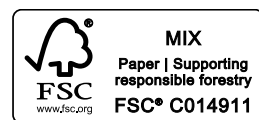


DOWA HOLDINGS CO.,LTD.

14-1, Sotokanda 4-chome, Chiyoda-ku, Tokyo 101-0021, Japan
Website: https://www.dowa.co.jp/index_e.html

DOWA REPORT 2023



Printed in Japan

DOWA



DOWA Continues to Realize Materials and Technologies That Underpin Society

We support society in a wide range of fields by developing the technology we have cultivated in our mining and smelting business into the establishment of metal recycling and the provision of high value-added materials.

We will continue to contribute to society through our business activities worldwide.

Scope of Coverage

Companies included in the PDF "Subsidiaries and Affiliates" located in the IR Library section of the corporate website:
<https://ir.dowa.co.jp/en/ir/library/annual.html>

Period of Reporting

From April 1, 2022, to March 31, 2023, herein referred to as "fiscal 2022." Parts of this report may refer to initiatives and activities outside this period.

Cautionary Note regarding Figures

The figures in this report have been rounded down.

Cautionary Note regarding Forward-Looking Statements

Forward-looking statements in this report, such as performance forecasts, are based on the information available to the Company's management team at the time of publication and on certain premises that it believes to be reasonable. Accordingly, actual performance may differ materially from such forecasts due to a variety of factors.

Guidelines Referenced

- The Integrated Reporting Framework of the International Financial Reporting Standard (IFRS) Foundation
- Guidance for Collaborative Value Creation of Ministry of Economy, Trade and Industry

Use of Abbreviations

This report uses the following abbreviations.
HD: DOWA Holdings Co., Ltd.; ES: Environmental Management & Recycling Business; MM: Nonferrous Metals Business; EL: Electronic Materials Business; MT: Metal Processing Business; TH: Heat Treatment Business

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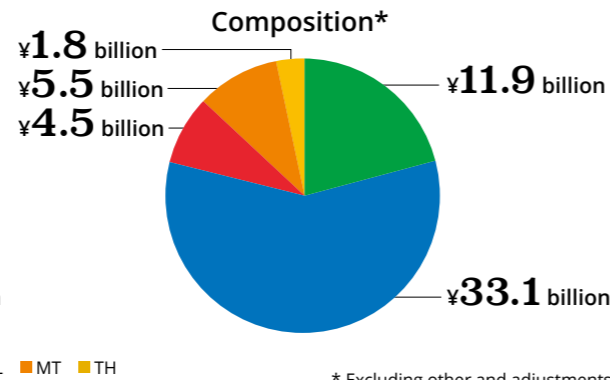
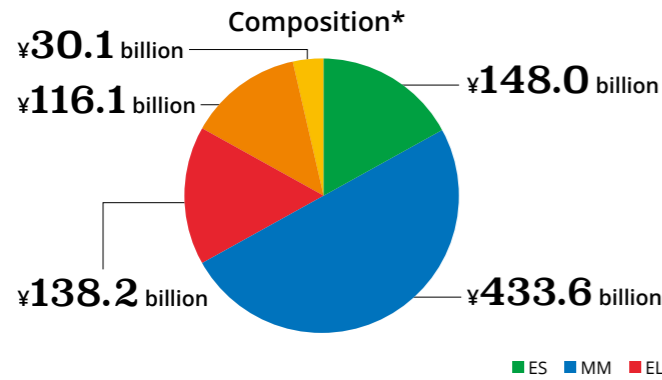
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At a Glance (Fiscal 2022)

Net Sales
¥780.0 billion
(-6.2% Year-on-Year)

Ordinary Income
¥55.5 billion
(-27.0% Year-on-Year)



■ ES ■ MM ■ EL ■ MT ■ TH

* Excluding other and adjustments

Environmental Management & Recycling Business

The Company operates both in Japan and internationally, providing a wide range of waste treatment, recycling, and soil remediation services, as well as one-stop services that include transportation of wastes from the generators to the controlled landfill sites.

Main Products and Services	<p>Waste treatment: incineration of industrial waste / melting and recycling of incinerated ash</p> <p>Soil remediation: surveys and remediation of soil / landfilling of waste / environmental consulting</p> <p>Recycling: recycling of metal / recycling of discarded household appliances / treatment of automotive shredder dust</p> <p>Southeast Asia: landfilling and incineration of waste / recycling of metal and waste</p>
Advantages	<ul style="list-style-type: none"> Integrated in-house treatment capabilities encompassing the collection and transport of waste through to its incineration and landfilling One of the largest waste incineration capacities in Japan Provision of comprehensive environmental solutions to clients Operation of a waste treatment and recycling business in four Southeast Asian countries

Related Industries and Applications



Hazardous waste



Metal scrap

Nonferrous Metals Business

Developed around a technology for recovering metals from *Kuroko* (black ore), the Company has recovered more than 20 metals from diverse raw materials through an organic network of copper and zinc smelting operations.

Main Products and Services	<p>Precious metals and copper smelting: gold / silver / copper / lead / tin / antimony / nickel</p> <p>Platinum group metals smelting: platinum / palladium / rhodium</p> <p>Zinc smelting: zinc / zinc alloy / indium / sulfuric acid</p> <p>Resource development and raw material procurement: stable procurement of raw materials for in-house smelting operations / acquisition and development of Group-owned mines and interests in other mines</p>
Advantages	<ul style="list-style-type: none"> Capabilities of our mining, smelting, and recycling complex centered on Kosaka Smelting & Refining Co., Ltd. Worldwide raw material collection network that is coordinated with the Environmental Management & Recycling Business

Related Industries and Applications



Electronic components



Automobiles

Electronic Materials Business

We provide distinctive products supported by our high technological capabilities, such as semiconductor materials, conductive materials, and magnetic materials, mainly for electronic devices, and hold a high share of the global market for many of these products.

Main Products and Services	<p>Semiconductors: high-purity gallium / indium / gallium arsenide wafers / red and infrared LEDs / deep ultraviolet LEDs</p> <p>Electronic materials: silver powder / copper powder / silver oxide powder / conductive atomized powder</p> <p>Advanced fine materials: magnetic powder / carrier powder / ferrite powder / compound oxide powder</p>
Advantages	<ul style="list-style-type: none"> Numerous products boasting leading shares of niche markets Production technology that allows for uniform quality from small-scale production to mass production Timely identification of changes in client needs and competence in the development of technologies that cater to these new needs

Related Industries and Applications



Telecommunication devices



Solar panels

Metal Processing Business

We provide wrought copper products for automobiles and electronic equipment, plating processes for automotive parts using precious metals and tin, and metal-ceramic substrates for industrial machinery and other power control equipment.

Main Products and Services	<p>Copper rolled products: copper, brass, and copper alloy strips / nickel alloy strips / reflow tin-plated strips / forged brass products</p> <p>Electroplating: electroplating</p> <p>Metal-ceramics substrates: metal-ceramics substrates</p>
Advantages	<ul style="list-style-type: none"> Extensive lineup of products that have high levels of performance in terms of conductivity, strength, and workability Multiple processing bases in China and Thailand, which are important demand destinations in Asia Large share of the market for automotive copper rolled products and electroplating in Japan One of the largest shares of the global market for metal-ceramics substrates for power modules

Related Industries and Applications



Automobiles



Telecommunication devices

Heat Treatment Business

We provide comprehensive engineering services ranging from design and manufacturing to maintenance of heat treatment facilities, as well as contract heat treatment services according to the application.

Main Products and Services	<p>Heat treatment processing: heat treatment / surface treatment</p> <p>Industrial furnaces: design, manufacture, marketing, and maintenance of heat treatment facilities and ancillary equipment</p>
Advantages	<ul style="list-style-type: none"> Significant share of the market for the heat treatment of automotive components in Japan Network of bases that covers the principal automotive manufacturing regions in Japan and overseas Support for clients in terms of both processing and facilities through the heat treatment processing and industrial furnaces businesses

Related Industries and Applications



Automobiles



Automobile parts

Message from the President

Through the Evolution of Our Recycling-Oriented Business Model, We Will Contribute to the Realization of a True Resource-Recycling Society and Achieve Sustainable Enhancement of Corporate Value.

SEKIGUCHI Akira
President and Representative Director

Corporate Culture that Should Be Preserved

The origin of the DOWA Group can be traced back to 1884, when Fujita Gumi, founded by Fujita Denzaburo, received a grant from the Japanese government for the Kosaka mine in Akita Prefecture, and began mining operations there. The Kosaka mine later developed into one of Japan's leading copper mines, contributing to the development of modern Japanese industry. The mining business deals with nature, something always beyond the control of humans. Any deception through small tricks will undoubtedly result in painful repercussions. Therefore, at the heart of our Company is a corporate culture that continues to hone our skills, face nature and materials head-on, and conduct good, honest business with our customers. We place the utmost importance on strict quality control through close communication with our customers. Once we lose credibility regarding product quality, the relationship we have built with our customers over several decades will disappear instantly.

Since the mining business is untenable without coexistence with the environment and local community, we have maintained a good, honest attitude toward our partners, including the environment and regional communities. Inheriting the will of our predecessors, who worked to deepen our relationship with the community through the development of social infrastructure such as electricity, water supply, schools, and hospitals, in addition to preventing environmental destruction around the mine, we continue to deepen our relationship of trust with the community in various ways.

The DOWA Group has continued its 140-year history not by pursuing short-term profits but by taking a long-term perspective, or as we would say today, sustainability management, since its establishment. This corporate culture, connected to the business run by our ancestors, will continue to be the foundation for the sustainable growth of the Group's corporate value.



Concentrating Management Resources in Areas Where We Can Establish a Competitive Advantage

I believe that many Japanese companies with long histories have naturally practiced “ambidextrous management,” in which they continue to deepen their efforts in existing businesses while exploring new seeds of business with an eye to the future. We understand that our Company has consistently taken such an approach to navigate the stormy waters of history. The Kosaka mine, for example, was originally one of the largest silver mines in Japan. Amid concerns about the depletion of silver ore, the mine was converted to a copper mine and continued operations until 1990, thanks to the commercialization of self-smelting *Kuroko* (black ore), which is considered extremely difficult to smelt. During that time, the Company continued to transform its business structure, linking new technologies such as metal processing and complex sulfide ore smelting technologies to its operations.

In the 1980s and 1990s, when the mining business was in decline, a sense of crisis led the

Company to explore and diversify into areas that had little relationship with its business of the past. As a result, the Company faced deteriorating profitability. With this in mind, when we began reorganizing our corporate structure in 2000, we concentrated management resources on five core businesses that were derived from and had a high affinity with the mining and smelting industry, our ancestral business, to build a business structure that would generate stable earnings. With these lessons learned, the Group is thoroughly grounded in management, focusing only on areas where we can establish a competitive advantage by using our knowledge and technology rather than taking a lighthearted ride on the currents of the times. We have built a recycling-oriented business model from our five core businesses, which is the driving force behind improving our Group's corporate value.

[P.14 DOWA's History]

A Recycling-Oriented Business Model Unparalleled in the World

We began our environmental management and recycling operations in 1977. Stretching back to half a century ago, this was the Company “exploring” on an extremely long-term time scale. In 2008, we began operations of a recycling-specific furnace at the Kosaka Smelting & Refining, forming a combined smelting and recycling complex that combines the Environmental Management & Recycling Business, providing integrated services ranging from waste treatment to soil remediation and recycling, and the Nonferrous Metals Business with highly efficient metal recovery technology. Based on the metals recovered from recycled raw materials from these businesses, the Electronic Materials Business, Metal Processing

Business, and Heat Treatment Business add high value to the products, which are then used and disposed of in society through customers and are recovered again as recycled raw materials. Non-recyclable waste is properly disposed of by incineration or other means to reduce environmental impact to the utmost limit. We are proud that this recycling-oriented business model is unique worldwide, simultaneously creating social and economic value through resource recycling.

Each business comprising our recycling-oriented business model is also highly competitive. It is no exaggeration to say that profitability in the recycling business is determined by how much recycled material with high reusable resource content

is recovered. Our Environmental Management & Recycling Business is unique in that its sales staff collects recycled materials directly from customers while absorbing their recycling needs rather than through wholesalers, trading companies, and other distribution channels, which leads to the accumulation of discerning skills when collecting materials. This customer-oriented business approach has resulted in savings in intermediary margins and fostered relationships of trust with customers that lead to ongoing transactions. The Nonferrous Metals Business has refined its highly efficient recovery technology to recover more than 20 types of valuable metals. The three businesses of Electronic Materials, Metal Processing, and Heat Treatment, which transform recovered metals and other materials into products, make full use of the knowledge and technological capabilities they have cultivated in the fields of semiconductor materials, conductive materials, copper alloy products and surface heat treatment, and have many products with a high market share in Japan and overseas. These products include short-wavelength infrared LEDs for wearable devices and copper alloys for wire harness terminals, leading us to high profitability.

The Group runs a type of business that leads to volatility in performance due to the risk of fluctuations in the value of nonferrous metals during the

lead time from the purchase of raw materials to the sale of products. Because of this, we have accumulated expertise in risk reduction by upgrading our risk management system over several decades. Unlike natural ores, for which quality control is performed by the mine operators, recycled raw materials derived from waste require the buyer to have a high level of analytical capability for the content of valuable metals at the time of raw material purchase. At the same time, the ability to accurately understand and control the receipt and payment of valuable metals from raw material input through the production process affects profit stability. Through its commitment to direct contact with customers, the Group has accumulated know-how that has enabled it to control the risk of price fluctuations with world-class precision, even while using large volumes of recycled raw materials, which have complex risk management requirements.

We believe that the Group's recycling-oriented business model cannot be easily imitated by other companies, because the entire recycling process is completed within the Group, because the Group has highly efficient facilities, and the Group possesses various technologies and know-how that are not visible from the outside.

[P.16 DOWA's Strengths]

Toward Our Goal in 2030

Humans, who have repeatedly engaged in mass production and consumption in tandem with population growth and economic development, continue to destroy ecosystems through inadequately processed waste. It is also predicted that the supply of exhaustible resources will become more difficult, and the transition to a circular economy is accelerating worldwide. We have defined the recycling of mineral resources (material recycling), which is one of our strong suits as our reason for being and will contribute to its realization.

Our Goal in 2030 is to “contribute continuously to building a sustainable future through our core businesses, the promotion of resource recycling, and the provision of excellent materials and technologies.” The DOWA Group identifies social issues (materiality) that it must contribute to solving and aims to achieve its vision by simultaneously capturing opportunities and reducing risks through the solution of social issues through integrated management that combines our recycling-oriented business model, which is a value chain driver, and sustainability management. The first

step, the Midterm Plan 2024 (fiscal 2022 to 2024), was designed by backcasting from our goal in 2030 for all businesses.

Under this plan, the management targets for fiscal 2024 are an operating income of ¥60.0 billion, ordinary income of ¥70.0 billion, ROA of 10% or higher, and ROE of 12% or higher. In fiscal 2022, the first year of the plan, the Company posted declines in revenue and income compared to the previous year. One of the main factors is the decline in nonferrous metal prices. We were particularly affected by the decline in prices of platinum group metals, which we focus on. Other factors included a slowdown in production in the automotive industry due to soaring energy costs, rising material prices, and a shortage of semiconductors. On the other hand, the fact that we secured the second highest performance year in our Company's history despite the headwinds is worthy of recognition. In particular, we would like

our readers to recognize that in addition to risk management, our strength in being able to recover a large number of valuable metals, which is also effective in diversifying the risk of price fluctuations, has demonstrated its true value in the form of resistance to market fluctuations.

In fiscal 2023, we expect sales and profits to decline due to weakening nonferrous metal prices, continued rising energy costs, and increases in depreciation and R&D expenses. In contrast to fiscal 2022, when we could not fully price shift cost increases to product prices due to rapid cost increases, we expect to make progress in revising prices in fiscal 2023. We intend to absorb as much of the cost increases as possible through both our cost reduction and increasing sales, and we will strive to add as much as possible to our forecasts.

[P.22 Corporate Strategy Midterm Plan 2024]



Evolution of Our Recycling-Oriented Business Model

At present, the synergies of our recycling-oriented business model are mainly generated by the Nonferrous Metals Business and Environmental Management & Recycling Business. Through collaboration between the two businesses, we plan to increase the ratio of metals derived from recycled raw materials from 55% in fiscal 2021 to 70% by fiscal 2024. The remaining three businesses are also creating synergies in the commercialization of recovered valuable metals. In the medium term, we aim to realize more efficient resource recycling within our Group and create even greater synergies.

In recent years, we have been receiving an increasing number of inquiries from customers asking if it is possible to recycle resources that were previously considered valueless and disposed of. To respond to such requests, we also envision building a network of customers and partners beyond the framework of our Group and drawing a larger loop of resource circulation. If we can realize this type of network, the DOWA Group

will have established a resource recycling system unique to the world. To this end, we intend to pursue the realization of this goal by 2030. Then, as we further our network, the more difficult our business will become in identifying and sorting raw materials and handling confidential information left in waste. However, this is where the true value of the Group's customer-based strengths can be demonstrated.

We are also steadily strengthening each of the businesses that comprise our recycling-oriented business model. The Environmental Management & Recycling Business focuses on expanding the treatment of hazardous wastes while enhancing its treatment and recycling capabilities. Overseas, we started commercial operation of Indonesia's second hazardous waste treatment site in January 2023 and are expanding the scope of our treatment services at our waste treatment site in Thailand. In the Nonferrous Metals Business, facility renovations have been completed to increase processing capacity for used automotive catalysts

for exhaust gas purification, and we are expanding the recovery network.

We are also working to develop future revenue bases. Preparations are underway for the practical application of lithium-ion battery recycling, and together with the recycling of solar panel modules, we are building a collection network and making other preparations for future social issues. In July 2023, we acquired a business site in Kumamoto Prefecture to expand our recycling business in the Kyushu region, where a concentration of the semiconductor industry is expected to flourish.

In the Electronic Materials Business, we are promoting the development of silver powder for

higher-efficiency solar panels and preparing for mass production of materials for cathodes of stationary fuel cells, for which expectations are growing for realizing carbon neutrality. The Company plans to start mass production in the second half of fiscal 2023 or later. In the next midterm plan, these cathode materials will be positioned as a core business to respond to trends in increased production by fuel cell manufacturers. In addition to these electronic materials, all businesses are "exploring" the seeds of new business with an eye to the future.

[P.34 Creating a Resource-Recycling Society / Enhancing Products and Services That Reduce Social and Environmental Risks]

Strengthening Our Response to Climate Change

Currently, the Group focuses on its social mission of proper industrial waste disposal and resource recycling. However, as long as incineration is one of the effective means of waste disposal, GHG emission reduction is also an important social responsibility. Failure to address this issue poses a serious risk to the sustainability of the business. To this end, we have been promoting Group-wide

efforts to address climate change since August 2021. In May 2023, based on the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD), we released a roadmap toward an interim goal of 2030 based on the assumption that we will achieve carbon neutrality by 2050.

In addition to GHG emissions from fossil fuels burned during incineration, we consider GHG emissions from electricity used in the Nonferrous Metals Business to be an important issue. From an economic aspect, the majority of the cost increase in the Nonferrous Metals Business in fiscal 2022 is accounted for by the increase in electricity prices. Since the international sales prices of nonferrous metals produced by the business are determined in conjunction with the London Metal Exchange (LME), it is difficult for us to shift our cost increases. Kosaka Smelting & Refining can meet about half of its electricity needs through in-house power generation, including hydroelectric power generation, while the other smelters and refineries depend on purchased power. We intend to continue our steady cost reduction efforts as one of our long-term priority issues.

The various products and services offered by the Group can, for example, contribute to weight reduction, energy storage needs, and low-carbon materials at each stage of the value chain in the automotive industry, which is rapidly shifting to EVs. As a supplier of a wide variety of materials and components to an extremely broad range of manufacturing industries, our Group can significantly contribute to GHG emissions reduction for our customers and society through the products and technical services we provide them. We will continue to make strong efforts to push forward DOWA Green Action, with contributions through products and services and initiatives for reducing GHG emissions.

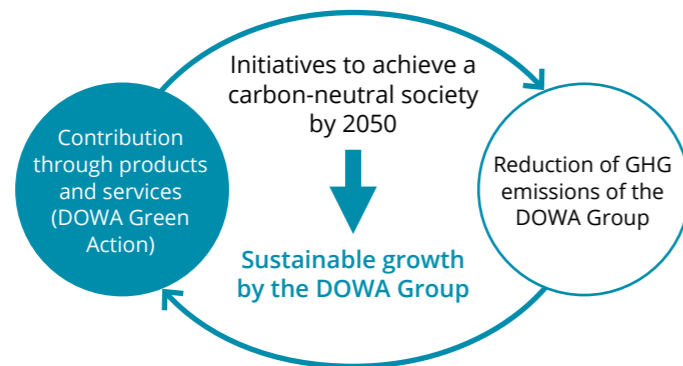
[P.48 Responding to Climate Change]

As for diversity, to be honest, we have not yet achieved sufficient results. However, we regard diversity as an important issue in view of the further decline in the working-age population in the future. In addition to setting a target of 30% or more of new hires that are women at DOWA Holdings, we are also working to create an environment where women can play an active role at our manufacturing sites. We are also building a system that allows all employees, including women, to work with peace of mind, such as a limited work location system, remote work, and support for balancing work with childcare and nursing care. At the same time, rather than pursuing numbers unnecessarily, we would like to focus on increasing the number of employees who share the values of our Group, which have been passed on from generation to generation.

[P.64 Increasing Organizational Power]

Digital transformation (data utilization) is also being promoted to save labor and break away from using specialized human resources at manufacturing sites. The foundation for DX promotion will be established by operating the Group's common cloud infrastructure in the second half of fiscal 2023. The key to DX is not to introduce the latest fads as they are but rather to understand the needs of the field and gradually incorporate an effective system. To this end, we are also promoting the development of DX-proficient human resources within the Company. We are very happy to report that in fiscal 2022, the first year of this plan, approximately three times as many employees as planned volunteered to participate in the DX-proficient Human Resource Development Program. We have already begun to see various ideas for improving quality and productivity through AI and look forward to their implementation in the future.

[P.88 Driving Digital Transformation (Data Utilization)]



Strengthening Organizational Strength Through the Enhancement of Human Capital

We believe that the presence of serious and responsible employees who practice good, honest business is most important in shaping the future of the DOWA Group. To this end, we strive to strengthen our organizational capabilities by enhancing human capital under the themes of “developing human resources that will create change” and “ensuring diverse human resources and diverse working styles.” In October 2022, our “Policy for Human Resources Development” and “Initiatives to Develop an Environment to Cultivate Human Resources” were made public, and the

internal education system was reformed. In the past, employees tended to take courses passively because of the uniformity of training programs by job level. In contrast, the new training program is open to any employee willing to learn, regardless of position, age, job title, or location, and focuses on online training to eliminate restrictions on the date, time, or location. We expect that each employee actively broadening the scope of their abilities, will further enhance the Group's overall strength.

Toward the Realization of a Truly Circular Economy

We would like to turn our eyes further into the future. Resource recycling is expected to become increasingly important in resource-poor countries and regions against the backdrop of increasingly tense international situations. This is not only from the perspective of environmental conservation but also from the perspective of economic security. Japan is truly a resource-poor country—therefore it will be essential to establish a resource circulation loop involving the national and local governments, as well as East and Southeast Asia. This is the future that we see beyond the evolution of the Group's recycling-oriented business model. This transition to a circular economy can be described as transforming the social system. Although it cannot be achieved by the efforts of the DOWA Group alone, we see it as the mission of the DOWA Group and hope to contribute to it in any way we can.

To achieve a truly recycling-oriented society and expand the loop of the recycling-oriented business model, co-creation with more stakeholders is needed. We must also gain our shareholders' and investors' understanding. We intend to continue to take a good, honest stance to win the public's trust.

We look forward to your continued support.

August 2023

SEKIGUCHI Akira
President and Representative Director

2023

Upholding Our Founding Spirit

1884



DOWA was founded in 1884 as a mining and smelting company working with nonferrous metals. In 1898, the Company developed technology for refining *Kuroko* (black ore), a complex sulfide ore that was difficult to treat with the technology available at the time. This breakthrough set DOWA on a path toward the effective use of nonferrous metal resources, a path it still walks today. Over our more than 130-year history, we have remained committed to facing challenges head-on and continuing to refine our technology. During that time, we have also learned that the true key to resolving social issues is to be mindful of the environment and to coexist with society, in addition to the pursuit of profit.

DOWA's History and the Origins of Sustainability-Focused Management

DOWA's founder, Fujita Denzaburo, was a businessman during Japan's Meiji era who contributed to the industrial world through his involvement in a broad range of businesses that included construction, railways, textile spinning, power generation, and newspapers, in addition to mining.

Fujita founded the Company in Kosaka (Akita Prefecture), where he donated large sums to elementary schools based on the conviction that education is the source of national wealth and power. Further, through the Company's predecessor, Fujita Gumi, he established social capital by introducing electric utilities, constructing railways, maintaining waterworks, and building schools, housing, hospitals, and leisure facilities, such as theaters and sports centers.

This social capital was made available not only to those directly or indirectly involved with the mine but also to residents of local communities.

Sustainability management at the DOWA Group is corporate management conducted from a long-term perspective, drawing from Fujita Denzaburo's philosophy of "coexistence between workers and the residents of local communities."



Founder
FUJITA
Denzaburo
(1841-1912)

Continuing to Refine Our Technology to Resolve Social Issues

The Group's five businesses share common traits: they provide support for society and reduce the environmental impact created by economic activities. We believe that the reason for the Group's existence is to promote the evolution of these traits so that it can continue its contributions to society. With this in mind, we have set forth our Vision (our goal in 2030): Contribute continuously to building a sustainable future through our core businesses, the promotion of resource recycling, and the provision of excellent materials and technologies.

The DOWA Group's Corporate Mission

https://www.dowa.co.jp/en/about_dowa/philosophy.html



The DOWA Group's Corporate Mission, Vision, Values, and Code of Conduct



DOWA's History

Adapting to Change

1884-1989

Evolution beyond a Mining Business

The Company was established in 1884, after the Japanese government sold the Kosaka mine, the largest silver mine in Japan at the time. More than a decade later, the Company faced financial difficulties when the mine's silver ore reserves became depleted, compounded by a drop in silver prices. However, DOWA managed to develop technology capable of refining black ore, a complex sulfide ore found in large quantities at the bottom of the silver deposits. This allowed us to revive the Kosaka mine as a copper mine.

From that point on, DOWA expanded as a mining-oriented company, boosted by demand generated by two world wars and post-war reconstruction. The Plaza Accord of 1985, however, led to a rapid appreciation of the Japanese yen and a subsequent and substantial drop in domestic prices for nonferrous metals. This drop in prices caused the profitability of mining, DOWA's then primary business, to plummet. As a consequence, DOWA was forced to shift away from a mining-oriented business structure.



1907: Roaster at Kosaka mine (currently Kosaka Smelting & Refining Co., Ltd.)



Around 1960: Okayama refinery (currently DOWA Electronics Materials Okayama Co., Ltd.)

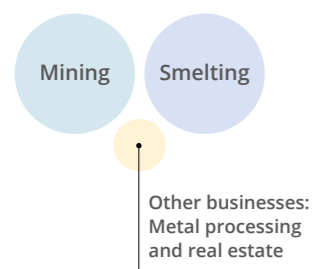


Around 1980: Toyooka Plant (currently DOWA Metal Co., Ltd.)



