



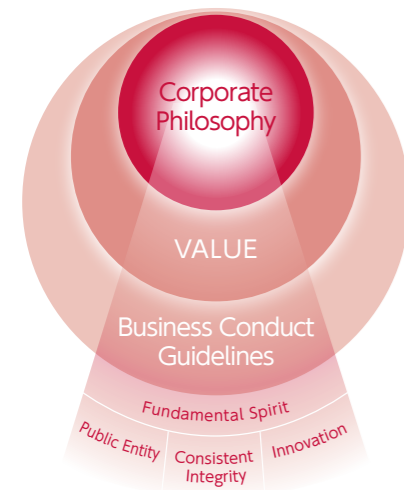
Aiming for Growth through
“Unity in Diversity”

Integrated Report 2021

Fiscal Year Ended December 2020

Nisshinbo Group Corporate Philosophy

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 behaviour 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

On Delivering the Integrated Report

The Nisshinbo Group promotes a business policy aimed at realizing super smart societies as an *Environment and Energy Company* group guided by our Corporate Philosophy "Change and Challenge! For the creation of the future of Earth and People." The Group has inherited the spirit of corporate public institutions that contribute to society through their businesses and positions ESG at the center of corporate management. We will also contribute to the SDGs through efforts focused on three strategic business areas: Mobility, Infrastructure & Safety and Life & Healthcare.

In this year's Integrated Report, in addition to introducing products and solutions to investors and other stakeholders from the perspective of these three strategic business areas, we attempted to provide detailed descriptions of the diversity initiatives essential for Nisshinbo, which has transformed its business portfolio to meet the needs of society and achieve sustainable growth. Going forward, the Group will maintain efforts to provide useful information for a constructive dialogue with stakeholders.

Masahiro Murakami
President and Representative Director
Nisshinbo Holdings Inc.

Guidelines Used to Prepare the Report

"International Integrated Reporting Framework," International Integrated Reporting Council (IIRC)

"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)

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MSCI ESG RATINGS

CCC B BB BBB A AA AAA

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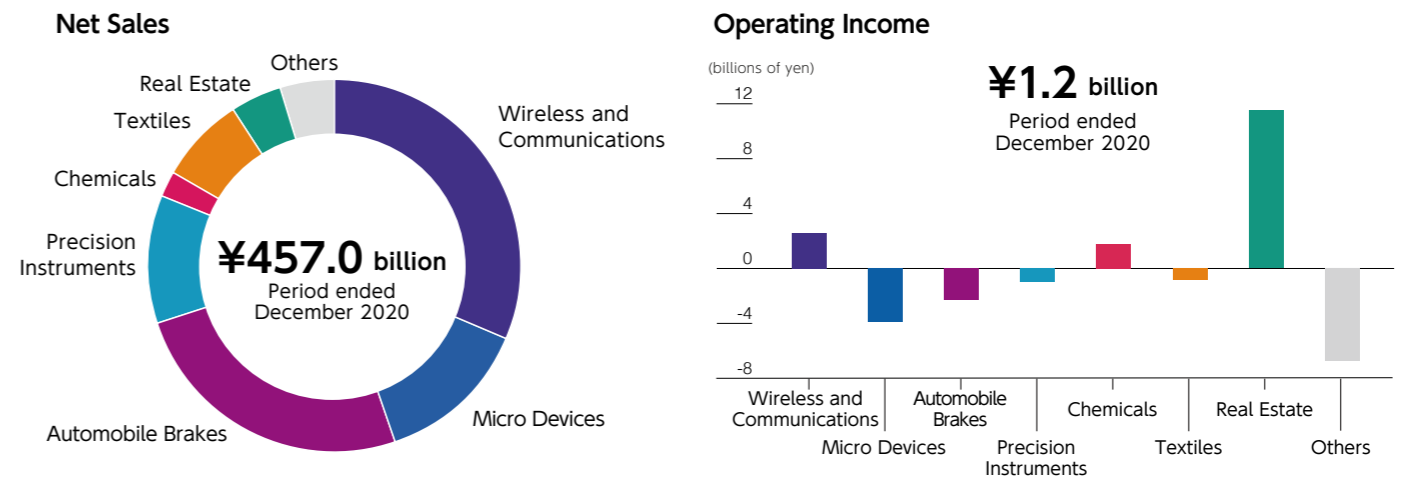
2021 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

2021 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

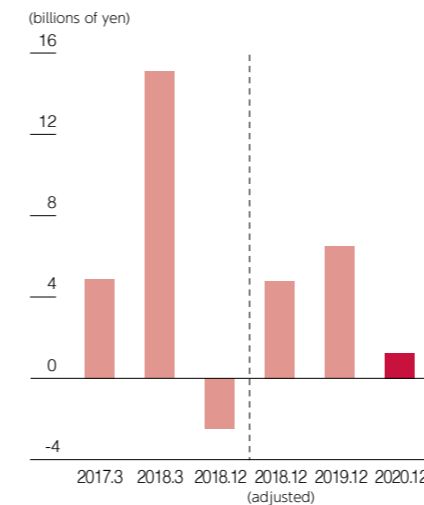
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Nisshinbo Group Operating Performance

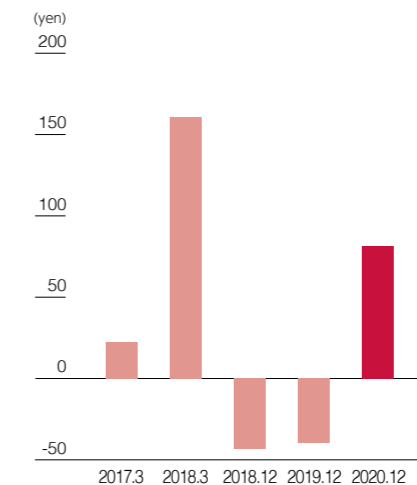
Note: The fiscal period ended December 2018 was a nine-month transitional period (Mar-Dec 2018) due to a change in the fiscal year-end.



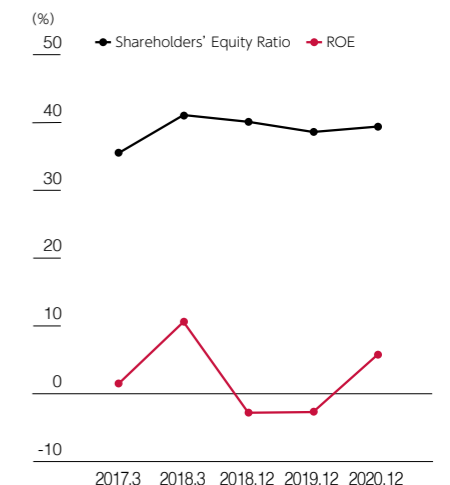
Operating Income / Loss*



EPS

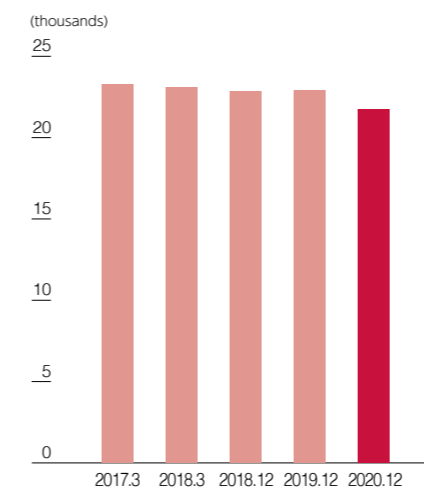


Shareholders' Equity Ratio and ROE

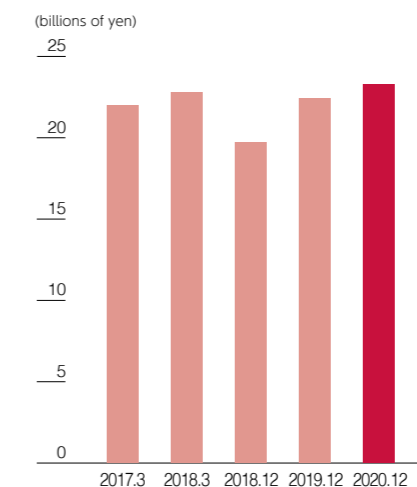


* Operating income for the fiscal year ended December 2018 has been adjusted to facilitate year-on-year comparison.

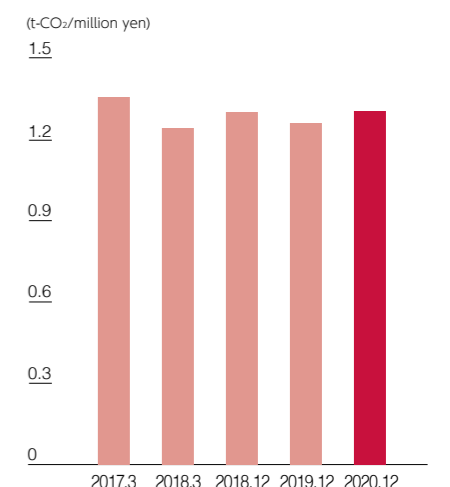
Number of Employees



Research and Development Expenses



Greenhouse Gas Emissions per Unit of Sales



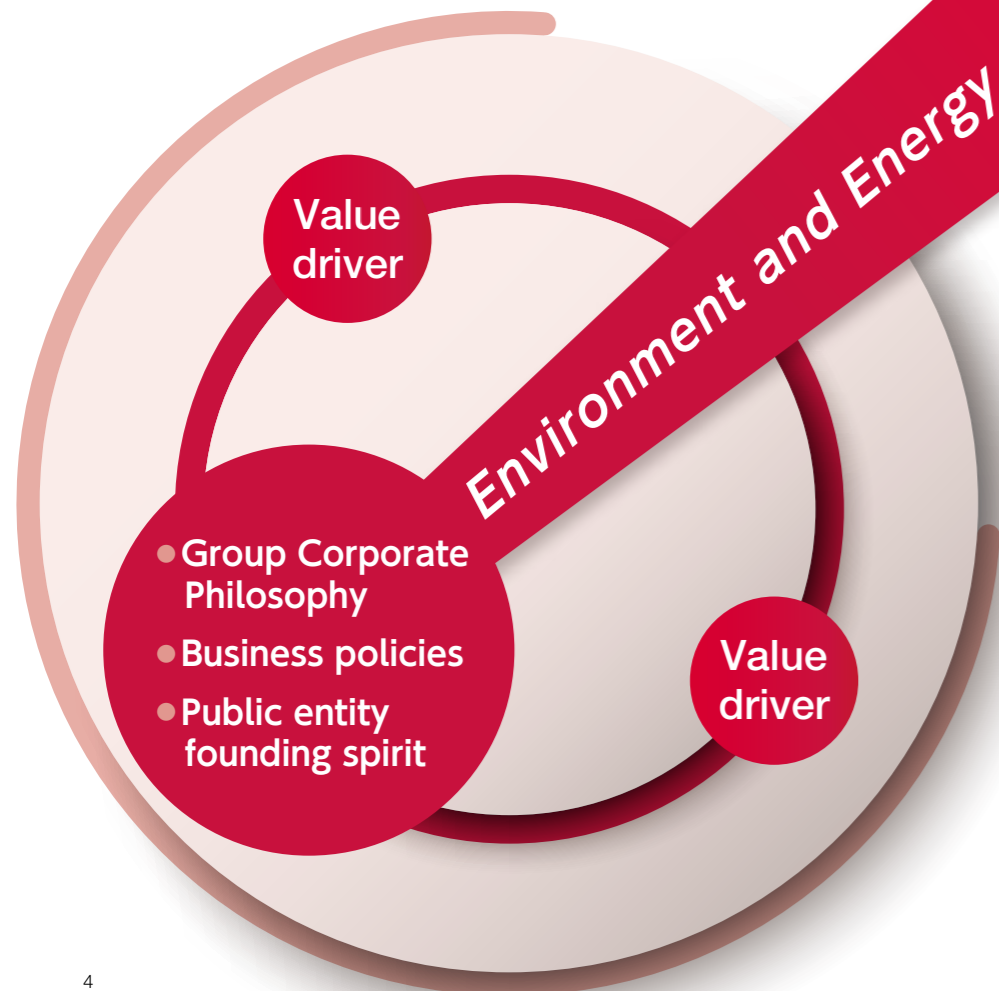
Profile
Management Strategy
Business Segments
ESG Initiatives
Financials

The Nisshinbo Group's Value-Creation Process

The Nisshinbo Group has flexibly reshuffled its business portfolio based on the Group Corporate Philosophy while responding to changes in the external environment to achieve its clear vision of realizing super smart societies. The products and solutions created as a result are steadily meeting market needs and gaining support.

Ongoing portfolio changes to business meeting the demands of a new age and society.

The quality of a company is the sum of its people, not the business itself



Changes in the external environment

Opportunities and risks

Global issues

Inputs

Group companies

- 40 companies in Japan
- 90 companies overseas
- Global expansion to 23 countries

Human resources

- Number of consolidated employees: 21,725 people

Intellectual property

- R&D expenses: ¥23.3 billion
- Patents, know-how, technological capabilities

Sales base

- Sales network spanning Japan and the world

Financial base

- Net assets: ¥242.0 billion
- Interest-bearing debt: ¥150.8 billion

Natural resources

- Minerals
- Water resources
- Energy

Outputs

Development of new products and services

- New products and services
- Mobility-related
- Infrastructure & safety-related
- Life & healthcare-related

Impact on society and the environment

- Specialized human resources
- Female manager ratio
- Realization of diversity
- Realization of a safe and secure global supply chain
- CO₂ reductions (products)
- CO₂ reductions (business)
- Joint research and development results through open innovation

Financial results

- ROE
- Stable dividends
- TSR

Providing solutions to issues directly facing human society

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

ESG management

Materiality

- Contribution to the environmental and energy field
- Creation of a safe and secure society
- Global compliance

Strategies

- Resolving social issues through business
- Focusing efforts in strategic business domains
- Management base enhancements

KPI

- Products and services contributing to a sustainable society
- Proportion of sales in growth business areas
- Non-financial indicators (human resources, supply chain, quality, environment, governance, etc.)

Nisshinbo Will Continue the Challenges and Changes with Diversity and Inclusion from a Global Perspective

Masaya Kawata
Chairman and Representative Director
Nisshinbo Holdings Inc.



Continuing to Transform Our Business Portfolio and Increasing Cash Flows to Contribute to Society through Business Activities

Masahiro Murakami
President and Representative Director
Nisshinbo Holdings Inc.



Taking a Global, Backcasting-Focused Perspective to Link ESG, ROE and ROIC

While standing firmly behind the spirit of a corporate philosophy passed down across generations—"Public entity," "Consistent integrity" and "Business is people, management is education"—Nisshinbo used the 10th anniversary of its transition to a holding company structure in 2019 to revise the way it expresses ESG as "Change and Challenge!" (G), for the creation of the future (G) of Earth (E) and people (S). I believe our basic approach of contributing to society with sincerity, engaging in management centered on people rather than industry type or business conditions and conducting training and education that is enhanced rather than hindered by diversity will become our strengths as we continue to boldly and flexibly take on challenges in the era of globalization and digital transformation.

Addressing global warming and climate change issues facing the planet is our *raison d'être* and social responsibility in declaring ourselves an *Environment and Energy Company* group. Although Nisshinbo has been focused on the environment since the 20th century, it has

renewed its commitment to ESG with a new philosophy. Considering the 2030 and 2050 timelines announced by countries throughout the world to improve efficacy by setting environmental targets and emphasizing backcasting and activities over the short to long term, in addition to various governance reforms that have been promoted along with rapid Group expansion and diversification, we believe a crucial role of the Board of Directors going forward will be to further enhance Nisshinbo's governance guidelines.

In developing global management, while monitoring dynamic movements throughout the world, it is critical to understand the background and details of each of the SDGs and associate the business we engage in with the SDGs. It is also important to remain cognizant of the relationship and balance between the SDGs and ESG and ROE and ROIC. To respond to complex global issues, we believe that considering diversity and inclusiveness from a global perspective and enhancing liberal arts capabilities will be necessary to tackle future challenges and transformations.

Ongoing Business Portfolio Reorganization as an *Environment and Energy Company* group

The Nisshinbo Group corporate philosophy is "Change and Challenge! For the creation of the future of Earth and People." This philosophy is rooted in the idea of corporations as public entities that "exist for the purpose of contributing to human society, with ongoing contributions being the driving force behind corporate growth." At Nisshinbo, we are formulating growth strategies and continuing to reorganize our business portfolio to embody the business policy to realize super smart societies as an *Environment and Energy Company* group guided by our corporate philosophy.

Looking back on the history of the Group, 114 years have passed since the founding of Nisshinbo Co., Ltd., in 1907, but on the 100th anniversary of Nisshinbo's founding, we embarked on a new direction. With the transition to a holding company structure in 2009, we launched a new Nisshinbo Group. Behind this major change in policy was a sense of crisis about slowing

corporate growth. If our business does not serve the needs of the world, the Company itself must change.

Returning to our beginnings, we asked ourselves "what kind of business portfolio will facilitate continuous contributions to society?" The answer to this question seemed clear: Among myriad social issues, humanity must place the highest priority on resolving environmental issues. Based on the idea that promoting businesses that contribute to protecting the global environment will contribute to society and lead to the sustainable growth of the Nisshinbo Group, we formulated a business policy to realize super smart societies as an *Environment and Energy Company* group, which is applied to all existing Group companies and promoted to accelerate innovation, while at the same time, by fostering new businesses in growth business areas and proactively engaging in M&A, we have transformed ourselves significantly and are still taking on the challenge of transforming our business portfolio.

Nisshinbo Group Corporate Philosophy

Change and Challenge! For the creation of 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 super smart societies as an *Environment and Energy Company* group

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

Long-term Goal:

ROE **12%**
(by 2025)

Strategic Business Domains

		
Mobility Copper-free friction materials Fuel cell vehicle parts and materials Marine wireless communication equipment, etc.	Infrastructure & Safety Weather radar Disaster prevention solutions Alertmarker+, etc.	Life & Healthcare Ultrasound imaging equipment Medical equipment and healthcare management equipment development, etc.

Dedicated to Amicable M&A Activities Aimed at Sustainable Growth

For the Nisshinbo Group, the primary objective of M&A activities is to expand growth business areas. In 2010, Japan Radio Co., Ltd. (JRC), which at the time was an equity-method affiliate, was converted into a consolidated subsidiary because electronics-related businesses did not have resources within the Group and because we wanted to actively grow this area as a core business.

At the same time, business portfolio transformation involves subtraction as well as addition. The Group is thoroughly committed to engaging in “amicable” M&A activities and business transfers. In some cases,

businesses no longer in Group priority investment areas can still play a role in core businesses if they become affiliated with other companies. If a business becomes part of the core, funds will be proactively invested and employees will be happy. In fact, even though the paper products business was transferred in 2017, large-scale investment was made immediately after the transfer, demonstrating its strong presence.

This is also the case when we acquire new businesses. As these are acquisitions aimed at expanding the growth business area, we will retain all employees and focus resources on the acquired business. Engaging in amicable M&A is also important for new employees to feel happy about becoming part of the Nisshinbo Group.

Communication Efforts Are Indispensable for Employees to Work with Conviction

It is said that “business is people,” but it is difficult for businesses to exercise more power than the sum of its human resources, as people are everything. Furthermore, companies cannot create anything unless people make the effort, and people do not make the effort unless they are convinced. Thus, I have always attempted to communicate in such a way that employees will grasp this message with genuine understanding and conviction—then take action.

Throughout its history, the Nisshinbo Group has been valued as a place where top management can interact directly with employees. Although I was unable to make regular visits to business sites last year because of COVID-19, I normally visit business sites in Japan and overseas throughout the year, taking time to communicate management policies and expectations for each business and listen to employee questions and opinions, which I feel teaches me quite a bit.

Taking good care of people means neither spoiling nor allowing complacency. The emphasis is on education, training and meritocracy, and while the number of mid-career employees is increasing, we hire human resources who achieve solid results regardless of the length of their career. However, I always emphasize that employees should not misunderstand job titles, which are merely one of the functions involved with managing an organization, rather than indicating that the people positioned above them are inherently superior. The responsibilities of management are more important than the people engaged in management.

Developing Human Resources That Continuously Examine Business Selection and Divestment

The Nisshinbo Group maintains a constant focus on business portfolio optimization by continuously examining the selection and divestment of businesses and products.

Trends and social needs change, thus to continue demonstrating the value of our long-term presence as a public company, relying on only one business pillar is dangerous and risky. Even with two pillars business can be unstable, so ideally, with three pillars of business, management stability is possible even if the center of gravity changes.



In terms of strategic business, Nisshinbo is engaged in the three areas of Mobility, Infrastructure & Safety, and Life & Healthcare. In selecting businesses, we comprehensively consider qualitative aspects including alignment between social needs and Nisshinbo’s corporate philosophy, the future viability of the business and the outlook for the business environment, as well as quantitative aspects such as the required investment amount and expected return. Through this process, if we determine that it would be difficult for the Group to further promote a business, we will divest via a business transfer or withdrawal and management resources in that area will be allocated to areas where growth is expected.

Nisshinbo is always engaged in multiple M&A and carve-out projects, with senior management, the CFO, the Corporate Strategy and Legal Affairs divisions and related departments coming together in teams for each project rather than establishing dedicated departments. This avoids an emphasis on working toward results that might be a bit impossible to achieve in the first year or so of a project. While I am always considering these factors, I think it is also okay to have a year in which nothing much happens. In addition, many employees who work in these teams are the first to enter M&A negotiations, which is beneficial in terms of an increased number of employees with experience in M&A negotiations. As I was brought up within the Company, I think the role of the Company is to provide various learning opportunities.

Going on the Offensive in 2021, Accelerating the Group Growth Strategy

In fiscal 2020, COVID-19 impacted net sales, which amounted to ¥457 billion, a decrease compared with the previous fiscal year, and, despite efforts to stay in the black, income declined, resulting in operating income of ¥1.2 billion and ordinary income of ¥3.4 billion. Net income (loss) attributable to owners of the company increased to ¥13.5 billion related to a reduction in impairment losses from the previous fiscal year, but overall, these are harsh results that management takes seriously.

Given these conditions, 2021 will be a year in which we recover from COVID-19, adopt an offensive stance and accelerate the execution of our business strategies. The concept of “contactless” that has attracted attention during COVID-19 is also a specialty of the Nisshinbo Group. We will grow Mobility-related businesses, including the Wireless and Communications and Real Estate businesses, which develop solid disaster prevention and mitigation businesses, and the Micro Device and Automobile Brakes businesses, which are booming at present, as well as new businesses that respond to COVID-19. We will halt environmental degradation, offer disaster prevention solutions and mitigation to protect human life, and, while responding to dramatic changes in the mobility industry, we will strive to quickly develop businesses that protect the Earth and people’s lifestyles.

I used the word “mobility” just now, but this is no longer synonymous with “automotive” or limited to cars. Led by a new company JRC Mobility, we intend to proceed with developments targeting mobility on land, sea and air. Regarding Infrastructure & Safety, although JRC’s core business is infrastructure development, we anticipate growing needs for disaster prevention and mitigation systems due to the increased frequency of natural disasters caused by climate change, thus we will dive deeply into this field and continue to strengthen our capabilities in line with our corporate philosophy. In terms of Life & Healthcare, as Group companies manufacture medical devices and Nisshinbo manufactures parts offering high technological advantages on a global scale, we will focus on fields where future growth can be expected. In particular, I think there is a large area in which we can contribute through collaborations between wireless technologies, which are one of the strengths of the Group, and






healthcare. Although telemedicine advanced during COVID-19, many medical devices are still connected by wires in hospitals. For example, there are a wide range of fields in which wireless technologies can be utilized for non-critical operations such as image transmission, and Nisshinbo will strengthen efforts in these fields with expectations for future growth.

Under these management policies, we believe that the “two-Ds” of digital transformation and diversity and inclusion are the keys to corporate change and growth.

Strengthen Nisshinbo’s Earnings Base by Expanding into Digital Service Businesses

While focusing on these three strategic business areas, we will maintain and accelerate expansion into service businesses utilizing our expertise in technologies and products in manufacturing with the aim of raising profitability across the entire Group. Although the Group engages in a diverse array of businesses, with profitability differing with each business, we created the slogan “Generation of Operating Cash Flow” applicable in all businesses and are engaged in efforts to improve profitability through thorough cost control and strategic pricing, selective concentration on business and product portfolio, continuous cost reduction and inventory reduction. However, there is a limit to profitability improvements, particularly in B2B-led manufacturing, thus it is critical to promote a parallel shift toward service businesses. Digital technologies are the driving force behind this business model. As a familiar example of service business utilization of digital technologies, JM-Safety, developed by JRC, is an app for smartphones that supports safe navigation for small vessels. In 2020, we provided new services to customers while leveraging the competitive advantage of our technologies and products, such as the addition of new vessel collision functions and updated approach prediction functions. As output with a sense of speed is important for service businesses that are a step ahead in manufacturing, the Digital Business Department was

ESG is Nisshinbo’s founding spirit

	E	In 2006, we positioned global environmental protection as our top-priority social issue and reformed our business with a focus on the environment and energy.
	S	Public Entity – Our founding spirit of contributing to society through business activities We engage in ongoing dialogue with stakeholders (customers, shareholders, employees, business partners, regional companies, etc.) to understand their requests and evaluations and reflect this information in our business activities.
	G	2006 We embarked on governance reforms, including the introduction of an outside director system, before the enactment of Japan’s Corporate Governance Code 2015 Abolished takeover defense measures 2017 Abolished internal advisor and consultant system and formulated Nisshinbo’s Corporate Governance Policy

Contributing to the SDGs through our business



established within Nisshinbo Holdings as a Group-wide standing committee. This office is an incubator, engaged in investments and other business developments.

Promoting Diversity and Inclusion Activities

The aims of diversity and inclusion activities are to cultivate an organizational culture that empowers employees to speak freely without hesitation and take action. For employees to work energetically, it is necessary to acknowledge and respect differences while making use of mutual strengths. Diversity is the infrastructure of innovation, requiring new combinations to sustain innovation, while homogeneity is the enemy. As talented employees are the linchpin of business, to promote business diversification, we must respect the various backgrounds our personnel bring to the organization. Moreover, to manage organizations with diverse human resources, it is necessary to “unite in diversity.” For corporations, it will be necessary to share and inculcate their philosophy and mission, and I will work tenaciously to achieve this end.

