE business to growth businesses and new businesses in order to transform our business portfolio while maintaining a certain level of financial soundness. While cash-in has progressed roughly as expected, investments have not been made sufficiently, resulting in an increase in equity ratio, and we recognize that there will continue to be issues.

On the other hand, with regard to shareholder returns, we have been working to enhance them based on dividends by considering the optimal balance between investment for future growth and financial soundness. In addition, we will consider the acquisition of treasury stock based on the appropriate capital level in the medium term. Regarding the appropriate capital level, we are aiming to maintain our current credit rating and continuously review the appropriate capital level, considering our medium- to long-term management strategy to enhance sustainable corporate value. Since the start of our Medium-term Management Plan, equity capital has gradually increased, and while financial soundness has been secured, the appropriate capital level has been slightly exceeded. For this reason, we conducted a share buyback of 10 billion yen in FY2023, and we plan to implement another 10 billion yen buyback in FY2024 as well. In principle, we intend to amortize the acquired treasury stock. In addition, in order to realize stable shareholder returns in response to the early achievement of the targets of the Medium-term Management Plan, we have newly adopted dividend on equity (DOE) as a new indicator for the dividend policy, which is less susceptible to the effects of a single fiscal year's performance.

## Financial Strategy to Enhance Corporate Value

Our PBR has remained below 1x since FY2019, but is currently at around 1.25x*. I myself do not think that this level is sufficient, and I will continue to make efforts to enhance corporate value continuously and strive to obtain an appropriate evaluation from the capital markets.

To improve PBR, we will focus on improving both ROE and PER. The key to improving ROE is the promotion of ROIC management, and we will accelerate the introduction of segment-specific ROIC and the strengthening of business portfolio management. To improve PER, we will strive to further grow our current businesses and improve the certainty of launching new businesses. We will also work to reduce capital costs by promoting dialogue with investors and strengthening governance. For example, in response to feedback that it was difficult to see the progress of business portfolio transformation, we explained the progress at last year's business briefing. In addition, this change in shareholder return policy reflects the feedback of dialogue with shareholders to management.

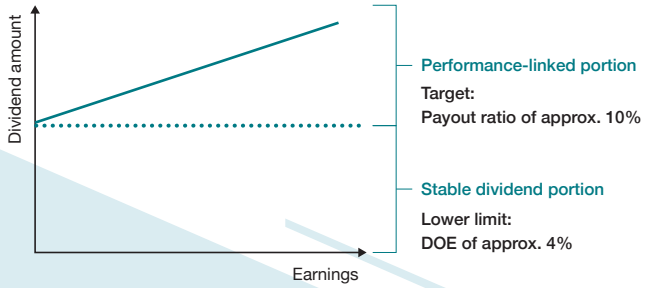


Furthermore, regarding tax policies, we consider it as a fundamental social responsibility that companies should fulfill, and we adhere to and properly pay taxes in accordance with the tax laws and regulations of each country and region as a basic principle, and have established a tax governance system for this purpose. We will continue to develop a system for further expansion of information disclosure.

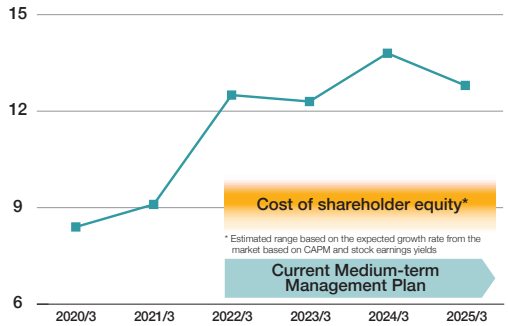
As we continue to work to deepen your understanding of Niterra, we will strive to improve capital efficiency and corporate value while receiving advice from our stakeholders, and we hope you look forward to our Group's future efforts.

* The PBR value is as of August 26, 2024.

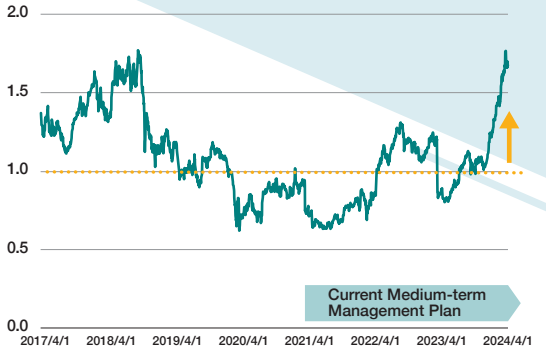
### Image after revision of shareholder return policy




### Change in return on equity (ROE)




### Change in price-to-book ratio (PBR)





## Looking Back on the Third Year of the 2025 Medium-term Management Plan

Revenue in the plug business increased 18% over the prior year due to the impact of a weaker yen against the U.S. dollar and the pass-through of inflationary costs. Information on each commercial distribution channel is as follows. Worldwide sales of products for new vehicle assembly were flat year on year, as a decrease in shipments in Europe and China was offset by an increase in Japan. However, the amount of sales increased as a result of cost pass-through. Sales of aftermarket parts recovered from the impact of the COVID-19 lockdown in China the previous year, but declined in the ASEAN region.

Sensor business revenue also increased 7% year-on-year due to an easing of the automotive semiconductor shortage, although, like the plug business, it was impacted by the economic slowdown in China.

As for the market environment in FY2023, the global total production of internal combustion engine vehicles increased. In the Chinese market in particular, local automakers, which we expect to increase their market share in the future, increased their production volumes, which rose by a substantial 16.9%. Meanwhile, the production of internal combustion engine vehicles by our major customers (automakers in Japan, the U.S. and Europe) declined.

Under these market conditions, the sales volume of our plugs remained at the previous year's level. This was due to a decrease in sales of plugs used in general-purpose machines and a decrease in automobile production by our customers. On the other hand, the sales amount increased by 9.5% year-on-year, excluding the effect of exchange rates. This was due to the pass-through of inflationary costs.

We plan to improve profitability while reducing $CO_2$ emissions and increasing our environmental contribution through an appropriate pass-through of inflationary costs and an increase in the ratio of precious metal plugs to total plugs. We also plan to integrate part numbers and strengthen our order management system to reduce inventories in preparation for the coming off-peak demand. Furthermore, we will promote smart factories, establish an efficient production and supply system, and fulfill our responsibility to supply the market as a leading plug manufacturer.

* Production volume of internal combustion engine vehicles is our estimate.

**KGI (2025 Medium-term Management Plan)**

- Operating income ratio ▶ Annual average growth rate: 1%
- Free cash flow ▶ 1.5 times (compared with the amount for FY2021/March)

**Strengths**

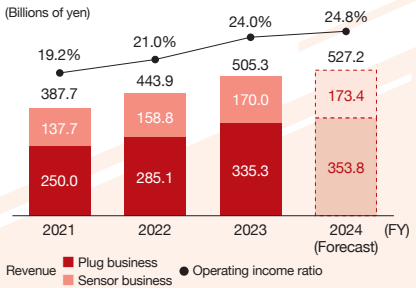
**Integrated production system from materials development to manufacturing**

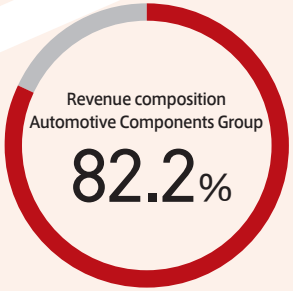
**Unique sales channels around the world**

▶ P.17

### Revenue and operating income ratio

- Revenue ▶ 505.3 billion yen
- Operating income ratio ▶ 24.0%



## External Environment

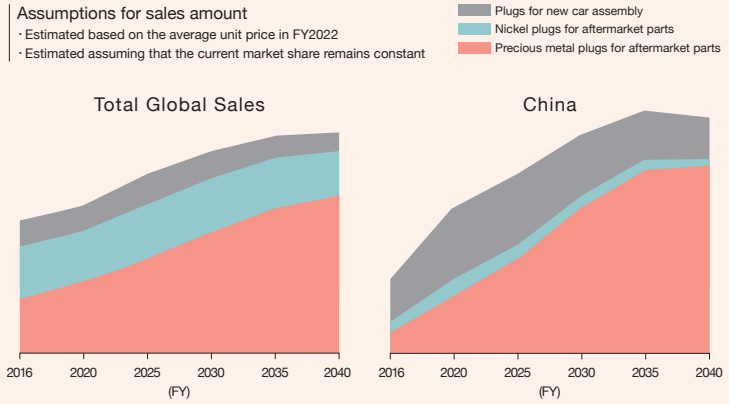
### Global trend toward decarbonization

The importance of tackling climate change has increased substantially during the past few years, and governments around the world have been moving swiftly to become decarbonized societies. The automobile industry is in the midst of a once-in-a-century period of radical transformation, with automakers developing electric vehicles (EVs) as nations move with greater speed toward electrification in order to reduce $CO_2$ emissions. In the light of this trend, our sales value forecast through FY2040 is that even in the Chinese market, where the shift to EVs is relatively advanced, demand for precious metal plugs for the aftermarket will remain at approximately the same level as last year until around 2040, although the OEM market will reach its peak growth between 2020 and 2030. We also expect that the global market as a whole will generally move in the same direction as China, although there will be some differences between fiscal years.

### Stricter environmental regulations and increasing compliance demands

Our market share of exhaust gas oxygen sensors has been increasing thanks to the growing demand in response to stricter global environmental regulations. In particular, the expansion of these regulations to include two-wheeled vehicles has dramatically increased the demand for sensors that control fuel injection for both automobiles and two-wheeled vehicles. The need for sensors that meet regulations is also increasing, and sensors that require technical skills are in demand in addition to typical oxygen sensors that have been mainstream until now. Sensors that require technical skills are more technologically advanced such as wide-range oxygen sensors capable of measuring oxygen concentration in exhaust gas more precisely as well as NOx sensors capable of measuring nitrogen oxide.

### Sales forecast through FY2040




## Vision

### Market share expansion in high-value-added products and environmental contributions

In the rapidly advancing movement toward decarbonization, the need for fuel-efficient electric vehicles such as HEVs*1 and PHEVs*2 has been increasing. Our range of spark plugs includes the regular nickel type as well as precious metal types, which are highly fuel efficient. The precious-metal spark plugs are said to offer fuel efficiency that is around 2% higher than the regular types. Precious-metal spark plugs already account for around 40% of sales, and by replacing regular nickel spark plugs with them, it would be possible to achieve a significant improvement in fuel efficiency. By selling precious-metal spark plugs, which help boost fuel efficiency, we will meet the needs of the market.

Like spark plugs, exhaust gas oxygen sensors now need to be high-value added products with a stronger environmental contribution. Compared with regular oxygen sensors, our next-generation oxygen sensors and wide-range oxygen sensors can contribute to reduced $CO_2$ emissions through more precise measurement of oxygen concentrations, and they therefore allow compliance with strict environmental regulations. Although HEVs and ZEVs*3 are expected to increase over the medium to long term, this does not mean that internal combustion engine vehicles will disappear immediately. Because it is important to reduce $CO_2$ emissions during the transitional period of electrification, we will continue to provide high-value-added products to the market and contribute to the environment.

We aim to maximize investment effectiveness by concentrating investments on high-value-added products like these spark plugs and exhaust gas oxygen sensors. We will also maximize cash generation through the expansion of our share of the market for high-profit-margin products. Finally, we will curb increases in inventory by enhancing productivity as well as identify supply chain issues such as procurement, manufacturing, logistics, and sales on a cross-organizational basis. Through these efforts, we will clarify our responsibilities and make efforts to reduce inventory.

*1 Hybrid Electric Vehicle (HEV) *2 Plug-in Hybrid Vehicle (PHV) *3 Zero Emission Vehicle (ZEV): Electric vehicles or fuel-cell vehicles that have zero emissions

## Outlook for FY2024

Revenue from the plug business is expected to increase compared to FY2023. With the ongoing shift from ICE (internal combustion engine) vehicles to EV vehicles, spark plugs for new vehicle assembly are expected to decrease in volume, but increase in value as raw material price increases are passed through to selling prices. On the other hand, sales of spark plugs for aftermarket parts are projected to grow year-on-year due to increased volume in nearly all regions, expansion of high-value-added products with high unit prices, and the pass-through of raw material price increases and inflation, similar to the trends observed in the sales of spark plugs for new vehicle assembly.

Revenue from the sensor business is expected to increase slightly from FY2023. The sensor business is susceptible to the impact of the shift to EVs, as most sensors are used for new vehicle assembly, and its sales increase is smaller than that of the plug business. However, the decrease in sales of automotive oxygen sensors and other sensors is expected to be offset by an increase in sales of motorcycle sensors due to the stricter regulations in India and NOx sensors for which customers adjusted their inventories in the previous year.

## Consideration of Growth Investments in the Automotive Sector

In FY2023, we concluded a memorandum of understanding with DENSO CORPORATION (hereinafter referred to as DENSO) to begin discussions and considerations regarding the acquisition of its spark plug business and business related to exhaust gas oxygen sensors.

We have responded to customer needs by developing technologies that support stable supply and improved energy efficiency in our core business of internal combustion engine products. Against this backdrop, the automotive industry is undergoing a period of transformation, with electrification and fuel diversification on the path to carbon neutrality. During this process, various power sources and related technologies are sought in accordance with the energy situation and the existing vehicles in each region and country. Therefore, we foresee a continued demand for internal combustion engines. As the industry as a whole must respond to the short-, medium-, and long-term needs, we should consider how we can fulfill our responsibility to supply the world with internal combustion engine products by leveraging our core technologies in the development and manufacturing of ceramics. That is why we have reached a basic agreement to start discussions and considerations for the acquisition.

This business acquisition will optimize the production system for our internal combustion products to ensure their stable supply and create economies of scale. We hope this will contribute to social issues such as reducing the environmental impact of the production process in the industry as a whole. In addition, we believe that achieving sustainable growth based on a stronger automotive component business and reinvigorating our efforts for the future will drive the business portfolio transformation outlined in our Long-term Management Plan.

**<Long-term spark plug sales volume forecast>**

According to our long-term forecast for spark plug sales volume, our Group's own sales volume, excluding DENSO, will peak around 2035-2036, followed by a gradual decline.

In contrast, if we acquire some of DENSO's businesses, we believe that we will be able to maintain to some extent the volume indicated by the dark red bars in the upper right graph. However, the exact figures are not yet clear as we are still in the process of conducting due diligence.

**<Long-term exhaust gas oxygen sensor sales volume forecast>**

According to our long-term forecast for the sales volume of exhaust gas oxygen sensors, our Group's own sales volume, excluding DENSO, will peak in a few years and then gradually decline as the main market is new vehicle assembly.

In contrast, we believe that acquiring a portion of DENSO's business will allow us to transfer its strength in new car assembly to our declining business. This will help us maintain a relatively stable sales volume.

**Image of long-term spark plug sales volume forecast (our estimate)**

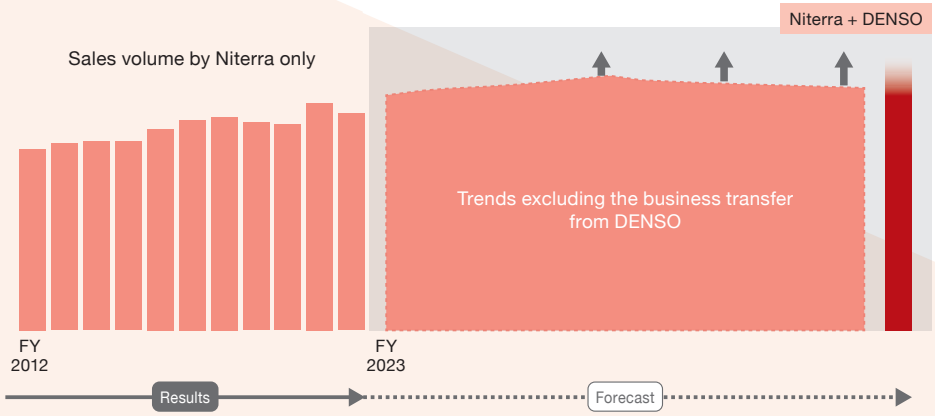
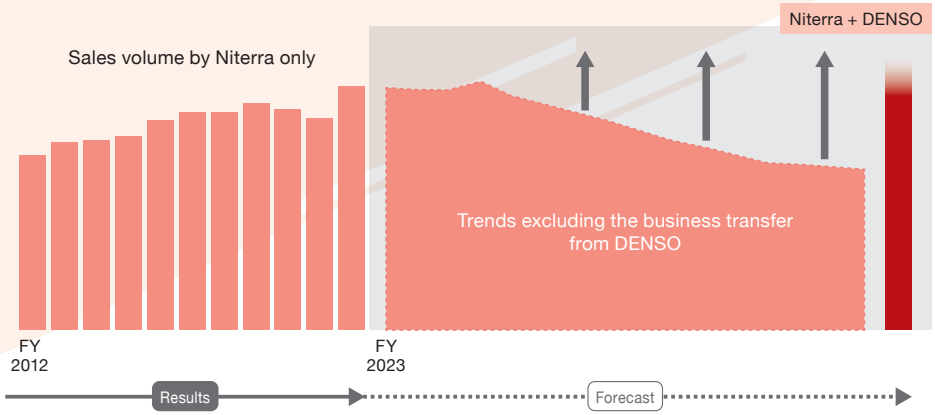
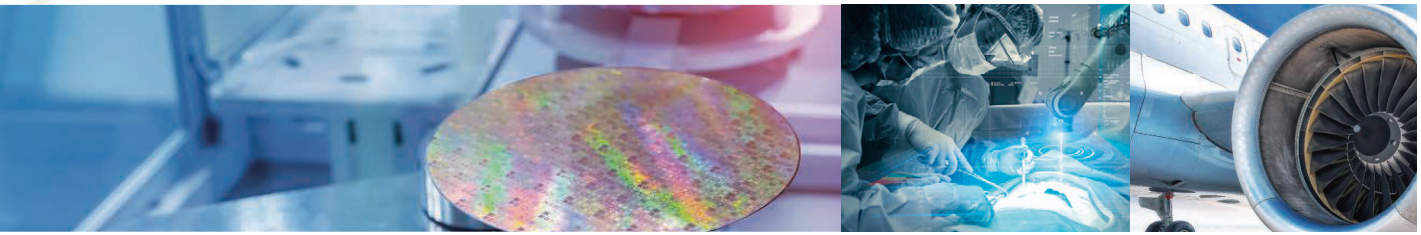



**Image of long-term exhaust gas oxygen sensor sales volume forecast (our estimate)**





## Looking Back on the Third Year of the New Medium-term Management Plan

### SPE

In the semiconductor production equipment market, demand for laminated electrostatic chucks remained sluggish due to memory inventory adjustments and a postponement of new capital investments. Demand for bulk ceramics and heaters increased, but sales growth was sluggish due to process conversion losses caused by changes in the product number mix and delays in production capacity expansions. Consequently, both revenue and operating income decreased from the previous fiscal year. We will strengthen promotional activities for newly developed products, which continue to be in high demand. We will also secure new demand and prepare for further business expansion.

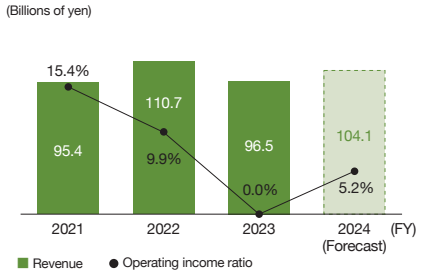
### Medical

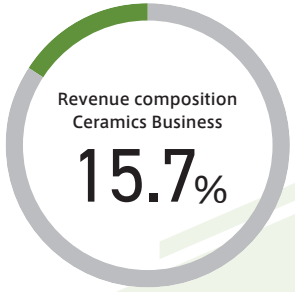
While the special demand caused by COVID-19 had subsided and customers' excess distribution inventories had not been fully cleared, direct sales of portable oxygen concentrators to patients in North America and high flow stationary oxygen concentrators to rental operators were strong. As a result, revenue from the oxygen concentrator business increased slightly compared to the previous fiscal year. In addition, MGC Diagnostics, which we acquired in December 2022, contributed to our consolidated results throughout the year. This resulted in a significant increase in overall sales revenue of the medical business from the previous year. On the other hand, operating income decreased slightly compared to the previous year due to a deteriorating cost ratio caused by higher prices for purchased parts and increased expenses.

**Revenue and operating income ratio**

Revenue ▶ 96.5 billion yen

Operating income ratio ▶ 0.0%




## SPE

**KGI (2025 Medium-term Management Plan)**

Revenue ▶ 35.0 billion yen

ROIC ▶ 17%

**Strengths**

Ceramic material technology that can withstand high power plasma

Ceramic sheet lamination technology that contributes to surface temperature homogenization, low particles, and wide-ranging surface temperatures

**Group Companies**

NTK CERATEC

## Medical

**KGI (2025 Medium-term Management Plan)**

Revenue ▶ 30.0 billion yen

Operating income ratio ▶ 13%

**Strengths**

Product lineup including portable and stationary oxygen concentrators and cardiopulmonary diagnostic equipment

Worldwide sales channels for rental operators and hospitals

**Group Companies**

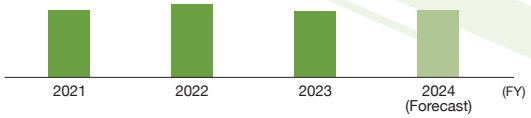
NTK Medical, CAIRE, etc.

## External Environment

### SPE

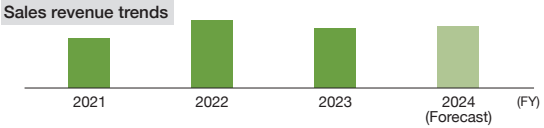
The semiconductor manufacturing equipment market continues to be sluggish due to inventory adjustments in the memory market and postponement of capital equipment investment since the second half of FY2022. Uncertainty also remains due to Russian-Ukrainian and Palestinian issues, which have caused energy prices to spike and supply chains to be disrupted. Although the impact of a sluggish semiconductor market will continue through FY2024, the market is expected to recover starting in the second half of the fiscal year. The market will continue to expand with the development of finer and higher-layer silicon wafers, driven in part by the expanded use of generative AI, progress in digital transformation, and decarbonization efforts.

**Outlook for semiconductor production equipment market**




Source: External research organizations (December 2023)

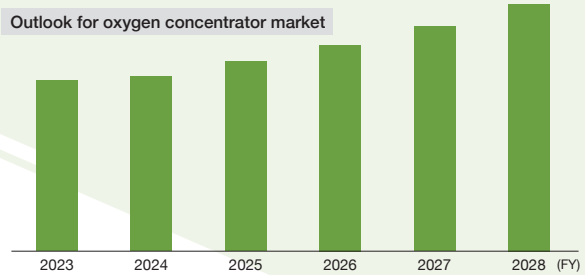
**Sales revenue trends**




### Medical

The global market for oxygen treatment is expected to continue to expand as the population ages and the number of COPD* sufferers increases, such that the projected size of the market in 2025 is 200 billion yen. In regional terms, the North American market is currently the biggest, and the number of patients is expected to continue rising, and we believe that demand for portable oxygen concentrators, in particular, will rise. Meanwhile, in the Chinese market, an increase in the number of people with COPD is expected to lead to higher demand for stationary oxygen concentrators, and the market is forecast to grow at a faster rate than the U.S. Market.

**Outlook for oxygen concentrator market**




Source: Our estimation based on service data from an external research organization (February 2024)

## Vision

### SPE

This policy will contribute to meeting the growing demand for etching devices in both the memory and logic markets by providing ceramic material technology that can withstand high-power plasma. We will additionally contribute with our technologies for surface temperatures homogenization, low particle counts, and wide-ranging surface temperatures, all of which are based on our strength technology in ceramic sheet stacking technology. In this way, we aim to achieve an annual sales growth rate of 12% by differentiating ourselves with our technologies that meet customer needs. We additionally aim to increase labor productivity by 30% compared to FY2021 by establishing a production system that is resistant to market fluctuations through optimizing inventories and improving facility operation rates.

### Medical

Our respiratory equipment business has been focused on oxygen concentrators for rental operators and patients. However, the acquisition of MGC Diagnostics by our Group company CAIRE in December 2022 brought us a product line of diagnostic equipment for cardiopulmonary function and a sales channel to medical institutions. Going forward, we will aim to provide comprehensive solutions for respiratory patients, such as those with COPD and asthma. Additionally, we will aim for further growth of our business through the development of products that meet the needs of each region as well as the expansions of our product lineup.

## Outlook for FY2024

### SPE

The market remains sluggish in FY2024, particularly with regard to memory semiconductor production equipment. We expect the market to fully recover in the second half of the year or later. However, we expect revenue to increase slightly as bulk ceramic products offset the negative impact of electrostatic chucks. We handle both stacked electrostatic chucks, which are our strength in technologically advanced products, and bulk ceramics, which are applied to conventional products. On the other hand, a decrease in sales of electrostatic chucks, which are high-end products, and an increase in bulk ceramic products will lead to a deterioration of the product mix. The profit contribution from increased sales will be limited. As a result, operating income is expected to remain at the previous year's level.

### Medical

Revenue is expected to increase significantly in FY2024. This will be driven by expanding sales of portable oxygen concentrators to rental operators and directly to patients, as the demand is now recovering. Other factors include the expansion of sales of MGC Diagnostics' cardiopulmonary function diagnostic equipment and the launch of new products. Operating income is also expected to increase compared to the previous year due to increased sales of oxygen concentrators and cardiopulmonary diagnostic equipment, a better product mix, product cost improvements and expense reductions.

* COPD (Chronic Obstructive Pulmonary Disease) is a disease in which the lungs lose function mainly due to smoking. Oxygen inhalation is necessary because the blood may become deficient in oxygen.



## External Environment

### SOFC (Initiatives of MORIMURA SOFC TECHNOLOGY)

As social demand for a decarbonized society strengthens, we expect the wide-spread use of fuel cells as highly efficient generators and cogeneration systems to significantly reduce $CO_2$, regulate power sources for renewable electricity, and improve resilience in the event of disasters. Expectations are growing for the introduction of fuel cell into various markets, such as factories aiming to recycle carbon, in addition to their traditional uses in business areas such as households, housing complexes, nursing homes, and commercial facilities.

### Silicon nitride ceramic bearing balls

To improve energy efficiency and reduce charging time for electric vehicles (EVs), the use of higher voltages (up to 800V) for electric drive systems has been considered. However, the challenge is electrical corrosion of bearings due to high voltages. Against this backdrop, silicon nitride ceramic balls are attracting attention from European and Chinese automakers as an electrical insulation material that is durable, highly reliable, and relatively easy to replace. In addition to EV applications, the material's excellent insulation, corrosion resistance, light weight, and durability make it a promising material for a wide range of applications, such as renewable energy, medical, aerospace, and industrial machinery. Its demand is growing.

## Vision

### SOFC (Initiatives of MORIMURA SOFC TECHNOLOGY)

We promote the development of a fuel cell stack with a flat plate structure that can recycle fuel. This flat plate structure is extremely efficient, compact, low-cost, and has superior sealing performance. As such, it is expected to be used in hydrogen production (SOEC) and other applications. We will develop competitive next-generation SOFC cell stacks, enter the fuel cell markets for household and business use, expand our business, contribute to achieving a decarbonized society, and aim to establish ourselves as a flat plate fuel cell stack manufacturer.

### Silicon nitride ceramic bearing balls

In response to the growing demand for silicon nitride ceramic balls, we aim to establish a supply chain that can consistently meet the expected quality and quantity. Our technology development and mass production of silicon nitride ceramic balls will expand the range of applications and models that use them. This will allow us to help reduce energy loss and heat generation in more situations. We also want to minimize our impact on the environment by reducing the use of lubricants. This way, we will contribute to society by providing the market with environmentally friendly products that help reduce global warming and waste.