Changing Our Business

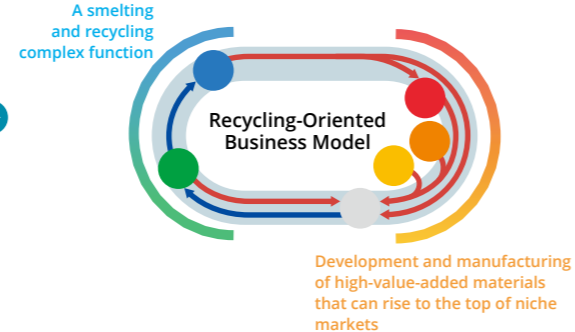
Founding-1980s
Business centered on mining and smelting



1990s
Transition from mining toward diversification



2000s
Formation of recycling-oriented business model using our five core businesses



Since its founding in 1884, the DOWA Group has worked in the field of basic materials to support the economic development of Japan. Over the course of its more than 130-year history, the Group has transformed its business and improved and developed its corporate structure while being subject to the variety of business conditions that come with the changing times. Therefore, it is safe to say that our ability to adapt to change, developed over many years, is a characteristic of the DOWA Group.

1990-2009

Diversification and Corporate Structure Reorganization

Since 1990, after moving on from mining, we have worked to diversify our business. These efforts built the foundations for the DOWA Group's businesses today but had yet to improve profit levels in any significant way. Taking in this situation, we went forward with reorganizing our corporate structure starting in 2000, with an emphasis on reforming our profit and asset structures and reducing interest-bearing debt. In addition, we committed management resources to our core businesses—the Environmental Management & Recycling Business, the Nonferrous Metals Business, the Electronic Materials Business, the Metal Processing Business, and the Heat Treatment Business—a decision that allowed us to showcase our competitiveness for many years after.



2007: Introduced recycling-specific furnace at Kosaka Smelting & Refining



2009: Began waste treatment in Southeast Asia



2010: Introduced recycling business for used lithium-ion batteries

2010-

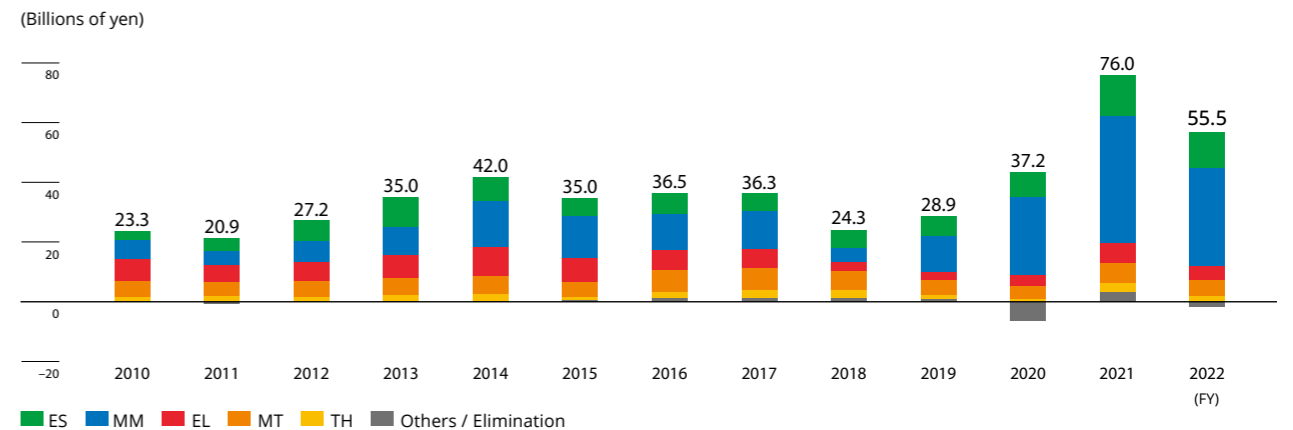
Stabilization of Profits and Strengthening of Earnings Power

We have utilized our five core businesses to develop a recycling-oriented business model that features an unprecedented smelting and recycling complex that combines appropriate waste treatment with metal recycling. These businesses have also enabled us to provide highly functional materials, technologies, and services and to develop a plethora of niche products. Today, these strengths make it possible for us to do business on the global stage.

Under Midterm Plan 2024, we will continue to improve corporate value by strengthening financial and non-financial aspects of the DOWA Group.

Growth of Core Businesses

Ordinary Income Trends



DOWA's Strengths

STRENGTH

01

A Smelting and Recycling Complex Function That Enables Highly Efficient Metal Recovery

We have combined the waste management of our Environmental Management & Recycling Business with the highly efficient metal recovery technology of our Nonferrous Metals Business to form a smelting and recycling complex. We use a variety of processes to recycle large amounts of metal from materials that are no longer of use to society. Moreover, materials that cannot be recycled are incinerated and transported to landfill sites to reduce their environmental impact.

Environmental Management & Recycling Business

Integrated services in the areas of waste treatment, soil remediation, and recycling, from transport to landfilling

Amount of hazardous waste

No. 1*
(Japan market)



Business operations in Southeast Asia

4 countries
(Indonesia, Thailand, Singapore, and Myanmar)



Provision of raw materials (e-scrap)

Nonferrous Metal Business

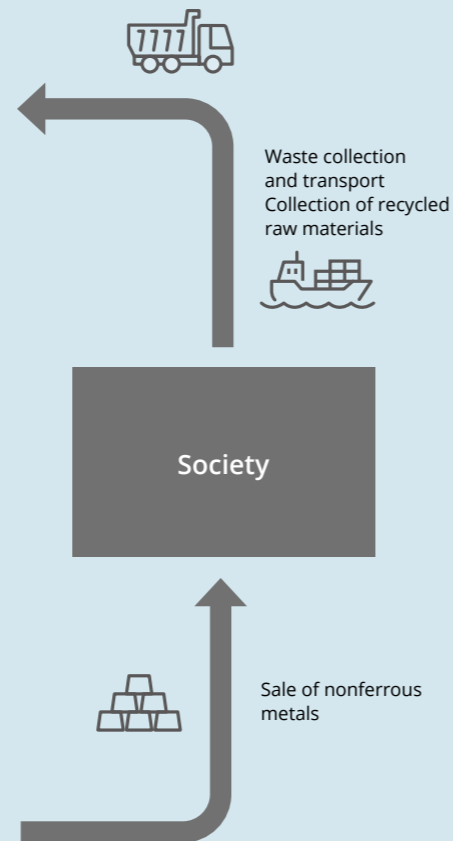
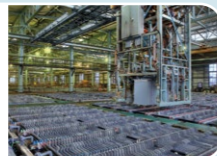
Highly efficient recovery of more than 20 types of metal from a variety of raw materials using our proprietary technology and network of multiple smelters

Highly efficient metal recovery using a network of smelters centered on Kosaka Smelting & Refining Co., Ltd.



Domestic production of electrolytic zinc

No. 1*
(Production volume per smelter)



* Based on in-house investigation

STRENGTH

02

Multiple Products at the Top of Niche Markets That Utilize High Technological Capabilities

The Electronic Materials Business, the Metal Processing Business, and the Heat Treatment Business develop and manufacture high-value-added materials at the top of niche markets primarily composed of metal. With our abundant knowledge and high technological capabilities in fields such as semiconductors, conductive materials, copper rolled products, and surface heat treatment, we have created products and services with large shares in markets that undergo rapid technological innovation, such as automobiles, smartphones, and solar panels.

* Based on in-house investigation

Electronic Materials Business

Silver powder
Global share

Largest scale*



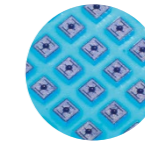
DOWA's silver powder is used in many solar panels in Japan and overseas.



Solar panels

Infrared LEDs
Global share

Largest scale*



Infrared LEDs are utilized in blood sensors and proximity sensors.



Blood sensors



Wearable devices

Magnetic recording materials
Global share

No. 1*



We manufacture and sell approximately 90% of magnetic recording materials used in data storage tapes.



Backup tapes for servers

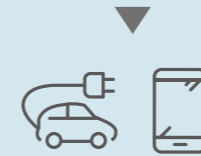
Metal Processing Business

Copper alloy strips
Japan market share

No. 1*



We boast the top domestic market share for copper alloys strips used in automobiles.



Automobiles and smartphones

Silver electroplating
Japan market share

No. 1*



We have a domestic market share of about 80% for silver electroplating for in-vehicle switches.



Automobiles (switches, buttons, etc.)

Heat Treatment Business

Atmospheric heat treatment furnaces
Japan

Largest scale*



Our atmospheric heat treatment furnaces for automobile parts have the top domestic share.

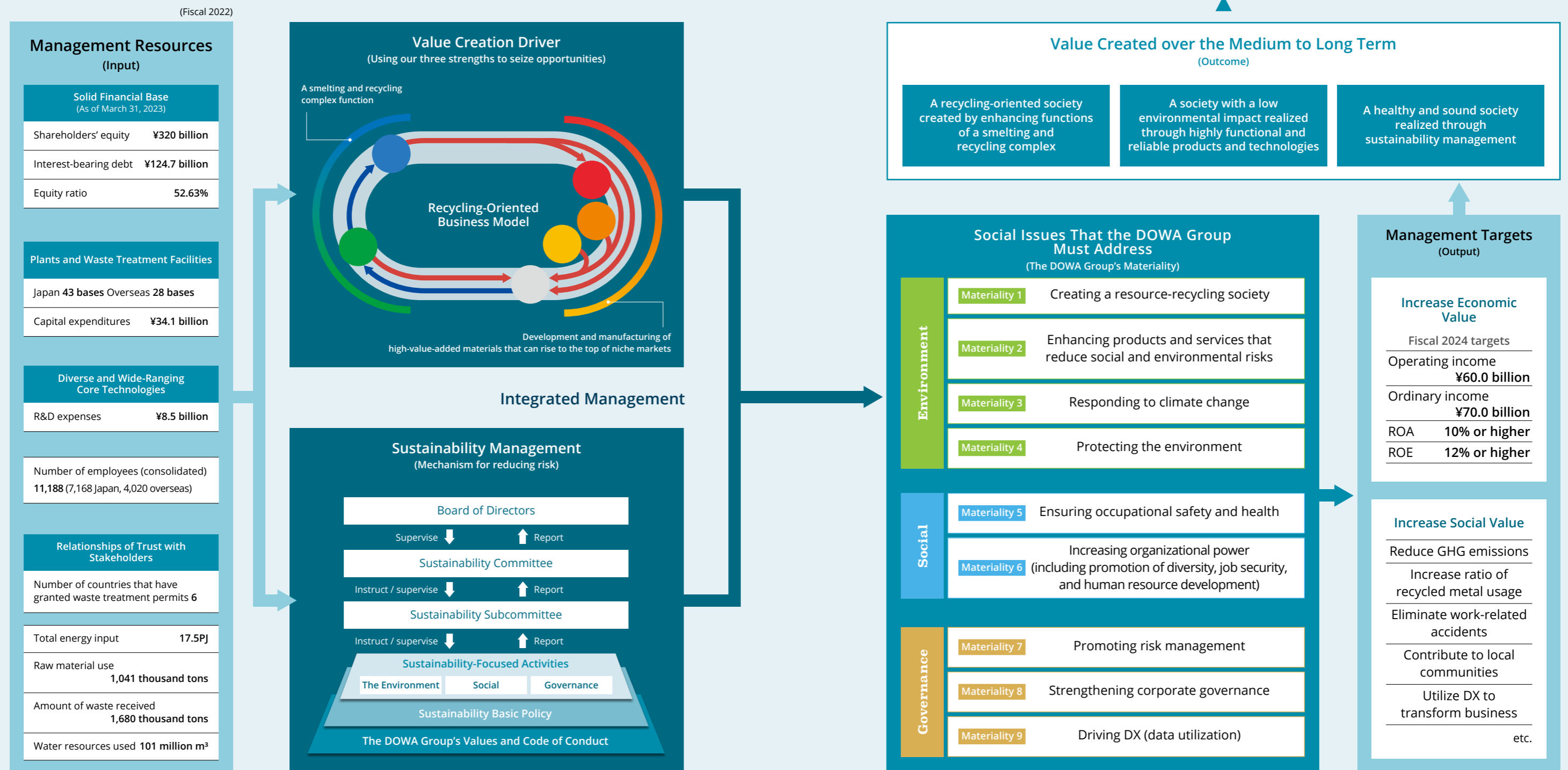


Automobile parts

Value Creation Process

The DOWA Group believes that its most important missions are to engage all of its stakeholders in a sincere and open manner through business operations emphasizing society and the environment and to contribute to the realization of a sustainable society.

Looking at the different social issues that surround the Company, we aim to seek out opportunities by leveraging our value creation driver, which is centered on our recycling-oriented business model. At the same time, we intend to enhance sustainability management as a mechanism to reduce risk and ensure that we can continue to create value over the medium to long term. With these actions, we are realizing our Corporate Mission, "Contribute to creating an affluent, recycling-oriented society through our business activities worldwide," and our Vision (our goal in 2030).



Corporate Strategy Midterm Plan 2024

The DOWA Group is promoting its Midterm Plan 2024 (from fiscal 2022 to 2024). The basic strategy of the Midterm Plan 2024 is to resolve material issues for the DOWA Group by working on initiatives to acquire opportunities by evolving the recycling-oriented business model and reduce risks by strengthening sustainability management.

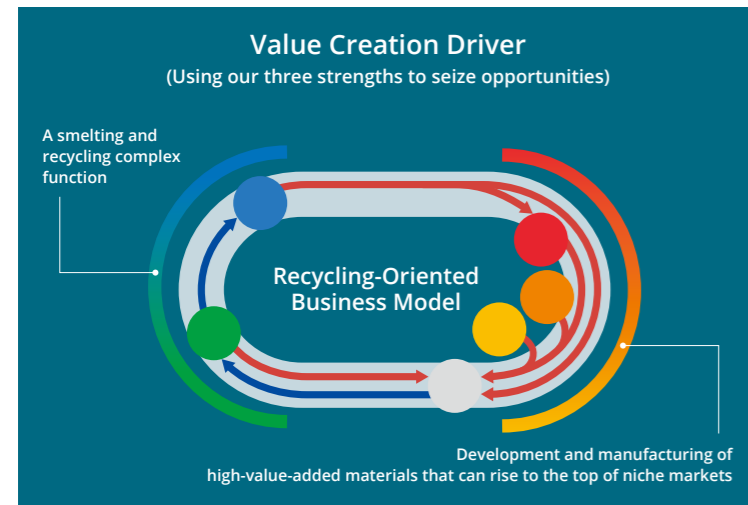
[Midterm Plan 2024]
<https://ir.dowa.co.jp/en/ir/strategy.html>



Evolution of recycling-oriented business model (Seizing opportunities)

Basic Strategy

Further strengthening of core businesses that comprise the recycling-oriented business model



- #### Focus Themes
- Enhancement of metal recycling
 - Achieving both resource recycling and decarbonization
 - Enhancing products and services targeting growth markets
 - Reinforcing the structure for supporting the development of new businesses and technologies

For more information on our business strategy, please see this page.
<https://ir.dowa.co.jp/en/ir/library/materials.html>



Corresponding Material Issues and SDGs

- Materiality 1**
 Creating a resource-recycling society 
- Materiality 2**
 Enhancing products and services that reduce social and environmental risks  

Focus Markets

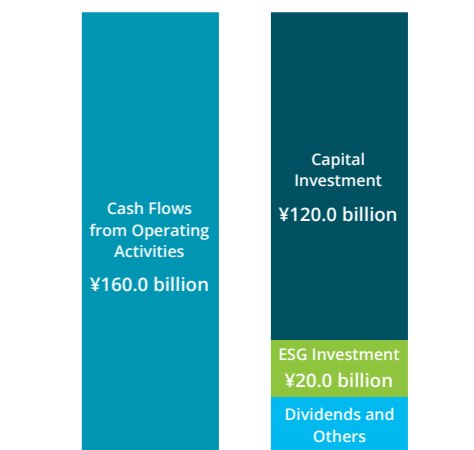


Financial Targets

Operating Income	¥60.0 billion
Ordinary Income	¥70.0 billion
ROA	10% or more
ROE	12% or more

Allocation of Funds

Cash Flows from Operating Activities	¥160.0 billion
Capital Investment (including ESG investments)	¥140.0 billion
Dividends and Others	¥20.0 billion



Cash flows in the period of Midterm Plan 2024

Dividend Policy

In every fiscal year:
 • There will be no reduction of ordinary dividends from the previous year's amount
 • Ordinary dividends will be increased in stages

Assumptions and Sensitivities

	Assumptions (Midterm Plan 2024)	Fluctuation	Sensitivity (Operating Income/Year) FY2023
Exchange rate	¥120 / U.S. dollar	±¥1 / U.S. dollar	¥610 million
Copper	\$10,000 U.S. dollars / ton	±\$100 U.S. dollar / ton	¥50 million
Zinc	\$3,800 U.S. dollars / ton	±\$100 U.S. dollar / ton	¥470 million

Strengthening of sustainability management (Risk mitigation)

Basic Strategy

Establishment of a sustainability system and promotion of risk reduction measures



- #### Focus Themes
- Building a sustainability promotion structure
 - Expansion of risk management system
 - Strengthening corporate governance
 - Responding to climate change
 - Enhancing human capital
 - Driving digital transformation (data utilization)

For more information on our sustainability activities, please see this page.
<https://www.dowa-csr.jp/en>



Corresponding Material Issues and SDGs

- Materiality 3**
 Responding to climate change 
- Materiality 4**
 Protecting the environment  
- Materiality 5**
 Ensuring occupational safety and health  
- Materiality 6**
 Increasing organizational power (including promotion of diversity, job security, and human resource development)   
- Materiality 7**
 Promoting risk management  
- Materiality 8**
 Strengthening corporate governance 
- Materiality 9**
 Driving DX (data utilization)   

We Will Engage in Active and Continuous Dialogue With the Market, and Enhance Our Corporate Value Through a Mutual Understanding With the Market of Our Stability and Growth Potential

HOSONO Hiroyuki

Director
(in Charge of Accounting and Finance)
General Manager of Corporate
Strategy Dept and Public Relations &
Investor Relations Section

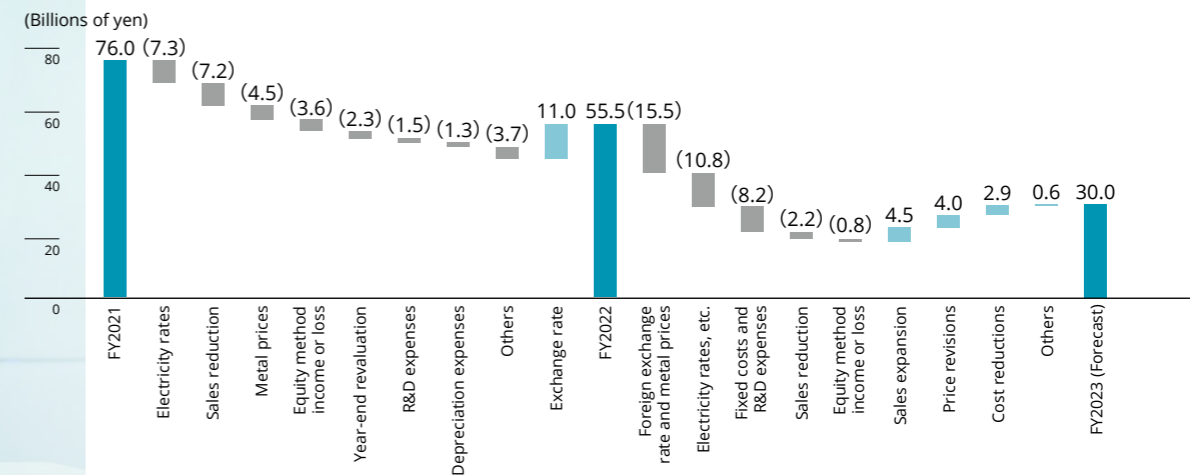


automobiles and telecommunications equipment in the second half of the year based on solid environmental management & recycling-related services.

On the cost side, although electricity and other

energy prices are expected to remain high, we will promote sales price revision to cope with cost increases from fiscal 2022. We will also work to increase sales of fuel cell materials, deep-ultraviolet LEDs, and other new products.

Factor Analysis of Ordinary Income



Progress on the Midterm Plan 2024

Fiscal 2022 was the first year of the Midterm Plan 2024. However, the current business environment has diverged significantly from that envisioned in the Midterm Plan 2024, resulting in a tough start in terms of business performance. On the other hand, to solidify our unique recycling-oriented business model and achieve further business

growth, it is essential to make solid and continuous investments with an eye to the future. From this aspect, we see fiscal 2022 as a good start, with ¥34.0 billion in capital investment out of the ¥140.0 billion planned for the three years of the Midterm Plan.

Fiscal 2022 in Review

In fiscal 2022, revenues and profits decreased compared to the previous year. The market environment saw a weakening yen with peaking prices of base and precious metals, which had a significant impact on the Nonferrous Metals Business.

For demand, the Group's automotive-related products and services also continued to face an adjustment phase as automobile production remained sluggish due to the global shortage of semiconductors. Furthermore, sales of products

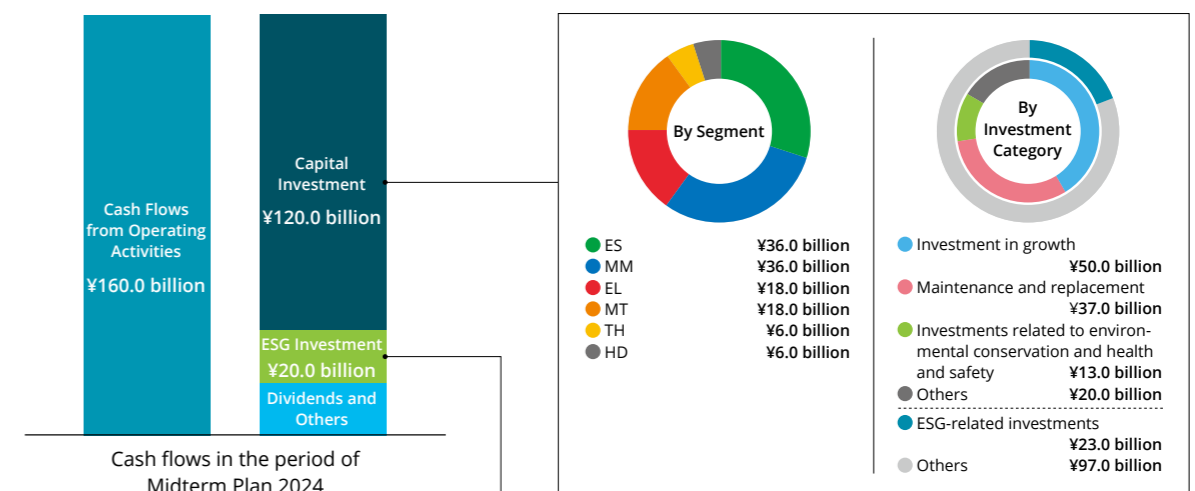
related to information and telecommunications equipment have been on a downward trend since around the second quarter. Sales of silver powder also declined due to changes in the competitive environment for solar panels. On the other hand, in environmental management & recycling-related services, orders for waste disposal were firm.

On the cost side, our business performance was significantly impacted by a significant increase in electricity, fuel, and sub-materials costs.

Forecast for Fiscal 2023

For fiscal 2023, we are of the assumption that the business environment will continue to be challenging. Regarding the market environment,

we expect metal prices to decline further from the average prices in fiscal 2022. On the demand side, we anticipate a recovery in demand for



ESG investments (investments for responding climate change, building comfortable work environments, implementing digital transformation, and other purposes)

We reviewed our capital policy in conjunction with the start of the Midterm Plan 2024. Under the new capital policy, we have decided to implement capital measures with an appropriate balance between growth investments, the maintenance of a sound financial foundation, and an increase in shareholder returns to achieve sustainable growth and maximize corporate value. A robust financial base is essential to our ability to make growth investments. However, our business is

greatly affected by fluctuations in foreign exchange rates and metal prices, which not only cause fluctuations in our business performance but also rapidly increase or decrease our working capital. Therefore, we aim to maintain our financial base through maintaining and improving our credit rating by external agencies to ensure a certain funding capacity. As in the past, we intend to expand shareholder returns in line with improvements in the Group's overall profitability.

consider the total of a certain period rather than measuring profitability using profits from a single year.

Based on this idea, looking at performance for the past ten years, ROE has exceeded cost of equity, indicating that the Company has created added value.

Although profitability has been secured, our PBR has remained below 1x. The PBR can be broken down into ROE and PER, which have been declining in recent years, so improving our PBR will require improving each of these indicators.

Capital Management

Growth investments	We will be proactive in making investments in promising businesses and investments that will improve the sustainability of the overall Group. Regarding growth investments, we will focus on projects that are expected to produce high investment returns by considering capital cost and return on investment.
Maintenance of a sound financial foundation	We aim to maintain a sound financial foundation by fully considering the balance between shareholders' equity and interest-bearing debt, so as to continue growth investments and secure working capital.
Enhancement of shareholder returns	We provide returns to our shareholders by paying dividends, in principle, and will strive to ensure stable dividends and increase dividends in a stepwise manner.

Improving PBR

Based on requests from the Tokyo Stock Exchange, the Company is promoting cost-conscious management of capital with the involvement of its Board of Directors.

Our cost of equity is calculated to be 6 to 7%.

We aim to achieve profitability above these levels. Since our profits are characterized by large fluctuations from one year to the next due to external factors such as foreign exchange rates and metal market prices, we believe it is appropriate to

While improving ROE is a vital indicator for improving the PBR, we believe that the only measure that can be taken is a straightforward approach. In other words, the most important thing is to improve profits by steadily implementing the growth investments incorporated in the Midterm Plan 2024 and earnings forecasts, making new businesses become profitable, revising sales prices, reducing costs, and so on.

At the same time, expanding measures that enhance shareholder return can be a way to improve ROE.

While changes in the market environment significantly impact our business performance, we believe that providing stable dividends to our shareholders is essential. On the other hand, as the profitability of the entire Group improves, there is an increasing need to strengthen returns to shareholders further. In light of this situation, for the period covered by the Midterm Plan 2024 (fiscal 2022 to 2024), our dividend policy is to not decrease the amount of ordinary dividends from the previous year's amount and to increase the

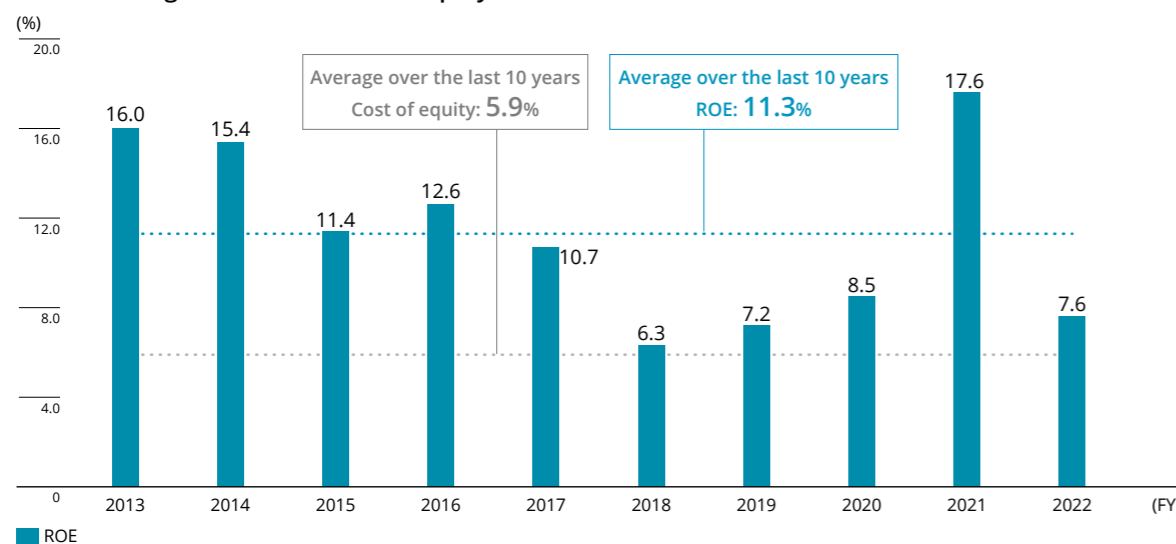
amount of ordinary dividends in stages over the course of each fiscal year.