Perfect Alignment between Emphasis on ESG, Pursuit of SDGs and Nisshinbo Management Strategies

The objective of corporations is not the pursuit of profits but rather contributions to society through their business activities. However, without profits it would be impossible to continue engaging in business. And profits must be earned correctly.

Furthermore, without a healthy global environment, societies and economic activities would not be possible. Nisshinbo holds that the Environment (E) is merely business policy itself, whereas Society (S) is the idea of the corporate public institution, thus we will continue to maintain a philosophy that contributes to the world through business activities and to engage stakeholders in dialogue. Governance (G) is the basis for this value creation. In 2006, we appointed outside directors and launched governance reforms, and in 2015 we abolished takeover defense measures and subsequently formulated a corporate governance policy, abolished the consultation and advisory system and expanded diversity in the Board of Directors among other efforts to build a solid system ahead of any other company. For Nisshinbo, ESG management is seen as nothing less than the core of our management strategy, while our business activities are perfectly aligned with the Sustainable Development Goals (SDGs) targeted by the United Nations.

It is difficult to imagine the global environment being comprehensively improved over the next 5–10 years, but until it does, Nisshinbo will continue to protect human life through the development of materials and equipment facilitating disaster preparedness and mitigation. We will expand business to make the Earth truly clean. The technologies and diverse human capital constituting the pride of the Nisshinbo Group will engage in the resolution of environmental problems and other social issues, continuing to demonstrate its contributions to human safety and lifestyle security.

Note: For details, please see page 52.



Improving Investment Efficiency through More Profitable Businesses Targeting ROE of 12% in 2025

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 capital productivity while maintaining financial soundness in preparation for medium- to long-term investment and risks. To realize the return on equity (ROE) target of 12% in 2025, we are aiming for autonomous corporate growth while introducing return on invested capital (ROIC) as an important internal management indicator.

Group working capital and capital necessary for growth investments are mainly provided by operating cash flows, and we are working to improve capital efficiency by effectively utilizing interest-bearing debt as necessary. We are also making efforts to ensure liquidity within the Group and reduce the weighted average cost of capital (WACC) by raising and managing capital Group-wide with the aim of strengthening governance and improving the efficient use of capital. Regarding ROIC, WACC is set at 6% and the medium- to long-term ROE target is 12%, thus the optimum ROIC level is estimated to be approximately 8%. We believe that a single target is inappropriate for the Group, which has a variety of businesses, and we aim to achieve a

consolidated average of 8% after finding the level suitable for each business. In the fiscal year ended December 31, 2020, ROE was 5.8%, which is below WACC, a situation we take seriously as it is damaging to corporate growth.

Considering the impact of the long-term risks posed by COVID-19, we must think conservatively about capital policy, and to reduce WACC, it is essential to utilize more leverage than ever before to improve business profitability. Although we have already undertaken attempts to improve operational profitability by reducing investment securities and liquidating real estate with low profitability, there is an urgent need to improve the profitability of the business itself, which is the remit of management. Nisshinbo is shifting from a conventional business selling products to developing service businesses integrating DX and IoT utilizing technologies and products honed through manufacturing. And we are now able to see the fruits of our labor via improved investment efficiency.

Financial Results Over the Past 10 Years

The scale of Nisshinbo Group business has undergone major changes due to business portfolio reforms based on organic growth and numerous M&A activities. Regarding profitability, although we are implementing structural reforms in post-merger integrations (PMI) after M&A, in terms of consolidated figures, profit indicator volatility is particularly high, making it difficult to ascertain growth trends.

At the same time, regarding safety indicators, we have been vigilant about maintaining the capital adequacy ratio in the 30% range for the past 10 years, and while we have a reasonable amount of debt, we have also been paying close attention to the EBITDA to interest-bearing debt ratio. While we have ensured safety by refraining from exerting excessive pressure so that each business can focus on improving profitability, if the EBITDA level stabilizes, in terms of funding, we believe we can procure about five times EBITDA, and if we can improve the quality of EBITDA in terms of stability and growth potential, we will be able to further raise the interest-bearing debt ratio. In an era of low interest rates, consideration of leverage is a measure that also contributes to a stable and low WACC.

Financial Strategy Going Forward

The Nisshinbo Group has clearly defined priority business fields and will invest capital mainly in the Wireless and Communications and Micro Devices businesses in line with priority investment fields. Furthermore, regardless of the

business, investment in DX and IoT will become even more proactive going forward. Based on current depreciation costs and net operating profit after tax (NOPAT), we will proactively allocate resources of approximately ¥40 billion annually to capex and R&D investment, mainly in priority investment areas.

Each of Nisshinbo's businesses has reached the final stage of infrastructure developments targeting growth. In the Wireless and Communications business, restructuring centered on the transfer of business to JRC Mobility has been completed, with preparations under way for medical equipment and xEV. In the Micro Devices business, the integration of New Japan Radio and Ricoh Electronic Devices is scheduled for January 2022. In the Automobile Brakes business, 2021 is the final year of the TMD Group revitalization plan and we expect to move EBIT into the black from 2022. In the Precision Instruments business, while we strengthened Nisshinbo-Continental Precision Machining (Yangzhou) Co., Ltd., the domestic business contracted. The reorganization of Nanbu Plastics subsidiaries in China and Indonesia will be completed, while at the same time, we will develop growth prospects in the medical field. In the Chemicals business, we are promoting the development of applications for functional chemicals, a driver of growth.

Regarding business assessment and investment appraisal, Nisshinbo is currently preparing for systemic revisions to amend business system evaluations and investment appraisals as better KPIs for ROIC, but as already mentioned, it is difficult to assess the absolute level of ROIC as we are engaged in a variety of businesses, thus by first evaluating the rate of improvement relative to ROIC, we will proceed with the assessment and disposal of businesses.

If it proves difficult to achieve ROIC growth with thorough cost control and reduction efforts and continuous improvements, we must drastically assess the business itself and make a determination regarding disposal.

Regarding capital investment, M&A investment and other long-term capital, having thoroughly considered financial market trends, and maintaining a balance between the long and short term, Nisshinbo arranges long-term bank loans as appropriate. Over the medium to long term, we will also revise our fund procurement structure, maintain the shareholders' equity ratio at around 40% and strive to maintain a strong financial position.

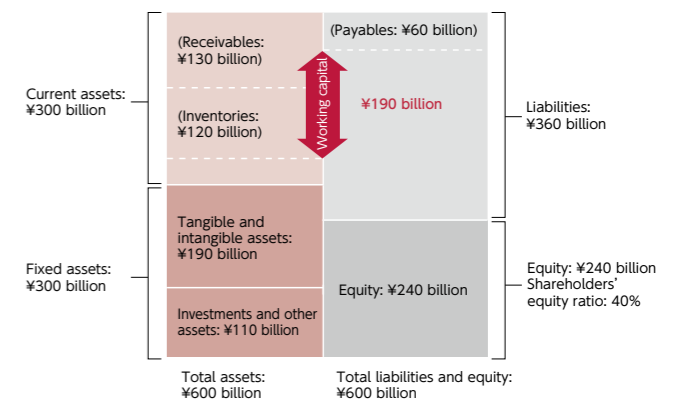
Basic Policy Regarding Shareholder Returns

The Nisshinbo Group promotes management focused on ROE with the aim of realizing sustained increases

in shareholder value through the distribution of profits. Regarding dividends, in principle, there are two distributions per fiscal year: the interim dividend and the year-end dividend. In the fiscal year under review, the full-year dividend amounted to ¥30 per share. Going forward, Nisshinbo will continue to target a consolidated payout ratio around 30% and hopes to realize perpetual dividend increases through the stable and continuous distribution of dividends.

In addition, if sufficient internal reserves are required to execute future growth strategies, with comprehensive consideration of factors including earnings outlook, stock price movement and the EBITDA to interest-bearing debt ratio, and being mindful of stability, we will examine the purchase of our own shares among other proactive efforts to enhance shareholder returns. Regarding treasury stock, in the event an M&A project will contribute substantially to increased shareholder value, although we cannot deny the shares are used for stock swaps, in principle, we will basically cancel the shares. At present, we have not completed the cancellation of treasury stock, but once Group restructuring has been completed, we will move forward focused on shareholder returns.

ROE Target and B/S, P/L Assumptions for 2025



ROE: 12% (2025) and P/L assumptions		
		Comment
Net sales	¥540 billion	Current sales level, assumes continued business portfolio realignment
Operating income	¥43 billion	Target operating margin = 8%
NOPAT	¥30 billion	Assumed effective tax rate = 30%
ROE	12%	NOPAT ÷ equity = 12.5%
ROIC	8%	NOPAT ÷ (tangible and intangible assets + working capital) = 7.9% • Reduce working capital • Liquidate fixed assets (land, investment securities)

Focusing on Solutions Utilizing Wireless Technologies to Capture Expanding Market and Business Opportunities in the 5G Era

Takeshi Koarai

Mr. Koarai joined Japan Radio Co., Ltd., in 1982. In 2017, he was appointed Director, Managing Officer, General Manager of the Technology Division and In-Charge of Research and Development. In March 2020, he was appointed JRC President. His motto is "simple is best." He believes that, while management innovations are essential for improving profitability, the first step toward change begins with ascertaining the underlying issues. In promoting management, he regards solutions based in wireless technologies to be the essence of the Company's business.



Q What are your thoughts looking back on the fiscal year ended in December 2020?

We cannot talk about 2020 without mentioning the impact of COVID-19. However, the degree of impact differed in each industry; although marine systems were affected by lockdowns in each country throughout the fiscal year, automobiles recovered quickly, and despite gaps between construction schedules and order timing in disaster prevention systems, projects remained on track, driven by firm public-sector demand.

During an unprecedented crisis, having a well-balanced portfolio of different types of business significantly contributes to management stability. At present, we have business diversity but in limited areas, thus by further diversifying our portfolio going forward, we want to transition to a more solid structure that will remain unaffected by the external environment. Furthermore, in terms of how to approach business promotion and work styles, we will continue to take on new challenges, promoting remote work, online sales activities and other innovations conceived during COVID-19.

Q What are the strengths of the JRC wireless technologies at the core of the Nisshinbo Group?

I think many people can feel the convenience of being able to wirelessly transmit voice, images and other data without the need for cables, especially when traveling. Now that the era of fifth-generation mobile

communications (5G) has arrived, communication systems previously available only to large telecommunications carriers are now open to a wide range of industries, dramatically expanding possibilities in the wireless communications business as the linchpin supporting IoT. Despite the presence of many new entrants and other competitors, we will leverage our competitive advantage as an axis of growth considering the tremendous business opportunities expanding before our eyes.

With 5G, in addition to nationwide public networks, it is possible to build local, small-scale private 5G networks. Private 4G is already being used in 4G systems overseas, and we have accumulated a variety of expertise through the provision of private 4G networks overseas. A fairly high level of expertise and design technologies are required to install base stations for wireless communications for which the reach is invisible to the naked eye—this area is our specialty. We will differentiate our business in terms of experience, expertise and achievements to provide solutions that satisfy customers. As various software is required to build wireless communication systems, we believe we will be able to demonstrate our advantage in shortening construction schedules and competitiveness by employing open innovation strategies demonstrating integration skills combining various overseas functions and technologies to build large-scale systems.

Q As business opportunities expand, what risks and issues are you aware of?

As a development-oriented corporate group, we have contributed to the resolution of customer issues by leveraging our technological strengths. However, going forward, we must enhance business value and profitability through the provision of solutions leveraging technology. To this end, we must transform our way of thinking and perspectives from the conventional focus on "tangible" to the "intangible." Nisshinbo Holdings Inc. established an in-house Digital Business Department that has already given rise to several trial incubation projects attracting personnel from each Group company. Our challenge going forward is to strengthen capabilities for promoting open innovation incorporating perspectives and technologies that JRC does not possess.

Q How will you engage in future developments in Mobility within your three strategic business domains?

In mobility, we will promote business from the perspective of providing solutions that contribute to resolving customer issues, from tangibles such as automobiles, ships, airplanes, railways and other modes of transportation, to intangibles within entire systems that include transportation. The automobile industry is undergoing a major transformation said to occur once in a hundred years, and seeing this as an opportunity, we will contribute to practical applications and advances in radar and ultrasound sensors in the CASE* area realizing the "connected" communications and sensing required for "autonomous" driving. We will also attempt to provide highly useful solutions through "sensor fusion," which combines raw data collected from the different sensors on cameras and radar that make up transportation infrastructure. There is no doubt that ships will move in the direction of autonomous operations. Compared to land-based operations, it is challenging to promote automation under severe ocean weather conditions such as waves and wind, as well as within the constraints of ship navigation characteristics (ships can turn only slowly). We will continue to expand practical applications through the accumulation of technologies utilizing sensing while participating in outside projects. Furthermore, the oceans themselves

are markets with great potential for developing solutions businesses other than ship navigation, such as meteorological data, marine resources and offshore wind power generation. We will also focus on creating solutions that lead to visualization of the ocean.

Note: CASE is an acronym that stands for "connected," "autonomous/automated," "shared" and "electric," representing new trends in next-generation automotive technologies and services enabling a major transformation in the automotive industry said to occur once in a hundred years.

Q What kind of developments are you working on in Infrastructure & Safety?

In terms of infrastructure, we will continue to provide highly useful solutions with data collected by traffic infrastructure sensing technologies, such as traffic volume measurement and wrong-way driver detection and prevention on expressways. In the area of safety, as natural disasters intensify, we will improve the performance of disaster prevention systems and pursue accuracy ensuring localized responses. For example, predicting river flooding caused by recent typhoons and linear precipitation zones is difficult when only weather radar covering a large area is used to predict disasters, making it necessary to consider hydraulic control via the installation of much radar at low cost in small river basins. We strive to realize solid business growth by consistently capturing strong public-sector demand for these disaster prevention systems.

Q What kind of developments are you working on in Life & Healthcare?

Ultrasound diagnostic equipment has already grown into a business with a defined scale, and the Handy Echo recently developed for portable applications is being used for house calls and in-home medical care. Wireless technologies in this field have potential as services such as, for example, measuring health by visualizing muscles and fat, and in the future, we will go beyond the medical field to expand these services to a broad range of areas.

Three Business Domains Driving the Nisshinbo Group Going Forward

Having defined our three strategic business domains as Mobility, Infrastructure & Safety and Life & Healthcare, Nisshinbo will aim for further growth as an *Environment and Energy Company* group driven by continuous innovations.

Meanwhile, COVID-19 has accelerated the digitization of businesses and services. Promoting digital transformation (DX) is also an important strategy for the Nisshinbo Group. In these three strategic business domains, we will expand into services providing value through the utilization of digital data based on Nisshinbo manufacturing technologies and products.



Mobility

While integrating technologies such as LTE and millimeter-wave communications, we will advance technologies including advanced driver assistance systems (ADAS) related to the autonomous operation of all mobile objects on land, sea and air to contribute to safety and the environment.

SDGs at the Core of Business Objectives



Three Strategic Business Domains



Mobility



Infrastructure & Safety



Life & Healthcare

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



Expansion into the service industry
Long-term Goal: ROE 12% (2025)



Infrastructure & Safety

The Nisshinbo Group leverages the technologies and knowledge of each Group company related to disaster prevention systems such as weather radars, river water level monitoring systems and total maritime information services, providing solutions facilitating human safety and security in a super smart society.

SDGs at the Core of Business Objectives



Life & Healthcare

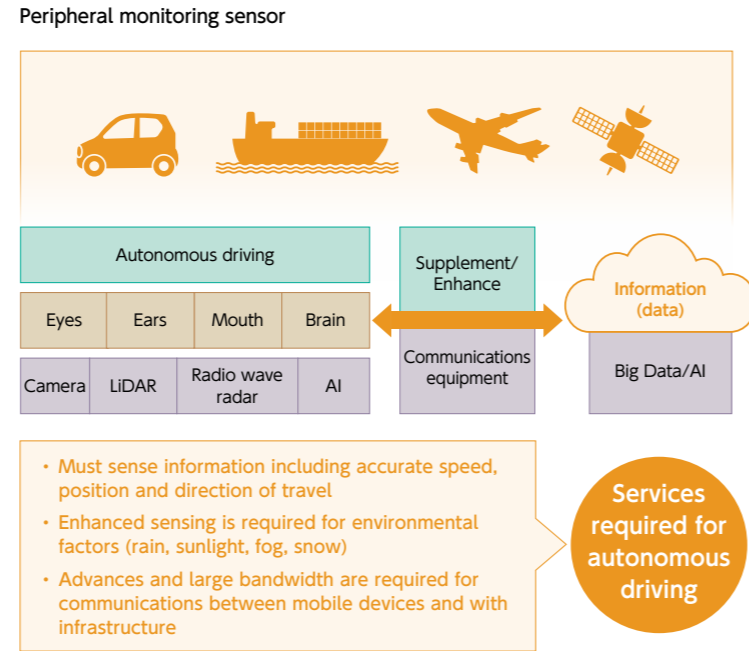
As an *Environment and Energy Company* group, the Nisshinbo Group promotes the development of environment- and medical-related products incorporating the technologies of each Group company.

SDGs at the Core of Business Objectives

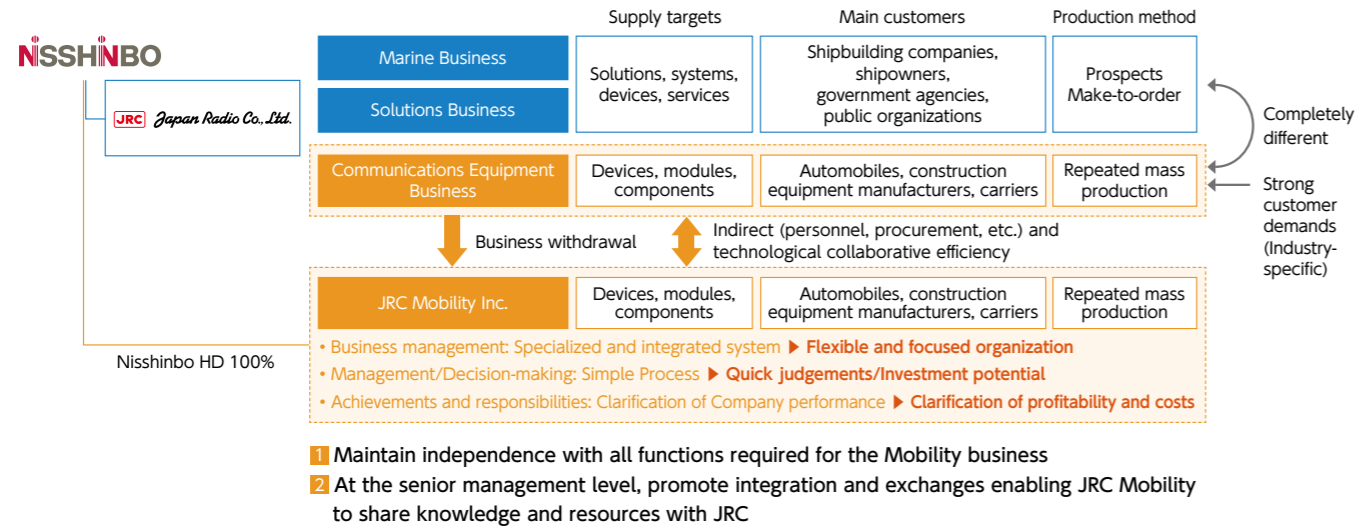


Business Background and Merits

Amid the advance of CASE and other technological innovations in new areas of the automobile industry, autonomous driving initiatives are under way throughout the world, starting with the lifting of a ban on "Level 3" conditional autonomous driving and the practical application of "Level 4" services enabling unmanned driving. This trend is not limited to automobiles, as ocean vessels are also moving toward automatic navigation. Within this environment, Nisshinbo Group business segments comprising wireless and communications, micro devices, automobile brakes, precision instruments and chemicals will collaborate on the integration of proprietary technologies including the LTE next-generation high-speed mobile communications standard and millimeter-wave communications while contributing to safety and the environment by refining technologies such as advanced driver assistance systems (ADAS: "Level 2" autonomous driving) related to the autonomous operation of all moving objects whether on land, sea, air or in space. In addition to mounting sensing technologies and other mechanisms on individual moving objects, Nisshinbo will expand practical applications by including traffic lights, highways and other infrastructure, as well as wireless communications on land and in the air for marine operations.



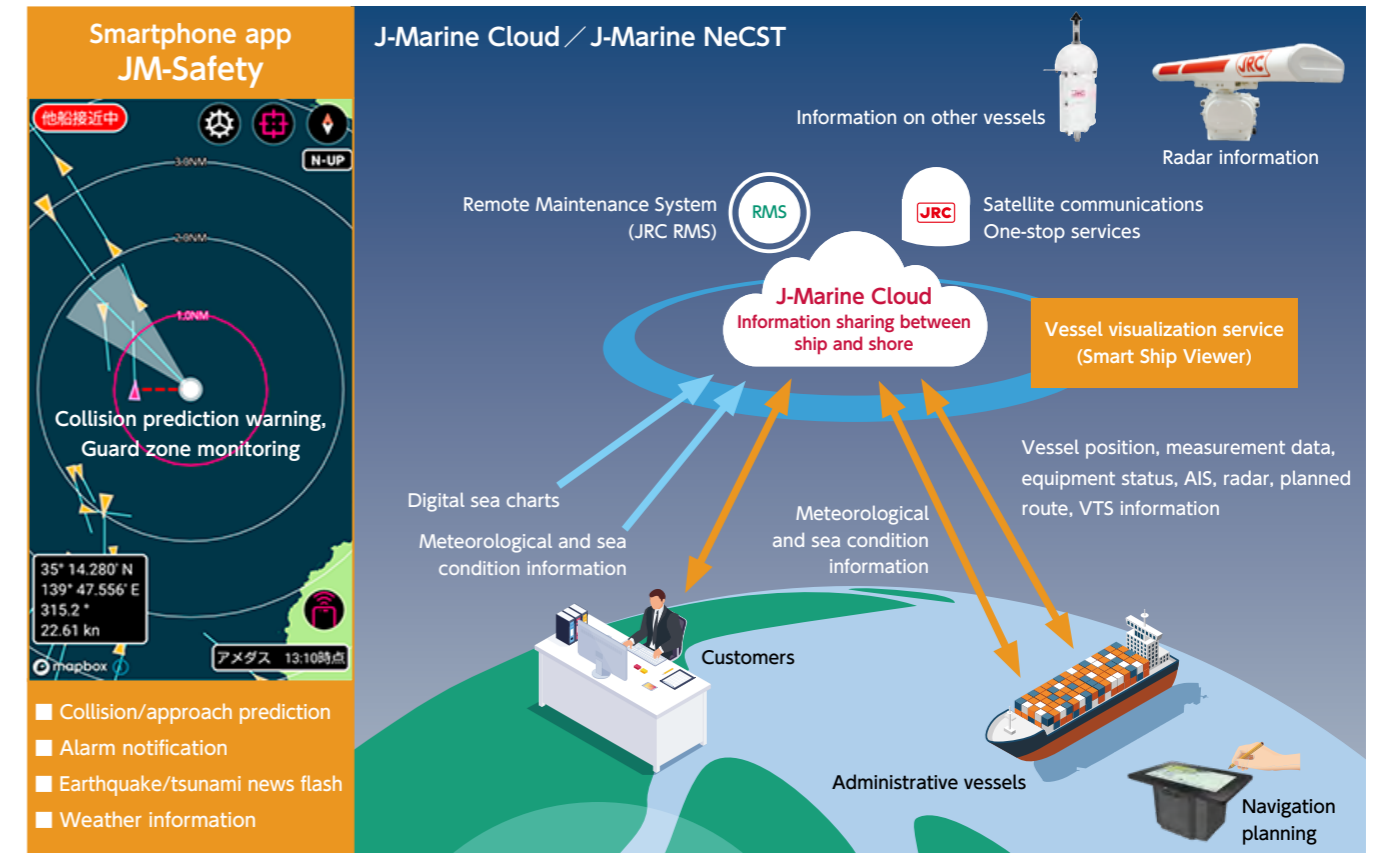
Future Initiatives



Sensing technologies such as cameras, LiDAR, radio wave radar and the utilization of AI, all of which are indispensable for autonomous driving, must accurately read information such as speed, location and direction of movement, while also being sufficiently robust to endure rain and sunlight as well as harsh weather conditions such as fog and snow. Furthermore, considering communications between moving objects and the transportation infrastructure, it is essential that we increase communication equipment sophistication and capacity. In addition to the development and provision of equipment contributing to the automation of individual moving objects, including entire transportation and other systems, the Nisshinbo Group will continue to provide solutions that contribute to

resolving customer issues. Our 3D recognition technologies have already earned a high reputation worldwide for their ability to facilitate autonomous movement without malfunction regardless of the weather. Nisshinbo will utilize AI to incorporate the predicted movement of people and objects, which will be commercialized as a service. At sea, where automated navigation takes place under harsher weather conditions than on land, Nisshinbo will participate in external projects and dig deeply into technologies utilizing sensing linked to automated navigation services via the cloud, while at the same time aiming to create solutions in areas outside vessel navigation using meteorological data and marine resources to "visualize" the sea.

Solutions and Products



AIS : Automatic Identification System VTS : Vessel Traffic Services

Protecting Safety on the Sea

The Nisshinbo Group sells marine wireless communications equipment, marine radar and other navigation equipment, bridge and other systems to commercial and fishing vessels globally. Specifically, we have a large market share of more than 30% in navigation equipment for large commercial ships, supporting the development of global shipping. Furthermore, in areas where navigation is difficult, Vessel Traffic Services (VTS) that centrally control traffic have been installed in maritime safety centers and many communications base stations in Japan and overseas to provide safe shipping route information, realizing safe navigation in ports and coastal areas.

