

The state-of-the-art technologies
that pave the way to the future



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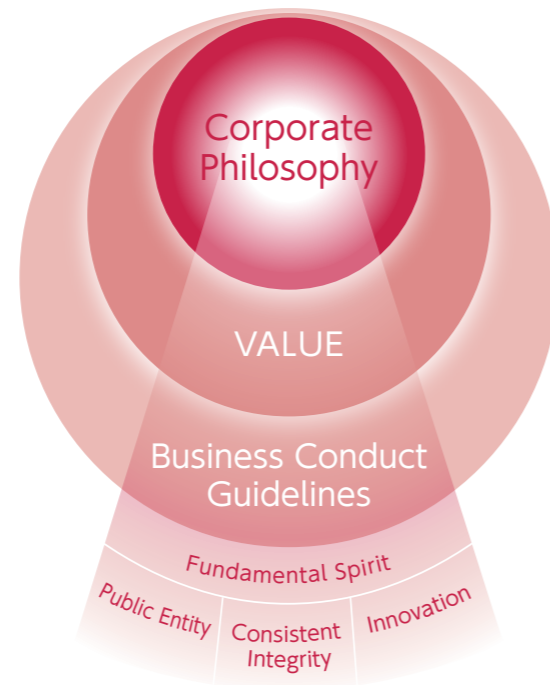
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Based on its commitment to VALUE and its Business Conduct Guidelines, which are derived from the Corporate Philosophy, the Nisshinbo Group aims to increase corporate value together with stakeholders as an *Environment and Energy Company* group that works to create a sustainable society.

Nisshinbo Group Corporate Philosophy
Change and Challenge!
For the creation of the future of Earth and People.



VALUE

—The value we provide and the approach we take to realize our Corporate Philosophy

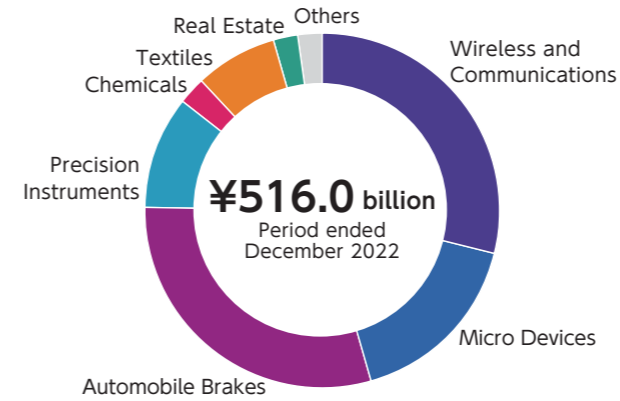
- We provide our customers with eco-friendly products and services to create a safer and more secure society with integrity.
- We create new value to inspire and satisfy our customers.
- We improve upon our corporate value and meet the expectations of our shareholders.
- We hold dear a corporate culture in which our employees can proudly work with vigor and boldly engage in new endeavors.

Business Conduct Guidelines

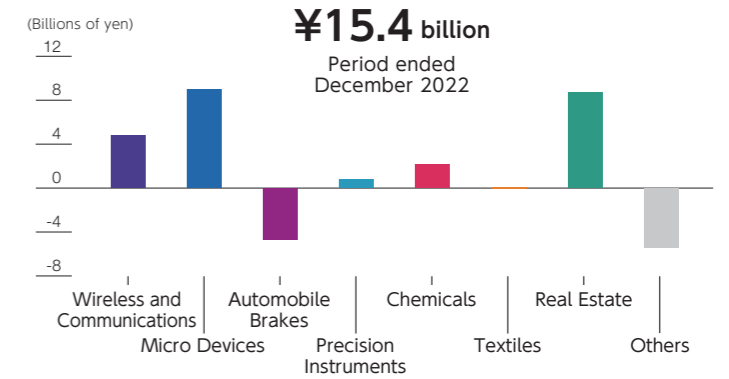
— Standards of behavior expected of every Group employee

- Respect for Human Rights
- Thorough-Going Compliance
- Respect for Diversity
- Awareness and Concern towards our Environmental Impact
- Safety is the Basis for Everything
- Fair and Transparent Business Practices
- Boldly Striving Forward
- Innovation
- Quality Communication

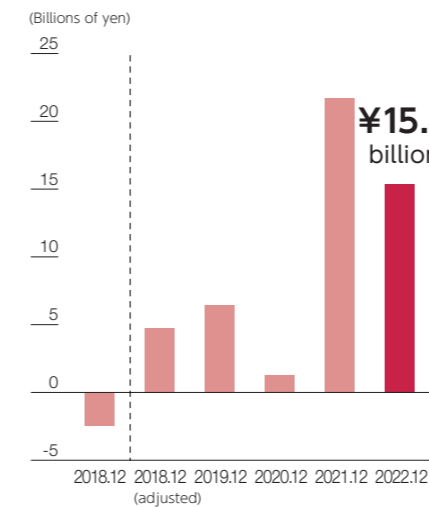
Net Sales



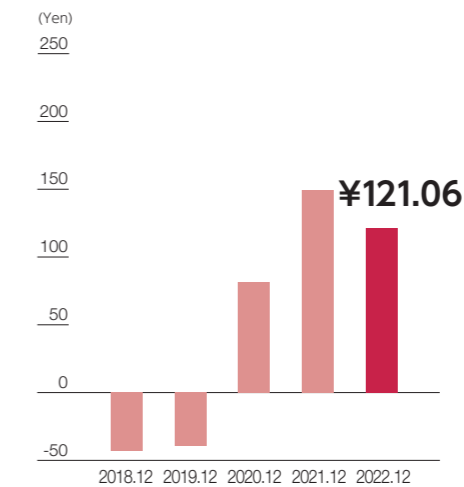
Operating Income



Operating Income/Loss*

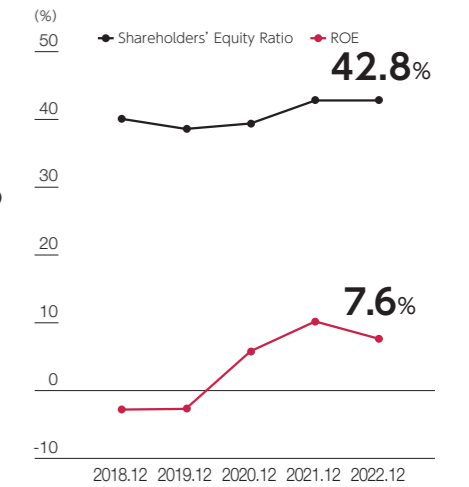


EPS

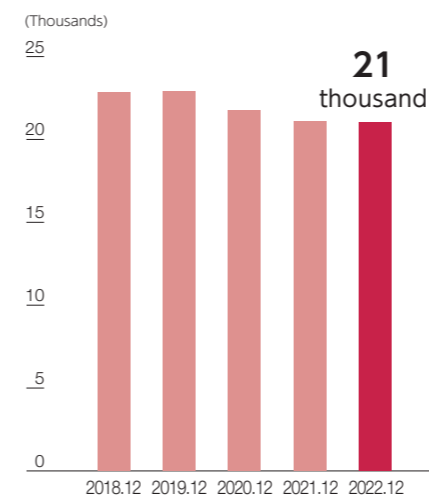


*Operating income for the fiscal year ended December 2018 has been adjusted to facilitate the year-on-year comparison.

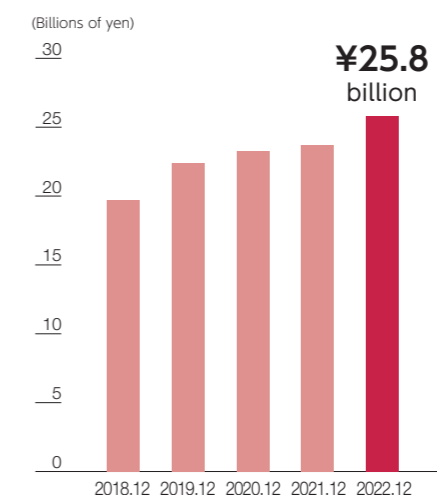
Shareholders' Equity Ratio and ROE



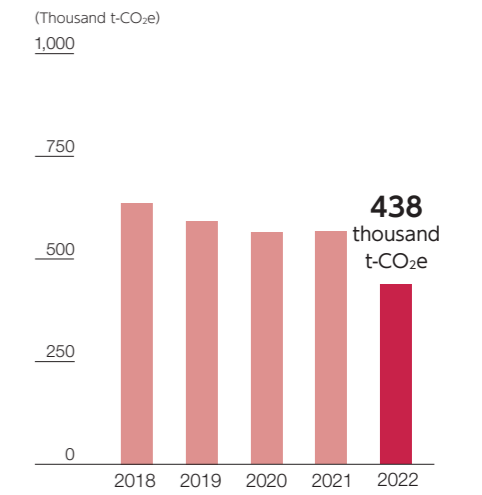
Number of Employees



Research and Development Expenses

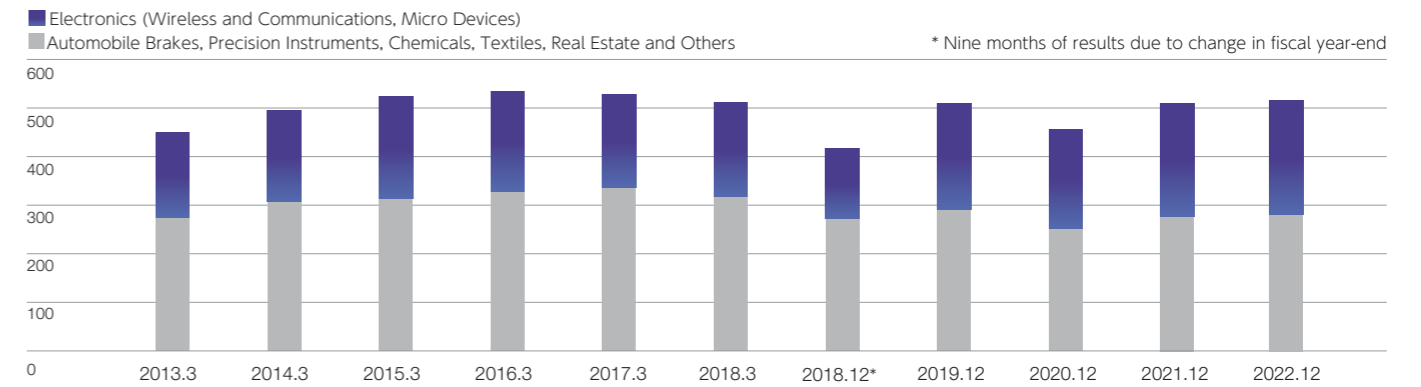


Greenhouse Gas (GHG) Emissions

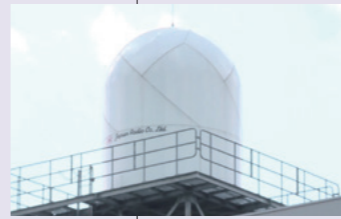



The Nisshinbo Group's mission is to contribute to society through its business activities. In responding to changing social needs and transforming our business portfolio, we contribute to the resolution of various social issues. At present, the Group aims to further enhance corporate value centered on the Wireless and Communications, Micro Devices, as well as the Chemicals businesses, which includes brake friction materials, chemical products, molding products, textiles and other products.

Nisshinbo Group Net Sales (Billions of yen)



Business Portfolio Reforms

1900s	1940-1960	Mid-1960s-1980s	1990s	2000s	2009	2010s	
	Diversified business to meet postwar demand for daily commodities	Automobile Brakes business expanded amid increasing motorization	Further business diversification and overseas expansion buoyed by the strengthening yen	Focused efforts on the electronics field in preparation for the arrival of the information society	Holding company system adopted	Focused efforts on the Wireless and Communications and Micro Devices businesses	
Wireless and Communications							
Japan Radio Co., Ltd.							
1915 •Nippon Radio Telegraph Manufacturing Co. founded (now Japan Radio Co., Ltd.) 1922 •Completed Japan's first wireless weather broadcasting equipment 1923 •Completed Japan's first 500W vacuum tube transmitter 1939 •Completed world's first cavity magnetron	1948 •Completed Japan's first ultrasonic depth finder 1949 •Nagano Japan Radio Co., Ltd., and Ueda Japan Radio Co., Ltd., founded 1954 •Completed Japan's first weather radar 1959 •New Japan Radio Co., Ltd., founded 1960 •Launched sales of world's first transistorized loran receiver	1970 •Completed Japan's first digital flight simulator 1971 •Launched sales of Japan's first real-time signal analyzer 1983 •Achieved top global share in maritime satellite vessel communications equipment 1984 •Developed Japan's first GPS receiver for vessels	1990 •Developed world's first onboard GPS receiver for car navigation			2010 •Japan Radio Co., Ltd. and Nagano Japan Radio Co., Ltd., became consolidated subsidiaries •Developed world's first narrow radar bandwidth 9GHz band 300W solid-state radar for vessels 2011 •Delivered world's first S-band solid-state weather radar to the Philippines	2013 •Alphatron Marine Beheer B.V., became a wholly owned subsidiary 2018 •ProNav AS became a wholly owned subsidiary 2019 •NJ Components Co., Ltd., became a wholly owned subsidiary 2020 •Developed JM-Watcher II, Japan's first app notifying about the approach of nearby vessels
Micro Devices							
New Japan Radio Co., Ltd. (now Nisshinbo Micro Devices Inc.)							
	1961 •Transferred the Microwave Tube Manufacturing Department from Japan Radio Co., Ltd.	1975 •Commenced production of operational amplifiers		2005 •Became a consolidated subsidiary of Nisshin Cotton Spinning Co., Ltd. (now Nisshinbo Holdings Inc.)		2018 •Became a wholly owned subsidiary of Nisshinbo Holdings Inc.	
Ricoh Electronic Devices Co., Ltd. (now Nisshinbo Micro Devices Inc.)							
		1981 •Completed construction of Electronic Technology Development Center at the Ricoh Osaka plant 1987 •Developed power control system ICs	1995 •Developed lithium-ion battery protection ICs 1999 •Developed mobile phone system LSI		2009 •Developed ICs for automotive applications	2014 •Ricoh Electronic Devices Co., Ltd., founded 2018 •Became a consolidated subsidiary of Nisshinbo Holdings Inc.	
Automobile Brakes, Precision Instruments, Chemicals, Textiles and Real Estate							
1907 •Textiles: Nisshin Cotton Spinning Co., Ltd., founded	1944 •Automobile Brakes: Production of friction materials started 1946 •Chemicals: Nisshin Cotton Spinning Co., Ltd., commenced operations at the Nishi Arai Plant as a chemicals production facility 1958 •Precision Instruments: Established Nihon Kohbunshikan Co., Ltd., and commenced production of plastic bobbins					2011 •Automobile Brakes: TMD Friction Group S.A. became a wholly owned subsidiary 2014 •Textiles: CHOYA CORP. sold 2015 •Textiles: TOKYO SHIRTS CO., LTD., became a wholly owned subsidiary •Precision Instruments: Nanbu Plastics Co., Ltd., became a wholly owned subsidiary 2017 •Papers business sold 2018 •Foundation brakes business sold	
Challenges in each era							
	•National modernization and industrialization	•Transition in key industries (from textiles to automobiles)		•Global warming and climate change			
Nisshinbo Group's role							
	•Contributed to Japan's modernization as a cotton textile maker	•Supported development of the automotive sector as a specialist supplier of friction materials			•Helping to create a super-smart society as an <i>Environment and Energy Company</i> group		

Nisshinbo's business policy is to realize a super-smart society as an *Environment and Energy Company* group based on our Corporate Philosophy. In line with this policy, we have continuously and flexibly changed our business portfolio with innovations created through collaborations with a diverse range of people and the combination of various technologies.

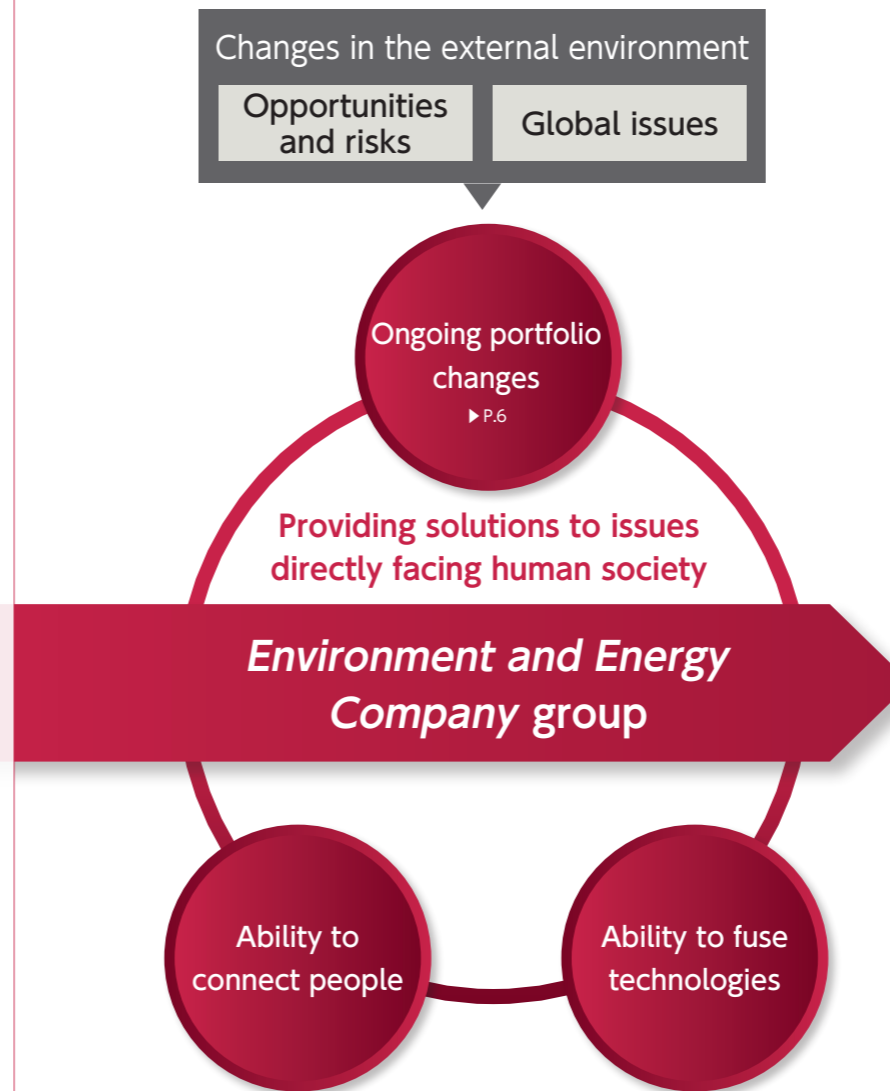
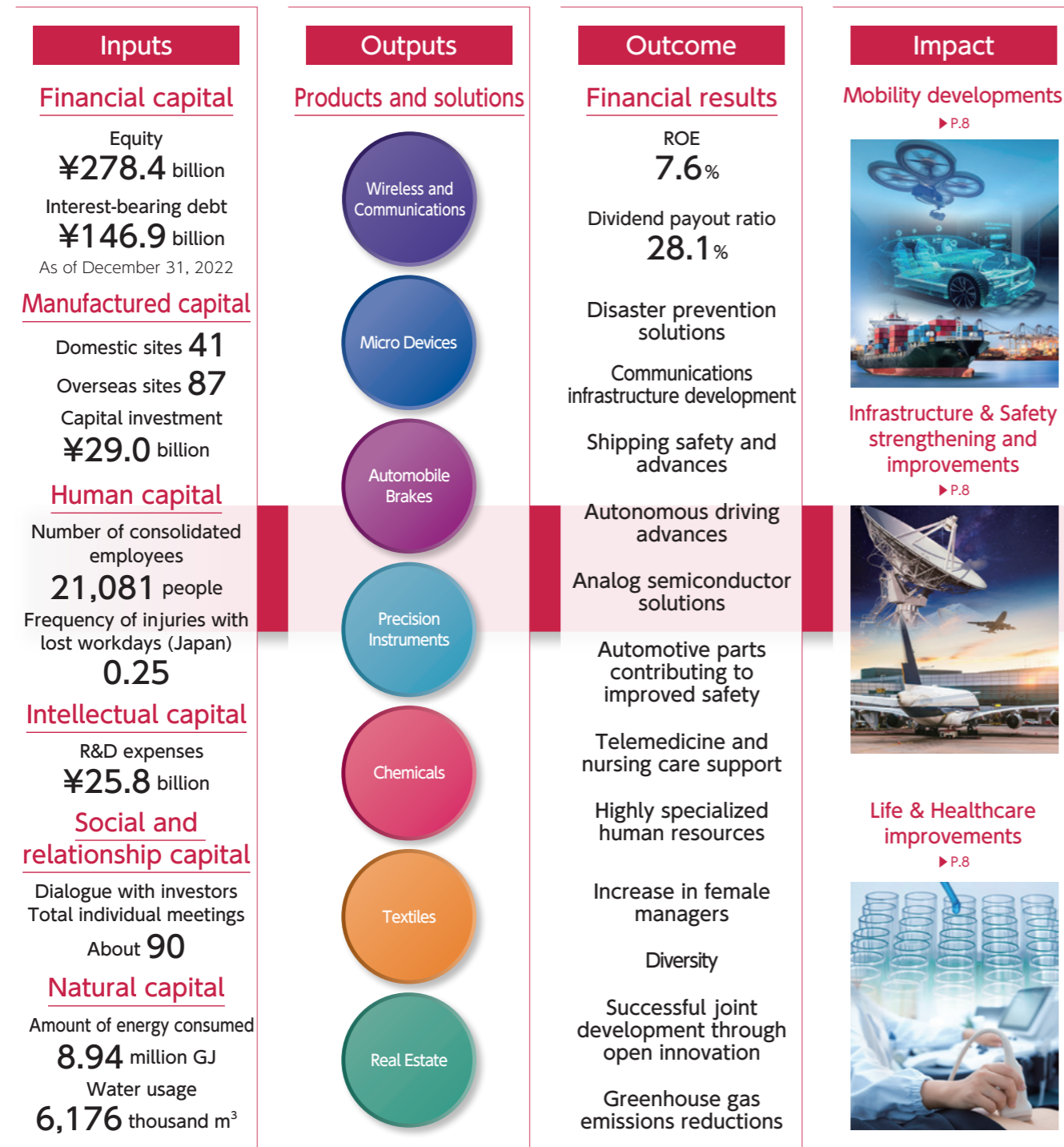
The resulting products and services contribute to resolving social issues in our three strategic business domains.

• Group Corporate Philosophy

• Business policies

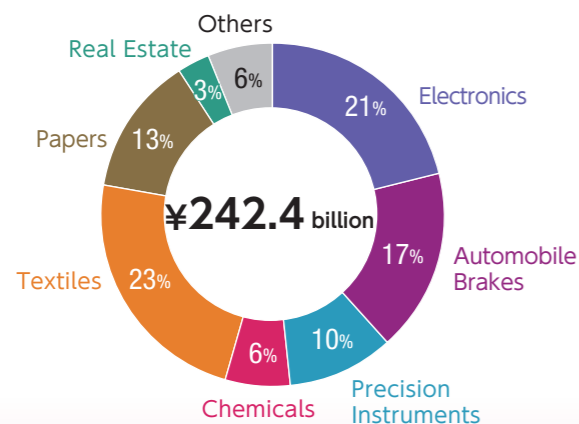
Sustainability management

Environmental destruction ▶ Global environmental protection and improvement = Offensive solutions
 Extreme weather response ▶ Early warning = Defensive solutions

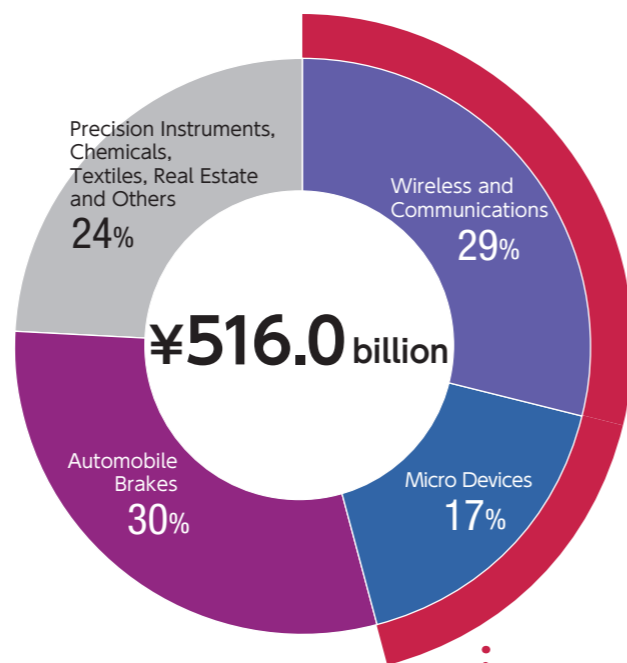


The Nisshinbo Group maintains sustainable growth through ongoing business portfolio transformations. At present, the key Wireless and Communications and Micro Devices businesses account for 46% of overall sales. We will raise the contribution to consolidated sales from these two businesses to 60% or higher by promoting ongoing business portfolio transformations.

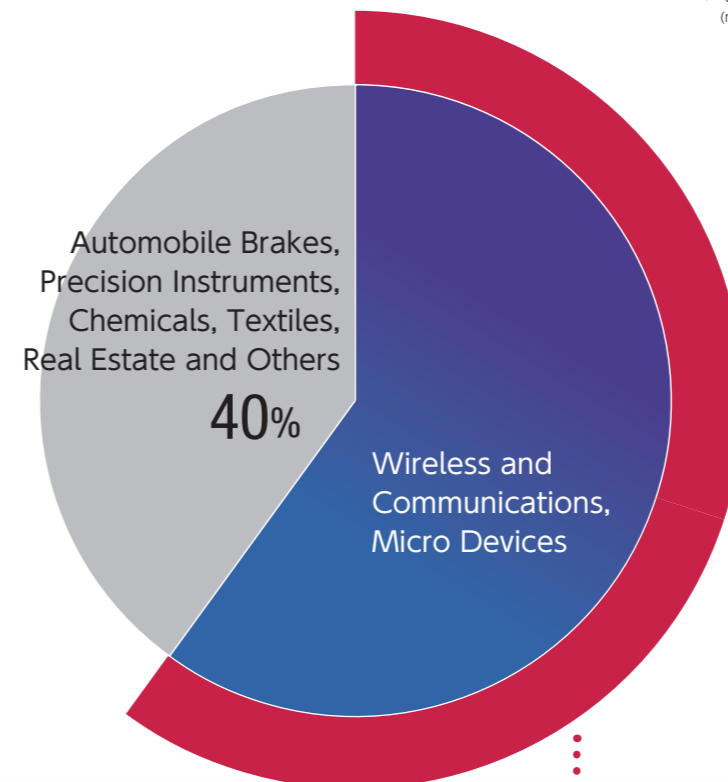
Fiscal Year Ended March 2010
Transition to a holding company structure



Fiscal Year Ended December 2022



Electronics sales ratio **46%**

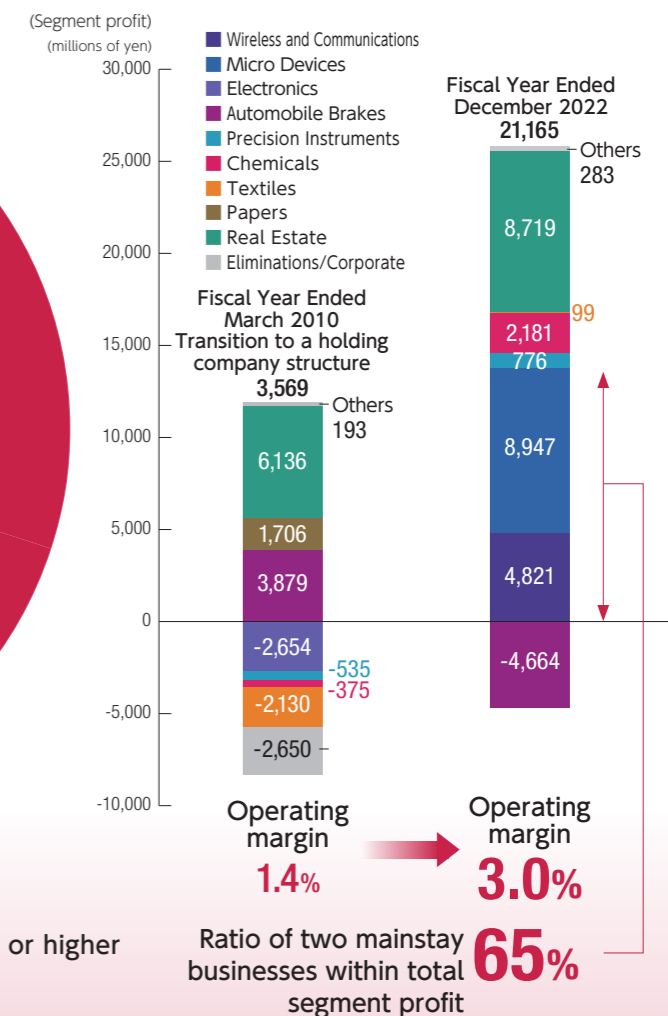


60% or higher

Value creation source

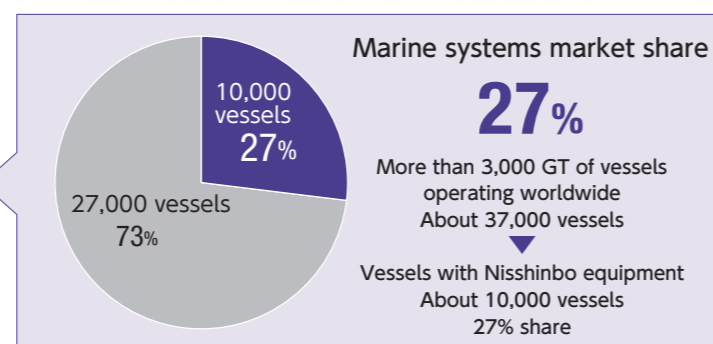
Two key businesses

Improving Profitability through Portfolio Transformation



Wireless and Communications

Core technologies	Communication network technologies Sensing technologies Data analysis capabilities
Earnings contribution	Market leader in marine systems Highly profitable solutions and specialized equipment
Opportunities	Promoting shift toward high-profit businesses where global growth is expected



Micro Devices

Core technologies	Electronic device signal processing and power supply control technologies Microwave-related technologies
Earnings contribution	Competitive electronic devices, high-value-added power modules, microwave product radar components and sensor products
Opportunities	Rising demand for power modules with advanced functionality for automotive and industrial equipment applications Creating demand by integrating electronic device and microwave-related technologies

Share of Nisshinbo Micro Devices lithium battery protection ICs (single cell)

Applications	Nisshinbo Micro Devices' share*
Smartphones, video games, etc.	About 25%

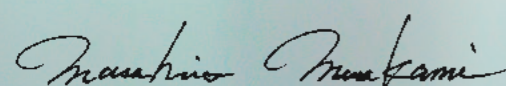
Source: Survey conducted by Nisshinbo Micro Devices Inc. in 2021

Three Strategic Business Domains

In reforming its business portfolio, the Nisshinbo Group is working to enhance corporate value by concentrating and allocating management resources to three strategic business domains constituting promising markets with high potential for contributing to the resolution of social issues while demonstrating Group competitive advantages.