Concerning dividends corresponding to results from fiscal 2021 and 2022, we have decided to pay an additional special dividend in addition to an increase in the ordinary dividend per our dividend policy in light of the Company's strong performance.

For dividends corresponding to results from fiscal 2023, we intend to maintain our commitment to increase the ordinary dividend (¥110 per share) as long as there is no major fluctuation in business performance. We will continue to monitor future performance trends and aim to increase dividends further.

The PER is an index linked to the share price, meaning various factors come into play. It is crucial to deepen dialogue with the market by taking on these kinds of growth initiatives and enhancing shareholder returns, in addition to the reduction of cross-shareholdings and increased disclosure of ESG-related information.

Annual Change in ROE and Cost of Equity



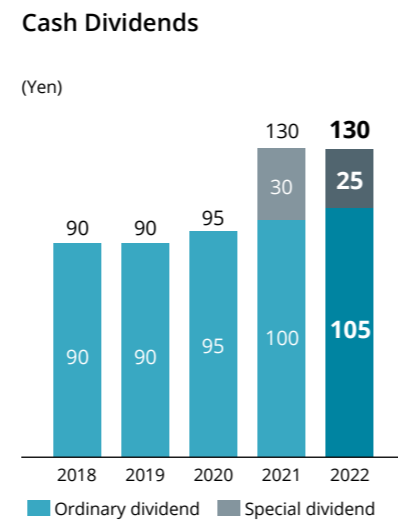
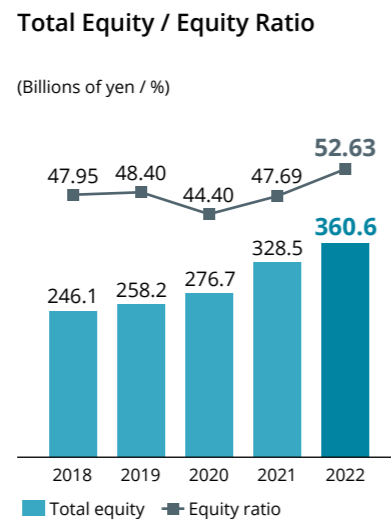
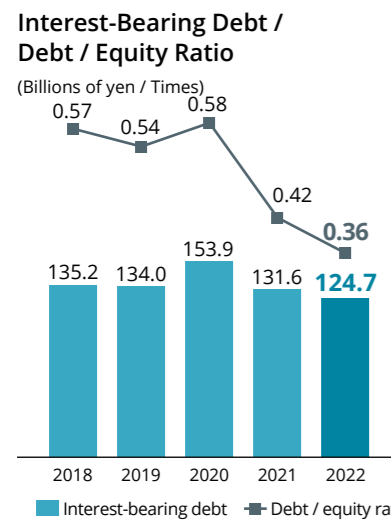
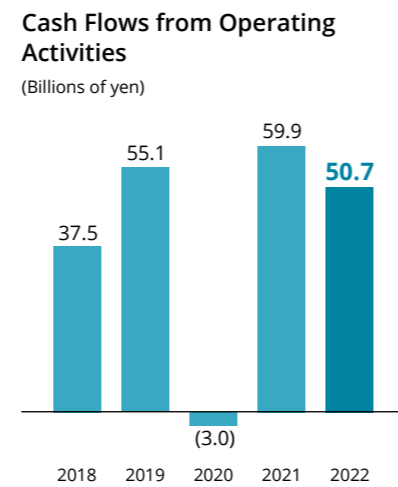
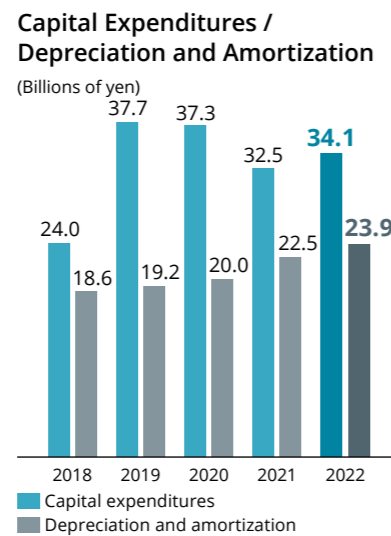
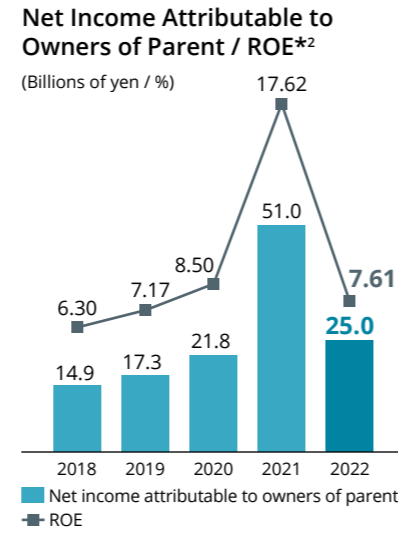
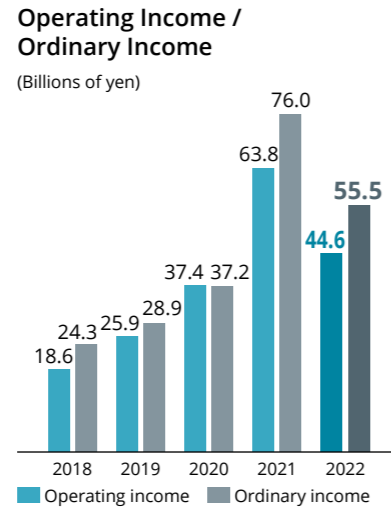
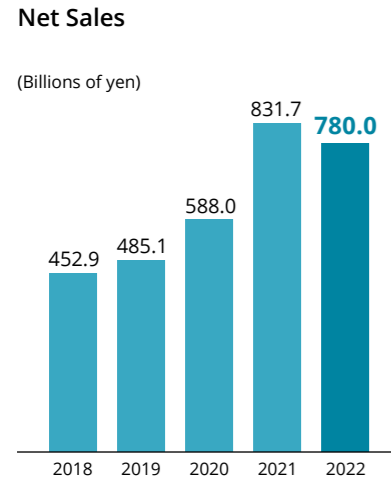
Fostering Mutual Understanding through Dialogue with the Market

To date, IR activities have included holding various information meetings and enhancing information disclosure by enriching the Integrated Report. In addition, we have begun SR, Shareholder Relations, activities, with a push toward dialogue with all shareholders and investors—although we are working to promote more of these activities.

Through dialogue with the market, we hope to communicate the Group's profitability and growth potential, and by further expanding information disclosure, including ESG-related information, we hope to foster mutual understanding with the market and further enhance our corporate value.

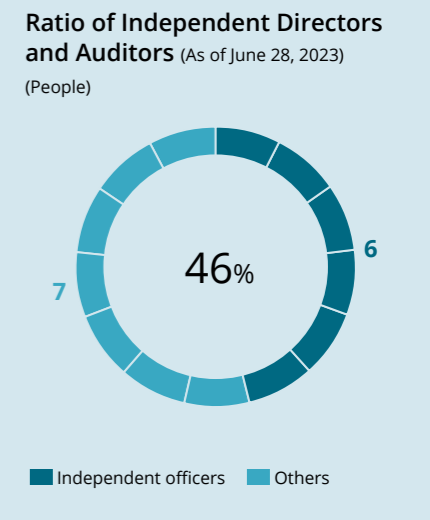
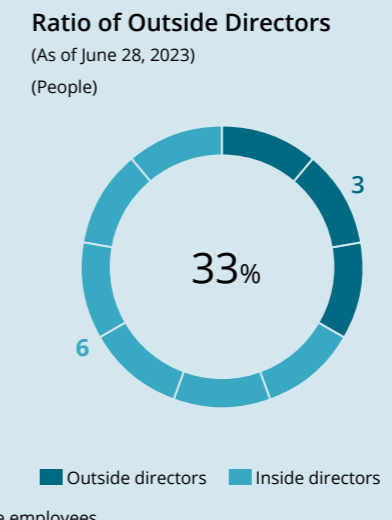
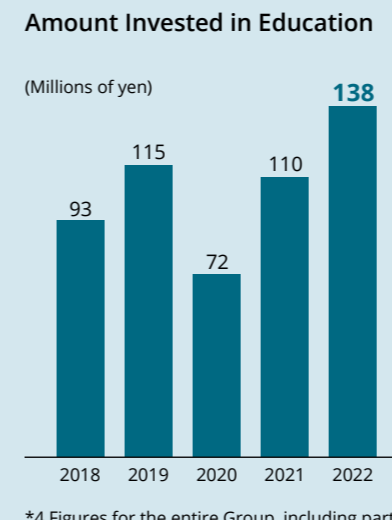
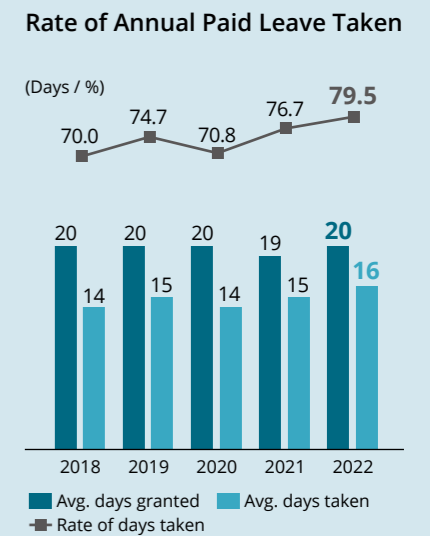
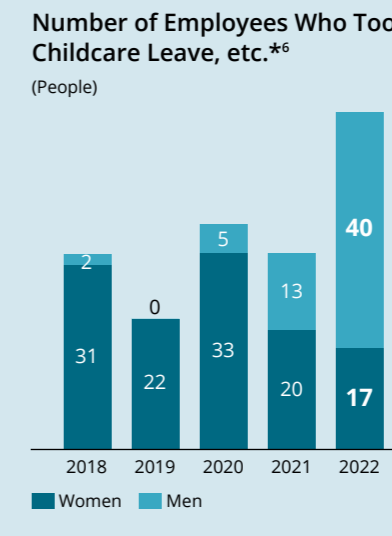
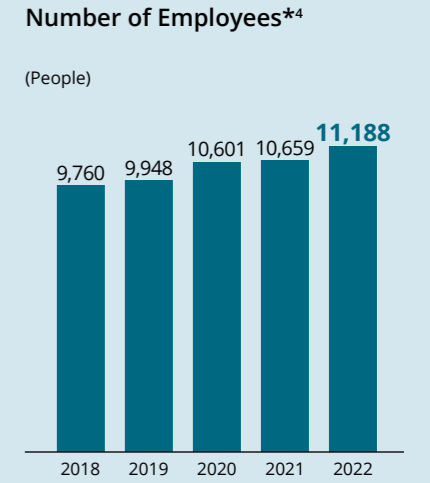
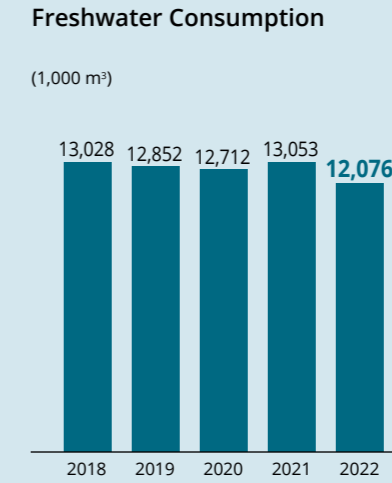
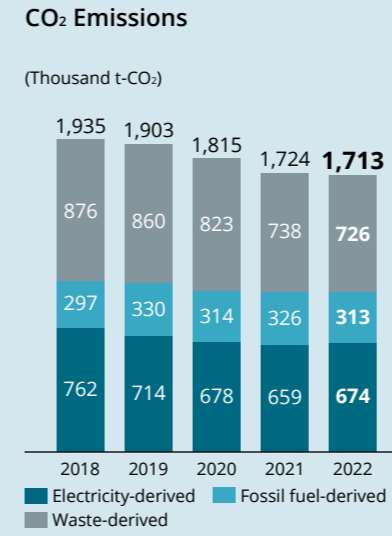
Highlights*1

Financial Highlights



*1 The years stated in the graphs are ended March 31. Thus, "2022" refers to the fiscal year that ran from April 1, 2022, through March 31, 2023.
 *2 Net income attributable to owners of parent divided by the average of shareholders' equity (the amounts after deducting non-controlling interest amounts from equity amounts) at the beginning and end of the fiscal year.
 *3 Ordinary income divided by the average of total assets at the beginning and end of the fiscal year.

Non-Financial Highlights



*4 Figures for the entire Group, including part-time employees.
 *5 Cooperating companies and contractors have not been included when calculating these figures.
 *6 Based on the provisions of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Act No. 76 of May 15, 1991), the percentage of childcare leave, etc. as defined in Article 71-(iv)-(a) of the Ordinance for Enforcement of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Ordinance of the Ministry of Labor No. 25 of October 15, 1991).

Materiality

For more information on our materiality identification process, please see the link below.
<https://www.dowa-csr.jp/en/materiality>



In fiscal 2022, we identified the DOWA Group's Materiality, a series of social issues the Group must address. These issues were selected based on the business environment, specifically the opportunities and risks leading up to 2030, as well as stakeholder expectations and needs.

By addressing these material issues, we aim to realize our goal in 2030: Contribute continuously to building a sustainable future through our core businesses, the promotion of resource recycling, and the provision of excellent materials and technologies.

Materiality Identification Process



Business Conditions	Opportunities and Risks in the Business Environment through 2030		
	Risks	Status of Risk Response	Opportunity
Building a resource-recycling society	<ul style="list-style-type: none"> Decline in demand for waste incineration attributable to the spread of recycling Changing social demands for resource extraction 	<ul style="list-style-type: none"> Expanded recycling by expanding the menu of waste disposal processes Developed resources in consideration of the natural environment and local communities 	<ul style="list-style-type: none"> Growth in demand for nonferrous metals associated with the shift to a low-carbon society (expansion of the market for metallic materials for renewable energy and battery materials) Increase in the value of recycled metals
Raising environmental awareness	<ul style="list-style-type: none"> Decline in the demand for waste incineration resulting from the shift to a low-carbon society Decrease in the amount of waste generated resulting from population decline in Japan 	<ul style="list-style-type: none"> Promoting low-carbon waste treatment using biofuels and renewable energy sources Expanded waste treatment business in Southeast Asia 	<ul style="list-style-type: none"> Expansion in the range of waste to treat resulting from tightening of environmental regulations Increase in the volume of hazardous waste resulting from manufacturing of high-performance materials and products
Technology innovation	<ul style="list-style-type: none"> Development of alternative technologies in key application markets and associated changes in needs 	<ul style="list-style-type: none"> Continued aggressive research and development Diversified risk and stability of business performance through portfolio management 	<ul style="list-style-type: none"> Capture new business opportunities by developing and expanding sales of new products and services in priority fields (automobiles, information and communications, environment and energy, and medical and healthcare)
Climate change progress	<ul style="list-style-type: none"> Plant shutdowns due to weather-related disasters, increased facility management costs Introduction of carbon pricing (such as carbon tax) 	<ul style="list-style-type: none"> Set mid-term and long-term goals to achieve carbon neutrality Promoting renewal of energy-efficient equipment and energy conversion 	<ul style="list-style-type: none"> Growth in demand for nonferrous metals associated with the shift to a low-carbon society Strengthened competitiveness by balancing resource recycling and decarbonization
Increase in natural disasters	<ul style="list-style-type: none"> Large earthquakes, typhoons, torrential rains, snow-fall, spread of infectious diseases 	<ul style="list-style-type: none"> Implemented disaster prevention and mitigation measures, such as strengthening the seismic resistance of facilities and increasing drainage capacity Developed a business continuity plan 	<ul style="list-style-type: none"> Expanding opportunities for new orders as customers strengthen their BCPs Strengthen cooperation with local governments in preparation for large-scale natural disasters
Work-related accidents	<ul style="list-style-type: none"> Threatens the safety and health of employees Environmental accidents will lead to environmental pollution 	<ul style="list-style-type: none"> Promoting Group safety activities Strengthening risk assessment Establishing environmental management systems at major factories 	<ul style="list-style-type: none"> Earn society's trust by achieving accident-free operations Achieve early restoration to fulfill supply responsibilities and earn customer trust
Declining labor force	<ul style="list-style-type: none"> Increased difficulty in securing human resources necessary for business continuity Missed opportunities to enter new businesses 	<ul style="list-style-type: none"> Extending the retirement age, reforming work styles, and establishing systems that allow for diverse and flexible work styles Expanding our human resource development system 	<ul style="list-style-type: none"> Promote efficiency and labor savings through DX
Stricter quality control	<ul style="list-style-type: none"> Serious quality defects or quality anomalies occur due to inadequate management 	<ul style="list-style-type: none"> Obtaining quality management system certification at major manufacturing plants Conducting supplier surveys and audits 	<ul style="list-style-type: none"> Gain customer trust based on appropriate quality control Improved efficiency and certainty in analysis and evaluation with DX
Increased cyber risk	<ul style="list-style-type: none"> Leakage, falsification, destruction, etc. of confidential or personal information due to cyber-terrorism, etc. 	<ul style="list-style-type: none"> Operating information security systems Providing information literacy training for employees 	<ul style="list-style-type: none"> Improved production efficiency and cost reductions at production sites Realization of manpower savings by automation of clerical work



Identifying Materiality

Major Initiatives and Indicators (KPIs) for Materiality

	Materiality	Major Initiatives	Indicators (KPIs)	Fiscal 2022 Results	Targets
The Environment	Materiality 1 Creating a resource-recycling society	Increase collection of recycled raw materials	Volume of recycled raw materials collected by Kosaka Smelting & Refining (fiscal 2021 = 100)	108	110 (fiscal 2024)
			Volume of spent catalysts from automobile exhaust purification collected (fiscal 2021 = 100)	89	140 (fiscal 2024)
			Volume of spent lithium-ion batteries recycled and processed (fiscal 2021 = 100)	173	400 (fiscal 2024)
		Increase ratio of metals derived from recycled raw materials*	Ratio of metals derived from recycling that are used in production (based on sales in the Nonferrous Metals Business)	59%	70% (fiscal 2024)
	Materiality 2 Enhancing products and services that reduce social and environmental risks	Expanded sales of key products and services based on customer needs	—	—	—
	Materiality 3 Responding to climate change	Promotion of company-wide activities to combat climate change	Establishment of a system to promote climate change response	Continued activities of the Climate Change Response Working Group (once a month)	<ul style="list-style-type: none"> • Publication of TCFD Report • Create a roadmap for climate change actions
			Establishment of company-wide policies and targets for climate change response	Created a roadmap for climate change action	
			TCFD initiatives	Released the TCFD Report (May 2022)	
	Materiality 4 Protecting the environment	Establishment of an environmental management system (Establish and maintain an ISO 14001- or EA21-compliant systems)	Ratio of business locations operating under DOWA's EHS-MS (environment, health, and safety management system) that compliant with ISO-certification	74%	100% (by March 31, 2025)
		Improvement of risk management (Minimize risk of environmental accidents and improve response capabilities)	Number of environmental accidents	2	0
Social	Materiality 5 Ensuring occupational safety and health	Improvement of management system	Ratio of business locations operating under the DOWA's EHS-MS	7%	100% (by March 31, 2025)
		Prevention of recurrence of work-related accidents	Frequency rate (including dispatch workers, excluding contractors)	1.22	0.7 (fiscal 2024)
			Severity rate (including dispatch workers, excluding contractors)	1.16	0.01 (fiscal 2024)
	Promoting Health Management	Ratio of employees who received regular medical examinations	91.2% (Tokyo area)	100% (Groupwide)	
	Materiality 6 Increasing organizational power (including promotion of diversity, job security, and human resource development)	Reduction of resignation rate	Average retention rate three years after joining the Company (for new graduates at DOWA Holdings)	85%	Maintain 100% rate
			Implement job satisfaction surveys for employees	Began survey implementation	Conduct surveys on a regular basis
		Disclosure of Policy for Human Resources Development (Formulate policy and disseminate via the DOWA corporate website and the in-Company portal site)	Formulation of a human resource development policy and to be published inside and outside the Company	Established a Policy for Human Resources Development and implemented internal and external disclosure (October 2022)	Announce and disseminate policy
		Development of global human resources (Build a system to impart basic knowledge necessary for overseas assignments to be implemented one year prior to assignment)	Implementation of education before overseas assignments and expansion to include post-assignment education	Began post-assignment online education	Continue implementation of educational programs
		Greater support for balancing childcare and nursing care with work	Increase in the ratio of men that take childcare leave	61.7%	100% (fiscal 2024)
		Reduction of working hours	Increase in the ratio of annual paid leave days taken	79.5%	80% or higher
		Promotion of the participation and advancement of women	Increase in the ratio of new hires who are women (DOWA Holdings)	32%	30% or higher
		Promotion of the participation and advancement of employees up to the age of 65	Introduction of an option to postpone retirement	Introduced to major business subsidiaries	Introduce a Groupwide system
	Materiality 7 Promoting risk management	Creation of an ISO 9001- or OHSAS-compliant system	Compliance rate of business locations that create products	78%	80% (fiscal 2024)
		Establishment of quality assurance education	Number of participants	169	350 total (FY2022 to FY2024)
	Materiality 8 Strengthening corporate governance	Effective and efficient development and operation of internal control systems	—	—	—
—			—	—	
Materiality 9 Driving DX (data utilization)		Build IT infrastructure	Operation of a Groupwide cloud platform	Began conducting operational testing and user training	Start operation in the second half of fiscal 2023
	Develop DX-proficient human resources	Number of personnel trained	67	80 total (FY2022 to FY2024)	

* "Recycled raw materials" in this item includes secondary smelting raw materials other than recycled raw materials for Kosaka Smelting and Refining Co., Ltd.

Environmental Management &

DOWA ECO-SYSTEM CO., LTD.

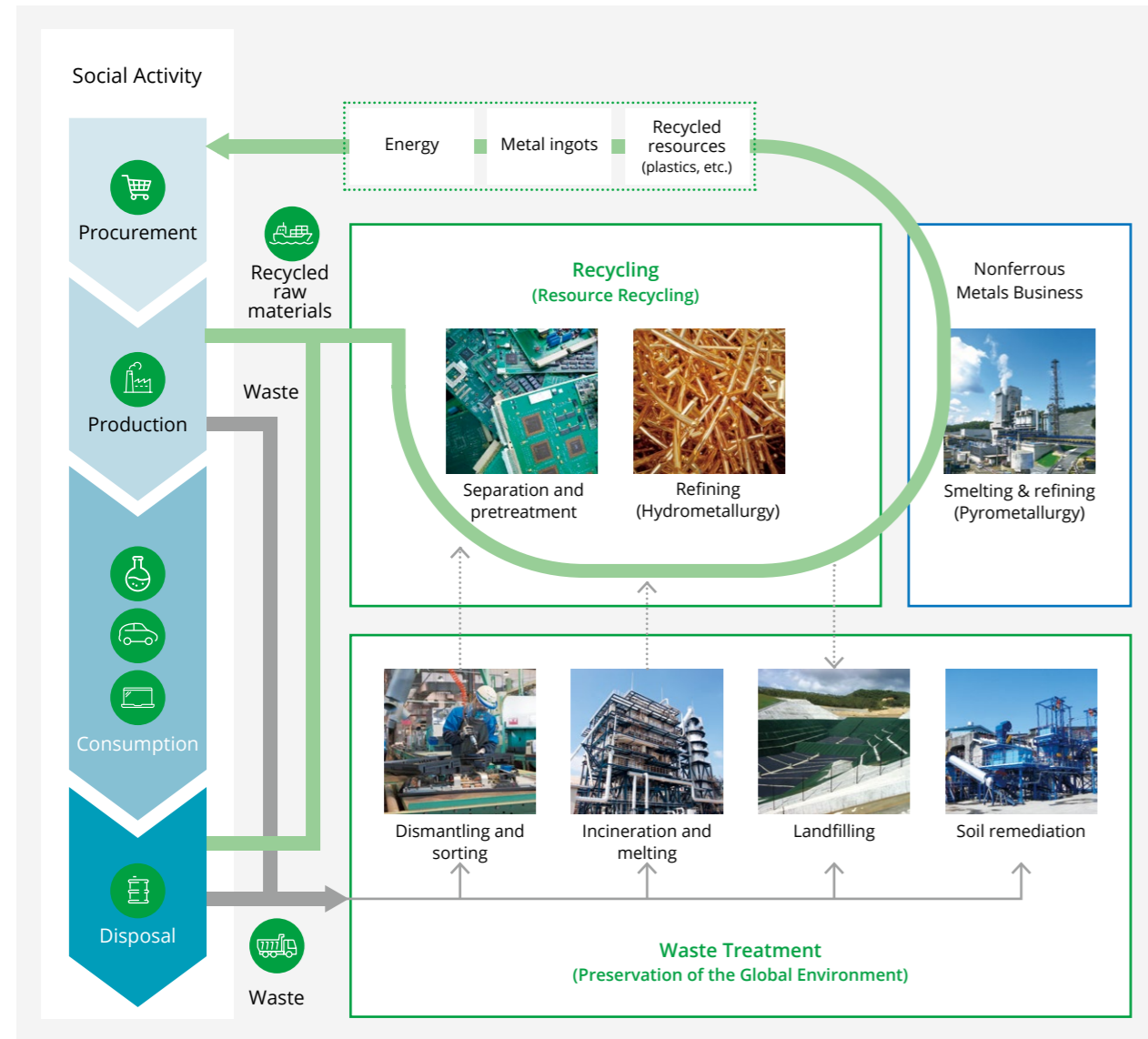
Business Model

Waste Treatment Soil Remediation Recycling Southeast Asia

Advantages

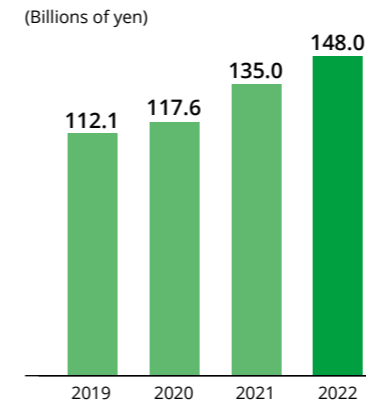
- Integrated in-house treatment capabilities encompassing the collection and transport of waste through to its incineration and landfilling
- One of the largest waste incineration capacities in Japan
- Provision of comprehensive environmental solutions to clients
- Operation of a waste treatment and recycling business in four Southeast Asian countries

Products and Services

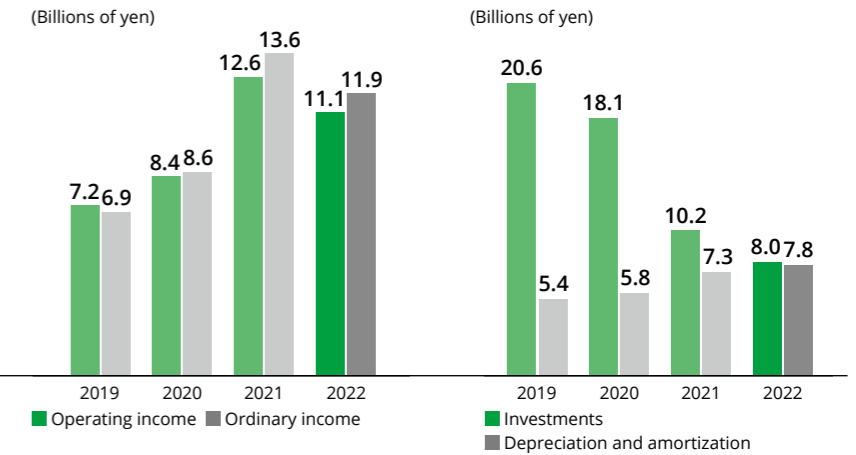


Recycling Business

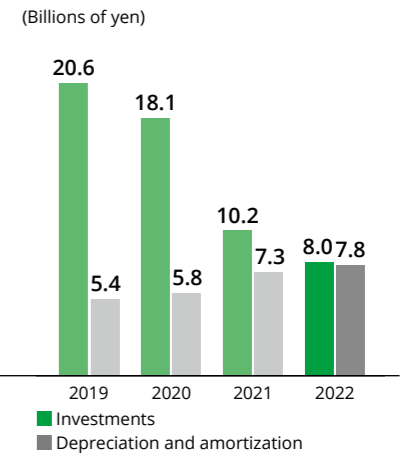
Net Sales



Operating Income / Ordinary Income



Investments / Depreciation and Amortization



YANAI Yasuharu
Executive Officer
President and Representative Director,
Dowa Eco-System Co., Ltd.