In addition to the provision of products, we operate J-Marine Cloud, which provides advanced shipping information such as weather conditions and vessel positioning information obtained from VTSs in real time online, which is used for optimal information analysis by vessel operators. Onshore, we provide advanced operational support by sharing information among vessels while obtaining real-time information on the position, engine, navigation equipment and surveillance images of managed vessels. Furthermore, provision of the groundbreaking J-Marine NeCST vessel operation support service, which provides large displays, allows information to be handwritten onto electronic navigation

charts (ENCs) and can be linked to J-Marine Cloud, contributing substantially to voyage planning efficiency and optimization. Realizing wireless communications between vessels and utilizing the data aggregated therein will lead to selecting the safest and most efficient routes for autonomous navigation.

The J-Marine Cloud service is available to all shipping companies, eliminating the need for them to develop their own vessel monitoring systems. The service includes the Smart Ship Viewer (SSV), which makes ships visible. It also helps to reduce marine accidents involving small vessels such as pleasure boats and warns of approaching vessels, earthquakes, tsunamis and other sudden changes in sea conditions through the JM-Safety smartphone app for individual users. The JM-Watcher II app has already been downloaded more than 40,000 times, and in April 2021 we released JM-Safety, which has an added a function (option) that detects overboard falls supporting the rapid notification of overboard falls while at sea. With ocean safety protection services offering three types of safety—overboard fall detection, vessel position sharing and safety watching—we are promoting the visualization of vessel navigation and all types of marine information to ensure safety and security while at sea and eradicate marine accidents.



Solutions and Products

Sensor Fusion (3D Verification Technologies)

The Nisshinbo Group has been working on systems that detect accidental intrusions on highways and automated systems for port monitoring operations at sea by equipping cameras with AI functions. In addition, using radar to monitor pedestrian traffic, we have facilitated safe crosswalks by extending the length of green lights and using 4D laser sensing, contributing to the prevention of collisions and accidents in warehouses and other facilities. Sensor fusion is an effort to improve functionality

and performance through the fusion of different types of sensors. In processing raw information collected from different sensors within transportation infrastructure before fusion, we will improve accuracy leading to the provision of highly useful solutions in transportation and other fields. We have already achieved practical application at the technological development level, which will lead to concrete business developments in the future.

JRC Wrong-way entry detection

In development Entry and approach detection system using cameras + millimeter-wave radar

Prevents successive wrong way entry and driving through high-speed entrances and exits!

Millimeter-wave radar/AI camera

AI processor Warning display

Entrance Detects pedestrians, bicycles and mopeds!

Exit Detects vehicles entering or driving the wrong way!

Preventing accidents on expressways

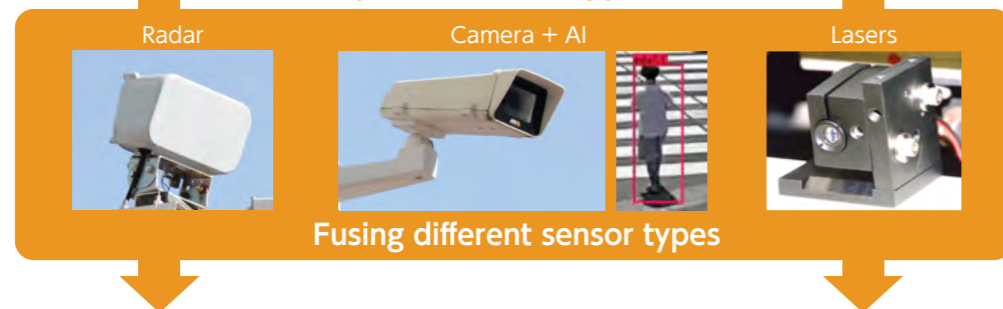
JRC Harbor offshore surveillance

Unknown vessel approaching!

Incursion line

Autonomous harbor monitoring operations

Transportation field applications



JRC Crosswalk surveillance

Intersection surveillance sensors

Radar Cameras (image recognition)

Traffic signal control system

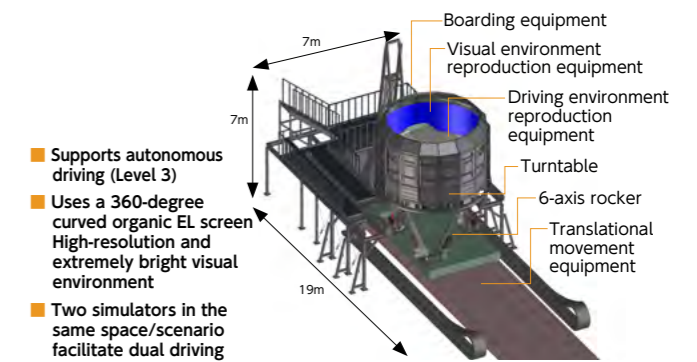
Efforts include extending green lights to facilitate safe intersections

JRC Mobility 4D sensing

Collision accident prevention in warehouses and other locations

Driving Simulators

With revisions to the Road Traffic Act in 2020, the ban on Level 3 conditional autonomous driving on public roads has finally been lifted in Japan. Although the development of self-driving vehicles requires development assuming all road conditions, the use of driving simulators is essential for evaluating reliability and safety, particularly in dangerous situations. Nisshinbo has worked on multiple driving simulators in the past, and going forward we will prepare to ship driving simulators supporting Level 3 conditional autonomous driving. The distinguishing feature of the Nisshinbo Group driving simulator is that its simulated driving environment uses a six-axis oscillating device. In addition to adopting a 360-degree curved organic EL for the visual environment, we provide a high-resolution and high-brightness environment enabling the use of dual driving simulators in the same space and scenario.



Autonomous driving simulator:

The development of autonomous vehicles requires assumptions for all road conditions. Development and evaluations in actual environments require an enormous amount of money and time, making the use of simulators extremely effective in terms of reducing the time and costs required for development. Simulators are indispensable for evaluating reliability and safety in particularly dangerous conditions.

High-precision Positioning Services

In order to realize mobility autonomous driving, positioning services need to be more accurate than ever before. Today's GPS systems are accurate to within 10 meters. Replacing those systems with high-precision positioning technology that improves accuracy to a few centimeters would enable autonomous vehicles to determine their current road lane using only satellite positioning. That kind of technology is likely to be in high demand from a wide range

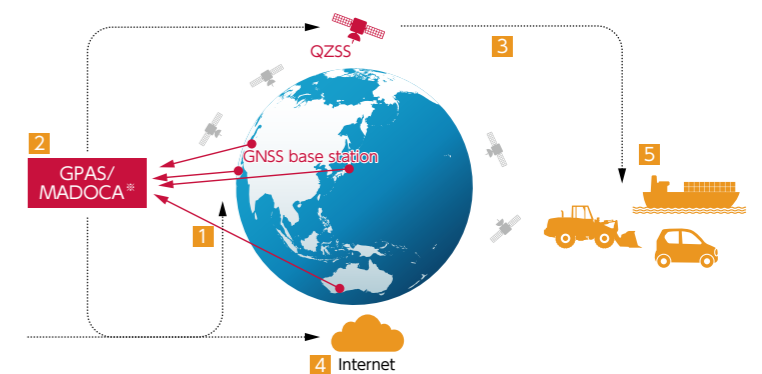
of fields. Japan Radio Co., Ltd. is developing a global navigation satellite system (GNSS) chip that receives signals from the Quasi-Zenith Satellite System (QZSS). The GNSS receiver chips will play a vital role in realizing new high-precision positioning services. To promote the new services overseas, Japan Radio in June 2017 became one of the founding shareholders in Global Positioning Augmentation Service Corporation (GPAS).

How GPAS Services Will Work

- How GPAS Services Will Work
- Using the data, errors in satellite orbits and clocks are accurately calculated.
- Corrected data is transmitted to users via QZSS.* (Data distribution via the Internet is also possible.)
- Transmitted data is used to calculate the position of the user, enabling positioning services accurate to within a few centimeters.

* QZSS: Quasi-Zenith Satellite System

* MADOCA: Software under development at the Japan Aerospace Exploration Agency (JAXA) to accurately estimate satellite orbits and clocks



Copper-reduced and Copper-free Friction Materials

The automobile brakes business, one of the Group's core businesses, manufactures brake pads, brake linings and other friction materials. Subsidiary Nisshinbo Brake Inc. produces NAO friction materials, which are used mainly in Japan and the US.

US environmental regulations, effective from 2021, will prohibit the sale of new friction materials or vehicles fitted with friction materials that have a copper content of more than 5%. From 2025, stricter rules will come into force that further reduce the limit on copper content to 0.5%.

Nisshinbo Brake was one of the first in the industry to respond to the new rules by developing copper-reduced

and copper-free friction materials, which have attracted firm support from automakers. We forecast strong annual growth in shipments of the new friction materials, helping to further increase our share of the friction materials market.



Business Background and Merits

In recent years, many natural disasters are said to have been influenced by climate change, and the intensification of disasters such as torrential rainstorms and landslides have become serious social issues. The Nisshinbo Group contributes to the advanced detection and avoidance of natural disasters through disaster prevention systems including weather radar and river water level monitoring systems in collaboration with the Wireless and Communications, Micro Devices and Chemicals business segments. Furthermore, we are promoting safety management in buildings, plants, factories and even large dams among other structures by establishing reliable fourth-generation mobile communication systems (4G) overseas and fifth-generation mobile communication systems (5G) in Japan. Utilizing the technologies and knowledge possessed by each Group company to detect anomalies such as aging highways, Nisshinbo provides solutions to realize human safety and security in a super smart society. Supported by stable public-sector demand, we will expand from equipment sales to providing service solutions that utilize data obtained from equipment, centered on the newly established Digital Business Promotion Office.

Future Initiatives

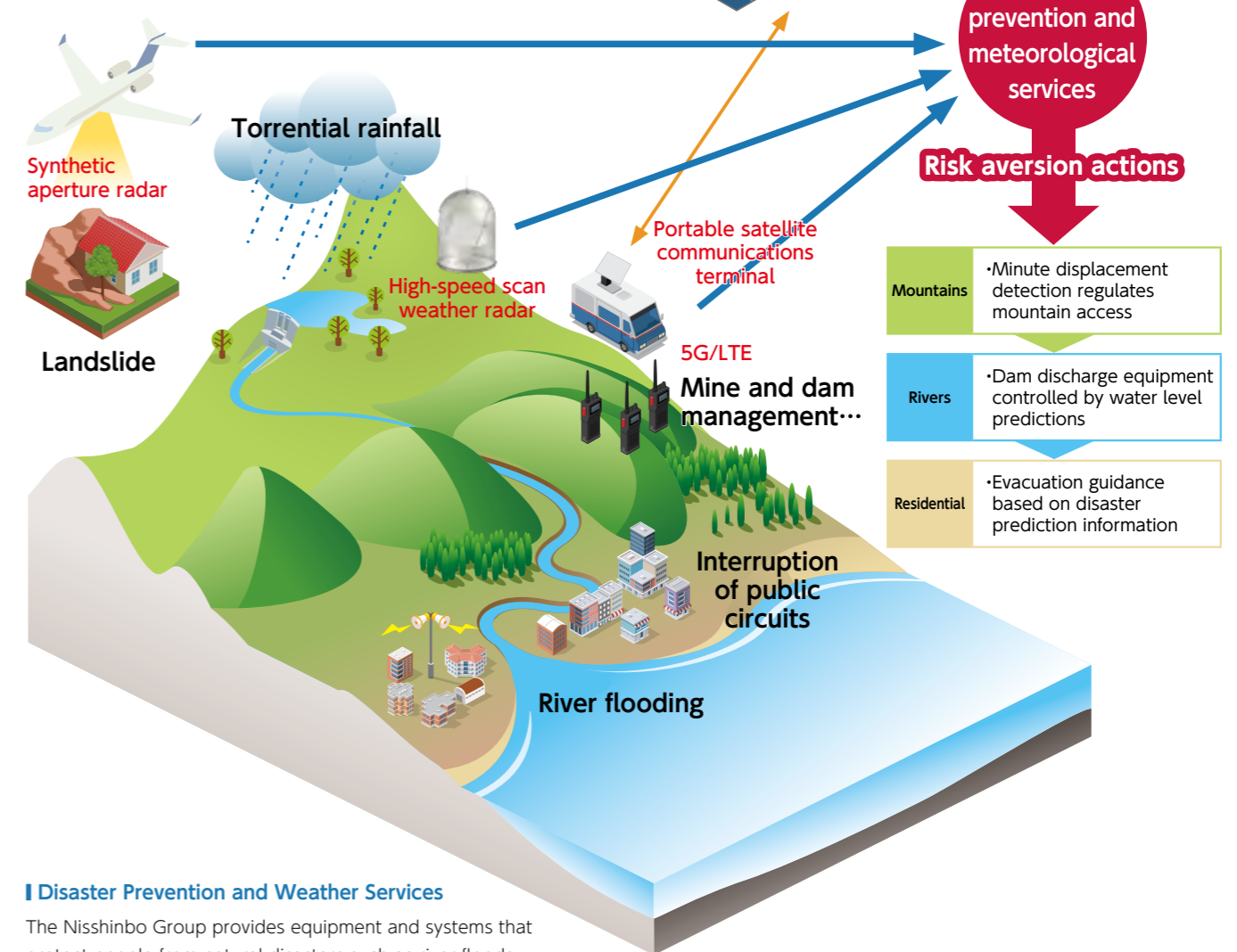
In 2020, Japan Radio(JRC) obtained a license from the Ministry of Internal Affairs and Communications for an experimental test station that supports the 5G sub-6 GHz band and will proceed with local 5G demonstration experiments in the future. Separate from the 5G services deployed by mobile carriers, local 5G is a 5G service that companies and local governments provide themselves in buildings and other designated areas and that are expected to help improve productivity in factories and resolve local issues.

Another role of the infrastructure business is to provide highly useful solutions for the data collected by traffic infrastructure sensing technologies such as traffic volume measurements and the detection and prevention of wrong-way driving on expressways.

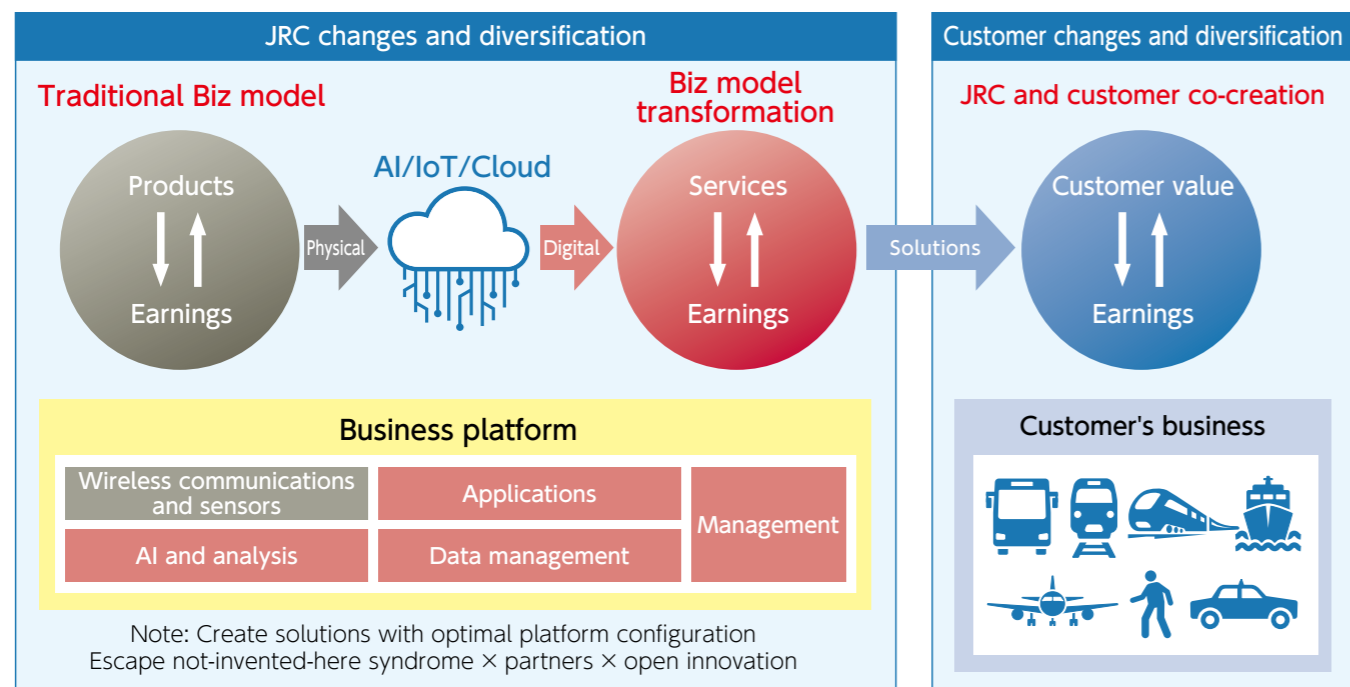
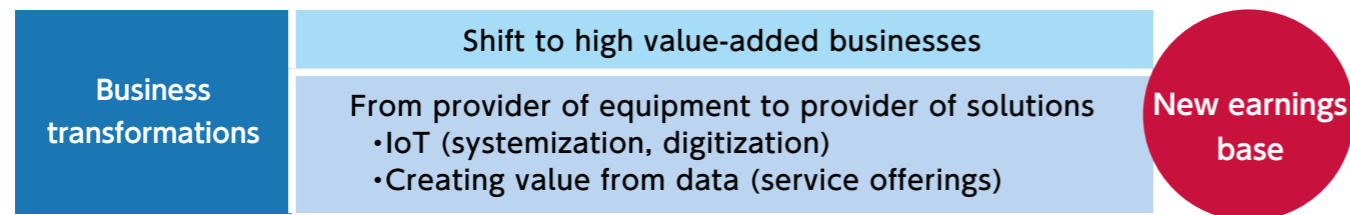
In terms of safety, we are improving disaster prevention system performance while firmly establishing disaster prediction systems to address localized disasters that are difficult to predict using only weather data covering a large area and will contribute to more precise hydraulic controls by installing low-cost radar in the basins of small rivers.

Solutions and Products

Providing regional disaster prediction information



Transformation to a profitable business structure through digital business



Disaster Prevention and Weather Services

The Nisshinbo Group provides equipment and systems that protect people from natural disasters such as river floods, sediment-related disasters, tsunamis and storm surges, as well as the water level gauges, rainfall meters, telemeters and alarms that remotely manage them. We are installing devices such as sirens and cameras, and networking each device with communication technologies, to build dam management and other systems. In addition to monitoring rivers and other disaster prevention targets, we are developing a wide range of solutions in Japan and overseas ranging from disaster prevention combining weather information and earthquake information obtained from weather radar and other sources to disaster prevention information communication systems that notify residents of danger. Nisshinbo weather radar is widely used in meteorological and rainfall observation systems, including those operated by the Japan Meteorological Agency and the Ministry of Land, Infrastructure, Transport and Tourism, as well as overseas meteorological agencies. Conventional weather radar requires approximately five minutes to complete one observation and is unable to capture a stereoscopic image of cumulonimbus clouds developing rapidly in

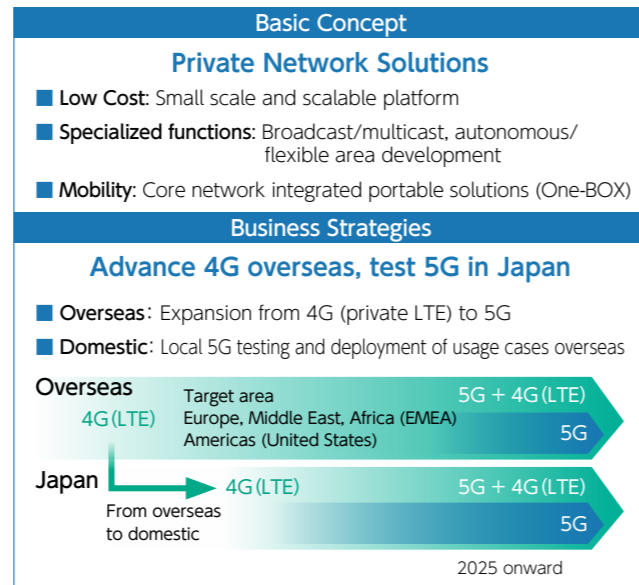
a short period. For this reason, we are developing weather radar successor models for the practical use of phased-array weather radar. This radar system combines several small radar on a plane to reduce blind spots, scans the entire sky in 30 seconds and observes cumulonimbus clouds three-dimensionally and at high speed to quickly predict localized heavy rainfall. This enables the rapid recognition of torrential rainstorms and tornadoes caused by cumulonimbus clouds that have been increasing in recent years. We are also working on the development of quantitative precipitation conversion, which is more difficult to observe, and particle discrimination applied to rain, snow and hail. Nisshinbo will continue to develop next-generation weather radar with high-speed recognition of torrential rainstorms and tornadoes.

In addition to natural disasters, roads and other aging social infrastructure pose a risk of becoming major factors in the event of a disaster. The Nisshinbo Group will leverage solid business relationships with government agencies on the full-scale launch of a social infrastructure maintenance business.

4G/5G Business Strategy

Basic Concept: Business Strategy

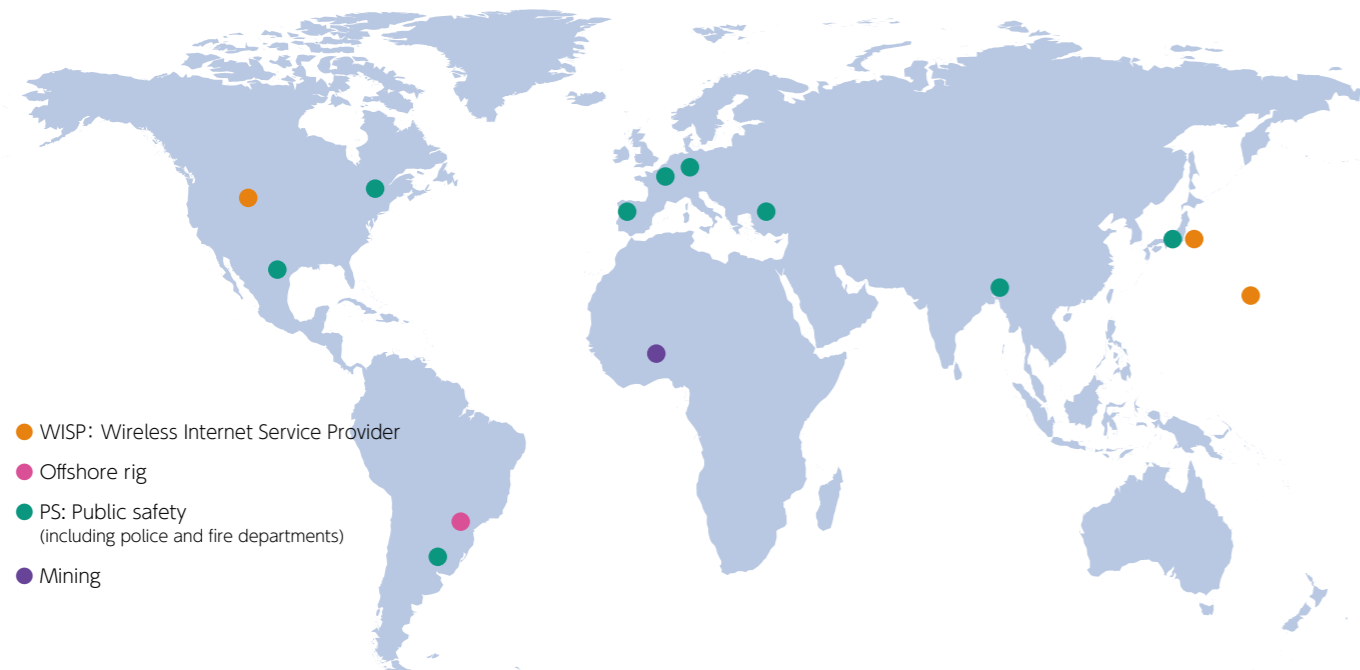
With the arrival of fifth-generation (5G) mobile networks, the mobile network market comprising public networks will be expanded to the world of local 5G and other self-deployed networks. With expertise in commercial wireless and other self-deployed network business development, the Nisshinbo Group will continue to provide high-value-added solutions customized for self-deployed networks as its basic business concept even in the 5G era. The essential value this concept offers is threefold: compact, low-cost systems that are easy to implement even by government agencies and companies that create and operate self-deployed networks; functions including high-quality communications, broadcast distribution and group calls unique to self-deployed networks; and base station and center equipment that is both integrated and portable. Overseas, where we are already developing self-deployed 4G LTE network markets, we assume migration to 5G, which is an extension of LTE. In Japan, where a large self-deployed network market is expected to arise in the 5G era, Nisshinbo will leverage overseas self-deployed network introduction achievements through local 5G demonstration experiments to lead the market.