**SOFC**

**Strengths**

Fuel diversity and high-efficiency power generation stacks that contribute to a decarbonized society

Compact design for expanded use

**Affiliated Companies**

MORIMURA SOFC

**Silicon nitride ceramic bearing ball**

**Strengths**

Development capabilities, processing technology and mass production technology for ceramics

Production system that ensures stable supply in both quality and quantity

**Affiliated Companies**

NANSEI CERAMIC CO., LTD.

MORIMURA SOFC TECHNOLOGY Co., Ltd., is a joint venture company consisting of Noritake Co., Limited, TOTO Ltd., NGK Insulators Ltd., Morimura Bros Inc., and Niterra Co., Ltd.

## Outlook for FY2024

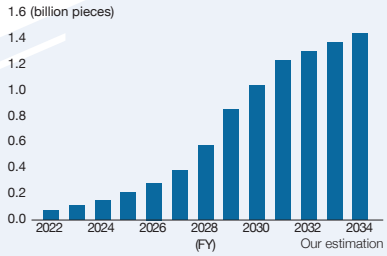
### SOFC (Initiatives of MORIMURA SOFC TECHNOLOGY)

Until FY2023, we had been working to establish our position as a manufacturer of flat fuel cell stacks, by developing stacks that are smaller, lighter, and more efficient than those of our competitors. We worked to apply them to high-efficiency distributed power sources and to promote them for new decarbonization applications. In FY2024, commercial and industrial SOFC systems equipped with our stacks are expected to be launched sequentially. Hereafter, we will further improve productivity and strengthen our production system, as well as reinforce and advance collaboration with electronics manufacturers and others to win more orders.

### Silicon nitride ceramic bearing balls

Demand for silicon nitride ceramic balls is expected to increase slightly in FY2024 compared to FY2023, as the outlook for the EV market has changed from rapid to moderate growth and the machine tool market is also declining. However, companies in the ceramic bearing industry, including raw material manufacturers, are working to increase production capacity in preparation for the recovery of the machine tool market and the re-expansion of the EV market. We plan to double our production capacity to keep pace with this trend. In addition to production capacity, we will build a production system that can provide products with excellent quality stability to the market in a timely manner.

**Ceramic balls market size forecast**



# Our Approach to Intellectual Property



We appropriately create, protect, manage, and utilize intellectual property in close coordination with related departments, internal companies, and Group companies, under our policy to honor intellectual property including patents, designs, trademarks, copyrights, and trade secrets.

**Action Guidelines**

- Create intellectual property, aiming to further improve our corporate value.
- Honor intellectual property rights of third parties.
- Comply with laws and regulations regarding intellectual property in individual countries.

## Intellectual Property Activities According to the Management Strategy Outlined in the 2030 Long-term Management Plan "NITTOKU BX"

One of the major strategic pillars of our Long-term Management Plan is the transformation of our business portfolio. We are promoting various measures for the tasks, positioning intellectual property activities as an important element in this management strategy.

(1) Create and maintain intellectual property to protect technologies and inventions from development to mass production.

(2) Contribute to speeding up business creation through the provision of intellectual property information (survey and analysis results).

(3) Implement hierarchical and purpose-based in-house educational activities regarding intellectual property.

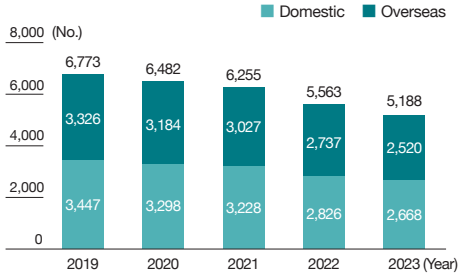
(4) Detect and eliminate counterfeit goods in coordination with customs offices and government agencies around the world to protect our brands.

(5) Develop and operate intellectual property regulations and management rules which comply with laws and regulations of individual countries.

(6) Lay the groundwork for the promotion of efficient intellectual property activities.

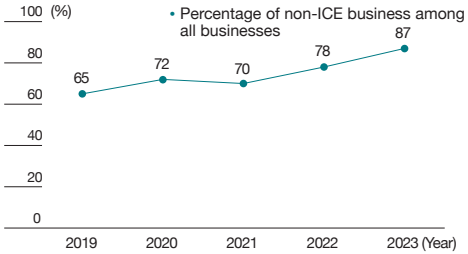
(7) Hold intellectual property meetings to discuss and formulate intellectual property activities with a sense of speed tailored to the stage of achieving business strategies and development themes (twice a year).

### Number of patents held




The reason for the decline over the past five years is that we carefully examined our patent rights in accordance with changes in the business environment.

### Percentage of new inventors in non-ICE business among all new inventors




The proportion of new inventors in the non-ICE business is increasing year by year compared to the ICE business.

* Calculated as 100% of the total number of new inventors in the ICE business and the number of new inventors in the non-ICE business.

## Intellectual Property Activities by Business Field

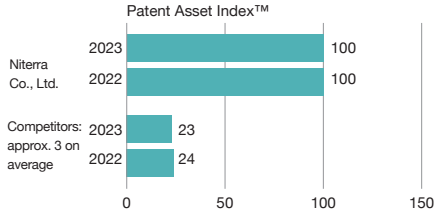
### ICE business

In the ICE business, which are the pillars of our earnings, we aim to secure a competitive advantage through IP mix activities that protect our technologies and know-how in multiple aspects, and continue to contribute to maximizing profitability.

**Examples of intellectual property mix activities**

- **Defense with a superiority patent portfolio**
- **Brand protection by detecting and eliminating counterfeit products**
- **Defense through know-how secrecy**

**Patent asset index (PAI) for spark plugs**
**(Comparison with competitors when our company is set at 100)**




The PAI value related to spark plugs shows no change in trend for FY2023, and we continue to maintain our superiority.

*Prepared by our company LexisNexis PatentSight.
We evaluate these figures using the Patent Asset Index of LexisNexis PatentSight.
This index comprehensively takes into account the technology perspective, market perspective, and number of patent applications and rights with valid legal status (pending applications and patents that have been granted).

### Non-ICE business

Using the results of the analysis using intellectual property information for a part of the non-ICE business, we are working together with the development department to create intellectual property that will strengthen business competitiveness.

**<Example of Activities>**

**Step 1**: Organize the Company's intellectual property that is the source of competitive advantage, and analyze the trends and expected competitors in related business areas using patent analysis (utilizing IP landscape).

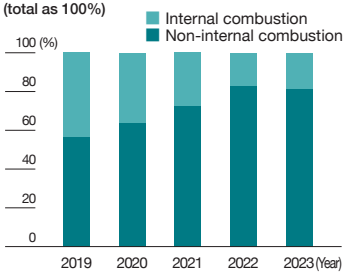
**Step 2**: Consider what the future should look like at the time of business realization (e.g. patent portfolio).

**Step 3**: Formulate and implement an IP strategy for realizing the vision of the future (application and entitlement).

**Step 4**: Look back at implementation details.

We are repeatedly carrying out the steps above with a sense of speed, in order to increase the ratio of patent applications and obtain rights for our non-ICE business.

**Patent publication rate by business in Japan (total as 100%)**




The ratio of patent publications related to the non-ICE business has been increasing year by year since 2019, and has been approximately 80% in recent years.

# 03 Foundation for Value Creation

This section describes our sustainability, priority issues, environment, human capital management and corporate governance, which form the basis for the value co-creation that supports our growth strategy.

## Message from the Sustainability Officer



### Balancing social value and economic value in our business activities

**Toru Matsui,** Representative Director, Member of the Board, Executive Vice President

#### Our Commitment to Sustainability Embodied in "Niterra"

As a Group, we have managed our business around the concept of sustainability. As our corporate philosophy states, we are committed to creating new value for people around the world by leveraging our best technologies and accumulated experience. Therefore, we always seek to create products and services that help solve social issues.

In April 2023, we changed our English trade name to Niterra Co., Ltd. "Niterra" is a combination of the Latin words "niteo" meaning "shine" and "terra" meaning "earth." This expresses the Group's desire and stance to become a company that not only contributes to a sustainable society but also brightens the Earth. It is directly related to sustainability. As the Niterra Group, we will further refine our technologies and ideas to create a competitive advantage as a manufacturing company and contribute to the realization of a more prosperous society.

#### Toward Evolution of Sustainability Management

In advancing sustainability management, we face the challenge of balancing the value we provide to society with the economic benefits we gain. What contributes to society and positively impacts our business in the long term can negatively impact our bottom line in the short term. To overcome such dilemmas, we are working to create a framework that uses a method to quantify the non-financial impacts of our various actions. Through this method, we will achieve compatibility between the value we provide to society and the economic benefits we gain. First, we will reflect some cases of the implementation of the method on the climate change measures of the next Medium-term Management Plan. Then we will apply the method to areas other than the global environment, so that all of our Group's business activities will be underpinned by sustainability.

#### Accelerate Initiatives to Combat Climate Change

With the goal of achieving carbon neutrality by 2050, we have set quantitative targets for the key themes of our Eco Vision 2030: responding to climate change, expanding environmentally friendly products, conserving water resources and managing waste. As for responding to climate change, each of the major business companies has created and is pursuing its own roadmap. We are on a solid path toward our goal of reducing $CO_2$ emissions by 30% by 2030 compared to FY2018. However, as the global requirement for climate action has increased from the previous 2°C target to the 1.5°C target, we

# Message from the Sustainability Officer





recognize the need to further strengthen our efforts by introducing new technologies such as ammonia co-firing and hydrogen co-firing, and by pursuing production processes that are not dependent on fossil fuels.

As a Group, we hope to develop new businesses by combining various technologies through open innovation while leveraging our core technologies. In FY2023, we applied our accumulated fuel cell technologies to develop a reversible SOC*1 system that can generate hydrogen from electricity and electricity from hydrogen and air in a single unit. This technology stores excess electricity as hydrogen for use on demand, helping to make efficient use of renewable energy. We also launched the desiccant air conditioner business for supermarkets and drugstores. This air conditioner controls indoor ventilation and humidity to achieve both energy savings and a comfortable indoor environment. In addition, we are promoting the "Regional CCU™"*2 project to create a circular economy with local communities by utilizing our $CO_2$ capture technology, in which we are conducting a demonstration project to capture and transport $CO_2$ emitted from the plant and reuse it to grow mandarin oranges in greenhouses.

While developing new technologies and products, we are also working to reduce $CO_2$ emissions from existing manufacturing operations. For example, we are studying the use of hydrogen combustion for ceramic firing furnaces. We will pursue production processes that utilize clean energy.

## Improve Sustainability Around Human Capital

We view our employees as our greatest management resource (human capital) and devote our energy to their development in order to maximize their value. In order to transform our business portfolio, which is a key management priority, we are making significant investments in the transformation of our human capital portfolio.

We are also working to diversify our human resources to enhance our competitiveness as a global company. For example, Niterra Ventures Company, our new business creation unit, actively promotes people with a global perspective to leadership positions. Diversity is a driver of innovation because it brings together a variety of ideas. In order to achieve this vision, it is essential that we first break down cultural and linguistic barriers.

In terms of employee engagement, overall satisfaction improved from the previous year. I think this is the result of employees becoming more aware of the changes the Company is going through. On the other hand, I understand that they want management to share more information. We will address that in due course.

As a Group, we are also committed to improving sustainability in all aspects of our management, with human capital at the core of our activities. As we expand our business globally, one of the challenges we face is human rights.

We continue to strengthen our human rights initiatives within the supply chain while simultaneously expanding our supplier network. We conduct regular surveys and engage in communication activities to promote understanding of the ideas and actions we are pursuing. We will continue to promote human rights due diligence while keeping an eye on social conditions.

## To Grow Sustainably as a Company that Brightens the Earth

It is necessary for us to have a clear understanding of our Group's impact on the external environment. In September 2023, we registered as an early adopter of the Taskforce on Nature-related Financial Disclosures (TNFD) to advance activities related to the growing global need for biodiversity conservation. We will evaluate the impact of our business activities on the natural environment and the risks associated with loss of nature, and disclose relevant information.

I believe that sustainability management entails fostering a corporate culture where not only management, but also all employees, are aware of sustainability and the resolution of social issues at all times in the course of their work. Our goal is to become a company where everyone naturally says to each other, "Is the business we are doing now worthy of the Niterra name? Will it brighten the future of the Earth?" To achieve this, first, executive leaders must take the initiative. For example, in preparation for the next Medium-term Management Plan, corporate officers, including younger members, discuss the simulation of social and financial impacts to further raise awareness of this issue.

While clearly communicating the Group's sustainability philosophy and initiatives to our stakeholders, we will challenge ourselves to achieve growth that balances social and economic value. We look forward to your expectation and support for the positive impact that our Group will have in the future.

*1 SOC: Solid Oxide Cell
*2 CCU: Carbon dioxide Capture Utilization

## CSR and Sustainability Charter
## CSR Basic Policy

We are committed to delivering new value to people all over the world and contributing to society, as expressed in our corporate philosophy. This commitment is associated with our concept of sustainability, which is to help solve social issues through business activities.

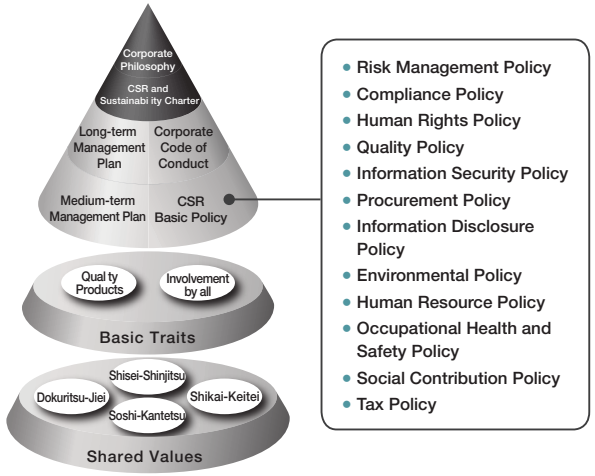
We established the CSR and Sustainability Charter and the CSR Basic Policies (12 in total), which dictate Group action guidelines for CSR, to present our concept more clearly, communicate it widely both internally and externally, and promote CSR and sustainability. ▶ P.2

## Promotion System

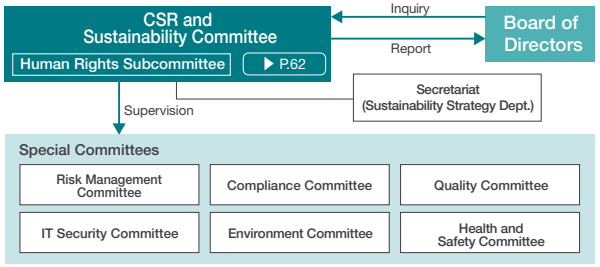
In our Group, each division responsible for each policy leads and drives activities in its respective ESG area to implement its respective policy, based on the CSR Basic Policy set forth in the Nittoku Way, the Group's philosophy system. If necessary, we establish special committees to strengthen the promotion. We have also established a CSR and Sustainability Committee to monitor and overseas these activities.

The CSR and Sustainability Committee (which holds regular meetings four times a year and extraordinary meetings as necessary) is chaired by an outside director and has two functions: to report and make proposals in response to consultations on sustainability from the Board of Directors, taking into account external perspectives; and to supervise each special committee. They invite outside experts as guests to the Board to broaden knowledge and perspectives during consultations from the Board of Directors meetings. They additionally hold multifaceted discussions to encourage sustainability management in the long term and make reports and proposals to the Board. Each special committee monitors the effective execution of its respective specialized operations, and the CSR and Sustainability Committee oversees them. Special committees share important information with the CSR and Sustainability Committee, such as the status of $CO_2$ emission reduction and risk assessment. Regarding human rights themes, we have established a subcommittee to promote them. In order to realize an ideal approach to sustainability management based on the Medium-term Management Plan, the CSR and Sustainability Committee met 10 times in FY2023 and discussed the incorporation of sustainability elements into the next Medium-term Management Plan, the promotion system for respecting human rights, and the revision of the CSR Basic Policy.

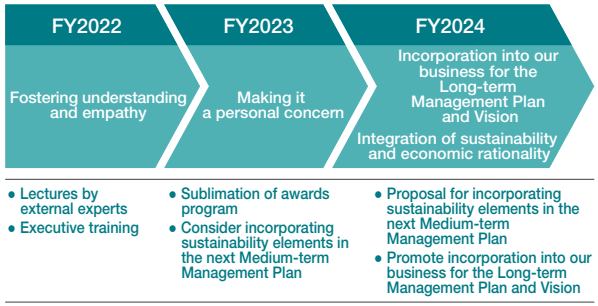
### The Nittoku Way




### CSR and sustainability promotion system




### CSR and Sustainability Committee Medium-term Management Plan




## Message from the Chair of the CSR and Sustainability Committee



**Chiharu Takakura,**
Outside Director, Chair of the CSR and Sustainabil ty Committee

### Recognizing External Environments

How we, as a company, perceive and address various issues facing society and the planet, such as climate change, biodiversity and human rights, has become increasingly important. In this era of uncertainty, non-financial information is gaining significance alongside financial information. We recognize the need to integrate a sustainability perspective into our business development. So, we hope to enhance the sustainability of society and our Group by working to solve social issues through our Group business operations.

### Mission and Vision of the CSR and Sustainability Committee

In this Committee, we take sustainability management into account and fully discuss how we can help resolve social challenges based on our core competence and management philosophy. The CSR and Sustainability Committee aims to achieve its mission and vision through reporting and making proposals to the Board of Directors.

**Mission**
Shift Niterra Group Sustainability Management to future-oriented resolutions by improving corporate value through the coexistence of society and our Group beyond the current framework toward a sustainable society.

**Vision**
Our pursuit of creating a sustainable coexistence between human happiness, the earth and the universe with our accumulated experience and technology has gained the understanding and sympathy of society.

### CSR and Sustainability Committee

The members deepened various discussions on how to achieve the FY2023 target of raising the sense of ownership and how to conduct business from a sustainability perspective. Consequently, the scope of our activities has expanded to include the study of visualization of non-financial information, multifaceted discussions by young executives on the Company's priority issues (materiality), and the brushing up of the internal awards system. In addition, we hosted study sessions with guest experts for Board members to raise awareness of wellbeing among Board members and managers, and confirmed the effectiveness of each special committee. In FY2024, we would like to further discuss the review of priority issues (materiality) with a view to the next Medium-term Management Plan and identify appropriate items. We also plan to focus on new global trend issues such as biodiversity, in addition to human capital management, in order to achieve sustainability management in the medium to long term. Furthermore, we would like to help revamp the internal awards system and continuously improve board and employee engagement by promoting sustainability-related activities.

# Review of Priority Issues (Materiality) Activities



We have identified eight priority issues (materiality) to be addressed in order to realize a sustainable society.
For these priority issues, we have defined major initiatives, targets, and outputs, and are carrying out activities from a medium- to long-term perspective. For FY2023, we have made progress as follows. We will continue to address these issues and contribute to the realization of a sustainable society.

## Environment — Responding to climate change

▶ P.47

| | | | |
|---|---|---|---|
| Major Initiatives | Reduction of $CO_2$ emissions | Goals and Outputs | $CO_2$ emissions: 30% reduction from the FY2018 level by FY2030 |
| Progress in FY2023 | Reduced by 31.7% (191K tons) | | |
| Initiatives in FY2023 | • Formulate a roadmap for 2030<br>• Start operation of photovoltaic power generation facilities installed at the Komaki Plant, Nittoku Spark Tec WKS Nino Plant, and NTK CERATEC Headquarters Factory<br>• Establish energy-saving standards for air conditioning, production equipment, air system and lighting (15 items in total) and start operation<br>• Establish a dedicated website on our intranet to address climate change, and start providing information to employees | | |
| Recognition of Issues in FY2024 and Beyond | • Revision of target values to suit the 1.5°C target<br>• Promotion of $CO_2$ reduction activities at overseas Group companies | | |

## Environment — Providing environmentally friendly products

| | | | |
|---|---|---|---|
| Major Initiatives | Dissemination and expansion of environmentally friendly products | Goals and Outputs | (1) Sales ratio of precious metal plugs: at least 50%<br>(2) Sales ratio of wide range oxygen sensors: at least 50% |
| Progress in FY2023 | 1) 47% 2) 40% | | |
| Initiatives in FY2023 | • The shortage of semiconductors for automobiles has been resolved, and sales of four-wheeled vehicles with a high installation rate of precious metal plugs have recovered, leading to an increase in the sales ratio of precious metal plugs<br>• In the market for China, where the ratio of wide-range oxygen sensors is high, sales ratio growth was lower than expected due to the acceleration of the conversion to electric vehicles<br>• To include LCA calculation in the certification system for environmentally friendly products, the certification was suspended in FY2023, but it is scheduled to be resumed in FY2024 | | |
| Recognition of Issues in FY2024 and Beyond | Assessment of the market environment, including trends in EVs and competing products | | |

## Society — Developing technologies, products, and businesses for contributing to the resolution of social issues (1)

| | | | |
|---|---|---|---|
| Major Initiatives | Development of fuel cells | Goals and Outputs | Disseminating high-efficiency distributed power supply systems with an eye on the use of $CO_2$-free hydrogen fuel |
| Progress in FY2023 | Delayed completion of mass production launch and additional production of SOFC cell stacks | | |
| Initiatives in FY2023 | Although sales expansion of existing system manufacturers has slowed down, efforts are being made to realize the listing of other system manufacturers and propose new applications (fuel diversity, etc.) | | |
| Recognition of Issues in FY2024 and Beyond | • Slowing expansion of the commercial and industrial market<br>• Proactive proposals for new system manufacturer candidates and new applications (fuel diversity, etc.) | | |

## Society — Developing technologies, products, and businesses for contributing to the resolution of social issues (2)

| | | | |
|---|---|---|---|
| Major Initiatives | Development of applications for lead-free piezoelectric materials | Goals and Outputs | Promoting substitution for lead-based piezoelectric materials |
| Progress in FY2023 | Finalization of mass production specifications for some products toward the application of lead-free piezoelectric materials | | |
| Initiatives in FY2023 | Continuously proposing to customers alternatives from lead-based piezoelectric materials to lead-free piezoelectric materials in anticipation of future regulations | | |
| Recognition of Issues in FY2024 and Beyond | Identification of regulatory trends for leaded materials | | |

## Society — Developing technologies, products, and businesses for contributing to the resolution of social issues (3)

| | | | |
|---|---|---|---|
| Major Initiatives | Development of sensing IoT business | Goals and Outputs | Improving operational efficiency through automation, optimization and generalization |
| Progress in FY2023 | Development of aquaculture systems (water quality management systems, water tanks, filtration tanks, etc.) for land-based shrimp farming is underway | | |
| Initiatives in FY2023 | • Achievement of the target stocking density and yield in land-based shrimp aquaculture in FY2023<br>• Ongoing development of the Niterra aquaculture system | | |
| Recognition of Issues in FY2024 and Beyond | Cost reduction of the Niterra aquaculture system as a whole | | |

## Society — Developing technologies, products, and businesses for contributing to the resolution of social issues (4)

▶ P.44

| | | | |
|---|---|---|---|
| Major Initiatives | Carbon Neutrality as a service | Goals and Outputs | Establishing and introducing a synthetic fuel (methane) production system |
| Progress in FY2023 | Establishing a system to collect, transport, and use $CO_2$ and demonstrate the collection and recycling of $CO_2$ during regional demonstration | | |
| Initiatives in FY2023 | Recycling $CO_2$ emitted from gas boilers to promote the growth of mandarin oranges during regional demonstration | | |
| Recognition of Issues in FY2024 and Beyond | • Reduction of the amount of electricity used to recover $CO_2$ and expansion of the number of $CO_2$ utilization sites during regional demonstration<br>• Launching of the demo methanation device | | |

*Carbon Neutral as a service is our vision of a decarbonized circular society and solution services.
For more information, please visit our website:
https://ngkntk.disclosure.site/en/themes/174/
https://www.ngkntk.co.jp/english/business/innovation/new_business/ccu/

*Goals and Outputs are set for the last fiscal year of the Long-term Management Plan, unless a different fiscal year is indicated in the table.

# Review of Priority Issues (Materiality) Activities

## Society: Global human resource management

▶ P.52

| | | | |
|---|---|---|---|
| Major Initiatives | 1) Promotion of employment of women, foreign nationals, and mid-career employees<br>2) Examination of a New Personnel System | Goals and Outputs | 1) Percentage of female, foreign nationals, and mid-career employees in managerial posts: 25%<br>2) Improve the results of employee satisfaction surveys |
| Progress in FY2023 | 1) 24.9% (an increase of 5.0 points year on year)<br>2) 3.46 (an increase of 0.13 points year on year) | | |
| Initiatives in FY2023 | 1) ● We continued to implement the Raise UP Program (selective training for female manager promotion). Effective in improving the mindset of female employees and increasing the proportion of female managers<br>● Holding DE&I lectures to foster a culture that accepts diversity<br>● Implementing immediate mid-career employment<br>2) ● Starting from FY2023, in addition to measuring employee satisfaction, engagement has also been assessed<br>● We held a workshop for department managers to share initiatives, discuss specific actions of each department, and cultivate a mindset of connection, or "symbiosis," with other departments | | |
| Recognition of Issues in FY2024 and Beyond | 1) Providing education programs for managers<br>2) Resolving issues in each department identified based on the gap between expectations and satisfaction | | |

## Governance: Corporate governance

▶ P.61

| | | | |
|---|---|---|---|
| Major Initiatives | 1) Increasing the ratio of female and foreign nationals as to directors<br>2) Increasing the ratio of outside directors | Goals and Outputs | 1) Percentage of female and foreign nationals as directors: at least 30%<br>2) Percentage of outside directors: at least one-third |
| Progress in FY2023 | 1) 45% (5 out of 11 directors) (as of the end of FY2023)<br>2) 64% (7 out of 11 directors) (as of the end of FY2023) | | |
| Initiatives in FY2023 | Already achieved | | |
| Recognition of Issues in FY2024 and Beyond | - | | |

## Governance: Risk management

▶ P.74

| | | | |
|---|---|---|---|
| Major Initiatives | Management of serious incidents signs and prevention of their occurrence | Goals and Outputs | Establishing a risk management system that contributes to management decision making |
| Progress in FY2023 | ● Promoting measures for priority risks<br>● Updating risk maps and periodically reviewing priority risks<br>● Selecting global priority risks and formulating response policies | | |
| Initiatives in FY2023 | ● Monitoring the status of countermeasures for priority risks by the department in charge of risk management, and promoting risk reduction activities<br>● We created a global risk map after conducting risk assessments at overseas Group companies and analyzing and assessing risks. Selecting global priority risk, determining policies for responding to each priority risk in consultation with the office risk management department at the headquarters | | |
| Recognition of Issues in FY2024 and Beyond | ● Supporting response to and monitoring of global priority risks<br>● Improving the accuracy of risk assessments and the effectiveness of responses | | |

## Governance: Compliance

▶ P.75

| | | | |
|---|---|---|---|
| Major Initiatives | Survey of employees' awareness and continuous education | Goals and Outputs | Conducting compliance awareness surveys and disclosing the results |
| Progress in FY2023 | ● Implemented improvement activities based on the results of the compliance awareness surveys<br>● Expanding compliance education | | |
| Initiatives in FY2023 | ● Based on the results of the compliance awareness survey, departments and Group companies with low evaluations formulate improvement measures and implementation schedules, and implement measures<br>● Providing compliance education at all levels at Group companies in Japan | | |
| Recognition of Issues in FY2024 and Beyond | ● Checking the effectiveness of remediation measures<br>● Reviewing the timing of implementation of compliance education by level | | |

## Governance: Information security

▶ P.77

| | | | |
|---|---|---|---|
| Major Initiatives | Maintaining and strengthening incident response organizations and building preventive systems | Goals and Outputs | Establishing an information security management system |
| Progress in FY2023 | 1) Strengthening security monitoring (building a log correlation analysis platform, building a global 24/7 monitoring system)<br>2) Promoting global ISMS (creating and deploying ISMS standards)<br>3) Auditing IT security (all domestic and overseas sites) | | |
| Initiatives in FY2023 | 1) Changing the monitoring service to strengthen security monitoring, and building a monitoring log analysis platform<br>2) Strengthening cooperation with each RHQ to control global security<br>3) Conducting IT security audits at all sites | | |
| Recognition of Issues in FY2024 and Beyond | 1) Complying with local data protection regulations<br>2) Establishing a new organization to realize overall global control<br>3) Streamlining and enhancing IT security audits | | |

*Goals and Outputs are set for the last fiscal year of the Long-term Management Plan, unless a different fiscal year is indicated in the table.