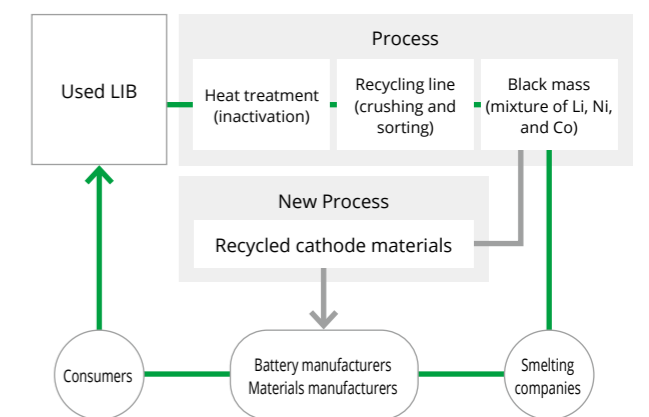
Review of Fiscal 2022

The waste treatment business in Japan and Southeast Asia remained strong. As for the recycling business, the volume of recycled raw materials collected for our smelters increased, while the volume of discarded home appliance recycling and automobile recycling that was processed decreased. On the other hand, despite higher costs for fuel, sub-materials, and other items due to the global surge in energy and material prices, we were able to achieve a level of profit comparable to our record-high profit in fiscal 2021.

Recycling of Used Lithium-ion batteries (LIBs)

As the number of used LIBs increases with the spread of EVs, it is becoming increasingly important to recycle rare metals such as lithium used in LIBs. We are able to safely recycle used LIBs by utilizing our existing heat treatment facilities, which allow us to heat treat used LIBs without dismantling them. Dismantling LIBs can pose a risk of electric shock or ignition during the process. For more efficient recycling, we are also working with Akita University to develop a process to recycle cathode materials from used LIBs and advance the LIB-to-LIB recycling loop. Through these efforts, we will meet the increasing demand for recycling of used LIBs.

Flow of Recycling Used LIBs



Nonferrous Metals Business

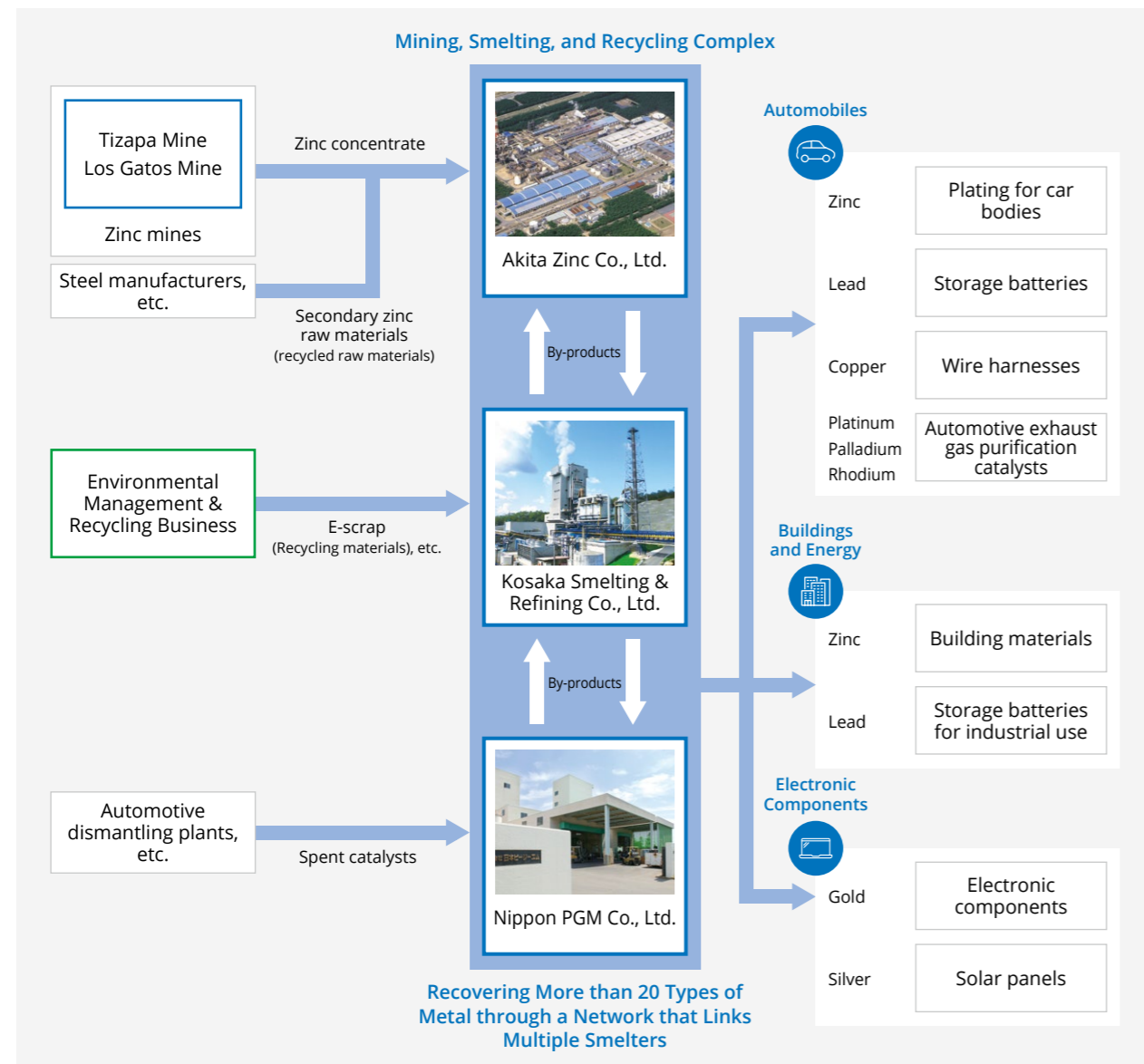
DOWA METALS & MINING CO., LTD.

Business Model

Precious Metals and Copper Smelting Platinum Group Metals Smelting Zinc Smelting
Resource Development and Raw Material Procurement

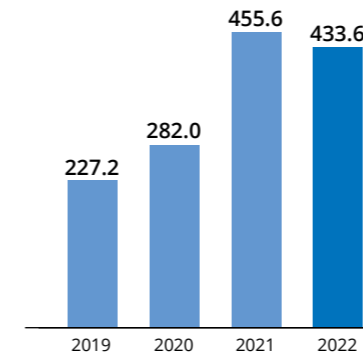
Advantages

- Capabilities of our mining, smelting, and recycling complex centered on Kosaka Smelting & Refining Co., Ltd.
- Worldwide raw material collection network that is coordinated with the Environmental Management & Recycling Business



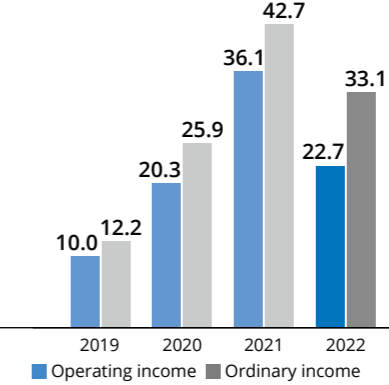
Net Sales

(Billions of yen)



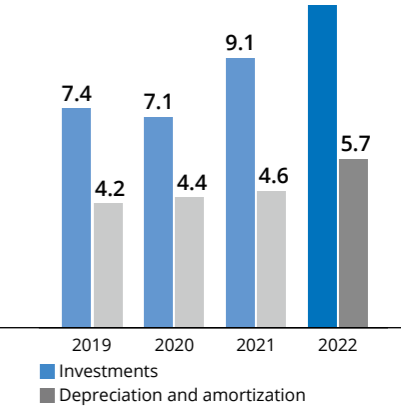
Operating Income / Ordinary Income

(Billions of yen)



Investments / Depreciation and Amortization

(Billions of yen)



SUYAMA Toshiaki
Executive Officer
President and Representative Director,
Dowa Metals & Mining Co., Ltd.

Review of Fiscal 2022

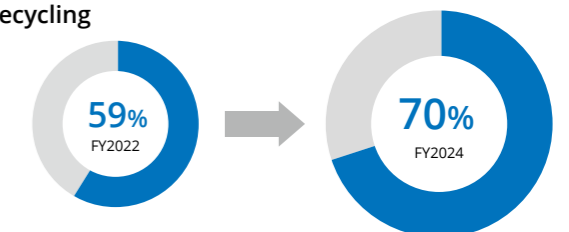
Although average prices for copper, silver, and PGMs declined from the previous year, average exchange rates of a weakening yen and strengthening dollar. In the environment, the precious metals and copper smelting business saw copper production increased and gold and tin production decreased. In the platinum group metals smelting business, the volume of PGM recovered from spent automobile exhaust catalysts decreased due to the temporary adjustment of operations following torrential rains. In the zinc smelting business, electricity and other energy costs increased significantly. In addition, non-operating income / expenses included equity in earnings of an overseas zinc mine.

Percentage of Metals Produced that are Derived from Recycled Raw Materials

The approximately 20 types of nonferrous metals we produce are used in automobiles, buildings and energy, electronic components, and other products, benefiting society in a variety of ways. On the other hand, in recent years, attention has also focused on what kind of raw materials and processes are used to produce each metal in order to realize a circular economy. In fact, the need for metals derived from recycled raw materials is growing. Our strength, the combined mining, smelting, and recycling complex, is a business model unique in the world that combined environmental business and recycling and smelting, and is directly related to this need. Therefore, we aim to increase the ratio of materials derived from recycled raw materials by expanding the collection of recycled raw materials and improving

collection efficiency. We will also work to reduce GHG emissions through energy conversion and other measures to achieve both resource recycling and carbon neutrality.

Ratio of Metals Derived from Materials for Recycling



Note: In terms of sales in the Nonferrous Metals Business

Electronic Materials Business

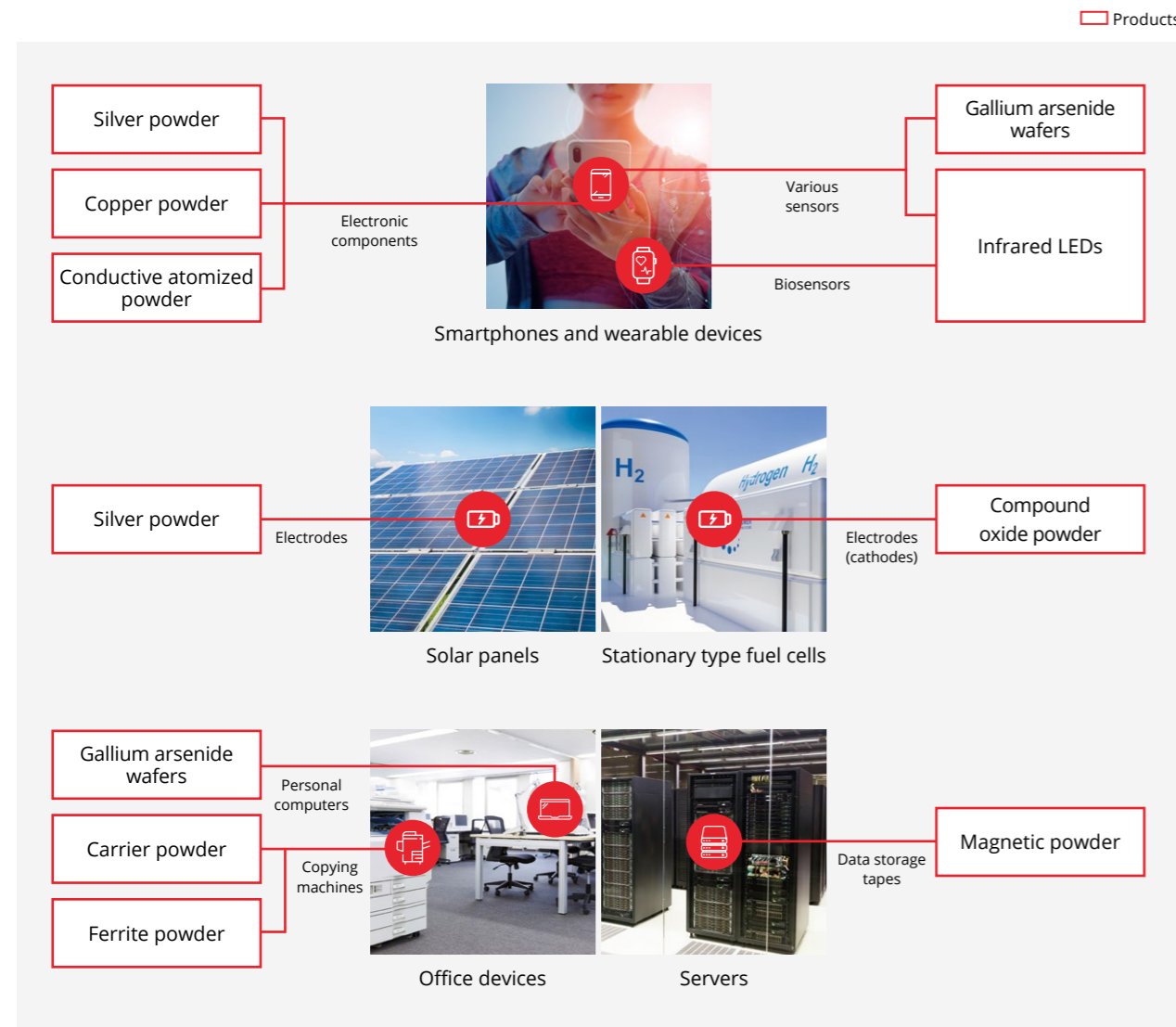
DOWA ELECTRONICS MATERIALS CO., LTD.

Business Model

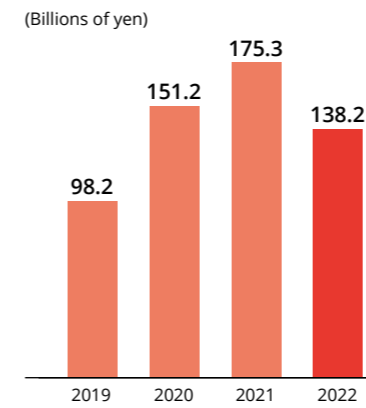
Semiconductors Electronic Materials Advanced Fine Materials

Advantages

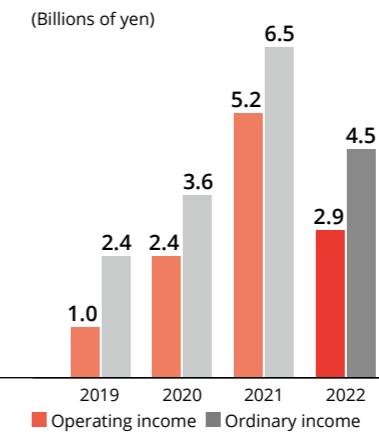
- Numerous products boasting leading shares of niche markets
- Production technology that allows for uniform quality from small-scale production to mass production
- Timely identification of changes in client needs and competence in the development of technologies that cater to these new needs



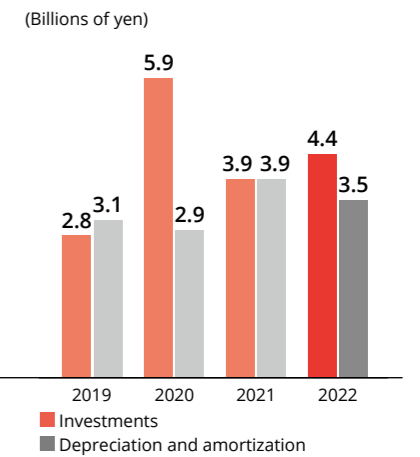
Net Sales



Operating Income / Ordinary Income



Investments / Depreciation and Amortization



SUZUKI Takehiko

Executive Officer
President and Representative Director,
DOWA Electronics Materials Co., Ltd.

Review of Fiscal 2022

In the semiconductor business, sales of short-wavelength infrared LEDs and photodiodes (PDs) for wearable devices increased. In the electronic materials business, sales of silver powder for solar panels remained sluggish due to changes in the competitive environment. Sales of conductive atomized powder for use in multilayer ceramic capacitors also declined due to the stagnant Chinese economy. On the other hand, in the semiconductor and electronic materials business, the average exchange rate of the yen against the dollar weakened significantly from the previous year, which contributed to the results. In the advanced fine materials business, sales of magnetic powders remained sluggish. In addition, sample income increased in non-operating income.

Commercialization of Compound Oxide Powder (Fuel Cell Materials)

We are developing various items to foster new business pillars. All of them are planned to be launched in the future, with fuel cell materials being the most concrete among them. Our target application is not for automobiles, but for cathode materials for stationary fuel cells for home and industrial use. Although it is difficult to expect the fuel cell market to take off in Japan, demand is expected to grow in overseas regions such as North America, Europe, and Asia, with support from political measures. While overseas customers are planning to invest in increased production, we are constructing a mass production facility for fuel cell materials at our Okayama site (DOWA Electronics Materials Okayama Co., Ltd.), and all of our customers have given positive

feedback on our developed products. We have obtained final certification and are accelerating our efforts to commercialize the project with the goal of making it profitable from fiscal 2024 onward.



Fuel cell materials

Metal Processing Business

DOWA METALTECH CO., LTD.

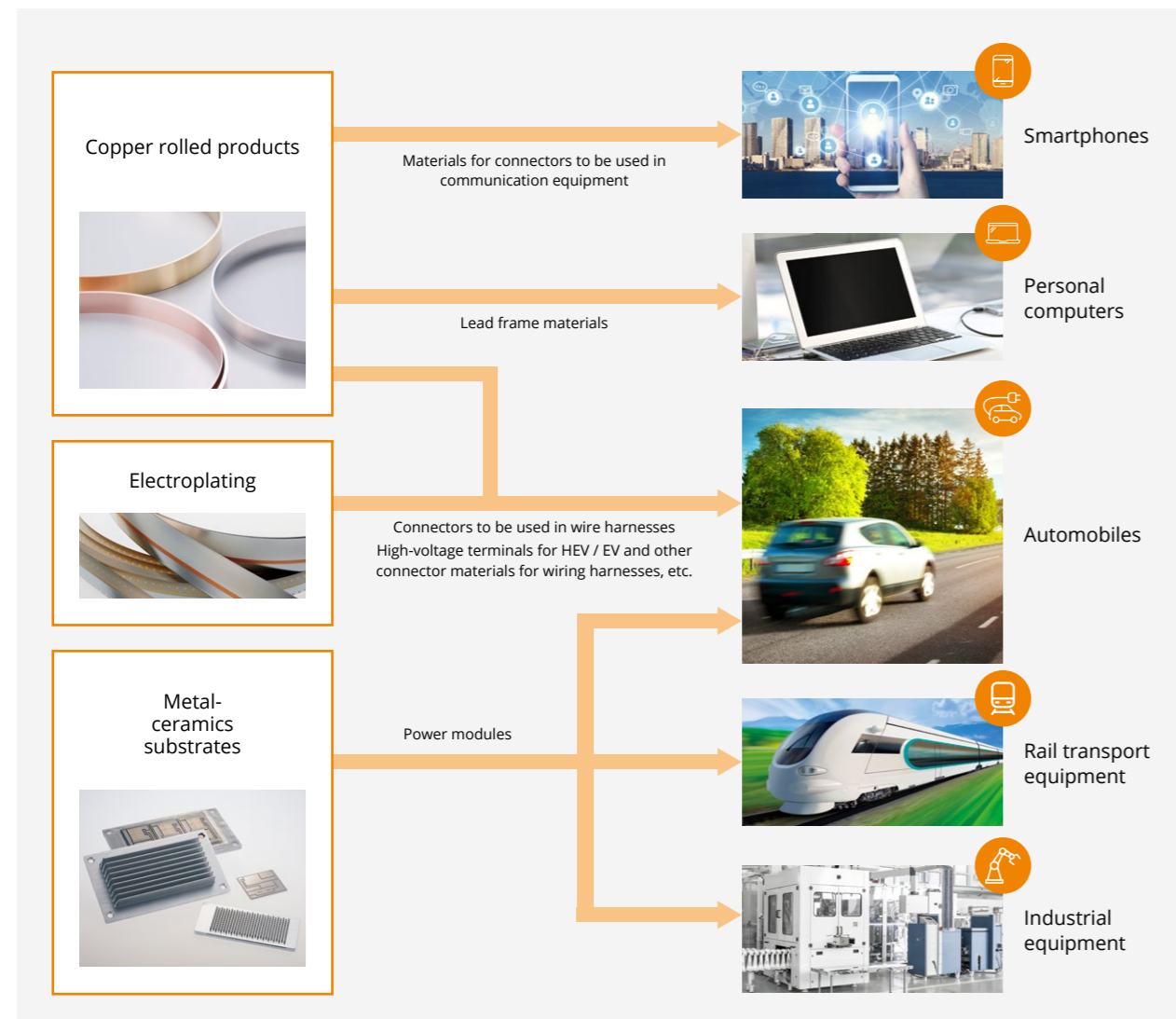
Business Model

Copper Rolled Products Electroplating Metal-Ceramics Substrates

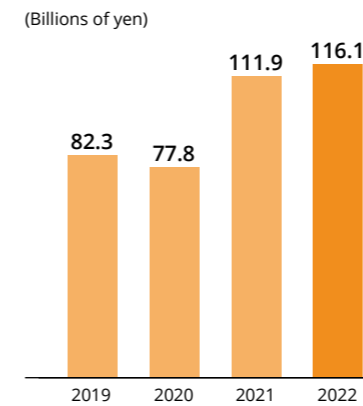
Advantages

- Extensive lineup of products that have high levels of performance in terms of conductivity, strength, and workability
- Multiple processing bases in China and Thailand, which are important demand destinations in Asia
- Large share of the market for automotive copper rolled products and electroplating in Japan
- One of the largest shares of the global market for metal-ceramics substrates for power modules

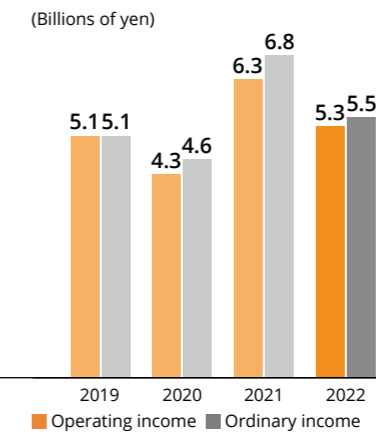
Products and Services



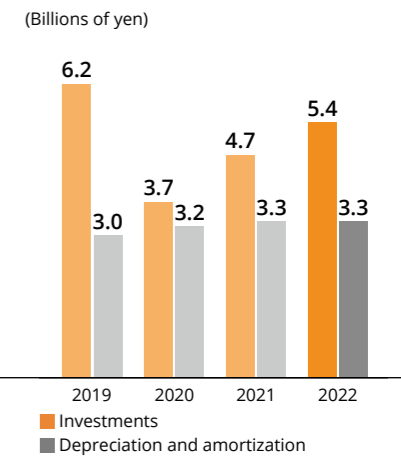
Net Sales



Operating Income / Ordinary Income



Investments / Depreciation and Amortization



ONIOH Takashi
Executive Officer
President and Representative Director,
Dowa Metaltech Co., Ltd.

Review of Fiscal 2022

In the copper rolled products business, sales of products for the automotive industry were lower than the previous year due to the continued impact of the global shortage of semiconductors and weak automobile production. In addition, sales of information and communication-related products declined due to the stagnant Chinese economy. In the electroplating business, demand for automotive applications declined. In the metal-ceramics substrates business, sales for industrial applications remained strong. In addition to these impacts, electricity and fuel costs increased.

Developing New Products for Growth Areas and Strengthening Our Mass Production Structure

We manufacture materials used in a variety of growth areas, with a focus on automobiles and information and communication equipment. In the mainstay automobile sector, demand for high-performance copper rolled products such as high-voltage terminals, small terminals, and charging terminals, as well as electroplating and metal-ceramics substrates, is expected to increase along with the development of the Connected, Autonomous, Shared, and Electric (CASE) technologies and other factors. To meet these demands, we are focusing on developing new products such as high-performance copper alloys. In Southeast Asia, we are also promoting the expansion of facilities to capture local customers whose demand is growing. As for information and

communication equipment, although the current situation is in an adjustment phase, the evolution and multifunctionality of various connectors used in smartphones and other devices will lead to an increase in demand for our products. While proceeding with the start-up of the expanded facilities, we will strengthen our production system through further productivity improvements and cost reductions to meet growing demand.



Copper rolled products

Heat Treatment Business

DOWA THERMOTECH CO., LTD.