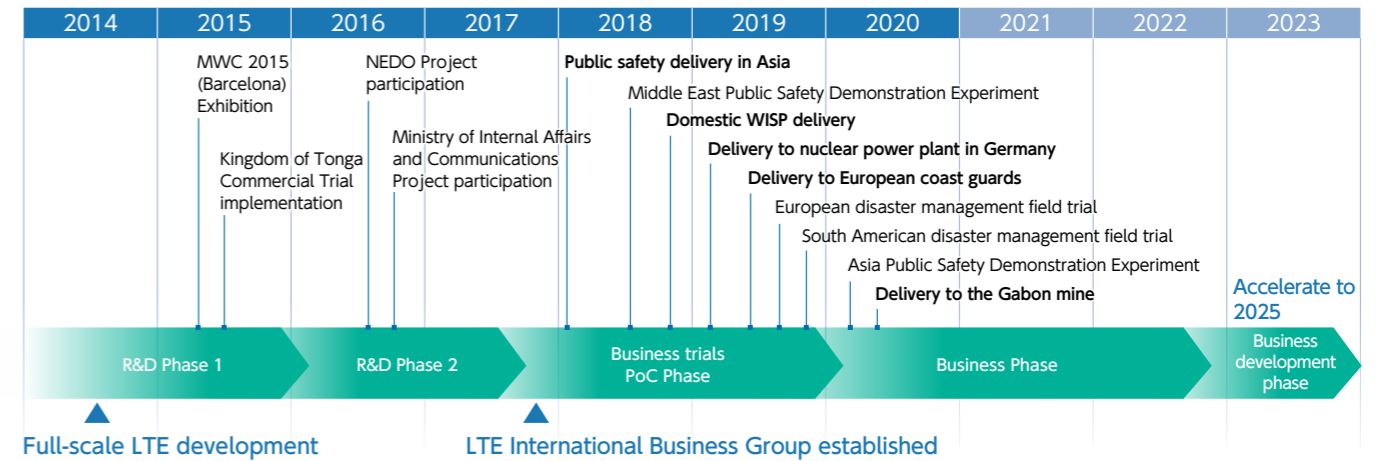
- **Markets:** Public safety, mining, offshore rig, WISP, etc.
- **Strategies:**
 - System integration utilizing technology ecosystem
 - Wireless customization (band compatible, area building)
 - All-in-one solutions from core networks to terminals
- **Results:** Europe, North America and South America



One-BOX Core-Network Integrated, Portable Base Stations



- **2014 Full-scale development (collaboration with global development partners)**
- **2016 Public project ▶ 2017 PoC Phase ▶ 2018 Business Phase**



Overseas Developments: 4G Achievements

Demand for private LTE (self-deployed LTE) is growing exponentially throughout the world. With experience and expertise as a specialist in the wireless communications field, the Nisshinbo Group has accumulated a successful track record overseas since full-scale development began in 2014. In October 2020, we shipped private LTE systems to Gika Telecom, a new French telecommunications network operator, and Comilog, a mining equipment company in the Central African Republic of Gabon. As part of the Eramet Group, a French mining and metal

processor, Comilog is the world's second largest producer of manganese ore. The company adopted a high-speed, stable and secure form of LTE communications as part of its efforts to digitize operational processes in the Moanda mine. The Nisshinbo Group is contributing to the expansion of Comilog's mining operations through the provision of comprehensive private LTE solutions, including LTE base stations, subscriber management devices and network management equipment.

- **Markets:** Industrial IoT, disaster prevention solutions, digital services, etc.
- **Strategy:** Develop markets through trials conducted with customer partners

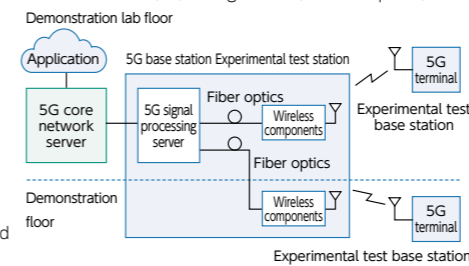
(demonstration base established in December 2020)

Nagano Plant Field Trial System



1st floor hall, Advanced Technology Center

- **Demonstration test objectives**
 - Ascertain 5G system characteristics
 - Demonstrate use of local 5G for various applications
- **Demonstration test overview**
 - Sub-6 GHz band (Sub-6)
 - Stand-alone (SA) configuration (no 4G required)



Japan Local 5G

In the Japanese market, beginning with the acquisition of a license from local 5G demonstration experiments, Nisshinbo is proceeding with the verification of 5G system performance at the JRC Nagano Plant and links to various digital applications. In addition to the disaster prevention and mitigation markets in which the Group specializes, Nisshinbo will cultivate new markets for IoT solutions that include the industrial field. We will conduct demonstration experiments with prospective Japanese customers while mutually verifying efficacy and business impacts to greatly expand the potential of this business. Local 5G is also an area in which many competitors including leading Japanese electronics manufacturers have already entered. The Nisshinbo Group will attempt to differentiate itself from the competition by focusing on compact, low-cost system configurations developed in overseas LTE as one means of seizing this tremendous business opportunity.

Transport Infrastructure

The Japanese government is rapidly working to create safer transport infrastructure using information and communication technology (ICT) with the aim of building the world's safest road network by 2020. As part of that push, Japan Radio is developing a driving safety support system (DSSS). The system is designed to reduce traffic accidents and improve driving efficiency by using sensors to detect pedestrians and other dangers and transmit warnings wirelessly to drivers.

Using its existing radar-sensing technology, Japan Radio has also started supplying traffic counters and systems to detect vehicles driving in the wrong direction. Japan Radio's detection equipment uses radar-sensing technology originally developed for marine and weather applications. Compared with conventional camera-based equipment, the company's products are compact, competitively priced, and perform better at nighttime and under difficult weather conditions, such as fog. They are also less affected by glare and color contrast issues.

Intersection safety service



DSSS: Driving Safety Support System

- 1 ITS roadside terminals wirelessly connected to the DSSS
- 2 Onboard terminals
- 3 Radar-based DSSS detection equipment

- a <vehicle-road/vehicle-vehicle> Right-turn collision warning system
- b <vehicle-road/vehicle-vehicle> Left-turn bicycle collision warning system
- c <vehicle-road> Pedestrian crossing collision warning system
- d <vehicle-road/vehicle-vehicle> Head-on collision warning system

Alertmarker+

Japan Radio provides a service called Alertmarker+ that sends information such as area-specific messages, evacuation orders and disaster information to digital signs and other display equipment. The service automatically sends J-Alerts and disaster information using existing displays in municipal offices, public halls, hospitals, schools and other facilities where people gather. Alertmarker+ is easy to access with the Alertmarker BoX add-on, which connects to displays via an HDMI cable. Existing facilities require no other external connection, making the service resilient to cyberattack.

The service is increasingly being adopted for event halls, subways and other facilities, spurred by growing use of digital signage.



Alertmarker+ in use in Tokyo Station

Fuel Cell Products

The Nisshinbo Group is working to drive uptake of fuel cells, which use hydrogen as the energy source. Hydrogen fuel cells are the ultimate clean source of energy, emitting no CO₂ emissions during use. In Japan, fixed fuel cells are used widely for houses, commercial facilities and other sites, but are yet to take off in mobility applications.

A number of issues currently stand in the way of fuel cell vehicle (FCV) uptake, such as a lack of hydrogen refueling stations

and other infrastructure, but FCVs offer a number of potential advantages, including short refueling times and high energy density. Hydrogen fuel cells are already in use for commercial vehicles such as buses, trucks and forklifts, which can be refueled relatively easily, and there is rising interest in potential applications such as trains and large drones.

Bipolar Plates for Fuel Cells

Carbon bipolar plates manufactured by the Nisshinbo Group have a high market share in fixed PEFCs*1 for residential and commercial use, such as the Ene-Farm system. Our carbon bipolar plates are not only lighter than metal versions, they are also easier to mold into the required flow channel shapes and are more resistant to corrosion, helping to improve the performance and durability of fuel cells.

Nisshinbo has also invested in Canadian fuel cell maker Ballard Power Systems Inc. and is working with the firm on joint research projects. Our carbon bipolar plates have already been adopted for a Ballard fuel stack used in forklifts*2. We are now working to rapidly ramp up production amid recent growth in demand for fuel cells used in prototype FCV buses and trucks.



Bipolar Plates for Fuel Cells

*1 Polymer electrolyte fuel cells: Significantly lower operating temperatures than solid oxide fuel cells (SOFCs) mean PEFCs are likely to become the main type of fuel cell.
*2 Fuel cell forklifts are gaining ground, especially in North America, as their small areas of operation make it easy to install refueling infrastructure.

Business Background and Merits

At the Nisshinbo Group, the wireless and communications, micro devices, precision instruments, chemicals, textiles and real estate businesses collaborate by applying the distinct technologies and expertise of each business to promote the development of environmental- and medical-related products. Recently, amid the spread of COVID-19, "remote" and "contactless" needs have been rising in various fields. The Nisshinbo Group contributes to people's everyday lives by developing products in the fields of medical equipment and long-term care that leverage its strength in wireless communication technologies.

The handheld ultrasound diagnostic device launched in December 2020 by leading medical device manufacturer Terumo Corporation is a good example of fusing Group wireless communication technologies and medical equipment. With a focus on healthcare and nursing care, we will expand business by transforming Nisshinbo technologies into solutions.

Future Initiatives

The markets for in-home and home-visit nursing care, senior facilities, nursery school monitoring and telemedicine in regional healthcare are expanding due to the graying of society, rural depopulation, childbirth at older ages, the social advancement of women and other societal changes. Furthermore, the increasing risk of heat stroke due to global warming and higher temperatures is driving new demand for worker health management monitoring. To meet these demands, we will provide value in the monitoring market with Nisshinbo Group sensors and edge devices. For example, by visualizing the muscle and fat in human bodies, we can ascertain health conditions, and there is potential for services that provide information value leading to increased health.

Through the utilization of these technologies and the development of solutions, the Nisshinbo Group will seek to develop new and valuable services in the medical and healthcare fields.

Core Ultrasound Technologies

Image processing technology for ultrasound diagnostic equipment

Images

Abdominal gap Image picture

Ultrasound image processing technology (Intravascular)

Blood vessel Ultrasound probe

Portable ultrasound analyzer



Ultrasound oscillator and transducer technologies

Transducers

Piezoelectric (PZT) materials

PZT-based ceramic material Porous PZT material 1-3 composite PZT material

Wireless technologies

ID transmission

Tag DSF-214 Reader DRF-161

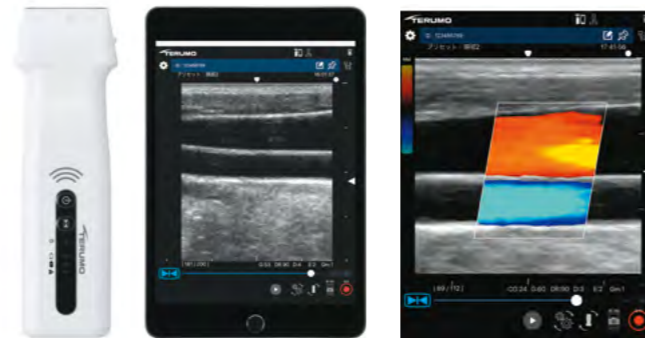
System to monitor people who require nursing care



Solutions and Products

Ultrasound Diagnostic Imaging

For more than 60 years since the development of ultrasonic diagnostic equipment in 1960, Nisshinbo Group company Ueda Japan Radio Co., Ltd., 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. Within this environment, in December 2020, we launched production of a proprietary developed handheld ultrasound device with high-quality images that is sold by leading medical equipment manufacturer Terumo Corporation as the "Porta Sound" wireless ultrasonic diagnostic device for healthcare institutions across Japan. This handheld ultrasound device has a simple configuration that connects the probe and tablet display (iPad Mini) via a Wi-Fi connection. In pursuit of user-friendliness, the device is small and easy to carry, quick and simple to maintain and features high-quality color images. It was designed so that medical exams and diagnoses can be easily performed in hospitals and clinics, as well as in home medical care.



Terumo Porta Sound
(Manufacturer and distributor: Ueda Japan Radio Co., Ltd.)

Display screen in color mode
(Color-coded display in accordance with blood flow direction)

* iPad mini is a registered trademark of Apple Inc. in the United States and other countries.

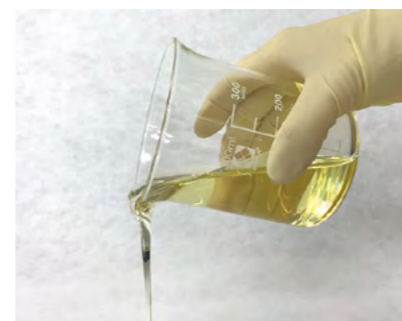
* Wi-Fi is a trademark or registered trademark of the Wi-Fi Alliance.

Carbodilite

Carbodilite is a high-performance polycarbodiimide-based plastic material developed by the Nisshinbo Group. We supply Carbodilite in water-based, oil-based and powder forms, and as an additive in adhesive agents. Due to its unique highly reactive, low-toxic profile, Carbodilite is blended with coatings, inks and various plastics (polyester-based plastic, biodegradable plastic, polyurethane elastomer and others) to improve the durability, adhesiveness and other properties of secondary products.

In the automotive, heavy-duty anti-corrosion coating, construction coating and ink industries, tighter regulations governing volatile organic compounds (VOC) and efforts to reduce environmental impact are spurring demand for Carbodilite, which is a highly safe, water-based additive that can reduce required temperatures in drying processes. Also, in Europe and other markets where rules on the use of non-degradable plastics are being tightened, demand for biodegradable alternatives is growing strongly. Carbodilite is spurring wider adoption of biodegradable plastics, as it improves durability without affecting biodegradability.

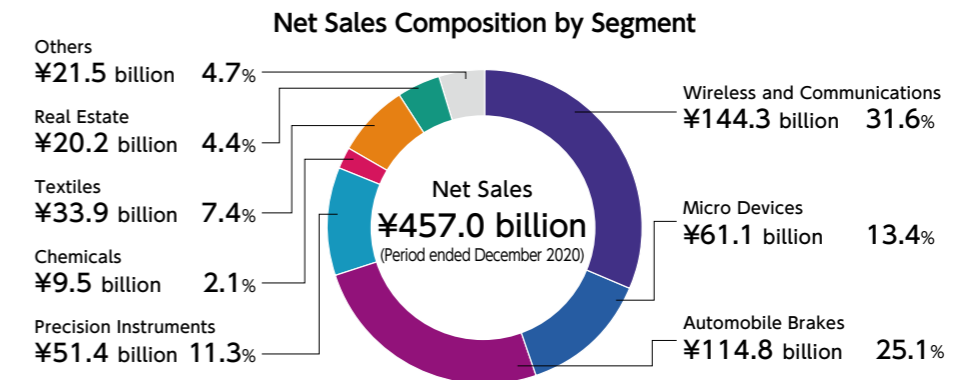
It is already used in a growing range of applications, including multi-use film for agricultural applications, industrial materials, food packaging and printed circuit board adhesives.



Overview of Business Segments

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 business collaboration and portfolio reorganization that has kept the Group aligned with changing needs.



Wireless and Communications P.30

Main business areas

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

Marine systems ▶ Marine radar and communications equipment
Solutions and specialized equipment ▶ Disaster prevention systems and weather radars
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

Micro Devices P.33

Main business areas

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

- New Japan Radio
 - ▶ Semiconductor devices and SAW filters
- Ricoh Electronic Devices
 - ▶ Power management ICs, etc.

Chemicals P.40

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.36

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.42

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.38

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.44

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

Wireless and Communications



Japan Radio Co., Ltd. / JRC Mobility Inc.

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, is pushing ahead with new products that will help realize autonomous driving, drawing on ITS* products and other existing automotive products transferred from Japan Radio Co., Ltd.

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

Related SDGs



P.14	Interview with Takeshi Koarai, President and Representative Director of Japan Radio Co., Ltd.
P.31	Business Results and Strategy

Business Results and Strategy

Summary of Financial Results for 2020

In 2020, the wireless and communications business reported sales of ¥144,312 million, down 5.2% year on year, and segment profit of ¥2,575 million, down 37.2% year on year.

In marine systems, sales declined because of intensifying price competition affecting equipment for new-build vessels due to fewer ships being built, socioeconomic stagnation caused by COVID-19 and fewer sales of equipment for small and medium-sized vessels overseas as well as equipment for retrofit projects due to a decrease in the number of vessels in operation, but cost reductions helped narrowed these losses.

In communications equipment, sales and profits declined on lower sales of in-vehicle-related equipment caused by the impact of COVID-19.

In solutions and specialized equipment, despite the postponement of construction on overseas projects due to COVID-19 and the completion of large projects for aerospace and meteorological systems, water and river information systems performed well and public demand for municipal disaster prevention systems remained firm, resulting in sales at the same level as in the previous fiscal year. Profits increased due to the outsourcing of processing expenses and other cost-reduction efforts.

In ICT and mechatronics, despite sales contributions from NJ Component Co., Ltd., which became a consolidated subsidiary in July 2019, sales and profits declined on lower sales of mechatronics equipment in the U.S. and European markets due to the impact of COVID-19.

In medical equipment, although we offset a decrease in sales of ultrasound diagnostic equipment caused by the

impact of a typhoon in October 2020 with an increase in sales of analysis equipment, from the second half onward, sales of equipment and transducers increased amid rising demand for equipment due to the spread of COVID-19. However, demand declined sharply due to changes in the medical field, including mounting pressure on hospital management due to a decrease in the number of patients visiting hospitals and testing facilities, resulting in lower sales and profits for the full year.

In addition, the Japan Radio communications equipment business has been gradually transferred to JRC Mobility. In January 2020, we completed the transfer of the Intelligent Transport Systems (ITS) business, which handles GPS receivers and ETC on-board units, and in January 2021, the commercial radio business was transferred. Nisshinbo acquired the German subsidiaries RBI GmbH and LEAS GmbH as we look to expand and grow the mobility business, which is a strategic business area. As a result of this organizational restructuring, the Japan Radio communication equipment business will be constructively liquidated, and JRC Mobility began handling the mobility business in 2021.

Business Strategies for 2021

Market Environment and Business Strategy

In the wireless and communications business, we will shift to management that emphasizes sales scale expansion and improved profitability by revising current business growth strategies, identifying and disposing of low-profit businesses, and promoting business portfolio reforms that include taking on the challenge of high-profit businesses.

Net Sales	(millions of yen)	
	19.12	20.12
Marine systems	34,916	32,509
Communications equipment	16,802	7,669
Solutions and specialized equipment	68,815	65,607
ICT and mechatronics	19,831	20,708
Medical equipment	9,170	8,064
Other businesses	2,646	3,166
JRC Mobility	132	7,857
Eliminations, retirement benefits and other adjustments	(104)	(1,271)
Total	152,213	144,312

Segment Profit	(millions of yen)	
	19.12	20.12
Marine systems	(1,171)	(303)
Communications equipment	1,872	200
Solutions and specialized equipment	2,087	2,683
ICT and mechatronics	372	(237)
Medical equipment	757	456
Other businesses	(217)	(7)
JRC Mobility	(397)	(571)
Eliminations, retirement benefits and other adjustments	796	353
Total	4,100	2,575

Marine Systems

In marine systems, we will attempt to break away from low profits by radically revising the profit structure and moving into the black. We will continue to expand our LCM business in the highly profitable aftermarket, maintain and expand our market share and increase orders for equipment retrofits and repair work. In the field of small and medium-sized vessels, we will strive to strengthen river market products, sales and services, while expanding market share by utilizing sales channels to the European market, which is the strength of Alphatron Marine. In addition, as a new initiative in the digital field, we aim to expand shipping support services for safe vessel operations through ship-to-shore networks centered on the Smart Ship Viewer onboard information sharing service announced in April 2020.

Solutions and Specialized Equipment

While steadily capturing existing business demand and enhancing profitability, we will focus efforts on expanding business domains through expansion into adjacent fields and promoting digital businesses that utilize ICT and IoT. In the public sector, we will continue to secure profits through initiatives under a five-year plan to accelerate measures for the prevention and mitigation of disasters and enhanced national resilience. We will also capture private-sector demand related to LTE and motion while expanding our overseas business domain in Southeast Asia centering on weather and the disaster prevention, marine solutions and transportation businesses. Furthermore, Japan Radio had two items selected through an open call for submissions regarding new research and development for the social implementation of drones in the New Energy and Industrial Technology Development Organization (NEDO) "Project for an Energy Saving Society Using Robots and Drones." Going forward, we will continue to promote new research and development, including a miniaturized, low-power-consumption collision avoidance system, which began in 2020.

ICT and Mechatronics

In ICT, we provide technological services that meet market needs, beginning with equipment manufacturing and sales in the IoT field, and aim to create business that increases added value through joint development with customers. We will establish a foundation for digital business creation by compiling support packages and expanding railway and transportation infrastructure communication field domains. In the automotive parts business, we will attempt to pursue Group synergies, develop differentiated products through the creation of synergies with NJ Component, expand

market share by cultivating new customers, and at the same time, thoroughly improve product development and production efficiency. In mechatronics, we will accelerate business domain expansion to industrial equipment through the automation and digital transformation of production equipment by fusing ICT and technology.

Medical Equipment

In medical equipment, we will expand the high-value-added portable ultrasound business by strengthening marketing and establishing sales channels. Furthermore, we will focus efforts on wireless technologies for medical use, such as utilizing our proprietary wireless technologies in medical equipment, and aim to enter the fields of prevention, prognosis, diagnosis and treatment support. In addition, we will expand and extend the medical equipment business by creating digital businesses in diagnostic fields such as portable ultrasound equipment. We will improve profitability through the proprietary branding of these growth strategy field products and the conversion to a manufacturing and sales business structure.

5G and LTE Initiatives

Regarding 5G, in December 2020, the Japan Radio Nagano Plant obtained a wireless test station license for local 5G and launched demonstration experiments. In 2021, along with equipment development, we will promote collaborations with business partners through trials and demonstrations for various applications, which will lead to local 5G businesses in the near future. In terms of private LTE, we expanded business globally in 2020, including receiving orders for mining systems in the Republic of Gabon. We will expand this business further by providing systems that take advantage of Japan Radio's strengths, including the system-integrating LTE-BOX and the provision of apps meeting customer needs.

Micro Devices



New Japan Radio Co., Ltd. / Ricoh Electronic Devices Co., Ltd.

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. Centered on New Japan Radio Co., Ltd. and Ricoh Electronic Devices Co., Ltd., we are stepping up cooperation across the Group to create a stream of new products and businesses in the areas of automotive CASE, industrial equipment and healthcare.

Related SDGs



P.34	Business Results and Strategy
P.35	Key Products

Business Results and Strategy

Summary of Financial Results for 2020

In 2020, the micro devices business reported sales of ¥61,141 million, down 6.3% year on year, and a segment loss of ¥3,895 million (compared with segment profit of ¥256 million in the previous fiscal year).

In our mainstay electronics devices, although demand for home video game consoles, microphone-equipped personal computers and other products arose from more people staying home, driving growth in sales of related products, COVID-19 lockdowns in each country caused factory shutdowns and disrupted supply chains, adversely affecting customers, while declines in sales of automotive products, consumer-related products and communication-related products resulted in lower sales and profits. However, market conditions were improving rapidly, especially from the fourth quarter onward.

In microwave products, although sales of marine radar-related products and sensor-related products were firm, the contract manufacture of satellite communication products ended, causing sales and profits to decline in the United States. However, profits rose on fixed-cost reduction. However, the COVID-19 impact bottomed in the third quarter and there are signs of recovery, mainly in sensor-related products.

Business Strategies for 2021

The micro devices business is expected to steadily expand amid rising demand related to 5G, CASE and IoT. To realize super-smart societies, we are refining our "Connect Everything" technologies and aiming for further growth and developments as an analog solution provider. Specifically, we will position products for automobiles, industrial equipment and IoT as future growth fields, strengthen our business and, in particular, develop new products for EVs, ADAS and other next-generation automobiles to increase the composition ratio of our in-vehicle business. We plan to establish stable business with a high growth rate that is not easily affected by external factors such as semiconductor market conditions and COVID-19.

Net Sales	(millions of yen)	
	19.12	20.12
New Japan Radio	43,610	41,931
Ricoh Electronic Devices	22,812	20,515
Eliminations, etc.*	(1,137)	(1,306)
Total	65,286	61,141

* Includes goodwill amortization and revisions to retirement benefits

Integrating Two Companies in January 2022

In micro devices, business is mainly promoted by two companies: New Japan Radio Co., Ltd., with strengths in analog semiconductors for acoustics, and Ricoh Electronics Devices Co., Ltd., which specializes in analog semiconductors used for power supplies.

New Japan Radio is working to commercialize several new devices and developing next-generation products such as MEMS sensors for microphone modules used in smart speakers and AI-powered speakers, and optical sensors for wearable devices and health device applications. The company is also developing high-precision analog front-end ICs, which are already in mass production. In microwave products, we are developing and manufacturing products for a wide range of fields, including satellite communication systems, sensors and high-output electron tubes. Power management ICs are the main product at Ricoh Electronic Devices, which is developing compact, low-power ICs that are highly efficient, precise and reliable using CMOS analog technology. In devices for automotive applications, the company is working on the development of high-quality ICs for the high voltage and currents needed in next-generation powertrain components, as well as ICs with improved low-noise and noise regulation performance to increase the accuracy of sensors for ADAS equipment.

Until now, we pursued Group synergies through cooperation, from production to purchasing, between these two companies. To grow this into a more profitable business, these two companies will be integrated in January 2022 as we leverage the resources of both parties to create Nisshinbo Micro Devices Co., Ltd. We will continue to create synergies between these two companies in terms of development, sales and production, while accelerating efficiency in areas where management overlaps to achieve successful integration.

Electronic Devices

In electronic devices, we will focus on product planning and development from both short-term and medium- to long-term perspectives. In automotive products, we will strengthen product development centered on LSIs such as

Segment Profit	(millions of yen)	
	19.12	20.12
New Japan Radio	144	(2,427)
Ricoh Electronic Devices	375	(1,205)
Eliminations, etc.*	(263)	(263)
Total	256	(3,895)

ASSP and ASIC, and in industrial equipment, we will develop high-performance, high-value-added products and expand our customer base. In communication equipment, we will enhance efforts centered on in-vehicle equipment other than smartphones, industrial equipment and IoT.

In terms of production, we will reduce outsourcing costs and thoroughly manage expenses to further improve profitability. Assembly production outsourced by Ricoh Electronic Devices will be transferred to THAI NJR CO., LTD. Production of SAW filters will be transferred to the Ricoh Electronic Devices Yashiro Plant (Hyogo Prefecture), and the manufacture of SAW filters will be discontinued in-house. In terms of materials, we will reduce material costs and realize appropriate product prices with a strong competitive advantage by consolidating lead frame suppliers while promoting the conversion from gold wires to copper wires used in semiconductors.

In terms of sales, we will maximize synergies between the two companies. While expanding sales through cross-selling shared by existing distributors, we will strengthen our ability to propose solutions through sales (rebranding) of third-party products under the Nisshinbo brand, which will lead to further improvement in customer recognition and satisfaction. In addition, we will strive to maintain proper inventory by producing only the products necessary for delivery to customers through fixed order manufacturing and small-lot production.