Business domains, major markets and core businesses	Operating companies	Strengths and Group synergies	Related SDGs
Mobility			
<p>The Nisshinbo Group will integrate radar, wireless communications and other proprietary technologies, while enhancing technologies related to all moving objects on land, sea and air, including autonomous vessel navigation and advanced driver assistance systems (ADAS), to contribute to safety and the environment.</p>	<p>Major markets</p> <ul style="list-style-type: none"> • CASE <p>Core businesses</p> <ul style="list-style-type: none"> • Marine Systems J-Marine Cloud • Sensor Fusion (e.g., 3D Authentication Technologies, Erroneous Incursion Detection) • High-precision Positioning Services • Automotive Brakes: Friction Materials 	<p>Operating companies</p> <p>Japan Radio Co., Ltd.</p> <p>JRC Mobility Inc.</p> <p>Nisshinbo Micro Devices Inc.</p> <p>Nisshinbo Brake Inc.</p> <p>Nisshinbo Mechatronics Inc.</p> <p>Nisshinbo Chemical Inc.</p>	<p>By linking business segments including Wireless and Communications, Micro Devices, Automobile Brakes, Precision Instruments and Chemicals, the Nisshinbo Group combined technologies such as LTE (next-generation high-speed mobile communications standard) and millimeter wave communications, while refining technologies related to the autonomous operation of all moving objects on land, sea, air and space, beginning with advanced driver assistance systems (ADAS: Level 2). Among these efforts, our 3D recognition technologies have already earned a high reputation worldwide for their ability to facilitate autonomous movement without malfunction regardless of the weather. The addition of AI will enable us to incorporate predictions of movement for people and objects as we attempt to achieve commercialization. We also aim to create solutions in areas other than vessel navigation by visualizing the ocean using meteorological data and marine resources.</p>   
Infrastructure & Safety			
<p>The Nisshinbo Group leverages the technologies and knowledge of each Group company related to disaster prevention systems such as weather radar, river water level monitoring systems and total maritime information services, providing solutions facilitating human safety and security in a super-smart society.</p>	<p>Major markets</p> <ul style="list-style-type: none"> • Disaster Prevention Equipment and Systems <p>Core businesses</p> <ul style="list-style-type: none"> • Disaster Prevention and Weather Services • 4G/5G Mobile Network Base Stations • Driving Safety Support System (DSSS) • Bipolar Plates for Fuel Cells 	<p>Operating companies</p> <p>Japan Radio Co., Ltd.</p> <p>Nisshinbo Micro Devices Inc.</p> <p>Nisshinbo Chemical Inc.</p>	<p>To protect people from natural disasters such as river floods, sediment-related disasters, tsunamis and storm surges, Nisshinbo Group business segments including Wireless and Communications, Micro Devices and Chemicals collaborate to provide equipment and systems such as water level gauges and rainfall meters, as well as the telemeters, alarms, sirens and cameras that remotely manage them, while building dam management and other systems by creating a network with these devices using communication technologies. In disaster prevention systems including weather radar and river water level monitoring systems, we are developing a wide range of solutions in Japan and overseas, from disaster prevention to disaster prevention information communication systems that notify residents of dangers by combining weather information with earthquake information obtained from weather radar. With the advantage of strengths in leveraging Group company technologies and knowledge, we will make use of strong relationships with government agencies cultivated up to now, and in addition to equipment sales, we will utilize data obtained from that equipment to create a variety of service solutions.</p>   
Life & Healthcare			
<p>As an <i>Environment and Energy Company</i> group, the Nisshinbo Group promotes the development of environment- and medical-related products incorporating the technologies of each Group company.</p>	<p>Major markets</p> <ul style="list-style-type: none"> • Medical Equipment • Nursing Care Equipment <p>Core businesses</p> <ul style="list-style-type: none"> • Portable Ultrasound Analyzers • System to Monitor People Who Require Nursing Care • Carbodilite 	<p>Operating companies</p> <p>Japan Radio Co., Ltd.</p> <p>Nisshinbo Micro Devices Inc.</p> <p>Nisshinbo Mechatronics Inc.</p> <p>Nisshinbo Chemical Inc.</p> <p>Nisshinbo Textile Inc.</p>	<p>The Nisshinbo Group promotes the development of environment- and medical-related products through collaborations among the Wireless and Communications, Micro Devices, Precision Instruments, Chemicals and Textiles business segments and applying their respective technologies and knowledge. In terms of medical-related products, for more than 60 years since the development of ultrasonic diagnostic equipment in 1960, Ueda Japan Radio has contributed to the development of ultrasonic diagnostic equipment through contract development and manufacturing, creating a medical business based on the past cultivation of the world's top-level ultrasound and wireless communication technologies. Proprietarily developed handheld ultrasound devices with high-quality images manufactured and launched by Ueda Japan Radio in December 2020 are driving the expansion of our earnings base in the Life & Healthcare domain amid growing demand in the diagnostic field due to COVID-19.</p>   

Increasing Profitability and Enhancing Corporate Value through the Execution of Our Growth Strategies



Masahiro Murakami
President and Representative Director
Nisshinbo Holdings Inc.



Nisshinbo Group Corporate Philosophy

Change and Challenge! For the creation of the future of Earth and People.

Adapting to the changing demands of modern life and society and shifting focus to the environment and energy fields
Targeting three strategic business fields

Business Policies

Realize a super-smart society as an *Environment and Energy Company* group

Aiming to increase corporate value through business policies closely linked to our Corporate Philosophy

Strategic Business Domains



Mobility

Copper-free friction materials
Fuel cell vehicle parts and materials
Marine wireless communication equipment and others



Infrastructure & Safety

Weather radar
Disaster prevention solutions
Alertmarker+ and others



Life & Healthcare

Ultrasound imaging equipment
Medical equipment and healthcare management equipment development and others

Aiming to Realize a Super-smart Society Centered on the Environment

The Nisshinbo Group Corporate Philosophy is "Change and Challenge! For the creation of the future of Earth and People." This philosophy informs our business policies that aim to realize a super-smart society as an *Environment and Energy Company* group. While there are various segments within the Group, the vector of all our businesses is aligned with the environment. At the root of these business activities is our aim of realizing a super-smart society centered on the environment. Four years ago, we defined Mobility, Infrastructure & Safety, and Life & Healthcare as three strategic business domains in which we will deepen efforts to achieve this aim.

We chose Mobility both in reference to automobiles, with which our business has been closely associated for some time, as well as to encompass vessels, aircraft, man-made satellites and other moving objects, including those in space. Automobiles are a large market that includes the advance of autonomous driving

demonstration experiments, and with other countries following the lead of developed nations, the global transition to autonomous driving is still expected to require a considerable amount of time. Amid these conditions, we support autonomous driving with sensors as well as camera and radar fusion. There is a limit to how close we can get to preventing accidents during autonomous driving using only cameras and radar, so we will work with automakers to create a fusion of Nisshinbo products, including camera devices, radar and ultrasound sensors. Furthermore, cars of the future will not be limited to driving on the ground. We are also developing radar for transportation drones that fly in the sky, and have already completed collision avoidance demonstration experiments. Originally, this system was developed to support flight safety by ensuring that drones would avoid air ambulances. Going forward, we plan to create a system leading to safe operations, including collision avoidance between drones and communications with the ground using radar. We will continue developing business in the Mobility domain

from the perspectives of land, sea and air.

In the Infrastructure & Safety domain, we are already promoting initiatives that protect human life from natural disasters, mainly through Japan Radio sensing and communications technologies, ICs provided by Nisshinbo Micro Devices Inc. and river monitoring systems. However, for Nisshinbo, this is only the beginning. As the global environment continues to deteriorate, natural disasters caused by climate change are occurring frequently in many parts of the world. We will continue to develop business in cooperation with local governments making the safety of local residents our top priority, with the ultimate goal of providing service businesses that contribute to climate change mitigation and environmental improvements.

Unlike Mobility and Infrastructure & Safety, which are focused on immediate results to current challenges, the third strategic business area, Life & Healthcare, is focused on a long-term time horizon of about 10 years. Telemedicine is essential in Japan, which is fast becoming a super-aging society, as well as China, where

society is also rapidly aging. And rather than connection by wires, telemedicine requires wireless connectivity. Handheld ultrasound diagnostic devices manufactured by Ueda Japan Radio will also be taken to the next level by enabling them to be used with smartphones and remote treatments. In the medical field, obtaining regulatory approvals and permits is a time-consuming process. However, leveraging our strength in achieving in-house collaborations between medical devices and wireless and communications technologies will lead to the realization of a super-smart society able to guarantee human safety and security.

Review of Fiscal 2022 and Outlook for Fiscal 2023

In 2022, the conflict in Ukraine erupted amid the lingering pandemic, bringing higher raw material and fuel costs. For the past two years, the Nisshinbo Group has made efforts to strengthen pricing strategies through thorough cost controls, and while we have



made considerable progress in passing on costs, we were faced with this sudden increase in costs. This had a particularly large impact on TMD, Nisshinbo Brake's European subsidiary, which aggressively promoted cost pass-throughs, but was unable to pass on all cost increases during fiscal 2022, so some results of these efforts will be delayed until fiscal 2023. Furthermore, tight supplies of electronic components caused some projects, mainly in wireless and communications, to be carried over to the next fiscal year.

Looking ahead to 2023, the business plan was formulated based on the assumption that the pandemic will subside but continue to linger, while the current

Ukrainian conflict will remain unresolved. Based on an assumed exchange rate of ¥130 to US\$1, we forecast net sales of ¥557.0 billion, operating income of ¥24.0 billion, ordinary income of ¥27.0 billion and net income attributable to owners of the company of ¥18.0 billion (as of February 10, 2023).

It is said we are now in a time of volatility, uncertainty, complexity and ambiguity (VUCA). However, the 1980s, when I joined the company, was also said to be a time of uncertainty. Today is no different than the past, in that we are always amid uncertainty, upheaval and turmoil. Without being swayed by these words, my sense is that it is important we take decisive measures to address foreseeable risks and transform ourselves amid environmental changes while promoting growth strategies in our mission to contribute to society through business activities.

Continuous Engagement in M&A and Carveout Projects

From a management perspective, business portfolio transformation remains the core of business transformation. Despite making no significant progress in terms of drastic business portfolio transformations in fiscal 2022, we have continuously engaged in M&A and carveout projects. Although the probability of concluding agreements on these projects is low, and despite being

unable to provide specific timing and other details out of consideration for the counterparties involved, we engage in these projects with a seamless approach. When transferring our paper products business, we engaged in negotiations with a focus on the conditions and timing that were best for the target company employees, which ended up taking 10 years from decision-making to conclusion. The reason we have not announced current plans for the next fiscal year and beyond is because we are continuously engaged in these M&A and carveout projects. We believe the right time to disclose medium-to long-term goals is after M&A has reached a certain scale, carveouts have progressed to a certain point and business portfolio reforms have been implemented to a certain extent.

At the same time, simply using M&A to achieve topline growth is meaningless. We position ROE and ROIC as important indicators for strengthening our earnings base and increasing asset efficiency. With regard to ROE, I believe we must consistently exceed 10%. While we are trying to change both the denominator and numerator when calculating ROE, it is of fundamental importance to increase profit in the numerator, which we recognize as the most important factor in improving PBR.

Within the Company, I remind employees to "profit properly." An approach whereby we increase sales and reduce fixed costs results in many businesses having low profit margins, so we launched an initiative three

years ago to check the profit margin of each product and shift to businesses with higher profit margins. While it will take a bit more time before results are clearly seen in the numbers, we are constantly reviewing businesses and products as part of management efforts to assemble a business portfolio that contributes to improved profitability. Rather than focusing on current performance, we continuously view the portfolio from 5–10 years in the future, and will reorganize it in response to changes in the environment with efforts that include M&A and carveouts while focusing efforts on the cultivation of new businesses.

Strengthening Profit Structure through DX and Creating New Business Models

In fiscal 2022, we promoted growth strategies under the slogan, "strengthening profitability through business transformations." To continue engaging in business activities, safety and health activities are most important, followed by continuous improvements. To realize a leaner structure, we must constantly strengthen our structure by steadily promoting continuous onsite improvements and drastically changing the business itself as well as the business systems, employing methods such as those I mentioned earlier.

In addition to steadily strengthening our profit structure, we will further accelerate operational efficiency

The Group's Contribution		Strategic business domains			Targeting specific SDGs where Nisshinbo can make a real contribution while also taking into account all 17 SDGs																				
		Business segments	Mobility	Infrastructure & Safety	Life & Healthcare	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
Nisshinbo Group's contribution	Contributed to Japan's modernization as a cotton textile maker	Textiles			●						○	○			○										
	Supported development of automotive sector as a specialist supplier of friction materials	Automobile Brakes	●																	○					
		Precision Instruments	●			●																			
	Helping to create a super-smart society as an Environment and Energy Company group	Wireless and Communications	●	●		●						○	○	○	○		○	○	○	○					
		Micro Devices	●	●		●							○	○	○		○	○							
		Chemicals	●	●		●							○	○	○		○	○	○	○					
	Real Estate				●											○									
Core SDG objectives and targets in our business			Target 3.6	Target 7.3	Target 3.2			3											7						
			Target 9.4	Target 13.1	Target 9.4			9											13						
									Target 3.2: Reduce the infant mortality rate Target 3.6: Halve the number of global deaths and injuries from road traffic accidents									Target 7.3: Double the global rate of improvement in energy efficiency							
																						Target 9.4: Improve sustainability with environmentally sound technologies			
																							Target 13.1: Strengthen resilience to climate-related hazards and natural disasters		

enhancements through the use of digital technologies in the improvement activities we have been promoting up to now. DX does not equal digitalization. How we use IT and digital technologies, and the details of “X” are important. One direction we can target with DX is the use of digital technologies to enhance software content and launch subscription-based services. For example, subscriber services for the creation of drone flight plans and digital businesses utilizing J-Marine Cloud, which is a database of information collected from the sea and land, are nearing commercialization. These are precisely the kind of businesses developed based on manufacturing, and I have high expectations that they will bring about a transformation of the business itself.

Nisshinbo Group Sustainability Management

Our mission is to contribute to society through our business activities, so we are not fixated on business itself. Rather than fixating on one business, we contribute by providing solutions to changes in the social environment as they occur. This is Nisshinbo’s policy, based on the concept of being a public entity, which contributes to the SDGs.

At present, we are developing business centered on the environment to realize a super-smart society through businesses that contribute to the improvement of the global environment. Furthermore, in fiscal 2022, we announced carbon neutrality in 2050 as our most important environment-related issue. As part of this process, we set the goal of reducing greenhouse gas emissions 50% by 2030 compared with fiscal 2014, and we have already achieved a reduction of about 35% toward that goal. As part of these efforts, we have seen a more than 40% reduction in greenhouse gas emissions from the shutdown of in-house coal-fired power generator equipment in Indonesia, the switch to geothermal power generation and the installation of solar panels on plant rooftops. We are also on track to achieve our 2030 target by switching to gases used in the semiconductor business that have a lower environmental impact.

As we proceed with environmental initiatives, we want to further accelerate “S,” or people-centered initiatives. Companies comprise people, goods, money and data, but goods, money and data generate value only when used by people. People are important to companies, so

the key point is how well companies value their people. Even if we continue engaging in business focused on the environment (E), we will not be able to maintain business unless we can adequately guarantee the existence of people (S), which are a requirement for a company’s existence.

The Nisshinbo Group’s underlying principle is “business is people,” and our focus on valuing people remains unchanged to this day. “People” are not limited to employees, as we also see the importance of engaging in win-win activities that can benefit all stakeholders. Thus, we are very passionate about “people” and focus efforts on education, training and meritocracy. In terms of education and training, we promote level-based training systems in parallel with selective human resource development, and encourage each individual to improve their professional literacy through a combination of mandatory training and self-directed educational efforts.

At the same time, increasing the number of women in management positions is not something that can be achieved overnight, so we continue to engage in efforts to change systems and employee mindsets. In addition to changing existing systems requiring a set number of years of experience before an employee is promoted, we have revised our personnel system to incorporate multi-track and transferable functions. Furthermore, we have expanded the ratio of mid-career hires in career-track positions from around 20% to about 50% and promote an influx of diverse human resources in terms of gender, age and other qualities.

Cultivating a Corporate Culture “Unafraid of Change”

We have been enhancing diversity and inclusion efforts for about three years now, and to ensure these efforts become truly pervasive throughout the Company, I tell employees, “First, you must acknowledge that you are one of the diverse individuals in our Company.” I am only one of many diverse individuals in the Company. When all employees adopt this perspective, psychological safety is created around us, and we can create an organization where opinions can be expressed openly and without undue restraint. An organization such as this is more likely to innovate, and this will be reflected in the Company’s performance. As the D&I philosophy has become further entrenched, employee survey



scores have also shown improvement. We are also working to make Group companies with comparatively low employee survey scores more aware by showing them Group companies with high scores. I often tell employees “D&I is the starter of innovation, and DX is the accelerator.”

Another important aspect of change is to be unafraid of failure. We are attempting to cultivate a corporate culture that is unafraid of change by conveying the idea that “failure is not something to be criticized, but rather forgiven and utilized. A culture that allows failure and makes the most of it will achieve innovations. A culture that does not allow failure breeds dishonesty.” That being said, we have no room for leniency when it comes to unlawful conduct, and impose severe punishments for any conduct that violates laws, corporate ethics or public morals. More than 10 years ago, the Group established the Corporate Ethics Reporting System, which has functioned very well thus far.

Shareholder Returns

Our basic policy on shareholder returns is, after first prioritizing strategic investments for growth, to pay stable and continuous dividends, with a target consolidated dividend payout ratio of approximately 30%. If sufficient retained earnings are secured, we consider proactive shareholder return measures, including share buybacks.

In fiscal 2022, we provided ¥17 per share in both interim and year-end dividends, amounting to an annual dividend of ¥34 per share, an increase of ¥4 per share. Furthermore, in terms of operating cash flows, as we are able to secure funds for growth investments, in May 2022, we announced share repurchases comprising a maximum of 12 million shares at a total repurchase price of ¥10 billion, which was executed at the end of November. In fiscal 2023, we project capital investments of approximately ¥40.0 billion and R&D investments of approximately ¥30.0 billion, and plan to increase the annual dividend to shareholders by ¥2 per share.

Message to Stakeholders

While shareholders are the owners of the Company, we believe it important to conduct business and increase value while maintaining an awareness of all stakeholders, including customers, employees, business partners and local communities. We believe we can meet stakeholder expectations by rejecting capital monopolization, arbitrary management decisions and autocratic labor, and instead recognize our mutual authorities and responsibilities while cooperating with each other to maximize profits as overall added value. We hope for your continued support as we work to increase profitability and enhance corporate value through the execution of our growth strategies.



Targeting Improved Asset Efficiency through the Steady Promotion of ROIC

Shuji Tsukatani

Director and Managing Officer
Senior Manager of Finance,
Accounting & IT Service Department of Corporate Strategy Center

Basic Financial Capital Strategy

The Nisshinbo Group promotes management emphasizing profitability and efficiency while maintaining financial soundness in preparation for medium- to long-term investment and risks. As we are engaged in a diverse range of businesses with the mission of “contributing to society through businesses activities,” we are targeting further growth through business portfolio transformation without adhering to traditional businesses. The Group cannot advance without changing its business and asset profile.

In promoting business portfolio reorganization, we have introduced return on invested capital (ROIC) as an important internal management indicator. We have set the weighted average cost of capital (WACC) at 6%, and are initially aiming for ROIC of 8% as an average for the entire Group, after which we will attempt to increase ROIC even further. Several years have passed since we introduced ROIC, and we will utilize it as one criterion for determining business leverage and continuity. As our current challenge is to improve profitability, we believe it necessary to identify and revise the strategies of businesses that are not showing improvement in ROIC.

Even before these ROIC initiatives, we promoted Company-wide continuous improvements and cost-control activities, as well as selection and divestment at all levels, including business units and individual products. In line with this policy, we have also been consolidating and reorganizing overseas bases. Since 2020, we have used an ROIC tree to clarify issues that all employees should address and strengthen awareness of the need to generate operating cash flow. The full-scale introduction of ROIC is intended to refine business evaluations. In addition to organic growth, up to now we have been proactively pursuing M&A in key segments such as Wireless and Communications and Micro Devices to incorporate them as growth businesses. In May 2023, we announced the acquisition of Hitachi Kokusai Electric shares. The acquisition value is expected to total ¥37 billion, which will be financed by bank loans. Debt financing is expected to maintain the EBITDA/interest-bearing debt ratio at approximately 0.28x, the same level as in the previous year. As the share transfer agreement has yet to be concluded (as of June 30, 2023), dialogue with the target company has been limited due to antitrust law considerations. After closing the agreement, we will engage in thorough discussions with the target company regarding the effects of this acquisition and the pursuit of synergies.

Furthermore, the Tokyo Stock Exchange has requested that we improve our P/B ratio, which is below 1x. We are preparing to disclose this information by carefully examining our business plan so as not to make any hasty decisions. To improve the P/B ratio, we are cognizant of the need to gain the confidence of the market by clearly stating our business

plan, streamlining consolidated assets and promoting sustainability management. Sustainability management is particularly important for improving equity and enterprise spreads. We believe that increased management resilience will reduce the medium- to long-term hurdle rate, which we put at a WACC of 6%.

Resource Allocation and Growth Investments

Funds required for Group-wide working capital and growth investments come mainly from operating cash flows, but interest-bearing debt is also utilized effectively to improve capital efficiency as needed.

In allocating resources, we consciously invest in asset-light businesses such as Wireless and Communications. The solutions and marine systems businesses in Wireless and Communications belong to the assembly industry, thus initial investments are lower, with the main focus being investments in systems and human resources. We will transition from businesses that sell products to those that utilize the technologies and products we have honed through manufacturing. As we develop service businesses integrating DX and IoT, we will develop asset-light businesses. Semiconductors and brake friction materials, which require relatively large initial investments, tend to be disadvantageous in terms of asset efficiency, although this creates barriers to entry and contributes to business stability. The determining factor will be whether Nisshinbo can continue generating stable cash flows in the future, the key to which will be shortening the investment payback period (depreciation period) of about 10 years through improved profitability. Increasing asset efficiency will naturally affect the streamlining of shareholders’ equity on the procurement side. We aim to achieve ROE targets by streamlining shareholders’ equity while increasing profitability.

Response to Climate Change

The Nisshinbo Group corporate philosophy is “Change and Challenge! For the creation of the future of Earth and People.” As climate change has become one of the major threats to the Earth and its inhabitants, seizing business opportunities and appropriately responding to the risks posed by climate change have become important management issues. As part of these efforts, in fiscal 2021, the Group began analyzing climate change scenarios in accordance with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. By fiscal 2022, the Group had completed analysis on segments accounting for more than 90% of net

sales. Through scenario analysis, each business unit has begun to recognize the risks and opportunities posed by climate change as issues relevant to their business and measures have been launched to address these issues.

The Nisshinbo Group established and conducts activities in the three fields of Mobility, Infrastructure & Safety and Life & Healthcare as strategic business domains, enabling each to define initiatives related to climate change. The manufacturing industry must strive to reduce greenhouse gases emitted from production processes while responding to societal demands in ways that ensure our products help reduce greenhouse gas emissions. At the same time, we have a responsibility to provide the world with system technologies that maintain human safety and protect property from drastic climate changes caused by global warming. For example, the Group is involved in weather radar and disaster prevention systems. In a future assuming drastic climate change, weather radar will quickly predict linear precipitation zones and torrential rainfall, then relay this information to disaster prevention systems. Utilizing 5G and IoT technologies, we expect disaster prevention systems will be able to provide more personalized and detailed evacuation information. We believe resources should be proactively allocated to address inadequate software technologies and other areas deemed insufficient for this purpose.

Shareholder Returns

The Nisshinbo Group aims to continuously increase shareholder value by promoting management that emphasizes profitability and efficiency. We also intend to invest in areas that drive growth, such as R&D, capital expenditures and M&A, aiming to secure even greater support and trust from society and stakeholders as an *Environment and Energy Company* group. An important point in returning profits to shareholders is to increase the share price through improved business performance.

In principle, there are two distributions per fiscal year: the interim dividend and the year-end dividend. Targeting a consolidated payout ratio around 30%, Nisshinbo’s policy is to provide the stable and continuous distribution of dividends. Furthermore, if sufficient internal reserves are available to execute future growth strategies, we will consider proactively returning profits to shareholders, including share buybacks, taking into consideration stability and dividends on equity (DOE).

Based on this policy, in the fiscal year ended December 31, 2022, we increased the full-year dividend per share by ¥4 (to ¥34 per share) and repurchased ¥10.0 billion in treasury stock. In the fiscal year ending December 31, 2023, based on earnings forecasts, we plan to increase the full-year dividend per share by ¥2 (to ¥36 per share).



Maximizing Value through Core Technologies and a Solutions Orientation

Takeshi Koarai

Representative Director and Senior Executive Managing Officer
Nisshinbo Holdings Inc.
Representative Director, President
Japan Radio Co., Ltd.

Three Strengths

Q What are Japan Radio's strengths?

Since our establishment in 1915, we have contributed to resolving various social issues based on wireless technologies, as indicated by our company name. Over the course of our history, we have cultivated three major strengths.

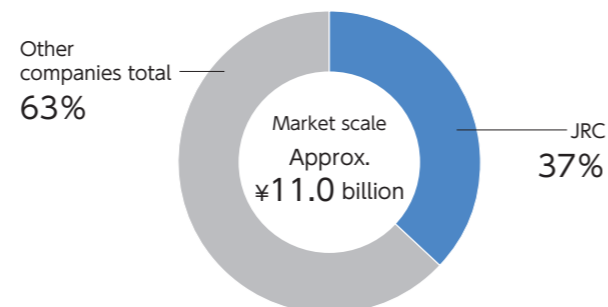
Our first strength is in core technologies, including communications, sensing and data analysis. Our founding business was communications equipment and radar that contributed to vessel navigation and operation, but the use of wireless technologies not only facilitates communications with remote locations but also contributes to the resolution of customer and social issues by using radio waves, ultrasonic waves and other type of waves to visualize what is invisible to the naked eye or light. As the use of wireless technologies is expected to continue expanding, the skills and expertise we have cultivated over many years in this area are a great strength.

Our second strength is the ability to provide customer value, namely, the ability to identify and resolve customer issues. Even if we are able to resolve a customer's issues with technical

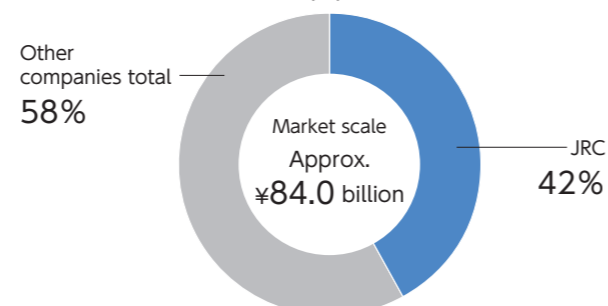
designs, we cannot see the essential underlying problem unless we understand what kind of problem the customer is facing in the first place. For example, in delivering disaster prevention systems, dam control systems and other social infrastructure systems, we provide installation and maintenance services, which enables us to understand customer inconveniences and problems. This knowledge is then incorporated and utilized in subsequent proposals. We will continue to steadily enhance our ability to provide customer value by viewing our technologies from the customer's perspective and linking this to proposals.

Our third strength is integration skills combining multiple technologies. As there are many issues that cannot be resolved by refining a single technology, the comprehensive combination of various technologies required to resolve issues from within or outside the Company enables us to provide the means for resolving issues and demonstrating our substantial strengths.

C-band Weather Radar: Share within the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and the Japan Meteorological Agency

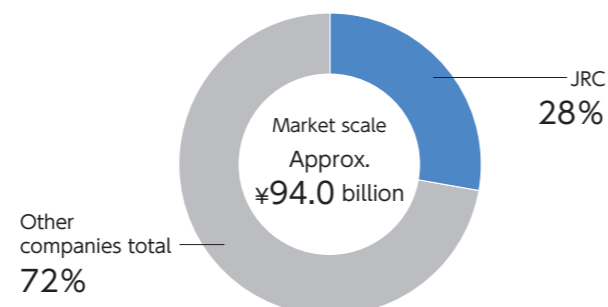


Dam and Weir-related Equipment*: Share within MLIT



*Excluding water intakes and other small facilities

Share within Prefectural Disaster Prevention Systems



Note: Market scale and shares are Nisshinbo estimates (FY2022)

Q What kind of expertise in core technologies have you accumulated over the years?

Radio waves and light are used as means of communication and sensing to extend the range of human activities. However, when there are obstacles that obstruct the path of radio waves or light, compensating for the obstructed area becomes a critical point from a technological perspective. Various compensation methods can be considered, but one of the difficulties of expertise is whether the optimal solution can be provided by comprehensively taking into account degree of importance, stability and cost, among other factors.

Furthermore, as radio waves and light travel in straight lines, they cannot reach the opposite side of the Earth. Even if there is nothing obstructing their path, it is necessary to use the ionosphere and satellites to relay radio waves and send them to the required area. In addition to technology itself, expertise is needed to know how to cover these areas. As an example, although a large number of mobile phone base stations are installed to cover a given area, there will still be gaps in that area. In this case, rather than adding base stations at unnecessarily high costs, antennas can be tilted slightly to cover gaps in the area. We have accumulated wireless technologies and the expertise enabling us to rectify inconveniences caused by wireless technologies and provide comprehensive services.

The purpose of communications is to convey information possessed by the sender to the receiver, while the purpose of sensing is to ascertain conditions by emitting radio waves and analyzing their reflection from the surrounding areas. There is a wide range of needs for sensing applications, including the safe navigation of vessels on the sea, self-driving automobiles on land and weather radar in the sky, which we were first to provide in Japan. We have expanded the potential uses of sensing from the perspectives of what and how it is used to see. In the healthcare

field, our subsidiary provides ultrasound imaging equipment that uses ultrasound sensing technology to ascertain the condition of internal organs. Navigational equipment installed on vessels requires operation under exceedingly adverse environmental conditions, including vibrations, oscillations, weather phenomena and temperatures, while also being cost-effective, which requires considerable expertise. We are confident in our outstanding competitive advantages derived from expertise we have accumulated in this field, such as excluding sensing information on ocean waves not directly required for navigation, or conversely, extracting only that wave information necessary for avoiding danger, and more recently, for supporting automatic navigation.

IoT is also leading to DX through the analysis of data collected by devices and data analysis that creates value by discerning the significance of events.

Growth Strategy

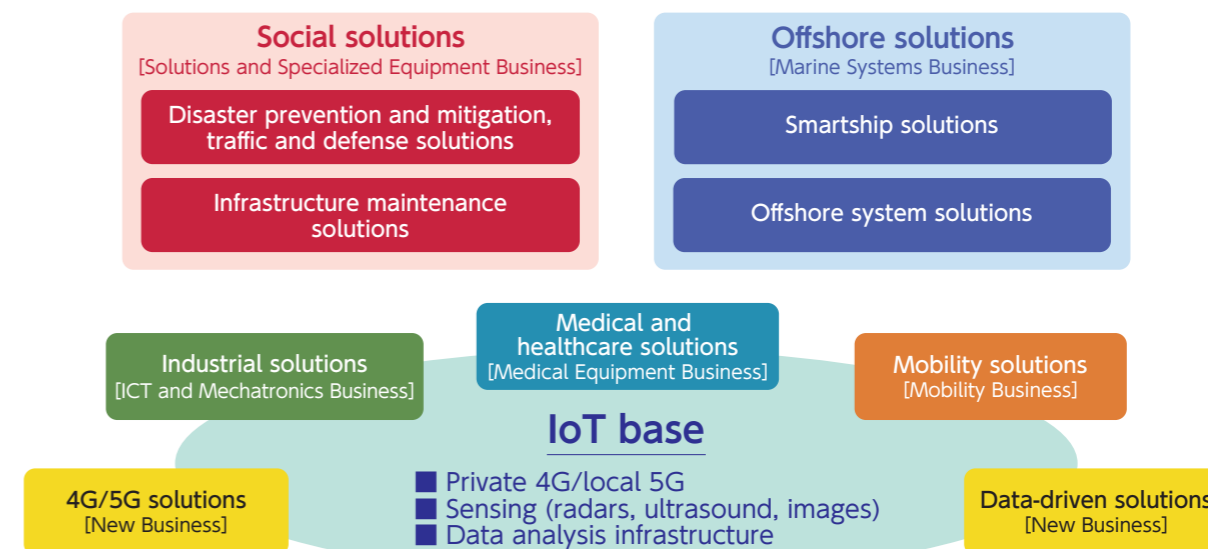
Q How will you achieve growth using these strengths? What is your growth strategy?

The basis of our growth strategy is to promote a solutions orientation in all businesses. In other words, our products and services will become a means to resolve customer problems and social issues. Depending on how they are used, even parts and materials can become solutions that resolve issues.

Social solutions and Offshore solutions have already established a certain business scale as our earnings base, and Industrial solutions and Medical and Healthcare solutions will drive future growth.

In the Industrial solutions domain in particular, although we can see the potential for market growth, the speed of change is rapid and there are many players entering the market, so the key is how to demonstrate superiority while keeping pace with

Aiming to Become a True Solution Business



the speed of change. For example, in primary industries such as fisheries, forestry and agriculture, there might be opportunities to create new solutions by focusing on the air, land and sea, including drones, while in secondary industries such as manufacturing, various business opportunities are opening up through innovations that include IoT systems in factories. We will fully demonstrate our core technologies, the value we provide customers and integration skills represented by our strengths, and provide solutions that contribute to quantification and the elimination of waste in operations by viewing issues from the customer's perspective, even in areas the customer has not noticed before. In developing solutions, we will continue to enhance our strengths, and in areas where we need to reinforce our strengths, rather than insisting on going it alone, we will seek various forms of collaboration, ultimately leading to the arrangement that best meets customer needs.



In October 2022, capital and business alliances were formed with Aerosense Inc., a Japanese industrial drone manufacturer. The aim is to build systems and create information provision services for wide-area surveying, facility inspections and disaster conditions monitoring.

At the same time, in the Social solutions domain, the way people work and society itself are undergoing substantial changes centered on sustainability. With investments being made in GX and DX, we will focus on providing effective social infrastructure systems in this area. Regarding developments in global markets, we feel there is great potential to expand systems including those for dam control, for which we hold a 40% share in Japan, to emerging markets in Southeast Asia and other regions. While we have provided ODA and other development assistance schemes in the past, the challenge is to reduce costs with a focus on introducing and operating these systems through independent efforts in each country. Furthermore, if we can promote the effectiveness of multi-use social infrastructure systems for both disasters and peacetime, I believe this will lead to greater demand, so this is something we will consider and develop going forward.

Increasing Profitability

Q How do you plan to increase profitability?

If asked whether our current level of profitability is satisfactory, I would have to answer no. One of the main reasons is that we are easily affected by the external environment.