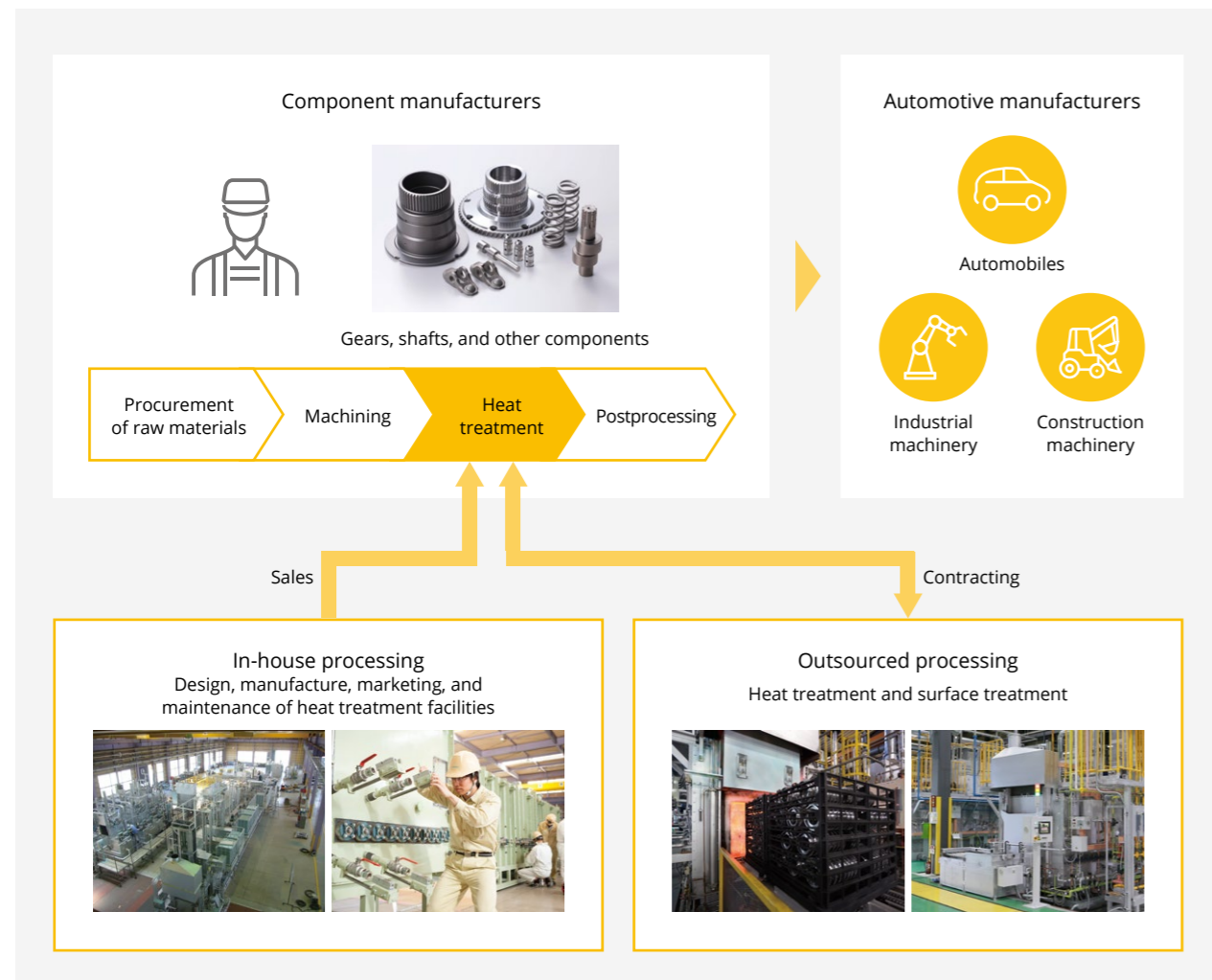
Business Model

Heat Treatment Processing Industrial Furnaces

Advantages

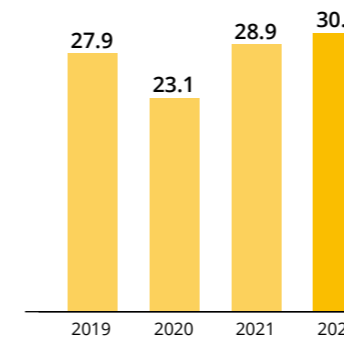
- Significant share of the market for the heat treatment of automotive components in Japan
- Network of bases that covers the principal automotive manufacturing regions in Japan and overseas
- Support for clients in terms of both processing and facilities through the heat treatment processing and industrial furnaces businesses

Products and Services



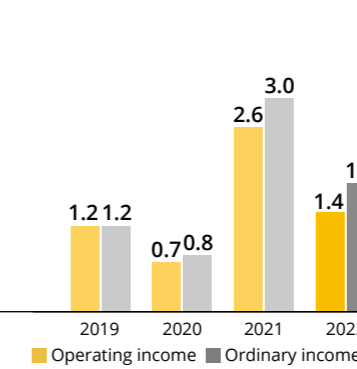
Net Sales

(Billions of yen)



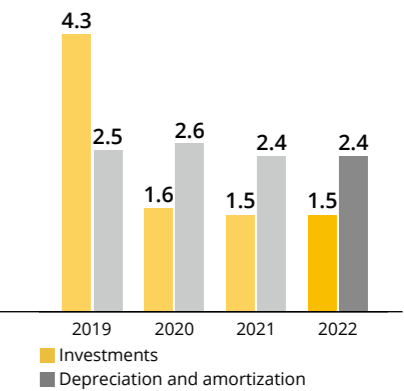
Operating Income / Ordinary Income

(Billions of yen)



Investments / Depreciation and Amortization

(Billions of yen)



YAMADA Kiyoshi

Executive Officer
President and Representative Director,
Dowa Thermotech Co., Ltd.

Review of Fiscal 2022

In the heat treatment processing business, orders expanded overseas despite the impact of weak automobile production in Japan. On the other hand, costs such as electricity and fuel costs increased significantly. In the industrial furnaces business, demand for equipment sales and maintenance in Japan and overseas, which had declined due to the spread of COVID-19, recovered.

Adaptation to a Carbon-Neutral Society

We are developing a variety of new products and services in response to the trend toward decarbonization in the automotive industry. One such product is Z-TKM. Z-TKM is a facility that can reduce CO₂ emissions in the heat treatment process by 60% compared to conventional furnaces. In addition, by combining green energy, hydrogen, and ammonia burners, CO₂ emissions in the heat treatment process can be reduced by 97% compared to conventional furnaces. Furthermore, the structure reduces lead time and heat loss, contributing significantly to productivity and cost reductions through lower gas consumption. Sale of this equipment began in the second half of fiscal 2023. Currently, we are accumulating

operational data through repeated tests using a demonstration machine installed in our heat treatment plant. We will use the accumulated data as promotional materials for our clients to help us achieve our goals.



Z-TKM (demonstration model)

Research and Development

The DOWA Group focuses on research and development to create next-generation products and services that contribute to solving social issues. We promote the development of new-concept products and services and innovative new technologies to meet the needs of the near future by utilizing the divisional laboratories and other facilities of each operating company to improve and upgrade current products and services and by promoting collaboration within and outside of the Group, led by the Business Innovation Research Department of DOWA HOLDINGS CO., LTD.

Basic Approach

Developing new technologies that lead to the creation of next-generation products and services requires a considerably long time. In addition, since the products and services we provide are located upstream in the supply chain, it takes longer, sometimes more than 10 years, for our products and services to be evaluated by our customers and implemented in society after we have completed our technological development.

Therefore, regardless of the ups and downs of the economy and business performance, our Group aims to create an environment that enables us to promote future-oriented R&D activities and create new technologies on a long-term and continuous basis by steadily investing in development and research expenses.

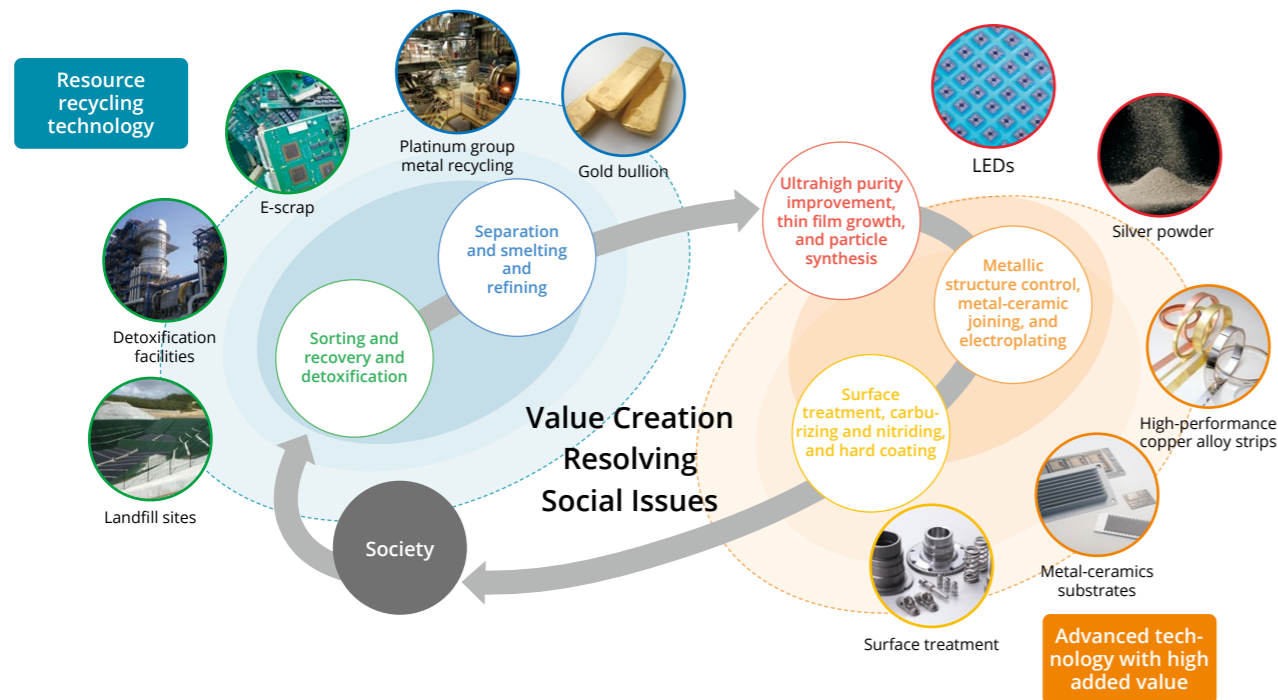
We also aim to focus on open innovation, collaborating with universities and research institutions to discover and realize technological seeds that will create new businesses for our Group. Through these activities, we are also working to develop young researchers, students, and other human resources in the Group.

The DOWA Group's Core Technologies

With the global acceleration of efforts to solve various social issues, such as carbon neutrality, the need for advanced materials and technologies used in EVs and renewable energy that contribute to solving these issues is expanding.

The Group has positioned automobiles, information and communication, environment and energy, and medical and healthcare as its four priority fields. We are working to solve social issues and create new value through the social implementation of superior materials and technologies cultivated through our unique recycling-oriented business model.

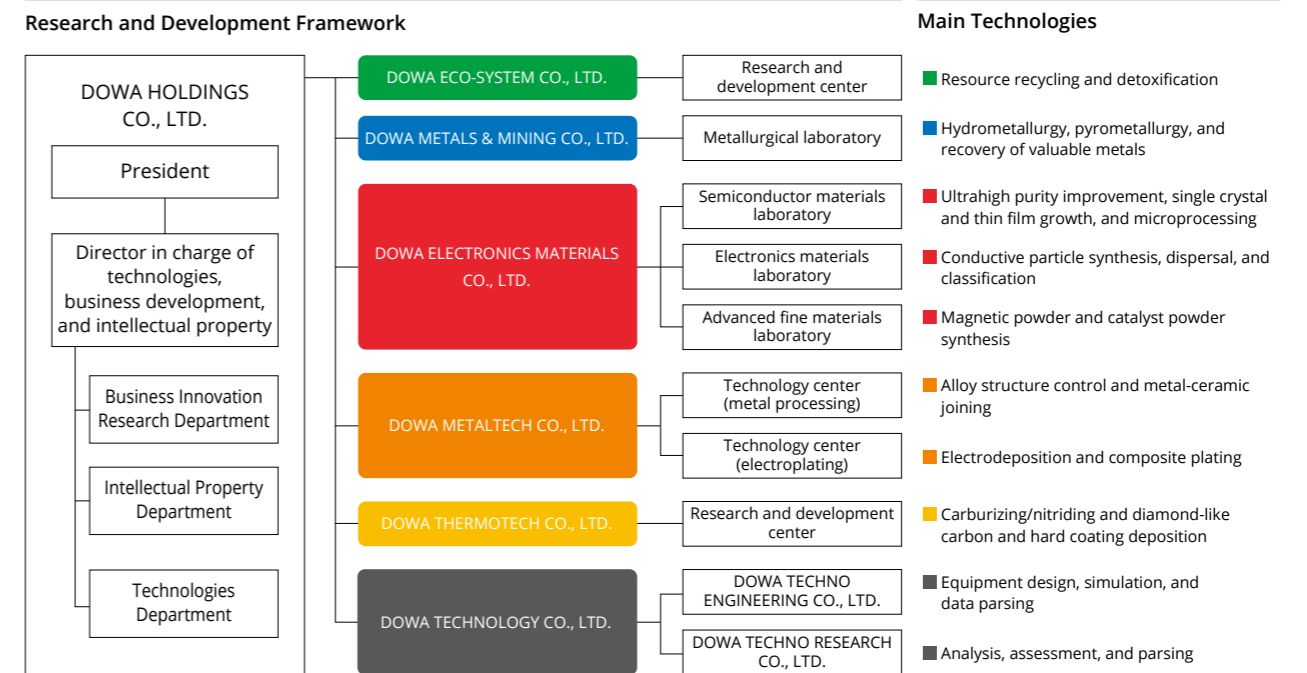
Core Technologies That Support Our Recycling-Oriented Business Model



Research and Development System

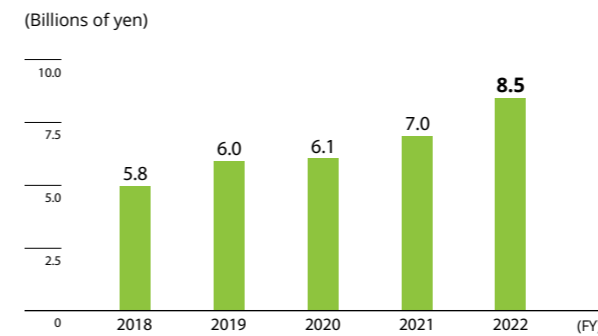
Each operating company in our Group has its own divisional laboratory in addition to a technology development department at its respective manufacturing base to reform and improve current products and services.

We are also developing new products and services that anticipate customer needs while improving and reforming technologies related to manufacturing processes and equipment—technologies that form the foundation of our business.



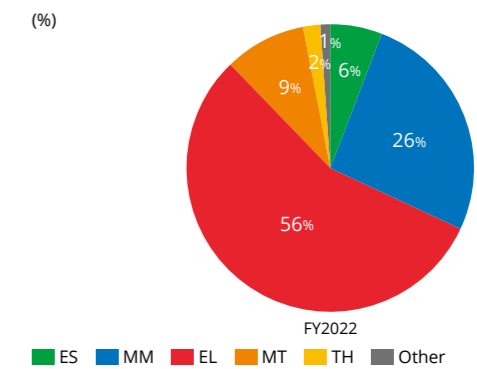
R&D Expenses*

R&D Expenses



* R&D expenses are the total amount of research and development expenses for exploration of new mineral deposits, etc.

Breakdown of R&D Expenses



Open Innovation

The DOWA Group has established strong collaborative relationships with universities and research institutions. In particular, in the area of basic research that will lead to new-concept products and services and innovative technologies that will open the way to the near future, we are conducting numerous joint research projects and creating promising development themes.

DOWA x Tohoku University Co-creation Research Center

In April 2022, DOWA and National University Corporation Tohoku University (hereinafter Tohoku University) established the DOWA x Tohoku University Co-creation Research Center (hereinafter DOWA Co-creation Research Center) to promote and strengthen research activities for both parties.

The DOWA Co-creation Research Center aims to deepen the integration of Tohoku University's advanced technological seeds and our proprietary e-technology in order to create cutting-edge technologies that can help resolve sustainability issues such as the realization of carbon neutrality and declining working populations.

Overview of the Co-creation Research Center

[Purpose of Establishment]

To promote research activities for creating an affluent, recycling-oriented society.

[Themes for Activities in the Initial Phase (Fiscal 2022 to 2024)]

The project will search for specific research themes related to (1) carbon-neutral technology, (2) innovative technology fusing artificial intelligence, the Internet of Things, and materials informatics, and (3) new materials for automobiles (EVs), information communication, the environment and energy, and medical and healthcare, to launch at least five joint research projects.



Tohoku University Graduate School of Engineering Laboratory Complex Building, where the DOWA Co-creation Research Center was established.



Selection of Joint Development Themes

To understand the issues and needs of our Group's R&D and the seeds of Tohoku University, we held a total of eight face-to-face and web-based discussions at the Group's R&D sites. A total of 20 faculty members participated in discussions with approximately 40 researchers from our Group, and as a result, three joint development themes were selected.

Special Lectures and Hands-on Workshops

As part of the Co-creation Research Center's activities, special lectures and hands-on workshops for students and employees were held.

A total of four special lectures were held in October 2022, with a total of over 300 students and faculty members attending. In November 2022, we also conducted a hands-on workshop at a copper rolled products factory for eight students who participated in the same lecture. The workshop consisted of a factory tour and a series of practical exercises from fabrication to evaluation of copper alloy samples, followed by a presentation with our researchers on the final day.

Students who participated in the event commented that they were overwhelmed by the difference in scale and speed that they could not experience in a university laboratory and wanted to learn more about the process in depth.



Endowed Chairs

The DOWA Group has established endowed chairs at Tohoku University and Akita University and sponsors student activity presentation events held by each university. At the presentation, we deepen exchanges with universities and students by giving special lectures by the Company, awarding the DOWA Prize to the best students, and subsidizing various research activities. The program also holds concurrent international workshops on resource science and sustainable development to deepen exchanges with researchers from overseas.



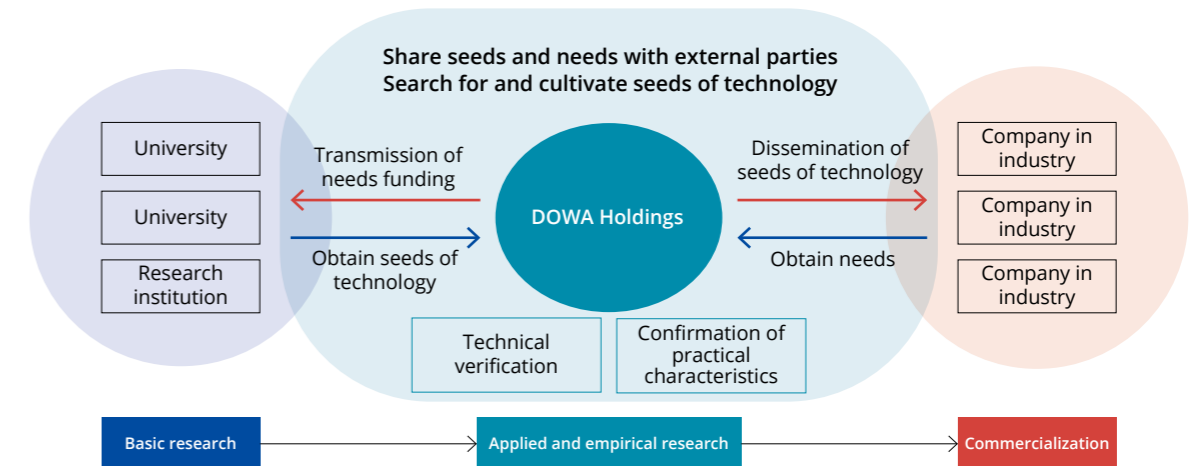
Special lecture

Partnership Agreements

We have concluded partnership agreements with five universities in Japan (Tohoku University, Akita University, Okayama University, Kumamoto University, and Gunma University) to enable mutual cooperation in various fields, including R&D and human resource development. By promoting collaboration between industry and academia by crossing the research results and technological capabilities of both parties, we aim to develop next-generation technologies and promote academic research.

DOWA Techno Fund

The DOWA Techno Fund is a unique program that provides financial support to technologies, businesses, and markets closely related to our Company. Currently, we support the technological development of technology seeds that have the potential for commercialization within our Group in the future, mainly through joint research with universities and research institutions.



In-house Incubation System

The in-house incubation system is designed to support the commercialization of technological achievements for which basic R&D has been completed.

To develop the seeds of technology for business after basic research has been completed at each of the Group's research centers, organizational support is required, which is different from the R&D stage. To this end, the program determines project themes for commercialization through internal public solicitation and implements human and financial support as a company-wide activity.

For more information on research and development, see the link below.
https://www.dowa.co.jp/jp/dowa_rd/index.html
 (Japanese language only)



Materiality 3 Responding to Climate Change

Climate change is a serious social challenge facing all industries and people worldwide. In light of the current global warming situation, we aim to achieve carbon neutrality by 2050 per our Climate Change Policy established in August 2021.

[Climate Change Policy]
<https://www.dowa-csr.jp/en/about/climate-change>



Basic Approach

The DOWA Group addresses climate change from the perspectives of risk reduction and opportunity capture. By addressing climate change through both the reduction of our GHG emissions and the creation and expansion of products and services that contribute to society's efforts to combat climate change, we aim to achieve a carbon-neutral society by 2050, leading to the sustainable growth of our Group.



Disclosure Based on TCFD Recommendations

Under our Midterm Plan 2024, which began in fiscal 2022, we have designated addressing climate change as one of our materiality and have established a company-wide promotion system to promote activities aimed at achieving carbon neutrality by 2050. In February 2022, we reaffirmed our stance on climate change within and outside the Group by endorsing the TCFD recommendations. Based on the framework of the TCFD recommendations, we also conducted a scenario analysis and summarized the business risks and opportunities arising from climate change and published the TCFD Report in May of the same year.

[TCFD Report]
https://www.dowa-csr.jp/content/files/DOWA_TCFD_report_2205_en.pdf

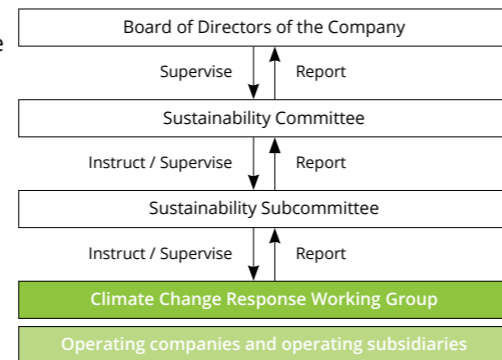


Governance

In order to enhance sustainability-related activities, including those targeting climate change, the Group established the Sustainability Committee, which is chaired by the president and representative director, and under it the Sustainability Subcommittee, which is chaired by the director in charge of corporate strategy.

The subcommittee identifies and assesses risks and opportunities presented by climate change, looking at the issue from a Groupwide perspective, and then investigates and formulates action plans, goals, and countermeasures, which it then reports to the Sustainability Committee along with any important risks and opportunities. The Sustainability Committee will deliberate on managing risks and opportunities related to climate change issues, and important matters related to management risks and opportunities will be brought to the Board of Directors for discussion and reporting. Upon receiving the agenda and reports from the committee, the Board of Directors will share issues related to climate change and discuss target management and solutions to these issues.

We have also established an organization specifically dedicated to promoting a response to climate change—namely, the Climate Change Response Working Group. This working group consists primarily of members from operating companies and members of the Technologies Department (DOWA Group Technologies Department, DOWA Technology Co., Ltd.) who work in the field, and it promotes initiatives that include reduction plans for GHG emissions and climate change monitoring systems.



Strategies

In fiscal 2021, we conducted a scenario analysis targeting our domestic operations, which account for more than 95% of the Group's total GHG emissions, and used the results to compile a series of risks and opportunities resulting from climate change.

Since the forecasts are highly uncertain and difficult to analyze, we looked at multiple climate scenarios, ranging from 1.5 °C to 4.0 °C. We also identified, analyzed, and evaluated risks and opportunities relating to climate change on short-term (up to 2025), medium-term (up to 2030), and long-term (up to 2050) bases.

We Referred to the Following Scenarios:

Scenario	Outline	Key References	
		IEA*	IPCC
1.5°C	An international opinion toward achieving carbon neutrality by 2050 is formed.	NZE	SSP1-1.9
	Target on which a minimum international agreement (the Paris Agreement) is obtained.	SDS	SSP1-2.6
2.0°C	Target on the basis of immediate GHG emissions reduction targets in different countries is calculated.	APS	SSP2-4.5
4.0°C	Priority is given to economic growth and the temperature rise and its impacts keep worsening.	STEPS	SSP2-4.5 SSP3-7.0

* Items listed under IEA are WEO (World Energy Outlook) 2021 scenarios of the IEA (International Energy Agency), the full names of which are as follows: NZE (Net Zero Emissions by 2050 Scenario), SDS (Sustainable Development Scenario), APS (Announced Pledges Scenario), STEPS (Stated Policies Scenario)

Risks, Opportunities, and Predicting the Future Business Environment

Risks, Opportunities, and Prediction of the Future Business Environment			Short Term	Medium Term	Long Term
			-2025	-2030	-2050
1. Strengthened regulations and systems					
Carbon pricing	Carbon taxes and emissions trading	Risks: Full-scale introduction of carbon taxes and emissions trading would significantly add to the direct and indirect financial impact. Institutional arrangements and other related procedures are expected to take considerable time and their impact will manifest from around the mid-2020s. From 2031, moves toward achieving carbon neutrality by 2050 will intensify and the influence of carbon pricing will expand even more.			
2. Energy-related					
Efficient use of energy	Reinforcement of energy saving and introduction of high-efficiency equipment	Risks and opportunities: As we seek to achieve the government target for 2030 GHG emissions reduction, energy-saving targets will be raised. A review of both the tangible and intangible aspects of efforts for GHG emissions reductions will be necessary and new capital investment and other financial burdens will accrue. Meanwhile, the development of energy saving-related products and services will expand our business opportunities.			
Energy conversion	Non-fossil fuel energy	Risks and opportunities: Amid the move toward decarbonization, a rise in prices of electric power, which involves a low CO ₂ emission coefficient, is expected. Although demand will drop for products and services that utilize energy produced by fossil fuels, lower demand will differentiate products that utilize energy from non-fossil fuel sources, increasing business opportunities.			
	Renewable energy	Risks and opportunities: Since the introduction of renewable energy necessitates technological advances and infrastructure development, we expect the spread of renewable energy to get under way in the latter half of the 2020s. Until that time, the needs for electricity from renewable energy will increase and so will procurement prices. Meanwhile, the markets of metallic materials and battery materials for renewable energy will expand.			
3. Stakeholder-related					
Initiatives for decarbonization	Shareholders and financial institutions	Risks and opportunities: The establishment of the law on information disclosure and facilitation of ESG investments and loans will change the costs for funding depending on actions toward decarbonization.			
	Customers	Risks and opportunities: The move toward decarbonization will intensify and also encompass the supply chain. Our response to this trend will influence transaction conditions. We will also shoulder more expenses for the purchase of credits, etc., for decarbonization.			
4. Disaster-related (Physical risks)					
Acute	Torrential rains	Typhoons, heavy rains, river flooding, etc., may damage factory facilities and disrupt supply chains with greater frequency.			
	Temperature rise	A rise in temperature may change materials and cause health problems such as heat-stroke and contagious diseases.			
	Sea level rise	A rise in sea level will make our seaside sites susceptible to high waves and tsunamis.			

Note: The green columns represent the time of occurrence and degree of impact on short-, medium-, and long-term bases.

Starting in the second half of fiscal 2022, we have reaffirmed our situational circumstances regarding the social environment and our business based on the TCFD scenario analysis. Our confirmation has the aim of increasing the specificity of our mid-term measures to address climate change and the accuracy of our forecasts through 2030.