Microwave Products

The microwave product business has a stable market for components used in radar, while demand for components

used in satellite communications is also expanding steadily. We see the potential for continued growth going forward as the information society becomes more diverse. Key to that growth is demand for satellite communication components. Demand is currently being driven by Asia, where there are many emerging markets for satellite communication. We are promoting the development of high-performance transceivers with integrated transmission and reception that support high-speed and large-capacity communications in a compact, low power-consuming product. Sensors incorporating microwave technologies are becoming a new growth field, driven by a steep rise in demand in the last few years. Sensors are being adopted for a wider range of fields, including crime prevention and other security tasks, household and automotive applications, and even healthcare applications. In addition to stand-alone sensors, we are supplying modular products that integrate sensors and peripheral components, helping us win business from new customers. In 2021, we will maintain and enhance these efforts to acquire new projects. In terms of production, we will work to reduce costs by expanding the variety of products produced at THAI NJR CO., LTD., while increasing the procurement of overseas materials. We will also strengthen our quality assurance system.

Key Products



Electronic devices



Microwave products

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.

Satellite communication system components

VSAT* 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 VSAT and one of only a handful of specialist suppliers worldwide. It has the top share in the global market.

* Very Small Aperture Terminal

Automobile Brakes



Nisshinbo Brake Inc. / TMD Friction Group S.A.

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 2020

In 2020, the automobile brakes business reported sales of ¥114,827 million, down 12.6% year on year, and a segment loss of ¥2,289 million (compared with a segment loss of ¥3,340 million in the previous fiscal year).

Global automobile production, which significantly affects the automobile brakes business, fell sharply year on year due to COVID-19. During the first half of the fiscal year, in particular, this created a situation where most countries were in lockdown and customers suspended operations. Despite signs of a rapid recovery in the Chinese market from the middle of the year, the level of recovery from COVID-19 in other countries and regions differed as the impacts of COVID-19 continued to linger and maintaining the supply chain became an issue. Under these circumstances, Nisshinbo Brake Inc. posted lower sales and profits in Japan and at overseas subsidiaries in the United States, South Korea and Thailand. Sales were robust at our subsidiary in China, which mainly

handles Japanese automobile manufacturers, enabling an early recovery from COVID-19 and bringing orders for new business that lifted sales and profits higher. At the TMD Group, for which its main market is Europe, sales of friction materials for new car assemblies and the aftermarket declined due to the impact of COVID-19. However, from the middle of the year, aftermarket sales recovered and efforts to reduce expenses and improve costs reduced losses.

Business Strategies for 2021

Market Environment and Business Strategy

We see COVID-19 as an ongoing problem that will linger throughout 2021 and beyond, thus we expect that many developed countries will continue to experience adverse conditions, including declines in vehicle production. At the same time, we also expect that the avoidance of public transportation and the increasing use of automobiles will provide a tailwind for the repair parts market.

Furthermore, plans are under way for electrification and autonomous driving-related next-generation vehicles and new brakes at finished vehicle manufacturers. HVs, EVs and other electric vehicles accumulate energy 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, the assembled product is 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. Research-and-development efforts include the promotion of digital development that leverages our accumulated experiences to build a mechanism enabling more efficient and precise proposals. Focused on the future mobility society, we have also begun research in conjunction with Group companies on vehicle suspension sensing. We will promote our value as a partner trusted by customers through technologies and the high-quality products they produce. Moreover, we are moving quickly forward with plans to optimize operations using production controls incorporating ICT into the manufacturing process as a DX initiative, the visualization of equipment operating status and equipment prognosis and predictive maintenance, and quality management and RPA via AI analysis of manufacturing and inspection data.

Compliance with Environmental Regulations

In the United States, environmental regulations limiting the copper content in friction materials have been enforced since 2021, and going forward, the sale of friction material products with a copper content of 5% or more and use in new vehicles is prohibited. Furthermore, from 2025 onward,

environmental regulations will be tightened to prohibit copper content of 0.5% or more. This situation has had a favorable impact on new orders for Nisshinbo Brake copper-less (5% or less) and copper-free (0.5% or less) friction materials, and we will continue to proceed according to plans going forward. In terms of upcoming issues related to compliance with copper restrictions, as regulations are also expected for microparticles expelled during brake wear, we will continue to examine the situation and promote research-and-development efforts.

TMD Group Revitalization Plans

The TMD Group will build relationships with leading European distributors and promote sales in the market for aftermarket products. Revitalization plans have been solidly implemented despite COVID-19, and in 2021, we will further accelerate these efforts. The industry is undergoing restructuring as competitors and distributors engage in mergers and other activities amid demands for immediate action considering changes in the environment. Regarding new vehicle assembly, we will continue efforts to improve profitability at all our global bases, including the Essen plant in Germany.

Improvement Activities

Improvement activities being rolled out at sites throughout the world have been moving steadily forward despite COVID-19. Each year, reciprocal visits provide opportunities for automobile brakes business employees to meet, share knowledge and communicate with one another. In 2020, due to COVID-19 travel restrictions, we used online meetings and other devices to further invigorate these exchanges.

Net Sales	(millions of yen)	
	19.12	20.12
Nisshinbo Brake	50,854	44,057
TMD	85,850	75,106
Eliminations, etc.*	(5,366)	(4,337)
Total	131,338	114,827

* Including amortization of intangible fixed assets at TMD

Segment Profit	(millions of yen)	
	19.12	20.12
Nisshinbo Brake	1,620	788
TMD	(4,152)	(3,219)
Eliminations, etc.*	(808)	142
Total	(3,340)	(2,289)

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 2020

In 2020, the precision instruments business reported sales of ¥51,419 million, down 21.4% year on year, and a segment loss of ¥948 million (compared with segment profit of ¥879 million in the previous fiscal year).

Sales and profits of precision parts for automobiles decreased as customers suspended operations and adjusted production due to COVID-19. Regarding valve blocks for Continental, orders for Nisshinbo-Continental Precision Machining (Yangzhou) Co., Ltd., remained at the same level as the previous year as China recovered from COVID-19, but overall sales and profits declined, including in Japan. At Nisshinbo Precision Instrument & Machinery Hiroshima Corp., we have been preparing for the early 2022 launch of diesel next-generation exhaust shutter valve and EGR valve mass production, for which orders have already been decided.

In molding products, orders for home appliances and automotive products decreased due to the impact of COVID-19, mainly in Japan, Thailand and India. Sales and profits declined in Japan after special demand for air conditioners for schools in fiscal 2019. Although China was temporarily affected by COVID-19, orders have recovered in line with a recovery in the Chinese economy. At Nanbu Plastics Co., Ltd., orders for automobile products, housing and medical customers in Japan were suspended or reduced due to the impact of COVID-19. Operations and earnings at overseas subsidiaries were significantly affected, with widespread social restrictions and lockdowns in Indonesia and the Philippines. Furthermore, the Guangzhou plant was closed in December 2019 as we proceeded to identify and close businesses, resulting in a significant decrease in sales and profits compared with the previous fiscal year.

Business Strategies for 2021

In the precision instruments business, the operating environment will likely remain challenging in the near term due to COVID-19 and other factors, as precision parts for the automotive sector, air-conditioner parts and automotive headlamp assemblies are all highly exposed to economic conditions in China and other markets in Asia. However, as we expect demand for automotive parts to rise going forward, we plan to upgrade production facilities at all our plants and reorganize our network of manufacturing sites.

Business/Product Identification and Closeout

The Nisshinbo Mechatronics Inc. molding products business and Nanbu Plastics Co., Ltd., have production bases in Japan and Asia (Thailand, China, India, Philippines and Indonesia), and going forward, we will continue to reshuffle and optimize production bases to capture global demand. In the molding products business, cost accounting system upgrades accompanying the replacement of backbone IT systems in 2020 enabled the realization of higher-precision individual cost visualization, which will lead to cost-reduction efforts focused on unprofitable products and price proposals to customers in an attempt to improve profitability.

Measures for Strengthening Profitability in the Precision Parts Business

In precision parts, we will attempt to increase profitability through improved production efficiency by transferring and concentrating the production of the MK100 EBS valve block

to Nisshinbo-Continental Precision Machining (Yangzhou) Co., Ltd., a product for which customer demand is expected to grow from 2022. In addition to commencing mass production in March 2021 of the MKC1 next-generation EBS valve block for automobile electrification and autonomous driving, we promoted the introduction of production equipment for the next-generation model MKC2, which is a smaller and lighter product, in an effort to launch mass production in 2022. Nisshinbo Precision Instrument & Machinery Hiroshima Corp. is preparing for mass production starting in early 2022 in response to orders for diesel next-generation exhaust shutter valves and EGR valves. We will also continue to develop new products with the aim of receiving more orders for automobile parts.

Measures for Improved Profitability in the Molding Products Business

In molded plastics, Nisshinbo Mechatronics Inc. will work to increase orders in Japan while paying close attention to the trend of major customers returning to home appliances made in Japan from 2021 onward. At the same time, we will focus on developing new products for air conditioners utilizing molding technology for rotating parts, while at the same time, we will work to improve profitability by reducing manufacturing costs through the use of recycled materials and activities to reduce the defective product ratio. Nisshinbo Mechatronics (Thailand) Ltd. will utilize its third factory to increase orders for cross-flow fans and improve profitability by winning new orders for automotive products. At Nisshinbo Mechatronics (Shanghai) Co., Ltd., amid expectations that orders will decline in accordance with the manufacture of sheet metal from resin parts by major customers for home appliances, we will focus efforts on cultivating new customers and expanding sales of Eco Cross® and Eco Blade Turbo®. In addition, we will work to increase orders for thick-walled lenses for automobile headlamps, the production of which has been transferred to Nanbu Plastics

Co., Ltd. At Nisshinbo Mechatronics India Private Limited, amid the strengthening of government measures to promote locally procured production due to COVID-19, we will work to expand market share while making the necessary capital investments to capture demand in growing markets.

Medical applications are another promising growth field for the precision instruments business. The Nanbu Plastics medical business (Yoshida site) will be relocated to the Nisshinbo Group Fujieda site to strengthen production facilities and capabilities and improve production efficiency. Nanbu Plastics, which already produces stool collection containers and other products, commenced shipments of allergy diagnostic kits in February 2020. In response to growing demand for hygiene and preventive medicine including infection control, we will continue to focus on winning and expanding orders for hygiene and allergy test molded products.

Collaboration with Elephantech Inc.

Nisshinbo Mechatronics Inc. and Elephantech Inc. have concluded a basic agreement on the joint development of three-dimensional wiring-integrated molded parts for automobiles. The precision instruments business group, which includes Nanbu Plastics, will incorporate its injection molding technologies, electronics technologies and automotive parts manufacturing expertise with Elephantech's in-mold printed circuit (IMPC™) technology to accelerate the development of various in-vehicle molded parts in which resin, wiring and functions are integrated with each other. Prototypes of molded parts with integrated wiring for ADAS vehicles have already been made, and we are moving onto developing for mass production aiming for a 2023 start while expanding this application to other fields including home appliances, medical care and housing equipment.

Net Sales	(millions of yen)	
	19.12	20.12
Precision parts	15,775	14,387
Molding products	52,094	40,669
Eliminations, etc.	(2,441)	(3,637)
Total	65,429	51,419

Segment Profit	(millions of yen)	
	19.12	20.12
Precision parts	382	(78)
Molding products	1,286	(38)
Eliminations, etc.	(789)	(832)
Total	879	(948)

Key Products



Automotive EBS valve block



Automotive headlight components



Fans for residential and commercial air conditioners

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 high-performance plastic material that increases the durability and chemical resistance of biodegradable plastics and water-based resins, which have minimal environmental impact. We are investing management resources in these promising growth areas as a matter of priority.

Related SDGs



Business Results and Strategy

Summary of Financial Results for 2020

In 2020, the chemicals business reported sales of ¥9,577 million, up 2.0% year on year, and segment profit of ¥1,811 million, up 9.8% year on year.

In functional materials, sales and profits increased due to steady sales of Carbodilite, an environmentally friendly modifier for biodegradable plastics. Regarding overseas sales, which account for more than half of all sales, although orders for automobile and shoe-related products decreased due to the economic recession caused by COVID-19, sales of food packaging materials, home appliances and PC-related products, for which demand expanded under restrictions on going out, were strong. In line with a growing environmental awareness of problems such as marine microplastic pollution, biodegradable resins are attracting attention, thus we will continue to develop new products that meet social needs.

In carbon separators for fuel cells, sales and profits rose due to increased sales of prototypes for fixed use overseas and in-vehicle applications for buses and trucks. In line with the development of fuel cells, which is booming globally, inquiries for development and trial production are increasing rapidly and carbon separators, which are superior to competing materials in terms of light weight and durability, are being actively developed for high durability applications. Nisshinbo will work to develop highly competitive products in terms of thinning, performance, cost and results in an effort to expand sales.

In thermal insulation products, market conditions were sluggish due to the impact of COVID-19, which affected commercial

insulation equipment upgrades for restaurants—the main application for this product—and resulted in lower demand for new plant construction and the cancellation or reduction in scale of plant repair projects, the cancellation of construction projects and a sharp drop in orders for urethane block used in automotive design models. Despite movement toward a recovery in the second half, production and shipments remained at a low level through the end of the fiscal year. In this environment, urethane base solution for tunnel repairs (backfill injection) in public works projects performed well, and in bio-carriers for wastewater treatment, we responded to delays in production system construction in China by switching to domestic exports. In response to the decline in sales, we focused on expanding sales of highly profitable products while at the same time trying to reduce costs, and although sales were lower than in the previous fiscal year, profits remained at about the same level.

In glass-like carbon products, sales and profits decreased due to sluggish market conditions caused by COVID-19. In the semiconductor market, which is the main application for these products, demand for smartphones and industrial equipment-related products slumped in the first half due to COVID-19, but gradually recovered in the second half. Inventory adjustments on the customer side and changes in performance demands prevented a full-scale recovery in 2020. We will continue to develop and expand the adoption of products that support semiconductor manufacturing processes in cutting-edge areas.

Business Strategies for 2021

Expanding Carbodilite Sales, Contributing Solutions to Environmental Issues

We will accelerate the market release of new Carbodilite products that contribute to the spread of environmentally friendly products such as hydrolysis inhibitors for biodegradable plastic and waterborne cross-linking agents for use in paint, coatings and adhesives that help reduce atmospheric pollution and other types of environmental pollution. We are also developing new additives for marine biodegradable plastics as a contract business for NEDO and will strive to expand sales through higher-value-added proposals that contribute to resolving the marine microplastic pollution problem. In anticipation of future growth in demand, while improving production efficiency with the current equipment we plan to expand new production and development sites, including alliances and M&A, to expand our business domain.

New Organizational Structure to Accelerate the Development of Carbon Separators for Fuel Cells

Hydrogen and fuel cells, which are attracting attention as a technology for realizing carbon neutrality, are being developed all over the world, particularly for buses, trucks and other fuel cell vehicles (FCVs). While engaging in development with several leading manufacturers, we are aiming for commercialization in response to the strong demand for prototypes for buses and trucks. In addition, as the number of inquiries for fixed use is increasing globally, we are aiming to increase the adoption of this technology.

In January 2021, the in-vehicle R&D Department, which used to be in the Nisshinbo Holdings Business Development Division, was integrated with the Nisshinbo Chemical Fuel Cell Division to establish a mass production process for automobiles and improve productivity and quality. We also aim to acquire IATF16949, which is a required certification for automobile parts factories, by the end of 2021.

Strategy for Differentiating and Increasing Added Value of Thermal Insulation Products

In thermal insulation products, in which the manufacture and sales of existing system base solutions and hard blocks is positioned as the core business, we will promote high added value through the acquisition of noncombustible spray certification and rapid market launches while focusing on expanding sales of highly profitable products. In addition, regarding hydrofluoroolefin (HFO), which won the 23rd Minister of Economy, Trade and Industry "Ozone Layer Protection and Global Warming Prevention Award" sponsored by the *Nikkan Kogyo Shimbun* in 2020, we will further strengthen backfill urethane injection material, which injects HFO as a foaming agent into the back cavity of tunnels, as a priority business area. In railway anti-vibration materials, we will contribute to the safety of Japan's railway network by increasing orders for products that enable the extension of track maintenance work cycles. Regarding bio-carriers for wastewater treatment produced locally in China, we will build a stable production and sales system in China, while at the same time promoting expansion targeting the entire Asian market. We plan to rapidly develop high-performance, highly durable bio-carriers and bring them to market as quickly as possible.

Long-Term Growth Expected in Glass-Like Carbon Products

In the semiconductor market, which is the main application for carbon products, the development of advanced semiconductor products that achieve miniaturization and power saving is intensifying. Advanced semiconductors are being developed by semiconductor manufacturing equipment manufacturers and semiconductor manufacturers in the cleaning, film formation, exposure and etching processes. With the increasing demand for high-purity carbon products and the realization of multiple shapes, we are proceeding with development aimed at meeting performance demands. In fields other than semiconductors, we will develop new applications that take advantage of the merits of glass-like carbon products, while at the same time, we will focus on acquiring new customers with products that leverage the firing technologies we have cultivated up to now.

Net Sales	(millions of yen)	
	19.12	20.12
Environment and energy-related products*	8,079	8,271
Carbon products, etc.	1,553	1,492
Eliminations, etc.	(245)	(186)
Total	9,391	9,577

* Fuel cell bipolar plates, Carbodilite, insulation materials

Segment Profit	(millions of yen)	
	19.12	20.12
Environment and energy-related products*	1,408	1,630
Carbon products, etc.	240	182
Eliminations, etc.	0	(1)
Total	1,650	1,811

Key Products



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 and sewing, 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 2020

In 2020, the textiles business reported sales of ¥33,957 million, down 31.4% year on year, and a segment loss of ¥813 million (compared with segment profit of ¥1,037 million in 2019).

In the shirts segment, demand for business apparel declined due to the spread of COVID-19 and sales of wrinkle-free shirt fabric fell sharply. At TOKYO SHIRTS CO., LTD., temporary closures and shortened business hours due to the spread of COVID-19 resulted in sluggish physical store sales, and although online sales increased, sales and profits declined overall due to continued poor sales, especially in central Tokyo, even after stores reopened. In uniforms, a sales recovery was delayed due to a prolonged production adjustment for working apparel and a decline in the willingness to update corporate uniforms. In developed materials, sales of MOBILON tape for medical face masks increased substantially but consumption of non-woven fabrics for cosmetics and spandex yarns for legwear declined significantly due to the impact of the voluntary ban on leaving home.

Overseas, our Indonesian subsidiary saw a decrease in sales in the Japanese domestic market and third countries and regions due to the spread of COVID-19. At our Brazilian subsidiary, sales and profits were down despite the rapid recovery in local apparel markets in the second half of the fiscal year.

Business Strategies for 2021

Market Environment and Business Strategy

The textiles business, which is directly linked to apparel consumption, was greatly affected by changes in lifestyle and consumption behaviors such as voluntary bans on leaving home and the spread of telework due to COVID-19. However, there are significant business opportunities for services and products that support the online sales of apparel and casual business styles, as well as environmental products that embody the SDGs centered on natural materials. In addition, as the world's population is still growing, and economic growth is robust in Asia, the global textiles market is expected to expand further.

In this market environment, we aim to increase operating cash flow in the textiles business by focusing on environmental, digital, functional and global themes, accelerating the development and launch of new products contributing to super smart and environmental energy societies, and establishing digital businesses and environmentally focused manufacturing as quickly as possible.

Reducing Environmental Burdens while Expanding Existing Businesses

In shirt products, we aim to create new markets and increase market share by developing next-generation products with even better performance, particularly APOLLOCOT non-iron fabric, which can help cut electricity consumption through the reduced need for ironing. We will also expand the development of business casual

products suitable for a new lifestyle. In materials development, we aim to develop new sales channels for MOBILON tape for medical face masks, a market that is expected to grow; use eco-friendly and recyclable raw materials in non-woven fabrics for cosmetics and spandex yarns for legwear; and promote the development of environmentally friendly products to expand new sales channels.

TOKYO SHIRTS will pursue a low environmental impact, expanding sales of its pure cotton wrinkle-free shirts and promoting the use of recycled PET made from polyester material, while at the same time shifting its focus to online sales. Promoting an omni-channel strategy linked to in-store services such as fittings and store pickups, we will further expand online sales.

At the Indonesia subsidiary production site, we will continue pursuing the goal of global cost-competitiveness and global quality, and promote production system restructuring, while converting to an environment-friendly factory that complies with environmental regulations, including replacing coal fuel with natural gas fuel; developing new products that align with the SDGs; and moving to eco-friendly factories that comply with local environmental regulations in order to expand supplies to third countries and regions.

Promoting New Environmentally Themed Businesses

In terms of new environmental businesses, we are engaged in a shirt rebirth project and a cellulose nanofiber utilization project. The shirt rebirth project involves joint research conducted by the Nisshinbo Holdings Business Development Division and Shinshu University. Unused cotton shirts are collected and cut up, the cotton is dissolved and converted into recycled fibers, and the fibers are used to make a new shirt. The full-scale research and development of practical applications launched in March 2021 with the goal of commencing trial production in 2023. The cellulose nanofiber utilization project, which is being promoted as a next-generation environmental product, involves converting surplus such as cuttings and cotton waste generated in the manufacturing process into nanofibers, recompacting them and utilizing them for various purposes. Soaps that use the cellulose nanofibers currently under development as scrubbing agents aim to contribute to solving the problem of marine microplastics.

Net Sales	(millions of yen)	
	19.12	20.12
Japan	42,484	29,514
Overseas	21,970	14,166
Eliminations, etc.	(14,949)	(9,723)
Total	49,505	33,957

Segment Profit	(millions of yen)	
	19.12	20.12
Japan	526	(842)
Overseas	770	(31)
Eliminations, etc.	(260)	61
Total	1,037	(813)

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 non-woven 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.

Real Estate



Nisshinbo Holdings Inc.

Nisshinbo's real estate business redevelops properties that have become vacant as a result 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. The Group's domestic real estate portfolio includes many land and property sites with excellent locations, generating strong earnings for the real estate business.

Related SDGs



Business Results and Strategy

Summary of Financial Results for 2020

In 2020, the real estate business reported sales of ¥20,279 million, up 74.0% year on year, and segment profit of ¥11,512 million, up 41.0%.

In the property leasing business, sales and profits both declined due to the sale of a building for use as a large commercial facility (Aichi). In the housing lot sales business, in addition to launching sales of condominiums in Mitaka, Tokyo, sales and profits increased significantly due to the sale of residential land in Okazaki, Aichi Prefecture.

Business Strategies for 2021

In 2021, 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

by effectively utilizing the real estate assets of the whole Group. We plan to continue generating stable earnings by focusing on the projects shown below.

Regarding the redevelopment of the former Japan Radio site in Mitaka (Tokyo), we launched sales of all 678 condominium units and commercial facility sites in 2020 and expect to complete all sales in 2021.

For the redevelopment of the former Miiai Plant site (Aichi Prefecture), we will continue last year's sales of all 357 detached homes and land for commercial, medical and welfare facilities.

New projects include the redevelopment of employee housing in Nishiarai (Tokyo) as rental condominiums. Rebuilding work started in December 2019. We expect to begin sales of Phase 1 (50 units) in September 2021 and Phase 2 (149 units) in April 2024.

Furthermore, we have launched redevelopment of the former Notogawa factory site (Shiga Prefecture) and plan to sell 120 condominium units and land for urbanization promotion facilities in 2023.

Net Sales	(millions of yen)	
19.12	11,655	20.12
	11,655	20,279

Segment Profit	(millions of yen)	
19.12	8,163	20.12
	8,163	11,512

ESG Initiatives

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

Environmental Initiatives Contribution to the environmental and energy field

Basic Stance

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." 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 Targets (to fiscal 2030)

Primary targets			
Increase ratio of products that contribute to sustainable society	Reduce greenhouse gas emissions per unit of sales	Improve recycling ratio	Reduce water usage per unit of sales
to 70% or more of total sales	by 25% or more compared to fiscal 2014	to 95% or more	by 70% or more compared to fiscal 2014

Medium-Term Environmental Targets (FY2019-2021) and FY2020 Results

Key action items	Fiscal 2021 target	Fiscal 2020 results
Reinforcement of the maintenance of biodiversity	Implement at more than 5 overseas sites	Activities underway at 5 sites*3
Reduce water usage per unit of sales	Reduce by 3% or more compared to fiscal 2017	Down by 12% compared to fiscal 2017
Promote Life Cycle Assessments (LCA)*1	50% or more of total sales	49% of total sales
Improvement of the sales percentage by the products that contribute to the development of the sustainable society	55% or more of total sales	51% of total sales
Reduction of the energy consumption per unit of sales	Reduce by 10% or more compared to fiscal 2014	Down by 2% compared to fiscal 2014
Reduction of greenhouse gas emissions per unit of sales	Reduce by 10% or more compared to fiscal 2014	Down by 5% compared to fiscal 2014
Reduction of the volume of PRTR*2 substance emissions per unit of sales	Reduce by 10% or more compared to fiscal 2017	Down by 31% compared to fiscal 2017
Improvement of recycling rate	Increase the recycling rate to 90% or more	Improved recycling rate to 85%

*1 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.
 *2 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" and reports of their amounts of release and transfer must be filed.
 *3 Fiscal 2019 Activities started: Shenzhen NJRC Technology Co., Ltd. (China) and PT. Nikawa Textile Industry (Indonesia). Fiscal 2020 Activities started: THAI NJR CO., LTD. (Thailand), Nisshinbo Somboon Automotive Co., Ltd. (Thailand), and NANBU Philippines Incorporated (Philippines).

Nisshinbo Group Climate Change Countermeasures

The Nisshinbo Group contributes to the achievement of the Sustainable Development Goals (SDGs) through activities to tackle climate-change. The Group manages key performance indicators* (KPIs) as part of systematic measures to achieve its medium-term environmental targets for reducing greenhouse gas emissions per unit of sales and expanding sales of products that contribute to a sustainable society.

*KPI: Key Performance Indicator, an indicator of management performance.

Climate Change Scenario Analysis

The Nisshinbo Group, reflecting changes to the Japanese government 2030 greenhouse gas reduction targets, plans to promote analyses of climate change scenarios in accordance with TCFD* recommendations.

Through climate change scenario analysis, the Group will identify risks and opportunities that can affect the Group's operations in the future and incorporate them into business strategy formulation enabling more flexible and robust strategies that increase resilience to future risks.