For example, in disaster prevention systems for municipalities, investment in disaster prevention and mitigation tends to decline for some time after a disaster has passed. While social infrastructure as a whole is not in a growth phase due to population decline, it is important to steadily continue capturing demand for maintenance and upgrades, but mass production cannot compensate for profitability in the one-product-one-order business for government offices. To reduce costs in systems businesses, we had to take a scalpel to the way we operate, including improving overall operating systems efficiency, while also introducing a new backbone system. We will visualize costs incurred in the installation of parts and equipment and the trial process prior to full-scale operations, and improve profitability by increasing efficiency in these processes.

Furthermore, with recent advances in software technology, it is now possible to customize software while using hardware to cover the general-purpose parts of a system, which tends to be viewed as individual optimization. In the future, we will consider a subscription-based business in which we both sell the system and charge for system operation on an ongoing basis. We will also strengthen profitability itself by promoting business transformation from "things" to "experiences."

Growth Investments and R&D

Q What is your approach to growth investments and R&D?

In addition to 5G-related investments, AI and other technologies that utilize digital data are essential for providing the solutions business comprising the core of our growth strategy. We will invest in these new communications technologies and data analysis platforms based on our view that they are indispensable for growth.

With regard to R&D, as there are many areas, such as sensor fusion, where complex sensing technologies, particularly radar, will enable us to achieve what has not been possible in the past, we will continue research that includes customization efforts.

Communications is an area where standardization prevails, and there is little room for customization due to the necessity of interconnectivity. However, rather than using standardizing products as-is, this is an area where value can be increased with the addition of slight innovations outside of standardization. For example, mobile phone base stations provide service to surrounding smartphones, but transmitting data from smartphones requires either the installation of optical cables or the use of different radios with frequency bands other than those used for the service frequency to relay data, but the cost of installing radio equipment at all base stations would be enormous. In response, we have a technical solution that divides the same frequency band into relay and terminal services in a small private network and extends the service area. We are expanding the range of applications for this

solution with a view to developing it for small base stations. In the future, when 5G advances further to 6G, we will see terahertz frequencies, which are higher than current frequencies, as well as the emergence of circuits able to pass light instead of electricity. New communications technologies, including technologies for the application of light and terahertz frequencies that are not yet in practical use, are an area that is rapidly advancing, and we will continue to monitor future trends in this critical area.

Human Resources

Q How do you view the human resources who will drive this growth strategy?

We must transcend the culture that has been ingrained in our organization for more than 100 years of manufacturing history to expand business with a solutions orientation that aims to identify and resolve issues. To change our organizational culture, the development of human resources able to promote solutions-oriented business is an important aspect of the overall Group growth strategy.

Our corporate culture is highly focused on problem-solving, but we tend to solve problems based on technological strengths, which limits our perspective on non-technical solutions. The challenge we face is to create something larger from a broader perspective.

In considering human resource development, while it is important to nurture experts, there is a limit to how broadly one's perspective can be expanded through transfers within the company alone. I believe the first step in reforming our organizational culture is to continuously provide education focused on career development that enables employees to maintain a constant awareness of their roles within the overall direction of the Nisshinbo Group. In dialogues with employees, I encourage employees to change the culture and not be satisfied with the status quo.

Contribution to the Environmental and Energy Field

Q Given the Nisshinbo Group business policy of "realizing a super-smart society as an Environment and Energy Company group," what initiatives does Japan Radio promote as an Environment and Energy Company?

As an *Environment and Energy Company*, we believe we can contribute through business from two aspects. First, we are developing business that contributes to disaster prevention and mitigation in the face of increasingly severe natural disasters caused by climate change. Second, we contribute to the reduction of CO₂ emissions during vessel navigation by collaborating with large commercial ships that use our sensing technologies and IoT. With vessels, the shortest and quickest routes do not necessarily lead to optimal fuel efficiency. We believe our Offshore solutions, which select optimal routes based on fuel efficiency, can make a significant contribution to emission reductions.

Group Synergies

Q What are your thoughts about synergies created within the Nisshinbo Group?

Wireless and Communications and Micro Devices fall under Electronics. In some cases, we have been building cooperative systems for 30-40 years to create greater efficacy by confining the functionality of semiconductor chips, sensors and other devices into a single small frame. The Group's Chemicals business is also a major strength in terms of the parts and materials we require, allowing us to rethink functionality and performance from a materials perspective.

The first step in realizing Group synergy is to maintain a constant awareness of Group-wide technologies and know-how as a means of resolving issues. To this end, we will focus on developing human resources who can fulfill their roles while being aware of the Group's overall direction, then link this to the creation of value for our Company and the Nisshinbo Group as a whole.



Disclosed Notice Concerning the Acquisition of Shares of Hitachi Kokusai Electric Inc., on May 31, 2023. For details, please refer to the news release. https://www.nisshinbo.co.jp/nish/english/news/pdf/news_20230531_2.pdf



Increasing Our Presence with the Three SINKAs Aimed at Becoming an Analog Solutions Provider

Satoru Taji

Director and Executive Managing Officer
Nisshinbo Holdings Inc.
President and Representative Director
Nisshinbo Micro Devices Inc.

First Year of the New Company: Post-integration Progress

Q It has been more than a year since the January 2022 launch of Nisshinbo Micro Devices Inc. In the Integrated Report 2022, you mentioned that you wanted to facilitate the integration process—what progress has been made?

Integration is progressing in development, production, sales and a variety of other areas, and synergies are being created. Having established a new development flow incorporating the best aspects of the different development flows and systems maintained by the former New Japan Radio Co., Ltd., and Ricoh Electronic Devices Co., Ltd., we have been able to achieve development efficiencies and increase design quality, with some

products already advancing to the mass production stage. This integration has increased the number of manufacturing plants to three, two of which are engaged in front-end processes, and one in back-end processes. Internal projects are underway to incorporate mutual advantages that will lead to improvements at each plant, and productivity and production quality are on the rise. In terms of sales, as there was little overlap between the two companies with regard to individual products and customers, we are promoting cross-selling, including to overseas customers.

Of course, a little more time is required to fully integrate human resources and other systems. That being said, we deepened mutual understanding during the pre-integration preparatory phase and share the same mindset regarding work and how to proceed, which in my estimate, has led to a smooth integration process. As the business environment continues to change at a rapid pace, it is important that companies and people also continue to change. We view integration as an opportunity to clarify the positive points and challenges facing both sides and achieve significant changes.

Position in the Semiconductor Market

Q What is your current position in the semiconductor market and what is your outlook for the future?

Within the semiconductor industry, analog semiconductors used in a wide variety of IoT devices are a broad industry comprising two or three U.S. and European companies with sales above ¥500 billion, and more than 20 companies with sales of ¥100 billion–¥200 billion. Targeting sales of ¥100 billion in 2025, we are in third place among Japanese companies and intend to further increase our presence on the strength of numerous product lines boasting high market share.

Some of our strongest products include operational amplifiers, comparators, power supply controls and lithium-ion battery protection ICs, which are indispensable for preventing heat generation and combustion due to over-charging or over-discharging lithium-ion batteries used in electric vehicles (EV) and smartphones. We have a more than 20% share of the market for mobile lithium-ion battery protection ICs.

In addition to semiconductors, we are Japan's leading company in microwave-related products, with a commanding 80% share in the global market for magnetrons, a key component of shipboard radar. We will further increase the number of competitive products such as these and expand our business domain beyond vessels to include satellite communications and highly sensitive motion sensors.

Furthermore, one of our major advantages is the ability to obtain product feedback and industry trends from semiconductor users within the Nisshinbo Group, including Japan Radio, Nisshinbo Chemical and Nisshinbo Brake, and utilize this information in various industry networks. In Japan, in particular, many customers place great importance on support systems, with the support capabilities we have cultivated in Japan constituting a major edge on overseas competitors.

Strengths: Analog Technologies

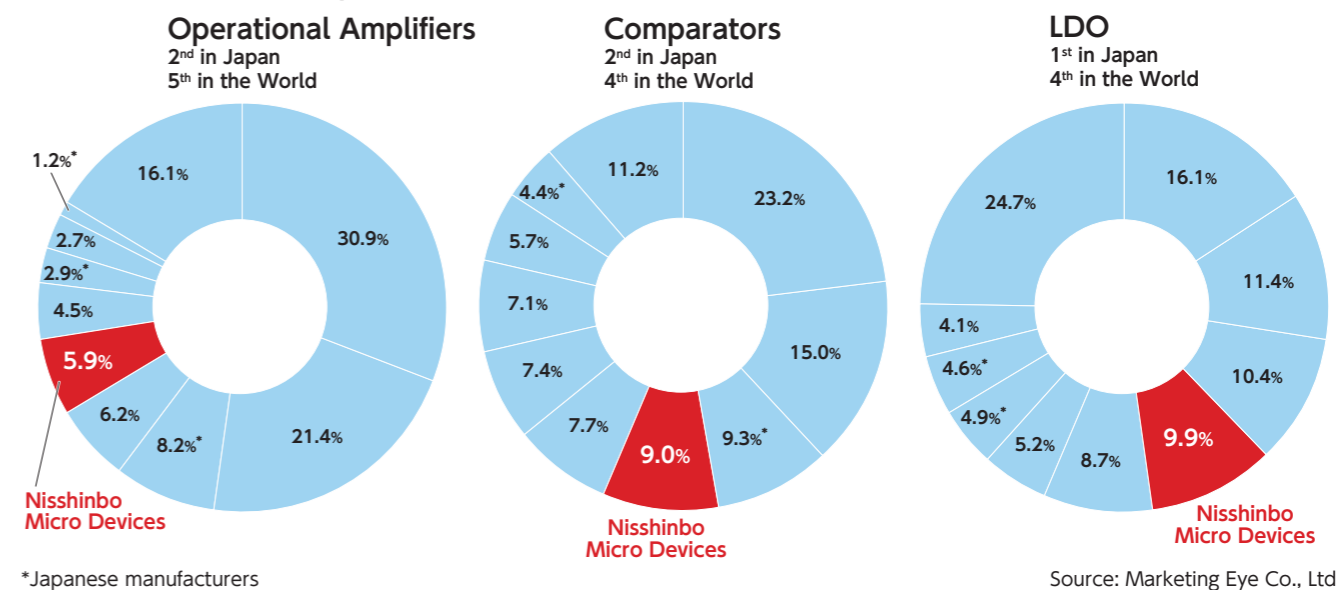
Q What are Nisshinbo Micro Devices' strengths in analog technologies?

Analog semiconductors are a general term for semiconductors that amplify continuous, non-quantifiable physical information (analog signals) such as sound, light, temperature and human heartbeats, then convert them into digital signals that can be processed by computers, and conversely, they convert digital signals into analog signals. In this area, we are particularly strong in signal processing ICs, including sensor ICs for which the market is expanding, and power supply control ICs, where demands for lower power consumption and other features are on the rise.

This integration has enabled us to cover the entire flow from sensors absorbing analog data in the real world (physical space), conversion of that data into digital data for processing by computers, and computer-processed data fed back again

as analog data in physical space. This is a major technological strength. Furthermore, in providing analog solutions, the digital processing function referred to as digital signal processing (DSP), the last aspect of analog solutions provision not facilitated by the integration of these two companies alone, was incorporated with the addition of D-CLUE Technologies Co., Ltd., to the Group in February 2022. This company has strengths in DSP development including mixed signal LSIs and an integrated development system comprising modular printed circuit board design to software development indispensable for the provision of solutions. Despite our having previously specialized in single-function devices, with the addition of D-CLUE Technologies, we can now substantially expand business opportunities as an analog solutions provider.

Market Share (Monetary basis in 2021)



Q What is a typical analog solution that combines multiple functions?

One example is the combined power supply IC for automotive CMOS image sensors announced in January 2022. One feature of this product is its ability to suppress noise, which has a greater impact on sensors with performance enhancements as CMOS image sensors become more sophisticated, resulting in a product solution combining conventional low power consumption technologies with low noise technologies.

In May 2022, we announced a broadband low-noise amplifier (LNA) that supports a wide range of frequencies for devices that require highly accurate positioning information. With an expanded product lineup that improves the positioning accuracy of GPS and other applications by an order of magnitude or higher compared to conventional products, we expect this technology will spread

to even more applications in telecommunications and other industries.

Another analog solution for which we received many inquiries during the pandemic as a technology contributing to infection countermeasures are touchless sensors facilitating the hands-free operation of elevators, vending machines and other equipment. Optical technologies used in optical sensors facilitate operation even when wearing rubber gloves, and we expect this solution will be used in a wide range of applications. We are already receiving inquiries from dentists.

Furthermore, in terms of solutions incorporating MEMS technologies, we have developed devices used as ultra-compact microphones that are being shipped as new sound sensors for laptops, smartphones and smart speakers. Solutions using small microwave sensors are expanding to a wide range of industries and applications as motion sensors used to open and close toilet

seats, as well as high-precision sensors that detect sleep apnea and sound an alarm. In 2022, we introduced a mounting line at subsidiary Nisshinbo Micro Devices AT Co., Ltd., to modularize the combination of sensors and ICs, thereby enhancing our ability to mass-produce small modules.

Growth Strategy in Light of 2025 Targets

Q For 2025, Nisshinbo Micro Devices is targeting sales of ¥100 billion and an operating margin of 10%. What is your strategy for achieving this growth?

Although some assumptions, such as exchange rates, have now changed since we first announced these targets in 2021, setting clearly defined numerical targets gives us an initial milestone toward our goal of becoming a global top 20 company in the analog semiconductor industry. At the same time, we want to move up from our current ranking of third among Japanese companies. My sense is that we are moving swiftly forward to achieve this goal.

Our growth strategy is driven by the keywords "three SINKAs." The first SINKA is "deepening," which represents efforts to push our existing strengths even further and dig deeper. The second SINKA is "evolution," which represents efforts to combine our strengths and create new things. Both of these are aimed at achieving our 2025 targets in the shortest time possible. We will then promote further growth through the third SINKA, "renewal," which represents our aim of transforming into an analog solutions provider.

To achieve "deepening," in addition to utilizing our own production lines, we will tap external partners such as foundries (companies specializing in front-end processes) and OSATs (companies specializing in back-end processes and testing

services) with the aim of expanding our production capacity. Through "evolution," combining our strengths, we will increase the value we provide to customers, which will lead to higher sales and profit margins. Furthermore, to achieve "renewal" will require our strengths in analog technologies, as well as digital technologies, processor technologies and the software technologies that drive both. We must also listen more carefully to customer feedback and the problems customers face, strengthening our solutions mindset and leading to the resolution of customer issues. There are many skills required of us and many challenges to overcome, but above all, we must prioritize and strengthen signal processing technologies, which include sensing and digital technologies. We will incorporate the knowledge of D-CLUE Technologies Co., Ltd., while strengthening modular and software technologies as well as our ability to envision usage scenarios from the perspectives of hardware and software.

Research and Development

Q What are your R&D policies regarding the development of new products and services?

An enhanced R&D structure is essential for the promotion of the three SINKAs. In addition to conventional R&D, we will deepen dialogues with external educational institutions and venture companies while proactively promoting new approaches to R&D. In January 2023, we completed development of a 0.18-micron device process and are prepared for mass production on miniaturization lines. We will link R&D enhancements to the creation of new products.

Human Resource Development

Q What are your human resource development policies and what specific initiatives are underway?

Since we are a technology-oriented company, we are strengthening the development of human resources with so-called technical and specialized skills, as typified by R&D. For example, we are considering the introduction of AI technologies as part of our technological development toward becoming an analog solutions provider, which is one of our business strategies, that includes both the improvement of technological development capabilities as well as the internal promotion of DX. From the perspective of technological development, we expect AI to be used as a tool for implementing AI in solution products and developing new businesses, and from the perspective of the internal promotion of DX, we expect AI to improve technological standards and productivity. To this end, we have incorporated an educational program for the development of personnel with AI skills that includes both developers and members of various other professions.

Furthermore, to make it easier not only for developers but also for personnel in sales, marketing, quality assurance, human resources and management positions to take on the challenge of learning the specialized skills required in their respective fields, we have established professional courses within our Human Resources system to run parallel with promotion courses for generalists. We will also further expand and enhance the Human Resources Development Program launched in 2022 to facilitate new business creation. In addition to human resource development for new employees and management candidates, we are creating development systems and programs that provide ample development opportunities for mid-career employees, who are expected to grow the most, so that each employee can gain awareness and motivation leading to individual growth and organizational development.

Contributions to the Environmental and Energy Field

Q How does Nisshinbo Micro Devices contribute as a member of an Environment and Energy Company group?

"Low power consumption" and "high efficiency" technologies are both our strength and our product catchphrase. Almost all our products contribute to improved energy efficiency and reduced environmental impacts. We will continue to strengthen this concept in an attempt to improve the global environment through the use of our products.

In terms of corporate activities, since 2022 we have participated in a TCFD-compliant project aimed at achieving carbon neutrality by 2050, which is the stated goal of the Nisshinbo Group. In fiscal 2022, the first year of this project, we installed solar panels covering an area of approximately 7,300 m² on the roof of our

manufacturing plant building in Thailand, generating electricity equivalent to approximately 8% of the plant's annual electricity consumption. In the future, we will expand similar initiatives to domestic plants and accelerate decarbonization efforts to achieve the Group's medium-term environmental targets for fiscal 2030.

Group Synergies

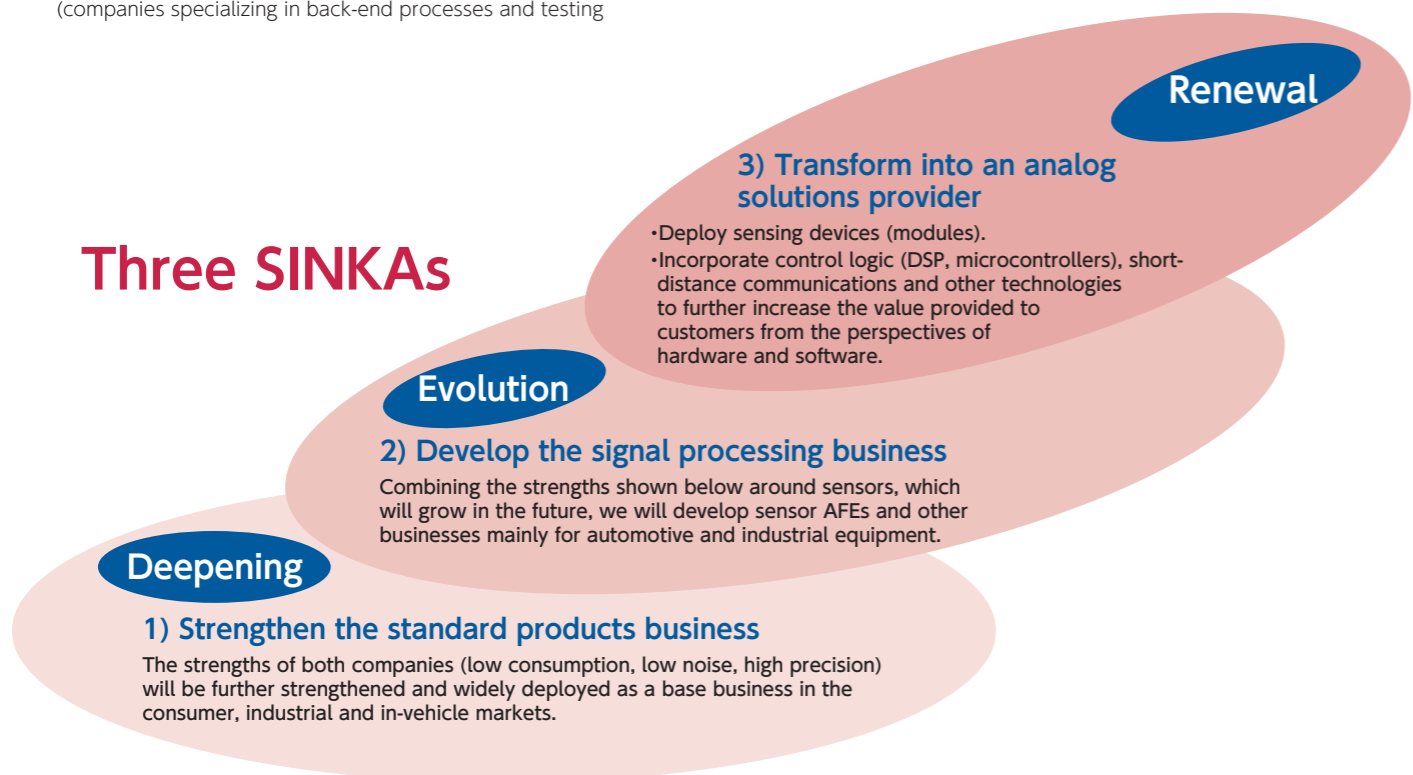
Q In what ways do you create synergies with the Nisshinbo Group?

The Nisshinbo Group comprises a diverse range of companies. Synergies are easily created between our business and Nisshinbo companies involved in semiconductors and electronics, such as Japan Radio, Nisshinbo Chemical, Nisshinbo Mechatronics and Nisshinbo Brake.

In the area of "sound," which is one of our strengths, we are engaged in high-precision, high-quality sound operational amplifiers for audio equipment under the MUSES brand, and we are also taking on the challenge of creating various new businesses focused on sound in conjunction with other Group companies. For example, wouldn't it be helpful to have predictive maintenance systems that use sound to rapidly detect cracks in tunnels or abnormalities in motors and other equipment? Could we use sound to detect brake pad wear? Or is it possible to use sound for the detection of defective products inside factories? In asking such questions, various ideas are emerging from Group company networks and knowledge, expanding the areas in which we can utilize our technologies.

In the healthcare domain, we have begun to develop a new type of stethoscope business with Ueda Japan Radio Co., Ltd. We are developing a "super stethoscope" that uses sound processing to remove the sounds of crying so infant heartbeats can be heard. In the telemedicine domain, we are engaged in the development of a solution combining AI and wireless technologies to create a stethoscope equipped with vital sign sensors that, in addition to heartbeats, enables doctors to ascertain blood pressure and other patient information. In addition, we are working with Nisshinbo Textile to jointly develop a new business venture comprising throat microphones that use bone conduction to facilitate clear conversations on construction sites and in other noisy environments.

We will build on our achievements in analog solutions comprising the core of our "renewal" efforts through synergies with Nisshinbo Group companies, while further collaborating with companies outside the Group to create new businesses and contribute to the Group as a whole.





Digital Is Only a Means to an End Leading to the Creation of New Business by Empathizing with Customers Facing Challenges

Yuji Kinoshita

General Manager of Digital Business Department

Q What is the Nisshinbo Group's approach to DX?

Some associate DX with internal efforts to improve operational efficiency and productivity through digitalization, but in the Nisshinbo Group, each Group company engages in individualized digitalization efforts.

Rather than focusing on internal efforts, the Digital Business Department was established to utilize digital technologies to create completely new services and value for society. JRC, Nisshinbo Micro Devices and other Group companies possess a wide range of digital technologies that are used in a variety of industries. The Digital Business Department is tasked with the Group-wide integration of digital technologies aimed at launching new digital service businesses that resolve social issues, from the planning stages to marketing, customer proposals and sales.

Before the department was established in 2020, there were, of course, efforts to bring together technologies and data held by Group companies in an attempt to create synergies. However, because these efforts were made within

the framework of existing businesses, they leaned heavily toward our core business of manufacturing, creating a barrier to the establishment of service businesses.

In the Digital Business Department, DX means creating completely new services and value using digital technologies. We position IoT, AI, and other digital technologies as a means for creating services and value.

Q What is the Digital Business Department's sphere of activity?

The Digital Business Department is an organization positioned directly under the Chief of the Corporate Strategy Center. To create something new, it is very meaningful to position an organization separately from the main business, as synergies are not magically created simply by integrating Group technologies. We must focus on specific targets and consider what needs to be created. The important aspect is the objective, and we are moving forward by focusing on a few themes from the perspectives of what we can achieve and what kind of technologies we can utilize to achieve those objectives.

Some of these themes include marine, drones, disaster prevention, healthcare and 5G-related concepts. In the three years since the Digital Business Department was established in 2020, we have repeatedly conducted demonstration experiments for the commercialization of various themes, which are then revised on the basis of the insights and knowledge gained from these experiments. I assumed the position of general manager in January 2023, and am engaged in the creation of new value, drawing on knowledge gained from past efforts and rethinking concepts from a slightly broader perspective.

At present, there are 11 of us in the Digital Business Department, many of whom, including myself, are engineers. In creating new business, the ability to conduct sales on your own is more important than utilizing new technologies or planning new businesses. We cannot make advances in the digital business until we are face-to-face with customers, identifying the issues confronting them and proposing solutions to customer concerns. I personally make frequent visits to customers, and by observing their overall business, I can consider the issues they face and which aspects of their business can be made more efficient through the digital business, which enables me to make proposals that will satisfy customers. The first step in creating new value and services is to empathize with customers facing challenges.

Q What are some of the specific initiatives the Digital Business Department is engaged in?

In the marine-related field, we have deployed the JM-Safety ocean safety protection service smartphone app since March 2021. This system was originally developed to prevent collisions and accidents at sea. JRC's JM-Watcher II was taken over and gradually improved by our department to acquire wind direction and speed data in real time while displaying the position information of surrounding vessels and providing earthquake and tsunami information in a flash report. JM-Watcher II was upgraded to JM-Safety, with the total number of downloads surpassing 30,000. In April 2023, MariPro, which manages the safety of workers on offshore sites, was released for marine civil contractor construction supervisors, and the overboard fall detection app for detecting overboard falls, one of JM-Safety's functions, was released for use by everyone who enjoys marine leisure activities. In addition, utilizing JRC technologies, we have expanded services from B2B to B2C, and in the B2B area in particular, we will expand our target from large and commercial vessels to small- to medium-sized vessels, including the development of an app for managing small- to medium-sized vessels, as we attempt to increase Group recognition substantially in the world of maritime safety. In these new projects, our department handles the planning and development, with development itself entrusted to JRC and JRC Engineering, while the operation, marketing and sales are handled by the Digital Business Department.

Q How will the Nisshinbo Group develop and retain human resources with digital skills?

While each Group company is responsible for developing the digital skills of its own human resources, the Digital Business Department collaborates with Group companies by participating in their human resource training sessions through lectures and presentations. In asking questions such as "What is DX?" and "Why is DX necessary?" and showing

examples of how new perspectives can create value when discussing technology, we facilitate opportunities for individuals to think.

More than learning about digital technologies, in our department the key is to create business, so we also provide learning opportunities that include sending human resources to startup companies. As I mentioned earlier, DX and digital are only means to an end for us. We want to rapidly increase the number of Group human resources who know how to create and structure businesses that are in step with the times in a rapidly changing society.

Q What are the future prospects for the Digital Business Department?

We want to create new businesses in any way we can so that the ideas and businesses that emerge from the Digital Business Department will be a step forward to the next generation of business in each Group company. To this end, we must first be able to create new digital businesses unique to our department that are not influenced by current business activities, exemplifying innovation for Group companies. Beyond that, if a business can be nurtured to a certain scale and is expected to grow into a larger commercial endeavor, we will consider returning that business to an operating company within the Group.

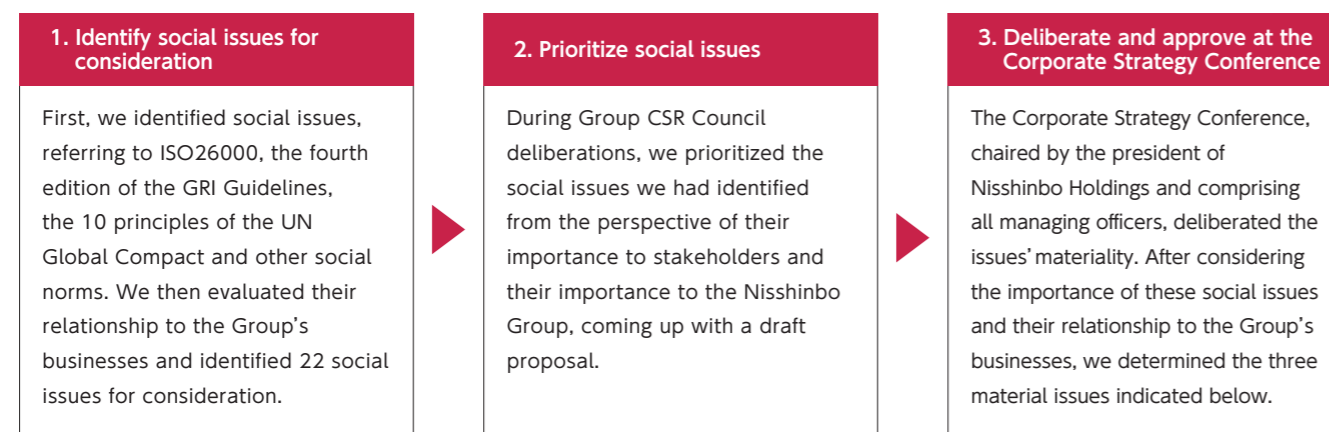
For the past three years, we have been looking outward to create new digital businesses. Viewing the Group from this perspective, we realize that digital applications and digital data that were taken for granted within Nisshinbo do in fact have the potential to be transformed into new value. We will continue boldly taking on the challenge of bringing about global innovations by making know-how and knowledge internally accumulated by Nisshinbo available to other companies without leaking core technologies outside the Company, as well as by opening up core technologies and creating synergies with other companies.

ESG Initiatives — Materiality, Risks and Opportunities

With its corporate philosophy “Change and Challenge! For the creation of the future of Earth and People,” the Nisshinbo Group has since its founding inherited the basic spirit of corporate public institutions of contributing to society through business activities. We are placing ESG at the heart of our thoughts on corporate management and proactively pursuing ESG initiatives.

Process of Determining Materiality

In February 2015, we identified material issues for the Group in order to clarify issues that required action to achieve sustainable growth for the Nisshinbo Group’s business together with society.



Relationship between Materiality and Global Guidelines

	Materiality	SDGs	ISO26000
E Environmental Initiatives	Contribution to the environmental and energy field		Environment
S Social Initiatives	Creation of a safe and secure society		Human Rights Labor Practices Consumer Issues Community Involvement and Development
G Corporate Governance	Global compliance		Organizational Governance Fair Operating Practices

SDGs with Close Links to the Nisshinbo Group’s Businesses

6. Clean water and sanitation
Ensure availability and sustainable management of water and sanitation for all

9. Industry, innovation and infrastructure
Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

12. Responsible consumption and production
Ensure sustainable consumption and production patterns

13. Climate action
Take urgent action to combat climate change and its impacts

Materiality and Related Major Risks, Opportunities and Responses

ESG	Materiality	Major risks and opportunities	Risks	Opportunities	Responses to risks and opportunities
E: Environmental Initiatives	Contribution to the environmental and energy field	Climate change	<ul style="list-style-type: none"> Increase in raw material procurement costs and manufacturing costs due to carbon taxation Increase in energy costs due to requests from customers to reduce greenhouse gas emissions Increase in costs due to property damage and loss of business caused by flooding 	<ul style="list-style-type: none"> Growing demand for EVs, new energy vehicles, smart mobility and fuel cell-related products Higher sales of energy-saving semiconductors and electronic device-related products Growing demand for disaster prevention products and services driven by heightened flood risk 	<ul style="list-style-type: none"> Conduct climate change scenario analyses according to the Task Force on Climate-related Financial Disclosures (TCFD) recommendations Responses to Risks: <ul style="list-style-type: none"> Avoid carbon taxation by reducing greenhouse gas emissions and energy conservation, and reduce energy costs Prevent and mitigate property damage and loss of business caused by flooding Responses to Opportunities: <ul style="list-style-type: none"> Expand EV-related product development and manufacturing Capture demand for energy-saving products (e.g., semiconductors, electronic device-related products) Develop and manufacture millimeter-wave radar water level gauges and capture demand for anti-corrosion products and services
S: Social Initiatives	Creation of a safe and secure society	Human rights issues	<ul style="list-style-type: none"> Loss of stakeholder trust and operational continuity caused by inadequate consideration for human rights Work environment deterioration caused by harassment and other human right issues 	—	<ul style="list-style-type: none"> Develop human rights policies, introduce and promote human rights due diligence in areas where human rights risks are high Establish a human rights group at HD to maintain and raise awareness across the Group
		Human resources	<ul style="list-style-type: none"> Human resource shortage due to labor force contraction Low motivation and loss of human resources due to mismatched work assignments, etc. 	<ul style="list-style-type: none"> Promote the overlap between the Corporate Philosophy and the growing interest in ESG among younger people, leading to more hiring opportunities 	<ul style="list-style-type: none"> Implement strategic PR activities to improve the corporate visibility and image Expand mid-career employment Retain human resources through career support and an internal recruitment system Develop human resources through the establishment of a training system and expanded e-learning menu items
		Occupational injuries	<ul style="list-style-type: none"> Occupational injuries due to lack of education and training Loss of stakeholder trust caused by occupational injuries and accidents 	—	<ul style="list-style-type: none"> Conduct risk assessment Conduct education and training, share accident case studies across the Group
		Quality	<ul style="list-style-type: none"> Loss of trust, claims for damages or product recalls due to quality issues or defects with products or services 	—	<ul style="list-style-type: none"> Use the risk management system to minimize risk probability and potential impact Establish a quality assurance team at HD to oversee quality assurance and product safety activities at Group companies
G: Corporate Governance	Global compliance	Group management	<ul style="list-style-type: none"> Management issues due to greater business diversity Large number of duplicate functions among Group businesses 	<ul style="list-style-type: none"> Harness the Group’s diverse strengths by integrating businesses/ organizations to drive innovation and increase resilience to changes in the operating environment 	<ul style="list-style-type: none"> Reform the business portfolio to align with changes in issues faced by society; improve cash flow Improve efficiency by overhauling Group-wide organizations and outsourcing Maintain Group integration by consolidating the oversight of Group company management at HD and establishing financial discipline
		Business management	<ul style="list-style-type: none"> Increasing complacency in governance 	<ul style="list-style-type: none"> Take risks based on a balance between proactive and defensive governance 	<ul style="list-style-type: none"> Build on pioneering steps such as the introduction of the outside director system in 2006, the adoption of the HD system in 2009 and the termination of the advisor/ consultant system in 2017; establish an advanced governance system that balances management transparency with bold risk-taking
		Compliance	<ul style="list-style-type: none"> Loss of trust and damage to corporate value caused by legal violations such as corruption or anti-competitive practices, or by corporate behavior that diverges from social norms 	—	<ul style="list-style-type: none"> Employ messaging from the president of HD to underscore the importance of fair business practices Provide continuous compliance training Impose severe penalties for misconduct Appoint outside directors with legal background
		Fraud/Illegal conduct	<ul style="list-style-type: none"> Financial window-dressing, accounting irregularities, etc. 	—	<ul style="list-style-type: none"> Use the internal control system and the corporate ethics reporting system to prevent misconduct Employ regular rotation to prevent misconduct
		Information security	<ul style="list-style-type: none"> Unauthorized disclosure of personal information, customer information or trade secrets Adverse impacts on business in the event of unauthorized access, tampering, data destruction or loss, leakage or other damage caused by cyberattacks, etc. 	—	<ul style="list-style-type: none"> Conduct continuous training and annual internal audits to assess information security Conduct cybersecurity measures and implement requisite countermeasures while ensuring multi-level protection

For risks related to business, please see pages 23–25 of the 180th Securities Report.