## Carbon Neutrality as a Service

In order to contribute to the realization of a carbon-neutral society, we are developing methanation-related technologies (hydrogen production technology using ceramic solid electrolytes and $CO_2$ recovery technology using technologies of oxygen concentrators).

We are also working to develop technologies that can contribute to the prevention of global warming by using this technology to capture $CO_2$ emitted from plants and retail facilities and utilize it as a resource.

### Regional CCU™

Regional CCU™ is a vision to realize sustainable cities by utilizing current industries centered on the capture and utilization of carbon dioxide.

By optimally managing the amount of carbon dioxide emissions and demand, as well as the amount of electricity produced from renewable energy sources, carbon dioxide, hydrogen, methane, and electricity are exchanged and circulated locally. We will contribute to the realization of a carbon-neutral society that takes advantage of local characteristics by passing on an affluent society that aims to achieve net-zero carbon dioxide emissions to the next generation.




* CCU is an abbreviation for carbon dioxide capture & utilization, and refers to the capture and utilization of carbon dioxide.

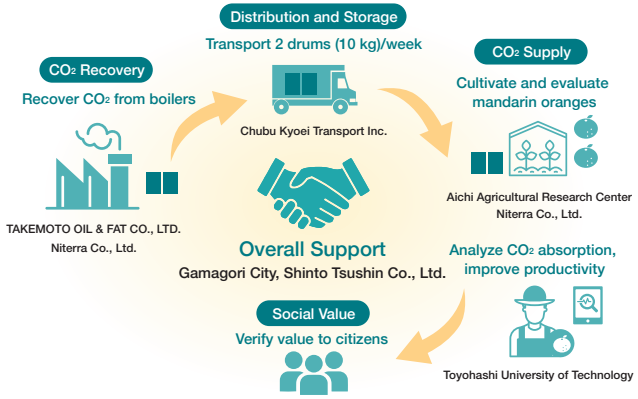
## Regional CCU™ Project, a joint public-private partnership aimed at realizing a circular economy

### Launched a demonstration experiment to grow mandarin oranges using collected $CO_2$

In cooperation with Gamagori City, TAKEMOTO OIL & FAT CO., LTD., and Shinto Tsushin Co., Ltd., we have launched the Regional CCU™ Project with the aim of realizing a circular economy by collecting and transporting $CO_2$ emitted during the product manufacturing process at factories in Gamagori City, and reusing it for greenhouse mandarin orange cultivation.

### Project Overview and Effects

In this project, $CO_2$ emitted from TAKEMOTO OIL & FAT's Kameiwa Plant will be collected in drums for distribution using our capture technology, and transported by Chubu Kyoei Transport Inc. to the Evergreen Fruit Tree Laboratory in the Aichi Agricultural Research Center's Horticultural Research Department. The transported $CO_2$ will be reused for a demonstration experiment as a gas to promote the growth of greenhouse mandarin oranges. With the cooperation of citizens, we will verify the social value of products that reuse $CO_2$ through the grown mandarin oranges.




Evergreen Fruit Tree Laboratory in the Aichi Agricultural Research Center's Horticultural Research Department conducts tests on controlling the temperature and $CO_2$ concentration in the greenhouse with technical cooperation from the Toyohashi University of Technology in order to obtain high yield products in the cultivation of greenhouse mandarin oranges. During the winter, the closed greenhouses tend to lack the $CO_2$ required for the photosynthesis of crops, so they currently use the $CO_2$ generated by burning kerosene. By replacing this method, we aim to establish sustainable facility agriculture that contributes to carbon neutrality in the region by establishing a supply chain that collects $CO_2$ generated at factories in Gamagori City and provides it to farms.

In addition, by introducing a history management system, we will keep a history of $CO_2$ recovery and supply, find the optimal frequency of supply, and eventually build a database that will visualize the demand and supply of $CO_2$ in the region, and aim to make it easier to handle $CO_2$ in the region.

### Future Expansion

Starting in 2025, in addition to cultivating greenhouse mandarin oranges, we plan to reuse $CO_2$ for various purposes in the region, and to conduct a small-scale sales trial of $CO_2$ in 2026. By 2030, we will aim to reduce $CO_2$ emissions by 100,000 tons per year to realize a circular economy, with a view to utilizing $CO_2$ for e-fuel such as methanation.

**Comment from person in charge**

With the support and empathy of various partners, including Gamagori City, we have been able to start the demonstration experiment of our Regional CCU™ concept, which aims to reuse $CO_2$ emitted as waste as a resource. We will promote further technological innovation and partner collaboration to increase the amount of $CO_2$ reuse efficiently and economically.

T.T., Energy Business Division

## Environmental Policy

As a globally developing core manufacturing corporation, we aim to promote environmental conservation activities linked with corporate management while 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 $CO_2$ emissions and improve energy efficiency, toward the realization of a decarbonized society, conserve water resources, manage waste, and develop, offer and expand environmentally friendly products.
- We prevent environmental pollution through the control of chemical substances that place a burden on the environment.
- We promote resource circulation by working to ensure sustainable use of resources and reduce environmental impact during and after product use.
- We recognize the benefits derived from ecosystem services and strive to conserve biodiversity.
- 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 continuously improve our environmental management system and strive to reduce our environmental impact.
- We keep encouraging all of our business partners, including suppliers, to understand the Policy and join our efforts to promote environmental conservation.

## Promotion System

In order to comply with environmental laws and regulations and promote environmental conservation, the Group has established the Central Environment Committee, chaired by the officer appointed by the Environmental Advisor (President), which holds two regular meetings per year, as well as irregular meetings as required. The Central Environment Committee is supervised by the CSR and Sustainability Committee (chaired by an outside director), an advisory organ of the Board of Directors. It confirms the progress of Eco Vision 2030 and the Group's environmental issues, and strives for continuous improvement. In FY2023, two meetings of the Central Environment Committee were held. There, the committee reported and discussed matters such as the progress of Eco Vision 2030, non-conformities in internal audits, countermeasures to soil and groundwater pollution risks, progress of the climate change initiatives roadmap, and future plans.

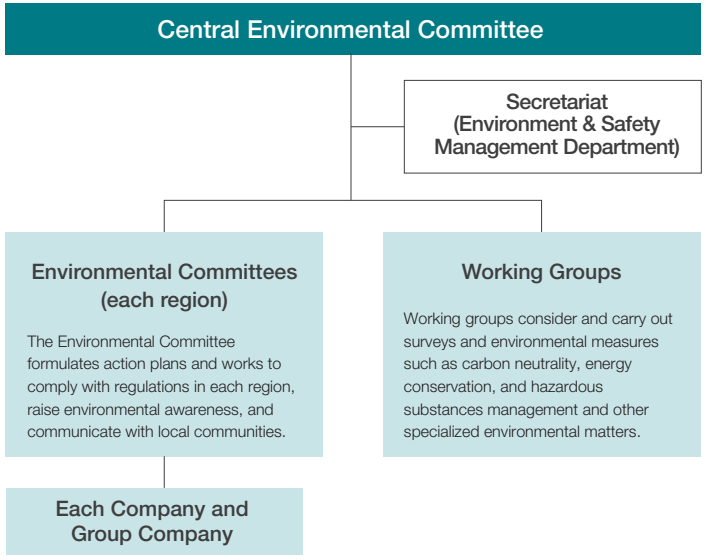
Each internal company manages its own targets on items relevant to business activities and conducts activities integrated with business to achieve Eco Vision 2030. Meanwhile, we formulate action plans and work to comply with regulations in each region, raise environmental awareness, and communicate with local communities. Various working groups are established as cross-functional teams across the internal companies to promote specialized matters such as carbon neutrality, energy conservation, and chemical substances.

## Environmental Management System

The Group obtained multi-site ISO 14001 certification for the Company and 10 domestic Group companies. Other domestic and overseas group companies also established environmental management systems, with one domestic and 16 overseas companies individually certified under ISO 14001. 96% of Group employees have obtained ISO 14001 certification.

* For more information on the social and environmental information verification report, please visit our website:
https://ngkntk.disclosure.site/resource/pdf/08en_Independent_verification_report.pdf

**Environmental Promotion System**




*Regions: Units of environmental management system activities

## Eco Vision 2030

Protecting the global environment is the foundation of a sustainable society. For all our stakeholders, we must face it head on as a key management issue.

On the premise of aiming for carbon neutrality in 2050, the Group has 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, we analyzed the impacts that our businesses and products would have on society and our company and identified 13 issues with the greatest impact. Among them, the four issues identified to have a greater impact are Responding to Climate Change, Expanding Environmentally Friendly Products, Conserving Water Resources, and Waste Management. We positioned these issues as the four important issues and set quantitative targets for them. Responding to climate change, in other words, striving to mitigate climate change by reducing $CO_2$ emissions, is an important issue on a global scale and is also an important issue for our Group as a manufacturing company. Reducing $CO_2$ emissions from business operations is the responsibility of our Group.

Therefore, it is very important to be aware of the magnitude of the environmental impact of the entire product life cycle, from the manufacturing stage of raw materials necessary for product manufacturing to the stage when products have completed their mission and are disposed of. From this standpoint, our Group established an eco-friendly product certification system in FY2021 that focuses on the magnitude of the environmental impact of the supply chain, including our own production processes, and announced products that meet the certification criteria as Nittoku Green Products. Through this initiative, we will expand our lineup of environmentally friendly products and accelerate manufacturing that contributes to the resolution of environmental issues in society. In addition, conserving water resources necessary for business operations and reducing resource input and waste emissions will lead to a reduction in $CO_2$ emissions. For this reason, we aim to respond more synergistically by addressing the four important issues as interrelated issues rather than as individual issues.

The progress of the four important issues is maintained steadily, and $CO_2$ emissions in our Responding to Climate Change in particular are moving ahead of schedule. Through Eco Vision 2030, our Group will work together to help achieve global carbon neutrality and zero emissions.

### Four Important Issues

| Eco Vision 2030 issues | The milestone to be achieved in 2030 | Our Vision for 2040 |
|---|---|---|
| Responding to Climate Change | $CO_2$ emissions: 30% reduction from the FY2018 level | Implementing activities toward realization of a decarbonized society<br>*Aiming for carbon neutrality by 2050 |
| 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 |
| Conserving Water Resources | Water consumption intensity: Keep below FY2018 level | Implementing sustainable business operations in response to global water risks |
| Waste Management | Achieve over 95% effective utilization rate | Contribute to a global recycle-oriented society by promoting zero emissions |
| | Reduce at least 1% of waste intensity compared to FY2018 | |
| | Promote 3R (reduce, reuse, recycle) activities | |

### Other Issues

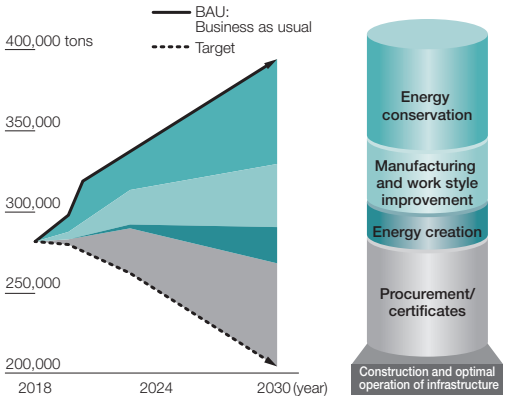
| Eco Vision 2030 issues | The milestone to be achieved in 2030 | Our Vision for 2040 |
|---|---|---|
| Integration with Management | Address global environmental issues as a business strategy | Continued efforts to address global environmental issues as a business strategy |
| | Executive management takes responsibility for promoting Eco Vision 2030 and achieving environmental KPIs. | |
| Globalization of EMS | Enhance systems for overseas affiliates to share environmental information and monitor and supervise their activities. | The entire group is able to share environmental information, and a monitoring and supervision system has been established for all Group companies. |
| Analysis of Climate-related Risks and Opportunities | Analyze climate change risks and opportunities and incorporate them into our business strategies. | Sustainable business growth by analyzing the impact of climate change on our business and incorporate them into our business strategies. |
| Thorough Environmental Compliance (compliance with environmental laws and eradication of environmental accidents) | Achieve zero violations of environmental laws and regulations and zero environmental accidents. | We have become a socially trusted company by continuing to achieve zero violations of environmental laws and regulations and zero environmental accidents. |
| Greater Environmental Awareness | All employees take environmental education programs and actively engage in environmental conservation activities. | All employees have a high level of environmental awareness and contribute to making sustainable society come true. |
| Management of Chemical Substances | Appropriately manage chemical substances to reduce environmental impact. | Contribute to the conservation of biodiversity through the continuous management of appropriate chemical substances. |
| Promoting Green Procurement | Achieve 100% introduction of green procurement system. | Implementing environmentally friendly procurement activity to making sustainable society come true. |
| Expanding Green Logistics | Reduce $CO_2$ emissions by promoting green logistics and optimizing logistics efficiency. | Our green logistics system develop globally. |
| Enhancing Our Disclosure of Environmental Information | Responding to stakeholder requests and practicing communication that leads to dialogue with stakeholders. | Responding to stakeholder requests and practicing communication that leads to dialogue with stakeholders. |

## Responding to Climate Change

Our Group has set a target of reducing $CO_2$ emissions by 30% in Scope 1 and 2 by 2030, and has created a roadmap to achieve this goal.

In the future, $CO_2$ emissions are expected to increase in line with business growth if no countermeasures are taken (BAU: Business as usual). However, by implementing various measures in the four main plans (Plan A: Energy saving, Plan B: Improvement of monozukuri and work style, Plan C: Energy creation, and Plan D: Procurement/certificates), we will achieve both the planned reduction of $CO_2$ emissions and also economic growth.

### $CO_2$ emissions forecast




| Plan | | Examples of measures |
|---|---|---|
| Plan A | Energy conservation | (1) **Reduction of standby energy** for production equipment and ancillary equipment (holidays and weekdays)<br>(2) Installation of energy-efficient production equipment (that meets Japan's Top Runner Program requirements) and **optimization of operation conditions**<br>(3) Interlocking operation of air conditioners and air supply/exhaust systems, and **optimization of operation conditions**<br>(4) **Renewal** of production equipment and ancillary equipment<br>(5) Reduction of heat dissipation and periodic inspections for energy loss (air leaks, etc.)<br>(6) **Effective use of heat**<br>(7) Horizontal deployment of various cases<br>(8) Switching to LED lighting, reviewing illumination intensity, and adopting dimming systems<br>(9) **Energy conversion from gas to renewable energy (hydrogen, ammonia, etc.)** |
| Plan B | Manufacturing and work style improvement | **Productivity improvement, yield improvement; operating rate improvement, LT reduction;** consolidation and downsizing of production areas; review of operational rules; review of manufacturing conditions (profiles, etc.) |
| Plan C | Energy creation | Introduction of solar power and storage batteries; introduction of SOFC and cogeneration |
| Plan D | Procurement/ certificates | Promoting electric power procurement (use of electric power with low emission factor); purchase of renewable electricity and environmental certificates |
| System | Construction and optimal operation of infrastructure | (10) Construction of an energy platform and introduction of EMS<br>* Coordination with production planning<br>* Energy management, **continuous improvement, and promotion of optimal control**<br>* Reduction of waste and spare equipment through promotion of preventive and predictive diagnosis |

## Information Disclosure Based on TCFD Recommendations

In July 2020, the Niterra Group announced its support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. Based on the TCFD recommendations, we disclose important information related to climate change as outlined below.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

* For more information please visit our website: https://ngkntk.disclosure.site/en/themes/168/

### Governance

Regarding the approach of management concerning climate change, the CSR and Sustainability Committee compiles recommendations based on climate related risks and opportunities and reports to the Board of Directors, which then makes final decisions on these recommendations.

In addition, the CSR and Sustainability Committee receives reports from the sustainability department, and reviews and monitors the progress of priority issues, including our Responding to Climate Change. For specific activities such as reducing $CO_2$ emissions, the Environmental Committee manages the progress of targets and confirms issues, and strives for continuous improvement. Risks related to climate change are assessed by the Risk Management Committee as part of company-wide risk management.

### Strategy (risks & opportunities)

We looked at the entire supply chain, projected social and regulatory trends in the short, medium, and long term, and then listed a wide range of risks and opportunities.

We assessed the business impact of risks based on scenarios assuming risks related to the transition to a low-carbon economy and risks related to physical changes caused by climate change. As opportunities, we considered the opportunity for management reform through climate change mitigation and adaptation measures.

We summarized the risks and opportunities related to climate change submitted a report to the CSR and Sustainability Committee for confirmation.

▶ P.48-49

## Climate-related risks

| Risk item | | | Business impact (risk) | Assessment (impact) | | | Timing of the impact | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Small | Medium | Large | Short term | Medium term | Long term |
| 2°C scenario<br>**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. | | | ● | | | |
| | | 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. | | | ● | | | |
| | | 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. | | | ● | | | |
| | | 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. | | | ● | | | |
| | Technology | Proliferation of energy saving and renewable energy technologies | • The introduction of new energy-saving and renewable-energy technologies will increase the cost related to, for example, capital investments. | | ● | ● | | | |
| | | Development of new technologies | • Expenditures on the research and development of new technologies will increase. | | | ● | | | |
| | Markets | 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.<br>• Products that emit less $CO_2$ in their life cycle will be chosen, resulting in a decrease in the sales of conventional products. | | | ● | | | |
| | Reputation | Shift in investor preferences | • Investors' opinions will turn against internal combustion engines, resulting in divestments. | ● | ● | | | | |
| | | 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. | ● | ● | | | | |
| 4°C scenario<br>**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. | ● | ● | | | | |
| | 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. | ● | ● | | | | |
| | | 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. | ● | ● | | | | |
| | | 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. | ● | ● | | | | |

## Climate-related opportunities

| Aspect | Major opportunity | Timing of the impact | | |
|---|---|---|---|---|
| | | Short term | Medium term | Long term |
| Resource efficiency | • The increasing adoption of new energy-saving and renewable-energy technologies will reduce energy costs. | | | |
| Energy source | • The increased demand for hydrogen as a fuel exempt from carbon tax will provide new opportunities in the hydrogen energy market.<br>• The current internal combustion engine business will continue as technologies such as methanation develop and synthetic fuels such as eFuel become more widespread. | | | |
| Products and services | • To conform to fuel efficiency regulations, demand for high value-added products will increase. | | | |
| | • The hydrogen energy market is expected to grow due to mandatory reduction of GHG emissions. Increased demand for hydrogen technologies, SOFC, and SOEC will provide business opportunities. | | | |
| | • Demand will increase for $CO_2$ recycling-related solutions (e.g., using electricity to produce hydrogen (SOEC), using recovered $CO_2$ as fuel, etc.). | | | |
| | • In disaster preparedness, local consumption of locally-produced energy (distributed power generation) will receive attention, resulting in increased demand for SOFCs. | | | |
| | • Demand will increase for ceramics-related technologies and products used in electric motors and generators. | | | |
| Markets | • The development of new climate-related technologies that meet social needs will provide business opportunities. | | | |
| Resilience | • In disaster preparedness, the continuous reinforcement of the BCM and BCP of our group, including our supply chain, will help enhance our resilience. | | | |

Assessment (impact)
Small: Impact of several hundred million yen
Medium: Impact of around 5 billion yen
Large: Impact greater than or equal to 10 billion yen

Timing of the risk/opportunity
Short term: Short term until around 2025 in line with the target year of our Medium-term Management Plan
Medium term: Medium term until around 2030 in line with the target year of our Long-term Management Plan
Long term: Long term until around 2040 in line with the vision of our Long-term Management Plan

### 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. 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 designated Environment & Energy as one of the business fields on which to focus. Toward 2040, we will push forward with the transformation of our business portfolio (40% ICE business, 60% non-ICE business).

| Examined business | Product | Responses to future business risks and opportunities | Financial impact | Revenue target in our Long-term Management Plan |
|---|---|---|---|---|
| Automotive Components Group | Spark plugs, glow plugs, sensors | Under a 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. On the other hand, opportunities will arise in the electric vehicle market and other new markets. 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 engine parts. | Impact certain revenue sources* | 450 billion yen (FY2029) |
| Fuel Cell Business | Fuel cells | 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. Under a 2°C scenario, the proliferation of hydrogen infrastructure is expected. Therefore, the market may grow at an accelerated rate. | Analysts project a 200 billion yen market, with a possibility of an upward swing depending on the wider adoption of hydrogen infrastructure. | 300 billion yen (FY2029) |
| Other Businesses | SPE, packages, oxygen concentrators, bearing balls, etc. | Under either a 2°C or 4°C scenario, the impact on risks and opportunities is small. | Small | |

- **For the Automotive Components Group, under the 2°C scenario, sales are expected to decline in the future due to stricter regulations. Therefore, the transformation of our business portfolio 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.**

* The financial impact of the internal combustion engine business
Based on analysis by IHS Markit Automotive, we forecast the number of vehicles with internal combustion engines to decline beginning in the mid-2030s due to increased restrictions on internal combustion engines as a resu t of climate change measures in many countries. At the same time, demand for spark plugs, which is the core of our internal combustion engine business, reflects not only use in new vehicles, but also use in repair work. Here, since we expect vehicles with internal combustion engines will continue in use, our forecasts indicate that sales w ll peak after 2040 and then gradually decline. Given this situation and assuming a 5% decrease in revenue in the ICE business beginning FY2040 onward compared with FY2023 levels, we estimate a decrease in revenue of about 25 billion yen and a decrease in operating profit of about 6 billion yen.

Revenue from ICE business for FY2023: 505.3 billion yen
Operating income from ICE business for FY2023: 121.2 billion yen
Assumed decrease in sales of products for internal combustion engines beginning in FY2040: 5%
Revenue: 505.3 bil ion yen x 5% = 25.3 bil ion yen
Operating income: 121.2 billion yen x 5% = 6.1 billion yen

## Risk management

The Niterra Group faces various risks and opportunities in each type of business. Therefore, we must monitor regulatory trends closely and assess the respective impacts on business in terms of risks and opportunities related to climate change.

The Risk Management Committee evaluates risks from a company-wide perspective by analyzing their impact, likelihood of occurrence, and status of countermeasures to determine whether or not they will have a significant impact on our business activities and ability to achieve targets. Risks evaluated as requiring priority action are designated as priority risks, and the Risk Management Committee confirms the status of mitigation activities. The CSR and Sustainability Committee confirms key opportunities, incorporating these opportunities into our management strategy and priority issues (materialities), when necessary.

## Metrics and targets

Pursuing carbon-neutrality by the year 2050, our Group has set a goal to reduce $CO_2$ emissions by 30% by FY2030 compared with FY2018 levels. To make further advancements toward achieving these targets, we have set the $CO_2$ emission reduction rate as one of the evaluation indicators in the performance-linked stock remuneration system for directors (excluding directors who are Audit and Supervisory Committee Members and outside directors) and corporate officers (excluding employment-type corporate officers).

$CO_2$ emission reduction measures for Scope 1 and 2, such as energy conservation activities, progressed as planned. Furthermore, our early adoption of energy creation through solar power generation and $CO_2$-free electricity enabled reductions to exceed our planned values. For Scope 3, 97.6% of total emissions consist of Category 1 Purchased Goods and Services, Category 4 Transportation and Delivery (upstream), and Category 11 Use of Sold Goods, and we set FY2030 targets for these three categories. We focused on activities aimed at reducing $CO_2$ throughout the supply chain, such as holding CN seminars for suppliers, supporting $CO_2$ reduction (Category 1), selecting routes with low $CO_2$ emissions and changing transportation methods for product delivery (Category 4), and continuing development of environmentally friendly products (Category 11).

### $CO_2$ reduction targets and results

| Items | Target | Results |
|---|---|---|
| Scope 1 and 2 | 30% reduction from the FY2018 level by FY2030 | Reduced by 31.7% compared with FY2018 in FY2023<br>[Emissions: 191K tons]<br>Third-party certification<br>[Intensity: 0.49 t/million yen] |
| Scope 3<br>Category 1 Purchased Goods and Services<br>Part of Category 4 Transportation and Delivery (upstream)<br>Category 11 Use of Sold Goods | 30% reduction from the FY2018 level by FY2030 | Decreased by 13.4% compared with FY2018 in FY2023<br>[Emissions: 9.51M tons]<br>Third-party certification : Category 4 |

* The above $CO_2$ reduction targets were certified as well-below 2°C (WB2°C) targets by the SBT Initiative in June 2022 as science-based targets (SBT).

## Conserving Water Resources

Third-party certification: Water consumption

Protecting the sustainability of water resources that are essential for maintaining ecosystems is one of the most important issues for the Group. To this end, our Eco Vision 2030 calls for the efficient use of water with a goal of maintaining water consumption intensity at or below FY2018 levels. In FY2023, water consumption intensity for drinking water, well water, and river water was 3.75 $m^3$/million yen, which was a decrease of 30.5% compared with FY2018. The water usage amounted to 1.46 million $m^3$.

## Waste Management

Third-party certification: Waste emissions

The Niterra Group uses a variety of raw materials of which we must make effective use, including recycling. We pursue the reduction and effective use of waste materials in line with our Eco Vision 2030 targets: Achieve over 95% effective utilization rate, Reduce at least 1% of waste intensity compared to FY2018, and Promote 3R (reduce, reuse, recycle) activities. Our effective utilization rate for FY2023 decreased to 89.5% due to an increase in emissions from locations with low effective utilization rates. Our waste intensity was 0.054 tons per million yen, a decrease of 7.3% compared with FY2018. Total emissions were 20,906 tons.

* For more information on conserving water resources, please visit our website: https://ngkntk.disclosure.site/en/themes/170/
* For more information on waste management, please visit our website: https://ngkntk.disclosure.site/en/themes/169/
* For more information on chemical substances management, please visit our website: https://ngkntk.disclosure.site/en/themes/172/

## Biodiversity Conservation

The need to conserve biodiversity is increasing worldwide, and our Group has positioned it as an environmental issue next to prevention of global warming and promotion of resource recycling. We established the Niterra Group Biodiversity Action Guidelines in April 2013, which set out our policy for biodiversity measures. We are implementing various measures in cooperation with our business partners and external groups to reduce the impact of our business operations, such as our energy and resource use, based on the recognition that our activities have an impact on biodiversity.

In October 2023, we participated in the Taskforce on Nature-related Financial Disclosures (TNFD) Forum with the aim of further advancing activities related to biodiversity conservation, and registered as an adopter of the TNFD Recommendations released in September 2023. We will examine the impact of our business operations on nature and the risk of loss of nature, and strive to disclose information appropriately. At the same time, we will engage in initiatives for natural capital and biodiversity throughout the value chain in cooperation with stakeholders.

As an initial screening, we used ENCORE* to assess the potential dependence and impact of our Group's business on nature. Based on these results, we will proceed with further analysis, and consider countermeasures as necessary.