*TCFD: Task Force on Climate-related Financial Disclosures, created by the Financial Stability Board (FSB)

For more details, please visit the Nisshinbo Group's Sustainability website.
<https://www.nisshinbo.co.jp/english/csr/index.html>

Social Initiatives Creation of a safe and secure society

Basic Stance

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 for employees by respecting each of their character and individuality 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 work-life balance. Additionally, we carry out safety and occupational health activities in an aim to eliminate all occupational hazards.

Cross-sectional Activities for Diversity & Inclusion

The Nisshinbo Group is promoting diversity & inclusion (D&I) activities to support the sustainable growth of the Group, which boasts a diverse workforce and business portfolio. The goal of the Nisshinbo Group's D&I activities is to foster an organizational culture in which employees can speak and act freely without excessive reserve. A vibrant and supportive workplace requires that people recognize and respect the differences among them and make use of each other's strengths.

Starting from a sense of the uniqueness of each individual, the Group aims to achieve a workplace in which diverse people are active by 2025. In January 2021, the Group conducted a training session for senior management, "Psychological Safety: _Achieving Results Through D&I," with the aim of promoting understanding of the importance of "psychological safety," a foundational concept of D&I.

The Group will continue to disseminate messages from senior management, provide training for senior management and managers, and promote a wide range of public-relations and other activities.

Human Resources Training

The Nisshinbo Group has built a systemized training framework with a number of components. The framework includes courses designed for different groups, such as new recruits and people newly appointed to mid-level manager, section head and division head positions, courses to acquire specific skills, general study courses covering topics such as career training, safety, human resources and the environment, and specialist courses on technologies, accounting, intellectual property and other topics related to specific businesses and functions. We also run a special program for employees earmarked to become senior managers. The program is designed to foster approaches, knowledge and behavior for their future senior manager roles before they are promoted.

In addition, as part of efforts to cultivate future leaders, we conduct Innovation Leader Development Training for young and mid-level employees.

Another area we are focusing on is cultivating human resources that can handle the demands of international business. The courses shown below are designed with that aim in mind. In fiscal 2020, we introduced basic digital literacy to our new employee training.

For new employees	<ul style="list-style-type: none"> Cultural awareness training Talks by employees who have worked overseas
For employees assigned to overseas posts	<ul style="list-style-type: none"> Cross-cultural communication Training to increase understanding of compliance and risk management Training at language schools to improve linguistic ability
For young employees	<ul style="list-style-type: none"> Language study for 2-6 months in the US and China English and business Japanese courses held jointly with Group companies
For employees up to 35 years old	<ul style="list-style-type: none"> Measures to promote overseas experience Support for online English conversation classes and web-based language study tools

Empowering Women

In January 2021 Nisshinbo Holdings Inc. and the Group's other 12 companies in Japan formulated and announced its Action Plan Regarding the Appointment of Female Managing Officers and Managers.

Measures to empower women in the workplace

2015	<ul style="list-style-type: none"> Held lectures for senior managers
2016	<ul style="list-style-type: none"> Started training program for management-level employees (held 14 times for total of 394 managers) This training for all employees at the managerial level is designed to help participants understand the fundamental significance of promoting the advancement of women and help them recognize and overcome their own biases. Started training program for female employees (held nine times for total of 228 participants) This training for female employees aims to help participants understand the fundamental significance of promoting the advancement of women and help them overcome their own biases to encourage them to engage in the type of work they want. Submitted general business operator action plan based on Act on Promotion of Women's Participation and Advancement in the Workplace Set concrete targets for number of female managers and ratio of female recruits
2017	<ul style="list-style-type: none"> Started joint training sessions for line managers and female staff (held 12 times for total of 178 groups) Managers and their female staff participate in pairs, engaging in group discussions and meeting one on one to create medium-to long-term career plans.
2021	<ul style="list-style-type: none"> Formulated and announced Action Plan Regarding the Appointment of Female Managing Officers and Managers

Action Plan Regarding the Appointment of Female Managing Officers and Managers (Target for FY2021-FY2024)

- Appoint several female executives.
- The recruitment ratio of female new graduates is to be more than fifty percent.
- Promote the development and mid-career recruitment of female managerial candidates.

Diversity training

Amid society's growing expectations and enthusiasm for diversity and inclusion, the impact of the COVID-19 pandemic since last year provided us opportunities for us changes in working styles in a good sense. As a company, we need to engage our employees in discussions about race, gender diversity, and leadership, and promote diversity, equity, and participation in the organization.

Nisshinbo Automotive Manufacturing Inc. (NAMI) in the United States conducts diversity training with the aim of ensuring that employees at all levels correctly understand the company's stance, management status, and project progress.

In order for employees with different backgrounds to move toward the common goals set forth by the company, we will conduct training by small groups, actively exchange opinions, encourage mutual respect, and deepen mutual understanding. This training is scheduled to begin this fiscal year. First, the company plan to conduct education for awareness transformation from the management level and establish initiatives.

Working Style Reforms

In 2020, beyond promoting the active participation of a diverse range of human resources, each Group company in Japan instituted a telework system to facilitate more comfortable work environments. Currently, we are advancing a variety of activities based on the Action Plan for Workstyle Reforms, which was announced in January 2021.

the Action Plan for Workstyle Reforms (January 1, 2021 to December 31, 2024)

1. Rectify long working hours
Reduce the number of employees who work more than 45 hours a month after overtime by 20 % compared to fiscal 2020.
2. Encourage use of annual paid leave
Maintain an annual paid vacation rate of at least 70%.
3. Promote flexible work styles
 - (1) We will review systems that correspond to a variety of working styles.
 - (2) Develop an environment that makes it easier for male employees to take childcare leave, etc.

Assisting workers in balancing work and nursing care

The each Group company in Japan have introduced a number of programs to help employees balance work and nursing care. These include nursing-care leave, family-care leave, shortened working hours for family care and a system for returning employees to work after retirement for nursing care.



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

Using People with Disabilities as Valuable Assets

In a fresh initiative to hire people with disabilities as valuable assets, Nanbu Plastics Co., Ltd., hired two people with disabilities and Nagano Communications Sales Co., Ltd., hired one person with disabilities using a monitored satellite office. Providing work without restrictions of location or time can resolve the stress of commuting for disabled people, concerns about human relations in the workplace and difficulties faced during work. Monitored telework is a new form of employment that leads to the active participation and retention of people with disabilities. The entire Nisshinbo Group will use telework in the future to expand opportunities for people with disabilities to work.

Two people with hearing impairment are employed by Ricoh Electronic Devices Co., Ltd. At the president's policy briefing held once every six months, the company's Ikeda Plant has been requesting sign language interpretation from the disability welfare center in Toyonaka, Osaka Prefecture, since 2018 to promote understanding of the president's policy. Going forward, Nisshinbo will continue working hard to ensure this policy is disseminated among all employees.

Respect for Human Rights

In an effort to promote respect for human rights and put in place a more comfortable workplace, the Nisshinbo Group engages in human rights education and training activities based on a structure in which Nisshinbo Holdings Inc.'s Chief of the Corporate Strategy Center serves as the Promotion Committee Chair, and Chief of the CSR Department serves as the Promotion Committee Vice-Chair.

With respect to the Group's human rights education, we conduct training for new employees and training for all employees throughout the year. To raise employee awareness of human rights, in December each year coinciding with Human Rights Week, Group companies in Japan and other countries invite employees and their families to submit human rights slogans and present awards for exceptional works.

Our subsidiaries in Japan establish a harassment consultation help desk aimed at preventing harassment, and contact people for both male and female employees provide consultation under the system. Newly appointed contact people undergo basic training and follow-up courses to hone their consultation skills.

We also place importance on giving consideration to human rights in our supply chains. The Nisshinbo Group CSR Procurement Basic Policy and CSR Procurement Guidelines of Group companies clarify rules such as consideration toward basic human rights and the prohibition of child labor.

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 a safe and supportive working environment.

In fiscal 2020, to continue eliminating serious accidents, we focused on three initiatives: continued implementation of risk assessments (of operations, facilities and chemicals) and re-inspection; advancement of safety training and KYT* activities, including for temporary employees; and revision of work standards as appropriate, with regular training focusing on harmful and hazardous operations. These policies were implemented at all Group companies.

Each business office enhances each employee's safety awareness by conducting small group activities (e.g., training when work details change, skill-improving education, horizontal development of occupational accidents within the Group, danger awareness training and near-miss reporting) in addition to training new hires and changing work content. It also systematically conducts risk assessments (of equipment, work and chemical substances) according to an annual plan to prioritize the risks to be addressed and take preventive safety measures.

* Danger awareness training

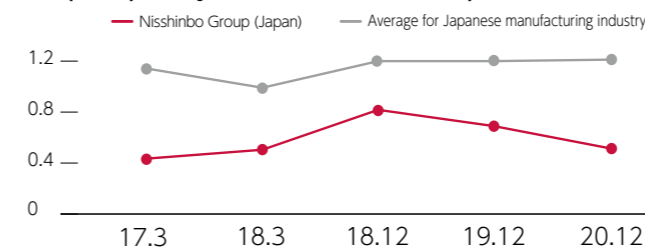
Occupational Injuries

In fiscal 2020, there were no instances of major workplace accidents (accidents with level 7 or higher injuries).

The frequency of injuries with lost workdays* at the Group's domestic business sites was 0.50, which is lower than the average for the Japanese manufacturing sector and an improvement from the 0.65 level in the previous fiscal year. At business sites with a particularly high number of injuries, we are providing ongoing targeted guidance as part of efforts to raise safety management standards across the Group.

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

Frequency of Injuries with Lost Workdays



Activities at Business Sites in Other Countries

Nisshinbo Group's business sites in other countries have grown to outnumber those in Japan as its operations have become increasingly global. We deploy the danger awareness training and danger experience education carried out at our business sites in Japan to business sites in other countries as well, in order to raise each employee's safety awareness based on the Business Conduct Guidelines "Safety is the Basis for Everything" We also communicate occupational injuries that have occurred at business sites in Japan to business sites in other countries to prevent recurrence worldwide. We also continue fostering an awareness of the dangers of chemical substances we handle, promote the thorough use of protective equipment and work to prevent health problems.

Health and Safety Audits

The Nisshinbo Group conducts regular occupational health and safety audits of its manufacturing sites. A monitoring team composed of 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, checks the state of health and safety management at the targeted business sites. In fiscal 2020, we conducted audits at 40 manufacturing sites in Japan and one manufacturing site overseas. We also verified health and safety conditions and carried out safety checks at four overseas manufacturing sites.

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 which 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.

Corporate Governance Global compliance

Basic Stance

Nisshinbo is aiming to increase corporate value over the medium and 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.

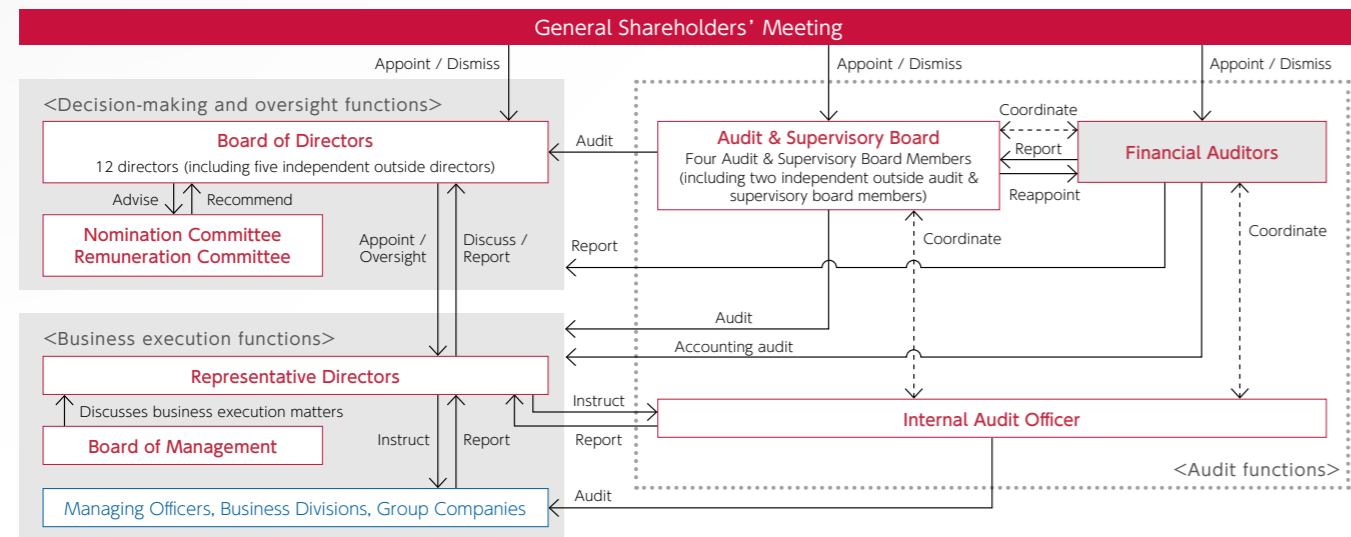
Corporate Governance Policy

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 and long term.

Matters concerning 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)	12 (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



Representative Directors

Representative directors are appointed by resolutions of the Board of Directors. As of March 30, 2021, the chairman and president were the Company's two representative directors.

Directors

As of March 30, 2021, the Company had 12 directors, including five outside directors. The Board of Directors is responsible for making decisions on important management matters and for monitoring the execution of duties by directors. Directors are appointed for one-year terms in order to clarify management responsibility each fiscal year.

Board of Management

The Board of Management, comprising directors and executive officers, deliberates important matters related to Group business execution. In principle, meetings are held on a monthly basis.

Managing Officers

Nisshinbo has adopted a managing officer system to speed up decision-making for business execution and clarify operational responsibilities. As of March 30, 2021, the Company had 16 managing officers, including the president and six with dual roles as directors. (Managing officers are also appointed for one-year terms.)

Corporate Governance Structure

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 and long term.

Nisshinbo has established an Audit & Supervisory Board. The members of the Audit & Supervisory Board monitor the execution of duties by directors in accordance with audit policy and plans determined by the board.

The Board of Directors authorizes the senior management team to make judgements and decisions on important matters related to business execution, except items that require resolutions of the Board of Directors. Following discussions by the Board of Management, which comprises directors, managing officers and other senior officers, the president finalizes the details of delegated

business execution matters and resolutions to be discussed by the Board of Directors. The Board of Management also discusses important matters related to Group business execution, responses to business risks and other key items.

In addition, the Company appoints a number of outside directors and outside members of the Audit & Supervisory Board. The corporate governance structure also includes a Nomination Committee and a Remuneration Committee, which advise the Board of Directors. Committee members comprise the chairman, president and several outside directors.

We have adopted this structure as we believe it ensures operations are conducted in an appropriate manner. Under this structure, outside directors draw on their depth of experience and expertise to monitor business management from an objective and independent standpoint, while outside members and internally appointed standing members of the Audit & Supervisory Board work closely with the Internal Audit Office.

Board of Directors and Other Activities

Fiscal year ended December 31, 2020 (January 1, 2020, to December 31, 2020) ◎: Chairman / Committee chairman ○: Attending member

		Board of Directors		Audit & Supervisory Board		Nomination Committee		Remuneration Committee	
		Attendance		Attendance		Attendance		Attendance	
Directors (inside)	Masaya Kawata	◎	16/16 100%	-	-	○	2/2 100%	○	2/2 100%
	Masahiro Murakami	○	16/16 100%	-	-	◎	2/2 100%	◎	2/2 100%
	Takeshi Koarai*1	○	-	-	-	-	-	-	-
	Ryo Ogura	○	16/16 100%	-	-	-	-	-	-
	Kazunori Baba	○	16/16 100%	-	-	-	-	-	-
	Yasuji Ishii	○	16/16 100%	-	-	-	-	-	-
Directors (outside)	Shuji Tsukatani	○	13/13 100% *2	-	-	-	-	-	-
	Keiji Taga	○	15/16 93.8%	-	-	○	2/2 100%	○	2/2 100%
	Shinobu Fujino	○	16/16 100%	-	-	○	2/2 100%	○	2/2 100%
	Hiroaki Yagi	○	13/13 100% *2	-	-	○	2/2 100%	○	2/2 100%
	Hiroyuki Chuma	○	13/13 100% *2	-	-	○	2/2 100%	○	2/2 100%
	Naoko Tani*1	○	-	-	-	○	-	○	-
Audit & Supervisory Board Members (inside)	Toshihiro Kijima	○	16/16 100%	◎	14/14 100%	-	-	-	-
	Takumi Ohmoto	○	16/16 100%	○	14/14 100%	-	-	-	-
Audit & Supervisory Board Members (outside)	Atsushi Yamashita	○	16/16 100%	○	14/14 100%	-	-	-	-
	Mitsunori Watanabe	○	16/16 100%	○	14/14 100%	-	-	-	-

*1: Appointed director in March 2020 *2: Since appointment as director

Responsibilities of the Board

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.

In light of the above, the Board of Directors deliberates and decides on important management matters at board meetings, such as the formulation of management strategies and plans, changes to the business portfolio group structure, and the implementation of M&As. These management matters are determined based on the criteria for agenda items stipulated under the Companies Act of Japan, other statutory and regulatory requirements, and various internal rules that govern the Board of Directors and the delegation of authority. Further, in its deliberations and decisions, the board keeps the following matters in mind.

- Alignment with corporate philosophy and management policy
- Compliance with laws and regulations and corporate ethics
- Increasing medium- to long-term corporate value
- Securing the trust of various stakeholders including shareholders, customers, employees, business partners, and local communities

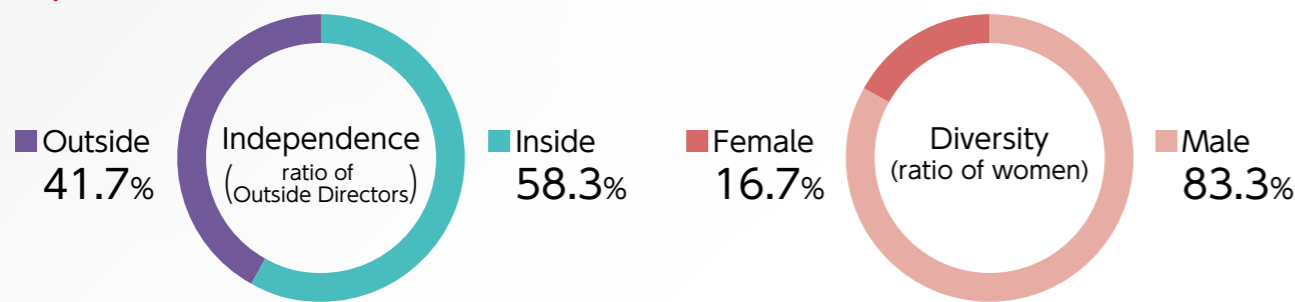
Under the Articles of Incorporation, the Board of Directors authorizes some resolutions by the General Shareholders' Meeting.

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. As of March 30, 2021, the Board of Directors was composed of 12 directors, of which five are

independent outside directors (including two women). The maximum number of directors is set at 14 in the Company's Articles of Incorporation.

With respect to independent outside directors, the Board of Directors shall obtain the consent of the person in question and appoint them after carefully determining their eligibility as an independent director, taking into consideration the external requirements set forth in the Companies Act and the independence standards set by securities exchanges. To ensure that outside directors and outside Audit & Supervisory Board members are able to properly fulfill their roles and responsibilities, when nominating a candidate, the Company shall understand the status of officers who concurrently serve in other listed companies or companies and organizations that correspond to such, and verify that it will not interfere in their attendance of the Company's Board of Directors meetings, Audit & Supervisory Board meetings, or their work.

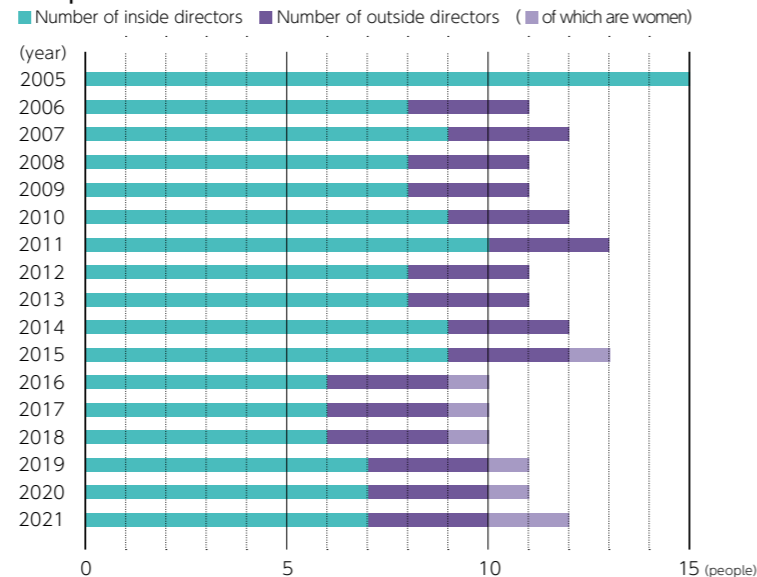
Composition of the Directors



Corporate Governance Reforms

- 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

Composition of the Board of Directors



Evaluating the Effectiveness of the Board of Directors

The Board of Directors conducts a survey of all Board members regarding the effectiveness of the Board. The survey evaluates the effectiveness of the Board of Directors by analyzing the aggregated results and comparing and verifying results from

previous years. Measures and initiatives aimed at improving effectiveness are discussed, and a summary of the survey results are made public.

Remuneration for Directors and Senior Managers

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, 2021, the committee comprised the chairman, the president and five outside directors. The committee chairman is selected by members of the committee.

To attract outstanding management talent and ensure appropriate conditions for directors and senior managers, the Remuneration Committee develops a remuneration table for directors and verifies and makes appropriate adjustments to the table referencing criteria such as remuneration levels and composition at peer companies and the Company's relative position in the sector and subsectors.

Remuneration for directors comprises basic remuneration (monthly payment), bonuses and stock-based remuneration (restricted stock compensation plan), 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 2020)

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)	244	166	58	19	8
Audit and Supervisory Board members (excluding outside Audit and Supervisory Board members)	34	34	—	—	2
Outside directors and outside Audit and Supervisory Board members	52	52	—	—	8

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 12 directors (including five outside directors) and four Audit & Supervisory Board members (including two outside members of the Audit & Supervisory Board) as of March 30, 2021.

Basic remuneration: Amounts paid are derived from basic remuneration tables for each role determined through discussions by the Remuneration Committee.

Bonuses: Paid to directors, except outside directors, as an incentive linked to fiscal year earnings performance. Based on basic remuneration tables for each role determined through discussions by the Remuneration Committee, bonuses are paid to each individual commensurate with their role, in line with the performance of the Group and businesses in their respective areas of responsibility against targets for net sales, pre-tax profits, operating cash flow and other indicators.

Stock-based remuneration: Paid to directors, except outside directors, in the form of restricted stock allocations to provide greater incentive to directors to increase the Company's share price and corporate value by aligning their interests more closely with shareholders with respect to the risk and reward of share price fluctuations. Stock-based remuneration for each role is set within maximum limits for amounts and shares determined by the General Shareholders' Meeting.

Selection and Dismissal of Directors and Senior Managers

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, 2021, the committee comprised the chairman, the president and five outside directors.

Role of Nomination Committee

	Appoint	Dismiss
Top management positions	The Board of Directors selects directors for top management positions from candidates proposed by the committee, which puts forward individuals with the necessary outstanding attributes, aptitude and achievements to fulfill the role.	In cases where directors, including top managers, are deemed no longer qualified for their role due to reasons such as the lack of necessary qualities and aptitude for management, the committee recommends dismissal of the director to the Board of Directors, supported by reasons for the recommendation.
Directors	The Board of Directors selects directors from candidates proposed by the committee, which puts forward individuals with a strong track record in corporate management and the necessary commitment and ability to realize Nisshinbo's Corporate Philosophy and increase corporate value.	Based on the committee's recommendation, the Board of Directors decides whether to dismiss the director or submits a proposal seeking approval for the dismissal of the director to the General Shareholders' Meeting.
Managing officers	The Board of Directors selects managing officers from candidates proposed by the committee, which identifies and proposes outstanding individuals from among the Group's business subsidiary leaders and management grade-employees who have the necessary specialist skills and management capabilities, backed by a firm commitment and resolve.	In cases where managing officers are deemed no longer qualified for their role due to reasons such as the lack of necessary qualities and aptitude for management, the committee recommends dismissal of the managing officer to the Board of Directors, supported by reasons for the recommendation. Based on the committee's recommendation, the Board of Directors decides whether to dismiss the managing officer.
Succession planning	The president develops succession plans for top managers and other directors (excluding outside directors) and managing officers and cultivates candidates to take over their roles. Details of those plans and progress with succession planning are shared with and discussed by the Nomination Committee, which includes outside directors, and adjusted and improved as necessary. The Board of Directors monitors progress with succession planning based on necessary reports received from the committee.	

Protecting the Rights and Ensuring the Equal Treatment of Shareholders

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.

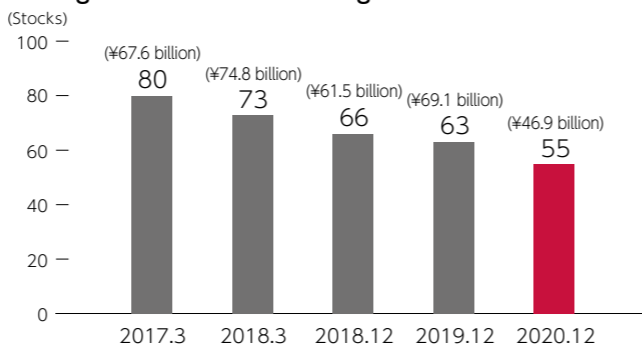
The Company has set out a policy for cross-shareholdings. In line with that policy, it regularly assesses the purpose and economic rationale for cross-shareholdings based on capital costs and other indicators. The results of the assessments are reported to the Board of Directors, which discusses the merits of continuing to hold the shares or selling them. If the Company receives approaches from companies about selling its holdings of their shares, it will respect their wishes and not hinder the sale of shares, while also putting forward its views.