Human Capital, Safety and Quality

Basic Concept

Each and every employee's ability is key for companies to contribute sustainably to a diverse and global society. We aim to create a more worker-friendly environment by respecting the character and individuality of each employee and placing the right people in the right jobs. To this end, we respect diversity in all respects, including human rights and hiring, and promote a work-life balance. Nisshinbo also engages in safety and health activities with the goal of eliminating occupational injuries, and promotes quality assurance activities to improve customer satisfaction.

Respect for Human Rights

The Nisshinbo Group respects the character and individuality of all its employees and promotes training and other awareness-raising activities and initiatives related to business and human rights with the aim of deepening understanding of diversity and various human rights issues to prevent all discrimination and human rights violations. We have established the following KPIs as targets for these initiatives and are promoting activities accordingly.

- (Japan) Group human rights training: 100% (Overseas) Human rights education and training
- Formulate human rights policy, introduce and promote human rights due diligence in areas with high human rights risks

In fiscal 2022, training with content aimed at preventing power harassment and improving communication was conducted for all employees in Japan based on the results of an employee survey implemented as part of our overall training.

Furthermore, human rights training was conducted for new employees as well as mid-career hires throughout the year to enhance understanding with regard to respect for human rights as the shared intent of the Group.

To fulfill our "corporate responsibility to respect human rights" as stated in the "Guiding Principles on Business and Human Rights" adopted by the United Nations, we established the Human Rights Policy in 2023 and are working toward the implementation of human rights due diligence.

In addition, the "Nisshinbo Group Sustainable Procurement Basic Policy" and "Sustainable Procurement Guidelines" used by Group companies clearly indicate our consideration for basic human rights and the prohibition of child labor, as well as thorough respect for human rights throughout the supply chain.

Human Resource Acquisition and Development

The Nisshinbo Group is working to acquire and develop human resources with a focus on future business developments based on the "business is people" human resources policy and Nisshinbo Group Human Resources Strategy. Specifically, this entails the development of management candidates necessary for business promotion and stronger efforts to recruit mid-career employees to rectify the employee age imbalance.

We have established the following KPIs as targets for these initiatives and are promoting activities accordingly.

- Increase the participation rate of senior management posts (executive officers or above) in the future leader program
- Strengthen efforts to recruit mid-career employees to rectify the employee age imbalance

In fiscal 2022, training to develop a management mindset; selective external training to foster managerial knowledge, approaches and behaviors; and practical workshops to acquire business creation and breakthrough capabilities were provided to employees in division head or higher positions.

To ensure diversity, Nisshinbo has made specific efforts to proactively recruit female and non-Japanese employees, implementing various measures, including a human resource system facilitating rapid promotion regardless of length of employment, to attract talented mid-career hires and promote their active participation. Furthermore, as measures to prevent young employees from leaving the Company, roundtable discussions led by senior employees are held with prospective hires from the initial job offer stage, and human resource managers conduct follow-up interviews and questionnaires for new hires during their first three years of employment to promptly detect any changes and take appropriate measures to help new employees adjust smoothly to life at Nisshinbo.

Engagement

Valuing its relationship with employees, the Nisshinbo Group is working on "engagement" as a key action item to build good relationships with employees.

We have established the following KPI as a target for these initiatives and are promoting activities accordingly.

- Continue implementing the global survey

In fiscal 2022, we conducted the first global survey that included overseas regions. There were 15,680 respondents and the response rate was 96%, extremely high for a global survey. Based on the results, we are formulating action plans and conducting activities from the perspectives of assigned company, workplace and work conditions.

Promotion Activities for Diversity & Inclusion

The Nisshinbo Group promotes diversity and inclusion (D&I) activities aimed at "cultivating an organizational culture that empowers employees to speak freely without hesitation and take action." To promote D&I, we formulated the following targets and KPIs, and are taking measures to spread awareness of D&I throughout the Group, ensure human resource diversity and promote the active participation of diverse human resources.

- Disseminate top management messages and implement measures contributing to the success of diverse human resources
- Women among overall hires

Mid-career: Managers:	50%
New graduates: Clerical positions:	50%
Technical positions:	20%
- Mid-career hires among management: 11% (end of fiscal 2024 target)

Note: Targeting mid-career hires equal to the ratio of mid-career hires among all full-time employees by 2030.
- Female manager ratio (end of fiscal 2024 target): 6%

Note: Aiming to achieve a ratio equivalent to the ratio of female employees among all full-time employees by 2030.
- Participation in psychological safety training: 100%

Supporting the Active Participation of People with Disabilities

Aiming for a work environment where everyone, regardless of disabilities, respects diversity and can work with enthusiasm, the Nisshinbo Group targets a 100% employment rate of persons with disabilities (ratio of achieving companies) at domestic Group companies with 43.5 or more employees.

In fiscal 2022, all Group companies in Japan achieved the targeted employment ratio of people with disabilities.

At Nanbu Plastics Co., Ltd., three employees with disabilities are demonstrating their capabilities via telework through the Telework Office Fujieda Ekimae (Shizuoka Prefecture), which has staff that help monitor their physical condition. Monitoring these employees ensures their psychological safety and enables them to engage in work with peace of mind.

Empowering Women

Based on the Act on Promotion of Women's Participation and Advancement in the Workplace, Nisshinbo Holdings Inc. has formulated the following "General Action Plans" to ensure that diverse human resources, including women, can work energetically and maximize their abilities. Similar measures are being implemented by 18 Group companies in Japan.

General Action Plans

(Planning period: January 1, 2022, to March 31, 2026)

- Goal 1: The proportion of females in the total number of clerical professionals is to be more than 50%.
- Goal 2: The number of women in supervisory roles will be more than twice as many as that in fiscal 2021.
- Goal 3: Take at least 70% of annual paid leave.

Work-style Reforms

The Nisshinbo Group views diversity as its source of innovation and strives to enhance corporate value by leveraging strengths in its diversity of business, people and values. Accordingly, we are promoting work-style reforms to respect diversity and leverage the individuality and capabilities of all employees without interfering in their ability to balance work with child and nursing care, as well as to improve productivity, leading to a sense of fulfillment in work, and continued active participation, which in turn leads to strong competitiveness. Specifically, we are working to create a workplace environment in which all employees can work comfortably.

We have established the following KPIs as targets for these initiatives and are promoting activities accordingly.

- Annual paid leave utilization: More than 70%
- Male employees utilizing childcare leave among all male employees: More than 30%

To provide workplace flexibility, the Nisshinbo Group instituted teleworking in 2021 and has opened satellite offices. In terms of working hour flexibility, we established staggered start times, flextime, hourly paid leave and shorter workdays. Furthermore, we formulated the "General Business Owner Action Plan" to support an environment enabling men to easily utilize childcare leave.



The "Tomonin" logo. This logo is used to promote work environments where employees can balance work and nursing care.

Safety and Health Activities

The Nisshinbo Group shares the Business Conduct Guidelines "Safety Is the Basis for Everything" with all employees and promotes health and safety activities with the aim of maintaining and improving safe and supportive working environments at all business sites within and outside Japan.

We have established the following KPI as a target for these initiatives and are promoting activities accordingly.

- Major workplace accidents: 0 incidents

In fiscal 2022, to maintain zero workplace accidents, we continued to assess risks associated with work, equipment and chemical substances. To enhance preventive safety efforts, we provided regular education on the hazards and toxicity of chemical substances, and complied with the use of appropriate personal protective equipment to avoid accidents caused by contact with hazardous substances. To improve risk sensitivity among workers with limited experience, we continued to implement danger awareness training and other workplace safety activities.

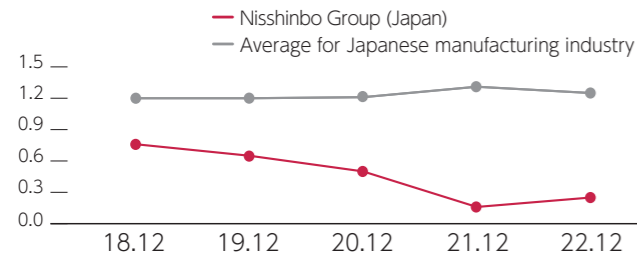
In addition to training conducted at each business office for new hires and employees changing work content, we strive to increase safety awareness among all employees through skill-enhancing education for safety and health workers, danger awareness training, 5S activities (sort, set in order, shine, standardize and sustain) and small group activities that include danger experience education.

Occupational Injuries

In fiscal 2022, there were no instances of major workplace accidents (accidents with level seven or higher injuries). The frequency of occupational injuries with lost workdays* for the overall Group in Japan was 0.25, increasing from 0.16 in fiscal 2021. Nevertheless, this compares favorably with the Japanese manufacturing sector.

*Frequency of injuries with lost workdays = number of employees injured with lost work ÷ aggregate number of working hours × 1 million

Frequency of Injuries with Lost Workdays



Health and Safety Audits

The Nisshinbo Group conducts regular occupational health and safety audits of its manufacturing sites. A monitoring team comprising the Health & Safety Group from Nisshinbo Holdings Inc., labor unions, safety and health management staff representing each business, and health and safety officers from other business sites audit the status of health and safety management in each business. In fiscal 2022, we conducted audits at 46 manufacturing sites in Japan and two manufacturing sites overseas. In response to the spread of COVID-19 infections, onsite audits were conducted after implementing infection control measures in Japan, while online document audits were conducted overseas.

At the end of each fiscal year, the results of all audits and checks are compiled in a comprehensive audit report, which is used to analyze potential risks and communicate good practices to the whole Group as part of workplace health and safety activities in the following fiscal year.

Health Management

The Nisshinbo Group's Health Management Policy states that the "Nisshinbo Group, through the establishment of an environment where each individual member can play an active role by promoting employee health and sound workplace, aims to be a corporate group that is indispensable, at any time, for our society." To promote health management efforts across the Group, Nisshinbo established the Group Health Management Department Meeting, which is attended by health management department leaders from each Group company and is tasked with coordinating the Group's activities. Specifically, the meeting focuses on activities in

three key areas—personal health, organizational health and safety awareness—to ensure all employees are fully aware of their safety obligations.

We have established the following KPIs as targets for these initiatives and are promoting activities accordingly.

- Employees receiving full medical examinations after periodic health checkups: **More than 85%**
- High-risk individuals receiving health guidance: **100%**

In fiscal 2022, to promote individual health, we made efforts to reduce the smoking rate, increase the percentage of people with exercise habits and increase the percentage of people who get sufficient rest through sleep. In terms of promoting organizational health, we reduced the average overall health risk value of stress checks, and to reliably meet safety consideration obligations, created a health management report based on employment guidelines and health check items under the Industrial Safety and Health Act. Continuing on from fiscal 2021 and fiscal 2022, Nisshinbo was certified as a Health & Productivity Management Outstanding Organization 2023: Large Enterprise Category, as well as a Health & Productivity Management Outstanding Organization 2023: Small and Medium-Sized Enterprise Category.

Increasing Quality and Customer Satisfaction

To provide products and services that satisfy customers, Nisshinbo Group manufacturing and quality assurance divisions in each business promote activities to improve the quality and customer satisfaction demanded of each product.

We have established the following KPIs as targets for these initiatives and are promoting activities accordingly.

- Product liability law violations: **0 incidents**
- Ascertain and share the status of quality complaints from each segment

In fiscal 2022, there were no product liability (PL) law violations in the Nisshinbo Group. As the determination of claims and complaints varies by industry and type of business, we confirm the status of each Nisshinbo Group company annually. No companies have seen continuous increases in the number of complaints over the last three years. Complaints are trending downward at all Group companies.

Contribution to the Environmental and Energy Field

Basic Concept

The Nisshinbo Group is aiming to increase corporate value as a more united corporate group by realizing its Corporate Philosophy — "Change and Challenge! For the creation of the future of Earth and People." With "Awareness and Concern toward Our Environmental Impact" as the Group's Business Conduct Guidelines, we have a deep understanding of environmental behavior and actively engage in and act on environmental activities. As an *Environment and Energy Company* group, we will continue to offer new products and systems that help protect the environment, save energy and create alternative sources of energy, while also providing solutions that address some of the greatest issues faced by humanity today, such as environmental destruction and natural disasters caused by climate change, to make life safer and more secure for people everywhere.

Long-Term Environmental Target (to fiscal 2050)

Aim to be Carbon Neutral

Medium-Term Environmental Target (to fiscal 2030)

Primary targets			
Provide sustainable solutions Increase ratio of products that contribute to a sustainable society to 70% or more of total sales	Global warming countermeasures Reduce greenhouse gas emissions by 50% or more compared to fiscal 2014	Contribute to the realization of a recycling society Improve the recycling ratio to 95% or more	Water resource countermeasures Reduce water usage per unit of sales by 70% or more compared to fiscal 2014

The 5th Three-Year Environmental Targets (FY2022-2024)

Key action items	The 5th Three-Year Environmental Targets	Fiscal 2022 results
Improvement of the sales percentage by the products that contribute to the development of the sustainable society	60% or more of total sales	55% of total sales
Reduction of greenhouse gas emissions*1	Reduce by 35% or more compared to fiscal 2014	Reduced 36% compared to fiscal 2014
Reinforcement of the maintenance of biodiversity	Activities in Japan and abroad At more than 5 new sites	Ongoing activities at two new sites*2
Reduction of water usage per unit of sales	Reduce by 65% or more compared to fiscal 2014	Reduced 78% compared to fiscal 2014
Promote Life Cycle Assessment (LCA)*3	60% or more of total sales	64% of total sales
Reduction of the energy consumption per unit of sales	Reduce by 15% or more compared to fiscal 2014	Reduced 19% compared to fiscal 2014
Reduction of the volume of PRTR*4 substances emissions per unit of sales	Reduce by 30% or more compared to fiscal 2014	Reduced 42% compared to fiscal 2014
Improvement of recycling rate	Increase the recycling rate to 90% or more	84% recycling rate

*1 Please refer to Nisshinbo's Sustainability website for details regarding emissions calculation methodologies.

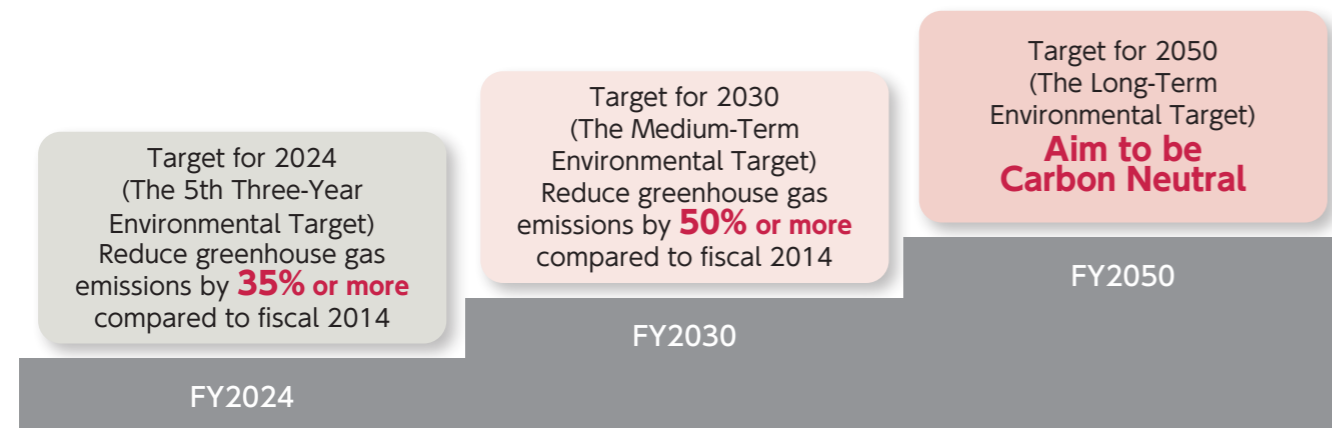
*2 FY2022 activities started: Japan Radio Co., Ltd. (Japan), and Nisshinbo Micro Devices AT Co., Ltd. (Japan).

*3 Life cycle assessment (LCA): Understanding of environmental load, through the life cycle of a product, from raw materials to production, use and finally to disposal.

*4 PRTR substances: Substances subject to the Pollutant Release and Transfer Register (PRTR) system pursuant to the "Act on the Confirmation, etc., of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof" for which reports of their amounts of release and transfer must be filed.

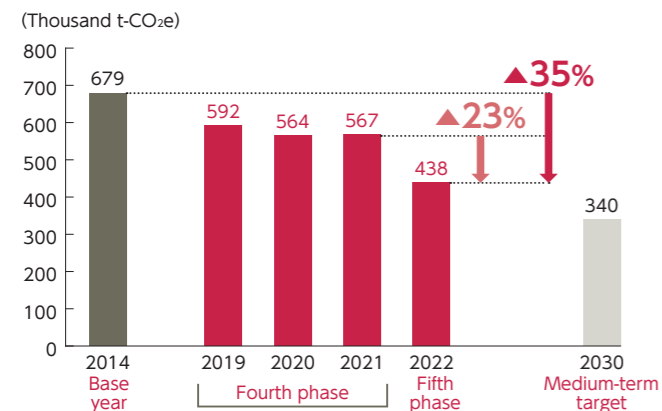
For more information, please see the Sustainability section of the Nisshinbo Group website.
<https://www.nisshinbo.co.jp/english/sustainability/>

The Nisshinbo Group's Greenhouse Gas Emissions Reduction Targets



Reduction of Greenhouse Gas Emissions

Greenhouse Gas Emissions Trends



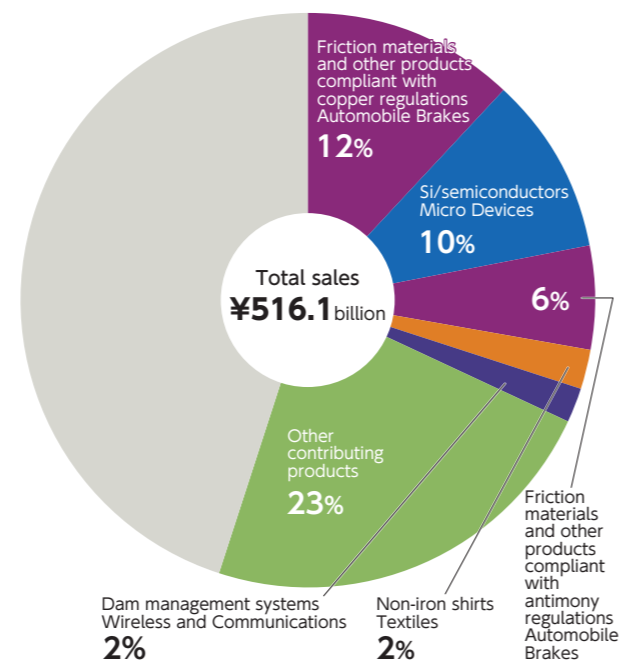
In fiscal 2022, greenhouse gas emissions were 438,000 t-CO₂e, a substantial 23% reduction from fiscal 2021 due to climate change measures implemented in each segment.

Main Factors

Nisshinbo significantly reduced its use of coal, conducted energy conservation activities, switched to green electricity from purchased electricity, installed additional perfluorocarbons (PFCs) and gas abatement equipment in line with capital investment, and expanded solar power generation.

Improved Sales Percentage of Products Contributing to the Development of a Sustainable Society

Sales of Products Contributing to the Development of a Sustainable Society



Sales of the products that contribute to the development of a sustainable society are growing steadily, accounting for 55% of the Group's FY2022 sales.

Reports Based on the TCFD Recommendations

Overview of the TCFD Response

Believing it important to seize business opportunities and respond appropriately to risks posed by climate change, a global issue, the Nisshinbo Group has conducted climate change scenario analyses in accordance with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations since fiscal 2021. By identifying the risks and opportunities that climate change will pose to the Group in the future, then utilizing them in the formulation of business strategies, we will devise more flexible and robust strategies and increase resilience against future risks. Furthermore, in June 2022, Nisshinbo announced its endorsement of the TCFD recommendations.

Governance

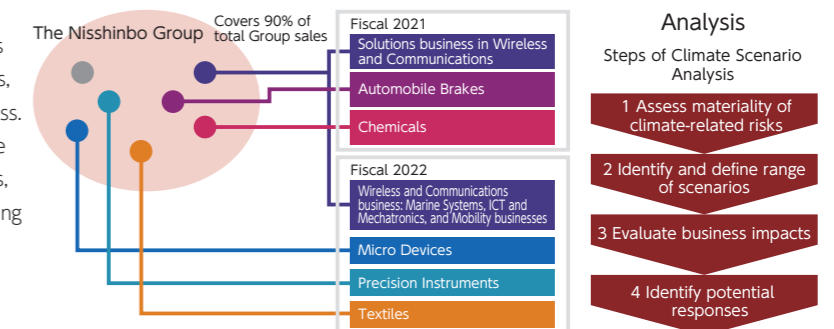
The Nisshinbo Group established and now operates a mechanism within the Group-wide governance system* to appropriately respond to risks and opportunities related to climate change. Responsibility for climate-related issues is entrusted to committees such as the Corporate Strategy Conference comprising the president and executive officers, which reports to the Board of Directors, who discuss responses to reported climate-related issues and monitor targets and progress toward their resolution.

*1 Refers to "Corporate Governance Structure" on page 42, Corporate Governance.

Strategy

Overview

As the Nisshinbo Group is engaged in a wide range of businesses, we conducted climate change scenario analyses in fiscal 2021 targeting businesses we anticipate will be significantly affected by risks and opportunities, including the Solutions business within the Wireless and Communications business and the Automobile Brakes and Chemicals businesses. In fiscal 2022, the Group completed an analysis of its major businesses with production activities by targeting the Marine Systems, ICT and Mechatronics, and Mobility businesses in the Wireless and Communications business, the Micro Devices business, the Precision Instruments business and the Textiles business. Climate change scenario analysis was conducted using the steps shown on the right for two climate change scenarios, one based on a world in which warming continues (warming progression scenario: 2.5°C–4°C scenario) and the other a world in which warming is curtailed and a positive shift is under way (decarbonization scenario: 1.5°C–2°C scenario).



1. Assess materiality of climate-related risks

As the first step in the scenario-analysis, the Nisshinbo Group identified the material risks and opportunities for each of the targeted businesses using the TCFD final report and relevant external literature on the industry and other relevant topics. As the impacts of climate change have the potential to arise in the medium to long term, risks and opportunities were qualitatively evaluated as "large," "medium" or "small" on short-term as well as medium- to long-term timelines leading up to 2050. Accordingly, the following table indicates significant risks and opportunities associated with business continuity and the creation of new businesses.

Risk type	Assessment Item		Risks	Opportunities
	Major categories	Subcategories		
Transition risks	Policy and Legal	Carbon price	• Increase in raw material procurement and manufacturing costs due to carbon taxation	• Future operating cost decreases by switching to renewable energy
		Energy mix	• Rising/Falling energy costs due to fluctuations in city gas, crude oil and electricity prices	—
	Market and Technology Shifts	Customer/market changes	• Rising costs in line with response to GHG reduction requests from suppliers	• Increase in demand for related products in line with higher demand for marine transportation resulting from modal shift • Increase in sales of brake friction materials due to change in demand for automobiles • Increase in sales of insulation materials due to the spread of ZEB/ZEH • Increase in sales of cross-linking agents due to rising demand for cold-drying paints • Expansion of market for CFRP-related products contributing to low carbon efforts • Sales growth of products for environmentally oriented apparel and environmentally friendly industrial materials
		Spread of low-carbon and energy-saving technologies	• Decrease in demand for ICE vehicle parts due to the spread and expansion of EVs	• Increase in demand for EVs, new energy vehicles, smart mobility and fuel cell-related products • Sales growth of energy-saving GaN power semiconductors and electronic device-related products • Increase in demand for related products due to expansion of new offshore wind power generation

For more information, please see the Sustainability section of the Nisshinbo Group website.
<https://www.nisshinbo.co.jp/english/sustainability/>

Risk type	Assessment Item		Risks	Opportunities
	Major categories	Subcategories		
Physical risks	Chronic	Average rise in temperature, precipitation, weather patterns	<ul style="list-style-type: none"> Increased disaster response costs due to storm surge damage and costs incurred for relocation Fluctuating product costs in line with raw cotton (cotton fiber) price fluctuations 	<ul style="list-style-type: none"> Increase in demand for disaster prevention products and services due to increased flood risk Increase in demand for air-conditioner parts due to more frequent use of air conditioning in summer Increase in sales of heat-related products (e.g., cool biz, cool touch)
	Acute	Severity of extreme weather events	<ul style="list-style-type: none"> Property damage and loss of business due to typhoons and torrential rains 	—

2. Identify and define range of scenarios

With 2050 as the time axis, the Nisshinbo Group analyzed climate-related risks and opportunities using the warming progression and decarbonization scenarios. The following documents were referenced for the analysis.

Warming Progression Scenario

International Energy Agency (IEA) Intergovernmental Panel on Climate Change (IPCC)
 •Stated Policies Scenario (STEPS) •RCP8.5
 •Reference Technology Scenario (RTS)

Decarbonization Scenario

International Energy Agency (IEA) Intergovernmental Panel on Climate Change (IPCC)
 •Net-Zero Emissions Scenario (NZE) •RCP2.6 or RCP4.5
 •Sustainable Development Scenario (SDS)

Note: IEA scenarios are based on the latest data available at the time of analysis for each project, and there might be slight differences in conditions and other factors.

In the warming progression scenario, while some sites will be affected by flooding and other damage, sales opportunities for countermeasure products will increase as temperatures rise, and demand for disaster prevention-related products and services is expected to rise. In the decarbonization scenario, countries will tighten emission reduction targets and introduce high carbon taxes, while demand for decarbonization-related products and environmentally friendly products, especially EVs and renewable energy, is expected to increase.

(For global outlook details, please see "Information Disclosure Based on TCFD Recommendations" on the Group Sustainability website.)

3. Evaluate business impacts

The financial impact on each was summarized together with study results from fiscal 2021 and fiscal 2022. The results are as follows.

: Wireless and Communications
 : Micro Devices
 : Automobile Brakes
 : Precision Instruments
 : Chemicals
 : Textiles

Category	Assessment Item	Assessment of Impacts*	
		Warming Progression Scenario	Decarbonization Scenario
Carbon price	Cost of procuring raw materials from suppliers and manufacturing costs at plants increased due to carbon taxation	—	---
Energy mix	Energy costs fluctuated in line with city gas, crude oil and electricity prices	+	--
Customer/Market changes	Increase in sales of ship-related products due to increased demand for shipping in line with modal shift	+	+
	Energy costs rose in line with response to GHG reduction requests from suppliers	—	---
	Increase in sales of brake friction materials due to change in demand for automobiles	+++	++
	Increase in sales of insulation materials due to the spread of ZEB/ZEH	++	+++
	Increase in sales of cross-linking agents due to rising demand for cold-drying paints	++	+++
	Increase in sales of machine tools for CFRP materials due to a greater number of companies working to reduce GHG emissions	+	+
	Increase in sales of products for environmentally oriented apparel and environmentally friendly industrial materials	+	+
Spread of low-carbon and energy-saving technologies	Increase in sales of products related to EVs, new energy vehicles, smart mobility and fuel cells	++++	++++
	Increase in sales of energy-saving GaN power semiconductors and electronic device-related products	+	+
	Increase in sales of wind power generation-related components	+	+
	Increase in sales of related parts due to changing demand for ICE vehicles	+	+
Average rise in temperature, precipitation, weather patterns	Increase in sales of disaster prevention products and services due to increased flood risk	++	++
	Increase in sales of air-conditioner parts due to more frequent use of air conditioners in summer	+	+
	Decrease in product costs due to lower raw cotton (cotton fiber) prices	+	+
Severity of extreme weather events	Increase in sales of heat-resistant clothing	+	+
	Increase in costs due to property damage and lost business caused by flooding	--	-

Assessment of Impacts* : +:Positive impact / -:Negative impact
 Magnitude of impact : Under ¥1 billion: +/— / ¥1-5 billion: ++/— / ¥5-10 billion: +++/— / ¥10 billion or more: ++++/—
 (For business impact assessment details, please see "Information Disclosure Based on TCFD Recommendations" on the Group Sustainability website.)

4. Identify potential responses

In the future, based on the results of the scenario analysis, all business divisions will minimize risks related to greenhouse gas emissions while focusing on capturing actual and potential opportunities related to the products and services of each business division over the medium to long term. In fiscal 2023, the Nisshinbo Group will expand the scope of analysis to all its businesses by conducting climate change scenario analysis for businesses that have not yet done so.

Business	Business impact summary	Direction of response
Common to all businesses	<ul style="list-style-type: none"> Risk of additional costs due to the introduction of carbon taxes and associated cost increases. Possibility that suppliers will be increasingly requested to reduce GHG emissions and will be forced to respond Potential property damage and loss of business due to increased flooding 	<ul style="list-style-type: none"> Reduce GHG emissions and save energy to avoid carbon taxes and reduce energy costs Prevent and mitigate property damage and business loss caused by flooding
Wireless and Communications (Solutions, Marine Systems, ICT and Mechatronics, Mobility businesses)	<ul style="list-style-type: none"> Potential increase in ship-related product sales opportunities due to expanding demand for shipping resulting from modal shift Potential increase in demand for EV-related products in line with EV sales growth Potential increase in demand for energy conservation and energy-saving device sales opportunities Potential increase in demand for offshore wind power generation-related products due to increased demand for renewable energy Potential increase in flood risks and demand for disaster prevention-related products and services due to frequent occurrence of natural disasters 	<ul style="list-style-type: none"> Capture demand for shipping-related products Expand development and manufacturing of EV-related products Apply energy-saving products (e.g., GaN power semiconductors, electronic device-related products) to the electric power field Capture demand for ships supporting offshore wind power generation Develop and manufacture millimeter wave radar water level meters for disaster prevention, and capture demand for disaster prevention products and services
Micro Devices	<ul style="list-style-type: none"> Potential increase in sales of smart mobility-related products due to social developments toward a smart mobility society Potential increase in demand for low-carbon and energy-saving products Potential increase in flood risks and demand for disaster prevention-related products and services due to frequent occurrence of natural disasters 	<ul style="list-style-type: none"> Develop and manufacture smart mobility-related products in line with the expansion of the smart mobility society, enhance related parts production systems Develop and manufacture energy-saving products to meet demand for low-carbon and energy-saving products Capture demand for water level gauge sensors in response to increased risk of flooding
Automobile Brakes	<ul style="list-style-type: none"> Although demand for brake friction materials is expected to grow as demand for automobiles increases, the longer service life of brake friction materials might reduce brake repair demand as the percentage of EVs increases 	<ul style="list-style-type: none"> Provide products and services that respond to changes and regulations associated with the promotion of decarbonization
Precision Instruments	<ul style="list-style-type: none"> Potential increase in sales opportunities for machine tools for CFRP materials amid a growing environmental orientation in the supply chain Potential increase in demand for wind power-related products amid the ongoing introduction of renewable energy Potential for increase in sales opportunities for new energy vehicle-related products due to higher EV sales, amid declining sales opportunities for ICE vehicle-related products Potential increase in sales opportunities for related products due to growing demand for air conditioners in line with global warming 	<ul style="list-style-type: none"> Capture sales opportunities for machine tools for CFRP materials to meet supply chain environmental needs Develop and manufacture wind power generation-related products in line with the growing introduction of renewable energy Develop and manufacture specialized machines for machining and assembling parts related to new energy vehicles in line with increasing EV sales Develop and manufacture air-conditioning components to meet growing demand for air conditioning during summer
Chemicals	<ul style="list-style-type: none"> Potential increase in demand for cross-linking agents due to rising demand for cold-drying paints Potential increase in sales of insulation materials due to the spread of ZEB/ZEH Potential increase in sales of fuel cell separators in proportion with fuel cell market expansion 	<ul style="list-style-type: none"> Capture demand for cross-linking agents due to rising demand for cold-drying paints Capture demand for insulation materials due to the spread of ZEB/ZEH Capture demand for fuel cell separators in line with the spread of fuel cells Provide products and services that respond to changes and regulations associated with the promotion of decarbonization
Textiles	<ul style="list-style-type: none"> Potential increase in sales opportunities targeting customers with a high environmental orientation and sales of environmentally friendly products due to changes in environmental orientation in the supply chain Potential fluctuation in raw cotton costs due to climate change, as well as increased sales opportunities for heat-resistant products in line with rising temperatures 	<ul style="list-style-type: none"> Capture demand for apparel products that promote decarbonization, and develop and manufacture environmentally friendly industrial materials Develop and manufacture heat-resistant clothing

Risk Management

Regarding risks and opportunities related to climate change to which the Group should pay attention, risks are unambiguously ascertained, analyzed and evaluated in each business based on the Risk Management Rules. The persons in charge of each business prioritize risks and hypothesize the magnitude of their impacts on business and future scenarios. This information is comprehensively mapped at the Corporate Strategy Center and deliberated by the Corporate Strategy Conference and the Board of Directors.