* ENCORE: Tool for assessing opportunities and risks to natural capital

| Segments | Business | Stage of the value chain | Dependencies on nature | | | | | | | | | Impacts on nature (negative) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Supply services | | Coordination services | | | | | | Cultural services | Land/freshwater/ocean-use | | | Climate change | Resource use/recovery | | Pollution/pollution removal | | | | | Invasive species |
| | | | Water resources | Other resources | Pollution removal | Water cycle | Climate regulation | Disaster mitigation | Soil stabiliza ion・Soil maintenance | Other regulation | | Land ecosystems use | Freshwater ecosystems use | Ocean ecosystems use | GHG emissions | Water use | Other resource use | Waste | Non-GHG air po lution | Soil pollution | Water pollution | Disturbance | Introduction of invasive species |
| Automotive Components | Manufacture and sale of spark plugs | Harvesting and procurement of raw materials | H | — | — | H | H | — | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Manufacturing of products | M | — | M | M | VL | M | VL | — | — | M | — | — | VH | VH | — | H | H | H | H | M | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |
| | | Product use | — | — | — | — | H | M | M | — | — | M | — | — | H | — | — | — | H | L | L | H | M |
| | Manufacture and sale of oxygen sensors | Harvesting and procurement of raw materials (metals and minerals) | H | — | — | H | H | — | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Harvesting and procurement of raw materials (resin) | H | — | L | L | L | M | L | — | — | H | — | — | VH | H | — | H | H | H | H | — | — |
| | | Manufacturing of products | M | — | M | M | VL | M | VL | — | — | M | — | — | VH | VH | — | H | H | H | H | M | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |
| | | Product use | — | — | — | — | H | M | M | — | — | M | — | — | H | — | — | — | VH | L | L | H | M |
| Ceramics | Manufacture and sale of industrial ceramic products (piezoelectric ceramics) | Harvesting and procurement of raw materials | H | — | — | H | H | — | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Manufacturing of products | M | — | M | M | VL | M | VL | — | — | M | — | — | VH | VH | — | H | H | H | H | M | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |
| | Manufacture and sale of semiconductor manufacturing equipment product | Harvesting and procurement of raw materials | H | — | — | H | H | — | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Manufacturing of products | M | — | M | M | VL | M | VL | — | — | M | — | — | VH | VH | — | H | H | H | H | M | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |
| | Manufacture and sale of medical oxygen concentrator | Harvesting and procurement of raw materials (metals and minerals) | H | — | L | H | H | M | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Harvesting and procurement of raw materials (resin) | H | — | L | L | L | M | L | — | — | H | — | — | VH | H | — | H | H | H | H | — | — |
| | | Manufacturing of products | M | — | VL | — | VL | — | — | — | — | M | — | — | VH | — | — | H | M | — | M | — | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |
| New businesses | Manufacture and sale of bearing balls | Harvesting and procurement of raw materials | H | — | — | H | H | — | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Manufacturing of products | M | — | M | M | VL | M | VL | — | — | M | — | — | VH | VH | — | H | H | H | H | M | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |
| | Manufacture and sale of solid oxide fuel cells (SOFCs) | Harvesting and procurement of raw materials | H | — | L | H | H | M | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Manufacturing of products | M | — | — | M | — | M | VL | — | — | M | — | — | VH | VH | — | H | H | H | H | M | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |
| | Manufacture and sale of ozone generators | Harvesting and procurement of raw materials (metals and minerals) | H | — | — | H | H | — | M | — | — | VH | H | — | VH | VH | — | H | H | H | H | H | M |
| | | Harvesting and procurement of raw materials (resin) | H | — | L | L | L | M | L | — | — | H | — | — | VH | H | — | H | H | H | H | — | — |
| | | Manufacturing of products | M | — | M | M | VL | M | VL | — | — | M | — | — | VH | VH | — | H | H | H | H | M | — |
| | | Logistics | — | — | — | — | H | M | M | — | — | M | — | M | H | — | — | — | H | L | L | H | H |

Dependence on nature: VH, H, M, L, VL, — (High ↕ Low; No dependence)

Impact on nature: VH, H, M, L, — (High ↕ Low; No impact)

ENCORE results modified to take into account actual business

* For more information on biodiversity conservation, please visit our website: https://ngkntk.disclosure.site/en/themes/173/

## 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.



Message from the Officer in Charge of Human Resources

### Creating an organization where diverse human resources can play an active role

Executive Officer
**Tomohiro Yamaguchi**

In our 2030 Long-term Management Plan "NITTOKU BX," we have set "change drastically beyond the current way" as our actions toward 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 autonomous human resources, the combination of diverse knowledge and expertise, as well as more engagement with the aim of maximizing our human capital and thereby improving corporate value so that we can take on challenges beyond the realm of ceramics and beyond the world and our own imagination.

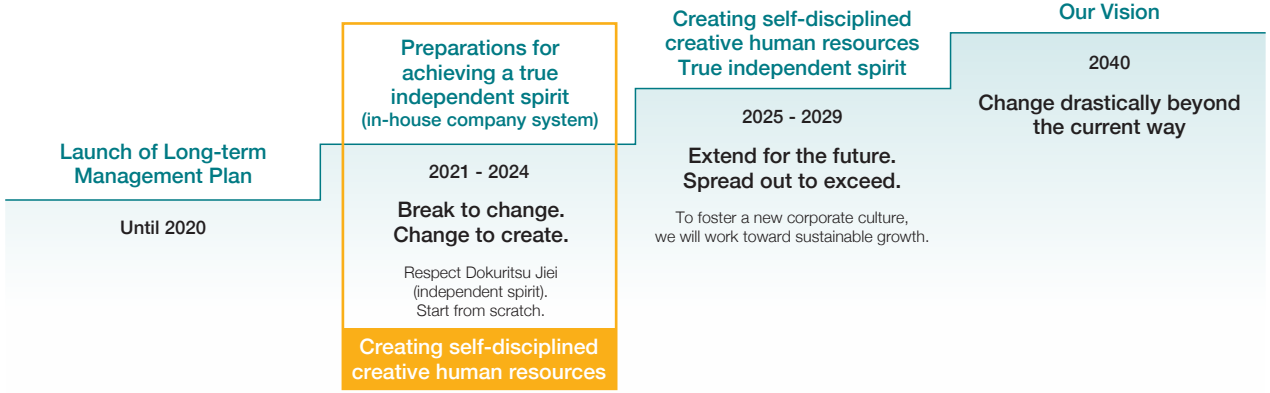
To realize our vision, we need a diverse range of human resources who have aspirations. We consider diversity, equity & inclusion (DE&I) to be one of our most important management strategies as we believe that harnessing each employee's individual qualities and helping them fully demonstrate their abilities are essential for companies to attain sound growth and ensure happiness for all employees. We strive to understand and accept diverse human resources regardless of attributes such as gender and age, and to provide each with the best support and opportunities in a fair way.

In addition, to raise the value of human capital, we recognize that human resources are the most important management resources for a company. Knowing this, and to achieve the goals of our Long-term Management Plan, we have defined the human resources we seek as "self-disciplined creative human resources" and are taking systematic and consistent actions to create this kind of human resources. Among these, we consider the development of next-generation leaders to be an issue of tremendous importance, and we are working to cultivate managers from early stages and develop human resources for upper management.

The Group's external environment is in a period of dramatic change. In order to address this and build an organization that can withstand harsh business environments, we began with our internal environment, carrying out organizational reforms. These included introducing the in-house company system, spinning off some businesses, and other actions. As part of improving our internal environment, we have introduced skill maps, which we are using to qualitatively measure the skills of individuals.

In addition, we believe that boosting employee engagement will also make a significant contribution to increasing corporate value. To realize our goal of creating a company that is attractive to employees, we carry out employee satisfaction surveys with the aim of increasing engagement even in a changing environment.

To create innovation for "change beyond the current way," we will transform our organization to allow every employee to fully demonstrate their capabilities and play an active role.



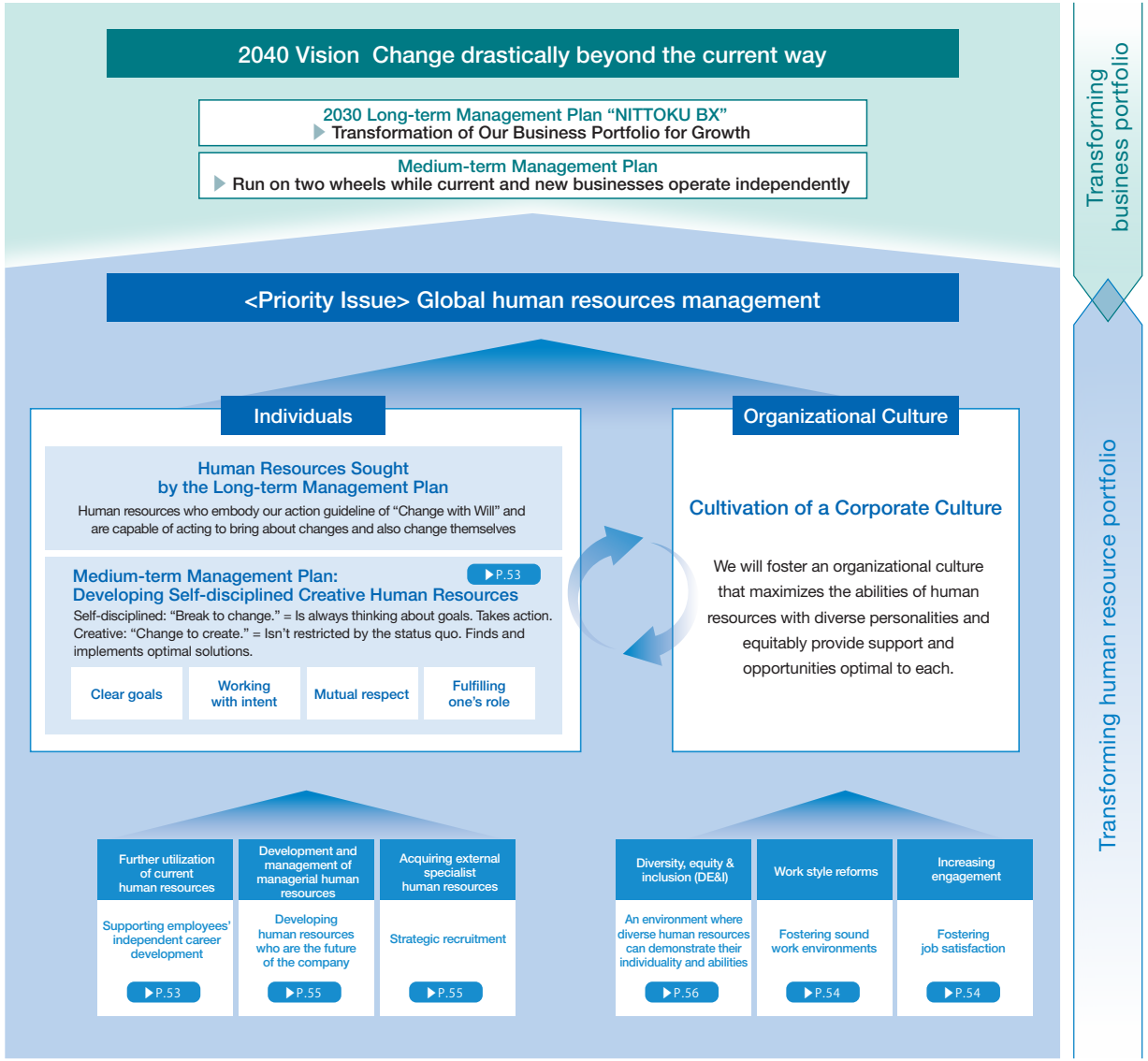
## Human Resources Strategy and Global Human Resources Management

Transforming our business portfolio is the main pillar of our Long-term Management Plan. In order to achieve this, we believe that practicing "ambidextrous" management of both our current and new businesses is essential. Putting this "ambidextrous" management into practice will rely on our most valuable management asset: our human resources. With the goals of providing our human resources both with opportunities to play an active role and an environment in which they can develop, and of fostering a sound organizational culture, we have made global human resources management one of our priority issues. Our first step was to define the human resources we seek as "self-disciplined creative human resources." This "ideal talent profile" is what will drive our global HR management. In order to produce such human resources, we will provide current employees with even more opportunities to play an active role and an even better environment in which to develop, while also strategically acquiring "pointy" experts with highly specialized skills from outside the Company.

We are also focusing on developing the next generation of management members, providing ongoing training programs for selected human resources to acquire the attitude, thinking, and knowledge necessary for management.

Further, we are actively working to foster an organizational culture that will maximize the abilities of the self-disciplined creative human resources we develop and acquire. We recognize and accept diverse human resources regardless of gender, year of hire, or other attributes. We are committed to promoting Diversity, Equity, and Inclusion (DE&I) by, among other things, equitably providing support and opportunities optimal to each of our diverse human resources, as well as by offering them diverse work style options that will allow them to thrive. Through such efforts, we believe that we will be able to increase employee engagement. For example, we offer various remote work options, as well as flextime, allowing employees to choose their ideal work style.

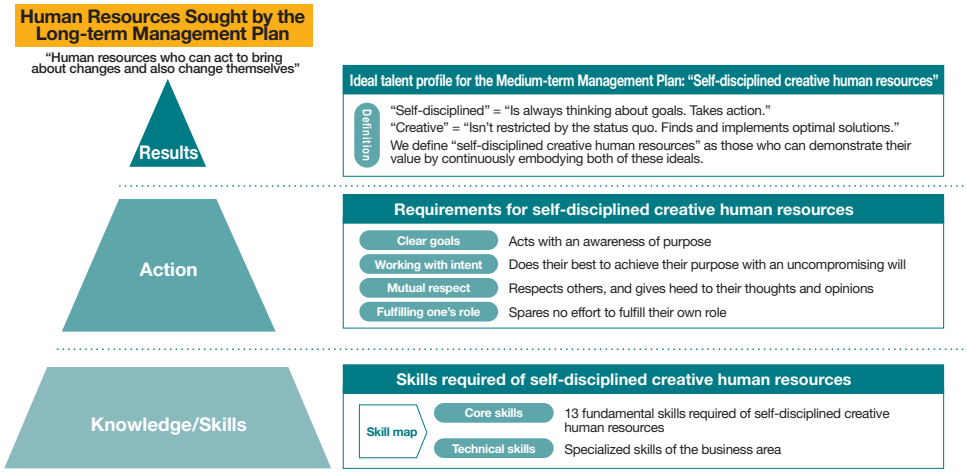
Outline of Human Resources Strategy



## Self-disciplined creative human resources

We have defined the human resources needed to achieve the Medium-term Management Plan as “self-disciplined creative human resources.” “Self-disciplined” = “Is always thinking about goals. Takes action.” “Creative” = “Isn’t restricted by the status quo. Finds and implements optimal solutions.” We define self-disciplined creative human resources as those who can demonstrate their value by continuously embodying both of these ideals. We have set four requirements for self-disciplined creative human resources: “Clear goals,” “Working with intent,” “Mutual respect,” and “Fulfilling one’s role.”

As a specific initiative to create self-disciplined creative human resources, we have defined the necessary skills for our talent. We are developing company-wide skill maps that visualize the skills of our current employees on two axes: Core Skills and Technical Skills. The former are based on the four requirements for self-disciplined creative human resource, while the latter are the skills required in each business area the Group is focuses on in accordance with its core competencies. Skill maps reveal the gap between the skills we have and the skills we need. As part of our efforts to create an environment where employees are able to increase their own skills to fill these gaps, we are developing training programs where employees can develop their skills.




## Supporting employees’ independent career development throughout the career design cycle

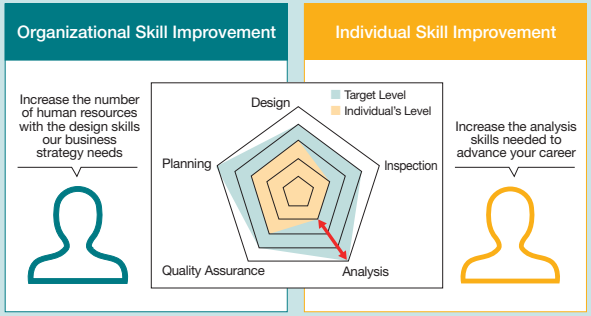
In order to support employees’ independent career development, we have developed a mechanism we call the career design cycle. The cycle consists of three steps. WILL: Using the My Career framework, in which employees discuss their career with supervisors every year, to think about what they want to accomplish and what they want to become. CAN: Using the skill map to identify the skills they need to acquire or improve. MUST: Aligning the union between the roles expected of an employee with their WILL and CAN through regular interviews and everyday one-on-ones with workplace supervisors. We have created systematized educational content in order to support the realization of the careers employees design. We also provide them with opportunities for self-improvement by giving them personalized lists of recommended training courses according to the core skills they want to develop. If at some point during the career design cycle, employees have concerns regarding their daily work or career, we offer a career consultation helpline that they can contact at any time. Employees certified as career consultants provide one-on-one counseling to employees, supporting them so that the consulting employees can find answers for themselves.

### Three Elements of the Career Design Cycle




## Leveraging skill maps to realize the transformation of our business portfolio

We are facilitating an environment in which each and every employee can work to improve their core skills. In addition to core skills, the common skill map also contains technical skills at a level of granularity useful for the company as a whole. Previously, skill maps for these specialized skills were created and utilized by individual workplaces. The company-wide skill map makes it possible to check not only the technical skills related directly to an employee’s current job, but also those that are not. At the same time as we check the technical skills of individual employees, we are also working to identify the technical skills that are a high priority for our business strategy in order to transform our business portfolio. If we do not have enough employees with these high-priority skills, we will consider efforts to make up this shortfall.



## Personnel system

**Key Points of the New Personnel System**
- Introduced a role grading system for managerial positions
- Introduced the specialist (SP) position qualification system
- Evaluation-based remuneration tied to performance and initiative

In April 2022, the Company revamped its personnel system. In order to accelerate the creation of self-disciplined creative human resources who can realize the themes of the Medium-term Management Plan to "Break to change" and "Change to create," we have incorporated the Group Human Resource Policy. This policy clearly defines the direction of human resource policies that the entire Group will pursue, creating a highly fair personnel system that rewards achievements and challenges regardless of age, gender, and other personal attributes. We have introduced a system in which employee compensation reflects the results produced by each in-house company, and we expect each employee to be aware of the output that contributes to our business and performance, and to work in a more efficient manner.

A role grading system was introduced for managerial positions, and by setting role ranks and salaries according to the roles required, we established a system so that the actual roles played by the employees and their compensation are aligned. By abolishing the annual requirement for promotion for staff positions as well, we have been able to quickly appoint excellent human resources in both managerial and staff positions, regardless of tenure. In addition, as human resources who can make a positive impact on our business management and performance by utilizing their high level of expertise, we have established qualifications for specialist positions (SP positions). The M positions, the traditional managerial positions, will focus on management, while SP positions will concentrate on demonstrating expertise toward more efficient business operations. By further clarifying the roles of each individual, we will realize speedy innovation and the placement of the right people in the right roles to promote the achievement of organizational goals.

We also revised our evaluation system, providing more opportunities for interviews than in the past, working to build an environment that clarifies employee evaluations through detailed follow-ups and where employees can achieve autonomous career development.

Through the new personnel system, we aim to encourage changes in employee awareness, develop richly creative human resources who can fulfill their roles, and foster a corporate culture that rewards challenges.

## Initiatives to improve employee engagement

The Group recognizes improving engagement as a vital step towards leveraging our self-disciplined creative human resources by respecting the diversity and individuality of our employees, and is engaged in activities aimed at improving engagement.

As part of these efforts, we conduct employee surveys in order to visualize organizational issues and lead to organizational improvements.

The results of these surveys are provided as feedback to executives, who engage in dialogues about which issues to tackle, leading to improvement activities.

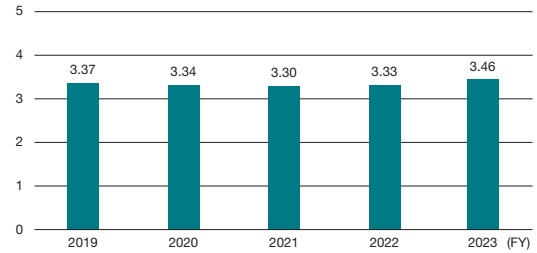
We support a variety of improvement activities at each of our organizations, including interviews with young employees, interviews with section managers, and workshops, all of which are organized by the HR department. We also organize meetings where each department shares its improvement activities. This leads to the promulgation of the best examples, promoting organizational improvement.

Further, we directed the heads of each department to share with their employees the significance of improving engagement and the purpose of the employee survey. Additionally, we have used the results of the survey as a performance indicator for calculating executive bonuses since FY2022. This has served to accelerate efforts to improve engagement. The response rate for FY2023 was 96.3%, an improvement of 3.7 percentage points over the previous fiscal year.

As a result of these activities, overall employee satisfaction in FY2023 improved by 0.13 points over the previous fiscal year.

Moving forward, the Group as a whole will continue to engage in improvement activities by utilizing the results of the survey to identify our challenges and implement solutions.

### Overall Satisfaction




In FY2023, we introduced a crowd survey tool to a low each organization to analyze results by qualification, age, and other factors. By measuring the gap between expectations and satisfaction, we are now able to identify issues more clearly, leading to the consideration of targeted measures.

## Work style reforms

**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 the 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." The Niterra Group respects each person's values and aspirations.

In order to realize the vision for work style reforms set forth in the 2030 Long-term Management Plan "NITTOKU BX," we issued the Work Style Reform Declaration in 2021, and are working to create environments that facilitate diverse work styles. We aim to maximize employee performance and improve engagement by allowing employees to find the best option for themselves from the many available, producing "self-disciplined human resources who can continue to add value." To that end, we are advancing the following two initiatives.

**(1) Promoting diversification of where we work and working hours**
- Remote area work system (Introduced in FY2024)
  By moving away from a working style that restricts employees' location, we will be able to secure excellent human resources living in remote areas and prevent turnover.
- Remote work from family residences outside Japan
  We aim to improve work-life balance by creating an environment in which employees can choose their ideal work style.
- Flexible hours for part-time workers (Introduced in FY2023)
  Giving part-time employees flexibility with working hours also enables them to work efficiently and achieve harmony between their work and private lives.

**(2) Review and revision of work style measures**

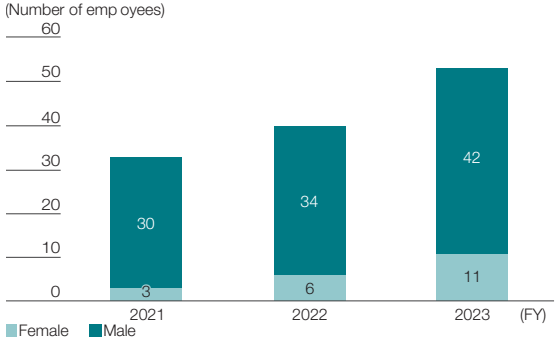
By reviewing our work style measures, we can identify issues, revise them to achieve our vision for work style, and consider further measures.

## Recruitment strategy

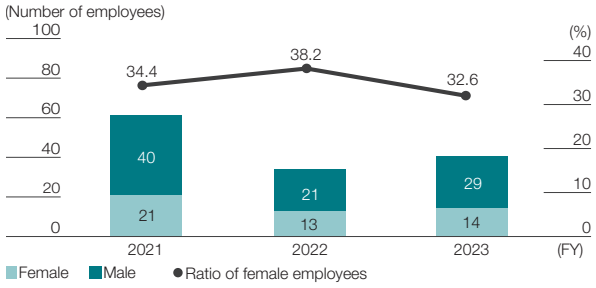
In terms of recruitment, in order to respond quickly to changes in the business environment and to transform our human resource portfolio, we are aggressively pursuing employment of mid-career personnel, mainly in headquarters, new business, and IT departments and including those at the managerial level. We are also working to hire foreign employees in our effort to adapt to the rapid advancement of globalization and encourage diverse talent to play active roles. For new graduates, we have been hiring foreign employees every year, recently with a special focus on hiring foreign employees who have acquired more specialized skills from overseas universities, in addition to those who have studied in Japan.

Furthermore, we have been working to increase the ratio of female employees and the employment rate of people with disabilities. The inclusion of mid-career employees and foreign nationals in each workplace has built greater diversity, equity, and inclusion across the Company.

### Mid-career employment (non-consolidated)




### New graduate employment (non-consolidated)




* Due to company spinoffs, recruitment has been handled by each Group company since FY2021. The graph shows the number of employees hired by the Company on a non-consolidated basis.

## Development and management of managerial human resources

In order to discover and develop our next generation of managers, we have enacted a number of training programs. These include the Management Sparring Dojo management development program, the HAGI Program, which aims to develop the next generation of global managers, and the selective Nittoku Business School training program. Graduates of the Management Sparring Dojo are finding success in management positions, while employees who have completed the HAGI Program and the Nittoku Business School curriculum are making contributions in core positions within the Group. We have also established a selective human resources development program in a number of countries and regions in an effort to develop business leadership. Personnel matters regarding core positions throughout the Group are discussed once a month at the Corporate Management Committee.

### Management Sparring Dojo

We established the Management Sparring Dojo, a unique management human resources development program aimed at cultivating the competencies and viewpoints required for management by talent who will become our next management team (future members of the Corporate Management Committee).

The Management Sparring Dojo program is designed to help participants not just develop the attitude and thinking required of members of the next management team, but also acquire the knowledge (including management philosophy, sustainability, data science, and geopolitics) a manager needs.

### HAGI Program

As our businesses expanded globally, in 2016, we started a program to find and develop the next generation of global managerial human resources, targeting all Group companies. In the program, candidates for general manager-level management positions from all across the Niterra Group of all nationalities explore the core concepts required for managers, etc., among other topics. 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. The program is chaired by Chairman of the Board Shinichi Odo. Under the program, seminars have been held on a continuous basis to provide employees with opportunities to learn together with a focus on gaining practical knowledge from a Group-wide perspective. We are thereby developing leaders with the will and sense of mission required to take the Niterra Group into the future.

### Nittoku Business School

Targeting human resources in Japan, we run Nittoku Business School classes for employees who are almost qualified to participate in the HAGI Program. Through the Nittoku Business School, participants gain an understanding of critical thinking and strengthen their critical thinking skills, and acquire knowledge and skills in areas such as management strategies, marketing, and business analysis. The curriculum includes case studies based on actual examples, and is intended to help participants to develop the spirit, techniques, physical stamina, and other aspects required of leaders.



A Nittoku Business School session






A HAGI Program session

Our Vision

## Cultivate a culture where diverse human resources capable of embodying “Change with Will” can perform to the best of their abilities

We consider diversity, equity & inclusion (DE&I) to be one of our most important management strategies as we believe that harnessing each employee’s individual qualities and helping them fully demonstrate their abilities are essential for companies to attain sound growth and ensure happiness for all employees. We strive to recognize and accept diverse human resources regardless of gender, age, disability, nationality, as well as lifestyle and personality, and to provide each with the best support and opportunities in a fair manner. We utilize new values and ideas coming from an employee-friendly workplace that accepts such people by combining different “knowledge.”

**Vision and action policy for diversity, equity & inclusion (DE&I)**

| Vision | Action policy |
|---|---|
| • Growth of the company and happiness of the individual<br>• Diversification of decision-making levels | • Promoting diversity and implementing our career policy<br>• Developing flexible work styles<br>• Creating a culture of inclusion |

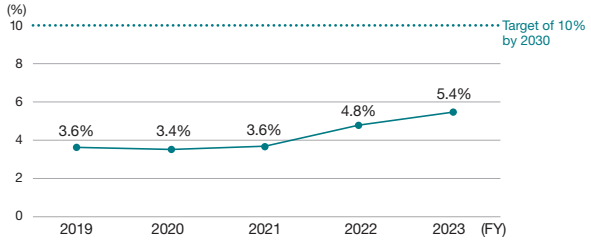
## Initiatives to Promote DE&I

### 1. Selective female manager promotion training

Our Group aims to increase the ratio of women, foreign nationals, and mid-career employees in managerial positions to 25% by 2030. As a concrete indicator of the expected effects of our organizational restructuring, we have set a new target of 10% female managers by 2030. A specific effort to increase the ratio of women in managerial positions is the Raise UP Program, a training program for selective promotion of women to managerial positions. We encourage the growth of women, creating opportunities for them to acquire the knowledge, skills, and attitude required for managerial positions with the support of executives, supervisors, and other mentors. We launched this program in 2019, which has resulted in 25 women being placed in managerial positions. As a result of our training programs, the ratio of female managers is gradually trending upwards every year. Moving forward, we are aiming to become a company where increasingly diverse human resources can play leadership roles.

**Ratio of female managers**

* Niterra Co., Ltd. on non-consolidated basis. Figures for each fiscal year are as of the following April 1.