The Company regularly assesses its holdings of shares in business partners to ascertain the size and scope of the holdings and to evaluate the economic rationale for holding the shares. Shares with diminished strategic value are sold incrementally and systematically. In addition, the exercise of voting rights related to cross-shareholdings shall be performed after deciding in each individual case the purpose of the holdings from the standpoint of increasing the corporate value of the Company and the relevant

business partner. In the event of resolutions with the potential for a large impact on corporate value, such as the appointment or dismissal of directors or the introduction or extension of takeover defense measures, the Company will conduct a particularly rigorous assessment of the rationale and necessity for holding the shares.

Nisshinbo has not adopted takeover defense measures. In the event that the Company decides to implement a capital policy that could harm the interests of shareholders, the Company will provide a clear explanation to shareholders about the necessity and rationale for the policy and follow the necessary procedures.

Changes in Cross-Shareholdings



Dialogue with Shareholders

The IR Director, who oversees policies and measures related to communication with shareholders and investors, accurately and fairly disseminates information outside the Company and proactively conducts IR activities. The IR Director also strives to enhance the General Shareholders' Meeting, where senior management can interact directly with shareholders, and the results briefings and briefings to overseas investors. In addition, the Company plans and conducts individual meetings with domestic and overseas investors throughout the year.

If deemed necessary, the IR Director and other directors and managing officers take part in responding to applications for interviews from shareholders and investors.

The status of IR activities including measures and policies about communication with shareholders and investors is routinely reported to the Board of Directors where it is reviewed.

Stakeholder Engagement

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 engagement	Times	Key department/site
Customers	Exhibitions	10 times	Marketing/ engineering
	Online seminars	One time	
Shareholders/ investors	General Meeting of Shareholders	One time	IR
	Briefings and small meetings for institutional investors	Briefings Twice annually, One-on-one meetings: 82 times	
	Online information and publications for investors	Publication of integrated report	
Employees	Publication of internal newsletter	Published seasonally (published quarterly)	PR
	Employee surveys	One time	Diversity
	ESG education	Four times	CSR
	Internal whistleblower system	Six cases	CSR
Suppliers	Disclose and raise awareness of Green Procurement Guidelines	One time	Procurement Division
	Group education	One time	
	Water consumption volume and hazardous substance product inspections	Water consumption four times annually Chemical substances in products annually	CSR
	CSR procurement surveys	One time	
NGOs, NPOs, government agencies	Factory tours, workshops	11 times	Factories, engineering departments
	Participation in projects to protect biodiversity	Four times	Business sites
	Participation in neighborhood cleaning activities	21 times	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

In order 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 US Foreign Corrupt Practices Act (FCPA) and its related guidelines, and the UK

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.

CSR Procurement Basic Policy

Nisshinbo has formulated the Nisshinbo Group CSR 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

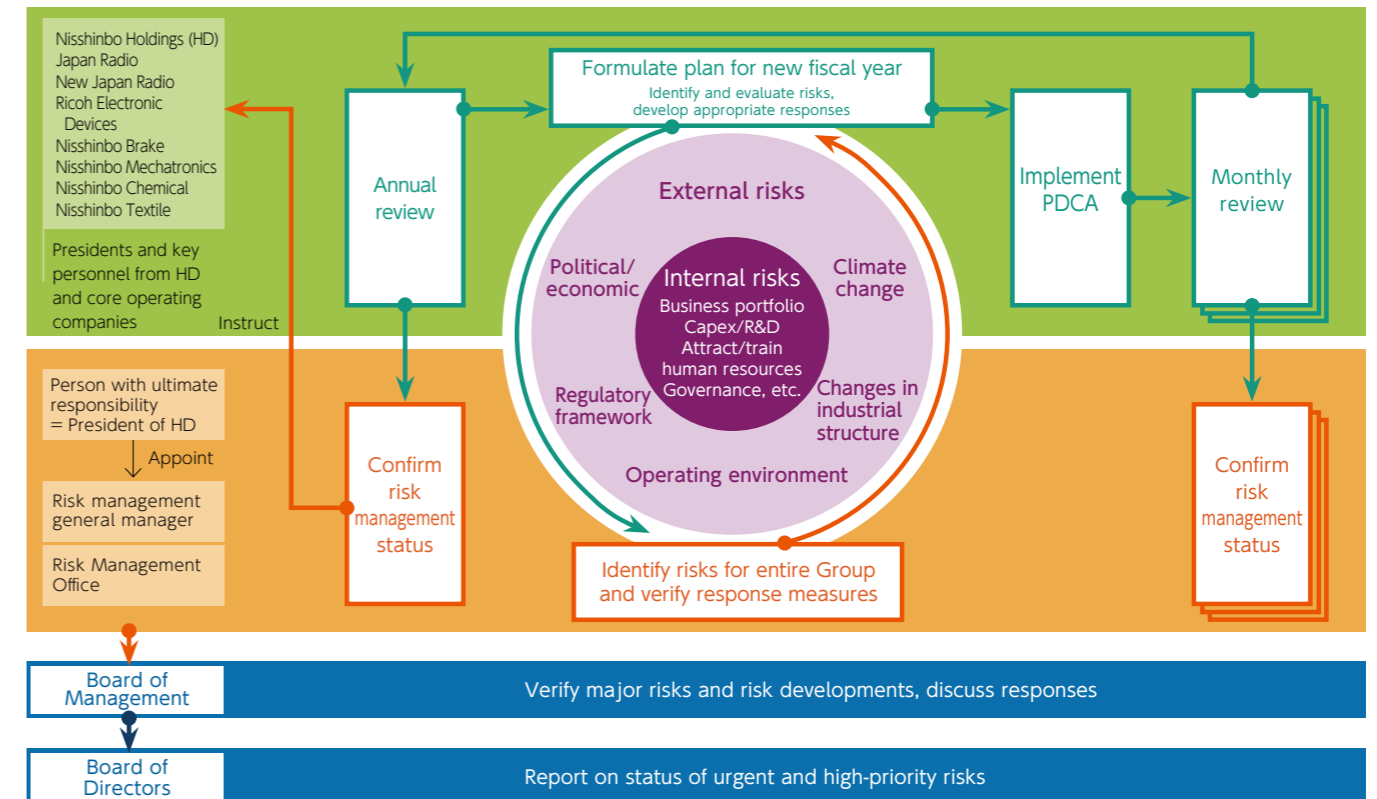
We are working to extend our CSR initiatives across the entire supply chain by asking suppliers to adhere to our principles in those seven areas.

Managing Risks and Opportunities

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. Additionally, in order to turn business risks into opportunities that support sustained growth, the Nisshinbo Group routinely works to identify and analyze any changes in the operating environment, aiming to create new growth opportunities by contributing to society as an *Environment and Energy Company* group – a business strategy that aligns with the Group’s Corporate Philosophy.

Risk Management Structure



Note: HD means Nisshinbo Holdings Inc.

Key Risks and Opportunities

	Risks ●	Opportunities ●	Details	Response
Climate Change				
	●		<ul style="list-style-type: none"> Impact on supply chains from major natural disasters caused by extreme weather CO₂ emission costs due to introduction of carbon tax Costs to reduce CO₂ emissions Costs to respond to tighter rules on SOx/NOx emissions worldwide Impact on business activities from tighter rules on greenhouse gas emissions 	<ul style="list-style-type: none"> Develop business continuity plan (BCP) based on assumption of major natural disasters, conduct training to improve Group’s response to risk of business disruption Take steps to reduce CO₂ emissions Introduce SOx/NOx removal equipment Increase sales ratio for “products that contribute to the creation of a sustainable society” to 70% by 2030
		●	<ul style="list-style-type: none"> Greater demand for fuel cell vehicles as hydrogen society gains momentum Growth in number of new ships built amid rising demand for biomass fuel transportation Expansion in businesses providing disaster prevention/mitigation solutions to address rising wind and flood damage 	<ul style="list-style-type: none"> Improve technological capabilities for developing fuel cell parts and materials Increase production capacity for marine wireless communication equipment to address rising demand for new biomass fuel transportation vessels Sell water/river management systems, weather radars and other disaster prevention/mitigation solutions developed in Japan to customers overseas

Risks	Opportunities	Details	Response
Geopolitical Risk			
●		• Impact on operations from geopolitical developments	• Consider country risks, etc., when determining appropriate investment levels for each country/region
Fluctuations in Product Markets, Exchange Rates and Raw Material Prices			
●		<ul style="list-style-type: none"> • Changes in supply-demand balance in product markets due to fluctuations in economy • Impact on earnings from significant volatility in raw material prices • Impact on earnings from fluctuations in exchange rates • Impact from changes in rules or regulatory frameworks governing products and services in each market 	<ul style="list-style-type: none"> • Use diversified business strategy to mitigate impact on earnings from sudden changes in operating environment • Build reliable relationships with multiple suppliers • Use forward exchange contracts, etc., to minimize exchange rate risk • Gather risk information from business sites in each country/region and feed back to management
Communicable Diseases			
●		• Impact on earnings from pandemics of previously unknown diseases such as COVID-19	• Provide appropriate support to management by forming emergency response teams and aggregating and communicating information
●		• Create new value by contributing to society through medical-related businesses	
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"> • Reform business portfolio to align with changes in issues faced by society, improve cash flow • Improve efficiency by overhauling Groupwide organizations and using outsourcing • Maintain Group integration by consolidating oversight of Group company management at HD and establishing financial discipline
●		• Harness Group's diverse strengths by integrating businesses/organizations to drive innovation and increase resilience to changes in operating environment	
M&A/Major Investments			
●		• Mistakes with M&A deals and major investment plans	<ul style="list-style-type: none"> • Form project teams for each M&A deal to strengthen PMI activities; Board of Directors to verify investment effectiveness while building up internal expertise • Separate capex budget approval and implementation approval functions, hedge risks by adjusting capex in response to changes in operating environment
●		• Use new business resources to capture opportunities that support sustained growth	
Human Resources			
●		• Difficulties hiring and retaining talented people	<ul style="list-style-type: none"> • Use RPA, IoT and other tools to increase automation and realize labor savings • Implement strategic PR activities to improve corporate visibility and image • Provide human resources and financial support to joint research projects with academia • Use targeted local recruitment activities
●		• Overlap between Corporate Philosophy and growing interest in ESG among younger people, leading to more hiring opportunities	
Rapid Technological Innovation			
●		<ul style="list-style-type: none"> • Dramatic changes in existing markets due to technological innovation • Decrease in competitiveness due to delays in technology development and product development plans 	• Management decides to continue/cancel R&D projects based on regular assessments
●		• Opportunities to develop groundbreaking technologies and tap into growth by combining resources from diverse businesses	<ul style="list-style-type: none"> • Form teams by flexibly assigning personnel from various Group businesses • In April 2020, the Digital Business Department was established at HD to promote the development of advanced technologies • Alliances with other companies and start-ups

Risks	Opportunities	Details	Response
Human Rights Issues			
●		• Widespread sexual and power harassment that undermines the working environment	• Establish human rights team at HD to maintain and raise awareness across the Group
Business Management			
●		• Increasing complacency in governance	• Building on pioneering steps such as introduction of outside director system in 2006, adoption of HD system in 2009 and termination of advisor/consultant system in 2017, establish advanced governance system that balances management transparency with bold risk-taking
●		• Take risks based on balance between proactive and defensive governance	
Quality Issues			
●		• 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 risk management system to minimize risk probability and potential impact • Establish quality assurance team at HD to oversee quality assurance and product safety activities at Group companies
Information Security			
●		<ul style="list-style-type: none"> • Unauthorized disclosure of personal information, customer information or trade secrets • Information leaks or data corruption caused by computer viruses 	<ul style="list-style-type: none"> • Continuous training and annual internal audits to assess information security • Use risk management system to minimize risk probability and potential impact
Compliance			
●		• 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"> • Messaging from president of HD to underscore importance of fair business practices • Continuous implementation of compliance training • Severe penalties for misconduct • Appoint outside directors with legal background
Fraud/Illegal conduct			
●		• Financial window-dressing, accounting irregularities, etc.	<ul style="list-style-type: none"> • Use internal control system and corporate ethics reporting system to prevent misconduct • Regular rotation to prevent misconduct
Workplace Accidents			
●		• Impact on business of failure to ensure employee health and safety worldwide	• HD and Group companies work together to roll out high-level health and safety approaches from Japan to sites worldwide
Business Reputation			
●		<ul style="list-style-type: none"> • Impact on business from misreporting in media, spread of rumors or online rumors • Labelled as target for divestment by investors 	<ul style="list-style-type: none"> • Routinely monitor situation as part of risk management • Continuously share information with major ESG investors and ESG index research firms to identify trends
Cross-shareholdings/Idle Real Estate			
●		• Fluctuations in market value	<ul style="list-style-type: none"> • Steadily reduce exposure to cross-shareholdings in line with Corporate Governance Policy • Increase value by redeveloping real estate

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

As of March. 30, 2021

Board of Directors



Number of Company's shares held: 126,927 shares

Chairman and Representative Director

Masaya Kawata

Apr. 1975 Joined the Company
 June 2006 Managing Officer and General Manager of Human Resources Division of the Company
 Apr. 2007 Deputy General Manager of Accounting and Finance Division of the Company (served concurrently)
 June 2007 Director of the Company
 Apr. 2008 Deputy Chief of Business Support Center of the Company
 Apr. 2009 President and Representative Director of Nisshinbo Brake Inc.
 June 2010 Director and Executive Managing Officer of the Company
 June 2011 Deputy Chief of Corporate Strategy Center and General Manager of Business Development Division of the Company (served concurrently)
 President and Representative Director of Nisshinbo Chemical Inc.
 June 2012 Director and Senior Executive Managing Officer of the Company
 President and Representative Director of Nisshinbo Mechatronics Inc.
 June 2013 President and Representative Director of the Company
 Mar. 2019 Chairman and Representative Director of the Company (to the present)



Number of Company's shares held: 51,810 shares

President and Representative Director

Masahiro Murakami

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)



Number of Company's shares held: 768 shares

Director and Senior Executive Managing Officer

Takeshi Koarai

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. (to the present)
 Mar. 2021 Director and Senior Executive Managing Officer of the Company (served concurrently, to the present)



Number of Company's shares held: 43,715 shares

Director and Executive Managing Officer

Ryo Ogura

Feb. 1985 Joined New Japan Radio Co., Ltd.
 June 1999 Director of New Japan Radio Co., Ltd.
 Apr. 2001 General Manager of Standard IC Division of New Japan Radio Co., Ltd.
 June 2004 Managing Director of New Japan Radio Co., Ltd.
 Apr. 2005 Executive of Semiconductor Business Divisions and General Manager of Semiconductor Technology Headquarters of New Japan Radio Co., Ltd.
 Apr. 2006 General Manager of Semiconductor Production Headquarters of New Japan Radio Co., Ltd.
 June 2009 Representative Director and Executive Managing Director of NJR FUKUOKA CO., LTD.
 June 2011 President and Representative Director of New Japan Radio Co., Ltd.
 June 2016 Director and Executive Managing Officer of the Company (to the present)
 Sept. 2018 Chairman and Representative Director of New Japan Radio Co., Ltd. (served concurrently, to the present)



Number of Company's shares held: 16,350 shares

Director and Executive Managing Officer

Kazunori Baba

Chief of Corporate Strategy Center
 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)



Number of Company's shares held: 9,865 shares

Director and Managing Officer

Yasuji Ishii

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)



Number of Company's shares held: 11,165 shares

Director and Managing Officer

Shuji Tsukatani

Senior Manager of Finance, Accounting & IT Service Department of Corporate Strategy Center
 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)



Number of Company's shares held: 0 shares

Director (Outside Director)

Keiji Taga

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)



Number of Company's shares held: 0 shares

Director (Outside Director)

Shinobu Fujino

Apr. 1987 Joined Ryoka Systems Inc.
 June 2003 Opened a counseling business office (to the present)
 June 2015 Outside Director of the Company (to the present)



Director (Outside Director)

Hiroaki Yagi

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)

Number of Company's shares held: 0 shares



Director (Outside Director)

Hiroyuki Chuma

Aug. 1984 Assistant Professor of Department of Economics, Southern Illinois University Carbondale
July 1985 Associate Professor of Faculty of Economics, Tokyo Metropolitan University
Apr. 1992 Associate Professor of Graduate School of Economics/Faculty of Economics, Hitotsubashi University
Apr. 1993 Professor of Graduate School of Economics/Faculty of Economics, Hitotsubashi University
Apr. 1999 Professor of Institute of Innovation Research, Hitotsubashi University
Jan. 2000 Visiting Professor of Department of Economics, Yale University
Apr. 2000 Faculty Fellow, Research Institute of Economy, Trade and Industry (RIETI)
Apr. 2004 Director of Research, National Institute of Science and Technology Policy (NISTEP)
Apr. 2012 Professor of Graduate School of Commerce & Management/Faculty of Commerce & Management, and Institute of Innovation Research, Hitotsubashi University
Apr. 2014 Professor of Faculty of Social Innovation/Graduate School of Innovation and Social Studies, Seijo University (to the present)
Apr. 2015 Professor Emeritus of Hitotsubashi University
Apr. 2015 Faculty Fellow, RIETI
Mar. 2020 Outside Director of the Company (to the present)

Number of Company's shares held: 0 shares



Director (Outside Director)

Naoko Tani

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)

Number of Company's shares held: 0 shares

Audit & Supervisory Board Members



Audit & Supervisory Board Member

Toshihiro Kijima

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 Nisshinbo Holdings Inc.
Mar. 2019 Standing Auditor & Supervisory Board Member (to the present)

Number of Company's shares held: 14,130 shares



Audit & Supervisory Board Member

Takumi Ohmoto

Apr. 1978 Joined the Company
Jan. 2007 Manager of Finance Department and Accounting Department of Accounting and Finance Division of the Company
June 2010 Senior Manager of Finance, Accounting & IT Service Department of Business Support Center of the Company
June 2015 Standing Auditor & Supervisory Board Member (to the present)

Number of Company's shares held: 19,100 shares



Outside Audit & Supervisory Board Member

Atsushi Yamashita

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)

Number of Company's shares held: 0 shares



Outside Audit & Supervisory Board Member

Mitsunori Watanabe

Apr. 1980 Joined Shikoku Chemicals Corporation
Mar. 2002 General Manager of Corporate Planning Department of Shikoku Chemicals Corporation
June 2013 Managing Officer of Shikoku Chemicals Corporation
June 2014 Director, Managing Officer, General Manager of Corporate Planning and Secretariat (concurrent posts) of Shikoku Chemicals Corporation
Mar. 2017 Director, Managing Officer, Deputy Head of Planning and Management of Shikoku Chemicals Corporation
Feb. 2018 Director, Managing Officer, Head of Osaka Branch Office of Shikoku Chemicals Corporation
Mar. 2019 Outside Audit & Supervisory Board member (to the present)
June 2019 Director, Executive Managing Officer (to the present), Head of Corporate Strategy Division and Business Planning Division (served concurrently) of Shikoku Chemicals Corporation
Mar. 2020 Head of Corporate Strategy Division and Business Development Division (served concurrently, to the present) of Shikoku Chemicals Corporation

Number of Company's shares held: 0 shares

Managing Officers

President

Masahiro Murakami*

Senior Executive Managing Officer

Takeshi Koarai*

Executive Managing Officers

Ryo Ogura*
Kazunori Baba*

Managing Officers

Yasuji Ishii*
Shuji Tsukatani*

* Concurrent board member



Executive Managing Officer

Akihiro Ishizaka

Senior Manager of Corporate Strategy Department



Executive Managing Officer

Makoto Sugiyama

Senior Manager of CSR Department, Diversity Development Department and Human Resources and Administration Service Department



Managing Officer

Satoru Taji

President, Ricoh Electronic Devices Co., Ltd.



Managing Officer

Kenichi Morita

President, New Japan Radio Co., Ltd.



Managing Officer

Toshihiro Masuda

President, Nisshinbo Mechatronics Inc.



Managing Officer

Yasuo Imashiro

General Manager, Business Development Division



Managing Officer

Kazuo Saito

Managing Director, Nisshinbo Singapore Pte. Ltd.



Managing Officer

Kaoru Murata

President, Nisshinbo Textile Inc.



Managing Officer

Yuzo Matsui

Senior Manager of Property Management Department



Managing Officer

Ikuo Takahashi

President, Nisshinbo Chemical Inc.

Eleven-Year Summary

	2011.03	2012.03	2013.03	2014.03	2015.03	2016.03	2017.03	2018.03	2018.12	2019.12	2020.12
Operating Results (millions of yen)											
Net Sales	¥325,555	¥379,340	¥450,693	¥494,350	¥523,758	¥533,989	¥527,274	¥512,048	¥416,221	¥509,661	¥457,051
Electronics	112,820	169,907	175,308	187,743	209,116	205,368	190,852	193,621	—	—	—
Wireless and Communications	—	—	—	—	—	—	—	—	90,427	152,213	144,312
Micro Devices	—	—	—	—	—	—	—	—	53,777	65,286	61,141
Automobile Brakes	46,119	47,450	118,849	148,699	161,887	165,037	146,062	154,205	135,008	131,338	114,827
Precision Instruments	32,020	25,191	24,520	28,655	28,608	29,525	60,687	64,918	62,219	65,429	51,419
Chemicals	7,284	8,258	8,150	8,810	8,138	8,285	9,483	11,285	8,173	9,391	9,577
Textiles	57,400	60,964	54,736	54,630	51,073	60,127	55,842	54,640	43,660	49,505	33,957
Papers	30,326	30,220	30,524	31,686	31,280	32,585	32,648	—	—	—	—
Real Estate	12,437	9,082	15,367	10,567	9,246	8,358	8,084	8,406	4,237	11,655	20,279
Other Businesses	27,149	28,268	23,239	23,560	24,410	24,704	23,616	24,973	18,720	24,844	21,539
Operating Income (Loss)	19,843	4,170	13,394	13,175	13,744	12,617	4,890	15,086	(2,506)	6,482	1,248
Net Income (Loss) Attributable to Owners of the Company	11,185	9,416	6,418	9,012	13,694	10,776	3,575	26,352	(7,183)	(6,604)	13,541
Financial Position (millions of yen)											
Equity	¥211,557	¥213,751	¥242,623	¥276,865	¥306,938	¥284,472	¥275,753	¥290,434	¥264,849	¥252,536	¥242,068
Total Assets	479,852	534,584	551,933	611,311	678,486	651,793	646,288	651,959	622,381	617,528	581,204
Capital Expenditures	12,800	15,705	20,123	19,896	36,909	22,862	30,505	30,103	27,199	32,387	25,870
Depreciation and Amortization	13,158	14,550	18,969	21,486	23,111	22,571	22,264	22,183	19,816	24,955	22,125
Cash Flows (millions of yen)											
Net Cash Provided by Operating Activities	¥16,529	¥12,974	¥34,095	¥26,075	¥37,120	¥39,566	¥26,768	¥32,415	¥15,495	¥26,249	¥42,590
Net Cash Provided by (Used in) Investing Activities	11,591	(57,861)	(10,973)	(19,862)	(21,271)	(22,793)	(31,429)	(1,798)	(20,723)	(21,759)	(6,321)
Net Cash Provided by (Used in) Financing Activities	703	16,835	(24,073)	(2,321)	(6,238)	(9,044)	3,595	(34,785)	11,936	(10,065)	(24,230)
Per Share (yen)											
Net Income (Loss) Attributable to Owners of the Company	¥63.32	¥53.83	¥36.74	¥51.60	¥80.33	¥67.93	¥22.52	¥160.59	¥(43.26)	¥(39.45)	¥81.38
Shareholders' Equity	1,036.80	1,063.19	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
Cash Dividends	15.00	15.00	15.00	15.00	15.00	30.00	30.00	30.00	30.00	30.00	30.00
Key Ratios (%)											
Shareholders' Equity Ratio	38.0	34.7	37.9	39.1	38.2	35.9	35.5	41.2	40.1	38.6	39.4
Return on Assets (ROA)	2.7	1.9	1.2	1.5	2.1	1.6	0.6	4.1	(1.1)	(1.4)	2.3
Return on Equity (ROE)	6.1	5.1	3.2	4.0	5.5	4.4	1.5	10.6	(2.8)	(2.7)	5.8
Payout Ratio	23.7	27.9	40.8	29.1	18.7	44.2	133.2	18.7	—	—	36.9
ESG Indicators											
Number of Employees	18,292	22,304	22,083	22,052	21,387	23,055	23,256	23,104	22,850	22,889	21,725
Number of Patents Approved	1,986	1,986	2,293	2,448	2,424	2,441	2,402	2,400	2,682	2,910	3,014
Greenhouse Gas Emissions per Unit of Sales (t-CO ₂ /million yen)	—	—	—	1.372	1.330	1.267	1.311	1.279	1.320	1.259	1.306

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.

Management's Discussion and Analysis

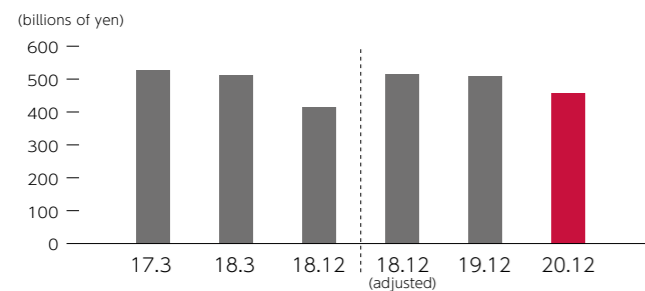
HIGHLIGHTS

- Due to the impact of COVID-19, net sales in the micro device, automobile brakes, precision instruments and textiles businesses declined as Group sales decreased.
- Net income attributable to owners of the Company returned to the black due to an increase in gain on sales of securities.