Indicators and Targets

The Nisshinbo Group aims to seize business opportunities related to climate change while mitigating risks. To mitigate climate change-related risks, we are aiming for carbon neutrality by 2050 and proactively promoting climate change countermeasures such as energy conservation activities and reduced perfluorocarbon (PFC)* emissions.

*Perfluorocarbon is a fluorine-based greenhouse gas used for dry etching in the semiconductor manufacturing process.

- Target for 2024** (The 5th Three-Year Environmental Target)
Reduce greenhouse gas emissions by **35%** or more compared to fiscal 2014
- Target for 2030** (The Medium-Term Environmental Target)
Reduce greenhouse gas emissions by **50%** or more compared to fiscal 2014
- Target for 2050** (The Long-Term Environmental Target)
Aim to be **Carbon Neutral**

For more detailed information, please visit the Sustainability section of the Nisshinbo Group website.
<https://www.nisshinbo.co.jp/english/sustainability/>



Hiroaki Yagi
Director (Outside Director)

Guided by the Spirit of “Public Entity” and “Consistent Integrity,” the Company Will Leverage Accumulated Technologies and Human Capabilities to Contribute to Society as an *Environment and Energy Company* Group to Realize a Super-smart Society.

Coming From a World of Continuously Examining Corporate Pathologies

After being appointed as Public Prosecutor in 1981, I spent 38 years in the field of public prosecution until my retirement as Superintending Prosecutor of the Tokyo High Public Prosecutors Office in 2019. Most of those years were spent in the Public Prosecutors Offices in Tokyo and Osaka handling financial and economic crimes such as bribery, bid rigging, fraudulent accounting and tax evasion, where I focused exclusively on corporate pathologies. After this, I registered as an attorney-at-law in March 2019, and in June that same year, I became President of the Japan International Trainee & Skilled Worker Cooperation Organization, which provides support for the employment of foreign personnel. In March 2020, I was appointed as an outside director at Nisshinbo.

After retiring as a public prosecutor, I have been immersed in a global world, which unlike the domestic focus of my previous work, constantly surprises me by the nearly simultaneous and direct impact of events occurring overseas that have the potential of bringing about drastic changes in the business environment. However, it would not be worthwhile entering this new world if I did not enjoy it, and I intend to do my utmost to fulfill my duties while responding to rapidly changing conditions.

Nisshinbo’s “Public Entity,” “Consistent Integrity” and “Innovation” are Exactly What Society Needs Right Now

To be frank, before I was asked to become a Nisshinbo outside director, I was only familiar with the Company name. As I came

in contact with detailed information online, I realized that Nisshinbo, which has a more than 100 history since its founding as a textile company, has expanded with business companies that include Japan Radio and Nisshinbo Micro Devices while adapting to changes in society. Furthermore, I learned that Nisshinbo has been proactively promoting portfolio reforms to further meet contemporary needs while also making full use of M&A methodologies, transforming itself into an *Environment and Energy Company* group centered on the three pillars of Mobility, Infrastructure & Safety and Life & Healthcare targeting the realization of a super-smart society.

Furthermore, when I discovered that the root of these transformations was supported by the fundamental spirit of Nisshinbo, which has consistently maintained the principles of “public entity,” “consistent integrity” and “innovation,” I was reminded of the Omi merchant saying, *sanpo-yoshi*, which I am familiar with as a native of the Kansai region. *Sanpo-yoshi* is a business philosophy aimed at contributing to both the interests of sellers (companies) and buyers (customers) as well as the whole of society. This is the core of Nisshinbo’s fundamental spirit, which is based on the idea of fulfilling its corporate responsibility by earning profits correctly and satisfying customers, shareholders and all other stakeholders. As someone who has confronted corporate pathologies for many years, these words shine like gems and made me an admirer of Nisshinbo, providing me with a strong sense that this is what a company must do to remain healthy.

Most corporate pathologies are caused by the desire to earn profits by any means, including cheating, and the desire to hide their own failures, which is the exact opposite of Nisshinbo’s fundamental spirit. If Nisshinbo conducts operations without forgetting this fundamental spirit, it will never go astray. However, people can be weak, and in a moment of weakness, the aforementioned desires might rise to the surface. My understanding is that internal control management is in place to quickly detect and correct any wrongdoing before it becomes a major problem, and to eliminate the desire to take inappropriate

actions by thinking of what will happen if wrongdoings are discovered. As a member of the Board of Directors, I will maintain efforts to establish internal controls and ensure compliance and proper management.

The Board of Directors Itself Has Also Undergone Drastic Changes Over the Past Three Years, Becoming More Open and Transparent

I became an outside director in 2020, the year the pandemic began, and with the exception of the Board meeting after the General Shareholders’ Meeting, all Board of Director meetings were held online. This appears to have been a major change from previous years, but being accustomed to virtual Board meetings as I am, I honestly did not experience any inconvenience. However, it is undeniable that there will be less non-verbal communication than in the past, as the atmosphere can only be understood through real-world interactions. To alleviate these concerns, we proactively visit Group companies in pursuit of opportunities to maintain close contact with other inside and outside directors. Furthermore, since 2022, the Company has made efforts to hold gatherings for outside directors so we can exchange information that can only be obtained through real-world interactions.

The Board of Directors consists of five outside directors, including myself, and two Audit & Supervisory Board Members for a total of seven members (three of whom are women), comprising a diverse group of people, each of whom speaks freely at Board meetings from a standpoint independent of the Company. Furthermore, inside directors and managing officers share opinions from their respective points of view, creating a very cheerful and open atmosphere, which I think is also a reflection of Nisshinbo’s positive corporate culture.

Advanced Technological Capabilities are Nisshinbo’s Greatest Strength

In the three years since becoming a director, I have had the opportunity to visit plants 2–3 times each year, which has been valuable in terms of obtaining site information. During each visit, I received extremely earnest and detailed explanations that have been very useful in helping the Board of Directors to form a more concrete image of sites than before the inspections were conducted. Through these opportunities, we were able to experience the diversity of products in each business field within the Nisshinbo Group, as well as the strength of the technologies and human resources accumulated over more than a century.

Nisshinbo’s strength lies in the advanced technological capabilities possessed in each of its business fields, and I have great expectations that the *yokokushi* strategy—the exchange of technologies and human resources across business fields emphasized in recent years—will drive Nisshinbo’s further growth. A unique aspect of Nisshinbo is the diversity of its business fields, and one would be remiss in thinking that each of these fields, despite their advanced technological capabilities, exist independently of one another. I want Nisshinbo to continue making great strides in developing new strengths created through the fusion and utilization of resources in each of these fields.

Dialogues with Shareholders and Investors

Dialogues Held and Main Participants

- Results briefings (semiannual): President and directors (business segment representatives, CFO)
- Business briefings (semiannual): Directors (business segment representatives), department senior managers
- Individual interviews (about 80 times per year): Directors (CFO), IR managers

Shareholder and Investor Details

- Japanese institutional investors: 80%; overseas institutional investors: 20%

Main Dialogue Topics

- Medium- to long-term business strategies
- Business portfolio orientation
- Business models, market environments and competitive advantages in each business
- Shareholder returns

Feedback to Management

	Frequency	Details
Shareholder, investor and analyst comments	As necessary	Individual interview summaries reported via e-mail or other methods
Analyst reports	As necessary	Analyst report summaries reported via e-mail or other methods
Share price, shareholder and stock-related information	Every six months	Share price trends and volume reported at management meetings
Status of IR activities	Quarterly	Main comments and requests summarized and reported via e-mail or other methods
	All year	Reported as a management review at Board of Director meetings

Overview of Answers to Questions from Shareholders and Investors

Q	A	Related page
Nisshinbo is engaged in multiple businesses, which one will you focus on in the future?	All business vectors are aligned with the environment. Nisshinbo will expand products and services that contribute to reducing environmental impacts. We have positioned the Wireless and Communications business and the Micro Devices business as growth drivers. Currently, these businesses account for 46% of total sales, but we aim to increase this to above 60% in the future.	Message from the President P.10 "Aiming to Realize a Super-smart Society Centered on the Environment"
Why don't you disclose medium-term management plans?	Nisshinbo is constantly working to transform its business portfolio, and has refrained from announcing M&A and carve-outs because they are always in process. We plan to announce medium-term management plans after reaching a certain scale of M&A and carveouts.	Message from the President P.13 "Continuous Engagement in M&A and Carveout Projects"
What KPIs are you focused on over the medium to long term?	We position ROE as an important indicator and seek to consistently exceed 10%. We are making efforts to change both the denominator and the numerator when calculating ROE but basically believe in the importance of numerator = higher profit.	Message from the President P.13 "Continuous Engagement in M&A and Carveout Projects"

Q	A	Related page
The P/B ratio is still below 1x. How will you respond to the TSE's request?	As stated in the request, rather than a temporary fix, we will institute comprehensive measures to continuously achieve a return on capital in excess of the cost of capital and achieve sustainable growth. Specifically, over the past two years, we have worked to increase profits in each of our businesses through rigorous cost controls and strategic pricing, and in FY2022, we are starting to see some progress.	Message from the President P.12 "Review of Fiscal 2022 and Outlook for Fiscal 2023" Nisshinbo Group Financial Strategy P.16 "Basic Financial Capital Strategy"
What are the leading indicators of performance?	Many of our businesses intersect with the automotive supply chain, such as Automobile Brakes, Wireless and Communications in-vehicle equipment, semiconductors and Precision Instruments. There is a high correlation between global automobile production volumes and Nisshinbo business performance.	
What are the strengths of the Wireless and Communications business?	One of its strengths is telemetering systems that automatically measure water levels in dams and rivers, precipitation in watersheds and a variety of other remote data, collected automatically via wireless lines and other means. Nisshinbo has been involved in this field since the 1950s, and as a leading telemeter company, currently holds approximately 30% of the water and river information system market.	Key Business Growth Strategy: Wireless and Communications P.18 "Three Strengths"
Will the Wireless and Communications business be driven by increases in defense budgets?	Before the war, JRC was involved in the development of shipboard transmitters and receivers for the Navy. After the war, JRC developed a variety of shipboard communications equipment for the Maritime Self-Defense Forces, including shipboard communications equipment, aerial line matching equipment and receivers for submarines. Currently, the company offers products in all areas of land, sea and air, including guidance system-related equipment. In general, the company sees the expansion of the defense budget as a tailwind for its business.	
What are the strengths of the Micro Devices business?	Strengths include signal processing ICs, such as sensor products, the market for which is expanding, and power supply control ICs, which are increasingly required to achieve low power consumption. Nisshinbo can provide analog solutions combining multiple functions.	Key Business Growth Strategy: Micro Devices P.23 "Strength: Analog Technologies"
How does the spread of EVs impact the Automobile Brakes business?	We do not expect installation in new vehicles to disappear due to reliability and other factors. Furthermore, EVs are about 30% heavier than conventional vehicles, so the friction materials used are also larger than in conventional vehicles. At the same time, the use of regenerative braking reduces the frequency of physical braking, so the replacement cycle of friction materials is expected to lengthen.	
In FY2022, the TMD Automobile Brakes business posted a large loss. What is your outlook for the future?	The deficit in FY2022 was due to sharp rises in raw fuel, electricity and transportation costs in Europe. TMD implemented price pass-throughs several times, but there was a time lag, and some of the effects were carried over to FY2023. TMD has been restructuring for some time by consolidating or closing plants in various regions, and is expected to return to profitability once market prices become reasonable. TMD did in fact move into the black in Q1 of FY2023.	
What is your outlook for the Real Estate business?	The Real Estate business is engaged in leasing and sales through the redevelopment of former plant sites in Japan. The company expects to generate about ¥3 billion in annual operating income from the leasing business going forward. Large-scale sales projects will mostly end in FY2023.	
What is your view on dividends and share buybacks?	Our basic policy on shareholder returns is as follows: (1) Invest in growth strategies (2) Provide stable and sustainable dividends (payout ratio of approximately 30% as a target) (3) Consider share buybacks, etc., after ensuring sufficient retained earnings	Message from the President P.15 "Shareholder Returns"

Corporate Governance Global compliance

Basic Stance

Nisshinbo is aiming to increase corporate value over the medium to long term as an *Environment and Energy Company* group by operating its various businesses based on global business management and cash flow management. We follow the Nisshinbo Group corporate philosophy: "Change and Challenge! For the creation of the future of Earth and People." To achieve this, we are improving the quality of corporate governance and other aspects of our organizational culture. In parallel, we are striving to deliver quantitative growth in earnings and shareholder value, focusing on ROE to improve profitability and placing importance on the share price in management decisions.

By making rapid and bold decisions based on risk-taking in line with our management principles, we are working to enhance management efficiency while ensuring transparency, as well as improve accountability, act ethically and build a stronger corporate governance structure founded on our Corporate Philosophy.

▶ Details regarding Nisshinbo corporate governance are as follows.

Corporate Governance Report at https://www.nisshinbo.co.jp/nish/ir/governance/pdf/governance/c_governance_en.pdf

Nisshinbo Corporate Governance Policy at <https://www.nisshinbo.co.jp/english/ir/governance/policy.html>

Corporate Governance Policy

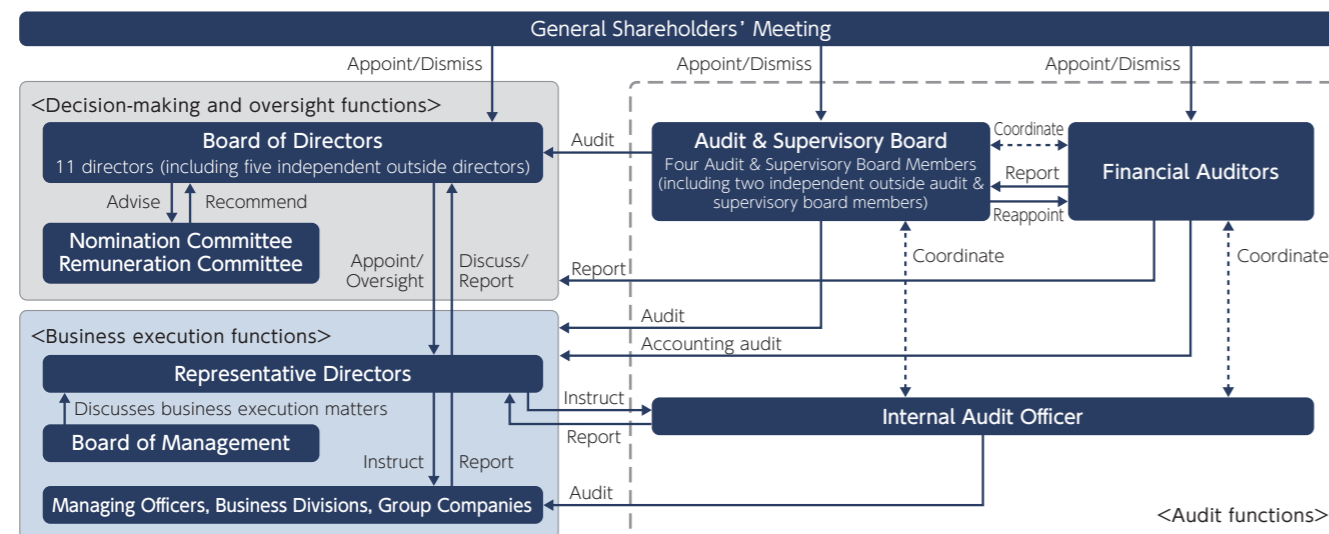
URL: <https://www.nisshinbo.co.jp/english/ir/governance/policy.html>

We have formulated the Nisshinbo Corporate Governance Policy, which clearly states our basic thinking on corporate governance and related initiatives. By steadily implementing the principles of the policy and revising and improving its content as needed, we aim to improve the effectiveness of governance and create a framework for rapid and bold decision-making that contributes to sustained growth and increased corporate value over the medium to long term.

Matters Concerning the Composition of Governing Bodies and Organization Management

Organizational form	Company with Auditors
Number of directors under the Articles of Incorporation	14
Term of office for directors under the Articles of Incorporation	1 year
Chairman of the Board of Directors	Chairman (except when concurrently serving as President)
Number of directors (including outside directors)	11 (5)
Outside director appointment status	Appointed
Number of outside directors designated as independent officers	5
Number of Audit & Supervisory Board Members under the Articles of Incorporation	5
Number of Audit & Supervisory Board Members (including outside members)	4 (2)
Number of outside corporate auditors designated as independent officers	2

Corporate Governance Structure



Corporate Governance Structure

Please refer to the Nisshinbo Corporate Governance Policy sections II-1, II-3, II-6 and II-7.

The Group has adopted a Company with Audit & Supervisory Board system. In addition, Nisshinbo has separated decision-making and oversight from business execution and adopted a

managing officer system to reinforce those functions.

By transferring responsibility for business execution to managing officers and strengthening oversight by the Board of Directors, we are improving management efficiency and transparency and creating an effective governance structure that will support the Group's sustained growth and enhance corporate value over the medium to long term.

Board of Director Duties and Diversity

Please refer to the Nisshinbo Corporate Governance Policy sections II-1 and II-4.

Directors and the Board of Directors recognize that they have a fiduciary duty to shareholders and thus strive to appropriately reflect shareholders' intentions within the board. By overseeing the preparation and management of internal control and risk management systems, directors and the board help to monitor business execution and decision-making. At the same time, the Company fearlessly confronts risk and works to achieve governance that is focused on quick and bold decision-making. In this manner, the Company aims to achieve greater accountability to stakeholders, increased profitability and higher returns for shareholders.

To promote the globalization of each Nisshinbo company along the lines of environment and energy, the Board of Directors selects management talent as candidates for directors who possess outstanding management experience, have the necessary firm commitment and ability to realize the Company's Corporate Philosophy and increase corporate value, and who enhance the composition of the board through greater diversity in areas such as gender and nationality. Furthermore, the Nomination Committee, which includes outside directors, deliberates the experience, knowledge, expertise and other skills required for the Board of Directors, as well as the skills of each Board member. As of March 30, 2023, the Board of Directors was composed of 11 directors, of which five are independent outside directors (including two women). The skills and expertise of each Board member are listed in the Skill Matrix on page 50.

Composition of the Directors

Independence
Ratio of Outside Directors: 45.5%

Diversity
Ratio of women: 18.2%

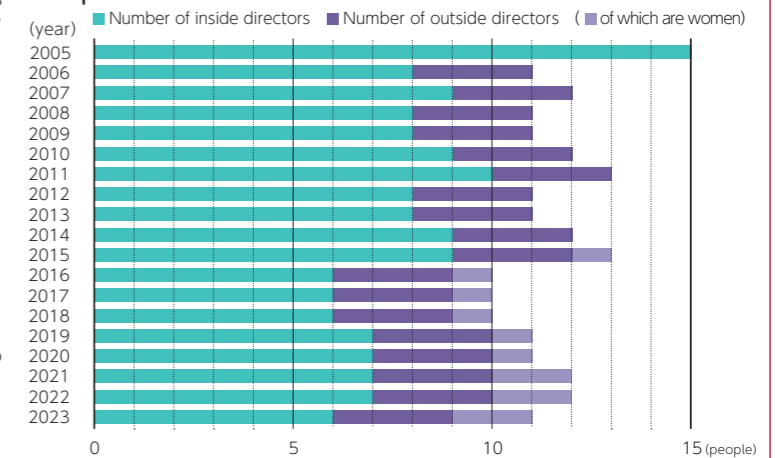
Corporate Governance Reforms

Improvement Efforts in 2022

• To ensure objectivity in evaluating the effectiveness of the Board of Directors, Nisshinbo asks outside consultants to conduct questionnaires and interviews with directors and Audit & Supervisory Board members. The consultant's knowledge is also used to analyze the results.

- 2006 Introduced outside director system and managing officer system, reduced term of office for directors from two years to one
- 2015 Abolished takeover defense measures
- 2016 Corporate Governance Policy formulated, established Remuneration Committee and Nomination Committee (both discretionary bodies), started evaluating effectiveness of Board of Directors
- 2017 Abolished internal advisor and consultant system
- 2018 Introduced restricted stock compensation system
- 2021 As a Prime Market-listed company, in response to Corporate Governance Code revisions (June 2021), the Group began conducting climate change scenario analyses in accordance with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Composition of the Board of Directors



Evaluating the Effectiveness of the Board of Directors

In 2022, to more objectively confirm the effectiveness of the Board of Directors, evaluations were conducted using the knowledge of outside consultants, who conducted questionnaires and interviews with all directors and Audit & Supervisory Board

members. The Board of Directors then discussed the compiled results of this analysis. Nisshinbo's Board of Directors was evaluated as functioning effectively, as it comprises inside directors with extensive business experience and outside directors with specialized knowledge, which facilitates various discussions and efforts toward the following priority issues.

2022 Priority Issues

- Facilitate discussions related to priority themes such as sustainability, the business portfolio and management strategies
- Implement various measures contributing to increased efficacy and deeper discussions by the Board of Directors and independent committees

Status of Response to Priority Issues

- In terms of facilitating discussions related to priority themes, agenda items related to sustainability management and the business portfolio were proposed

- Regarding the implementation of various measures contributing to increased efficacy and deeper discussions, the Board Chairman, directors and Audit & Supervisory Board members attempted to mutually implement autonomous improvements

2023 Priority Issues

- Deepen strategic discussions from a broad perspective to strengthen Group profit structure and promote sustainability management
- Select and thoroughly discuss effective monitoring themes to ensure objectivity and transparency of strategies
- Strive to ensure two-way communication between directors and executive members to effectively monitor strategy execution

Remuneration for Directors and Senior Managers

Please refer to the Nisshinbo Corporate Governance Policy section II-2.

To increase transparency and objectivity in processes for determining remuneration, Nisshinbo has established a Remuneration Committee as an advisory body for the Board of Directors. As of March 30, 2023, the committee comprised the president and five outside directors. The committee chairman is selected by members of the committee.

Remuneration for directors comprises basic remuneration (monthly payment) and bonuses and stock-based remuneration (restricted stock compensation plan), both of which are set within the maximum limits approved by the General Shareholders' Meeting. Stock-based remuneration for each role is set within separate maximum limits for amounts and shares determined by resolutions of the General Shareholders' Meeting. However, outside directors receive only basic remuneration (monthly payment) and retirement benefits are not paid to directors. Remuneration for managing officers is based on the same policies and procedures.

Remuneration for Directors and Auditors (fiscal period ended December 2022)

Classification	Total remuneration (millions of yen)	Remuneration breakdown (millions of yen)			Total number of payees
		Basic remuneration (Fixed)	Bonus (Performance-linked)	Restricted stock compensation plan	
Directors (excluding outside directors)	238	149	70	19	8
Audit & Supervisory Board members (excluding outside Audit & Supervisory Board members)	35	35	—	—	2
Outside directors and outside Audit & Supervisory Board members	62	62	—	—	7

Notes: 1. Total maximum remuneration for directors: No greater than ¥400 million per year (Employee salaries of individuals simultaneously appointed as employee and director are not included in payments to directors. Directors are also eligible to receive compensation through a restricted stock compensation plan, up to a maximum value of ¥40 million per year.)
 2. Total maximum remuneration for members of the Audit & Supervisory Board: No greater than ¥70 million per year
 3. The Company had 11 directors (including five outside directors) and four Audit & Supervisory Board members (including two outside members of the Audit & Supervisory Board) as of March 30, 2023.
 4. The actual amount of bonus payments reflects degree of achievement regarding performance targets such as net sales, pretax profits, operating cash flow and other indicators related to the Group or businesses remitted at a fixed rate according to position.

Selection and Dismissal of Directors and Senior Managers

Please refer to the Nisshinbo Corporate Governance Policy section II-2.

To increase transparency and objectivity in processes for selecting and dismissing directors, Nisshinbo has established a Nomination Committee as an advisory body for the Board of Directors. As of March 30, 2023, the committee comprised the president and five

outside directors. Regarding senior management, directors and executive officers, the Nomination Committee informs the Board of Directors of candidates based on prescribed criteria. If reasons for ineligibility arise with respect to senior management, directors or executive officers, their dismissal or removal is reported to the Board of Directors.

Protecting the Rights and Ensuring the Equal Treatment of Shareholders

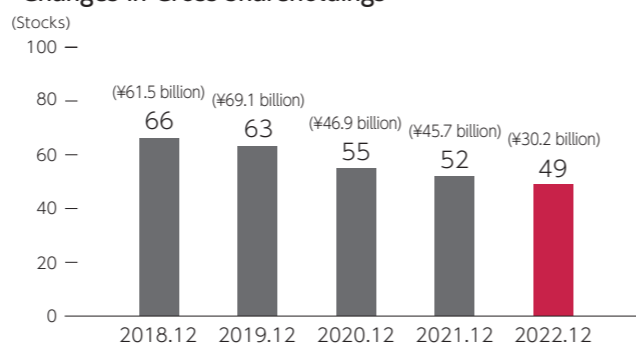
Please refer to the Nisshinbo Corporate Governance Policy section III-2.

The Company shall ensure that the exercise of minority shareholder rights is not impeded and will take appropriate measures to fully protect shareholder rights. The Company will implement various measures related to communication with shareholders and investors and ensure the appropriate operation of the General Shareholders' Meeting.

The Company has set out a policy for cross-shareholdings. In line with that policy, it regularly assesses the purpose and economic rationale for cross-shareholdings based on capital costs and other indicators.

Shares with diminished strategic value are sold incrementally and systematically.

Changes in Cross-Shareholdings



Dialogue with Shareholders

Please refer to the Nisshinbo Corporate Governance Policy section III-2.

The director in charge of IR supervises numerous measures aimed at communicating with shareholders and investors, actively

engaging in IR activities that include accurate and fair information disclosure outside the Company and various types of direct dialogue.

Stakeholder Engagement

Please refer to the Nisshinbo Corporate Governance Policy sections III-1 and III-3.

Nisshinbo recognizes that continuous dialogue with stakeholders is key to supporting sustained growth in corporate value. In

line with the aims of our VALUE commitment, we work hard to resolve any issues by emphasizing dialogue with customers, shareholders, employees and all other stakeholders connected to the Nisshinbo Group.

Stakeholder Engagement Initiatives

Stakeholder	Examples of approaches (fiscal 2022 activities)	Key department/site
Customers	● Corporate website and social media ● Exhibitions ● Online seminars	Marketing/Engineering
	● Activities aimed at increasing customer satisfaction (95 items) ● CM	
Shareholders/ Investors	● General Meeting of Shareholders (one time) ● Results briefings (two times) ● Business briefings (two times)	Corporate communications
	● Individual meetings with institutional investors and analysts (about 80 times)	
	● IR tools (e.g., Integrated Report, Sustainability website, Shareholder newsletter)	
Employees	● Online information for shareholders and investors	Corporate communications Diversity Health Management Department Corporate Ethics Department All departments
	● Global Group internal newsletter (four times), Intranet	
	● President town hall meeting with employees (10 days, total of 38 times)	
	● Global survey (one time)	
	● Employee health fair event (10 times)	
	● Internal whistleblower system (six cases)	
	● Improvement proposal meetings (31 times)	
● Disaster prevention, BCP and other emergency drills (15 times)		
Regional communities	● Factory tours, work experience (11 times), workshops (30 times, 560 people)	Business sites
	● Cleaning activities	
	● Participation in projects to protect biodiversity	
Suppliers	● Spread awareness of sustainable procurement basic policies	Procurement Division
	● Sustainable procurement surveys	
NGOs, NPOs, government agencies	● Various donation activities	Business sites

Compliance

Based on Public Entity and Consistent Integrity—the fundamental spirit of Nisshinbo’s Corporate Philosophy—the Group’s mission is to act with fairness and integrity to contribute to society through its business activities. To achieve our mission, we have formulated Business Conduct Guidelines in order to win trust from the public through fair and honest business activities.

Corporate Ethics Committee and Corporate Ethics Reporting System

Nisshinbo has established a Corporate Ethics Committee to handle all compliance matters across the Group.

Nisshinbo has also established a Corporate Ethics Reporting System to rapidly identify and prevent any reoccurrence of suspected or actual legal violations. Group employees and external parties can submit reports to the system. Group employees can report their concerns internally to the Corporate Ethics Committee or directly to an outside corporate attorney. All information provided by whistleblowers is treated in the strictest of confidence, and every effort is made to protect whistleblowers from unfair treatment. The Corporate Ethics Committee takes appropriate steps to deal with issues raised by reports.

Compliance Education

To ensure fair and honest business practices, the Nisshinbo Group conducts compliance training for different employee levels and work sites and provides training to employees prior to overseas assignments.

From the fiscal year ended March 2017, we added annual compliance training for manager-grade employees in the Group to our list of KPIs in order to raise awareness about compliance. We also created a compliance training manual for managers in both Japanese and English to be used in training sessions across the Group.

In addition, compliance training is provided at each subsidiary in accordance with conditions in each country, region and industry.

Initiatives to Prevent Corruption

In recent years, countries worldwide have been reinforcing regulatory systems and stepping up efforts to prevent and expose bribery and corruption. Nisshinbo has created a Corruption Prevention Guidebook, which includes information about responding to related regulations overseas. The guidebook is distributed to all subsidiaries, including overseas Group companies. In addition to information about Article 18 of Japan’s Unfair Competition Prevention Act (prohibition of provision of illicit profit, etc., to foreign public officials, etc.), the guidebook provides information about international treaties and laws designed to prevent corruption, such as the United Nations Convention Against Corruption (UNCAC), OECD treaties on preventing corruption of overseas public officials in international transactions, the U.S. Foreign Corrupt Practices Act (FCPA) and its related guidelines, and the U.K. Bribery Act. Nisshinbo updates the guidebook as necessary and uses it as part of its corruption prevention measures in the Group.

Ensuring Business Confidentiality

Nisshinbo signs non-disclosure agreements with suppliers to prevent any leak of confidential information such as intellectual property, technologies and expertise disclosed during the product design and development stage and across all points of the supply chain.

We also conduct annual internal audits to check whether the Group’s trade secrets are being managed appropriately.

Sustainable Procurement Basic Policy

Nisshinbo has formulated the Nisshinbo Group Sustainable Procurement Basic Policy, clarifying its stance on seven specific areas: legal compliance, fair trade, information security, environmental protection, human rights, health and safety, and quality assurance.