### 2. Creating a work environment favorable to diverse human resources

We made efforts to more easily allow male employees to take childcare leave. This includes holding seminars on the revised Child Care and Family Care Leave Law for supervisors and those in the child-rearing generation, respectively. It also includes holding seminars on strategies for balancing childcare and work. As a result, 87% of male employees took childcare leave and leave for childcare purposes in FY2023, and the rate is increasing yearly.

As a measure to help employees work through career issues, we established a career consultation helpline, and also conducted career training programs targeting specific employees, such as those aged 45 or 55 years old. We have also put much effort into expanding flexible work style options in an effort to create an environment where employees can have their careers they want. Current options include remote work, flextime, and part-time work, the latter of which is not limited to those taking care of children or family members.

### 3. Spreading internal understanding of DE&I

In order to make our workplaces “environments where everyone can continue to find success in their own way,” we are working to spread understanding of DE&I within the Company. One specific effort we made was to designate a week in February 2024 as DE&I Week, a period to think about and promote DE&I with employees. DE&I Week included a lecture by an outside director on what DE&I is, as well as the importance of inclusion. This served as an opportunity for employees to think about inclusion as something that affects them. We also conduct repetitive training on diversity, the Nittoku Way, and compliance for managers. In addition, we provide all employees with information on a variety of DE&I-related topics, including the aforementioned activities, through the monthly “Diversity Forum” newsletter issued by the HR department. By doing so, we strive to regularly disseminate information on and spread understanding of DE&I.

**Initiatives Regarding Foreign Employees**

**Promoting DE&I through empathy and compromise to become a Niterra where diverse human resources can shine**



**T.P.**
Diversity, HR Development, HR Developement Department, HR Communication Company

When I joined the company in 2017, the company had not hired many foreign employees in Japan, so I had few opportunities to hear from them. I thought it was important to have a place to hear their requests and concerns, so we started holding regular exchange meetings. This led to a number of initiatives, such as the creation of “Nittokupedia,” an encyclopedia of information compiled by foreign employees on living in Japan and working at Niterra. It serves as a handbook that communicates to new foreign employees the problems they experienced when they first arrived in Japan, and the solutions they found. It is still being updated by our foreign employees. The meetings also lead to the creation of our overseas remote work system, contributing to the gradual creation of an environment where foreign employees can play an active role. I think that empathizing with people like this is the first step towards DE&I.

Of course, inclusion is about more than just empathy. It’s also important to compromise. By conducting workplace-wide training on cross-cultural communication, we helped everyone understand the cultural differences between Japanese and foreign employees, providing them with the impetus to think about how to achieve compromise. By expanding these initiatives and applying them not just to foreign employees, but to everyone, we hope to contribute to the realization of a Niterra where diverse human resources with aspirations can shine.

# Occupational Health and Safety



## Occupational Health and Safety Policy

**With high respect for humanity, we act on occupational health and safety as the Company's starting point.**

* This policy applies to everyone involved in the Group's business activities, including but not limited to full-time, temporary, and contract employees, suppliers, construction contractors, and visitors.

**Action Guidelines**

- To prevent health damage, injuries at work, and illnesses of employees, we will provide a healthy and safe 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 the 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 of 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 in accordance with the action plan agreed upon with employee representatives.

## Promotion System

In order to eliminate occupational accidents and create a pleasant workplace environment, the Group has established an Occupational Health and Safety Management System (OHSMS). The system is managed by the Central Health and Safety Committee chaired by the Chief Safety and Health Officer, which holds two regular meetings per year, as well as irregular meetings as required. The Central Health and Safety Committee is supervised by the CSR and Sustainability Committee, an advisory organ of the Board of Directors chaired by an outside director. It is responsible primarily for reporting on health and safety issues within the Group, and on health and safety activities within each in-house company, as well as for implementing management reviews by the Health and Safety Officer. Each in-house company and department develops and its own goals and plans, and engages in health and safety activities through the Health and Safety Committee of each plant. In FY2023, two meetings of the Central Health and Safety Committee were held. There, the committee reported and discussed matters such as occupational accidents, the global health and safety system, progress on equipment safety measures, and health and productivity management activities. It also conducted a review of the fiscal year and previews of the next fiscal year's activities.




## Occupational Health and Safety Initiatives

### Risk assessment initiatives

Risk assessments (RA) are the core activity of our OHSMS. In risk assessment, we thoroughly study the potential hazards of equipment, chemical substances, and tasks at every workplace (including both current and new businesses), evaluate each hazard's risks to health and safety, and implement hard and soft countermeasures (residual risk management), prioritizing the most dangerous hazards.

In addition, workplace leaders observe work and review RA results to ensure that all workplaces are working together to reduce risk. In the event of an accident, an accident alert is promptly distributed to all Group companies. At a later date, a report outlining permanent countermeasures to the accident will be distributed to all Group employees in order to raise awareness, and measures will be taken to prevent similar accidents.

### Education

To prevent accidents from occurring, we conduct education and training activities from the viewpoints of "people," "products," and "systems." The Health and Safety Guidelines book distributed to all employees summarizes the basics of health and safety, and is available in English and Portuguese. Each workplace holds group readings to ensure that each and every employee practices safe behavior. We provide training using hazard simulators to simulate accidents so that trainees can experience the fear of having an accident, which is difficult to describe in words, and so that they can learn how to avoid accidents. In addition to 29 types of hazard simulators, two types of protective equipment fitting check devices are also available. Through a variety of educational and training activities, including stratified and specialized training, we aim to build a safety culture.

## Health and Productivity Management Initiatives

The Niterra Group 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 Niterra Group and are implementing countermeasures to support mental health and against lifestyle-related diseases and passive smoking.

In particular, we have achieved 100% of employees undergoing health checkups, the basis for employee health management, and we are also focusing on voluntary health checkups such as gynecological examinations and H. pylori examinations. As a measure to prevent lifestyle diseases, we are conducting the Health Challenge Campaign, which presents cafeteria points to employees who meet the campaign's targets. To prevent passive smoking, we have established a company smoking cessation clinic, and smoking was banned throughout the premises from April 2023. We are growing our various health management measures not only at the Company, but also among Group companies, including actions to establish habits for weight loss and exercise across the entire Group.

**Declaration on health and productivity management**

I. The Niterra Group declares that we will support the health of each and every employee and promote Kenkokeiei (health and productivity management) 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.

**President & Chief Operating Officer Takeshi Kawai**

Kenkokeiei is a registered trademark of NPO Kenkokeiei.

## 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 the 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 as 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 an 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.

* For more information please visit our website: https://ngkntk.disclosure.site/en/themes/175/

## Promotion System

The Group recognizes that human rights problems affect a wide range of areas, which is why each department is tasked with tackling human rights issues that affect it. The progress made and challenges encountered in this progress are monitored by the departments themselves, as well as by the relevant special committee.

In recent years, countries around the world have enacted much legislation on the subject of “business and human rights.” In order to ensure the Group’s respect for human rights meets global standards, we began talks in FY2022 primarily between the departments engaged in human rights due diligence (namely, the Business Management Department, Sustainability Strategy Department, Human Resources Strategy Department, Environment & Safety Management Department, and Procurement Department). Since then, we have continuously conducted discussions regarding human rights. Our human rights initiatives are supervised by the Human Rights Subcommittee of the CSR and Sustainability Committee, the latter of which is an advisory body to the Board of Directors chaired by an outside director.

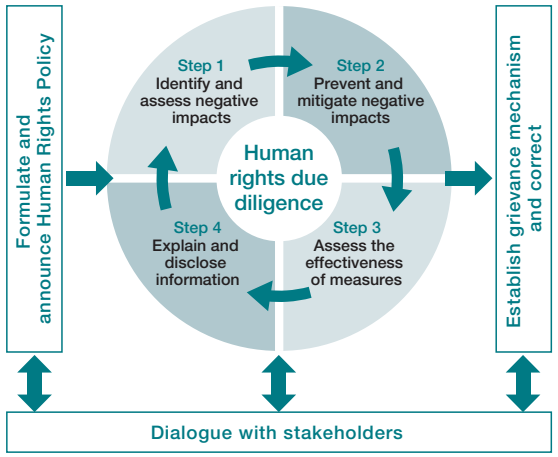
## Respect for Human Rights

We recognize that our business affects a wide range of people from our employees to the employees of our business partners, and residents of local communities. As such, we are committed to respecting human rights through the identification and assessment of negative impacts on human rights related to our business activities. We also work to respect human rights through the establishment of structures to prevent, mitigate, and correct negative impacts.

## Human Rights Policy Formulation and Announcement

We established the Human Rights Policy as one of our CSR basic policies in 2020. In January 2023, we revised the Human Rights Policy due to the increasing importance and expectations of corporate efforts to respect human rights, as well as the need for initiatives within the Group and over the entire value chain.

**Overview of our efforts to respect human rights**



## Human Rights Due Diligence

We make efforts to identify, assess, prevent, and mitigate human rights risks related to our business activities.

To identify human rights risks, we organize the main value chains and stakeholders of the Group and extract any risks generally assumed for each value chain. We then organize these risks, taking reports from international organizations, media databases, other surveys, and benchmarks of other companies into account. From there, we conduct a human rights risk assessment, map, and identify human rights risks in priority areas.

We currently encourage efforts to respect human rights by focusing on priority risks directly in our Group and our supply chain based on these results. We also recognize that identified human rights risks may change due to changes in social conditions, the progress of the Group's business, the development of new business partners, and other factors. In order to enhance the effectiveness of our human rights initiatives, the departments engaged in human rights due diligence are tasked with regularly reviewing the risk map.

### Human Rights Risks in Priority Areas

| Our Group | Supply chain |
|---|---|
| • Occupational health and safety insufficiencies<br>• Long working hours<br>• Discrimination (of all forms, including racial, gender, ethnic and national, disability, and religious)<br>• Dysfunction of the complaint handling mechanism | • Conflict minerals<br>• Forced labor<br>• Child labor<br>• Health hazards to local residents due to environmental pollution<br>• Occupational health and safety insufficiencies<br>• Long working hours<br>• Discrimination<br>• Dysfunction of the complaint handling mechanism<br>• Violation of indigenous rights |

### Surveys of Our Group and the Supply Chain

| | | |
|---|---|---|
| Our Group | Compliance awareness survey | • We conducted the survey domestically once every two years (in FY2023, we enhanced the questions on human rights). |
| | Human rights and labor survey | • Conducted annually |
| Supply chain | Survey through the CSR and Sustainability Procurement Guideline checksheet | • We conducted the survey once every two years (in FY2023, we enhanced the questions on human rights). |

### Our Group

We conduct compliance awareness surveys for employees and surveys on human rights and labor for Group companies. These surveys enable us to identify human rights violations and potential human rights risks.

**• Compliance awareness survey for employees**

This survey of domestic Group employees enables us to ascertain compliance risks (including harassment), levels of awareness and understanding, and the status of our organization. Employees can anonymously write about how they feel about compliance in the open-ended section of the survey. Issues and potential human rights risks identified through the survey are reported to the department managers to improve and prevent.

**• Surveys on human rights and labor for group companies**

We conduct this survey of Group companies every year to identify potential human rights risks.

### Supply chain

To foster CSR and sustainability measures across the entire supply chain, we issued our CSR and Sustainability Procurement Guidelines and have been distributing copies to suppliers. These guidelines also include compliance items related to human rights such as labor, health and safety.

We are requesting suppliers to survey the status of implementation with a checklist every two years, providing feedback on the evaluation results. For suppliers that require follow-up, we confirm the situation by visiting them and other means. We provide support as appropriate if improvements are necessary.

In FY2023, we revised the guidelines and the checksheet and expanded the scope of the survey to all suppliers.

## Complaint Handling Mechanism

We established contact points to accept opinions, questions, requests, etc., from stakeholders, customers, suppliers, and employees.

▶ P.75

## Dialogue with Stakeholders

We hold regular labor-management meetings with the labor union, which represents our employees, to discuss the management of working hours and employee work styles. In FY2023, we conducted dialogues on the theme of human rights.

As for our suppliers, we have established a consultation counter where we sincerely listen to and discuss their issues, leading to actions aimed at achieving mutual understanding and other improvements.



Dialogue with labor unions on the theme of human rights

In addition, we hold roundtable meetings with representatives of residents living near the plant to discuss whether there are any issues that could threaten their living environment.

## Educational Activities

We are working to raise awareness of human rights amongst management and employees by increasing human rights education and other opportunities to provide information about human rights.

Every employee participates in human rights training where they watch videos on the need to respect human rights, our Human Rights Policy, human rights due diligence, and human rights redress. Quizzes are administered to check participants' level of understanding.

In recent years, our various trainings and newsletters have increased Group awareness of gender equality and LGBTQ+ issues, while keeping a close watch on human rights issues around the world.

## 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 at appropriate prices 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.

## Promotion System

The Niterra Group is committed to working with our diverse suppliers in order to meet society's expectations throughout our entire supply chain. We are also committed to promoting responsible procurement with consideration for issues such as human rights and the environment. To that end, our Procurement Department is tasked with working with each of our departments and relevant special committee to assure compliance with the Niterra Procurement Policy. The Procurement Department reports the progress it has made and the issues it has encountered to the Corporate Management Committee as required.

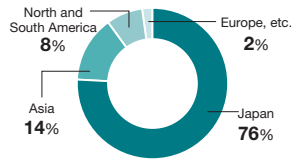
## Supplier Management

We conduct our procurement activities on a global scale, leveraging the benefits of both centralized and decentralized purchasing. For our overseas plants, we make use of local procurement when this is the optimal solution.

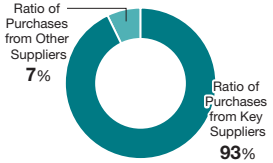
The Procurement Department takes the lead on supplier management, looking into not only quality, technology, price, and delivery time as conditions for doing business, but also sustainability-related perspectives such as environment, social, and governance (ESG) and the suppliers' approach to improvement.

We position the suppliers of parts, materials, processing, and equipment related to the manufacture of our products as key suppliers. Every year, we conduct a periodic rating of these suppliers based on the above supplier management perspectives, ranking each on a scale of A to D and providing feedback in order to spur continuous improvement.

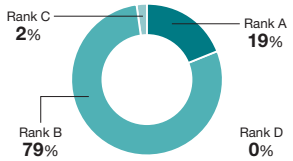
**Procurement Value Composition by Country/Region**




**Ratio of Purchases from Key Suppliers**




**Percentages by Level of Key Supplier**
**(Results of FY2023 Periodic Rating)**




## Promotion of CSR and Sustainability Procurement

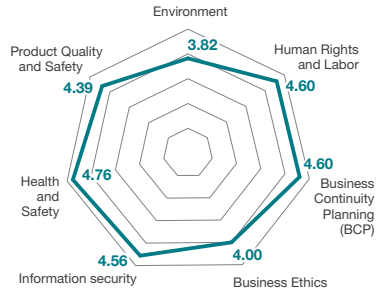
To foster CSR and sustainability measures across the supply chain, we issued our CSR and Sustainability Procurement Guidelines and have been distributing copies to suppliers. When the guidelines were revised in FY2023, we held an information session attended by many of our suppliers in order to deepen their understanding of the guidelines.

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 FY2023, we expanded the scope of the survey to all suppliers, receiving responses from 63% of suppliers (the equivalent of 83% on a total purchase value basis). For some suppliers, we held interviews with management and provided other follow-ups, thereby asking for improvement.

### Climate change initiatives

In order to work toward carbon neutrality throughout our supply chain, we ask our suppliers to set greenhouse gas reduction targets and cooperate in our surveys about $CO_2$ emissions related to products for the Group.

**Results of Checksheet Survey (FY2023)**






Carbon Neutrality Forums with suppliers

## Basic Philosophy on Corporate Governance

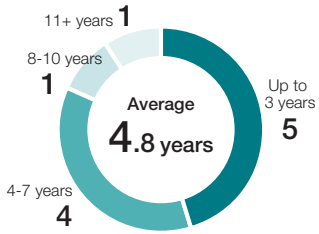
Guided by our corporate philosophy under the slogan "With established trust and confidence inside and outside the Company, we aim to contribute to the peoples of the world by creating and putting at their disposal new values for the future," we have established, and are working to enhance, our corporate 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 our management framework and internal control system to achieve sustainable growth through efficient and sound management.

## Corporate Governance System

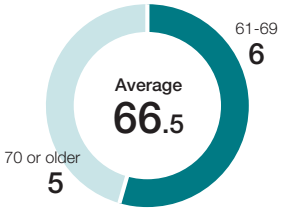
The Company has selected a company with an Audit and Supervisory Committee for the purpose of further enhancing discussions on management policies and strategies at the Board of Directors, strengthening the supervisory function, and further speeding up management decision-making and execution of business.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

### Corporate Governance Highlights (As of June 25, 2024)

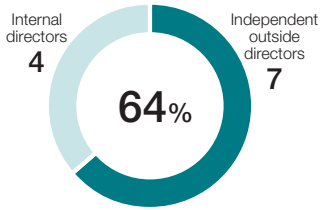
**Directors' years of service***



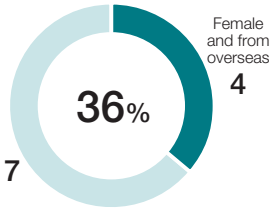

**Age**




**Percentage of independent outside directors**

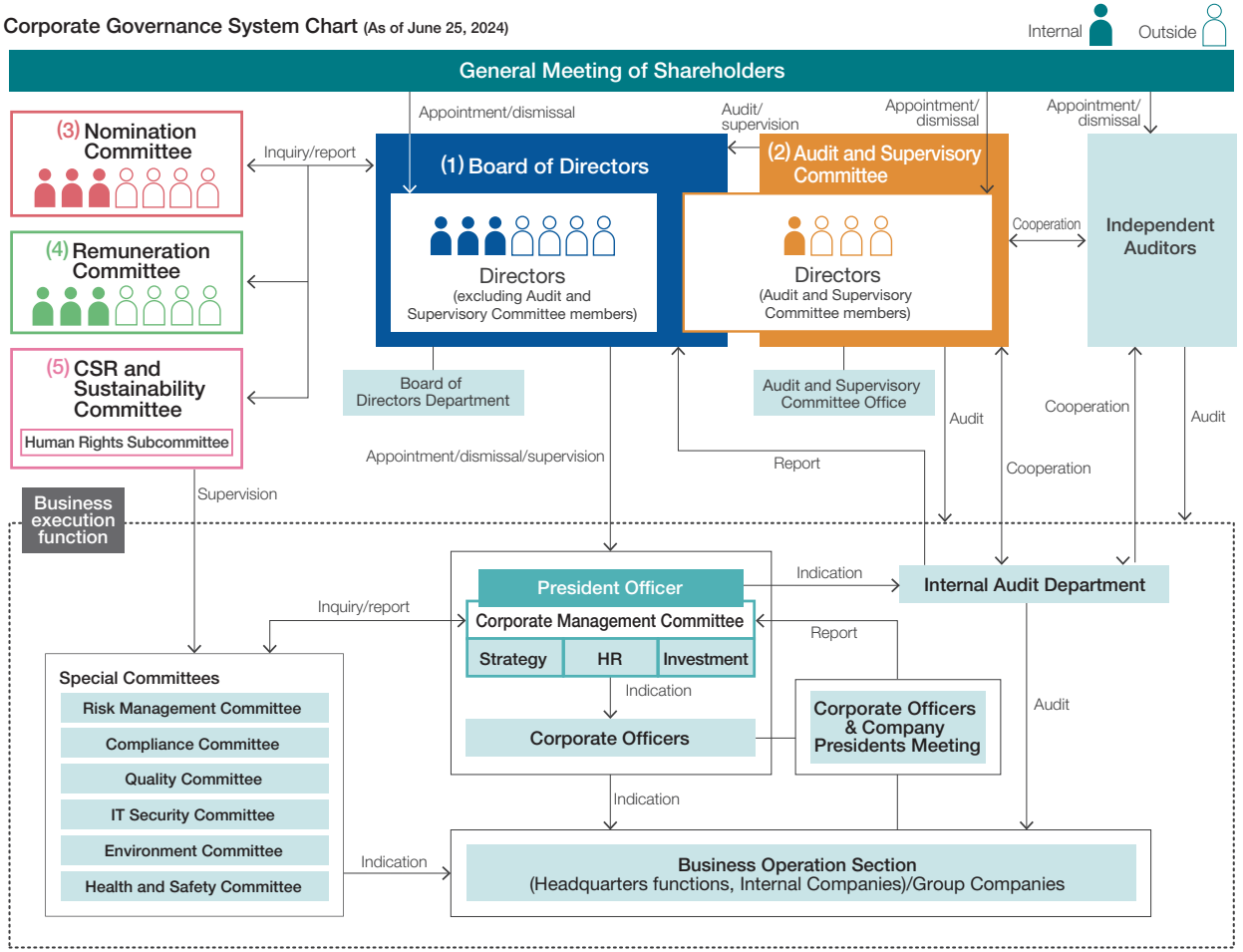



**Percentage of female and directors from overseas**




* Years served as auditors are included for directors that served as auditors before their appointment.

### Corporate Governance System Chart (As of June 25, 2024)

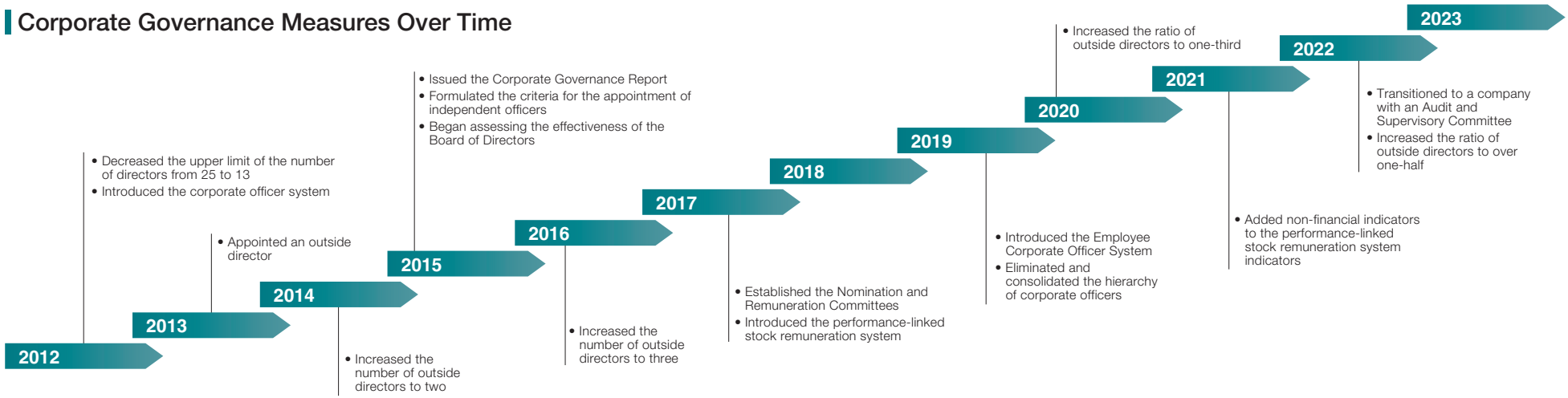



For (1) to (5), see details on ▶ P.62

## Overview of Major Organizations

| | 1. Board of Directors | 2. Audit and Supervisory Committee | 3. Nomination Committee | 4. Remuneration Committee | 5. CSR and Sustainability Committee |
|---|---|---|---|---|---|
| **Purpose** | The Board of Directors deliberates and makes decisions on important management issues such as basic management policies and medium-term management strategies, and supervises the status of business execution by management and the status of internal control systems by receiving reports from the Representative Director and President and other parties. | The Audit and Supervisory Committee audits and supervises the execution of duties. It 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 forming opinions on these matters. | To ensure reasonableness and transparency with regard to director and corporate officer nominations, the Nomination Committee, consulted by the Board of Directors, deliberates on the appointment of directors, which will be proposed at the general meeting of shareholders, as well as on the appointment and dismissal of representative directors, executive directors, and corporate officers, and then delivers its opinions to the Board of Directors. | To ensure reasonableness and transparency with regard to deciding director and executive officer nominations, the Remuneration Committee, based on the Board of Directors' request for opinions, deliberates on matters related to remuneration policies for directors (excluding directors who are Audit and Supervisory Committee members) and corporate officers, as wel as the appropriateness of the proposed remuneration of each director and executive officer, and delivers its opinions to the Board of Directors. | To promote sustainability management in the Group, the CSR and Sustainability Committee, based on the Board of Directors' request for opinions, deliberates to identify priority issues in each area of ESG (Environment, Society, and Governance), delivers its opinions and advice to the Board of Directors, and supervises the activities of each special committee. |
| **Chair** | Chairman of the Board Shinichi Odo | Full-time Audit and Supervisory Committee Member<br>Kenji Isobe (from June 25, 2024) | Chairman of the Board Shinichi Odo | Chairman of the Board Shinichi Odo | Member of the Board (Outside Director)<br>Chiharu Takakura |
| **Membership** | 11 directors<br>(including 7 outside directors) | 4 directors who are Audit and Supervisory Committee members (including 3 outside directors) | 3 representative directors and 4 outside directors (excluding directors who are Audit and Supervisory Committee members)<br>* The 4 directors who are Audit and Supervisory Committee members also attend | 3 representative directors and 4 outside directors (excluding directors who are Audit and Supervisory Committee members)<br>*The 4 directors who are Audit and Supervisory Committee members also attend | Member of the Board (Outside Director)<br>Chiharu Takakura<br>Executive Vice President<br>Toru Matsui<br>Executive Officer<br>Keiji Suzuki / Kenji Kobayashi |
| **Meetings Held** | FY2023: 13 | FY2023: 12 | FY2023: 4 | FY2023: 1 | FY2023: 10 |
| **Status of Specific Activities in FY2023** | In FY2023, in addition to regular matters such as resolutions stipulated by laws and regulation or articles of incorporation, the Board of Directors deliberated on matters such as the progress of the Medium-term Management Plan, important investment deals, business and growth strategies for individual businesses, initiatives towards sustainability challenges, Group governance, risk management, dialogue with shareholders and investors, and the effectiveness of the Board of Directors. | In FY2023, in addition to deliberations at Audit and Supervisory Committee meetings and attendance of each Audit and Supervisory Committee member at Board of Directors meetings, interviews with directors, corporate officers, heads of business, managers of internal control units, and others, regular liaison meetings with the Internal Auditing Department, and joint audit activities were conducted. In addition, the full-time Audit and Supervisory Committee member confirmed the effectiveness of internal controls and the status of business execution by attending important meetings such as the CSR and Sustainability Committee and the Corporate Management Committee, reviewing approval documents, and through regular liaison meetings with Group company auditors, and made reports at Audit and Supervisory Committee meetings. | In FY2023, the Nomination Committee, based on the Board of Directors' request for opinions, deliberated mainly on the composition of the Board of Directors, the content of proposals to be submitted to the general meeting of shareholders for the election of directors, the appointment of representative directors and executive directors, and the appointment of corporate officers, and delivered its opinions to the Board of Directors. | In FY2023, the Remuneration Committee deliberated and reported mainly on evaluations of corporate and individual performance, the resulting individual remuneration for each director (excluding directors who are Audit and Supervisory Committee members) and corporate officers (excluding employment-type corporate officers), and revisions to the policy for determining remuneration and other matters for directors (excluding directors who are Audit and Supervisory Committee members) based on requests from the Board of Directors. | In FY2023, the CSR and Sustainability Committee deliberated on and discussed sustainability management, promoting individual "ownership" of sustainability, priority issues, human rights governance system, employee well-being, and the activities of each special committee, and also invited outside experts to give lectures to enhance the knowledge and perspective of the committee. |

## Corporate Governance Measures Over Time



## Roles and Structure of the Board of Directors

The Board of Directors plays the following roles to help the Company achieve sustainable growth and increase its corporate value on a medium- to long-term basis, thereby increasing its profitability, capital efficiency and others:

- Deliberates and makes decisions on the basic management policies, medium- to long-term management strategies and other important managerial issues
- Builds and improves the environment to help the management team take risks appropriately
- Supervises the management team in a highly effective manner from an independent and objective standpoint

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

Considering the business and management system of the Group, the Board of Directors identified the experience, knowledge and expertise 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 a well-balanced manner with consideration for diversity. The experience, knowledge, and expertise required by the Board of Directors should be reviewed as appropriate in response to changes in the Company's management policy, external environment, and other factors. In addition, the review will be deliberated by the Nomination Committee, which is an advisory committee to the Board of Directors, and decided by the Board of Directors.