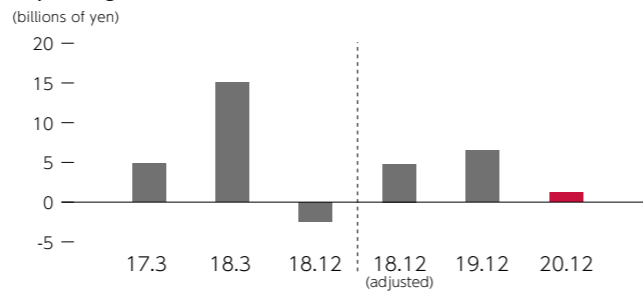
Operating Results

In 2020, despite significantly higher sales in the real estate business, COVID-19 caused sales to decline in the micro devices, automobile brakes, precision instruments and textiles businesses, resulting in net sales of ¥457,051 million (US\$4,353 million), down ¥52,610 million (10.3%) year on year. Lower net sales resulted in operating income of ¥1,248 million (US\$12 million), down ¥5,234 million (80.7%) year on year. Net income attributable to owners of the Company amounted to ¥13,541 million (US\$129 million), an improvement of ¥20,145 million year on year, due to extraordinary income from gains on sale of investment securities and extraordinary losses due to impairment losses and other factors.

Net Sales



Operating Income/Loss



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

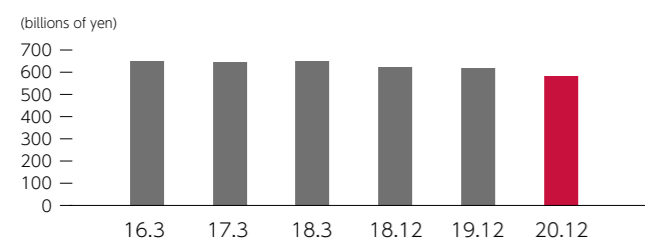
Dividends

In principle, there are two distributions per fiscal year: the interim dividend and the year-end dividend. We aim for a consolidated payout ratio of around 30% as we implement the stable and continuous distribution of dividends. In addition, if we confirm that internal reserves are sufficient for future growth strategies, our policy is to engage in more proactive shareholder returns, including consideration for the purchase of our own shares. In principle, we will cancel treasury shares, but in the event an M&A project will contribute substantially to increased shareholder value, we will consider the utilization of stock swaps. In the fiscal year under review, the full-year dividend amounted to ¥30 (US\$0.29) per share.

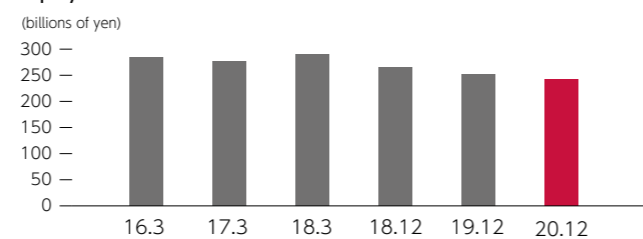
Financial Position

Total assets as of December 31, 2020, stood at ¥581,204 million (US\$5,535 million), a decline of ¥36,324 million from the end of the previous fiscal period. This was mainly due to an increase of ¥11,431 million for cash and cash equivalents and decreases of ¥14,243 million for receivables and ¥23,264 million for investment securities. Total liabilities were ¥339,136 million (US\$3,230 million), a decrease of ¥25,856 million from the end of the previous fiscal period. This was mainly due to decreases of ¥11,302 million in short-term bank loans and ¥6,739 million in deferred tax liabilities. Equity totaled ¥242,068 million (US\$2,305 million), a decline of ¥10,468 million from the end of the previous fiscal period. This was mainly due to an increase of ¥8,549 million in retained earnings and decreases of ¥13,789 million in net unrealized gain on available-for-sale securities and ¥4,968 million in foreign currency translation adjustments. As a result of the above, the consolidated shareholders' equity ratio increased 0.8 percentage point to 39.4%.

Total Assets



Equity



Fund Procurement

In the fiscal year under review, with consideration for the long-term risks posed by the impact of COVID-19, the Company increased commitment line contracts with major banks by ¥5,000 million, renewing them for ¥30,000 million. The Company also continues to have access to approved funding through overdraft facilities and commercial paper, ensuring necessary levels of liquidity.

Cash Flows

Cash Flows from Operating Activities

Cash provided by operating activities totaled ¥42,590 million (US\$406 million). This was mainly due to profit before income taxes of ¥20,030 million and depreciation of ¥22,125 million.

Cash Flows from Investing Activities

Cash used in investing activities totaled ¥6,321 million (US\$60 million), mainly reflecting cash used of ¥24,601 million for the purchase of property, plant and equipment.

Cash Flows from Financing Activities

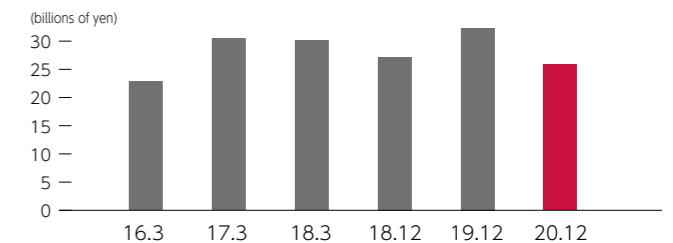
Cash used in financing activities totaled ¥24,230 million (US\$231 million). This was mainly due to an ¥11,210 million net decrease in short-term borrowings, ¥36,519 million in proceeds from long-term borrowings and ¥41,468 million in repayments of long-term borrowings.

As a result of the above, cash and cash equivalents at the end of the fiscal year totaled ¥48,699 million, an increase of ¥11,431 million from the end of the previous fiscal period.

Capital Expenditures

Based on focused capital investment in long-term growth fields, the Nisshinbo Group is committed to cutting-edge manufacturing equipment and environmental measures, engaging in capital investments to meet growing demands in developing markets. In the fiscal year under review, capital expenditures totaled ¥25,870 million (US\$246 million). In the wireless and communications business, ¥6,877 million was invested in the Japan Radio Group, mainly for backbone IT systems and the reconstruction of office buildings. In the micro devices business, ¥2,584 million was invested in New Japan Radio Co., Ltd., mainly for electronic device manufacturing and research-and-development facilities, as well as ¥2,235 million for research-and-development facilities and backbone IT systems. In the automobile brakes business, ¥4,114 million was invested in the TMD Group, mainly for friction material manufacturing facilities, whereas ¥1,544 million was invested in Nisshinbo Automotive Manufacturing Inc., mainly for manufacturing facilities for friction materials complying with copper content regulations.

Capital Expenditures



Medium-term Management Strategy

With its corporate philosophy "Change and Challenge! For the creation of the future of Earth and People," the Nisshinbo Group targets the realization of super smart societies as an *Environment and Energy Company* group focused on preserving the global environment and creating sustainable societies. While flexibly and proactively incorporating the new paradigm brought by COVID-19 into our business growth, in the core mobility area, we will integrate wireless communication technologies with technologies used in electronic devices, mechatronics and chemicals to expand business across the Group, while contributing to the creation of future societies by providing products and services in the fields of infrastructure and safety and life and healthcare. In automotive products, Nisshinbo will increase its global presence through the development and sales promotion of industry-leading copper-free friction materials; develop carbon bipolar plates, platinum catalyst substitutes and other components for fuel cell vehicles; supply devices; and develop sensors that are key for autonomous driving and developing communication networks linking automobiles with traffic infrastructure. In addition, we are developing radar, sensors and other devices needed for autonomous ship operation, satellite communication, and aircraft and drone control systems, as well as using the data gathered from products developed by the Group to support safe and energy-efficient operations. The Nisshinbo Group is targeting ROE of 12% in 2025.

Selection of Accounting Standards

The Nisshinbo Group currently uses Japanese accounting standards. However, given that the Company's basic management policy is to develop its business globally, overseas operations will likely account for a growing share of consolidated earnings. Thus, we are considering voluntarily adopting International Financial Reporting Standards (IFRS), a common set of global accounting standards. At present, no final decision has yet been made regarding timing and other factors related to the voluntary adoption of these standards.

Consolidated Balance Sheet

December 31, 2020

	2020	Millions of Yen 2019	Thousands of U.S. Dollars (Note) 2020
ASSETS			
CURRENT ASSETS:			
Cash and cash equivalents	¥48,699	¥37,268	\$463,800
Time deposits	1,848	282	17,600
Receivables:			
Trade notes	18,133	20,809	172,695
Trade accounts	96,456	106,294	918,629
Unconsolidated subsidiaries and affiliates	807	1,127	7,686
Other	3,120	4,495	29,714
Allowance for doubtful receivables	(622)	(588)	(5,924)
Inventories	116,346	121,848	1,108,057
Other current assets	7,472	8,395	71,162
Total current assets	292,259	299,930	2,783,419
PROPERTY, PLANT AND EQUIPMENT:			
Land	34,297	35,158	326,638
Buildings and structures	159,642	157,800	1,520,401
Machinery, equipment and tools	347,962	348,790	3,313,924
Construction in progress	6,803	8,254	64,790
Other	11,906	10,655	113,390
Total	560,610	560,657	5,339,143
Accumulated depreciation	(391,685)	(385,793)	(3,730,333)
Net property, plant, and equipment	168,925	174,864	1,608,810
INVESTMENTS AND OTHER ASSETS:			
Investment securities	55,612	78,876	529,638
Investments in and advances to unconsolidated subsidiaries and affiliates	31,647	32,695	301,400
Deferred tax assets	4,586	5,250	43,676
Goodwill	4,595	5,101	43,762
Other	23,580	20,812	224,571
Total investments and other assets	120,020	142,734	1,143,047
TOTAL	¥581,204	¥617,528	\$5,535,276

	2020	Millions of Yen 2019	Thousands of U.S. Dollars (Note) 2020
LIABILITIES AND EQUITY			
CURRENT LIABILITIES:			
Short-term bank loans	¥35,247	¥46,549	\$335,686
Commercial paper	30,000	30,000	285,714
Current portion of long-term debt	27,991	39,818	266,581
Payables:			
Trade notes	21,080	23,483	200,762
Trade accounts	37,348	37,873	355,696
Unconsolidated subsidiaries and affiliates	79	106	752
Other	10,301	14,240	98,105
Accrued expenses	14,773	14,836	140,695
Accrued income taxes	6,316	4,092	60,152
Other current liabilities	19,717	20,026	187,781
Total current liabilities	202,852	231,023	1,931,924
LONG-TERM LIABILITIES			
Long-term debt	57,091	47,686	543,724
Liability for retirement benefits	52,804	51,807	502,905
Deferred tax liabilities	12,136	18,875	115,581
Other long-term liabilities	14,253	15,601	135,733
Total long-term liabilities	136,284	133,969	1,297,943
Total liabilities	339,136	364,992	3,229,867
EQUITY:			
Shareholders' equity:			
Common stock—authorized, 371,755,000 shares; issued, 178,978,479 shares in 2020 and 178,894,764 shares in 2019	27,669	27,640	263,514
Capital surplus	20,450	20,421	194,762
Retained earnings	174,098	165,549	1,658,077
Treasury stock—at cost, 12,549,457 shares in 2020 and 12,545,648 shares in 2019	(15,950)	(15,947)	(151,905)
Total shareholders' equity	206,267	197,663	1,964,448
Accumulated other comprehensive income:			
Net unrealized gain (loss) on available-for-sale securities	25,782	39,571	245,543
Deferred gain (loss) on derivatives under hedge accounting	(2)	(24)	(19)
Foreign currency translation adjustments	(1,158)	3,810	(11,029)
Postretirement liability adjustments	(2,017)	(2,915)	(19,210)
Total	22,605	40,442	215,285
Stock acquisition rights	151	168	1,438
Noncontrolling interests	13,045	14,263	124,238
Total equity	242,068	252,536	2,305,409
TOTAL	¥581,204	¥617,528	\$5,535,276

Consolidated Statement of Profit or Loss

Year Ended December 31, 2020

	2020	Millions of Yen 2019	Thousands of U.S. Dollars (Note) 2020
NET SALES	¥457,051	¥509,661	\$4,352,867
COST OF SALES	365,434	409,014	3,480,324
Gross profit	91,617	100,647	872,543
SELLING, GENERAL, AND ADMINISTRATIVE EXPENSES	90,369	94,165	860,657
Operating income	1,248	6,482	11,886
OTHER INCOME (EXPENSES):			
Interest and dividend income	1,931	2,590	18,390
Interest expense	(1,138)	(1,133)	(10,838)
Gain on sales of property, plant, and equipment	1,315	607	12,524
Equity in earnings of an unconsolidated subsidiaries and affiliates	2,574	3,655	24,514
Loss on impairment of long-lived assets	(3,837)	(16,181)	(36,543)
Gain on sales of securities	19,211	3,421	182,962
Business structure improvement expenses	(909)	(1,929)	(8,657)
Other—net	(365)	230	(3,476)
Other income (expenses)—net	18,782	(8,740)	178,876
INCOME (LOSS) BEFORE INCOME TAXES	20,030	(2,258)	190,762
INCOME TAXES:			
Current	7,962	5,438	75,829
Deferred	(593)	(826)	(5,648)
Total income taxes	7,369	4,612	70,181
NET INCOME (LOSS)	12,661	(6,870)	120,581
NET LOSS ATTRIBUTABLE TO NONCONTROLLING INTERESTS	(880)	(266)	(8,381)
NET INCOME (LOSS) ATTRIBUTABLE TO OWNERS OF THE COMPANY	¥13,541	¥(6,604)	\$128,962
		Yen	U.S. Dollars
PER SHARE OF COMMON STOCK:			
Net income (loss)	¥81.38	¥ (39.45)	\$0.78
Cash dividends	30	30	0.29

Consolidated Statement of Comprehensive (Loss) Income

Year Ended December 31, 2020

	2020	Millions of Yen 2019	Thousands of U.S. Dollars (Note) 2020
NET INCOME (LOSS)	¥12,661	¥(6,870)	\$120,581
OTHER COMPREHENSIVE (LOSS) INCOME:			
Net unrealized (loss) gain on available-for-sale securities	(13,787)	5,583	(131,305)
Deferred gain on derivatives under hedge accounting	22	74	210
Foreign currency translation adjustments	(5,004)	(1,549)	(47,657)
Postretirement liability adjustments	927	1,177	8,828
Equity in earnings (loss) of unconsolidated subsidiaries and affiliates	13	(304)	124
Total other comprehensive (loss) income	(17,829)	4,981	(169,800)
COMPREHENSIVE LOSS	¥(5,168)	¥(1,889)	\$ (49,219)
TOTAL COMPREHENSIVE LOSS ATTRIBUTABLE TO:			
Owners of the Company	¥(4,296)	¥(1,263)	\$ (40,914)
Noncontrolling interests	(872)	(626)	(8,305)

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 ¥105 to \$1, the approximate rate of exchange at December 31, 2020.

Consolidated Statement of Cash Flows

Year Ended December 31, 2020

	2020	2019	Thousands of U.S. Dollars (Note)
		Millions of Yen	
			2020
OPERATING ACTIVITIES:			
Income (loss) before income taxes	¥20,030	¥(2,258)	\$190,762
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Income taxes—paid	(4,413)	(3,520)	(42,029)
Depreciation and amortization	22,125	24,955	210,714
Amortization of goodwill	1,832	1,986	17,448
Equity in loss (earnings) of unconsolidated subsidiaries and affiliates	(2,574)	(3,655)	(24,514)
Provision for (reversal of) doubtful receivables	9	561	86
Interest and dividends income	3,692	1,345	35,162
Provision for business structure improvement	446	1,156	4,248
Provision for contingent loss	(331)	—	(3,152)
Provision for product warranties	(296)	—	(2,819)
Increase (decrease) in liabilities for retirement benefits	(321)	73	(3,057)
Loss (gain) on sale of property, plant, and equipment, net	(682)	(344)	(6,495)
Loss on impairment of long-lived assets	3,837	16,181	36,543
Loss (gain) on sale of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates, net	(19,207)	(3,343)	(182,924)
Loss on write-down of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates	308	11	2,933
Changes in operating assets and liabilities:			
Decrease (increase) in receivables	14,483	(5,909)	137,933
Decrease (increase) in inventories	5,499	5,466	52,371
Increase (decrease) in payables	(3,114)	(4,060)	(29,657)
Other—net	1,267	(2,396)	12,066
Total adjustments	22,560	28,507	214,857
Net cash provided by (used in) operating activities	42,590	26,249	405,619
INVESTING ACTIVITIES:			
Proceeds from sale of property, plant, and equipment	2,265	1,156	21,571
Proceeds from sale of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates	22,304	3,989	212,419
Purchase of property, plant, and equipment	(24,601)	(25,436)	(234,295)
Purchase of investment securities and investments in and advances to unconsolidated subsidiaries and affiliates	(36)	(79)	(343)
Decrease (increase) in time deposits—net	(1,726)	(282)	(16,438)
Purchase of investments in subsidiaries with changes in consolidation scope	(1,329)	—	(12,657)
Proceeds from acquisition of shares of newly consolidated subsidiaries	—	868	—
Other—net	(3,198)	(1,975)	(30,457)
Net cash provided by (used in) investing activities	(6,321)	(21,759)	(60,200)
FORWARD	¥36,269	¥4,490	\$345,419
FINANCING ACTIVITIES:			
Proceeds from long-term debt	36,519	32,369	347,800
Repayment of long-term debt	(41,468)	(10,653)	(394,933)
Increase (decrease) in short-term bank loans—net	(11,210)	(18,277)	(106,762)
Cash dividends paid	(4,992)	(5,065)	(47,543)
Purchase of treasury stock	(4)	(4,924)	(38)
Increase (decrease) in other long-term liabilities	(531)	(1,277)	(5,057)
Other—net	(2,544)	(2,238)	(24,229)
Net cash provided by (used in) financing activities	(24,230)	(10,065)	(230,762)
EFFECT OF EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	(608)	(73)	(5,790)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	11,431	(5,648)	108,867
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	37,268	42,434	354,933
INCREASE IN CASH AND CASH EQUIVALENTS RESULTING FROM INCLUSION OF SUBSIDIARIES IN CONSOLIDATION	—	482	—
CASH AND CASH EQUIVALENTS, END OF YEAR	¥48,699	¥37,268	\$463,800

Segment Information

Year Ended December 31, 2020

	Millions of Yen									
	Wireless and Communications	Microdevices	Automobile Brakes	Precision Instruments	Chemicals	Textiles	Real Estate	Other Businesses	Eliminations/Corporate	Consolidated
2020										
Sales:										
Sales to external customers	¥144,312	¥61,141	¥114,827	¥51,419	¥9,577	¥33,957	¥20,279	¥21,539	¥ —	¥457,051
Intersegment sales or transfers	398	876	20	421	181	17	1,399	2,571	(5,883)	—
Total	¥144,710	¥62,017	¥114,847	¥51,840	¥9,758	¥33,974	¥21,678	¥24,110	¥(5,883)	¥457,051
Segment profit (loss)	¥2,575	¥(3,895)	¥(2,289)	¥(948)	¥1,811	¥(813)	¥11,512	¥248	¥(6,953)	¥1,248
Segment assets	170,435	74,114	131,964	70,057	10,433	42,569	40,984	30,422	10,226	581,204
Other:										
Depreciation and amortization	3,736	4,316	6,744	4,059	214	1,439	914	225	478	22,125
Increase in property, plant, and equipment and intangible assets	7,167	4,819	7,684	3,870	108	1,070	398	7	747	25,870
2019										
Sales:										
Sales to external customers	¥152,213	¥65,286	¥131,338	¥65,429	¥9,391	¥49,505	¥11,655	¥24,844	¥ —	¥509,661
Intersegment sales or transfers	83	811	12	325	173	17	1,484	2,978	(5,883)	—
Total	¥152,296	¥66,097	¥131,350	¥65,754	¥9,564	¥49,522	¥13,139	¥27,822	¥(5,883)	¥509,661
Segment profit (loss)	¥4,100	¥256	¥(3,340)	¥879	¥1,650	¥1,037	¥8,163	¥(188)	¥(6,075)	¥6,482
Segment assets	164,234	76,231	133,654	74,802	9,395	51,339	49,017	37,904	20,952	617,528
Other:										
Depreciation and amortization	3,656	3,761	9,799	4,279	222	1,483	1,248	220	287	24,955
Increase in property, plant, and equipment and intangible assets	5,237	7,990	13,006	2,928	166	1,109	1,141	100	710	32,387
2020										
										Thousands of U.S. Dollars (Note)
	Wireless and Communications	Microdevices	Automobile Brakes	Precision Instruments	Chemicals	Textiles	Real Estate	Other Businesses	Eliminations/Corporate	Consolidated
Sales:										
Sales to external customers	\$1,374,400	\$582,295	\$1,093,591	\$489,705	\$91,210	\$323,400	\$193,133	\$205,133	\$ —	\$4,352,867
Intersegment sales or transfers	\$3,790	\$8,343	\$190	\$4,010	\$1,724	\$162	\$13,324	\$24,486	\$(56,029)	—
Total	\$1,378,190	\$590,638	\$1,093,781	\$493,715	\$92,934	\$323,562	\$206,457	\$229,619	\$(56,029)	\$4,352,867
Segment profit (loss)	\$24,524	\$(37,095)	\$(21,800)	\$(9,029)	\$17,248	\$(7,743)	\$109,638	\$2,362	\$(66,219)	\$11,886
Segment assets	1,623,190	705,848	1,256,800	667,210	99,362	405,419	390,324	289,733	97,390	5,535,276
Other:										
Depreciation and amortization	35,581	41,105	64,229	38,657	2,038	13,705	8,704	2,143	4,552	210,714
Increase in property, plant, and equipment and intangible assets	68,257	45,895	73,181	36,857	1,029	10,191	3,790	67	7,114	246,381

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 radars, ultrasound sensors
Micro Devices		
New Japan Radio Co., Ltd.	Japan	Electronic devices, microwave products
Ricoh Electronic Devices Co., Ltd.	Japan	Electronic devices
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

Corporate Data

(As of December 31, 2020)

Founded February 5, 1907

Common Stock
27,669 million (US\$263 million)

Employees
Parent Company 252
Subsidiaries 21,473
Total 21,725

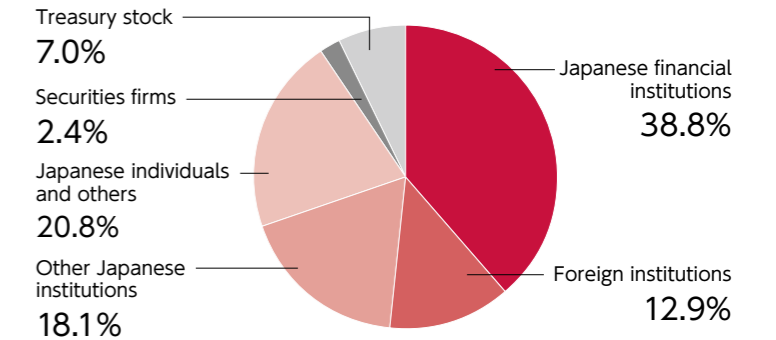
Head Office
2-31-11, Ningyo-cho, Nihonbashi, Chuo-ku,
Tokyo 103-8650, Japan

Shareholders 33,478

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	178,978,479 shares (As of December 31, 2020)
Treasury stock	12,549,457 shares (As of December 31, 2020)
Transfer agent	Mitsubishi UFJ Trust and Banking Corporation 1-4-5, Marunouchi, Chiyoda-ku, Tokyo 100-8212, Japan

Composition of Shareholders

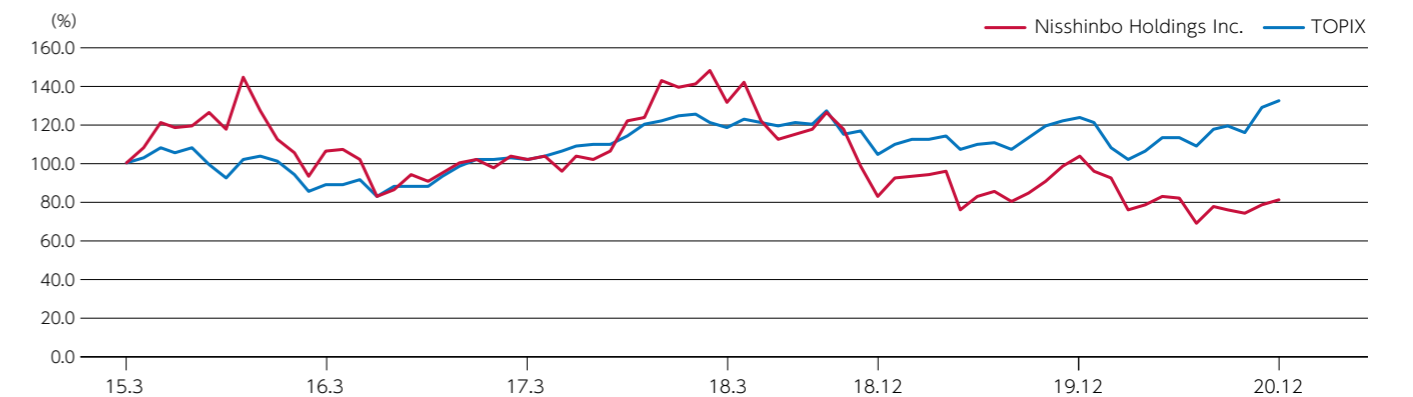


Major Shareholders

(As of December 31, 2020)

Shareholder name	Number of shares held (thousand shares)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	28,217	16.95
Custody Bank of Japan, Ltd. (Trust Account)	12,671	7.61
Teijin Limited	10,528	6.33
Fukoku Mutual Life Insurance Company (Standing proxy: Custody Bank of Japan, Ltd.)	9,000	5.41
Shikoku Chemicals Corporation	2,600	1.56
Custody Bank of Japan, Ltd. (Securities investment trust account)	2,315	1.39
Japan Wool Textile Co., Ltd.	2,282	1.37
JP MORGAN CHASE BANK 385781 (standing proxy: Settlement & Clearing Services Division, Mizuho Bank, Ltd.)	2,165	1.30
DFA INTL SMALL CAP VALUE PORTFOLIO (standing proxy: Citibank, N.A., Tokyo Branch)	2,139	1.29
Custody Bank of Japan, Ltd. (Trust account 5)	1,939	1.17

Total Shareholders' Return (5-Year Period)



(%)	16.3	17.3	18.3	18.12	19.12	20.12
Nisshinbo Holdings Inc.	106.2	101.7	131.9	82.5	103.6	80.8
TOPIX	89.2	102.3	118.5	104.5	123.4	132.5

Note: Share price index trends including dividends (March 31 2015 = 100)