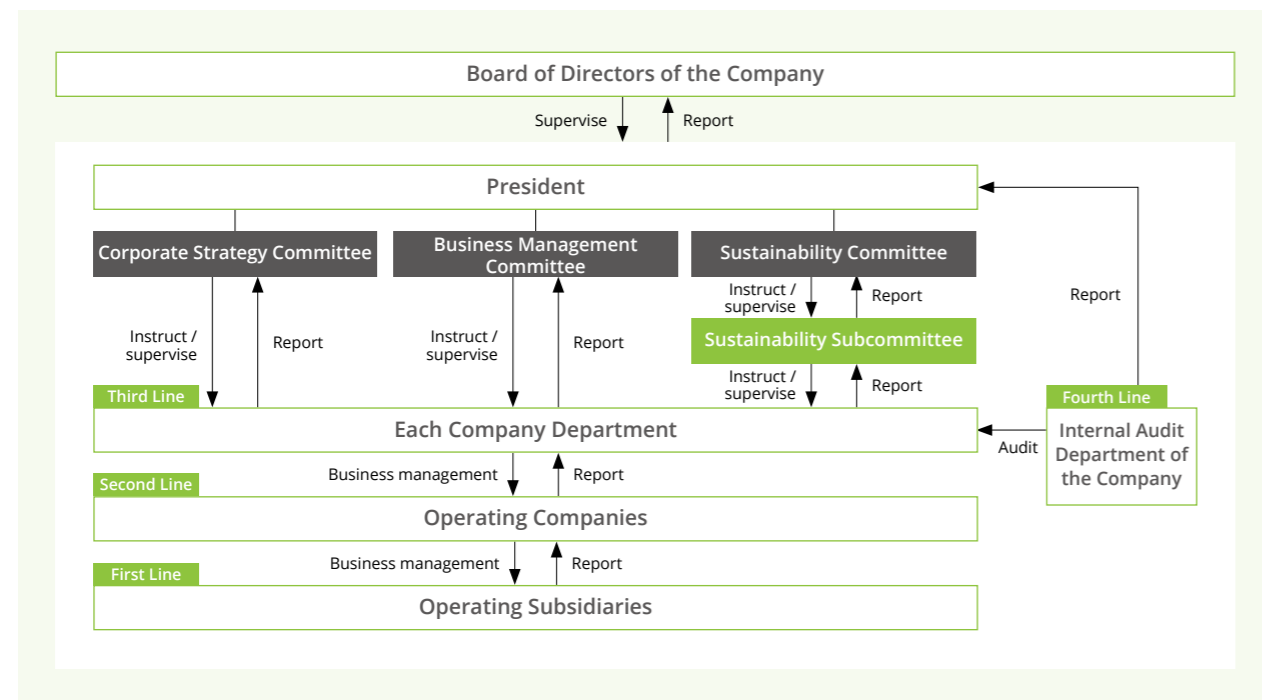
Situational Circumstances as of 2023

- Under circumstances where realizing the 1.5 °C target is becoming increasingly difficult (IPCC Sixth Assessment Report), policy input and regulatory reinforcement will be further promoted to realize a carbon-neutral society.
- The shift to EVs will further accelerate in response to automakers' announcements of capital investment in EVs and moves to support the development of charging infrastructure.
- Amid rising geopolitical risks, there is growing momentum for introducing renewable energy from the perspective of stable energy supply.
- In transitioning to a decarbonized society, fossil fuel procurement will become unstable due to price hikes, supply shortages, and other challenges.
- Stricter supply chain management of critical mineral that are essential to promote decarbonization from an economic security perspective.

Social and Market Environments Toward 2030	Current Conditions of the DOWA Group	Direction of Efforts
As the spread of electrification and renewable energy, including EVs, accelerates, the need for more low-carbon components and products will increase	<ul style="list-style-type: none"> ■ Strong ties with the automotive, information, and electronics industries and a wide range of materials for EVs and renewable energy ■ High energy consumption of smelting and metal processing facilities, using coke and coal 	<ul style="list-style-type: none"> ■ Provide low-carbon materials and components by using our renewable energy and procuring renewable energy ■ Develop biomass fuels in-house and aim to co-fire with coke and coal during the transition period and replace them in the future
Expanding customer Scope 3 management and growing need for waste treatment with low GHG emissions	<ul style="list-style-type: none"> ■ Incineration is implemented as a safe method of waste treatment that contributes to environmental protection and public health ■ The waste heat from incineration is effectively utilized to generate electricity ■ We recognize that volume reduction by incineration is necessary as a means of prolonging the life of landfill sites, which are under pressure 	<ul style="list-style-type: none"> ■ Expand our available services to increase recycling and avoid increasing the volume of incinerated waste ■ Promote low-carbon waste management through the use of biofuels and renewable energy sources
Consideration of introducing a carbon pricing system will move forward (full-scale emissions trading, introduction of a carbon tax, etc.)	<ul style="list-style-type: none"> ■ We are already directly and indirectly affected by the rising price of energy, which could lead to further cost increases 	<ul style="list-style-type: none"> ■ Accelerate electrification of manufacturing processes and switch to renewable energy and biomass fuels ■ Consider using credits, etc., in cases where GHG emissions reductions are difficult or in light of user needs for offset products, etc.

Risk Management

We have positioned risk management as one of our material issues. We strive to enhance risk management by establishing a system to appropriately manage and mitigate various risks arising through our business activities. Risk management related to climate change is integrated into the Group's overall risk management.



Metrics and Targets

To achieve carbon neutrality by 2050 and to link our efforts to address climate change to the sustainable growth of the Group, we have set new contribution targets through products and services in addition to our interim GHG emissions reduction targets for the Group for fiscal 2030.

Long-term Target: The DOWA Group aims to achieve carbon neutrality by 2050.

GHG Emissions Reduction Targets

The Group aims to be carbon-neutral by 2050 and, as a milestone, has set an interim goal of reducing Scope 1 and Scope 2 GHG emissions in Japan compared to fiscal 2013 levels by fiscal 2030, as shown in the table below. These targets are set in accordance with the targets for each category in the Japanese government's Plan for Global Warming Countermeasures*, which was formulated to reduce GHG emissions in fiscal 2030 to 46% of the level in fiscal 2013. We are in the process of determining Scope 3 GHG emissions and will consider incorporating them into the target in the future.

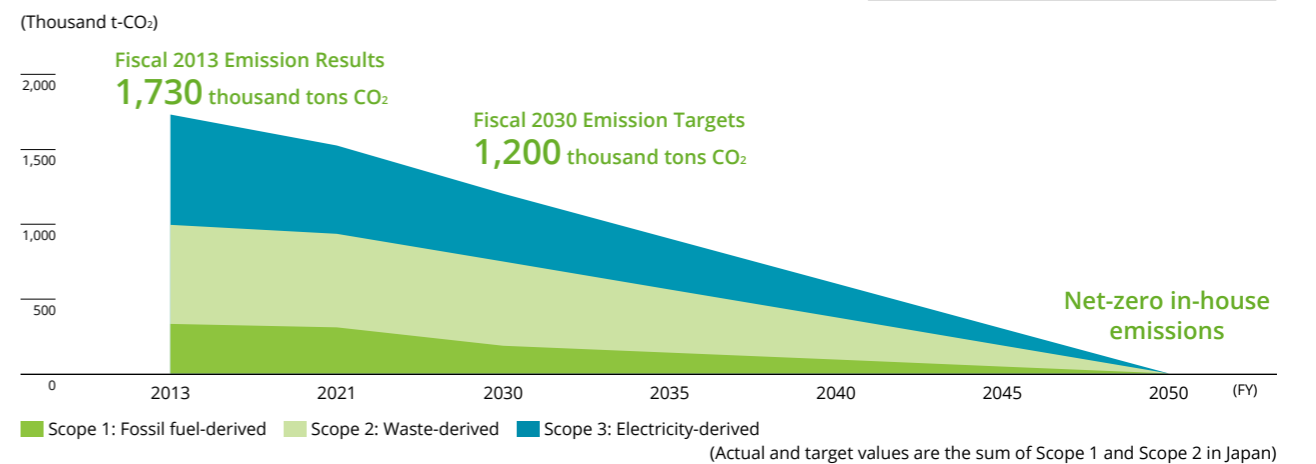
GHG Emissions Reduction Target for Fiscal 2030

CO ₂ derived from electricity and fossil fuels	Manufacturing sites	At least 38% reduction (from the FY2013 level)
	Transportation sites	At least 35% reduction (from the FY2013 level)
	Waste management sites and offices	At least a 51% reduction (from the FY2013 level)
CO ₂ derived from incinerated waste	At least 15% reduction (from the FY2013 level)	

* The Japanese government's comprehensive plan based on the Act on Promotion of Global Warming Countermeasures (Cabinet decision on October 22, 2021)
 Note: This target includes reductions through the use of credits and other means that represent Scope 1 and Scope 2 GHG emissions (CO₂ equivalent) emitted by the DOWA Group in Japan.

Based on the above targets, the Group has set an emissions target of 1,200 thousand tons of CO₂ for fiscal 2030. We will continue to monitor changes in social trends, technological innovation, and other factors and work toward further reductions from a medium- to long-term perspective.

Fiscal 2013 Emission Results	1,730 thousand t-CO ₂
Fiscal 2030 Emission Targets	1,200 thousand t-CO ₂



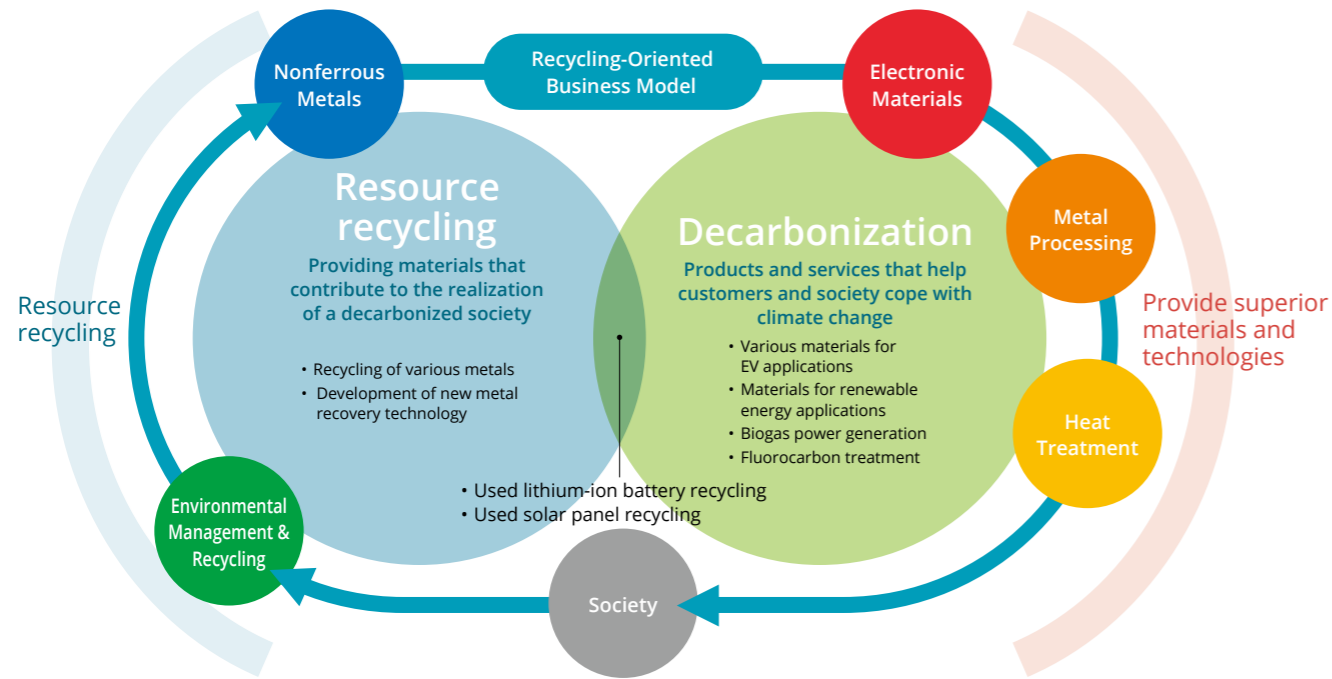
This target does not cover GHG emissions from overseas business sites. However, we will consider setting a target as we proceed with understanding and monitoring the situation in the countries where they are located. The status of GHG emissions reductions will continue to be monitored. Targets may be revised as necessary, considering domestic and international policy trends and socioeconomic conditions toward decarbonization.

DOWA Green Action: Contribution through Products and Services

The DOWA Group provides a wide range of products and services contributing to society's efforts to combat climate change. We offer many products and services to contribute to the reduction in GHG emissions through our supply chain, such as silver powder used for solar panels, which is indispensable for renewable energy metal materials for fuel cells and EVs, and the recycling of lithium-ion batteries and solar panels. We also provide society with non-ferrous metals, which are indispensable for the decarbonized society of the future, through our recycling-oriented business model that incorporates sustainable resource recycling processes, including recycling. We have named DOWA Group's unique contribution DOWA Green Action (DGA) and have set targets for fiscal 2030.

Business Areas Covered by DOWA Green Action

Non-ferrous metals are essential materials for decarbonization technologies. We aim to achieve carbon neutrality by transitioning to a circular economy by reducing our own GHG emissions and providing society with a low-carbon resource recycling process. In setting targets for DGA, we identified two target areas: (1) providing materials that contribute to realizing a decarbonized society through resource recycling and (2) products and services that help customers and society cope with climate change. With this in mind, we identified applicable products and services.





DOWA Green Action Targets for Fiscal 2030

By expanding the supply of DGA products and services and striving to develop technologies and create new businesses, we will contribute to the reduction of GHG emissions throughout society and work toward the realization of a carbon-neutral society. We set a sales target for DGA products and services as an indicator of these growth targets.

As we advance, we will compile actual sales of DGA products and services each year to manage progress. To achieve our goals, we will steadily invest in growth in each of our businesses, as defined in our Midterm Plan 2024. We will also conduct research and technological development utilizing the ESG investment in our Midterm Plan 2024 to expand new DGA products and services.

FY2022 sales results	Approx. ¥360.0 billion
FY2030 sales target	At least 1.6x (Compared to FY2022)

Examples of DOWA Green Action Initiatives

Area of Contribution	DOWA Green Action	Application / Effect
Resource recycling	Recycling of new metals	In addition to conventional recycling of base metals and precious metals, we are newly working on the recycling of resources such as ruthenium, iridium, scandium, and other metals. These metals are indispensable for energy saving and high functionality in automobiles, information and communication terminals, electronic devices, and other products for decarbonization.
Decarbonization	Recycling of used lithium-ion batteries	Lithium-ion batteries use rare metals such as cobalt, nickel, and lithium. Also, lithium-ion batteries can generate heat or catch fire if damaged or deformed. By appropriately processing used lithium-ion batteries, which are increasing in line with growing demand, safely and recovering scarce metal resources, we contribute to decarbonization and resource recycling by providing the resources necessary for the widespread use of batteries. 
	Fuel cell materials	A material for fuel cells (SOFC, or solid oxide fuel cells), which generate electricity by reacting hydrogen and oxygen, contributing to the spread of clean energy as a power source for homes and factories.
	Plated copper alloy for high-voltage terminals for EV applications	Plated copper alloys for high-voltage terminals for EV applications will contribute to the spread and expansion of EVs by enabling rapid charging of EVs with their excellent electrical conductivity and wear resistance.
	Zero-CO ₂ furnace Z-TKM (Carburizing and quenching furnace)	The next-generation carburizing and quenching furnace Z-TKM minimizes gas and CO ₂ emissions in the heat treatment process of automotive parts and other products. In addition, the combination of renewable energy and hydrogen and ammonia burners enables operations that emit almost no CO ₂ in the heat treatment process, thereby contributing to GHG emissions reduction in the supply chain, including automobile production.  <ul style="list-style-type: none"> Reduced CO₂ emissions in the heat treatment process to about 40% of that of conventional furnaces Utilization of green energy can reduce the amount of energy consumption by more than 90% Reduces lead time to approximately 60% of that of a conventional furnace Same size as conventional furnaces, making it easy for customers to use it as a replacement

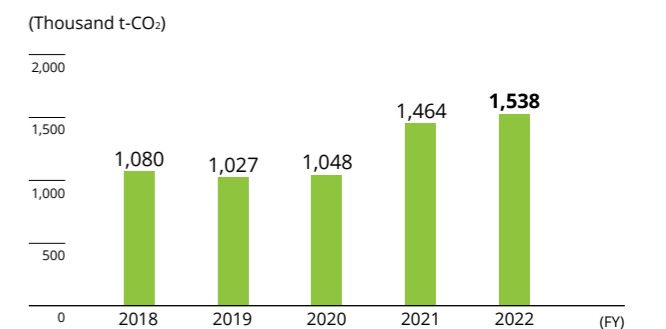
Amount of Contribution to GHG Emissions Reduction in Society through DOWA Green Action Fluorocarbon Treatment

CFCs, HCFCs, HFCs, and other fluorocarbons used as refrigerants in refrigeration and air conditioning equipment have a substantial greenhouse effect, ranging from several hundred to more than 10,000 times that of CO₂, so proper treatment is essential. We have cooperated with the Ministry of the Environment's Fluorocarbon Destruction Model Projects and have contributed to the establishment of fluorocarbon-related legislation and the strengthening of regulations by conducting demonstration tests, etc., in cooperation with national and local governments.

Currently, our Group contributes to reducing GHG emissions by more than 1 million tons (CO₂ equivalent) per year, including fluorocarbons recovered and recycled from home appliances and fluorocarbons destroyed by thermal decomposition. In the destruction process, we perform thermal decomposition by waste heat from the incineration of waste materials without inputting new energy, thereby reducing our own GHG emissions in our endeavor to prevent global warming.

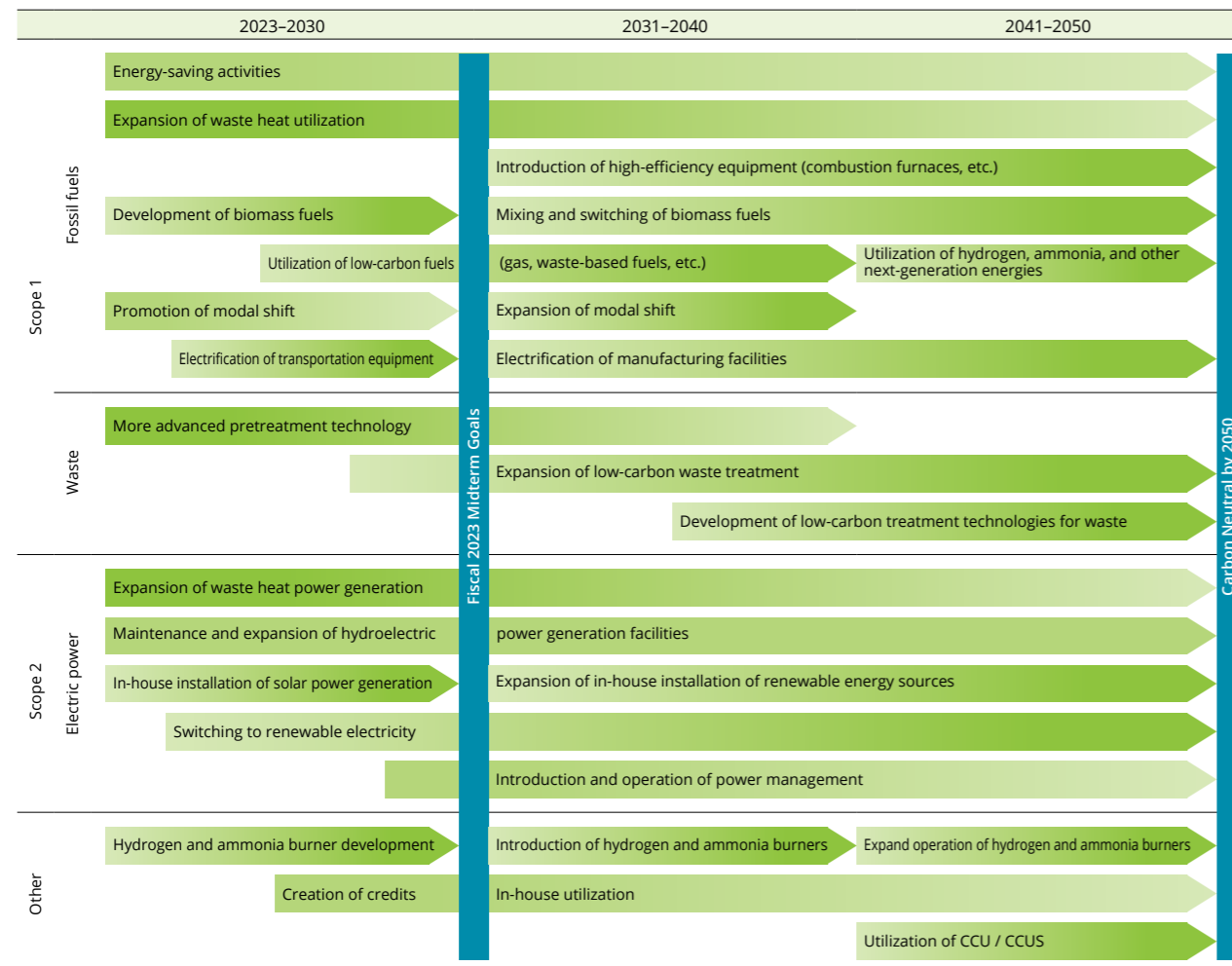
We are also expanding fluorocarbon treatment in Thailand and other countries, which is expected to contribute to GHG emission reductions of more than 10,000 tons per year (CO₂ equivalent) in a bilateral credit project supported by the Japanese government.

Contribution to CO₂ Emissions Reduction through Fluorocarbon Treatment



Roadmap to Achieve Carbon Neutrality by 2050

The Group will make maximum use of existing technologies and systematically introduce new technologies to achieve carbon neutrality by 2050. In addition to energy conservation, renewable energy, fuel conversion, electrification, and other measures, we will actively promote the in-house development of biomass fuels, ammonia burners, and other in-house initiatives. In the future, we will encourage climate change countermeasures through multiple options, such as considering the use of negative emission technologies that capture and store CO₂.



[Initiatives for the Achievement of a Carbon Neutral Society: Initiatives for FY2030 and Roadmap for the Achievement of Carbon Neutrality by 2050]
https://www.dowa-csr.jp/content/files/DOWA_2050CN_roadmap_en.pdf



Achievements

The Group's greenhouse gas emissions are characterized by the fact that they are primarily of electricity-derived and waste-derived, accounting for about 80% of total emissions. CO₂ emissions are particularly affected by the incineration of waste received from outside sources, which varies depending on the amount and composition of the waste. Since it can be challenging to control waste generated externally, we are working to prevent global warming by promoting thermal recycling, in which the heat generated during incineration is used to generate electricity or steam. In addition, our manufacturing sites strive to reduce CO₂ emissions by switching to energy-efficient equipment and reducing energy consumption through appropriate operational management.

CO₂ Emission Trends

Group-wide greenhouse gas emissions in fiscal 2022 were approximately 1,713 thousand tons of CO₂, a decrease of 1% from fiscal 2021. Total energy use in fiscal 2022 decreased by about 3%, particularly in using high-calorie waste as a heat source to reduce fossil fuel use. On the other hand, although electricity consumption decreased, CO₂ emissions from electricity increased slightly due to changes in emission coefficients. We will continue our efforts to further reduce greenhouse emissions by conserving energy and expanding our introduction of renewable energy.

		(Thousand t-CO ₂)				
Source		FY2018	FY2019	FY2020	FY2021	FY2022
Scope 1	Fossil fuel-derived	297.2	329.6	313.9	326.1	313.1
	Waste-derived	876.2	859.7	822.9	738.2	725.9
Scope 2	Electricity-derived	762.1	714.1	678.1	659.5	674.4
Total CO₂ Emissions		1,935	1,903	1,815	1,724	1,713

Utilization of Natural Energies

We are working to combat global warming through the use of in-house power generation from renewable energy sources and the promotion of renewable energy through our business.

- ▶ Hydroelectric Power
 In 1897, the Company began operating Japan's second hydroelectric power plant for mining development. Since then, the Company has continued to expand and upgrade its facilities as its business has grown, and it currently owns six hydroelectric power plants in Akita Prefecture. In fiscal 2022, these power plants generated 68.8 GWh of electricity, making it an important energy source for Kosaka Smelting & Refining Co., Ltd.
- ▶ Solar Power
 We are working to expand the use of renewable energy by installing solar power generation systems at six of our business sites in Japan and overseas. In fiscal 2022, a total of 1,881 MWh of electricity was generated through solar power. In addition to being used as part of the electricity required for business activities, some electricity was sold back to the grid.
- ▶ Biomass Power
 We are working on biomass gas power generation from food waste in Okayama Prefecture. In fiscal 2022, we generated 2,267 MWh of electricity through biomass power.
- ▶ Waste Heat Power Generation
 The Group generates waste heat at six sites, five in Japan and one overseas. We generated 87 GWh of waste heat power in fiscal 2022. Waste heat power generation is a method that uses the heat from incinerating waste materials and exhaust heat from furnaces to produce high-temperature, high-pressure steam that turns turbines to generate electricity. Energy can be generated from waste, leading to the curtailment of fossil fuels.

Materiality 4 Protecting the Environment

The DOWA Group recognizes the impact of its business activities on the environment. We are working throughout the entire Group to implement initiatives for the environment and society through our core businesses and by positioning a reduction in the environmental impact of our business activities as an important issue for management.

[Environmental Basic Policy]
<https://www.dowa-csr.jp/en/about/environment-policy>



Achievements and Targets

The Midterm Plan 2024 aims to establish ISO 14001 / Eco-Action 21 (EA21)-compliant management systems at all major business sites by the final year of the plan, fiscal 2024.

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Establishment of an environmental management system	Establish and maintain an ISO 14001- or EA21-compliant systems	Ratio of business locations operating under DOWA's EHS-MS (environment, health, and safety management system) that compliant with ISO-certification 74%	100% (by March 31, 2025)
Improvement of risk management	Minimize risk of environmental accidents and improve response capabilities	Number of environmental accidents 2	0

Material Balance

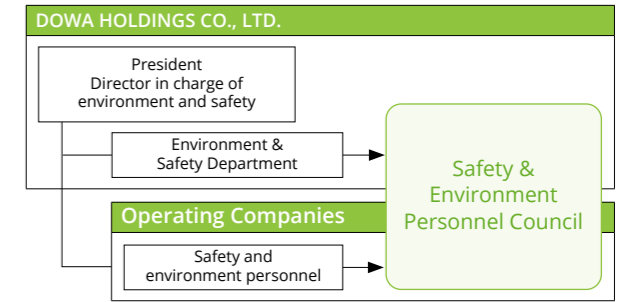
The DOWA Group is promoting business activities while considering material balance by quantitatively determining the input of necessary resources and energy at each stage of the business life cycle as well as the output of CO₂ and waste generated from these activities.

Promotion System

The DOWA Group's environmental management activities are conducted by the Environment & Safety Department, which works with each operating company in charge of environmental conservation activities.

DOWA Holdings coordinates between these operating companies and oversees environmental management for the entire Group.

In addition, 52 of the Group's sites, which account for approximately 75% of the Group's major production sites, have acquired ISO 14001 or Eco-Action 21 certification and have established a structure to use an environmental management system (EMS). In our transportation business, we have obtained Green Management certification to promote environmental conservation in trucking. We are promoting activities that lead to continuous environmental improvement through the PDCA cycle of our environmental management system.



Certifications	Number of Sites Certified	Ratio of Sites Certified
ISO 14001	Japan: 30 Overseas: 14	Approx. 75% of major production sites
Eco-Action 21	Japan: 7	
Green Management Certification	Japan: 1	



Environmental Conservation Initiatives

Atmosphere and Water Management

The DOWA Group's impact on the atmosphere and water is greatly affected by the composition of waste received by the Environmental Management & Recycling Business. Therefore, we are working to reduce said impact by enhancing our management systems at each business location and implementing standards that are more stringent than national regulations.