### Skill Matrix of Directors*1

| Name | Position | Independence | Experience/Knowledge/Expertise | | | | | | | | | | Composition of each Committee | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Management | Finance/ Accounting | Governance/Legal/ Risk management | Experience overseas | Technology/ R&D | Sales/ Marketing | New Business/ M&A | HRD/HR | IT/DX | SCM | Nomination Committee | Remuneration Committee | CSR and Sustainability Committee*4 |
| | | | *2 | | | | | | *3 | | | | | | |
| Shinichi Odo | Representative Director Chairman of the Board | | ○ | | ○ | ○ | | ○ | ○ | | ○ | | ○ | ○ | |
| Takeshi Kawai | Representative Director, President & Chief Operating Officer All Divisions | | ○ | | ○ | | ○ | | ○ | | ○ | ○ | ○ | ○ | |
| Toru Matsui | Representative Director Executive Vice President | | ○ | | ○ | ○ | | ○ | ○ | | | ○ | ○ | ○ | ○ |
| Miwako Doi | Outside Director | ● | | | | | ○ | | ○ | | ○ | | ○ | ○ | |
| Chiharu Takakura | Outside Director | ● | | | ○ | ○ | | | | ○ | | | ○ | ○ | ○ |
| Takayoshi Mimura | Outside Director | ● | ○ | | ○ | ○ | | ○ | | | | | ○ | ○ | |
| Hisanori Makaya | Outside Director | ● | ○ | | ○ | | | | ○ | | ○ | | ○ | ○ | |
| Kenji Isobe | Director Full-time Audit and Supervisory Committee Member | | | ○ | ○ | | | | | ○ | | | Attends the meeting | Attends the meeting | |
| Fumiko Nagatomi | Outside Director Audit and Supervisory Committee Member | ● | | | ○ | | | | | | | | Attends the meeting | Attends the meeting | |
| Christina L. Ahmadjian | Outside Director Audit and Supervisory Committee Member | ● | ○ | | ○ | ○ | | | | ○ | | | Attends the meeting | Attends the meeting | |
| Hideyo Uchiyama | Outside Director Audit and Supervisory Committee Member | ● | ○ | ○ | ○ | ○ | | | | | | | Attends the meeting | Attends the meeting | |

*1 The above matrix represents the areas of expertise that we expect from each director and does not represent all of the knowledge and experience that they possess. *2 Areas fundamental for critical decision-making in the management and supervision of business operations.
*3 Areas that require active promotion and supervision to realize the Medium-term Management Plan. *4 The CSR and Sustainability Committee consists of Executive Officers Keiji Suzuki and Kenji Kobayashi, in addition to directors marked with a circle.

## 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.

| Title | Name | Reason for appointment | FY2023 Frequency of attendance | |
|---|---|---|---|---|
| | | | Board of Directors | Audit and Supervisory Committee |
| Outside Director | Miwako Doi | She has an abundance of experience and an outstanding record as a researcher in the field of information and communication, and continues to be engaged in advanced research both in academia and in the private sector. As an outside director at the Company, based on her experience and insight, she oversees business execution by the Company's management team and provides advice to the team, and we have selected her as an outside director with the expectation that she will continue to fulfill her role. | 13/13 | — |
| Outside Director | Chiharu Takakura | She has an abundance of experience and knowledge in organizational development and human resource development through her experience as a consultant in these fields and her experience in key positions in the personnel departments of many global companies, including international pharmaceutical companies. As an outside director at the Company, based on her experience and insight, she oversees business execution by the Company's management team and provides advice to the team, and we have selected her as an outside director with the expectation that she will continue to fulfill her role. | 13/13 | — |
| Outside Director | Takayoshi Mimura | He has long been involved in management from both an executive and supervisory perspective, including serving as a business manager and chairman of the Board of Directors at an operating company, and has a high degree of insight into corporate management and corporate governance. In addition, he has an abundance of experience in the medical device field and global business from his long involvement in the medical device business and the cultivation of overseas markets. As an outside director at the Company, based on his experience and insight, we have selected him as an outside director in the expectation that he will continue to fulfill his role to oversee business execution by the Company's management team and provide advice to the team. | 10/11* | — |
| Outside Director | Hisanori Makaya | He has been involved in management from both an operational and supervisory capacity, serving in key positions at an operating company's planning and business divisions. He has long been instrumental in driving business transformation and M&A, and as President & CEO, he led the establishment of a system to respond to changes in the business environment. We have selected him as an outside director in the expectation that he will oversee business execution by the Company's management team and provide advice to the team based on his experience and insight. | — | — |
| Outside Director Audit and Supervisory Committee Member | Fumiko Nagatomi | She has expert knowledge and an abundance of experience accumulated over many years as a lawyer. We have selected her as an outside director who is an Audit and Supervisory Committee member with the expectation that she will continue to fulfill her role to supervise and audit the Company's overall management based on her expertise and experience as an outside director who is an Audit and Supervisory Committee member, and to provide appropriate advice for overall management as necessary. | 12/13 | 12/12 |
| Outside Director Audit and Supervisory Committee Member | Christina L. Ahmadjian | Based on her extensive experience and deep insight as a researcher of corporate management, corporate governance, and organizational culture and her involvement in management as an outside director in many companies, we have selected her as an outside director who is an Audit and Supervisory Committee member with the expectation that she will continue to fulfill her role to supervise and audit the Company's overall management as an outside director who is an Audit and Supervisory Committee member, and to provide appropriate advice for overall management as necessary. | 12/13 | 12/12 |
| Outside Director Audit and Supervisory Committee Member | Hideyo Uchiyama | He has expert knowledge and extensive experience accumulated over many years as a certified public accountant, as well as rich experience in managing an auditing firm and global consulting firm. Based on his knowledge and experience, we have selected him as an outside director who is an Audit and Supervisory Committee member with the expectation that he will supervise and audit the Company's overall management as an outside director who is an Audit and Supervisory Committee member, and to provide appropriate advice for overall management as necessary. | — | — |

* Board of Directors meetings held after taking office as an outside director on June 27, 2023

## Succession Plan

The Board of Directors engages in the formulation and implementation of the succession plan, designed to discover and cultivate 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

In addition to confirming the operation of succession plans through the Nomination Committee, the representative directors and other outside directors are actively involved in human resource development by participating in management human resource development programs as lecturers and observers.

### Details of measures to discover and cultivate human resources

In FY2023, we held the "Management Sparring Dojo," a management human resources development program aimed at cultivating the competencies and viewpoints required for management by talent who will become our next management team (members of the Corporate Management Committee). This program is designed to provide participants with the knowledge (including ESG, science, geopolitics, etc.) that a manager should have, as well as the attitude and thinking required of a manager.

In addition, through the HAGI Program for global next-generation managerial human resource development and the Nittoku Business School selective training program, we are continuously striving to discover and develop human resources who will lead the next generation of management.

## Evaluation of the Effectiveness of the Board of Directors

The Company conducts an annual evaluation of the effectiveness of the Board of Directors in order to verify whether the Board of Directors is properly fulfilling its expected functions and to continuously improve its effectiveness.

In FY2023, we conducted a questionnaire survey of directors to evaluate the composition and operation of the Board of Directors, deliberation of management and other strategies, and oversight of business execution. The results of this survey were used to evaluate the effectiveness of the Board of Directors.

### Method of evaluation

Evaluation was conducted by the Board of Directors based on a survey of directors.

**Survey items**

- Composition and operation of the Board of Directors
- Deliberation of management and business strategies
- Corporate ethics and risk management
- Monitoring of business execution and evaluation/remuneration of management
- Dialogue with shareholders and investors

↓

Evaluation at the Board of Directors

↓

Confirmation of issues

↓

Study of issue action policy

| | |
|---|---|
| **Overview of evaluation results for FY2023** | We confirmed that the effectiveness of the Board of Directors is sufficiently ensured, and that effective measures are being taken in the following areas in particular:<br>• The roles and functions of the Board of Directors and management in charge of business execution were clarified, and we confirmed that the Board of Directors comprises members who have the knowledge, skills, experience, and diversity necessary to fulfill their roles and functions.<br>• The Board of Directors recognizes that addressing issues around sustainability, such as consideration of climate change and other global environmental issues and respect for human rights, is important from the perspective of increasing medium- and long-term corporate value, and confirms that management is actively working to address these issues under an appropriately established structure.<br>• The Board of Directors has established suitable internal controls and risk management structures in the Group to ensure proper compliance and support risk taking and supervises the status of operations through the Internal Auditing Department, Sustainability Committee, and all subordinate committees.<br>• To ensure that decisions regarding the appointment and dismissal of management are appropriately carried out, the Nomination Committee appropriately evaluates management's execution of duties from the perspective of sustainable growth and corporate value.<br>• The 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. |

| | FY2022 evaluation | | FY2023 evaluation |
|---|---|---|---|
| **Issues recognized** | • Improving information and explanations provided to the Board of Directors regarding medium- to long-term management strategies<br>• Strengthening oversight of management succession plans by the Board of Directors and Nomination Committee | **Issues recognized** | • Conducting more in-depth discussions on investment in human capital and human resources strategy<br>• Further improving explanatory materials and content at Board of Directors meetings (ongoing issue)<br>• Conducting regular reports and discussions on the overall picture of the succession plan and progress (ongoing issue) |
| **Action status** | With regard to improving information and explanations provided to the Board of Directors regarding medium- to long-term management strategies, the Board of Directors held discussions on multiple occasions from the examination stage to the final decision in order to ensure sufficient time for the provision of information and deliberation on important matters affecting the medium- to long-term strategy. Furthermore, we conducted off-site meetings to discuss medium- to long-term strategies among directors, provided advance explanations to outside directors on important board agenda items, and consistently reported on the progress of the Medium-term Management Plan.<br>Regarding the strengthening oversight of management succession plans by the Board of Directors and Nomination Committee, we have provided opportunities to confirm the development of management personnel through the participation of outside directors who are members of the Nomination Committee in observing management personnel development programs and in the promotion evaluation process of corporate officers. | **Action status** | This effectiveness assessment revealed that there is a need for more in-depth discussion regarding investments in human capital and human resource strategies associated with key management policies and strategies under consideration for the next Medium-term Management Plan and the transition to a holding company system. In the future, we will set and discuss topics related to investments in human capital and human resource strategies at Board of Directors meetings, while linking them with discussions on the next Medium-term Management Plan.<br>In addition, the issues of the previous fiscal year have been identified as ongoing issues for further improvement. We will address this by implementing measures such as reviewing the format of board materials to enhance the quality of discussions at the Board of Directors' meetings and streamline operations, as well as setting agendas for reporting and discussing the overall succession plan and progress in the Nomination Committee. |

## Remuneration for Officers

### Basic policy

Remuneration for directors (excluding directors who are Audit and Supervisory Committee members and outside directors) and corporate officers is paid based on the policy of providing them with additional motivation to contribute to improving the Company's business performance on a medium- to long-term basis and growing the corporate value, while ensuring they have a shared interest with shareholders by holding company shares themselves. The remuneration consists of fixed remuneration paid in the form of cash; bonus, which is linked with the Company's single-year business performance, etc.; and performance-linked stock remuneration paid in accordance with each person's position and level of achievement against the performance targets set in the medium-term management plan and others. Remuneration of directors who are Audit and Supervisory Committee members and outside directors comprises only fixed remuneration.

Our Remuneration Committee acts as an advisory body to the Board of Directors. It deliberates on the remuneration policies, procedures, and systems for directors (excluding directors who are Audit and Supervisory Committee members) and corporate officers as well as the appropriateness of the amount of remuneration planned to be paid to each director (excluding directors who are Audit and Supervisory Committee members) and corporate officers, and submits the results to the Board of Directors to ensure the rationality and transparency of the decisions made concerning the remuneration of directors (excluding directors who are Audit and Supervisory Committee members and outside directors) and corporate officers. In FY2023, the committee met one times.

### Example of remuneration payment




### Policy on the payment of bonus

As for bonuses, in addition to the base amount set for each position, an amount 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. The Company uses consolidated operating income, which reflects the results of operating activities, as an indicator for the calculation of bonus amounts, in order to ensure bonuses are tied to the Company's performance and to raise awareness of the need to contribute to the improvement of the Company's performance. The bonus amount is calculated based on the rate of increase or decrease of consolidated operating income for the current fiscal year against past fiscal years and based on the qualitative evaluation of individual performance.

### 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 the non-ICE business and rate of reduction of $CO_2$ 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.

### Type and details of remuneration for officers

| | Fixed remuneration | Bonus | Performance-linked stock remuneration |
|---|---|---|---|
| **Details of 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 monthly in cash. | Bonus is determined based on a comprehensive consideration of the base amount for each position, by taking into account quantitative targets for the degree of achievement of Company performance goals, indicators of improving employee engagement such as employee satisfaction as well as qualitative evaluations of individual performance, and is paid at a certain time each year in cash. | The Board Incentive Plan (BIP) is adopted, where the Company shares and money in the amount equivalent to the value of the Company shares are given or granted to directors at the end of the period set for the system, based on their positions and level of achievement against the targets set in the Medium-term Management Plan, etc. |
| **Indicators against which the achievement of performance targets is assessed** | — | ● Change in consolidated operating income for the current fiscal year versus past fiscal years<br>● Employee satisfaction<br>● Qualitative evaluation of individual performance | Single-year performance goals:<br>Consolidated revenue, consolidated operating income<br>Medium-term performance goals:<br>Consolidated revenue, consolidated operating income, ROIC<br>Non-financial measures goals:<br>Sales from non-ICE business, rate of reduction of $CO_2$ emissions |
| **How to determine payment** | — | Payment is determined within the range of 0% to 200% based on the achievement of the Company performance target and assessment of individual performance. | The ratio of the fixed portion to the performance-linked portion is set to be 3:7 (including 2 non-financial indicators), in the case of 100% achievement of each indicator. The performance-linked portion is determined within the range of 0% to 200%, according to the achievement of each indicator. |
| **Recipients** | Directors, Corporate Officers | Directors (excluding directors who are Audit and Supervisory Committee members and outside directors), Corporate Officers | Directors (excluding directors who are Audit and Supervisory Committee members and outside directors), Corporate Officers (excluding employment-type corporate officers)* |

*An Employee Stock Ownership Plan (ESOP) Trust has been adopted for employment-type corporate officers.

### Total amount of remuneration, etc. paid to officers, total payment amount by remuneration type, and the number of recipients (for FY2023)

| Category | Total amount of remuneration paid (millions of yen) | Total payment amount by remuneration type (millions of yen) | | | Number of recipients (persons) |
|---|---|---|---|---|---|
| | | Fixed remuneration | Bonus | Performance-linked stock remuneration | |
| **Directors** (excluding directors who are Audit and Supervisory Committee members) (of which, outside directors) | 473 (62) | 296 (62) | 131 (—) | 44 (—) | 8 (5) |
| **Directors who are Audit and Supervisory Committee members** (of which, outside directors) | 93 (46) | 93 (46) | — | — | 4 (3) |

(Notes) 1. The total amount of bonuses and performance-linked stock remuneration are both the amounts expensed in FY2023.
2. The above includes remuneration for one outside director (excluding those who are Audit and Supervisory Committee members) who retired at the conclusion of the 123rd general meeting of shareholders.

## Measures to Strengthen Functions of Audit and Supervisory Committee

### 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 five 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.

### Coordination with the Internal Auditing Office

The Audit and Supervisory Committee and Internal Audit Department meet regularly and as necessary to exchange information on audit policies, audit plans, audit implementation status, and other matters and to work in close collaboration with one another. In particular, the full-time Audit and Supervisory Audit Committee member and the Audit and Supervisory Committee Office and the Internal Audit Department hold monthly meetings to strengthen mutual cooperation. In addition, Audit and Supervisory Committee members or Audit and Supervisory Committee Office staff 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.

## Stocks Held for Reasons Other than Pure Investment Purposes

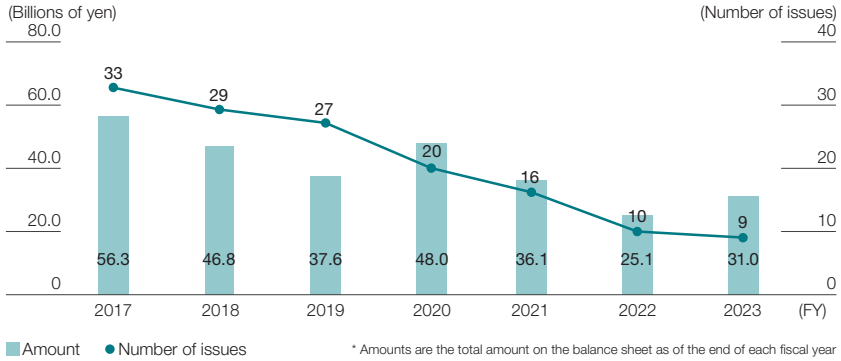
### Policy on the stocks held for reasons other than pure investment purposes

Niterra 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. The nine stocks held for reasons other than pure investment purposes (listed stocks) as of the end of FY2023 amounted to 31 billion yen (market value basis), accounting for 4.9% of total equity.

### Criteria for the exercise of voting rights

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.

**Stocks held for reasons other than pure investment purposes (listed stocks)**




* Amounts are the total amount on the balance sheet as of the end of each fiscal year

## Establishment of the Board of Directors Department

We have established a Board of Directors Department as a dedicated organization to support the operation of the Board of Directors. The purpose is to enhance the content of deliberations at the Board of Directors meetings, strengthen supervisory functions, and improve support and information provision to outside directors who constitute the majority of the Board of Directors. The Board of Directors Department supports the smooth operation and enhanced effectiveness of the Board of Directors by organizing and selecting board meeting topics, planning annual schedules, coordinating with related departments, and conducting pre-meeting briefings and orientation for outside directors at the time of their appointment, as well as managing the effectiveness evaluation of the Board of Directors. In addition, the Board of Directors Department is also responsible for the Nomination Committee and the Remuneration Committee, supporting the operation of both committees.

## Group Governance

Niterra has corporate officers who were locally recruited at its regional headquarters (RHQs) 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 for the Automotive Components Group. We have also formed unique governance teams at the RHQs to promote the optimal decentralized system on a Group-wide basis. As for our other businesses, we plan to establish a Group Company Management Department within the Global Strategy Division from FY2024 to oversee and manage our domestic and overseas group companies. We are working to enhance corporate governance across our global operations in line with the scale of our businesses.

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 carryout 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.



## In response to the changing times, we will enhance our corporate value by building and strengthening a corporate governance system suitable for the Niterra Group.

**Shinichi Odo,** Representative Director, Chairman of the Board

### Responding to the Increased Importance of Governance Enhancement

With the drastic changes in the environment that surrounds companies, the importance of enhancing corporate governance is increasing year by year.

The Niterra Group's basic stance on corporate governance is as follows: In order to promote management that increases our medium-to-long-term corporate value, build relationships of trust through fair and highly transparent management, giving proper consideration to our various stakeholders, and establish and operate an efficient and sound management and internal control systems.

Since becoming Representative Director and President in 2011, Representative Director, Chairman, and President in 2016, and Representative Director and Chairman of the Board in 2019, I have been working to enhance our governance system.

It was in 2013 that we first appointed an individual with management experience in the private sector to serve as an outside director. Since then, the atmosphere of our Board of Directors has gradually changed. When asked to give an opinion on a topic, they come from a completely different perspective than our inside executives. Their opinions were eye-opening, providing us with a constant stream of new discoveries.

### Evolving to a Highly Transparent Governance System

Since then, we have enhanced our governance year by year, increasing the number of outside directors to two in 2014 and then three in 2016. In 2020, one-third of directors were outside directors. Since 2022, a majority of directors have been outside directors. At the same time, we transitioned into a Company with Audit and Supervisory Committee in order to further enhance discussions on management policies and strategies at the Board of Directors, enhance our supervisory functions, and further accelerate management decisions and the execution of duties. Through efforts like these, I believe we have established a governance system that ensures a certain level of transparency.

Since the June 2024 General Meeting of Shareholders, seven of our eleven directors have been independent outside directors. Four of the eleven are female (and one of the four is a foreign national). Along with this shift to a so-called monitoring board, which emphasizes oversight of management, diversity is also increasing. Our current governance system, including the percentage of female managers, resulted not from box-ticking, but rather from a genuine belief in the value of diversity.

Though the current trend is for boards of directors to shift from management boards to monitoring boards, there is no one right answer to how governance should be. The principles set forth in a corporate governance code are merely a starting point.

For example, European and American often have oversight-focused monitoring boards consisting almost entirely of outside directors, with the exception of the CEO. Many also choose to hire top management from outside the Company. The best thing a company can do is to take note of such examples, choose an approach based on the benefits it provides and the time-scale of the Company's perspective, and optimize that approach over time based on the direction the Company wants to take in the future.

What I would like the President and CEO to do is focus on execution, doing everything he can to achieve our short to medium term goals over a span of one or three fiscal years. As Chairman of the Board, I am dedicated to considering the Company's management from a longer-term perspective and assuring the short- to medium-term goals handled by executives remain consistent with our long-term goals.

### Setting Policy for the Current Businesses and Deliberating Creation of New Businesses

The Group assumes that demand for automotive internal combustion engine

parts, our main product, will peak and go into decline in the mid-2030s. Based on this assumed scenario, we have been working to maximize cash generation of our current businesses through increased efficiency while also creating new non-ICE businesses.

We are at a critical juncture where we are under pressure to optimize our business portfolio. As such, one of the main roles of the Board of Directors in recent years has been to conduct deliberations on important management issues, such as our basic management policies and medium to long term management strategies.

The focal point of Board of Directors meetings in FY2023 has been how to effectively operate both current and new businesses, with deliberations focusing primarily on the direction of current businesses and investments aimed at creating new businesses.

During deliberations about current businesses, we made the momentous decision to begin discussions of the acquisition of spark plug and exhaust gas oxygen sensor businesses, respectively.

As for the creation of new businesses, I expect discussions of this topic to accelerate in the future. The question is how to develop businesses that utilize our core technologies to contribute to solving social issues. FY2024 is the last year of our current Medium-term Management Plan (MMP). When developing our new MMP, I would like to focus our future efforts to create new business areas with higher chances of success. To assure feasibility of the next MMP, we will need input from our outside directors. As chairperson, I hope to create a forum for such constructive discussion.

## Creating Venues for Free Discussion Outside of Board Meetings

One of the characteristics of our Board of Directors is the vigorous exchange of opinions between our inside and outside directors during deliberations. You can see that every participant in board meetings is trying to reach a better conclusion through discussions by the way they not only make suggestions based on their areas of expertise, but also actively gives opinions on matters outside their expertise.

In FY2023, there was a split vote in favor of one of the resolutions brought before the Board of Directors. I have the impression that there have been more dissenting opinions from different perspectives in recent years regarding not only resolutions, but also reports. I see dissenting opinions and negative votes positively, as they are a sign that the Board of Directors is a healthy place where outside directors feel psychologically secure enough to give their opinions.

Furthermore, we started holding pre-meeting briefings for outside directors in 2022 in order to foster understanding and facilitate active discussion of increasingly sophisticated and complex matters being discussed by the Board of Directors. This leads to more varied opinions and questions being given at Board of Directors meetings, increasing the depth of discussions. The briefings also serve as trainings for the executives responsible for explaining matters to the outside directors.

We also organize offsite meetings as venues to freely give opinions outside of Board of Directors meetings. Outside directors are also involved in the development of the next MMP. While its content is currently still at the discussion phase, we are following a process consisting of exhaustive discussion with outside directors from as early as the outline stage. The Group considers the content of the next MMP to be key to realizing our optimal business portfolio. At the same time, we would like to advance discussions of human resource strategy and human capital investment needed to implement the MMP, including what sort of human resources we will need.

In addition to enhancing discussions at Board of Directors meetings and offsite meetings, one other effort to strengthen governance we are focusing on is the enhancement of director training. For newly-appointed outside directors, we provide them with a training program aimed at fostering an understanding of the Group. In this program, they receive lectures about our history, organizational culture, and the specifics of our business, and are also given opportunities to tour our plants and other workplaces. Also, when I visit an overseas location, I make a point to invite outside directors to accompany me whenever possible.

While we were not able to do things like this during the COVID-19 pandemic, I hope to increase the frequency of such occasions in the future, as they allow outside directors to participate in discussions with an understanding of the Group and leverage their diverse perspectives.

## Establishing a New Board of Directors Department to Further Enhance Our Governance System

In April 2024, we newly established a Board of Directors Department dedicated to supporting smooth operation of the Board of Directors by, among other things, coordinating topics of discussion regarding our medium to long term strategies, and organizing director training. Our goals in establishing this new department were to separate the functions of the Board of Directors Secretariat (previously under the umbrella of the Secretarial Department) from the Group's executive functions, and to increase the effectiveness of the Board of Directors. Moving forward, we will work to enhance the functions of the Board of Directors Department with input from our outside directors.



As the automotive industry enters an era of once-in-a-century change, and as the Group will take on the challenges of different business areas, the nature of the Group's governance will change. Recently, we began discussions of transitioning to a holding company structure. As the business environment and our organizational structure change, our governance and the themes we must discuss will also have to evolve in lock-step.

To assure the sustained growth of the Group, the Board of Directors will supervise our executive team based on medium to long term strategies, and we will firmly fulfill our accountability to shareholders, investors, and other stakeholders. To this end, I am committed to leading both the establishment of an appropriate governance structure and transparent and active discussions at Board of Directors meetings.

# Supporting the Transformation of the Business Portfolio to Realize the Long-term Vision



Outside Director Audit and Supervisory Committee Member
Fumiko Nagatomi

Outside Director Audit and Supervisory Committee Member
Kanemaru Yasui

Outside Director Audit and Supervisory Committee Member
Christina L. Ahmadjian

## The Role of Outside Directors and the Current Governance System

**Yasui** Let me first mention that we transitioned to a Company with an Audit and Supervisory Committee two years ago. I see the Board of Directors as being in the process of transitioning from a so-called "management board" primarily responsible for make decisions on the execution of business function, to a "monitoring board" designed to provide a supervisory function. There are still many issues to be resolved before the Board of Directors can fully function as a monitoring board. On the other hand, it has made effective efforts towards the realization of its supervisory function. This includes the establishment of offsite meetings where directors can freely express their opinions outside the Board of Directors. It also includes the holding of pre-meeting briefings on agenda items in order to enhance the quality of discussions at the Board of Directors meetings.

**Nagatomi** Our governance has evolved in response to the changing times. After all of the reforms to date, I believe that our governance framework is essentially complete. I feel that what we need to do moving forward is to raise awareness and increase the sophistication of our operational system. In the future, we will need to make improvements, such as deciding in advance what matters require substantive discussion, setting these forth in our annual plans, and ensuring they are discussed.

## Improving the Effectiveness of the Board of Directors

**Yasui** Naturally, many things have changed in the two years since the transition to a Company with an Audit and Supervisory Committee. That said, the established practice of reporting and discussing the nitty and gritty of business execution still continues to some extent. I think our current challenge is to increase discussion of issues requiring a broader and more medium to long term perspective, such as management strategy. For example, I think we should actively leverage our offsite meetings even more than we do now.

**Ahmadjian** I think the operation of the Board of Directors has definitely improved. I believe that a highly effective Board of Directors demonstrates its supervisory function by intensively discussing topics that have been narrowed down in advance. I feel our Board of Directors has increasingly pared down topics of discussion to just the most important themes, such as new businesses, the next Medium-term Management Plan, human capital, and business successions. That is a big step forward compared to a year ago. I look forward to engaging in extensive discussions on important themes, including monitoring progress on the Medium-term Management Plan.