1. To strictly observe all legal obligations and social norms
2. To always pursue business in a sound and fair manner
3. To properly manage all information
4. To give due consideration to protection of the environment
5. To respect all basic human rights
6. To strive for a secure and healthy living and working environment
7. To aim to ensure the quality and safety of all products and services

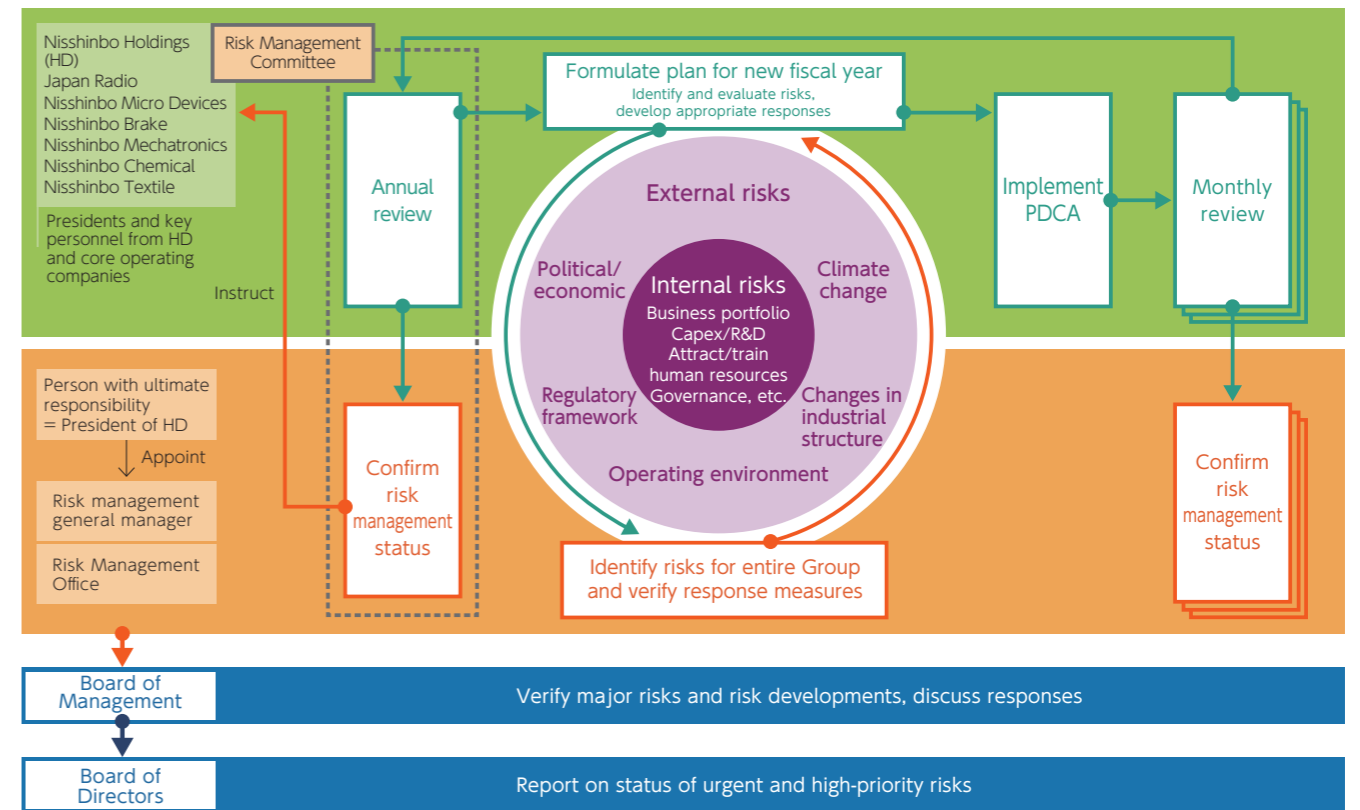
We are working to extend our sustainable initiatives across the entire supply chain by asking suppliers to adhere to our principles in those seven areas.

Risk Management

Risk Management System

The Nisshinbo Group has established a risk management system, shown in the diagram below, to appropriately address business risks and minimize any losses associated with those risks.

Risk Management Structure



Note: HD means Nisshinbo Holdings Inc.

Risk Management Structure

The Nisshinbo Group established the “Nisshinbo Group Crisis Management Regulations” to respond promptly in the event of an earthquake, fire or other emergency.

Furthermore, to prepare for large-scale earthquakes and other emergencies from the perspective of business continuity, the Group conducts annual information communication training necessary for confirming the safety of employees and quickly recovering from disasters. A “safety confirmation and emergency contact system” was developed and introduced to confirm safety quickly and reliably.

Disaster Prevention System

Self-defense fire brigades have been established at Nisshinbo Holdings and major Nisshinbo Group companies, with inspections of fire protection equipment and firehose training conducted regularly.

We have also conducted annual disaster prevention inspections for more than 50 years to strengthen response capabilities immediately after a disaster and improve our initial response system. Furthermore, we are deploying business continuity

management (BCM) across the entire Group, organically linking initial response systems with business continuity planning (BCP).

Information System

The Group is promoting the transition of its major systems to the cloud with the aim of preparing for large earthquakes and other disasters, as well as realizing safe operations 24 hours a day, 365 days a year.

Personal Information Protection

To properly manage important information pertaining to customers, employees and others, Nisshinbo conducts regular internal audits annually in accordance with internal rules and regulations in an effort to realize continuous improvements. In conjunction with the launch of Japan’s My Number system, we also formulated and enforced Rules for Handling Specified Personal Information.

In addition, the Nisshinbo Privacy Policy is published on our corporate website.

Please see Key Risks and Opportunities on page 29.

Board of Directors, Audit & Supervisory Board Members and Managing Officers

(As of March. 30, 2023)

Board of Directors



President and Representative Director

Masahiro Murakami

Number of Company's shares held: 75,050 shares
Board of Directors meeting participation:
Attended 16/16 meetings

Apr. 1982: Joined the Company
Apr. 2008: Managing Officer, Senior Manager of Corporate Governance Department of Corporate Strategy Center, Senior Manager of Human Resources & Administration Service Department of Business Support Center (served concurrently) and General Manager of Property Management Department of the Company (served concurrently)
Apr. 2009: Deputy Chief of Business Support Center (served concurrently), Senior Manager of Corporate Strategy Department of Corporate Strategy Center (served concurrently) and Senior Manager of Finance, Accounting & IT Service Department of Business Support Center of the Company (served concurrently)
June 2010: Director and Chief of Business Support Center of the Company (served concurrently)
Jan. 2012: Responsible for Property Management Department of the Company
June 2012: Director, Executive Managing Officer and Deputy Chief of Corporate Strategy Center of the Company (served concurrently)
June 2014: Chief of Corporate Strategy Center of the Company (served concurrently)
June 2015: Director and Senior Executive Managing Officer of the Company
June 2016: Representative Director and Senior Executive Managing Officer of the Company
June 2018: Vice President and Representative Director of the Company
Mar. 2019: President and Representative Director of the Company (to the present)



Representative Director and Senior Executive Managing Officer

Takeshi Koarai

Number of Company's shares held: 7,938 shares
Board of Directors meeting participation:
Attended 16/16 meetings

Apr. 1982: Joined Japan Radio Co., Ltd.
Apr. 2010: General Manager of Technical Development Department of Research and Development Headquarters of Japan Radio Co., Ltd.
Apr. 2011: Director of Laboratory of Research and Development Headquarters of Japan Radio Co., Ltd.
Apr. 2012: Executive Officer and General Manager of Research and Development Headquarters of Japan Radio Co., Ltd.
June 2012: Executive Officer and Director of Laboratory of Japan Radio Co., Ltd.
Apr. 2017: Executive Officer and Deputy General Manager of Technical Headquarters of Japan Radio Co., Ltd.
June 2017: Director, Executive Officer, General Manager of Technical Headquarters, and Executive of Research and Development of Japan Radio Co., Ltd.
Apr. 2019: Director, Executive Officer, General Manager of Technical Development Headquarters, and Executive of Business Creation of Japan Radio Co., Ltd.
Mar. 2020: President and Representative Director of Japan Radio Co., Ltd.
Mar. 2021: Director and Senior Executive Managing Officer of the Company
Mar. 2022: Representative Director and Senior Executive Managing Officer of the Company (served concurrently, to the present)



Director and Executive Managing Officer

Satoru Taji

Number of Company's shares held: 4,545 shares
Board of Directors meeting participation:
Attended 13/13* meetings

Apr. 1981: Joined Ricoh Company, Ltd.
Apr. 2008: General Manager, Imaging System LSI Development Center, Ricoh Electronic Devices Co., Ltd.
Apr. 2014: Ricoh Group Director and Deputy General Manager of Electronic Device Division
Oct. 2014: Director, Ricoh Electronic Devices Co., Ltd.
Apr. 2015: Group Executive Officer, Ricoh Company, Ltd.
President, Ricoh Electronic Devices Co., Ltd.
Jun. 2018: Director, New Japan Radio Co., Ltd.
Mar. 2021: Managing Officer of the Company
Jan. 2022: Executive Managing Officer of the Company
President, Nisshinbo Micro Devices Inc. (to the present)
Mar. 2022: Director and Executive Managing Officer of the Company (served concurrently, to the present)

*Mar. 2022 Since appointment as director



Director and Executive Managing Officer

Kazunori Baba

Chief of Corporate Strategy Center
Number of Company's shares held: 25,680 shares
Board of Directors meeting participation:
Attended 16/16 meetings

Apr. 1983: Joined the Company
Apr. 2009: Managing Officer, Senior Manager of Corporate Governance Department of Corporate Strategy Center and Senior Manager of Human Resources & Administration Service Department of Business Support Center of the Company (served concurrently)
June 2013: Deputy Chief of Business Support Center of the Company
June 2014: Director and Managing Officer of the Company
President and Representative Director of Nisshinbo Textile Inc.
June 2016: Executive Managing Officer of the Company
Mar. 2019: Director and Executive Managing Officer (to the present), and Chief of Corporate Strategy Center of the Company (to the present)



Director (Outside Director)

Naoko Tani

Number of Company's shares held: 0 shares
Board of Directors meeting participation:
Attended 16/16 meetings

Apr. 1978: Joined Suntory Limited
June 1980: Joined Marcom International Inc.
Sept. 1985: Joined SEMI Japan
Apr. 2001: Joined Semiconductor Portal, Inc.
Director of Semiconductor Portal, Inc.
Nov. 2002: Representative Director of Semiconductor Portal, Inc.
June 2007: President and Representative Director of Semiconductor Portal, Inc. (to the present)
Mar. 2021: Outside Director of the Company (to the present)



Director (Outside Director)

Richard Dyck

Number of Company's shares held: 0 shares

June 1975: Assistant Professor at Harvard University
Sept. 1976: Assistant Professor at The Ohio State University
Dec. 1976: Chief of Tokyo Representative Office of Government of U.S. State of Ohio
Aug. 1978: North Pacific Sales Manager of Special Material Business Unit of General Electric Japan Ltd.
Dec. 1982: Representative Director of Teradyne K.K.
Sept. 1988: Vice President of Teradyne, Inc.
Mar. 1999: Representative Director of TCS Japan K.K.
Sept. 2008: Chairman and Director of Alphana Technology Co., Ltd.
Feb. 2009: Representative Director of TGK K.K. (to the present)
Jan. 2010: Director of Mattson Technology, Inc.
Mar. 2013: Representative Director of Levitronix Japan K.K.
Mar. 2023: Outside Director of the Company (to the present)



Director (Outside Director)

Yuki Ikuno

Number of Company's shares held: 0 shares

Apr. 1986: Joined Salomon Brothers Asia Limited
Sept. 1994: Joined Bankers Trust Asia Limited
Jan. 1996: Managing Director, Bankers Trust Asia Limited
July 1999: Joined Deutsche Securities Limited (currently Deutsche Securities Inc.)
Managing Director, Fixed Income Division, Deutsche Securities Limited
May 2007: Joined UBS Securities Japan Ltd. (currently UBS Securities Japan Co., Ltd.)
Managing Director, Investment Banking Division, UBS Securities Japan Ltd.
May 2020: Hitotsubashi University Business School, School of International Corporate Strategy
Visiting Lecturer
Nov. 2022: Hitotsubashi University Business School, School of International Corporate Strategy
Visiting Associate Professor (to the present)
Mar. 2023: Outside Director of the Company (to the present)



Director and Managing Officer

Yasuji Ishii

Deputy Chief of Corporate Strategy Center
Number of Company's shares held: 16,865 shares
Board of Directors meeting participation:
Attended 16/16 meetings

Apr. 1988: Joined the Company
Apr. 2011: Managing Officer and General Manager of Production of Friction Materials Division of Nisshinbo Brake Inc.
Apr. 2013: Executive Managing Officer, Senior Manager of Strategy Office (served concurrently), and General Manager of Product Division (served concurrently) and Engineering Division of Nisshinbo Brake Inc. (served concurrently)
June 2013: Director and Executive Managing Officer of Nisshinbo Brake Inc.
Jan. 2015: Director, Executive Managing Officer and Senior Manager of Brake R&D Division of Nisshinbo Brake Inc.
Apr. 2015: Vice President and Director of Nisshinbo Brake Inc.
June 2015: Managing Officer of the Company
June 2017: President and Representative Director of Nisshinbo Brake Inc. (to the present)
Mar. 2019: Director and Managing Officer of the Company (served concurrently, to the present)
Mar. 2023: Chairman and Director of Nisshinbo Brake Inc. (served concurrently, to the present)
Deputy Chief of Corporate Strategy Center of the Company (to the present)



Director and Managing Officer

Shuji Tsukatani

Senior Manager of Finance, Accounting & IT Service Department of Corporate Strategy Center
Number of Company's shares held: 18,065 shares
Board of Directors meeting participation:
Attended 16/16 meetings

Apr. 1986: Joined the Company
Jan. 2014: Senior Manager of Finance and Accounting Group of Finance, Accounting & IT Service Department of Business Support Center of the Company
June 2015: Senior Manager of Finance, Accounting & IT Service Department of Business Support Center of the Company
Apr. 2018: Managing Officer and Senior Manager of Finance, Accounting & IT Service Department of Business Support Center of the Company
Mar. 2020: Director and Managing Officer of the Company (to the present)
Apr. 2020: Senior Manager of Finance, Accounting & IT Service Department of Corporate Strategy Center of the Company (to the present)



Director (Outside Director)

Keiji Taga

Number of Company's shares held: 0 shares
Board of Directors meeting participation:
Attended 15/16 meetings

Apr. 1973: Joined Japan Development Bank (currently Development Bank of Japan Inc.)
Oct. 1999: General Manager of Urban Development Department of Development Bank of Japan Inc.
June 2002: General Manager of General Affairs Department of Development Bank of Japan Inc.
June 2004: Executive Director of Development Bank of Japan Inc.
Oct. 2008: Director and Executive Managing Officer of Development Bank of Japan Inc.
June 2009: Vice President and Representative Director of Tokyo Ryutsu Center Inc.
President and Representative Director of TRC Service Co., Ltd.
June 2013: President and Representative Director of Tokyo Ryutsu Center Inc.
Director of TRC Service Co., Ltd.
June 2017: Chairman and Director of DBJ Asset Management Co., Ltd.
June 2018: Adviser of DBJ Asset Management Co., Ltd.
Mar. 2019: Outside Director of the Company (to the present)



Director (Outside Director)

Hiroaki Yagi

Number of Company's shares held: 0 shares
Board of Directors meeting participation:
Attended 16/16 meetings

Apr. 1981: Appointed as Public Prosecutor
Jan. 2007: Special Investigation Director of Tokyo District Court Public Prosecutors Office
Dec. 2015: Chief Prosecutor of Tokyo District Court Public Prosecutors Office
Sept. 2016: Deputy Prosecutor-General of Supreme Public Prosecutors Office
July 2018: Superintending Prosecutor of Tokyo High Public Prosecutors Office
Mar. 2019: Registered as attorney-at-law (to the present)
June 2019: President of Japan International Training Cooperation Organization (JITCO) (currently Japan International Trainee & Skilled Worker Cooperation Organization) (to the present)
Mar. 2020: Outside Director of the Company (to the present)



Audit & Supervisory Board Member

Toshihiro Kijima

Number of Company's shares held: 16,730 shares
Board of Directors meeting participation:
Attended 16/16 meetings
Audit & Supervisory Board meeting participation: Attended 15/15 meetings

Apr. 1979: Joined the Company
Apr. 2007: Managing Officer and Deputy General Manager of Paper Products Division of the Company
Apr. 2009: Director, Managing Officer, General Manager of Strategic Planning Department, General Manager of Specialty Paper Division of Nisshinbo Paper Products Inc.
June 2010: Managing Officer and Deputy General Manager of Business Development Division of the Company, Director and Senior Executive Managing Officer of Nisshinbo Chemical Inc.
June 2012: Vice President, Director of Nisshinbo Chemical Inc.
June 2013: Director of the Company, General Manager of Business Development Division of the Company, President and Representative Director of Nisshinbo Chemical Inc.
June 2016: Executive Managing Officer of the Company
Mar. 2019: Standing Auditor & Supervisory Board Member (to the present)



Audit & Supervisory Board Member

Kenichi Morita

Number of Company's shares held: 15,245 shares

Mar. 1990: Joined New Japan Radio Co., Ltd. (currently Nisshinbo Micro Devices Inc.)
Apr. 2005: General Manager of Accounting Department, General Affairs Division of New Japan Radio Co., Ltd.
Apr. 2011: Managing Officer and General Manager of Corporate Planning Department, General Administration Headquarters of New Japan Radio Co., Ltd.
June 2012: Head of General Administration Headquarters of New Japan Radio Co., Ltd.
Apr. 2014: Executive Managing Officer and Deputy General Manager of Electronic Device Division of New Japan Radio Co., Ltd.
June 2015: Director, Managing Officer and Deputy General Manager of Electronic Device Division of New Japan Radio Co., Ltd.
Apr. 2016: General Manager of General Administration Headquarters of New Japan Radio Co., Ltd.
Apr. 2018: Director, Executive Managing Officer and General Manager of Business Divisions of New Japan Radio Co., Ltd.
Sept. 2018: Representative Director and President of New Japan Radio Co., Ltd.
Mar. 2021: Managing Officer of the Company
Jan. 2022: Representative Director, Senior Executive Managing Officer and General Manager of Corporate Administration Headquarters of Nisshinbo Micro Devices Inc.
Mar. 2023: Standing Auditor & Supervisory Board Member (to the present)



Outside Audit & Supervisory Board Member

Atsushi Yamashita

Number of Company's shares held: 0 shares
Board of Directors meeting participation:
Attended 16/16 meetings
Audit & Supervisory Board meeting participation: Attended 15/15 meetings

Apr. 1988: Registered as an attorney-at-law (to the present), joined Tanaka & Takahashi Law Office
May 2001: Joined Clifford Chance Law Office
May 2011: Joined K&L Gates LLP
Oct. 2014: Joined Sonderhoff & Einsel Law and Patent Office (to the present)
Mar. 2019: Outside Audit & Supervisory Board member (to the present)



Outside Audit & Supervisory Board Member

Noriko Ichiba

Number of Company's shares held: 0 shares

Oct. 1992: Joined Deloitte Touche Tohmatsu International (currently Deloitte Touche Tohmatsu LLC)
July 1997: Joined Tadao Kato Accounting Office
Aug. 1999: Joined Taiyo Audit Corporation (currently Grand Thornton Taiyo LLC)
May 2000: Registered as Certified Public Accountant (to the present)
Nov. 2002: Established Ichiba Certified Public Accountant Office
Representative of the Office (to the present)
Aug. 2008: Registered as Certified Public Tax Accountant (to the present)
Oct. 2008: Established UPRISE Certified Tax Accountant's Co.
Representative Partner of UPRISE Certified Tax Accountant's Co. (to the present)
July 2022: Supervisory Director of Ichigo Office REIT Investment Corporation (to the present)
Mar. 2023: Outside Audit & Supervisory Board member (to the present)

Audit & Supervisory Board Members

Expertise and Experience Required of Nisshinbo Directors (Skill Matrix)

Selecting the skills required for directors to supervise and guide various businesses from a variety of expert perspectives, and incorporating diversity into the Board of Directors enables Nisshinbo to realize highly effective governance.

Name	Skill*						
	Management experience	International experience and knowledge	Business and industry knowledge	ESG	Technology and innovation	Legal and risk management	Finance and accounting
Masahiro Murakami	●		●	●			●
Takeshi Koarai	●		●		●		
Satoru Taji	●		●		●		
Kazunori Baba	●		●	●		●	
Yasuji Ishii	●	●	●		●		
Shuji Tsukatani	●	●	●				●
Keiji Taga	●					●	●
Hiroaki Yagi				●		●	
Naoko Tani	●	●	●				
Richard Dyck	●	●	●		●		
Yuki Ikuno		●				●	●

*Up to four major skills are listed for each Board member. Not all skills are represented.

Managing Officers

President
Masahiro Murakami*



Senior Executive Managing Officer
Takeshi Koarai*

Executive Managing Officers
Satoru Taji*
Kazunori Baba*

Managing Officers
Yasuji Ishii*
Shuji Tsukatani*

*Concurrent board member

Executive Managing Officer
Makoto Sugiyama
Senior Manager of Sustainability Development Department and Human Resources and Administration Service Department, Corporate Strategy Center



Managing Officer
Toshihiko Masuda
President, Nisshinbo Mechatronics Inc.



Managing Officer
Kazuo Saito
Managing Director, Nisshinbo Singapore Pte. Ltd.



Managing Officer
Kaoru Murata
President, Nisshinbo Textile Inc.



Managing Officer
Ikuo Takahashi
President, Nisshinbo Chemical Inc.



Managing Officer
Nobuyuki Adachi
General Manager, Business Development Division



Managing Officer
Makoto Ashida
General Manager of Legal Affairs Group, Human Resources and Administration Service Department, Corporate Strategy Center

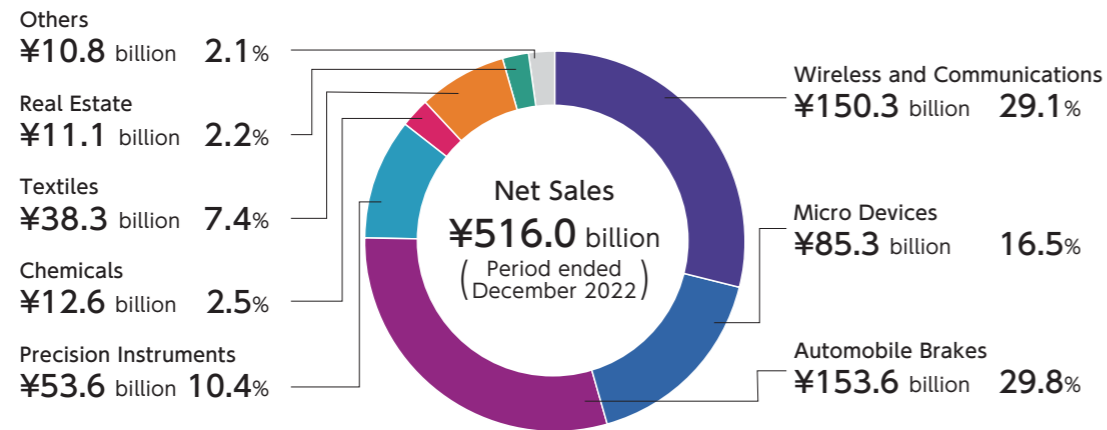


Managing Officer
Yasuki Hattori
President, Nisshinbo Brake Inc.

At a Glance

The Nisshinbo Group is made up of seven distinct businesses—Wireless and Communications, Micro Devices, Automobile Brakes, Precision Instruments, Chemicals, Textiles and Real Estate. Nisshinbo supplies high-value-added products that meet customer needs, driven by innovation born out of the business collaboration and portfolio reorganization that has kept the Group aligned with changing needs.

Net Sales Composition by Segment



Wireless and Communications P.53

Main business areas



- Marine systems ▶ Marine radar and communications equipment
- Solutions and specialized equipment ▶ Disaster prevention systems and weather radar
- ICT and mechatronics ▶ Power supplies, large-format copiers
- Medical equipment ▶ Probes for ultrasound diagnostic equipment, oscillators for catheters
- Mobility ▶ GPS receivers, ITS equipment for vehicles

Engages in the solutions business (including disaster prevention systems and weather radar), as well as marine systems and mobility businesses.

Micro Devices P.56

Main business areas



Working to expand sales of analog semiconductors and other electronic devices, supported by microelectronics technologies.

Semiconductor devices, SAW filters and power management ICs, etc.

Chemicals P.63

Main business areas



Manufactures a range of highly promising products in the environmental and energy fields, such as Carbodilite, a modifier for biodegradable plastics and waterborne resins, and bipolar plates for fuel cells.

- Carbodilite high-performance chemical additive
- Thermal insulation products
- Bipolar plates for fuel cells
- Fine carbon products

Automobile Brakes P.59

Main business areas



The Nisshinbo Group is the world's leading maker of brake friction materials by market share; now expanding its presence as a true global supplier using its network covering key markets worldwide.

Friction materials
▶ Disc pads and brake linings

Textiles P.65

Main business areas



Mainstay business is products made from natural cotton; supplies high-quality "Made by Nisshinbo" dress shirts, uniforms and other products to markets worldwide.

- Shirts
▶ Dress shirts, casual shirts and fabric
- Textiles
▶ Uniform fabric and casual fabric

Precision Instruments P.61

Main business areas



Manufactures molding products for home appliance and automotive applications and supplies processed precision automotive parts and customized production equipment for customers worldwide, primarily in Asia.

- Molding products
- Precision parts processing including parts for electronic brake systems (EBS)
- Customized production equipment

Real Estate P.67

Main business areas



Procures funds to support the Nisshinbo Group's growth strategy by effectively utilizing idle plant sites and other real estate assets arising from business restructuring.

- Sales
▶ Housing lots
- Leasing
▶ ARIO Nishi Arai and other properties

Overview of Business Segments

Wireless and Communications

Japan Radio Co., Ltd.

The Wireless and Communications business supplies communication and navigation equipment with world-leading reliability to users in the shipping sector. It also provides various disaster prevention systems, such as dam and river management systems and weather forecasting systems. In addition, JRC Mobility Inc., which was established in 2018 to develop the Group's business in the mobility field, provides ITS* products and other existing automotive and commercial wireless products, and is pushing ahead with new products that will help realize autonomous driving.

*Intelligent Transport Systems: Systems that use data processing technology to solve traffic issues such as accidents and congestion

Related SDGs



▶ P.18 Key Business Growth Strategy: Wireless and Communications



Business Results and Strategy

Summary of Financial Results for 2022

In 2022, the Wireless and Communications business reported sales of ¥150,393 million (down 1.8% year on year after reclassification), and segment profit of ¥4,821 million (down 34.1% year on year after reclassification).

In solutions and specialized equipment, despite higher sales of airport control simulators, wireless telephone equipment, and other aerospace and meteorological systems, sales declined due to fewer large projects for road information systems and water and river information systems in line with the tight supply and demand for electronic components, as well as subdued demand for compliance and upgrades associated with new spurious standards for wireless devices. In addition to the impact of lower sales, higher expenses related to personnel and experimentation and research resulted in significantly lower profit than in fiscal 2021.

In marine systems, sales and profit increased due to strong sales of equipment for new-build vessels, European workboats, and other small and medium-sized vessels, as well as land-based radio equipment for fisheries and other systems.

In ICT and mechatronics, despite flagging demand for payment terminals and other ICT products, sales and profit remained on par with fiscal 2021 due to higher demand for office equipment overseas.

In medical equipment, although sales of general-purpose ultrasound diagnostic equipment and analysis equipment declined in line with tight electronic component supplies and demand, changes to the sales mix and higher sales of transducers and

security equipment combined with efforts to contain costs resulted in lower sales but higher profit.

In mobility, although overseas commercial wireless sales remained strong, sales and profit declined due to lower automotive intelligent transport system (ITS) sales resulting from customer production adjustments.

Note: In year-on-year performance comparisons, 2021 performance uses converted values based on new profit recognition standards.

Medium- to Long-Term Business Strategy

In the Wireless and Communications business, we are making efforts to strengthen profitability through business transformations. We will carry out business portfolio reforms, thoroughly identify and dispose of low-profit businesses, and shift toward high-profit businesses, while implementing cost structure reforms and creating innovation and business transformations through the use of digital technologies. Furthermore, we will take on the challenge of collaborations, co-creation, demonstration experiments and other initiatives with business partners through the proactive use of data and DX while aiming to provide solutions that are truly valuable to customers.

Marine Systems

In terms of a global growth strategy in marine systems, we will improve profitability in the commercial vessels segment, increase market share in the small and medium-sized vessels segment, launch sales of system equipment leading to autonomous vessel

operation, and focus efforts on the promotion of Smart Ship content development, while expanding sales of offshore wind power generation equipment-related solutions and developing other marine systems businesses.

We will provide value-added onboard equipment that contributes to safe, secure and efficient vessel operations, jointly develop content realizing Smart Ship services, and provide functionality and systems for autonomous and automated vessel operations, which will become even more necessary in the future.

J-Marine Cloud, which provides marine data services, is just one example of these efforts. J-Marine Cloud acquired "Innovation Endorsement" certification from the Nippon Kaiji Kyokai (ClassNK) as an innovative initiative contributing to maritime DX, and we expect the use of this service to expand in the market going forward. Furthermore, to promote advancements in marine mobility, Nisshinbo also participates in the University of Tokyo social collaboration course "Maritime and Ocean Digital Engineering." This initiative aims to ensure productivity and improve reliability in the design and development process of increasingly sophisticated vessels and land-based support systems.

Additionally, in transitioning to a stable profit structure, we aim to generate profits by improving operational efficiency through digital technologies and enhanced sales and service capabilities.

Solutions and Specialized Equipment

To steadily capture demand in existing businesses and expand our business domain in government offices, private demand and overseas business fields, we aim to enter adjacent fields and markets through alliances and M&A. In aiming for business domain expansion, based on the Five-Year Acceleration Measures for the Fundamental Plan for National Resilience, we will utilize ICT and IoT for river basin management measures and aging infrastructure and facilities countermeasures that include strengthening observation systems and improving the accuracy of forecasts for torrential rains and other weather events. We will utilize robotics and drone technologies; make efforts to enhance the provision, collection and communication of evacuation-related information through smart devices; enter the infrastructure maintenance business through the promotion of DX business; and establish an information services business utilizing ICT and IoT. Furthermore, we will focus efforts on effectively expanding business and enhancing profitability by strengthening cooperation with Group companies and partner companies while attempting to increase efficiency through the digitalization of all business process operations.

ICT and Mechatronics

In the ICT business field, we aim to expand business in new layers and new domains by developing communication equipment products for next-generation smart meters and IoT environment monitoring systems. In the mechatronics business field, we aim to acquire new business opportunities by promoting the commercialization of smart factories and digging deeper into our customer base. In the components business field, we will focus on solidifying the foundation

for global market share expansion by accelerating overseas development that includes the cultivation of overseas customers.

To enhance profitability, we are promoting business portfolio reforms based on three policies: allocating resources to highly profitable business areas, taking on the challenge of new business layers and increasing the ratio of independently developed products. We aim to generate profits through cost structure reforms and efforts to enhance operational efficiency through the introduction of a new backbone system, DX at all production bases, labor-saving and the promotion of supply chain and logistics reforms, as well as production equipment upgrades to increase productivity.

Medical Equipment

In medical equipment, we will take on the challenge of developing unique, needs-oriented products and create a corporate structure with potential for growth and profitability through enhanced marketing capabilities. In terms of growth strategy businesses, in the field of portable ultrasound diagnostic equipment, we are focusing efforts on improving our ability to develop original products, including the expansion of Handy Echo system offerings, while developing business through independently designed products. In the fields of prevention, prognosis and medical systems, we are expanding the digital healthcare business by enhancing the functionality of systems, including those used to monitor people in need of nursing care. Furthermore, in our mainstay medical analysis equipment business, we are focusing efforts on creating business opportunities through the proactive promotion of ODM and the ongoing provision of high-value-added products.

5G and LTE Initiatives

In Japan, business utilizing data based on IoT infrastructure is expanding substantially, while the use of local 5G is also expected to grow significantly. We will further expand business by leveraging experiment verifications using Japan Radio Co., Ltd. Nagano Plant local 5G radio stations, joint research with customers and know-how acquired through onsite demonstration experiments to provide total solutions creating high customer value leveraging our strength in infrastructure wireless technologies.

Overseas, we are developing private LTE mainly in the public safety domain focused on Europe and the United States. Going forward, we will strive to expand this business while developing measures aimed at increasing customers involving the use of overseas and other bases with a focus on 5G business developments. We will further expand business by providing sophisticated and optimal solutions that include LTE-Box and high-quality video call applications that meet customer needs.

Sustainability Initiatives

Provision of Disaster Prevention Solutions

In the Wireless and Communications business, Nisshinbo contributes to disaster prevention and mitigation through the provision of weather radar, management systems for dams and rivers, and other solutions in response to increasingly severe disasters caused by climate change. We will continue leveraging our extensive track record and proprietary wireless and communications technologies to become a true solutions vendor that provides security and safety to society.

Net Sales	(millions of yen)	
	21.12 (reclassified)	22.12
Marine systems	33,159	35,844
Solutions and specialized equipment	70,122	68,989
ICT and mechatronics	23,084	23,000
Medical equipment	7,645	6,552
Other businesses	4,615	4,286
JRC Mobility	17,528	14,629
Eliminations, retirement benefits and other adjustments	(3,023)	(2,908)
Total	153,130	150,393

Segment Profit	(millions of yen)	
	21.12 (reclassified)	22.12
Marine systems	797	1,633
Solutions and specialized equipment	5,053	3,227
ICT and mechatronics	149	260
Medical equipment	103	354
Other businesses	793	98
JRC Mobility	587	(593)
Eliminations, retirement benefits and other adjustments	(168)	(158)
Total	7,314	4,821

Overview of Business Segments

Micro Devices

Nisshinbo Micro Devices Inc.