Trend in Atmospheric Emissions by Substance

Item	Unit	FY2020	FY2021	FY2022
HCl	t	25	39	36
NOx	t	439	480	530
SOx	t	163	124	150
Soot and dust	t	39	33	25

Trend in Water Emissions by Substance

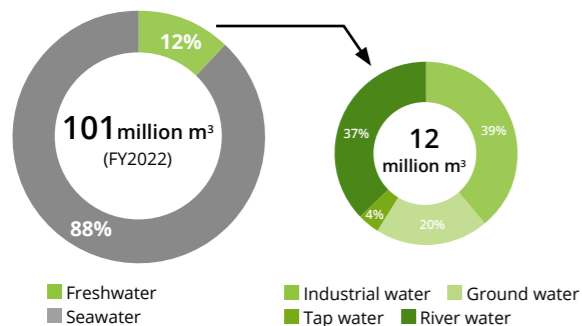
Item	Unit	FY2020	FY2021	FY2022
COD	t	360	423	222
BOD	t	66	50	52

Managing the Use of Water Resources

Every year, the DOWA Group confirms the status of water intake sources and drainage destinations in addition to water usage at production sites in Japan and overseas. We are promoting initiatives to reduce the amount of water used throughout the Group by improving our facilities and recycling water throughout our processes.

A large portion the water resources used by the Group is seawater that the Nonferrous Metals Business and our private power generation use for cooling purposes.

Water Resources



Freshwater Utilization (Water Intake)

Item	Unit	FY2020	FY2021	FY2022
River water	Million m ³	4.8	4.9	4.4
Industrial water	Million m ³	4.6	4.7	4.7
Ground water	Million m ³	2.8	2.8	2.5
Tap water	Million m ³	0.4	0.5	0.5
Total	Million m ³	12.7	12.9	12.1

Drainage Water

Total drainage in fiscal 2022 was 99 million m³, about the same amount as in fiscal 2021. Similar to other water use, the majority of drainage water is used by the Nonferrous Metals Business for cooling purposes. After being checked for quality, this water is returned to its original source. The DOWA Group is committed to water quality, and its efforts to do so include water management at each business location and compliance with strict, self-imposed standards in addition to drainage water regulations.

Biodiversity

The DOWA Group draws from its Biodiversity Policy to minimize the impact that its business activities have on biodiversity, and it is actively promoting the conservation of biodiversity through social action programs.

[Biodiversity Policy]
<https://www.dowa-csr.jp/en/about/biodiversity>



Conserving Biodiversity during Mine Development

We promote mineral exploration and development projects for zinc mines to ensure a long-term zinc supply. Since mine development and operations have a large impact on the natural environment and local communities, we give careful consideration to the ecosystem and the water environment. Even at overseas mines currently under development, we are taking appropriate measures that begin from the mineral exploration stage onward in order to minimize the impact on the environment, such as regular environmental monitoring and environmental assessments that include ecosystem surveys and water quality assessments.

TOPICS

Planting Forests in Kosaka, Akita Prefecture

In Kosaka, which since the Meiji era has lost a lot of forest due to the impact of exhaust gasses and deforestation by the mining and smelting industry, progress in forestation has been made with the planting of black locust and Japanese cedar trees after WWII. However, while the black locust is highly fertile, it is a species of tree with a relatively short life span, and it shifts to a period of decline in its growth cycle. The Group started planting trees in 2006. We aim to create a natural and stable forest so that, different from an artificial forest, it does not require maintenance by humans. We have worked to restore the original vegetation of the area by "making a local forest with local trees."



Under the guidance of the Japanese Center for International Studies in Ecology, we have completed planting about 200,000 trees by 2023. The seedlings planted in the first year have grown a lot, and now form a small forest.

Conserving Biodiversity during Procurement

Since the DOWA Group's manufacturing businesses are centered on nonferrous metals, excluding water it does not use biological resources as its main raw materials. However, as we do use paper at all of our domestic and overseas business locations, the entire Group purchases large amounts of paper each year. For this reason, we use paper made from a mixture of old paper and forest-certified wood pulp for photocopy paper and pamphlets while making every effort to use sustainable biological resources. When selecting paper suppliers, the Group not only confirms that the paper itself is environment-friendly but also verifies that said suppliers carry out sustainable paper procurement based on its CSR Procurement Policy.

Confirmation Items for Responsible Paper Procurement

- Establishment of a procurement policy for wood feedstock
- Establishment and operation of a management system that confirms the legality of the wood feedstock
- Can provide information about the supplier of raw material pulp

Managing Suspended or Closed Mines and Tailing Dams

We have established voluntary standards that are stricter than mining laws and regulations for the management of over 20 closed mines and over 30 tailing dams, most of which have suspended operations or closed down. By doing so, the DOWA Group is working to prevent mine pollution and maintain and improve safety.

Environmental Preservation: For more information on managing closed mines and tailings dams, please follow this link.
<https://www.dowa-csr.jp/en/esg/environment/conservation>



Materiality 5 Ensuring Occupational Safety and Health

Occupational safety and health is one of the most important themes in DOWA's efforts to leverage its business toward sustainability. Therefore, the Company conducts safety-related activities based on the basic philosophy of "safety takes priority over everything" grounded on annual plans formulated from risk management planning for all businesses domestic and overseas. The DOWA Group's safety and health activities cover all workers involved, including subcontractors and contractors.

Safety and Health Policy

- All people connected to the Group will voluntarily take action to improve safety and health and will aim to prevent accidents, occupational injuries, and illness.
- To prevent accidents and occupational injuries, we will actively remove hazards and reduce risks.
- We will help employees improve their physical and mental health, aiming to create safe and comfortable workplaces.

[Safety and Health Policy]

<https://www.dowa-csr.jp/en/about/health-safety>



Promotion System

Under the Group's system for promoting safety management, a director of DOWA Holdings serves as the person responsible for environment and safety for the Group, and the Environment & Safety Department selects safety and environment personnel from each operating company who work together to conduct safety management activities.

The director in charge of human resources at DOWA Holdings is responsible for the safety and health management activities. They promote these activities throughout the Group while developing and building a system to promote them in the human resources departments, safety departments, occupational health physicians, and health insurance associations of each Group company. The Sustainability Subcommittee holds Groupwide discussions on occupational safety and health. Matters flagged as important by the Sustainability Subcommittee are reported to the Sustainability Committee, which is above the Sustainability Subcommittee, and further important matters are reported to the Board of Directors. The Board of Directors provides oversight on safety and health.

Achievements and Targets

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Improvement of management system	Ratio of business locations operating under the DOWA's EHS-MS	7%	100% (by March 31, 2025)
Prevention of recurrence of work-related accidents	Frequency rate (including dispatch workers, excluding contractors)	1.22	0.7 (fiscal 2024)
	Severity rate (including dispatch workers, excluding contractors)	1.16	0.01 (fiscal 2024)
Promoting health management	Ratio of employees who received regular medical examinations	91.2% (Tokyo area)	100% (Groupwide)

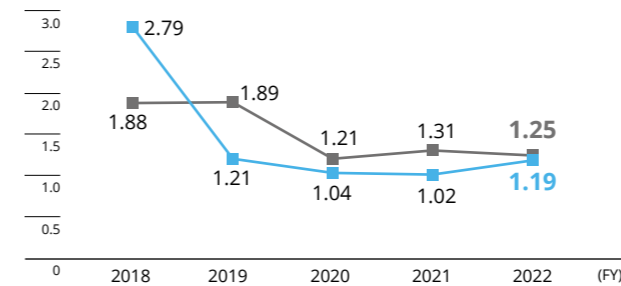
Rebuilding and Operating Our Environment, Health, and Safety Management System

The Environment, Health, and Safety Management System (EHS-MS) is defined as the integration of our environmental management system (ISO 14001) and occupational health and safety management system (ISO 45001). We aim to cooperate in compliance with these ISO standards. Under the Midterm Plan 2024, we aim to build and operate this EHS-MS at all business sites and to have internal control over the Environment (E) and health and safety (HS) for the entire Group. To achieve our goals, we will strive to prevent accidents by improving the management level of each of our two management systems, the environment and health and safety, while utilizing them. In addition, in fiscal 2022, we prepared the EHS-MS Manual, which clarifies roles, responsibilities, and authorities between DOWA Holdings and operating companies. We structured the manual in line with ISO standards to realize an occupational health and safety management system based on risk management that can operate, be maintained, and undergo improvement. We are expanding this manual to the entire Group, referring to examples of prior sites that have already implemented this manual.

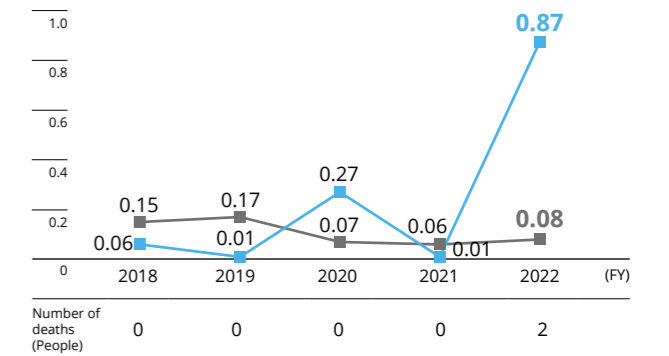
Work-Related Accidents

Although the number of accidents for the Group as a whole has been declining over the long term, due to the occurrence of a serious industrial accident in February 2023, the frequency rate was 1.19 compared to 1.25, with an intensity rate of 0.87 compared to 0.08, in comparison with the figures for establishments of the same size in the accident statistics by the Ministry of Health, Labour and Welfare. We will continue to implement various safety measures and strengthen our safety management system.

Change in the Frequency Rate of Accidents at Work



Change in the Severity Rate of Accidents at Work



■ DOWA Group ■ Same-sized business site average (Ministry of Health, Labour and Welfare statistics for manufacturing industries with 100 or more employees)

Cooperating companies and contractors have not been included when calculating these figures. Totals have been calculated for accidents requiring one or more days of leave.
 Frequency rate: Indicator showing the frequency of accidents by the number of dead and injured people due to accidents at work per one million total working hours
 Severity rate: Indicator showing the degree of accident severity by the number of working days lost per 1,000 total working hours

Prevention of Recurrence of Work-related Accidents

We have established a unique system to strongly support improvement by designating business sites with serious accidents and business sites with a high frequency of occupational accidents as designated business sites and semi-designated business sites, respectively. The Safety and Environment Personnel Council, consisting of safety personnel from DOWA Holdings and all operating companies, provides support and guidance to the designated and semi-designated sites to improve their safety systems. We are working to improve the safety level of the entire Group by holding discussions based on diverse perspectives and addressing our issues.

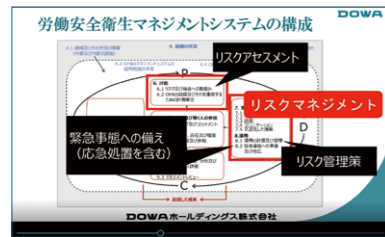
Initiatives for Accident Sites

Designated Sites	<ul style="list-style-type: none"> • Targets sites designated as Special Guidance Workplaces for Safety Management under the Industrial Safety and Health Act • Initiatives for strengthening on-site safety and fostering a culture of safety
Semi-designated Sites	<ul style="list-style-type: none"> • Targets sites that the operating company considers particularly in need of accident countermeasures • Selection of improvement themes according to the target company • Promotion and support of improvement
Inspections of Sites with Serious Incidents	<ul style="list-style-type: none"> • Deep dive into factor analysis • Validation of measures • Safety audit

Promoting Safety Education

We provide training on health and safety at each of the Group's production sites. To this end, DOWA Holdings provides training to promote knowledge and understanding of health and safety issues common to the entire Group.

In fiscal 2022, per the Group's policy on the establishment and operation of the Environment, Health, and Safety Management System (EHS-MS), we conducted an e-learning program to promote understanding of the EHS-MS. We also worked to promote understanding and penetration of the management system that the Group aims to follow. In addition, we conducted risk assessment assessor training, occupational health and safety compliance evaluator training, seminars aimed at understanding occupational health and safety, and compliance seminars, with a total of 412 employees participating.



E-learning example (Occupational Health and Safety Management System: Overview, Roles, and Responsibilities)



Risk assessment assessor training



Compliance seminar

Strengthening Risk Assessment

Establishment of Risk Assessment Guidelines

The entire Group has been implementing risk assessment initiatives Groupwide for many years. We have established Risk Assessment Guidelines to further improve our risk assessment practices. The guidelines clarify management's responsibilities and set key points for conducting risk assessments starting from the source of the hazard.

Key Points of Review in the Risk Assessment Guidelines

1. Criteria for determining which plans require risk assessment
2. Management's responsibility
3. Risk assessment operation check functions
4. Identification and recognition of hazardous sources
5. Residual risk management

DOWA Group Risk Assessment Award Presentation Event

The DOWA Group Risk Assessment Award Presentation Event has been held annually since 2011 to share the excellent initiatives of each Group company and to raise the level of safety-related initiatives at each company through personal interaction. In fiscal 2022, seven excellent initiatives were selected from 78 applications through a preliminary screening process. Presentations and awards were made, followed by a lively discussion on the initiatives of each company.



At the 12th annual Risk Assessment Award Presentation Event

Promoting Health Management (*Kenkokeiei*)

The DOWA Group has formulated the DOWA Group Health Management Declaration and promotes a variety of health-related measures

The DOWA Group Health Management Declaration

The DOWA Group will strive to maintain and improve the health of all people employed within the Group including their families and create a workplace where employees can work actively and with healthy body and mind.

Efforts to Maintain and Improve Health

- Measures to understand the health status of employees and their families and offer health guidance, aimed at detecting illnesses early and preventing exacerbation
- Measures to improve the workplace environment and promote diverse workstyles, aimed at establishing a health-friendly infrastructure
- Measures to promote lifestyle improvements, aimed at promoting individual health

The Group takes health management measures for employees and their families beyond those required by law, such as gynecological and family checkups and subsidies for immunizations. We have also set up a special hotline for telephone and in-person consultations with a professional counselor (clinical psychologist).

Furthermore, we take seriously the health challenges posed by global infectious diseases (including pulmonary tuberculosis, HIV/AIDS, and malaria), and our Group is proactively responding to these challenges. We alert our employees to these global health issues by educating those posted overseas about infection prevention. For early detection of tuberculosis, in particular, regular health checkups, including chest x-rays, are conducted.

Certified Health & Productivity Management Outstanding Organization

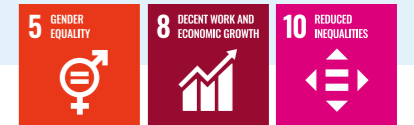
In March 2023, the following companies from our Group were named a Certified Health & Productivity Management Outstanding Organization (Large Enterprise Category) under the Certified Health & Productivity Management Outstanding Organization system by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi.



Companies that are Certified Health & Productivity Management Outstanding Organizations

DOWA HOLDINGS CO., LTD.	(First time certified)
DOWA ECO-SYSTEM CO., LTD.	(First time certified)
DOWA METALS & MINING CO., LTD.	(First time certified)
DOWA ELECTRONICS MATERIALS CO., LTD.	(First time certified)
DOWA METALTECH CO., LTD.	(First time certified)
DOWA THERMOTECH CO., LTD.	(First time certified)
ECO-SYSTEM CHIBA CO., LTD.	(First time certified)
ECO-SYSTEM SANYO CO., LTD.	(First time certified)
KOWA SEIKO CO., LTD.	(Certified for two consecutive years)
DOWA METAL CO., LTD.	(First time certified)

Materiality 6 Increasing Organizational Power



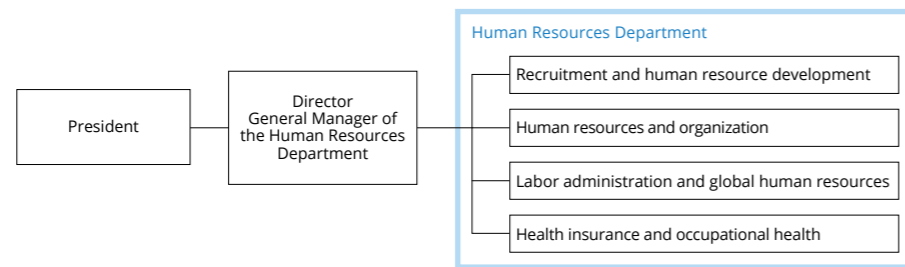
At the DOWA Group, we believe that human resources are at the core of all of our business activities. We have overcome challenges in our long history by mobilizing each individual person working on the front line of development, manufacturing, marketing, and management, etc., in the DOWA Group and by squarely facing and addressing problems that have emerged at different times. To achieve the sustainable development of the DOWA Group and to continue to be a corporate group that is truly needed by society, we aim to maintain corporate growth by combining the efforts of each member who shares our Corporate Mission.

[Policy for Human Resources Development]
<https://www.dowa-csr.jp/en/about/human-resource>



Governance

Governance regarding human capital is integrated into the overall Group governance. The Human Resources Department of DOWA Holdings is taking the lead in strengthening the Company's organizational capabilities while collaborating with other divisions, operating companies, and business sites. The department comprises four sections, which are responsible for recruitment and human resource development, human resources and organization, labor administration and global human resources, and health insurance and occupational health, respectively.

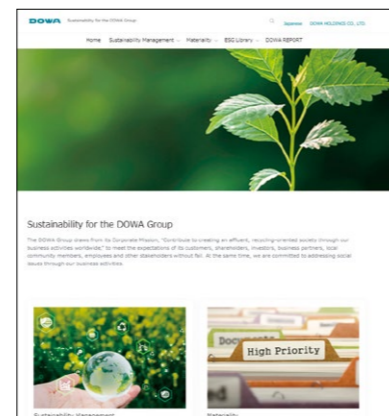


Disclosure of Human Capital

The Group regards the abilities of “people” as an important element that contributes to our value creation as “capital” and strives to collect and visualize information on human capital to link it to medium- to long-term corporate value enhancement. In addition, we are continuously strengthening our information disclosure efforts.

In fiscal 2022, we worked to enhance the disclosure of sustainability information on our website. In particular, in human capital, we promoted the disclosure of a wide range of data, including diverse work styles and diversity. We worked to promote understanding of our Company by presenting it along with our aspirations and policies.

[Sustainability for the DOWA Group]
<https://www.dowa-csr.jp/en>



Initiatives

The Vision (our goal in 2030) as it relates to human capital is to be an organization that continues to grow as it strives to create economic and social value. We have defined such an organization as meeting the following three conditions.

- A collection of people that sympathize with the value and role our business has in helping resolve wide-ranging social issues
- An organization that emphasizes teamwork and communication and can demonstrate results Groupwide
- An organization that is open to diverse workstyles and utilizes diverse human resources to accept changes and challenges

To achieve this vision, we have set important themes in promoting initiatives.

1. Securing human resources and developing core human resources
2. Developing human resources and promoting organization building that will create change
3. Establishing diverse workstyles
4. Promoting diversity and spreading awareness of human rights
5. Promoting DX initiatives among human resources

Securing Human Resources and Developing Core Human Resources

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Reduction of resignation rate	Average retention rate three years after joining the Company (for new graduates at DOWA Holdings)	85%	Maintain 100% rate
	Implement job satisfaction surveys for employees	Began survey implementation	Conduct surveys on a regular basis

In fiscal 2022, as part of our efforts to secure human resources, the cornerstone of our business development, we worked to strengthen our recruiting capabilities at each of our Group companies. At a meeting of labor relations managers, we shared the concept of planned recruitment, how to develop a recruitment plan, good practices in handling recruitment among Group companies, and actual recruitment know-how, and promoted the creation of a system for planned recruitment at each company.

To reduce the turnover rate, we have strengthened interviews to prevent a feeling of mismatched employment after joining the Company by providing prospective employees with specific information on a wide range of topics, including job content, workplace environment, and corporate culture, to ensure that they understand all the details before joining. After joining the Company, pre-assignment and second-year interviews are conducted to improve retention rates. In addition, we launched a job satisfaction survey in fiscal 2022 to gather employee opinions.

TOPICS

Company Housing and Dormitories for Single Employees

The Group's major manufacturing sites have company housing and dormitories for single employees. In areas where company housing or dormitories are not available, the Company provides rented housing to employees. In recent years, company housing and dormitories for single employees have become outdated, and we have been sequentially rebuilding or outfitting them to ensure comfort by improving the living environment and stimulating interaction among employees.



Dormitories for single employees in Kosaka, Akita Prefecture that were renewed in 2018

Developing Human Resources and Promoting Organization-Building That Will Create Change

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Disclosure of Policy for Human Resources Development (Formulate policy and disseminate via the DOWA corporate website and the in-Company portal site)	Formulation of a human resource development policy and to be published inside and outside the Company	Establishment of a Policy for Human Resources Development and implemented internal and external disclosure (October 2022)	Announce and disseminate policy
Development of global human resources (Build a system to impart basic knowledge necessary for overseas assignments to be implemented one year prior to assignment)	Implementation of education before overseas assignments and expansion to include post-assignment education	Began post-assignment online education	Continue implementation of educational programs

We established our Policy for Human Resources Development in October 2022 and announced it inside and outside the company. We are developing employee education and training plans based on this policy. We will ensure that all employees know and familiarize themselves with this policy through various training programs.

[Policy for Human Resources Development]
<https://www.dowa-csr.jp/en/about/human-resource>



Creating an Environment for Human Resource Development

We have established the following policies as initiatives to develop an environment to cultivate human resources.

- Enhancing training programs for employees working on the frontlines in the field
- Preparing enhanced online training programs that employees can take if they wish to learn regardless of day, time, or location
- Introducing an organizational operation program to increase team strength by utilizing members' strong points to concentrate the strengths of each employee instead of individual abilities

From new employees to managers, the DOWA Group has established stratified education according to job classification and has set up an educational system of selective education in order to nurture the next generation of leaders at each level of the organization.

In fiscal 2022, we reformed our internal education system, shifting from focusing on group training to selective training and creating a system that provides fair opportunities for those willing to learn. Specifically, we have established and begun operating an environment where online training is freely available. As we move forward, we aim to create a culture of self-directed learning by making it obligatory for employees to participate in online training programs while taking advantage of the benefits of online training, which can be taken without being restricted by schedule, time zone, or region.

TOPICS

Full Renovation of the Training Center

Our training center was fully renovated in March 2023. In implementing this renovation, we restored functions that had deteriorated over time and improved the facility to accommodate online training courses in the rooms, strengthening the function of promoting employee interaction.

Since the renovation, we have also resumed face-to-face training for the first time in around four years, also due to the relaxation of basic measures for COVID-19 by the government.



Establishing Diverse Workstyles

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Greater support for balancing childcare and nursing care with work	Increase in the ratio of men that take childcare leave	61.7%	100% (fiscal 2024)
Reduction of working hours (Manage total working hours and establish targets for the taking of annual paid leave)	Increase in the ratio of annual paid leave days taken	79.5%	80% or higher

Supporting Both Ways

In addition to a flextime system with no core hours and a refresh leave system that can be taken after a certain number of years of service, we have established support measures beyond those stipulated by law, such as paid maternity and childcare leave and partial subsidies for childcare expenses. We are working to provide information and raise awareness to help employees obtain such leave.



In fiscal 2022, as part of our efforts to support employees in balancing work with childcare and nursing care, we established a Childcare and Nursing Care Web Portal on our intranet to spread information on company policies and internal systems. In addition, we expanded the childcare period of employees eligible for shorter working hours for childcare and the regional work system (limiting the area to which employees are transferred) up to the third grade of elementary school, thereby promoting greater flexibility in working hours and conditions. Furthermore, we are strengthening internal awareness of the need to increase the percentage of men taking childcare leave.

TOPICS

Regional Work System

Our Group's career-track employees are expected to work in a manner that allows them to gain experience while relocating throughout Japan. However, in recent years, there has been an increasing number of cases in which employees have been forced to leave their jobs due to difficulties working with temporary transfers for reasons such as childcare or nursing care. In response to these circumstances, we introduced a regional work system in 2021 that allows employees to limit the scope of their transfers within a specific area for a certain period. This system is designed to be available to a wide range of employees, from those in their fourth year of employment and beyond to managers, although they must meet requirements such as being engaged in childcare or nursing care.

Through this program, we support all employees of our Group in balancing work and childcare/nursing care.

Labor Time Management

We are working to prevent long working hours and encourage employees to take paid leave so they can work vigorously and in good health, both mentally and physically, and fulfill both their work and personal lives. As part of our efforts in work-style reform, we have set a Group policy of reducing total annual actual working hours to less than 2,000. We promote efforts to control and provide guidance on long working hours every month. The time and attendance system managed by the head office manages working hours using computer logs. It requires employees who exceed a certain number of hours to submit an improvement plan to management. We also require employees who work long hours to meet with an occupational health physician as a part of our efforts to manage working hours from both tangible and intangible aspects to optimize working hours.

Promoting Diversity and Spreading Awareness of Human Rights

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Promotion of the participation and advancement of women	Increase in the ratio of new hires who are women (DOWA Holdings)	32%	30% or higher
Promotion of the participation and advancement of employees up to the age of 65	Introduction of an option to postpone retirement	Introduced to major business subsidiaries	Introduce a Groupwide system
Protection of human rights	Elimination of harassment	Implementation of harassment training	Continue to implement training
Promotion of the participation and advancement of people with disabilities	Ratio of employment of people with disabilities	2.7% (DOWA Holdings) 1.5% (Groupwide)	2.3% or higher (Groupwide)

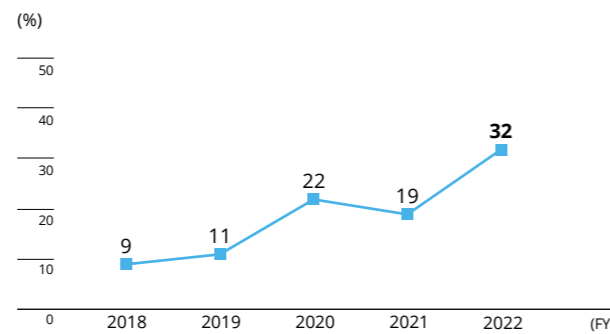
Based on the belief that a diverse workforce with various values and perspectives that can fully demonstrate their individuality and abilities will lead to the growth of the Company, we are working to expand diversity.

Promotion of the Participation and Advancement of Women

We make no distinction in the way we work based on gender, and women in our workforce, both in Japan and overseas, are active in a wide range of fields, including manufacturing, R&D, production management, planning, and sales. Similarly, in hiring, promotion, and advancement, we conduct evaluations based on merit. At the same time, to address the issue of low retention rates among women compared to men in our workforce, we have set a goal of increasing the percentage of women who continue to work after 10 years of employment to 80% or more, the same level as men, and are working to achieve this goal.

As part of our efforts to increase the retention rate, we are developing systems to support work-life balance, such as a flextime system, subsidies for childcare expenses, and expanding the number of employees eligible for shorter working hours due to childcare. We also conduct diversity career training for women and diversity management training for managers to educate and raise awareness. We will continue to support the career development of women while aiming to be a company where people want to work for a long time, regardless of gender.