**Nagatomi** While discussion of macro-level management is important, some agenda items require timely decision-making, so it is important to balance this with discussion of medium to long term management.

**Yasui** Regarding matters to be discussed at Board of Directors meetings, as shown by the results of evaluating the Board's effectiveness, I feel that there is a gap in mindset between inside and

* This roundtable discussion was held in May 2024. Kanemaru Yasui resigned on June 25, 2024.

outside directors. For example, inside directors approach discussion of individual business after having ascertained the costs of its products and finalized an elaborate sales strategy based on that information. In contrast, outside directors approach this same discussion from a general management perspective, haven taken social trends into account. I believe conducting discussions in a way both sides can agree is something we will have to work on.

**Nagatomi** I think that reconciling the differences in mindset is not something that can be done overnight. Bridging this gap requires that the executives who prepare and explain the agenda items have both managerial and executive perspectives, so it is important to invest time in the development of these human resources. Before Board of Directors meetings, our outside directors are given an opportunity to receive a briefing on matters to be discussed. Plenty of time is set aside for the executives to explain the agenda items they have proposed to us. I feel that confirming the underlying points in advance allows for meaningful discussions during the Board of Directors meeting, which leads to improved effectiveness of the Board. Furthermore, I believe that when questions and opinions are raised by outside directors from various perspectives, it serves as a training opportunity for the executives to understand the management's viewpoint.



## Stronger Support for Outside Directors

**Ahmadjian** As a manufacturing company, I think it is very important to understand the efforts being made on site. Our recent plant tour was a very meaningful experience for me, as I was able to get a sense of the actual work environment by talking with employees working hard there. I feel that having a system in place which allows for dialogue with employees on site, if desired, is highly commendable.

**Yasui** We are very excited about the new organization, the Board of Directors Department, which was established in April 2024. My expectation is that it will function to control agenda items that come before the Board of Directors. I believe it is important to organize the agenda and apply a thorough filter before discussions at the Board of Directors meeting, ensuring that the points to be discussed are set from a monitoring perspective rather than just the management's viewpoint.

**Nagatomi** The Board of Directors Department was only recently established, so it is yet to be seen exactly what effect it will have. However, I see the clarification of its responsibilities and authority as the supporting organization of the Board of Directors as a significant step forward. I especially appreciate this as an outside director, since it makes it easier for me to give opinions and suggest improvements.

**Ahmadjian** Moving forward, it would be beneficial to expect the provision of information related to industries closely related to our Group's businesses, as well as the latest updates on corporate sustainability. This would contribute to the activation of discussions and enhance the overall engagement. In order for outside directors to contribute from their own perspectives to the exercise of the Board of Directors' supervisory function and the activation of medium to long-term discussions, it is important to have a broader range of background information, including industry trends and the initiatives of other companies, in addition to our Company's information. To do that, we need a wide variety of background information regarding not only the Company, but also industry trends, as well as initiatives by other companies. I believe that this is still an area where our Company is lacking. Providing such information would not only contribute to the training of outside directors but also address a common challenge for Japanese companies as a whole.



## Deepening Discussions at the Nomination and Remuneration Committees

**Yasui** The Nomination Committee may need to have ongoing discussions about the items in the current skill matrix in terms of what other skills the Board of Directors will need in the future. However, this is a work in progress.

**Nagatomi** As for remuneration for officers, we recognize that the remuneration determination process is proceeding according to the rules, using appropriate calculation methods. Measures have been taken to provide some flexibility based on the Company's performance and fluctuations in the total amounts paid. Some basic policies are in place, and there are systems to assure fairness based on the situation at any given time. As such, I do not see there being any particular problems in this area.

**Ahmadjian** Medium and long term incentives (LTI) account for rather small perecentages of performance-linked remuneration, so this may need to be reviewed. Non-financial indicators include the ratio of non-ICE business revenue and the rate of $CO_2$ emissions reduction. However, whether the current compensation system is sufficient as an incentive to expand new businesses requires further in-depth discussions.



## Realizing the Long-term Vision and Expectations for the Future

**Ahmadjian** It is important to discuss how to enhance profitability and capital efficiency, such as promoting ROIC management. However, the Board of Directors should also engage in deeper discussion of medium to long term issues, namely how to engage in new businesses, and how to develop them into key revenue drivers.

We have yet to make sufficient progress toward achieving the revenue targets for non-ICE businesses set forth in the Medium-term Management Plan. We need to deepen the discussion of this issue. I also believe we need more discussion of the "super big picture" we should envision based on the four business fields to focus on set forth in the Long-term Management Plan.

**Yasui** I agree. The slogan of the Medium-term Management Plan is "Break to change. Change to create." This is intended to convey the importance of transforming our business portfolio. However, we have not yet disclosed specific details regarding which areas and products we will pursue to achieve these objectives. Without changing the corporate culture and climate that has developed through years of cultivating relationships of trust with customers in the ICE business, it will be hard to take the leap into a new business.

It will also not be easy to achieve the high profit margins of the ICE business in a new business. Therefore, we will need to develop non-ICE businesses with an entirely different approach to indicator management.

I believe it will be important to change our corporate culture and climate by investing in human capital with an eye to the future, and by raising awareness of sustainability management throughout the Group.

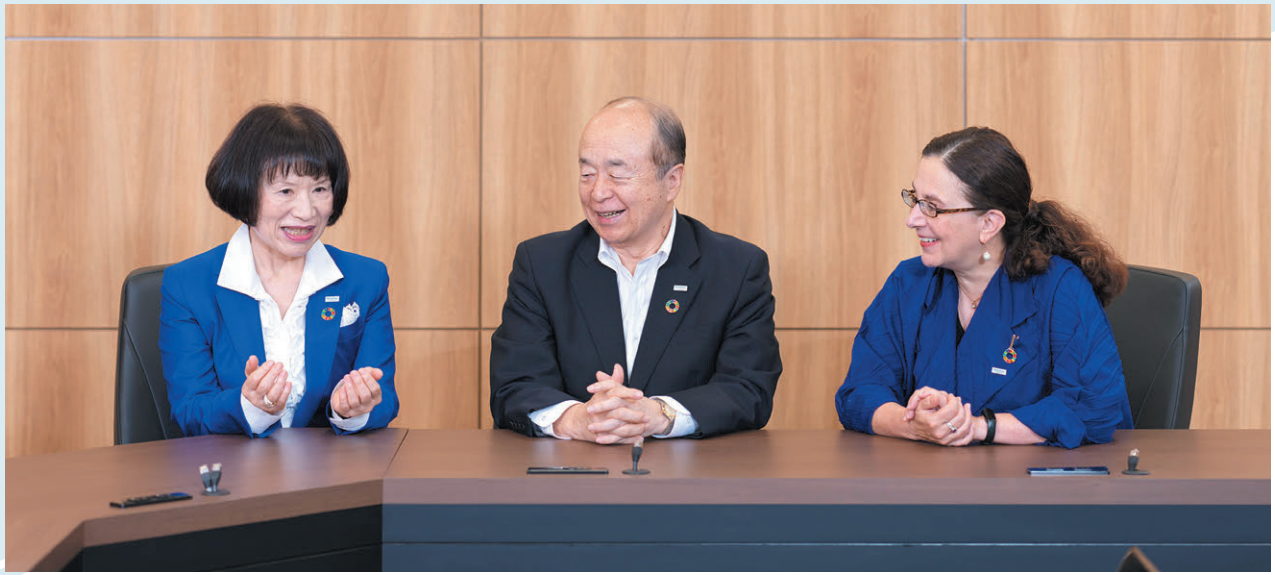
**Ahmadjian** In order for Japanese manufacturing companies like our Group to thrive in the new era, I believe it is crucial to listen attentively to ideas that challenge past conventions, even if they have not been extensively discussed internally before. I sense that the management team has an attitude of calmly analyzing the situation, a sincere willingness to learn in order to find solutions, and a desire to take on new challenges. They look directly at each issue, and always have an improvement to suggest. They are also willing to listen to my opinions as an outside director and engage in dialogue with me. I believe that having such an open mind and willingness to learn will lead to the transformation of the Company, so I hope that stakeholders will have high expectations for the future of the Group.

In addition to fulfilling my roles and responsibilities as an outside director, I would also like to help invigorate discussion at the Board of Directors through comments that stimulate my fellow directors and give them a sense of urgency.

**Nagatomi** The Group has a good corporate culture. The organization has a sense of unity, as well as a corporate culture of uniting towards a common goal. For a corporate group like ours to implement such a major transformation, the top management needs to clearly demonstrate the direction to be pursued and provide strong guidance to the entire group. I hope our stakeholders will keep a close eye on leadership of the management team, who are vigorously leading the way toward change.

**Yasui** As an outside director attending the Board of Directors meetings, one thing I appreciate is that our Group is earnestly conducting business while considering various stakeholders. What must be avoided, however, is to be so considerate of stakeholders that we lose sight of the destination.

We must decide what to break and what to create to realize our vision. By making these decisions, we can keep improving our corporate value over time. I hope that our stakeholders will watch the Group with great expectation as we set goals and move forward on a solid path.



## Directors (as of July 1, 2024)



Representative Director, Chairman of the Board
**Shinichi Odo**
Born April 3, 1954

| | |
|---|---|
| April 1977 | Joined our company |
| February 2003 | General Manager of Overseas Aftermarket Sales & Marketing Dept., Sa es and Marketing Div., Automotive Components Gr. |
| July 2005 | President, NGK SPARK PLUGS (U.S.A.), INC. (Now Niterra North America, Inc.) |
| June 2007 | Member of the Board |
| June 2010 | Member of the Board (Managing Director) |
| June 2011 | President |
| April 2012 | Representative Director and President, Chief Executive Officer |
| April 2016 | Representative Director, Chairman of the Board and President, Chief Executive Officer |
| April 2019 | Representative Director & Chairman of the Board (up to today) |
| May 2020 | Chairman of the Japan Auto Parts Industries Association (JAPIA) |

**Shares held: 37,176**
**Years in office: 17** * Years in office include years in the former system before the introduction of the corporate officer system in 2012



Representative Director, President, Chief Operating Officer
Head of All Businesses, Group Internal Audit Headquarters, and Strategic Port Folio Dept. /
General Manager of Global Strategy Div.
**Takeshi Kawai**
Born October 13, 1962

| | |
|---|---|
| April 1987 | Joined our company |
| February 2011 | General Manager of Sensor Engineering Dept. II, Sensor Div., Automotive Components Gr. |
| April 2012 | Corporate Officer |
| April 2015 | Managing Officer |
| June 2015 | Member of the Board, Managing Officer |
| April 2016 | Member of the Board, Senior Managing Officer |
| April 2019 | Representative Director, President & Chief Operating Officer (up to today) |

**Shares held: 19,136**
**Years in office: 9**



Representative Director, Member of the Board,
Executive Vice President, Assistant to President /
Head of Sustainabil ty Strategy Dept.,
Corporate Communication Dept., and Niterra Ventures Company
**Toru Matsui**
Born February 14, 1962

| | |
|---|---|
| April 1984 | Joined our company |
| April 2011 | President of NGK SPARK PLUG EUROPE GmbH (Now Niterra EMEA GmbH) |
| October 2013 | General Manager of OEM Sales & Marketing Dept., Sales and Marketing Div., Automotive Components Gr. |
| December 2014 | President of NGK SPARK PLUG (SHANGHAI) CO., LTD. (Now Niterra (Shanghai) Co.,Ltd.) |
| April 2015 | Corporate Officer |
| July 2016 | President of NGK SPARK PLUG (SHANGHAI) TRADING CO., LTD. (Now Niterra Trading (Shanghai) Co., Ltd.) |
| April 2018 | Managing Officer |
| June 2018 | Member of the Board, Managing Officer |
| April 2019 | Member of the Board, Executive Vice President |
| April 2020 | Representative Director, Member of the Board, Executive Vice President (up to today) |

**Shares held: 12,397**
**Years in office: 6**



Outside Director
**Miwako Doi**
Born June 2, 1954

| | |
|---|---|
| April 1979 | Joined Tokyo Shibaura Electric Co., Ltd. (currently Toshiba Corporation) |
| July 2005 | Senior Fellow, Corporate Research & Development Center, Toshiba Corporation |
| July 2008 | Chief Fe low, Corporate Research & Development Center, Toshiba Corporation |
| April 2014 | Auditor, National Institute of Information and Communications Technology, an Incorporated Administrative Agency (currently, National Research and Development Agency) (part-time) (up to today) |
| June 2015 | Outside Director, Nomura Research nstitute, Ltd. |
| April 2017 | Executive Director, Nara Institute of Science and Technology (part-time) (up to today) |
| June 2019 | Outside Director, Isetan Mitsukoshi Holdings Ltd. |
| April 2020 | Vice President, Tohoku University (part-time) (up to today) |
| June 2020 | Outside Director, Subaru Co., Ltd. (up to today) Member of the Board (Outside Director), NGK SPARK PLUG CO., LTD. (Now Niterra Co., Ltd.) (up to today) |

**Shares held: 3,336**
**Years in office: 4**



Outside Director
**Chiharu Takakura**
Born December 22, 1959

| | |
|---|---|
| April 1983 | Joined the Ministry of Agriculture, Forestry and Fisheries |
| May 1992 | Obtained an MBA from Georgetown University (U.S.A) |
| August 1993 | Consultant, Sanwa Research Institute Corp. (currently, Mitsubishi UFJ Research and Consulting Co., Ltd.) |
| July 1999 | Planning Manager, Human Resources Division, Pfizer Japan Inc. |
| October 2006 | General Manager of Human Resources Department, Human Resources and Communication Division, Novartis Pharma K. K. |
| July 2014 | Corporate Fellow, General Manager, Global Human Resources Dept., Ajinomoto Co., Inc. |
| April 2020 | HR Advisor, ROHTO Pharmaceutical Co., Ltd. |
| June 2020 | Director, Head of Well-being Management Promotion Division, ROHTO Pharmaceutical Co., Ltd. |
| June 2021 | Outside Audit & Supervisory Board Member, NGK SPARK PLUG CO., LTD. (Now N terra Co., Ltd.) |
| April 2022 | Director, Chief Human Resource Officer, ROHTO Pharmaceutical Co., Ltd. |
| June 2022 | Member of the Board (Outside Director), NGK SPARK PLUG CO., LTD. (Now Niterra Co., Ltd.) (up to today) |
| June 2023 | Outside Director, Nomura Real Estate Holdings, Inc., and Mitsui Sumitomo Insurance Co., Ltd. (up to today) |

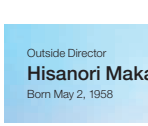
**Shares held: 1,301**
**Years in office: 3 (including 1 year as an outside auditor from June 2021 to June 2022)**



Outside Director
**Takayoshi Mimura**
Born June 18, 1953

| | |
|---|---|
| April 1977 | Joined Terumo Corporation |
| June 2002 | Executive Officer, Terumo Corporation |
| June 2003 | Member of the Board, Executive Officer, Terumo Corporation |
| June 2004 | Member of the Board, Senior Executive Officer, Terumo Corporation |
| June 2007 | Member of the Board, Managing Executive Officer, Terumo Corporation |
| April 2008 | Member of the Board, Managing Executive Officer, responsib e for Hospital Company, Sa es Supervisory Department, Terumo Corporation |
| June 2009 | Member of the Board, Managing Executive Officer in China and Asia, Terumo Corporation |
| April 2010 | Member of the Board, Managing Executive Officer, Chief Representative of China, Terumo Corporation |
| June 2010 | Member of the Board, Senior Managing Executive Officer, Terumo Corporation |
| August 2011 | President and CEO, Terumo (China) Holdings Co., Ltd. |
| April 2017 | Chairman of the Board, Terumo Corporation |
| June 2021 | Chairman, The Japan Federation of Medical Devices Associations |
| April 2022 | Advisor to the Board, Terumo Corporation |
| June 2022 | Advisor of Terumo Corporation, Outside Director of AUTOBACS SEVEN Co., Ltd., and Mitsui Chemicals Inc. (up to today) |
| June 2023 | Member of the Board (Outside Director), Niterra Co., Ltd. (up to today) |

**Shares held: 1,246**
**Years in office: 1**



Outside Director
**Hisanori Makaya**
Born May 2, 1958

| | |
|---|---|
| April 1982 | Joined Fuji Photo Film Co., Ltd. (currently FUJIFILM Holdings Corporation) |
| June 2015 | Corporate Vice President, FUJIFILM Corporation |
| December 2016 | Director and Corporate Vice President, FUJIFILM Corporation |
| June 2017 | Director and Senior Vice President, Fuji Xerox Co., Ltd. (currently FUJIFILM Business Innovation Corp.) |
| June 2019 | Director and Executive Vice President, Fuji Xerox Co., Ltd. |
| April 2021 | President and CEO, Representative Director, FUJIFILM Business Innovation Corp. |
| April 2022 | Chairman and Director, FUJIF LM Business Innovation Corp. |
| June 2024 | Outside Director, N terra Co., Ltd. (up to today) |

**Shares held: 1,000**
**Years in office: Newly appointed**



Member of the Board,
Standing Audit and Supervisory Committee Member
**Kenji Isobe**
Born August 9, 1963

| | |
|---|---|
| April 1986 | Joined our company |
| July 2011 | General Manager of Accounting & Finance Dept. |
| April 2013 | General Manager of Corporate Planning Dept. and General Manager of Public Relations Office |
| December 2015 | General Manager of Accounting & Finance Dept., Corporate Administration Group and General Manager of Public Relations Office |
| April 2016 | Corporate Officer |
| June 2018 | Director and Corporate Officer |
| April 2019 | Director and Executive Officer |
| June 2022 | Executive Officer |
| April 2024 | Standing Advisor |
| June 2024 | Member of the Board (Director), Standing Audit and Supervisory Committee Member (up to today) |

**Shares held: 16,124**
**Years in office: 4 (including 4 years as a director from June 2018 to June 2022)**



Member of the Board (Outside Director),
Aud t and Supervisory Committee Member
**Fumiko Nagatomi**
Born November 28, 1952

| | |
|---|---|
| April 1981 | Registered as an attorney and joined Hachisuka Law Firm |
| March 1989 | Left Hachisuka Law Firm |
| April 1989 | Opened Nagatomi Law Firm (up to today) |
| May 2006 | Outside Audit and Supervisory Board Member, UCS CO., LTD. |
| June 2016 | Outside Audit and Supervisory Board Member, Chubu E ectric Power Co., Inc. (up to today) |
| June 2017 | Outside Audit & Supervisory Board Member, NGK SPARK PLUG CO., LTD. (Now N terra Co., Ltd.) |
| June 2022 | Member of the Board (Outside Director), Audit and Supervisory Committee Member (up to today) |

**Shares held: 3,578**
**Years in office: 7 (including 5 years as an outside auditor from June 2017 to June 2022)**



Member of the Board (Outside Director),
Audit and Supervisory Committee Member
**Christina L. Ahmadjian**
Born March 5, 1959

| | |
|---|---|
| January 1995 | Assistant Professor, Columbia Business School |
| October 2001 | Associate Professor, Graduate School of International Corporate Strategy, Hitotsubashi University |
| January 2004 | Professor, Graduate School of International Corporate Strategy, Hitotsubashi University |
| June 2009 | Outside Director, Eisai Co., Ltd. |
| April 2010 | Dean, Graduate School of International Corporate Strategy, Hitotsubashi Univers ty |
| April 2012 | Professor, Graduate School of Commerce and Management, Hitotsubashi University |
| June 2012 | Outside Director, Mitsubishi Heavy Industries Ltd. |
| June 2014 | Outside Director, Japan Exchange Group, Inc. |
| April 2018 | Professor, School of Business Administration, Hitotsubashi Univers ty Business School |
| June 2018 | Outside Director, Sumitomo Electric Industries, Ltd. (up to today) |
| March 2019 | Outside Director, Asahi Group Holdings, Ltd. (up to today) |
| June 2021 | Outside Director, NEC Corporation (up to today) |
| April 2022 | Emer tus Professor, Hitotsubashi Univers ty (up to today) Specia ly Appointed Professor, Rikkyo University |
| June 2022 | Member of the Board (Outside Director), Audit and Supervisory Comm ttee Member, NGK SPARK PLUG CO., LTD. (Now Niterra Co., Ltd.) (up to today) |
| April 2024 | Executive Director, Hokkaido University (part-time) (up to today) |

**Shares held: 345**
**Years in office: 2**



Member of the Board (Outside Director),
Audit and Supervisory Committee Member
**Hideyo Uchiyama**
Born March 30, 1953

| | |
|---|---|
| November 1975 | Joined Arthur Young & Company |
| December 1979 | Joined Asahi Accounting Company (currently KPMG AZSA LLC) |
| March 1980 | Registered as a certified public accountant |
| July 1999 | Representative Partner, Asahi & Co. (currently KPMG AZSA LLC) |
| May 2002 | Board Member, Asahi & Co. |
| June 2006 | Executive Board Member, AZSA & Co. (currently KPMG AZSA LLC) |
| June 2010 | Managing Partner, AZSA & Co. Chairman, KPMG Japan |
| September 2011 | Chairman, KPMG Asia Pacific |
| October 2013 | CEO, KPMG Japan |
| September 2015 | Executive Advisor, ASAHI Tax Corporation (up to today) |
| June 2016 | Outside Aud t & Supervisory Board Member (Independent), OMRON Corporation |
| June 2017 | Outside Aud t & Supervisory Board Member, SOMPO Holdings, Inc. |
| June 2018 | Outside Director, Eisai Co., Ltd. |
| June 2019 | Outside Director, SOMPO Holdings, Inc. |
| June 2024 | Member of the Board (Outside Director), Audit and Supervisory Committee Member, N terra Co., Ltd. (up to today) |

**Shares held: 0**
**Years in office: Newly appointed**

* Years served as auditors are included for directors that served as auditors before their appointment.
* Numbers of shares held are current as of March 31, 2024. Shares include individual shares in Niterra Executive Shareholding Association.
For more information on Directors, please visit the following website. https://www.ngkntk.co.jp/english/corporate/profile/executive/index.html

## 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**

- 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 materialization 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

Our risk management system is designed to integrate risk management, which is focused on the prevention of risks, and crisis management, which is geared towards the effective management of serious risk events. We are working to improve and operate this system under its Chief Administrator, who is the President, and its Promotion Manager, who is the Director in charge of the Business Management Department. The Chief Administrator appoints a corporate officer to chair the Risk Management Committee. This special committee holds regular meetings twice a year and special meetings as required to implement company-wide risk management under the supervision of the CSR and Sustainability Committee (chaired by an outside director), which is an advisory body to the Board of Directors.

In FY2023, the Risk Management Committee met twice to report and discuss how to address priority risks and update the risk map.

## Company-wide Risk Management

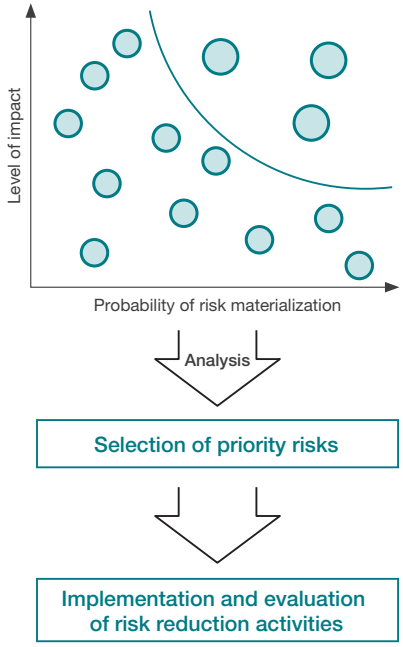
We identify specific business risks for each process to assess their impact, likelihood, and status of countermeasures. We determine whether they affect business continuity and achievement of objectives from a company-wide perspective. All risks that are deemed to require focused action are designated as priority risks. For each of these, a responsible department is assigned to drive risk mitigation activities. Meanwhile, the Risk Management Committee monitors the status of these activities. In FY2023, we identified three priority risks and worked to reduce them. Some business risks, including 8. Environmental risks, 9. Information security risks and 12. Business investment risks, are also considered priority issues for sustainability management.

**Business risks**

1. World affairs and exchange rate fluctuation risks
2. Business environment risks
3. Product quality risks
4. Technological development risks
5. Intellectual property risks
6. Raw material and components procurement risks
7. Natural disaster risks
8. Environmental risks
9. Information security risks
10. Human resource securement risks
11. Legal, regulations, and litigation risks
12. Business investment risks
13. Infectious disease risks
14. Human rights violation risks

* For more information on our risk initiatives, please visit P.34 of our Annual Securities Report.
https://contents.xj-storage.jp/xcontents/AS06537/12f3af45/4141/42f3/b624/f9d79124f989/20240830164539459s.pdf

| | |
|---|---|
| Risk recognition | **Identify risks**<br>List the related risks for each operational process. |
| Risk analysis | **Analyze the impact of risks, probability of their materialization and how measures are taken against them**<br>Make analysis based on the evaluation results provided by the Business Management Dept. and other departments in charge of the risks. |
| Risk evaluation | **Evaluate and prioritize the risks based on the analysis results**<br>Based on the risk analysis results, select the candidates for priority risks. |
| Selection of priority risks | **Select particularly significant risks (priority risks) and departments in charge of the risks**<br>The Risk Management Committee selects the priority risks and the departments in charge of the risks. |
| Planning, implementing and monitoring of measures | **Plan, implement and monitor priority risk reduction activities**<br>The departments in charge of the risks plan and conduct risk reduction activities and the Business Management Dept. monitors the activities. |
| Review | **Evaluate the risk reduction activities to give instructions for improvement as needed**<br>The results of the risk reduction activities are reported to the Risk Management Committee, which evaluates the level of achievement and gives instructions for improvement as needed. |




## Business Continuity Management (BCM)

We conduct BCM activities in preparation for possible earthquakes and other large-scale disasters. Specifically, we make efforts to control and reduce disasters on a Group-wide basis through the formulation of business continuity plans (BCP). These plans will enable us to minimize damage in the event of a large-scale disaster and resume production as soon as possible if operations are suspended, thereby helping customers maintain their supply chains. In addition, we are continually developing and maintaining a system to prepare for unforeseen events, including COVID-19 and other infectious diseases.

* For more information on our major initiatives, visit the following website. https://ngkntk.disclosure.site/en/themes/183/

## Compliance Policy

**With recognition that Niterra is a member of society, we enhance corporate ethics and understand the spirit and meaning of laws, company regulations, international rules, and social norms in order to appropriately meet social demand and become a company trusted by the international community.**

**Action Guidelines**

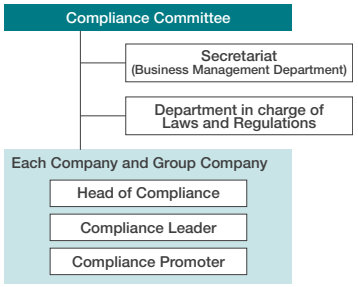
- We not only comply with laws and regulations, but also act in good faith with common sense and responsibility as a member of society.
- We will comply with all applicable anti-corruption laws and regulations. Additionally, we will conduct our business in good faith without engaging, directly or indirectly, in corrupt practices. These practices include bribery, conflicts of interest, insider trading, anti-competitive practices, money laundering and improper relationships with political or governmental entities.
- We regularly educate and raise the awareness of all our employees to impart a high level of ethics and correct knowledge, with which they can act voluntarily to prevent a violation.
- Should a violation occur, we will promptly investigate the causes and take remedial actions. We will strive to take appropriate countermeasures to prevent recurrence and fulfill our accountability.

## Promotion System

We have established the Compliance Committee chaired by the Representative Director to enhance compliance. (It holds regular meetings twice a year and special meetings as required.) This committee takes preventive measures against non-compliance and provides guidance and oversight on how to respond to any violations. It operates under the supervision of the CSR and Sustainability Committee (chaired by an outside director), which is an advisory body to the Board of Directors.