In the Micro Devices business, Nisshinbo has created new value in audio equipment, automotive and industrial devices, ICT and other fields, drawing on its competitive advantages in analog semiconductors and microwave technologies. In January 2022, a merger was concluded between the former New Japan Radio Co., Ltd., and the former Ricoh Electronic Devices Co., Ltd., resulting in the creation of Nisshinbo Micro Devices Inc. Nisshinbo will combine the technologies held by both companies to create new, high-value-added products and solutions businesses in the areas of automotive CASE, industrial equipment and healthcare.

Related SDGs



▶ P.22 Key Business Growth Strategy: Micro Devices

Business Results and Strategy

Summary of Financial Results for 2022

In 2022, the Micro Devices business reported sales of ¥85,329 million (up 11.2% year on year after reclassification) and segment profit of ¥8,947 million (up 113.4% year on year after reclassification).

The global business environment remained uncertain with soaring resource prices due to the situation in Ukraine, rising inflationary pressures, and sharp exchange rate fluctuations, while supply chain disruptions resulting from China's zero-COVID policy caused a widespread slowdown in market conditions.

As a result, in the mainstay electronic device business, the end of pandemic-related stay-at-home demand and a sluggish consumer market caused a slowdown in sales of smartphones, PCs, white goods and other consumer products. At the same time, demand remained high for automotive and industrial equipment products, especially in the U.S. and Chinese markets, due to global semiconductor shortages. Sales of products for EV power supplies and sensors, semiconductor manufacturing equipment, battery-related and other production equipment expanded.

In the microwave business, although procurement activities were affected by delays in the provision of electronic components and longer lead times, recovery efforts including the buildup of parts inventories, the securing of alternative procurement routes and the shortening of construction schedules, as well as a loosening of tight supply and demand conditions, led to a recovery in production from the second half of the fiscal year. In electron tube and radar-related products, demand for replacements of vessel maintenance parts and OEM sales grew steadily, as satellite communication-related product sales to South Korea and North America increased substantially.

Although both businesses were affected by surging raw material and energy costs, the impact of the weaker yen combined with the steady progress of efforts to pass on costs resulted in significantly higher operating income.

Note: In year-on-year performance comparisons, 2021 performance uses converted values based on new profit recognition standards.

Medium- to Long-Term Business Strategy

Under the themes of promoting competitive electronic device businesses and expanding the microwave business and profit generation, Nisshinbo Micro Devices Inc., will strengthen existing base businesses while attempting to develop higher value-added signal processing and power module products. Furthermore, we will offer new analog solutions by increasing the quality of analog semiconductors, microcontrollers and other hardware, as well as the software and AI that control them, as we pursue the provision of value to customers.

Merger Synergies

In the first year of the merger, we are making steady progress in reaching new customers through cross-selling. In terms of development, the technological strengths possessed by both companies have created an efficient development flow facilitating the steady development of products providing new customer value. Through personnel exchanges between the two companies' production sites, the sharing and implementation of improvement case studies has also effectively led to business performance contributions from the perspective of production. Furthermore, we are promoting a shared definition of the "Quality NISD" brand throughout the Company and the creation of a system facilitating quality education, QMS and customer support that integrates quality know-how accumulated by both companies up to now.

2023 Semiconductor Market Outlook

The semiconductor market as a whole is expected to slow down in 2023. Although demand for analog semiconductors, which account for the majority of our electronic devices, is expected to remain relatively firm, we will take measures to anticipate changes in demand, eliminate order backlogs caused by the inability of production to keep pace with demand, expand new sales and adjust selling prices.

	Net Sales (millions of yen)	
	21.12 (reclassified)	22.12
Nisshinbo Micro Devices (former New Japan Radio)	50,724	86,543
(former Ricoh Electronic Devices)	27,748	—
Eliminations, goodwill amortization, etc.	(1,713)	(1,214)
Total	76,759	85,329

	Segment Profit (millions of yen)	
	21.12 (reclassified)	22.12
Nisshinbo Micro Devices (former New Japan Radio)	2,799	9,189
(former Ricoh Electronic Devices)	1,665	—
Eliminations, goodwill amortization, etc.	(271)	(242)
Total	4,193	8,947

Electronic Devices

In electronic device products, we will focus on signal processing (SP) and energy management (EM).

The signal processing IC includes sensor product lines that will expand markets for operational amplifiers and IoT. We will attempt to combine signal processing ICs with microwave sensors while aiming to provide modules and even solutions from conventional single IC provision. With EM, a power control system IC required for a wide range of devices, we aim to develop high-value-added power module products such as PMIC and IPM for power supply control system ICs amid rising demands for low power consumption and highly precise functions. Targeting a wide range of markets, including automotive, industrial equipment and consumer products, we will strengthen the planning and development of customer-oriented, high-performance ASIC and ASSP products for automotive and industrial equipment applications. In consumer products, we provide products including touchless sensors that facilitate the societal changes necessitated by COVID-19. We will also accelerate planning and development to expand the market for electronic stethoscopes and other products in the healthcare field. In this way, we will establish a stable business portfolio through the well-balanced expansion of products in these four markets.

To improve profitability, we will reduce production outsourcing costs. In the wafer process (pre-process), we will mass-produce 0.18μm CMOS achieving miniaturization with a high withstand voltage process at the Yashiro Plant (Hyogo Prefecture) and going forward, promote the in-house production of high value-added products. In the assembly process (post-process), we will proceed with in-house testing and assembly of products manufactured at subsidiaries in Saga Prefecture and Thailand, while expanding the use of low-cost outsourced semiconductor assembly and testing (OSAT) overseas. Furthermore,

we will strengthen the production and sales matching system through fixed order manufacturing management, reduce inventories and operate production management systems efficiently.

Microwave Products

In electron tubes and radar components, we will attempt to increase profitability by improving production efficiency. We will also make efforts to increase sales by creating an increased production system for electron guns, which are in high demand. In satellite communication components, we will strive for stable production of transmitter and receiver products for VSAT (small ground station) system terminals, which are performing well. Furthermore, we will upgrade existing product models, develop high-power transmitters for base stations anticipated to have high added value and develop new markets.

In microwave sensors, we will launch sales of millimeter-wave band (60 GHz) products. We will also accelerate the development of easy-to-use sensors compatible with IoT, including integration with electronic device packaging technologies, composite sensor technologies combined with other sensors, and control and signal processing technologies to extract required data from signals and reduce power consumption. We will respond to a wide range of customer requests by enhancing our technical capabilities to support the design and development of systems using sensors.

Despite some signs of improvement in parts procurement, supply conditions remain unstable. In expectation of further procurement difficulties, we will enhance parts procurement capabilities based on a parts procurement strategy focused on market trends that will lead to stable production. Furthermore, we will enhance price competitiveness by expanding production at our Thailand subsidiary, which will lead to expanded sales.

Sustainability Initiatives

Climate and D&I

In line with Nisshinbo Group medium-term environmental targets, the Micro Devices business targets a 38,000-ton reduction in GHG emissions by 2030. In the first year of the merger, we attempted to proactively promote mutual personnel exchanges and opened an NSID Farm near the Kawagoe Plant, creating a work environment where people with disabilities can work comfortably in an effort to promote the employment of people with disabilities.

Key Products



Electronic devices

Automotive products

The number of ICs per vehicle continues to increase amid the shift to vehicle electrification and advances in autonomous driving technology. ICs are now needed for a growing array of applications, from car audio to power control units, which support basic vehicle functions, electric power-assisted steering and battery management systems, as well as sensors that are integral to parking assist systems, collision avoidance and prevention systems and autonomous driving.



Industrial equipment products

Nisshinbo has a diverse lineup of products to meet customers' needs: operational amplifiers that play a key role in improving the sensing precision of encoders, which support movement in industrial robots; PMICs that support stable, low-noise operation of various industrial equipment; and analog front-end ICs that optimally integrate industrial equipment functions.



Microwave products

Satellite communication system components

VSATs* are satellite ground stations that play a crucial role in satellite-based Internet connectivity, data transmission and telephony. New Japan Radio is Japan's only supplier of key components for VSATs and one of only a handful of suppliers worldwide. It has the top share in the global market.

*Very Small Aperture Terminals

Overview of Business Segments

Automobile Brakes



Nisshinbo Brake Inc.

Nisshinbo is a global supplier with world-class development capabilities in the field of friction materials, which are key components in automobile brake systems. Our strategy in the Automobile Brakes business is to address the specific requirements of each market and customer with three businesses—Nisshinbo Brake, TMD Friction Group and Saeron Group—aiming to meet global automaker needs for optimum parts procurement as the world's leading friction materials company.

Related SDGs



Business Results and Strategy

Summary of Financial Results for 2022

In 2022, the Automobile Brakes business reported sales of ¥153,643 million (up 11.8% year on year after reclassification) and segment profit of ¥4,664 million (a deterioration of ¥7,637 million compared with the previous fiscal year after reclassification).

Global automobile production, which significantly affects the Automobile Brakes business, experienced a mild recovery in 2022 despite additional impacts from the situation in Ukraine and China's zero-COVID measures due to a partial easing of automotive semiconductor shortages. However, the price of steel and other raw materials and energy costs continue to rise in several regions.

Under these conditions, Nisshinbo Brake Group sales increased and its market share improved due to a recovery in orders from major customers and new orders for copper-free (less than 0.5%) friction materials. However, soaring raw material and energy costs put downward pressure on profit, with profit declining at Chinese and South Korean subsidiaries that manufacture products for Japanese, U.S. and Japan-affiliated customers. Even so, profitability recovered at our China subsidiary, which manufactures products for South Korean and North American customers, while profit at our subsidiary in Thailand remained on par with fiscal 2021 due to a recovery in automobile production in the ASEAN market. We are negotiating with customers to pass on cost increases through sales prices.

The TMD Group, for which Europe is its main market, increased sales with aggressive price pass-throughs in both the aftermarket and assembled products businesses in response to the sharp rise in raw material costs in Europe. However, skyrocketing inflation, along with tight energy supply and demand caused by the situation in Ukraine led to a significant increase in losses.

Note: In year-on-year performance comparisons, 2021 performance uses converted values based on new profit recognition standards.

Medium- to Long-Term Business Strategy

Market Environment and Business Strategy

Global automobile production has not yet returned to pre-pandemic levels, but there were signs of improvement in the shortage of automotive semiconductors in some regions beginning in the second half of 2022, and operations of automobile manufacturers are expected to gradually return to normal. Despite concerns that automobile demand might decline due to economic slowdowns and other factors, we might further sales growth in this business through the launch of copper-free friction materials, and have received new orders for these products in Japan, the United States and China.

To expand sales of copper-free friction materials, we will optimize our global production system and make capital investments while monitoring actual orders. In anticipation of labor shortages, particularly in developed countries, we will also proactively

make investments related to automation and labor saving. The Company has decided to integrate its three Chinese subsidiaries in order to address operational risks associated with strengthened environmental regulations and to streamline operations. Moving forward, the company will promote rationalization through the transfer of functions and equipment, among other measures.

At the same time, in the aftermarket business where the TMD Group operates, we will continue to strategically strengthen production systems. In the assembled products business, where we have been formulating a business revitalization plan, production at plants in France and Leverkusen was terminated in 2022, and we have made progress toward integrating production by transferring products to other plants. We will continue to enhance cost competitiveness through the promotion of optimized local production utilizing the Romania plant, among other efforts.

Although soaring raw material and utility costs are putting downward pressure on profits, Nisshinbo Brake Inc. and the TMD Group will continue firmly negotiating with customers to pass on cost increases through sales prices.

Toward the Spread of Electrification and Autonomous Driving

Plans are under way for electrification and autonomous driving-related next-generation vehicles and new brakes at finished vehicle manufacturers. HEVs, BEVs and other electric vehicles accumulate energy (regenerative braking) when braking by using an electric drive system that reduces wear on conventional mechanical brake friction materials, thus we expect demand for repair parts to decrease in the long run. On the other hand, parts for new passenger cars must be durable enough to withstand long-term use, realizing stable braking force through coordination with electronically controlled regenerative braking. In addition, in response to the enhanced silence of the vehicle, there are demands for high-quality products

with excellent noise and vibration suppression during braking. Anticipating changes in demand for friction materials due to the way automobiles will be used going forward, Nisshinbo is focusing efforts on the research and development of products that are highly compatible with electronically controlled braking.

In product development, we are working to improve product performance and efficiency through further advances in simulation and digitalization, incorporating a new PDCA cycle with data-driven R&D using AI into development. To support these efforts, we have launched an educational program to cultivate human resources with digital skills with data scientists at the top.

Furthermore, we are setting our own targets for achieving zero CO₂ emissions by 2050 while engaging in the research and development of materials and manufacturing processes. Through internal Nisshinbo Group collaborations, we are also promoting research on undercarriage sensing focused on vehicle safety and autonomous driving.

Improvement Activities and Efforts to Enhance Competitiveness

Global improvement activities are the foundation of management. In addition to existing efforts promoted in accordance with the regional characteristics and level of each base, we have recently begun promoting DX initiatives incorporating improvement activities. Efforts focused on automation and labor-saving in manufacturing processes, efficient production management using ICT and IoT technologies, visualization of facility operation status and predictive facility maintenance, and quality control using AI cameras have been successful in increasing profitability and improving product quality. We are cultivating a Company-wide culture of improvement by sharing knowledge gained at each base through regular improvement activity presentations.



Overview of Business Segments

Precision Instruments

Nisshinbo Mechatronics Inc.

Utilizing various areas of expertise accumulated over more than 70 years, this segment is focused on precision metal parts processing for the automotive sector and parts molding and processing for the automotive and home appliance sectors. The segment also makes customized production equipment to meet the specific needs of customers. We work closely with subsidiary Nanbu Plastics Co., Ltd., to develop these businesses globally, centered on Asia.

Related SDGs



Business Results and Strategy

Summary of Financial Results for 2022

In 2022, the Precision Instruments business reported sales of ¥53,655 million (up 13.3% year on year after reclassification) and segment profit of ¥776 million (up 16.4% year on year after reclassification).

In precision parts for automobiles, despite higher sales driven by firm orders for electronic brake systems (EBS), an increase in depreciation and amortization and other expenses held profit to the same level as in fiscal 2021. Following the launch of mass production in 2021 of the next-generation model MKC1 supporting vehicle electrification and autonomous driving, the mass production and sales of MKC2, an even smaller and lighter version of this same product, started off strong. In September 2022, Nisshinbo Comprehensive Precision Machining (Gurgaon) Private Ltd. was established as a joint venture with Continental AG (Germany) to manufacture and sell EBS valve blocks in Gurugram, India. This new company is making concerted efforts to prepare for the start of mass production in the fourth quarter of 2023. At Nisshinbo Precision Instrument & Machinery Hiroshima Corporation, despite higher sales driven by the launch of mass production of auto manufacturer diesel engine exhaust shutter valves and exhaust gas circulation valves, profit declined due to an increase in depreciation and amortization expenses and manufacturing costs.

In molding products for automobiles and air-conditioning equipment, Chinese government mandated lockdowns in Shanghai led to significantly curtailed operations at our bases in China, while semiconductor shortages and other factors led to lower sales in the automotive field. However, home appliance-related product orders increased at bases in Japan, Thailand and India. The Nanbu Plastics Group saw firm demand in the healthcare and housing equipment fields, but sales fell sharply due to customer production cutbacks in

the automotive field caused by a shortage of semiconductors and other components. Steady progress was made toward reorganizing unprofitable businesses, which began in 2021. As a result of these factors, sales and profit increased in the molding products business.

Note: In year-on-year performance comparisons, 2021 performance uses converted values based on new profit recognition standards.

Medium- to Long-Term Business Strategy

Business/Product Identification and Closeout

The Nisshinbo Mechatronics Inc. molding products business and Nanbu Plastics Co., Ltd., are optimizing production bases to efficiently capture global demand leading to the realization of higher profits. In the molding products business, we are implementing strict cost management to identify unprofitable products and intensify cost-reduction activities, advancing reasonably priced proposals to customers to improve profitability.

With the aim of liquidating unprofitable businesses, the Nanbu Plastics Group has filed independent legal debt restructuring procedures stipulated by local laws at its Indonesian subsidiary, where production was terminated in 2021 and liquidation of the company is in process. The Nanbu Plastics Group Guangzhou subsidiary in China also terminated production in March 2022 and completed liquidation procedures in December that same year.

The Nanbu Plastics Group will continue to identify and dispose of unprofitable businesses, allocating management resources to high-value-added businesses and improving profitability.

Sustainability Initiatives

Copper-free Friction Materials

In the United States, where environmental regulations are being tightened, the sales and assembly in new vehicles of friction material products containing more than 0.5% copper content will be prohibited from 2025 onward. Copper-free (less than 0.5%) friction materials, which Nisshinbo Brake Inc. has been developing for some time, have garnered a strong reputation among auto manufacturers and are gaining market share on the back of an increase in new orders.

Net Sales	(millions of yen)	
	21.12 (reclassified)	22.12
Nisshinbo Brake	48,948	56,701
TMD	93,332	104,058
Eliminations, etc.*	(4,825)	(7,116)
Total	137,455	153,643

Segment Profit	(millions of yen)	
	21.12 (reclassified)	22.12
Nisshinbo Brake	3,206	2,072
TMD	(223)	(6,566)
Eliminations, etc.*	(10)	(170)
Total	2,973	(4,664)

*Including amortization of intangible fixed assets at TMD

Expanding the Automotive EBS Valve Block Business

In 2015, Nisshinbo Mechatronics and major German automobile parts manufacturer Continental AG established Nisshinbo-Continental Precision Machining (Yangzhou) Co., Ltd., in Jiangsu Province, China, and have steadily increased the production and sales of EBS valve blocks. In September 2022, a new joint venture was established in Gurugram, India, to expand production of automobile EBS valve blocks. In India, where the economy is growing rapidly, the production of automobiles and motorcycles is expanding, and the demand for EBS is expected to grow. Through our partnership with Continental AG, we will continue to work toward the development of this business.

Accelerating New Product Developments and Market Launches

Accelerating new product developments and market launches is an important focus of Nisshinbo's efforts.

In the Mobility domain, we will accelerate the development of molded products with integrated wiring functions combining In-Mold Printed Circuits (IMPC[®]) based on injection molding and electronics technologies.

In the Life & Healthcare domain, we will develop and launch new products using super engineering plastics offering excellent biocompatibility and other properties, as well as products that contribute to preventive, prognostic and regenerative medicine in the healthcare field. In the home appliance and housing equipment field, we will develop fans for air-conditioning equipment and highly airtight and insulated window frames for comfortable living spaces and energy conservation.

In the Infrastructure & Safety domain, we will work to create new businesses by developing products for a sustainable society, including renewable energy and social infrastructure.

Sustainability Initiatives

Increasing the Sales of Sustainable Products and Reducing GHG Emissions to Achieve the SDGs

In the Precision Instruments business, we are promoting awareness programs for employees to facilitate understanding and dissemination of the SDGs through the identification of materiality and the formulation of priority action items. Additionally, we see wind power generation-related components and the machine tool business for CFRP materials as growth opportunities, and are promoting various activities that include increasing the sales ratio of sustainable products and reducing GHG emissions to achieve our environmental KPI targets.

Net Sales	(millions of yen)	
	21.12 (reclassified)	22.12
Precision parts	12,446	16,259
Molding products	39,092	41,871
Eliminations, etc.	(4,161)	(4,475)
Total	47,377	53,655

Segment Profit	(millions of yen)	
	21.12 (reclassified)	22.12
Precision parts	223	158
Molding products	1,257	1,465
Eliminations, etc.	(814)	(847)
Total	666	776

Key Products



Automotive EBS valve block



Automotive headlight components



Fans for residential and commercial air conditioners

Overview of Business Segments

Chemicals

Nisshinbo Chemical Inc.

Drawing on a broad base of expertise and intellectual property in the chemical field, this segment is working to develop products that help protect the environment and make life more comfortable. Our environment- and energy-related products include bipolar plates for fuel cells and Carbodilite, a functional material that increases the durability and chemical resistance of biodegradable plastics and water-based resins, which have minimal environmental impact. We are prioritizing the investment of management resources in these promising growth areas.

Related SDGs



Business Results and Strategy

Summary of Financial Results for 2022

In 2022, the Chemicals business reported sales of ¥12,673 million (up 13.7% year on year after reclassification) and segment profit of ¥2,181 million (up 4.9% year on year after reclassification).

In bipolar plates for fuel cells, amid a surge in global fuel cell development driven by the movement toward carbon neutrality, sales increased on expanding demand for fixed applications overseas. At the same time, profit declined due to the development of manufacturing technologies focused on the mass production of in-vehicle applications.

In functional materials Carbodilite, although the impact of soaring chemical raw material, transportation and energy costs amid difficulties in the global procurement of chemical industry products was minimized by passing on costs, changes in the product mix resulted in higher sales and lower profit. Amid global efforts to address environmental issues, sales of waterborne cross-linking agents increased in line with the solid performance of coating agents for food packaging materials, adhesives and other agents. Sales of pulverized modifiers for biodegradable plastics declined due to a downturn in the European market, where the outlook has become increasingly uncertain because of the situation in Ukraine.

In thermal insulation products, despite the impact of skyrocketing material costs amid a decline in bio-carriers for wastewater treatment at properties in Japan and overseas, fewer civil engineering projects due to shrinking public budgets and difficulties in the global procurement of chemical industry products, sales and income increased on expanded orders for undiluted solutions in line with increased demand for prefabricated refrigerators, clean rooms, exterior wall materials and other products.

Sales and profits of glass-like carbon products increased amid growing semiconductor demand driven by the spread of 5G

communications, cloud services and telework, as well as growth in orders of parts comprising capital investment in semiconductor manufacturing equipment due to supply chain reorganization efforts triggered by semiconductor frictions between the United States and China. In the second half of the year, concerns of a market slowdown increased against the backdrop of deteriorating conditions in Ukraine and accelerating global inflation.

Note: In year-on-year performance comparisons, 2021 performance uses converted values based on new profit recognition standards.

Medium- to Long-Term Business Strategy

Enhancing Production Capacity and Accelerating Development of Fuel Cell Separators

As the global movement toward carbon neutrality accelerates, fuel cell demonstration experiments are expanding for a variety of applications. Nisshinbo continues to receive a substantial number of inquiries, especially for fixed applications such as power supplies for use during emergency and normal operations. We are also working with several leading manufacturers to develop bipolar plates for fuel cells in automotive and other applications. In addition, we have recently received inquiries for marine applications and are working on development with a leading manufacturer. The 2022 decision to expand the plant and install a new line is proceeding as planned, and in 2023, we have commenced full-scale preparations for building construction and equipment installation. In preparation for the commercialization of in-vehicle and in-vessel applications and the coming increase in demand, we will focus on the automation of production processes and the development of next-generation products while establishing a mass production system and reducing costs.

“Carbodilite” Functional Materials Contributing Solutions to Environmental Issues

Environmental awareness is growing globally in the face of marine pollution caused by microplastics, global warming, air pollution caused by volatile organic chemical substances (VOCs) and other environmental challenges. Demand for Carbodilite is rising as a material indispensable for the spread of biodegradable plastics that contribute to resolving environmental issues, water-based paints and coating agents, and high-performance electronic materials. At present, Nisshinbo is enhancing product development and sales channel expansion targeting environmentally friendly products. We will accelerate sales of water-based and pulverized Carbodilite, specifically in the rapidly growing environmental and energy markets where Carbodilite is undeveloped.

In Japan, Europe and the United States, there are increasingly sophisticated demands for Carbodilite performance. By developing high-value-added products that meet these needs and engaging in proactive marketing that includes untapped markets, we will expand our sales channels.

Differentiating and Increasing the Added Value of Thermal Insulation Products

In thermal insulation products, we will work to expand business by maintaining and expanding civil engineering base solutions and hard blocks constituting core products, as well as by launching highly flame-retardant products. In addition, with the proliferation of next-generation energy, we are developing high-performance insulation materials for supply chain transportation and storage facilities.

In the anti-vibration field, we will work to increase orders for products that enable the extension of track maintenance work cycles, as well as orders for large overseas properties.

In the water treatment field, in Asia, we will promote a differentiation strategy in the Chinese market leveraging the advantages of Japanese brand power and strong technological development capabilities, while in Japan, we will develop new products that meet market needs, acquiring orders in the private wastewater field and expanding into the water purification tank market.

Furthermore, to provide new high-value-added products, we will expand our business domain through the development of new products other than thermal insulation, including those that contribute to infrastructure safety measures.

Long-Term Growth Expected in Glass-Like Carbon Products

Although volatility will continue in the market for semiconductors, the main application for glass-like carbon products, the spread of CASE and the Metaverse are expected to drive long-term growth. The semiconductor production equipment market is also expected to grow due to supply chain disruptions triggered by economic friction between the United States and China and subsequent investments in additional capacity to recover from semiconductor shortages. In particular, we will focus on the advanced semiconductor segment, which is the driver of capital investments in semiconductors; meet demands for advanced materials; and target business growth by providing key materials that support the mass production of miniaturization processes.

Sustainability Initiatives

Contributing to Provide Solutions to Environmental Issues through Separators and Functional Materials

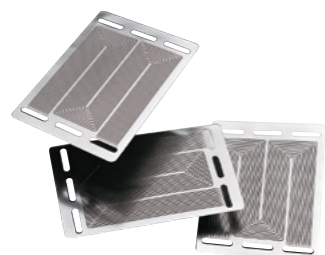
In the Chemicals business, we supply separators for fuel cells, which are attracting attention as a technology facilitating carbon neutrality, manufacture Carbodilite, a functional material that is being promoted to improve the function of biodegradable resins and water-based resins, and provide solutions to environmental issues through a variety of other products.

Net Sales	(millions of yen)	
	21.12 (reclassified)	22.12
Environment and energy-related products*	9,668	10,838
Carbon products, etc.	1,730	2,138
Eliminations, etc.	(249)	(304)
Total	11,149	12,673

*Fuel cell bipolar plates, Carbodilite, insulation materials

Segment Profit	(millions of yen)	
	21.12 (reclassified)	22.12
Environment and energy-related products*	1,723	1,666
Carbon products, etc.	358	515
Eliminations, etc.	(2)	(1)
Total	2,079	2,181

Key Products



Bipolar plates for fuel cells



Carbodilite



Bio-carriers: APG

Overview of Business Segments

Textiles

Nisshinbo Textile Inc.

Since its founding in 1907 as Nisshin Cotton Spinning Co., Ltd., Nisshinbo has led the Japanese textile industry with its state-of-the-art technologies and high quality. Nisshinbo subsequently expanded its business globally in the fields of spinning, weaving, processing, sewing and apparel, and today possesses some of the world's most advanced technologies in product development and production. Nisshinbo is currently working to increase global sales of the APOLLOCOT brand by mobilizing its sophisticated textile processing technologies.

Related SDGs



Business Results and Strategy

Summary of Financial Results for 2022

In 2022, the Textiles business reported sales of ¥38,334 million (up 16.2% year on year after reclassification) and segment profit of ¥99 million (an improvement of ¥1,145 million year on year after reclassification).

In the shirts segment, sales of APOLLOCOT shirts and other form-stabilized products were robust due to a recovery in the dress shirt market, with cost reductions at the Indonesia production base also contributing to the sales increase and profit recovery. At TOKYO SHIRTS CO., LTD., sales were on par with fiscal 2021 due to fewer stores in line with the closure of unprofitable stores, while operating profit, although still in the red, improved significantly year on year due to an increase in the gross profit margin resulting from the curtailment of discount sales and the effect of fixed cost reductions through store consolidations. In uniforms, although uniform fabric order volumes are recovering, profit declined due to a delay in passing on cost increases caused by soaring raw material costs and the sharply depreciating yen. In developed materials, although sales of MOBILON yarn for pantyhose increased year on year as the resumption of human movement provided more opportunities to wear stockings, sales and profit declined with the end of special demand associated with MOBILON tape for medical face masks in the United States, as well as a prolonged slump in sales of non-woven fabrics for cosmetics.

Overseas, our Indonesian subsidiary saw a significant increase in both sales and profit thanks to firm orders of form-stabilized products for Japan, the expansion of global sales and efforts to reduce plant expenses. At our Brazilian subsidiary, despite raising sales prices in response to soaring raw cotton costs, factory expenses rose due to production adjustments in response to deteriorating market conditions in the second half of the fiscal year, resulting in higher sales and lower profits.

Note: In year-on-year performance comparisons, 2021 performance uses converted values based on new profit recognition standards.

Medium- to Long-Term Business Strategy

Rebuilding Business Profitability

In the Textiles business, under the slogan “promoting sustainability strategies to rebuild profit structure,” we will accelerate the development of highly functional products that consider the environment, health and comfort. We will make further advances in non-iron APOLLOCOT shirts that contribute to energy conservation and drive sales growth, while focusing efforts on expanding market share and increasing profitability through the development and sales of added value products providing stain-resistance, coolness and other new functionality. Furthermore, we will make efforts to reduce costs by implementing thorough cost controls, comprehensively revising raw materials and manufacturing processes, and promoting inventory reductions in an attempt to improve cash flows.

Business Transformation in Response to Market Changes

Since 2021, TOKYO SHIRTS CO., LTD., has been consolidating stores to reduce expenses, and going forward, it will reorganize stores based on a scrap-and-build policy with consideration for regional characteristics while strengthening measures aimed at increasing sales per store. It will expand store services linked to online sales and shift to a business model based on e-commerce (EC) and online-merge-offline (OMO).

In the Oikos business, we are developing seedling pots and mulch sheets for agricultural material applications that utilize Oikos' biodegradable characteristics. Leveraging our environmental advantages, we will develop new sales channels while promoting structural reforms and reducing costs through the use of cotton waste and reused cotton (in-process recycling) and labor-saving inspections.

Creating a Circular Economy Business

As a sustainable business development in the areas of "environment" and "health," Nisshinbo is taking on the challenge of creating a circular economy business integrating textile and chemical technologies. The "shirt rebirth project" adopted by the New Energy and Industrial Technology Development Organization (NEDO) Feasibility Study Program aims to establish a resource recycling system to create recycled cellulose fiber from discarded shirts. In the "cellulose nanofiber utilization project," cotton waste generated in the manufacturing process is converted into nanofibers and combined with fiber processing technologies to develop proprietary functional processing agents. Going forward,

Nisshinbo will continue to develop applications that contribute to the "environment" and "health," including biodegradable scrubbing materials and substitutes for binders derived from petroleum that immobilize antimicrobial agents and other substances in cotton products.

Sustainability Initiatives

Responses to Global Environmental Issues

In the Textiles business, the 2021 shutdown of NIKAWA TEXTILE in-house coal-fired power generator equipment (switch to the purchasing of electricity), and the 2022 transition to geothermal power at three bases in Indonesia, resulted in a 65% reduction in 2022 GHG emissions compared to fiscal 2014. In terms of water consumption, Nisshinbo Indonesia and business sites in Japan are working to reduce water consumption through the reuse of wastewater from production activities.

Net Sales		Segment Profit	
(millions of yen)		(millions of yen)	
21.12 (reclassified)	22.12	21.12 (reclassified)	22.12
32,998	38,334	(1,045)	99

Key Products



Non-Iron Shirts Apollocot

Our Apollocot shirts, developed with the full capabilities of Nisshinbo Textile Inc., have been highly appraised by customers as next-generation non-iron shirts, and the technology is being extended to other items as well, such as handkerchiefs, business knit shirts and cotton business pants.



Oikos Fabric

Oikos nonwoven fabrics employ the spunlace manufacturing method, which uses water jets to finish fibers in a sheet format. These extremely safe and hygienic ecological materials are used in a wide range of fields, from cosmetics and household sundries to industrial applications.



Mobilon/Elastomer

Mobilon is a type of spandex (polyurethane elastic fiber) developed by Nisshinbo Textile using proprietary technologies. Leveraging its soft touch when stretched and ability to maintain shape, the range of applications continues to expand into a variety of categories including clothing and materials.

Our elastomer is a thermoplastic polyurethane material also developed using proprietary technologies. Thanks to its excellent elasticity, flexibility and durability, it is used widely in apparel, face masks and other industrial materials.

Overview of Business Segments

Real Estate

Nisshinbo Holdings Inc.

Nisshinbo's Real Estate business redevelops properties that have become vacant because of business changes at Group companies. Income from those activities is used to fund the Group's growth strategy, such as launching new businesses and expanding global operations. Income is generated from two main sources—property leasing and the sale of housing lots. Nisshinbo has actively developed the housing lot sales business since 2009, when the Group moved to a holding and operating company structure.

Related SDGs



Business Results and Strategy

Summary of Financial Results for 2022

In 2022, the Real Estate business reported sales of ¥11,179 million (down 28.2% year on year after reclassification) and segment profit of ¥8,720 million (down 7.1% year on year after reclassification).

In the housing lot sales business, despite sales of residential land conducted in Hamamatsu, Shizuoka Prefecture, and Okazaki, Aichi Prefecture, sales and profits declined compared to the previous fiscal year in which condominiums were sold in Mitaka, Tokyo, and residential land was sold in Kitajima, Tokushima Prefecture, and Higashiomi, Shiga Prefecture. At the same time, leasing operations in the property leasing business were firm for land, office buildings and commercial facilities.

Note: In year-on-year performance comparisons, 2021 performance uses converted values based on new profit recognition standards.

Medium- to Long-Term Business Strategy

In 2023, we expect to continue securing high profits as in the previous fiscal year. Leasing operations in the property leasing business were firm for land, office buildings, commercial facilities and other properties, while sales of land and other properties are ongoing in the housing lot sales business.

The Real Estate business will continue to fulfill its role as a source of funds to help Nisshinbo attain its management targets.

Net Sales		Segment Profit	
(millions of yen)		(millions of yen)	
21.12 (reclassified)	22.12	21.12 (reclassified)	22.12
15,570	11,179	9,388	8,720

Going forward, we will promote the effective utilization of real estate and property reconfiguration throughout the entire Group with the aim of securing long-term, stable rents and improving profitability in the housing lot sales business. We plan to continue generating stable earnings by focusing on the projects shown below.

The first handover of commercial land from the former Hamamatsu factory site (Shizuoka Prefecture) was completed in 2022, with the second handover is scheduled to be made in 2023.

For the redevelopment of the former Miai Plant site (Aichi Prefecture), we will continue sales of all 357 detached homes.

Regarding the redevelopment of employee housing in Nishiarai (Tokyo) as rental condominiums, construction of Phase 1 (50 units) was completed and leasing has begun, with Phase 2 (149 units) leasing slated to commence in April 2024.

We have commenced redevelopment of the former Notogawa factory site (Shiga Prefecture) as 129 condominium units, with plans to launch sales in 2023.

We are moving forward with plans to construct 50 rental condominium units on the site of the former Japan Radio Co., Ltd., Seifu Dormitory (Tokyo). Development and construction work began in 2022, with leasing scheduled to start in 2024.

In addition, at the Shibaura Nissin Building (Tokyo) owned by Nisshinbo Urban Development Co., Ltd., we are moving forward with construction plans for rental condominiums (115 units) in collaboration with a major housing manufacturer.

Eleven-Year Summary

	2013.03	2014.03	2015.03	2016.03	2017.03	2018.03	2018.12	2019.12	2020.12	2021.12	2022.12
Operating Results (millions of yen)											
Net Sales	¥450,693	¥494,350	¥523,758	¥533,989	¥527,274	¥512,048	¥416,221	¥509,661	¥457,051	¥510,643	¥516,085
Electronics	175,308	187,743	209,116	205,368	190,852	193,621	—	—	—	—	—
Wireless and Communications	—	—	—	—	—	—	90,427	152,213	144,312	155,085	150,393
Micro Devices	—	—	—	—	—	—	53,777	65,286	61,141	77,374	85,329
Automobile Brakes	118,849	148,699	161,887	165,037	146,062	154,205	135,008	131,338	114,827	138,295	153,643
Precision Instruments	24,520	28,655	28,608	29,525	60,687	64,918	62,219	65,429	51,419	55,769	53,655
Chemicals	8,150	8,810	8,138	8,285	9,483	11,285	8,173	9,391	9,577	11,083	12,673
Textiles	54,736	54,630	51,073	60,127	55,842	54,640	43,660	49,505	33,957	34,479	38,334
Papers	30,524	31,686	31,280	32,585	32,648	—	—	—	—	—	—
Real Estate	15,367	10,567	9,246	8,358	8,084	8,406	4,237	11,655	20,279	15,584	11,179
Other Businesses	23,239	23,560	24,410	24,704	23,616	24,973	18,720	24,844	21,539	22,974	10,879
Operating Income (Loss)	13,394	13,175	13,744	12,617	4,890	15,086	(2,506)	6,482	1,248	21,789	15,435
Net Income (Loss) Attributable to Owners of the Company	6,418	9,012	13,694	10,776	3,575	26,352	(7,183)	(6,604)	13,541	24,817	19,740
Financial Position (millions of yen)											
Equity	¥242,623	¥276,865	¥306,938	¥284,472	¥275,753	¥290,434	¥264,849	¥252,536	¥242,068	¥272,632	¥278,498
Total Assets	551,933	611,311	678,486	651,793	646,288	651,959	622,381	617,528	581,204	604,799	616,274
Capital Expenditures	20,123	19,896	36,909	22,862	30,505	30,103	27,199	32,387	25,870	26,482	29,016
Depreciation and Amortization	18,969	21,486	23,111	22,571	22,264	22,183	19,816	24,955	22,125	23,165	25,088
Cash Flows (millions of yen)											
Net Cash Provided by Operating Activities	¥ 34,095	¥ 26,075	¥ 37,120	¥ 39,566	¥ 26,768	¥ 32,415	¥ 15,495	¥ 26,249	¥ 42,590	¥ 39,828	¥19,586
Net Cash Provided by (Used in) Investing Activities	(10,973)	(19,862)	(21,271)	(22,793)	(31,429)	(1,798)	(20,723)	(21,759)	(6,321)	(16,767)	(11,693)
Net Cash Provided by (Used in) Financing Activities	(24,073)	(2,321)	(6,238)	(9,044)	3,595	(34,785)	11,936	(10,065)	(24,230)	(30,819)	(8,888)
Per Share (yen)											
Net Income (Loss) Attributable to Owners of the Company	¥ 36.74	¥ 51.60	¥ 80.33	¥ 67.93	¥ 22.52	¥ 160.59	¥ (43.26)	¥ (39.45)	¥ 81.38	¥ 149.08	¥121.06
Shareholders' Equity	1,198.67	1,369.78	1,634.07	1,472.26	1,444.94	1,659.29	1,457.26	1,431.35	1,375.19	1,556.01	1,679.53
Cash Dividends	15.00	15.00	15.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	34.00
Key Ratios (%)											
Shareholders' Equity Ratio	37.9	39.1	38.2	35.9	35.5	41.2	40.1	38.6	39.4	42.8	42.8
Return on Assets (ROA)	1.2	1.5	2.1	1.6	0.6	4.1	(1.1)	(1.1)	2.3	4.2	3.2
Return on Equity (ROE)	3.2	4.0	5.5	4.4	1.5	10.6	(2.8)	(2.7)	5.8	10.2	7.6
Payout Ratio	40.8	29.1	18.7	44.2	133.2	18.7	—	—	36.9	20.1	28.1

Notes: 1. In the fiscal year ended March 2017, Iwao & Co., Ltd., was merged with Nisshin Toa Inc., both of which are consolidated subsidiaries. The apparel textile operations of Iwao & Co., Ltd., included in the Other Businesses segment were reclassified under the Textiles business segment as a result. Figures from the fiscal year ended March 2013 have been adjusted to reflect this change.
2. The Group's elastomer operations were transferred from the Chemicals business to the Textiles business in the fiscal year ended March 2016. Figures from the fiscal year ended March 2015 have been adjusted to reflect this change.
3. The Company changed its fiscal year-end from March 31 to December 31, effective from the fiscal period ended December 31, 2018.
4. The electronics business segment was separated into Wireless and Communications and Micro Devices as part of adjustments to earnings management classifications in the fiscal period ended December 2019.

Consolidated Balance Sheet

December 31, 2022 and 2021

	Millions of Yen		Thousands of U.S. Dollars (Note)
ASSETS	2022	2021	2022
CURRENT ASSETS:			
Cash and cash equivalents	¥ 45,092	¥ 42,596	\$ 334,015
Time deposits	80	2,344	593
Receivables:			
Trade notes	18,007	17,556	133,385
Trade accounts	92,557	104,277	685,607
Unconsolidated subsidiaries and affiliates	1,846	675	13,674
Other	3,208	7,357	23,763
Allowance for doubtful receivables	(780)	(720)	(5,778)
Inventories	149,402	122,841	1,106,681
Other current assets	15,624	7,227	115,733
Total current assets	325,036	304,153	2,407,673
PROPERTY, PLANT AND EQUIPMENT:			
Land	33,818	34,364	250,504
Buildings and structures	166,533	162,797	1,233,578
Machinery, equipment and tools	379,800	359,175	2,813,333
Construction in progress	6,629	6,708	49,104
Other	17,935	13,989	132,852
Total	604,715	577,033	4,479,371
Accumulated depreciation	(426,611)	(404,284)	(3,160,081)
Net property, plant, and equipment	178,104	172,749	1,319,290
INVESTMENTS AND OTHER ASSETS:			
Investment securities	37,780	52,631	279,852
Investments in and advances to unconsolidated subsidiaries and affiliates	33,996	31,709	251,822
Deferred tax assets	13,170	9,984	97,556
Goodwill	1,258	3,304	9,319
Other	26,930	30,269	199,481
Total investments and other assets	113,134	127,897	838,030
TOTAL	¥ 616,274	¥ 604,799	\$ 4,564,993

	Millions of Yen		Thousands of U.S. Dollars (Note)
LIABILITIES AND EQUITY	2022	2021	2022
CURRENT LIABILITIES:			
Short-term bank loans	¥ 59,345	¥ 41,054	\$ 439,593
Commercial paper	30,000	30,000	222,222
Current portion of long-term debt	46,180	6,356	342,074
Payables:			
Trade notes	25,004	23,255	185,215
Trade accounts	44,948	42,631	332,948
Unconsolidated subsidiaries and affiliates	83	13	615
Other	12,443	11,926	92,170
Accrued expenses	18,041	17,491	133,637
Accrued income taxes	3,320	3,432	24,593
Other current liabilities	20,190	24,233	149,555
Total current liabilities	259,554	200,391	1,922,622
LONG-TERM LIABILITIES			
Long-term debt	10,854	53,972	80,400
Liability for retirement benefits	42,381	51,984	313,933
Deferred tax liabilities	9,990	11,001	74,000
Other long-term liabilities	14,997	14,819	111,089
Total long-term liabilities	78,222	131,776	579,422
Total liabilities	337,776	332,167	2,502,044
EQUITY:			
Shareholders' equity:			
Common stock—authorized, 371,755,000 shares; issued, 169,120,014 shares in 2022 and 179,042,894 shares in 2021	27,738	27,699	205,467
Capital surplus	18,878	19,882	139,837
Retained earnings	196,754	193,921	1,457,437
Treasury stock—at cost, 12,081,848 shares in 2022 and 12,552,280 shares in 2021	(13,240)	(15,953)	(98,074)
Total shareholders' equity	230,130	225,549	1,704,667
Accumulated other comprehensive income:			
Net unrealized gain (loss) on available-for-sale securities	16,702	25,813	123,719
Deferred gain (loss) on derivatives under hedge accounting	(62)	5	(459)
Foreign currency translation adjustments	13,529	6,014	100,214
Postretirement liability adjustments	3,451	1,680	25,563
Total	33,620	33,512	249,037
Stock acquisition rights	70	125	519
Noncontrolling interests	14,678	13,446	108,726
Total equity	278,498	272,632	2,062,949
TOTAL	¥ 616,274	¥ 604,799	\$ 4,564,993

Note: The translations of Japanese yen amounts into U.S. dollar (\$) amounts are included solely for the convenience of readers outside Japan and have been made at the rate of ¥135 to \$1, the approximate rate of exchange at December 31, 2022.

Consolidated Statement of Profit or Loss

Years Ended December 31, 2022 and 2021

	Millions of Yen		Thousands of U.S. Dollars (Note)
	2022	2021	2022
NET SALES	¥516,085	¥510,643	\$3,822,852
COST OF SALES	400,737	395,161	2,968,422
Gross profit	115,348	115,482	854,430
SELLING, GENERAL, AND ADMINISTRATIVE EXPENSES	99,913	93,693	740,097
Operating income	15,435	21,789	114,333
OTHER INCOME (EXPENSES):			
Interest and dividend income	2,164	1,649	16,029
Interest expense	(1,680)	(1,144)	(12,444)
Gain on sales of property, plant, and equipment	813	1,105	6,022
Equity in earnings of an unconsolidated subsidiaries and affiliates	3,657	2,674	27,089
Loss on impairment of long-lived assets	(1,385)	(1,619)	(10,259)
Gain on sales of securities	7,278	2,418	53,911
Business structure improvement expenses	(931)	(4,617)	(6,896)
Other—net	407	641	3,015
Other income (expenses)—net	10,323	1,107	76,467
INCOME BEFORE INCOME TAXES	25,758	22,896	190,800
INCOME TAXES:			
Current	5,067	4,273	37,533
Deferred	777	(7,565)	5,756
Total income taxes	5,844	(3,292)	43,289
NET INCOME	19,914	26,188	147,511
NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS	174	1,371	1,289
NET INCOME ATTRIBUTABLE TO OWNERS OF THE COMPANY	¥ 19,740	¥ 24,817	\$ 146,222
		Yen	U.S. Dollars
PER SHARE OF COMMON STOCK:			
Net income	¥121.06	¥149.08	\$0.90
Cash dividends	34	30	0.25

Consolidated Statement of Comprehensive Income (Loss)

Years Ended December 31, 2022 and 2021

	Millions of Yen		Thousands of U.S. Dollars (Note)
	2022	2021	2022
NET INCOME	¥19,914	¥26,188	\$147,511
OTHER COMPREHENSIVE INCOME (LOSS):			
Net unrealized (loss) gain on available-for-sale securities	(9,115)	31	(67,519)
Deferred (loss) gain on derivatives under hedge accounting	(68)	7	(504)
Foreign currency translation adjustments	7,875	6,893	58,333
Postretirement liability adjustments	1,855	3,772	13,741
Equity in earnings of unconsolidated subsidiaries and affiliates	682	1,224	5,052
Total other comprehensive income	1,229	11,927	9,103
COMPREHENSIVE INCOME	¥21,143	¥38,115	\$156,614
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:			
Owners of the Company	¥19,848	¥35,723	\$147,022
Noncontrolling interests	1,295	2,392	9,592

Consolidated Statement of Cash Flows

Years Ended December 31, 2022 and 2021

	2022	2021	2022
		Millions of Yen	Thousands of U.S. Dollars (Note)
OPERATING ACTIVITIES:			
Income before income taxes	¥ 25,758	¥ 22,896	\$ 190,800
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Income taxes—paid	(1,601)	(10,998)	(11,859)
Depreciation and amortization	25,088	23,165	185,837
Amortization of goodwill	2,122	1,334	15,719
Equity in losses (earnings) of unconsolidated subsidiaries and affiliates	(3,657)	(2,674)	(27,089)
Provision for (reversal of) doubtful receivables	(648)	178	(4,800)
Interest and dividends income	2,009	3,725	14,881
Provision for business structure improvement	138	2,922	1,022
Increase (decrease) in liabilities for retirement benefits	(4,608)	(1,189)	(34,133)
Loss (gain) on sale of property, plant, and equipment, net	(299)	(775)	(2,215)
Loss on impairment of long-lived assets	1,385	1,619	10,259
Loss (gain) on sale of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates, net	(7,278)	(2,418)	(53,911)
Loss on write-down of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates	63	36	467
Changes in operating assets and liabilities:			
Decrease (increase) in receivables	9,892	(9,536)	73,274
Decrease (increase) in inventories	(23,024)	(5,432)	(170,548)
Increase (decrease) in payables	1,836	7,387	13,600
Other—net	(7,590)	9,588	(56,223)
Total adjustments	(6,172)	16,932	(45,719)
Net cash provided by (used in) operating activities	19,586	39,828	145,081
INVESTING ACTIVITIES:			
Proceeds from sale of property, plant, and equipment	2,096	1,852	15,526
Proceeds from sale of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates	9,242	5,596	68,459
Purchase of property, plant, and equipment	(22,399)	(20,112)	(165,919)
Purchase of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates	(222)	(118)	(1,644)
Decrease (increase) in time deposits—net	2,462	(284)	18,237
Other—net	(2,872)	(3,701)	(21,274)
Net cash provided by (used in) investing activities	(11,693)	(16,767)	(86,615)
FORWARD	¥ 7,893	¥ 23,061	\$ 58,466
FINANCING ACTIVITIES:			
Proceeds from long-term debt	625	2,698	4,630
Repayment of long-term debt	(7,020)	(28,149)	(52,000)
Increase (decrease) in short-term bank loans—net	16,602	5,280	122,978
Cash dividends paid	(5,291)	(4,994)	(39,193)
Purchase of treasury stock	(10,003)	(3)	(74,096)
Increase (decrease) in other long-term liabilities	(927)	(730)	(6,867)
Other—net	(2,874)	(4,921)	(21,289)
Net cash provided by (used in) financing activities	(8,888)	(30,819)	(65,837)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	3,487	1,655	25,830
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	2,492	(6,103)	18,459
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	42,596	48,699	315,526
INCREASE IN CASH AND CASH EQUIVALENTS RESULTING FROM MERGER WITH UNCONSOLIDATED SUBSIDIARIES	4	—	30
CASH AND CASH EQUIVALENTS, END OF YEAR	¥ 45,092	¥ 42,596	\$ 334,015

Segment Information

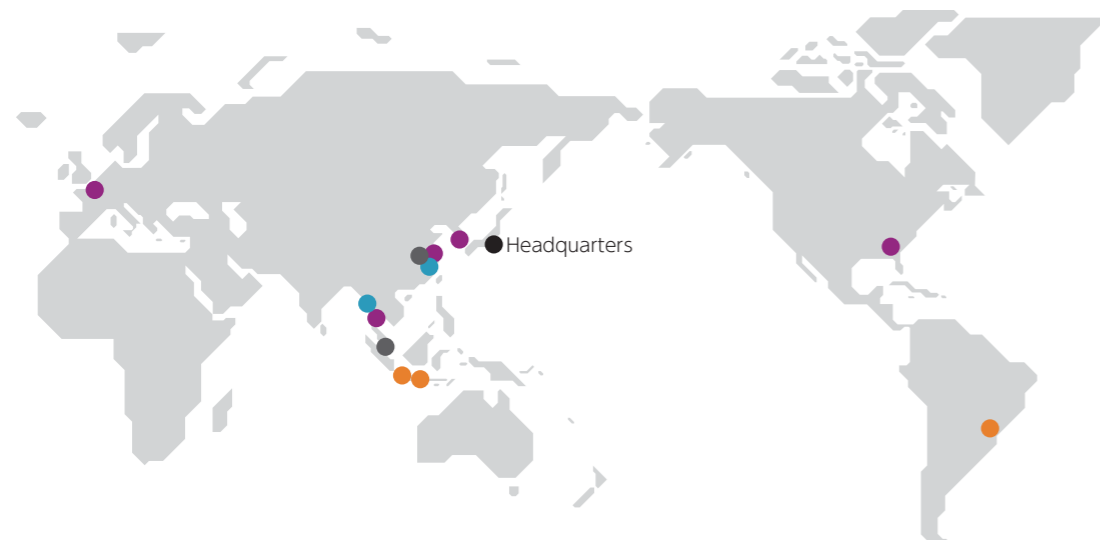
Years Ended December 31, 2022 and 2021

2022	Millions of Yen									
	Wireless and Communications	Micro Devices	Automobile Brakes	Precision Instruments	Chemicals	Textiles	Real Estate	Other Businesses	Eliminations/Corporate	Consolidated
Sales:										
Sales to external customers	¥150,393	¥85,329	¥153,643	¥53,655	¥12,673	¥38,334	¥11,179	¥10,879	¥ —	¥516,085
Intersegment sales or transfers	803	1,214	10	393	218	27	1,381	1,817	(5,863)	—
Total	¥151,196	¥86,543	¥153,653	¥54,048	¥12,891	¥38,361	¥12,560	¥12,696	¥ (5,863)	¥516,085
Segment profit (loss)	¥ 4,821	¥ 8,948	¥ (4,664)	¥ 776	¥ 2,182	¥ 99	¥ 8,720	¥ 284	¥ (5,731)	¥ 15,435
Segment assets	174,644	82,099	156,344	78,880	12,244	41,871	39,241	35,733	(4,782)	616,274
Other:										
Depreciation and amortization	4,067	4,341	8,851	4,718	348	1,407	833	220	303	25,088
Increase in property, plant, and equipment and intangible assets	5,072	4,989	11,141	5,002	541	683	1,177	31	380	29,016

2021	Millions of Yen									
	Wireless and Communications	Micro Devices	Automobile Brakes	Precision Instruments	Chemicals	Textiles	Real Estate	Other Businesses	Eliminations/Corporate	Consolidated
Sales:										
Sales to external customers	¥155,085	¥77,374	¥138,295	¥55,769	¥11,083	¥ 34,479	¥15,584	¥22,974	¥ —	¥510,643
Intersegment sales or transfers	946	1,089	25	565	160	23	1,383	1,867	(6,058)	—
Total	¥156,031	¥78,463	¥138,320	¥56,334	¥11,243	¥ 34,502	¥16,967	¥24,841	¥(6,058)	¥510,643
Segment profit (loss)	¥ 7,815	¥ 4,292	¥ 3,558	¥ 716	¥ 2,054	¥ (1,023)	¥ 9,389	¥ 133	¥(5,145)	¥ 21,789
Segment assets	175,886	75,312	148,709	71,824	11,311	38,099	37,582	32,757	13,319	604,799
Other:										
Depreciation and amortization	3,935	3,966	7,726	4,417	330	1,361	915	226	289	23,165
Increase in property, plant, and equipment and intangible assets	4,701	4,236	9,879	4,511	1,378	562	1,783	85	(653)	26,482

2022	Thousands of U.S. Dollars (Note)									
	Wireless and Communications	Micro Devices	Automobile Brakes	Precision Instruments	Chemicals	Textiles	Real Estate	Other Businesses	Eliminations/Corporate	Consolidated
Sales:										
Sales to external customers	\$1,114,022	\$632,067	\$1,138,096	\$397,445	\$93,874	\$283,956	\$ 82,807	\$ 80,585	\$ —	\$3,822,852
Intersegment sales or transfers	5,948	8,993	74	2,911	1,615	200	10,230	13,459	(43,430)	—
Total	\$1,119,970	\$641,060	\$1,138,170	\$400,356	\$95,489	\$284,156	\$ 93,037	\$ 94,044	\$(43,430)	\$3,822,852
Segment profit (loss)	\$ 35,711	\$ 66,281	\$ (34,548)	\$ 5,748	\$16,163	\$ 733	\$ 64,593	\$ 2,104	\$(42,452)	\$ 114,333
Segment assets	1,293,659	608,141	1,158,104	584,296	90,696	310,156	290,674	264,689	(35,422)	4,564,993
Other:										
Depreciation and amortization	30,126	32,156	65,563	34,948	2,578	10,422	6,170	1,630	2,244	185,837
Increase in property, plant, and equipment and intangible assets	37,570	36,956	82,525	37,052	4,007	5,059	8,719	230	2,815	214,933

Key Companies in the Nisshinbo Group



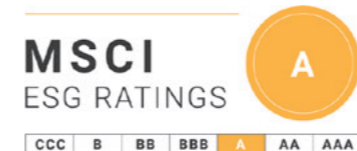
Company	Location	Main Products and Services
● Wireless and Communications		
Japan Radio Co., Ltd.	Japan	Disaster prevention systems, mobile communications equipment
JRC Mobility Inc.	Japan	Automotive radar, ultrasound sensors
● Micro Devices		
Nisshinbo Micro Devices Inc.	Japan	Electronic devices, microwave products
● Automobile Brakes		
Nisshinbo Brake Inc.	Japan	Automobile brake friction materials
TMD Friction Group S.A.	Europe	Automobile brake friction materials
Saeron Automotive Corporation	South Korea	Automobile brake friction materials
Nisshinbo Automotive Manufacturing Inc.	USA	Automobile brake friction materials
Nisshinbo Somboon Automotive Co., Ltd.	Thailand	Automobile brake friction materials
Nisshinbo Saeron Changshu Automotive Co., Ltd.	China	Automobile brake friction materials
● Precision Instruments		
Nisshinbo Mechatronics Inc.	Japan	Molding products, automotive precision parts
Nanbu Plastics Co., Ltd.	Japan	Molding products
Nisshinbo Precision Instrument & Machinery Hiroshima Corporation	Japan	Automotive precision parts
Nisshinbo-Continental Precision Machining (Yangzhou) Co., Ltd.	China	Automotive precision parts
Nisshinbo Mechatronics (Thailand) Ltd.	Thailand	Molding products
Continental Automotive Corporation	Japan	Automotive precision parts
● Chemicals		
Nisshinbo Chemical Inc.	Japan	Urethane products, high-performance chemical products
● Textiles		
Nisshinbo Textile Inc.	Japan	Shirt fabric, developed materials
NISSHINTOA IWAO INC.	Japan	Textile products
TOKYO SHIRTS CO., LTD.	Japan	Shirts
Nisshinbo Do Brasil Industria Textil Ltda.	Brazil	Textile spinning
PT. Nikawa Textile Industry	Indonesia	Textile spinning and weaving
PT. Nisshinbo Indonesia	Indonesia	Textile weaving and dyeing
● Real Estate		
Nisshinbo Urban Development Co., Ltd.	Japan	Real estate operations
● Other		
Nisshinbo Singapore Pte. Ltd.	Singapore	Group company support
Nisshinbo Business Management (Shanghai) Co., Ltd.	China	Group company support

Major External Assessments

(As of June 1, 2023)

ESG Index

MSCI ESG RATINGS



THE USE BY NISSHINBO HOLDINGS OF ANY MSCI ESG RESEARCH LLC OR ITS AFFILIATES ("MSCI") DATA, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT, RECOMMENDATION, OR PROMOTION OF NISSHINBO HOLDINGS BY MSCI. MSCI SERVICES AND DATA ARE THE PROPERTY OF MSCI OR ITS INFORMATION PROVIDERS, AND ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY. MSCI NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI.

FTSE Blossom Japan Sector Relative Index



FTSE Blossom Japan Sector Relative Index

FTSE Russell (trading name of FTSE International Limited and Frank Russell Company) certifies that Nisshinbo Holdings, Inc., has met the requirements for inclusion in the FTSE Blossom Japan Sector Relative Index based on the results of a third-party survey and has become a constituent of this index. The FTSE Blossom Japan Sector Relative Index is widely used to create and evaluate sustainable investment funds and other financial products.

MSCI Japan Empowering Women (WIN) Index

2023 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

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S&P/JPX Carbon Efficient Index



SOMPO Sustainability Index



Sompo Sustainability Index

External Assessments of ESG Activities

CDP Climate Change 2022 CDP Water Security 2022



Received a 4-star overall rating in the Nikkei's 2022 SDG Management Survey



Received a 3-star overall rating in the Sixth Nikkei Smart Work Management Survey



Highly rated in the Toyo Keizai CSR Company Rankings (2023)



Selected as a "Company Taking on the Zero-Emission Challenge" by the Ministry of Economy, Trade and Industry (METI)



Selected as a 2023 Certified Health & Productivity Management Outstanding Organization



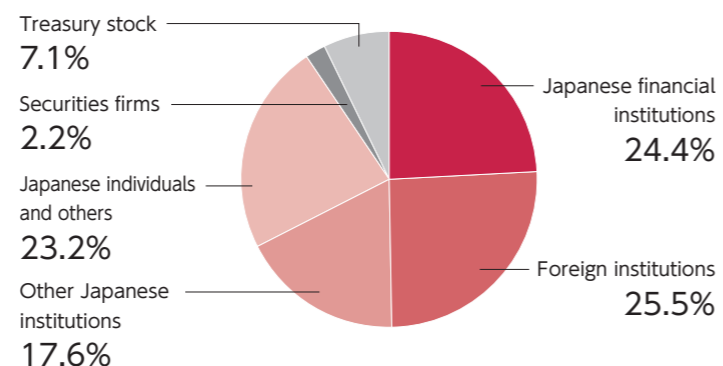
Selected as a "Kurumin" Certified Child-Rearing Support Company



(As of December 31, 2022)

Founded February 5, 1907
Common Stock ¥27,737 million (US\$205 million)
Employees
 Parent Company 224
 Subsidiaries 20,857
 Total 21,081
Head Office
 2-31-11, Ningyo-cho, Nihonbashi, Chuo-ku,
 Tokyo 103-8650, Japan
Shareholders 38,501

Composition of Shareholders



Basic Stock Information

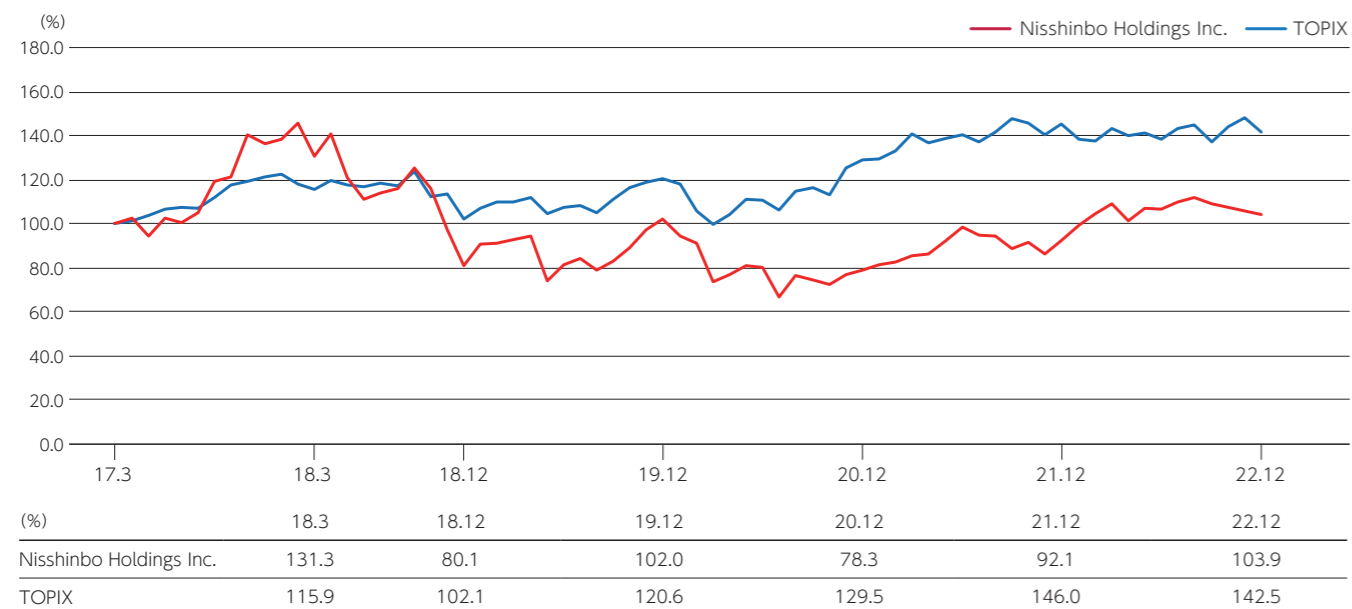
Sector	Electrical equipment
Stock code	3105
Number of shares per trading unit	100 shares
Business year	January 1 to December 31
Shareholder record date for dividends	December 31 (June 30 for interim dividend)
Total shares authorized	371,755,000 shares
Total shares issued	169,120,014 shares (As of December 31, 2022)
Treasury stock	12,081,800 shares (As of December 31, 2022)
Transfer agent	Mitsubishi UFJ Trust and Banking Corporation: 1-4-5, Marunouchi, Chiyoda-ku, Tokyo 100-8212, Japan

Major Shareholders

(As of December 31, 2022)

Shareholder name	Number of shares held (Thousand shares)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	21,399	13.6
Fukoku Mutual Life Insurance Company	9,000	5.7
Custody Bank of Japan, Ltd. (Trust Account)	6,470	4.1
Teijin Limited	5,264	3.3
STATE STREET BANK AND TRUST COMPANY 505001	5,116	3.2
CITY INDEX ELEVENTH CO., LTD.	4,146	2.6
DFA INTL SMALL CAP VALUE PORTFOLIO	2,848	1.8
Shikoku Chemicals Corporation	2,600	1.6
THE BANK OF NEW YORK MELLON 140044	2,462	1.5
Japan Wool Textile Co., Ltd.	2,282	1.4

Total Shareholder Return (5-Year Period)



Note: Share price index trends including dividends (March 31, 2017 = 100)

Thank you for reading the Nisshinbo Group Integrated Report 2023.

This report aims to deepen stakeholder understanding of the Nisshinbo Group's business transformation as we pursue our mission of contributing to society through business activities. Accordingly, the report introduces the strengths and growth strategies of our mainstay Wireless and Communications and Micro Devices businesses. Regarding sustainability, the report includes messages from outside directors, as well as environmental and social initiatives that support our growth strategy.

In creating this report, departments responsible for report creation and senior management shared feedback on Integrated Report 2022 from institutional investors, incorporated their opinions from the initial planning stages to ensure the report reflects the voice of the market, and collaborated with the relevant departments to improve report content as described above. I attest that the editing process and published content are appropriate and honest.

My hope is that this report aids in understanding the Nisshinbo Group's medium- to long-term value creation capabilities.

Masahiro Murakami
 President and Representative Director
 Nisshinbo Holdings Inc.

Guidelines Used to Prepare the Report

"International Integrated Reporting Framework," Value Reporting Foundation (VRF)
 "Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation," Ministry of Economy, Trade and Industry (METI)
 "Sustainability Reporting Standards," Global Reporting Initiative (GRI)



Corporate Website Guidance

Investor Information

- Financial results
- Securities Report
- Presentation materials
- Integrated Report/Annual Report
- Corporate Governance Report, etc.



Sustainability

- Environment
- Social
- Governance