In FY2023, the Compliance Committee met twice to report and discuss responses to changes in laws and regulations, the status of compliance activities, improving the effectiveness of the internal reporting system at overseas Group companies, and the results of compliance awareness surveys and follow-up activities.

### Compliance promotion system




## Education

To ensure that all officers and employees are fully informed and conscious of compliance, we conduct continuous education and awareness-raising activities. We share information through compliance promoters in each department and provide training at every job level. In addition, we use the following materials: *Compliance Guidebook*, which summarizes the rules of the Company and society; *Compliance News Letter*, which discusses specific cases of compliance issues that may occur in our daily operations; and *Compliance Promotion Rules (for Managers/Mid-level Employees)*, which explains the roles and behaviors expected of each level of employee.

We conduct a compliance awareness survey to verify employees' understanding of corporate rules and systems, review the corporate culture, and identify compliance risks. In FY2023, we surveyed approximately 8,000 employees from Group companies in Japan. In addition to providing feedback on the results of the awareness survey to each workplace, we continue to implement improvement activities, such as identifying departments with challenges and holding listening sessions with them.

## Internal Reporting System

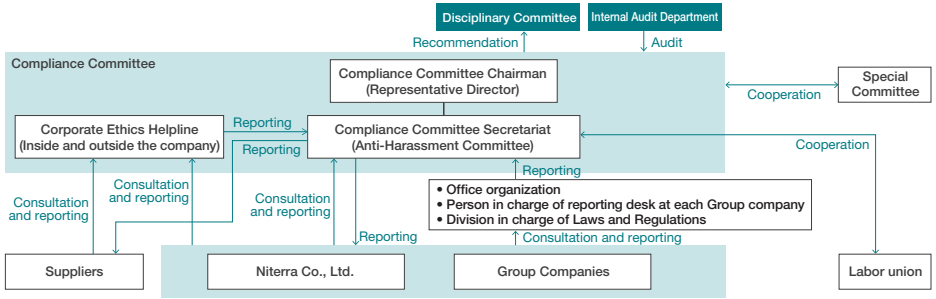
We maintain the Corporate Ethics Helpline as an internal reporting system available to employees and suppliers seeking to receive consultation and/or make reports regarding compliance. We established the Compliance Committee Secretariat to serve as our internal channel.

At the same time, we also establish channels through external expert service providers, enabling employees and suppliers to seek consultation and make reports outside work hours and on holidays, thereby improving user convenience. Users have access to anonymous consulting and reporting to fully protect them from being identified or suffering disadvantages as a result of their reporting. These channels accept consultations and reports when they become aware of any kind of compliance violation, including harassment and/or any other behavior that could lead to such a violation. We investigate any consultation or report received and promptly deal with any problems confirmed.

In FY2023, there were 111 consultations and reports, including those from Group companies. These included labor and internal rules issues. Incidents where problems were identified were promptly resolved and corrective action was taken.

This system is continuously promoted through training, awareness-raising via the Company's intranet, posters, and the distribution of cards. Each overseas group company also has its own contact point for consultation and reporting.

### Response system for consultation and reporting



# Compliance and Proper Tax Payment



## Compliance Initiatives

### Anti-corruption initiatives

As a company participating in the UN Global Compact, we strive to prevent corruption activities in line with the following 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."

Our *Compliance Guidebook*, distributed to employees, defines rules on corruption prevention, such as the prohibition of involvement in political contributions or bribery. Subsequently, we provide the Conduct Guidelines Concerning the Giving and Receiving of Gifts and Entertainment to ensure employees do not engage in inappropriate behavior. We also confirm that the content and use of charitable donations do not violate the law. Overseas group companies also educate employees and conduct research on local laws. In the unlikely case of a violation of the anti-corruption rules, the Compliance Committee will take the lead in addressing the issue.

### Activities concerning competition laws

We take our violation of the Anti-Monopoly Act of Japan, uncovered in FY2014, seriously. As such, we established a system to promote compliance with competition laws and 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 regularly to Niterra on their activity status regarding compliance with competition laws. Our competition law and compliance team audits their compliance systems and implementation status and verifies that local employees are sufficiently aware of the relevant rules. We additionally hold seminars featuring guest speakers. We will continue to educate and audit 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 could be diverted to military use.

## Tax Policy

**We will be a company that is trusted by the international community by responding appropriately to the demands of society through an understanding of the spirit and purpose of tax laws and regulations.**

**Action Guidelines**

- We will fulfill our social responsibility by complying with the corporate income tax and other tax laws of each country, as well as international tax standards such as the OECD Transfer Pricing Guidelines, the BEPS Action Plan, and arm's length pricing for intra-Group transactions.
- To ensure compliance with tax laws and regulations, we will improve our knowledge and understanding of tax matters and cooperate with tax authorities to enhance credibility and transparency.
- We will manage tax risk and enhance shareholder value by ensuring that taxes are paid and reported correctly in each country.
- We do not engage in profit shifting to tax havens or low-tax jurisdictions for the purpose of avoiding taxation, nor do we engage in tax avoidance activities.

## Promotion System

The Finance Officer oversees tax matters, and reports important matters to the Corporate Management Committee or the Board of Directors. Niterra's Accounting & Finance Department and our Group Company counterparts work together to manage tax operations.

We receive regular financial status reports from the Group companies, which include taxes, and other obligations. Depending on the case, we provide instructions on their duties when appropriate.

## Tax Activities

### Tax compliance

To guarantee compliance with all applicable tax regulations, we adhere to the standards and guidelines set forth by international organizations such as the OECD. We file tax returns and pay taxes in a timely and appropriate manner at each of our locations, in accordance with the local tax laws and regulations.

### Tax risks

We conduct a thorough preliminary review of the tax risks associated with our business activities. We seek advice and guidance from tax professionals as needed.

### Tax planning

We recognize the importance of appropriate and effective tax planning to achieve business objectives, fully considering the social significance of tax payments. We work to maximize consolidated cash flow by avoiding double taxation and effectively utilizing preferential tax treatment, while respecting the intent of laws, regulations and rules.

### Relationship with tax authorities

As a Group, we are committed to establishing and maintaining good relations with tax authorities in each country in good faith and in an appropriate manner. We will seek to resolve any disagreements with the authorities through constructive communication.

# 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**

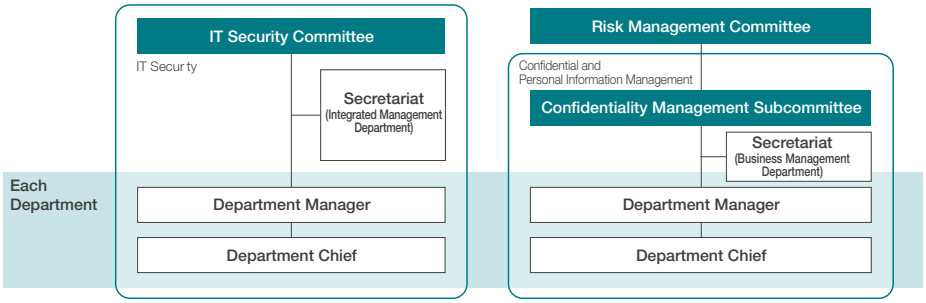
- We clarify our system and responsibilities for protecting and managing all information assets, including information received from customers, know-how and intellectual property owned by our Group, and personal information, by establishing rules and regulations.
- We comply with laws, ordinances, and 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 information assets.
- We promote measures to prevent accidents in order to address the risks of information leakages 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

We have two separate systems for promoting information security: one for IT security or digital information management, and the other for confidential and personal information management. The two systems work together to strengthen information security under the supervision of the CSR and Sustainability Committee (chaired by an outside director), which advises the Board of Directors.

To address the growing threat of cyberattacks, including AI-based attacks, our IT Security Committee reviews the status of Company-wide IT security activities and implements appropriate countermeasures. The committee holds regular meetings twice a year and special meetings as needed. It is chaired by the Chief Administrator of the DX Strategy Department. Its members include the head of the Integrated Management Department of the IT Systems Company, and the heads of major departments such as the planning divisions of the headquarters organization and each company. In FY2023 the committee met twice to report and discuss incidents, activities to strengthen IT security, and ISMS activities. With respect to the confidential and personal information management, the Confidentiality Management Subcommittee is responsible for mitigating risks under the supervision of the Risk Management Committee. The subcommittee holds an annual meeting and special meetings as needed. It is chaired by the Chief Administrator of the Business Management Department. Members include the head of each department. In FY2023, the subcommittee met once to report incidents and issue reminders. In addition, each department has an IT security manager and an IT security chief, as well as a manager and a chief of confidential and personal information management, who lead information security activities.

**Information security promotion system**




## Information Security Management System

In response to information security risks that threaten companies and organizations, we set information security as a priority issue (materiality) and are building an information security management system that complies with ISO27001. In FY2023, we conducted IT security and IT systems audits at all sites and identified and corrected deficiencies. We will continue to conduct this audit every year to improve the level of security.

In addition, at the request of several automotive manufacturers, we have obtained TISAX certification, an information security audit standard for the automotive supply chain.

## 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 of our defenses.

We publish CSIRT Communication monthly to keep employees informed and aware of information security. When necessary to issue a highly urgent alert, we issue urgent communications on specific precautions to prevent the occurrence of any incidents.

## Protection of Personal Information

As exemplified by the General Data Protection Regulation (GDPR) enforced in the EU and the Personal Information Protection Law in Japan, measures to protect personal information are being enhanced globally. In response, the Niterra Group has set a range of internal rules to protect, manage and handle the personal information of its customers and employees.

# 04 Company Information and Data

## Financial Results Highlights for the Past 11 Years

J-GAAP | IFRS

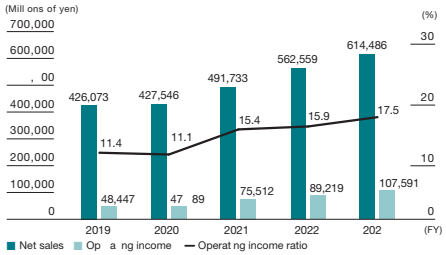
(Millions of yen)

| (FY) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenue | 329,758 | 347,636 | 383,272 | 372,919 | 409,912 | 425,013 | 426,073 | 427,546 | 491,733 | 562,559 | 614,486 |
| Operating income (loss) | 51,661 | 62,196 | 66,284 | 53,595 | 67,279 | 58,385 | 48,447 | 47,389 | 75,512 | 89,219 | 107,591 |
| Ordinary income (loss) | 54,960 | 67,907 | 64,483 | 55,559 | 69,094 | 59,258 | — | — | — | — | — |
| Profit (loss) attributable to owners of the parent | 32,704 | 36,753 | 30,815 | 25,602 | 44,335 | 42,638 | 33,698 | 38,367 | 60,200 | 66,293 | 82,646 |
| Capital expenditures | 41,034 | 36,372 | 45,339 | 36,328 | 37,591 | 56,587 | 51,004 | 33,444 | 29,589 | 31,335 | 41,173 |
| Depreciation | 11,567 | 13,337 | 16,834 | 19,601 | 20,920 | 23,979 | 31,952 | 34,700 | 37,940 | 39,194 | 39,814 |
| R&D expense | 19,400 | 21,337 | 23,123 | 23,416 | 25,283 | 28,072 | 28,315 | 26,115 | 23,685 | 27,887 | 27,848 |
| Cash flows from operating activities | 54,697 | 36,593 | 56,465 | 49,764 | 65,707 | 43,704 | 59,787 | 63,397 | 71,910 | 69,305 | 118,179 |
| Cash flows from investing activities | (61,148) | (12,865) | (82,331) | (53,410) | (26,422) | (48,380) | (52,926) | (42,523) | 10,234 | (37,375) | (92,157) |
| Free cash flow | 3,541 | 13,995 | (25,866) | 6,335 | 29,636 | (21,356) | 4,627 | 41,398 | 69,713 | 34,382 | 33,364 |
| Dividend payout | 5,223 | 7,181 | 8,487 | 9,055 | 10,823 | 14,601 | 14,435 | 12,230 | 20,792 | 33,839 | 33,068 |
| Total equity | 302,793 | 343,380 | 341,044 | 354,710 | 388,115 | 401,505 | 399,737 | 451,626 | 517,988 | 563,739 | 638,300 |
| Total assets | 458,148 | 485,497 | 526,103 | 563,801 | 599,972 | 629,417 | 663,374 | 771,293 | 823,181 | 903,102 | 975,719 |
| Interest bearing debt | 57,339 | 46,153 | 80,212 | 99,275 | 98,115 | 110,755 | 152,946 | 197,194 | 165,268 | 198,222 | 190,840 |
| | | | | | | | | | | | (Yen) |
| Earnings (losses) per share | 150.26 | 168.88 | 141.60 | 119.44 | 209.37 | 204.74 | 163.06 | 188.59 | 296.04 | 326.09 | 409.47 |
| Equity attributable to owners of the parent per share | 1,381.38 | 1,566.80 | 1,557.16 | 1,660.06 | 1,837.46 | 1,917.04 | 1,946.10 | 2,206.18 | 2,530.01 | 2,772.61 | 3,181.33 |
| Cash dividends per share | 28.00 | 36.00 | 42.00 | 42.00 | 60.00 | 70.00 | 70.00 | 60.00 | 102.00 | 166.00 | 164.00 |
| | | | | | | | | | | | |
| Operating income ratio (%) | 15.7 | 17.9 | 17.3 | 14.4 | 16.4 | 13.7 | 11.4 | 11.1 | 15.4 | 15.9 | 17.5 |
| Return on sales revenue (%) | 9.9 | 10.6 | 8.0 | 6.9 | 10.8 | 10.0 | 7.9 | 9.0 | 12.2 | 11.8 | 13.4 |
| Gross profit on sales (%) | 32.6 | 35.8 | 35.6 | 33.0 | 34.6 | 33.8 | 31.4 | 30.5 | 31.8 | 35.2 | 36.8 |
| ROE (Return on equity) (%) | 11.5 | 11.4 | 9.1 | 7.4 | 12.0 | 10.9 | 8.4 | 9.1 | 12.5 | 12.3 | 13.8 |
| ROA (Return on assets) (%) | 7.9 | 7.8 | 6.1 | 4.7 | 7.6 | 6.8 | 5.1 | 5.0 | 7.3 | 7.3 | 8.5 |
| ROIC (Return on invested capital) (%) | 11.0 | 11.6 | 11.4 | 8.5 | 10.0 | 8.2 | 6.3 | 5.5 | 7.9 | 8.6 | 9.5 |
| Equity ratio (%) | 65.6 | 70.2 | 64.4 | 62.5 | 64.3 | 63.4 | 59.7 | 58.2 | 62.5 | 62.4 | 65.4 |
| Total asset turnover (%) | 0.8 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.8 | 0.6 | 0.6 | 0.6 | 0.65 |
| Dividend payout ratio (%) | 18.6 | 21.3 | 29.7 | 35.2 | 28.7 | 34.2 | 42.9 | 31.8 | 34.5 | 50.9 | 40.1 |

# Financial and Non-Financial Highlights

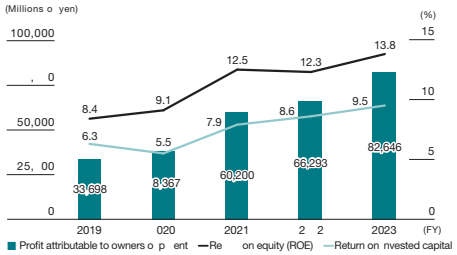
## Financial Highlights

### Net sales / Operating income / Operating income ratio



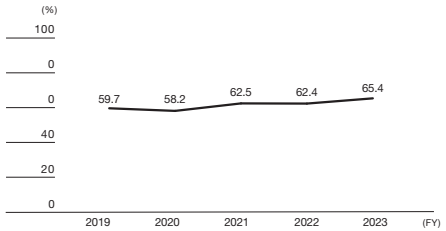

In the automotive business, sales volume remained at the previous year's level due to the recovery of automobile production following the end of the COVID-19 pandemic and the easing of the semiconductor supply shortage. However, sales revenue increased due to the implementation of price shifting. On the other hand, semiconductor-related businesses have been affected by a weakening demand due to the sluggish market conditions. In terms of profit, both revenue and operating income reached record highs due to the continued depreciation of the yen.

### Profit attributable to owners of parent / Return on equity (ROE)/Return on invested capital (ROIC)



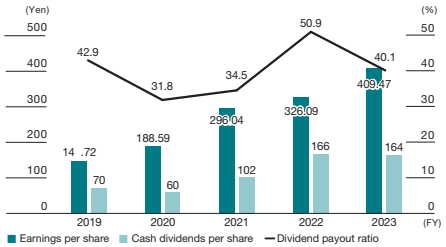

ROE increased by 1.5% year-on-year and ROIC increased by 0.9% year-on-year, achieving the Medium-term Management Plan target one year ahead of schedule. This was due to the recovery from the COVID-19 pandemic, which helped reduce inventories by eliminating excess inventory and strategic stockpiles. Strong performance in automotive-related businesses and a weakening yen also contributed.

### Equity ratio attributable to owners of the parent



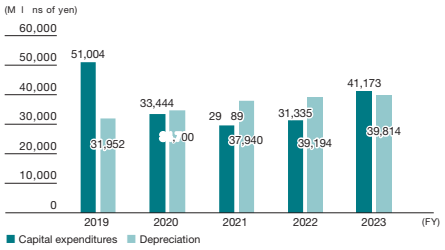

Wh le we increased returns to shareholders through dividends and share repurchases, the increase in retained earnings backed by the solid performance and the impact of foreign exchange resulted in a 3.0% increase in the equity ratio attributable to owners of the parent.

### Earnings per share / Cash dividends per share / Dividend payout ratio



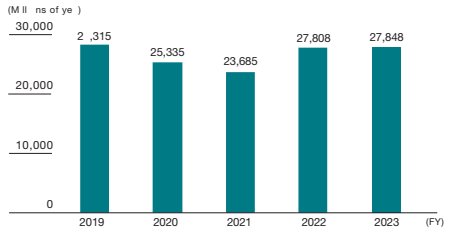

Our basic policy stipulates a 40% dividend payout ratio, as set forth in the Medium-term Management Plan. Portions of cap tal exceeding appropriate capital levels are subject to shareholder return, including through share repurchases. As a resu t, the annual dividend for FY2023 was 164 yen.

### Capital expenditures / Depreciation




In the automotive business, we are investing mainly in upgrading existing facil ties and improving production efficiency. We also continue to invest in the non-ICE business for mid- to long-term growth.

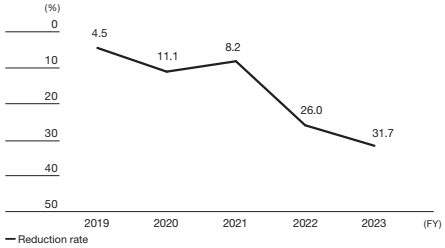
### R&D expense




The Company allocates approximately 5-6% of revenues to research and development expenses. This percentage reached 4.5% in FY2023.

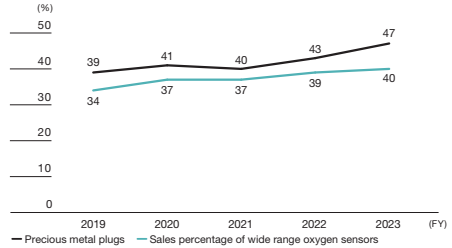
## Non-financial Highlights

### $CO_2$ emissions reduction rate



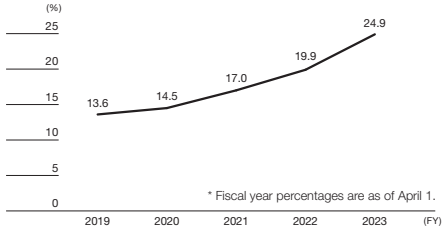

As a priority issue, we aim to reduce $CO_2$ emissions by 30% compared with FY2018 levels by FY2030. Progress in energy conservation and other $CO_2$ reduction measures is going as planned. Emission in FY2023 met the target for FY2030 through energy conservation activities, solar power generation, the use of $CO_2$-free electricity, and other efforts.

### Sales percentage of environmentally friendly products



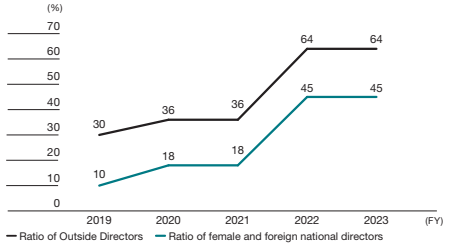

As a priority issue, we aim to increase the sales ratio of precious metal plugs and wide-range oxygen sensors by over 50%. These products are part of our environmentally friendly Nittoku Green Products. Sales ratios are increasing towards this target.

### Percentage of female / foreign-national / mid-career employees in managerial posts (non-consolidated)



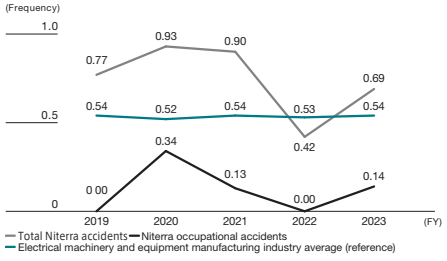

One of our priority issues is to increase the percentage of women, foreigners and mid-career hires in management positions to 25%. The percentage increased to 24.9% in FY2023 because of awareness activities for female management candidates and the recruitment of industry-ready employees.

### Ratio of Outside Directors / Ratio of female and foreign national directors



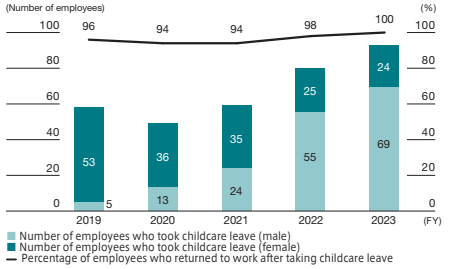

As a priority issue, we aim to increase the ratio of outside directors to more than one-third of all directors by FY2030. In addition, we aim to increase the ratio of female and foreign national directors to more than 30%. Since FY2022, both the percentage of outside directors and the percentage of female and foreign directors have been maintained at target levels.

### Frequency of occupational accidents (non-consolidated)




In FY2023, the Company experienced five occupational accidents (compared to three in the previous fiscal year), with an overall frequency rate of 0.69 (compared to 0.42 in the previous fiscal year). Some accidents occurred while adjusting equipment, and others during non-routine work.

### Number of employees who took childcare leave / Percentage of employees who returned to work after taking childcare leave (non-consolidated)




More male employees take childcare leave wh le their return-to-work rate after childcare leave remains high.

## Corporate data (As of March 31, 2024)

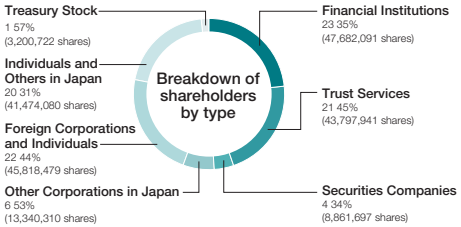
**Niterra Co., Ltd.**

| | |
|---|---|
| Headquarters | 1-1-1 Higashisakura, Higashi-ku, Nagoya 461-0005, Japan URBANNET NAGOYA NEXTA Bldg. |
| Established | October 1936 |
| Number of employees | Non-consolidated: 3,622<br>Consolidated: 15,980 |

## Number of shares and shareholders (As of March 31, 2024)

| | |
|---|---|
| Paid-in capital | 47,869 million yen |
| Total number of authorized shares | 390,000,000 |
| Total number of issued shares | 204,175,320 |
| Listed markets | Tokyo Stock Exchange (Prime Market)<br>Nagoya Stock Exchange (Premier Market) |
| Shareholder registry administrator | Mitsubishi UFJ Trust and Banking Corporation |
| Accounting auditor | KPMG AZSA LLC |
| Number of shareholders | 116,458 |

## Breakdown of shareholders by type (As of March 31, 2024)

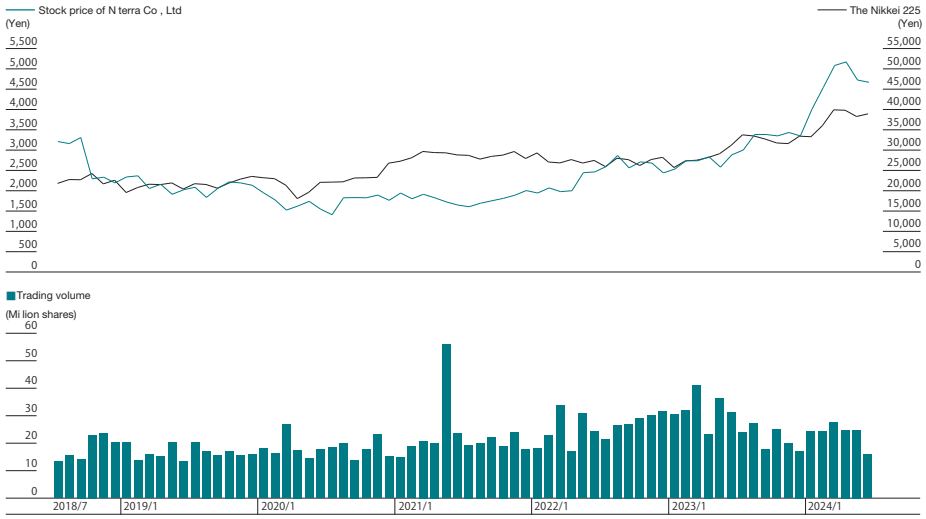



## Major shareholders (As of March 31, 2024)

| Name of shareholder | Number of shares held (thousand) | Ownership ratio (%) |
|---|---|---|
| The Master Trust Bank of Japan, Ltd. (trust account) | 27,805 | 13.83 |
| Meiji Yasuda Life Insurance Company | 16,794 | 8.35 |
| The Dai-ichi Life Insurance Company, Limited | 16,752 | 8.33 |
| Custody Bank of Japan, Ltd. (trust account) | 11,526 | 5.73 |
| National Mutual Insurance Federation of Agriculture Cooperatives | 4,859 | 2.41 |
| JP MORGAN CHASE BANK 385632 | 3,936 | 1.95 |
| Nippon Life Insurance Company | 3,563 | 1.77 |
| JPMorgan Securities Japan Co., Ltd. | 3,250 | 1.61 |
| TOTO Ltd. | 3,095 | 1.54 |
| NTK Business Partners Shareholdings Association | 2,755 | 1.37 |

Note: Ownership ratio above is calculated excluding treasury stock.

## Stock price and trading volume (as of June 30, 2024)




Note: Trading volume above does not include data for trading via the ToSTNet system.

## Initiatives

- JAPAN CLIMATE INITIATIVE (JCI)
- GX League
- Eco-First Promotion Council

## Major Awards and Certifications

For other awards, evaluations, and past track record, please visit our website.

https://ngkntk.disclosure.site/en/themes/190/

## Corporate Evaluation of ESG Investment

**2024** CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX

**2024** CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

FTSE Blossom Japan

FTSE Blossom Japan Sector Relative Index

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### Editorial Note

Thank you for taking the time to read our Niterra Report 2024. As a Group, we have been working to increase corporate value in line with our aspiration to become “a company that brightens the Earth.” This aspiration is reflected in our English corporate name, “Niterra,” which we adopted in FY2023.
In the Niterra Report 2024, we aim to convey our value creation story through the Group’s sustainability management in an accessible way and to showcase the Group’s efforts to achieve both social and economic value. We hope that this Report will help to further deepen your understanding and trust in our Group. We will continue to disclose information in a timely and appropriate manner and actively communicate with you. We ask for your continued support. Finally, we would like to express our deepest gratitude to all those who contributed to the preparation of this Report.

Toru Matsui
RepresentativeDirector, Member of the Board, Executive Vice President
Administrative Office of Niterra Report 2024 Project

Contact us: https://www.ngkntk.co.jp/english/contact/

Niterra

**Niterra Co., Ltd.**

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

**https://www.ngkntk.co.jp/english/**

Corporate Communication Dept., Global Strategy Div.