Ratio of New Hires Who Are Women (DOWA Holdings)



Promotion of the Participation and Advancement of Employees Up to the Age of 65

To cope with the future decline in the working population and to build a society where older workers can remain active for a longer period, we have decided to raise the maximum retirement age for all Group companies to 65 years old. In fiscal 2022, we expanded this policy to our major business subsidiaries and have completed implementation at 35 out of a total of 52 companies so far (implementation rate of 67%). We also aim to expand the number of companies to another 15 or more in fiscal 2023 and to complete the introduction of this policy to all DOWA Group companies by the end of fiscal 2024.

In addition, the Company holds life planning seminars for employees who have reached a certain age, to provide information on second careers after retirement.

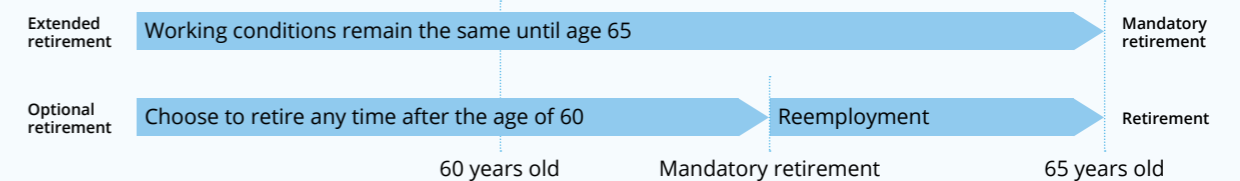
TOPICS

Initiatives to Extend Retirement Age

The Group is promoting measures to raise the maximum retirement age for all Group companies to 65. DOWA Holdings, which introduced the extended retirement age first, has raised the mandatory retirement age to 65 years old, allowing employees to work under the same working conditions as before until they reach the mandatory retirement age.

At the same time, the Group introduced an optional retirement system, which allows employees to choose to retire before reaching the age of 65 if they desire to be rehired after retirement, with changes to working conditions. In addition, full retirement benefits are still available even when the optional retirement system is applied.

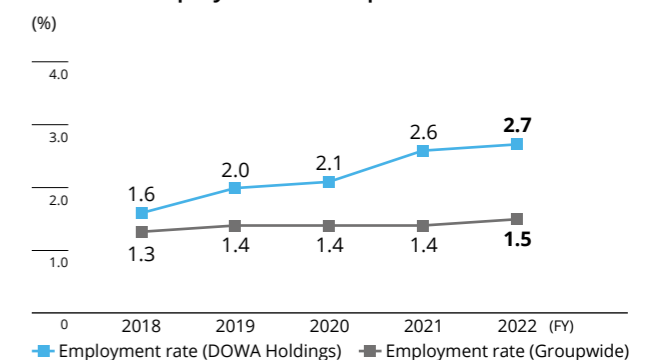
Extended and Optional Retirement Concept



Employment of People with Disabilities

Concerning the employment of people with disabilities, we will make efforts to create a workplace environment where people with disabilities can work comfortably and play an active role by preparing to accept people with disabilities to meet the legally mandated employment ratio.

Status of Employment of People with Disabilities



Protection of Human Rights

The Group's human rights policy clearly supports the International Labour Organization's (ILO) Declaration on Fundamental Principles and Rights at Work. We support and respect fundamental rights at work (freedom of association and the effective recognition of the right to collective bargaining, the elimination of all forms of forced or compulsory labour, the effective abolition of child labour, the elimination of discrimination in respect of employment and occupation, and a safe and healthy working environment).

[Human Rights Policy]

<https://www.dowa-csr.jp/en/about/human-rights-policy>



Views on Minimum Wage and a Living Wage

- We pay our employees above minimum wage in compliance with all wage laws, including minimum wage, overtime, and statutory benefits. We also satisfy the living wage in each country or region we operate in.
- Overtime allowance is paid at a premium to the regular hourly pay rate per local laws.
- The details of payroll payments are communicated to employees at the appropriate time via pay stubs or equivalent documentation.

Working Hours

- We manage working hours following the laws of each country and make every effort not to exceed the respective regulations.
- We strive to control long working hours so that the weekly overtime does not exceed 60 hours per month, except in pressing emergencies.
- Employees are allowed at least one day off per week.
- In addition to managing weekly working hours, we strive to properly manage overall working hours through compensatory time off and the flex system.

Theme	Policies and examples of initiatives
Prevention of child labor	We only hire workers who are at least 18 years of age.
Prevention of forced labor	Applications from applicants are considered as a prerequisite for employment, and applicants are notified of their acceptance after one or more rounds of employment screening. We always present working conditions before employment, and employment begins upon agreement with the applicant.
Communication between labor and management	The Company respects the right of employees to organize and bargain collectively as a means of realizing labor-management consultations. To realize the creation of a comfortable workplace and the development of the Company, we hold regular labor-management meetings, central labor-management conferences, and other dialogues at various levels with the labor union to explain matters related to management policies and business plans and to discuss other matters such as working hours management and matters that have a significant impact on employees.
Prevention of overwork	As part of our effort to prevent overwork and promote work-style reform, we have set a Group policy of reducing total annual actual working hours to less than 2,000 hours. We are promoting monthly efforts to control and provide guidance on long working hours.
Living wage above minimum wage	We comply with the minimum wage set by Japan and each country worldwide to which our employees are assigned. For our employees working outside of Japan, we look at the minimum wage in each country. Still, above that, we set our wages to a livable amount based on the price level and lifestyle in each country.

TOPICS

Establishment of Human Rights Response Preparation Team

To further accelerate our human rights response efforts, we formed and kicked off a Human Rights Response preparation Team under the umbrella of the Sustainability Subcommittee in September 2023. The team will be headed by the General Manager of the Sustainability Committee and will work across the Group.

Internal Reporting System

To identify human rights risks and potential impacts associated with corporate activities and to aim for a safer and more comfortable work environment for employees, we have established the DOWA Consultation Desk, where employees can consult directly with outside attorneys. Confidentiality and no disadvantageous treatment of whistleblowers is guaranteed, and the Company makes these known through the intranet, posters, Group newsletters, and other media.

Training

To promote human rights initiatives, we conduct harassment training for managers throughout the Group.

In fiscal 2022, an outside lawyer in charge of the DOWA Consultation Desk inquiries section was invited to lecture on harassment. In addition, the Company strives to prevent harassment in the workplace by posting posters at its offices and spreading information via the intranet and other means.

Promoting DX Initiatives Among Human Resources

The DOWA Group is promoting digitization efforts to integrate the vast amount of HR-related data held by the DOWA Holdings Human Resource Department for use in various HR measures, such as finding human resources, effective human resources development, and fair treatment.

In fiscal 2022, we introduced a cloud-based HR information management service to promote integrated management of backbone core systems and recruitment-related information, creating an environment that allows us to visualize and analyze data. As we move forward, the system will promote the efficient use of information and organizational and human resource management.



DOWA Consultation Desk

Materiality 7 Promoting Risk Management

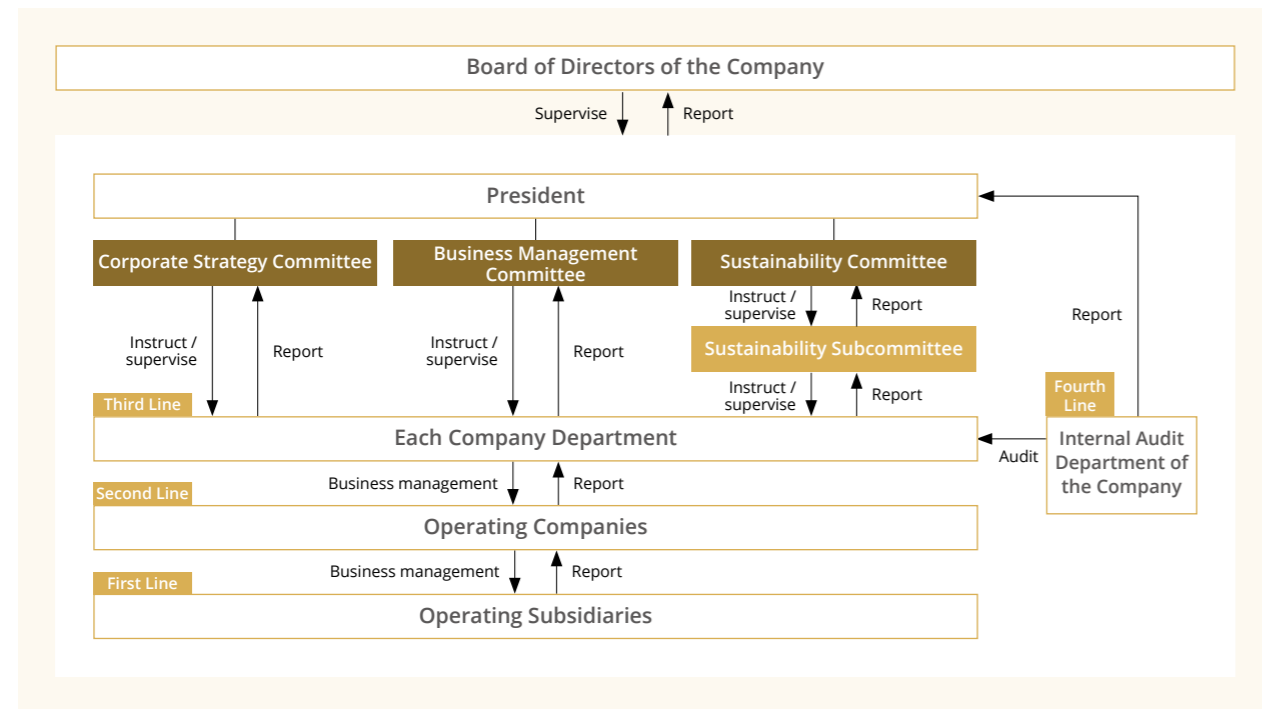
The DOWA Group engages in making its risk management more sophisticated to prevent situations that could have a major impact on its business and to prevent or mitigate damage in the unlikely event such a situation comes to pass. In addition, we will continue efforts to enhance and perfect our risk management flow, which involves identifying apparent and potential risks at each operating company, implementing countermeasures, reviewing them, and conducting audits.

[Risk Management Basic Policy]
<https://www.dowa-csr.jp/en/about/risk-management>



System for Risk Management

The Group has established a risk management system based on the Four Lines Model for internal control, modeled on three lines of defense. The Operating subsidiaries responsible for production and other operations (first line) and the Operating companies that oversees them (second line) develop a risk management cycle that includes periodic risk assessments. In contrast, each DOWA Holdings division (third line) as the holding company provides necessary instructions, supervision, and support. The Internal Audit Department of DOWA Holdings (fourth line) conducts internal audits to evaluate the effectiveness of these measures.



Definition and Assessment of Risk

The Group classifies risk into four major categories: economic risk, strategic risk, operational risk, and hazard risk. Each classification includes scenarios and integrated risk management regarding COSO and JISQ2001.

Classification of the Group's Risks and Details of Discussions at Each Meeting

	Economic risk	Strategic risk	Operational risk	Hazard risk
Corporate Strategy Committee				
Business Management Committee				
Sustainability Committee				

In fiscal 2022, each site identified and assessed the risks expected to impact business promotion in a manner consistent with these risk definitions. Responses to deal with priority risks were incorporated into the fiscal 2023 budget.

For more information on risk management, please see the link below.
<https://www.dowa-csr.jp/en/esg/governance/risk-management>



Compliance

The directors and employees of the Group utilize the DOWA Group Corporate Mission, Vision, Values, and Code of Conduct to guide them in their day-to-day business activities. In addition, our continued efforts to spread awareness of our whistleblower system, combined with the implementation of internal audits, helps with the prevention and early detection of any fraud or misconduct in the Company or at Group companies, and accordingly we take appropriate measures whenever the need should arise.

Promotion System

Centered on the General Affairs & Legal Department, which is the department in charge of compliance, DOWA Holdings has stipulated items for regulations that comprise a system of major company regulations. These include regulations for the Board of Directors, administrative authority, accounting, document handling, purchasing, and information system management. This system of regulations serves to standardize regulations across the Group and clarify the responsibilities, authority, and authorization procedures of each position. In addition, the Internal Audit Department conducts internal audits, including regular monitoring and risk assessment.

Corruption Prevention

The Group clearly states inside and outside the Company that it will prevent corruption, bribery, abuse of a dominant bargaining position, and other unfair and illegal acts. It will not treat whistleblowers who report such acts unfavorably and will not have any relationship with anti-social forces. The General Affairs & Legal Department, the supervising department at the center of our organized response to anti-social forces, collaborates with outside specialists such as lawyers as necessary. In addition, we ensure that all officers and employees comply with our standards and related laws or regulations and monitor compliance status through internal audits.

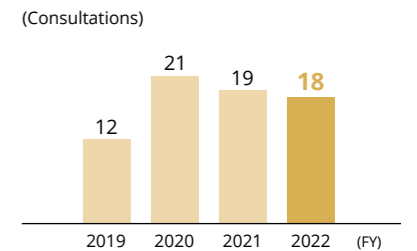
Internal Reporting System

The Company has established the DOWA Consultation Desk, which allows any Group director or employee to anonymously report and consult with outside lawyers regarding harassment, fraud, or any other improper activity.

Confidentiality concerning reports made and the protection of reporting parties against unfair treatment are both guaranteed by the DOWA Consultation Desk. Our internal reporting system is also available to all of our stakeholders, including employees of suppliers and cooperating companies.

Consultations and opinions expressed are kept confidential and are addressed promptly and appropriately. In fiscal 2022, there were 18 consultations made, and corrective action was carried out and completed in all cases where such a response was necessary.

Number of Consultations Made through the DOWA Consultation Desk (Consultations)



Prevention of Harassment

The Company has established the Rules for Harassment Prevention, a series of rules that all employees must follow in order to prevent different types of harassment. We also believe it is important to prevent the occurrence of such incidents and respond to them if they do occur. To this end, we conduct harassment training for managers throughout the Group and hold lectures delivered by outside lawyers in charge of handling reports made to the DOWA Consultation Desk. In addition, we strive to prevent workplace harassment by putting up posters in our offices and disseminating information through the Company intranet.

In fiscal 2022, outside attorneys conducted harassment training for representatives of Group companies.

For more compliance information, please see the link below.
<https://www.dowa-csr.jp/en/esg/governance/compliance>



Supply Chain Management

The DOWA Group is working to further enhance corporate social responsibility (CSR) while strengthening partnerships with its suppliers by helping them understand the importance of CSR in the supply chain. We will also work to conserve biodiversity by conducting our business activities in a manner that takes biodiversity and ecosystems into consideration throughout our supply chain.

Supplier Evaluations

The DOWA Group promotes sustainability management throughout the whole supply chain by distributing to business partners and suppliers the DOWA Group CSR Procurement Guideline, which combines elements of its CSR Procurement Policy and Code of Conduct, and by ensuring its suppliers understand its approach to sustainability adhere to the guidelines. We inform our suppliers of our CSR procurement policy and guidelines and ask them to adhere to them, especially when new transactions are initiated. We also widely publicize our policies online.

In fiscal 2015, we developed a system for auditing suppliers that involves self-diagnosis using self-checklists that confirm environmental, social, and similar aspects. In fiscal 2022, we also distributed self-checklists to approximately 140 major and new business partners and provided feedback reports to responding companies about our expectations as well as requests for improvements.

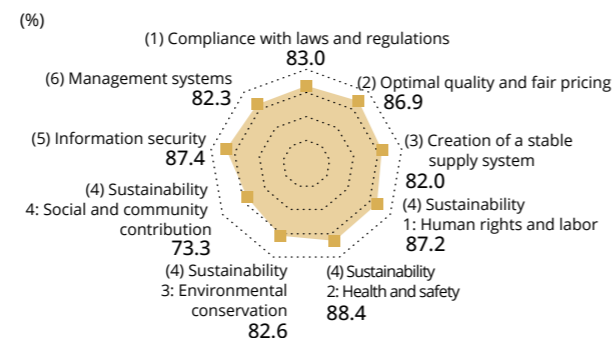
In addition, as suppliers ourselves, we may receive requests for CSR-conscious procurement from customers. Therefore, DOWA Holdings and the sales, manufacturing, procurement, human resources, general affairs, and other departments of operating companies and manufacturing subsidiaries work together to fully understand and respond to these requests.

Self-Check Assessment

The Group conducts a questionnaire based on a self-checklist to continuously monitor and evaluate the status of our suppliers' efforts in sustainability activities.

The self-checklist is a self-assessment by suppliers of their sustainability promotion system and their understanding of the true state of their sustainability efforts. We send feedback reports on the results, indicating the status of initiatives in each area, and request that suppliers whose sustainability initiatives are insufficient be more proactive.

Self-Check Assessment Evaluation Results



CSR Audits

For important suppliers, we visit them to inform them of our CSR procurement philosophy and confirm conformity with our CSR procurement guidelines. During our visit, we first explain the issues and social background surrounding the supply chain and our initiatives, then conduct interviews and document verification regarding the questionnaire results and confirm the status of site safety and environmental initiatives. In addition, a team of members from the Sustainability and Procurement Divisions conducts audits during these on-site confirmations. The team also includes personnel from our factories that use the materials in question to strengthen relationships of trust with our suppliers and to further promote CSR procurement activities within the Company.

For more information on supply chain management, please see the link below.
<https://www.dowa-csr.jp/en/esg/social/supply-chain>



Quality Assurance

We regard quality as an important management criterion in manufacturing and have established a quality assurance policy. Our major manufacturing plans are certified to ISO9001 and other international standards for quality management systems. We strive to improve the quality of our products and services through continuous operation based on the PDCA (Plan-Do-Check-Act) cycle. As part of our efforts to strengthen quality assurance, we also focus on ensuring the quality of procured products. With the cooperation of our suppliers, we conduct supplier surveys and audits at appropriate frequencies to ensure the quality of raw materials and sub-materials from the aspects of quality and technology.

[Quality Assurance Policy]

<https://www.dowa-csr.jp/en/about/quality-assurance>



Promotion System

The quality assurance system that the Group has built, which is headed by the president, allows us to provide an appropriate response to customer opinions and demands related to quality. In April 2021, we established the Quality Assurance Department at DOWA Holdings to further enhance our Groupwide quality risk management system. Regarding employee education, we have created a Companywide education system that includes governance and compliance training. In addition, we have introduced cross-sectional, quality-related education to quality assurance managers as well as quality-related compliance training to new employees. The Sustainability Committee, which was newly established in April 2022, brings together members from throughout the Group to discuss medium- to long-term risk management issues related to quality and to track the progress of measures implemented to respond to these issues.

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Creation of an ISO 9001- or OHSAS-compliant system	Compliance rate of business locations that create products	78%	80% (fiscal 2024)
Establishment of quality assurance education	Number of participants	169	350 total (fiscal 2022 to 2024)

Strengthening the Mechanism

Quality Assurance Managers Meeting

To discuss issues and ways to proceed with quality assurance throughout the Group, we established the Quality Assurance Managers' Meeting in fiscal 2022, attended by the DOWA Holdings Quality Assurance Department and quality assurance managers from each business company and each business support company. In fiscal 2022, the meeting was held quarterly at four sites in Japan (Nagoya, Akita, Tokyo, and Hamamatsu) to establish a framework for quality assurance and share issues.

Quality Assurance District Meetings

The quality assurance departments at each manufacturing site are responsible for the quality assurance of the Group's products and services. However, since there is only one quality assurance department per site, there was difficulty in sharing information. To this end, a Quality Assurance District Meeting was established in fiscal 2022 as a forum for the quality assurance departments of each site to exchange information and personnel across the Group. The Quality Assurance District Meetings aim to identify issues and other challenges facing each manufacturing site and to address and support issues raised by the DOWA Holdings Quality Assurance Department.

For more information on quality control, please see the link below.
<https://www.dowa-csr.jp/en/esg/social/quality-control>



Materiality 8 Strengthening Corporate Governance

As the Group contributes to society, strengthening corporate governance is one of its priorities, thus it is making Groupwide efforts to establish effective internal control systems that are appropriately composed and managed, based on the DOWA Group's Corporate Mission, Vision, Values, and Code of Conduct.

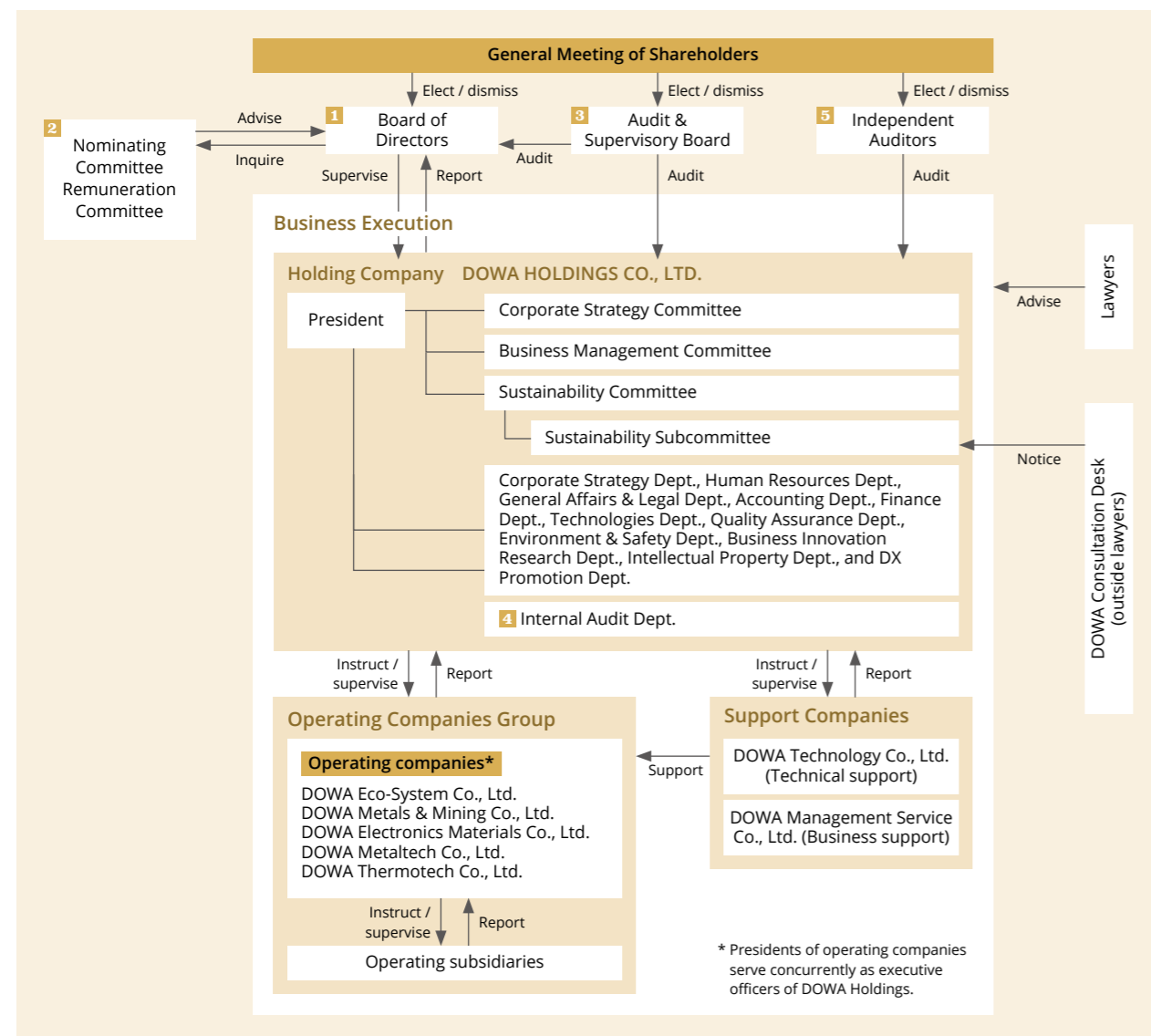
Corporate Governance Promotion System

The Company employs a holding company structure that enables it to have a deeper grasp of customer needs at the ground level of the market and enables swift decisions to be made with authority. This structure also allows us to separate our core businesses into subsidiaries, which in turn facilitates more flexible and bolder management in accordance with the characteristics of each core business, and to allocate management resources to Group companies in an optimal manner, thereby working to maximize corporate value by realizing the sustainable growth of the Group.

The Company is a company with an Audit & Supervisory Board. In addition, to speed up decision-making and improve efficiency, the Company has adopted an executive officer system and aims to improve the supervisory function of the Board of Directors by clarifying management responsibility by appointing nine directors (the maximum number of directors is 13) with a term of office of one year.

Organizational form	Company with an Audit & Supervisory Board
Number of directors	9 (including 3 outside directors, all of whom are designated independent officers)
Number of Audit & Supervisory Board members	4 (including 3 outside members on the Audit & Supervisory Board, all of whom are designated independent officers)

The DOWA Group Corporate Governance Structure (As of June 28, 2023)

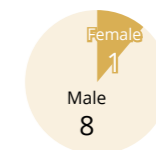


1 Board of Directors

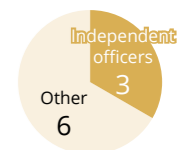
The Board of Directors consists of nine directors (eight men and one woman), including three outside directors, and its meetings are also attended by four Audit & Supervisory Board members, three of whom are outside Audit & Supervisory Board members. The following shows the Board of Directors meetings held in fiscal 2022 and the attendance of each director.

Position	Name	Attendance at Board of Directors Meetings (Attendance/Number of Meetings)
Committee Chairman and Representative Director	YAMADA Masao	100% (15/15)
President and Representative Director	SEKIGUCHI Akira	93% (14/15)
Director	TOBITA Minoru	100% (15/15)
Director	SUGAWARA Akira	100% (15/15)
Director	KATAGIRI Atsushi	100% (11/11)
Director	HOSONO Hiroyuki	100% (11/11)
Outside Director	HOSODA Eiji*	100% (15/15)
Outside Director	KOIZUMI Yoshiko	100% (15/15)
Outside Director	SATO Kimio	100% (15/15)

Ratio of Women on the Board of Directors



Ratio of Independent Officers on the Board of Directors



* HOSODA Eiji retired at the conclusion of the 120th General Meeting of Shareholders held on June 27, 2023.

Main Agendas

- Budgets, financial planning, and closing (monthly, quarterly, annual)
- Publicly disclosed materials (annual reports, governance reports, etc.)
- Remuneration system (introduction of restricted stock remuneration, individual compensation for directors)
- Subsidiary-related (additional investment, merger/dissolution, dissolution of business alliance, guarantees related to borrowings, etc.)
- Reorganization
- Valuation of cross-shareholdings
- Assessing board effectiveness
- Status of dialogue with shareholders (semi-annual)
- General Meeting of Shareholders (hosting and proposing agenda items)
- Results of voting rights exercised at the General Meeting of Shareholders
- Sustainability projects, etc.

Evaluation of the Effectiveness of the Board of Directors

The Company conducts self-assessments and analyses of the effectiveness of its Board of Directors every year to improve its functioning and, ultimately, its corporate value. For self-assessment and analysis, the following methods were used with the advice of external organizations.

Overview of Effectiveness Assessment

Evaluation Period	Mar 2023
Target group	All directors and auditors who are members of the Board of Directors
Evaluation Method	Unsigned questionnaire method by an external organization

Assessment Results

Positive Evaluation	<ul style="list-style-type: none"> · Number of members of the Board of Directors · Ratio of inside directors to outside directors · How the secretariat operates and provides materials 	
Status of Response to Challenges Identified in the Previous Effectiveness Evaluation	<ul style="list-style-type: none"> · Study of Company-wide risk assessment methods · Discussion on sustainability 	<ul style="list-style-type: none"> ▶ Improvements were confirmed by introducing Company-wide risk assessment in the mid-term plan and further developing the sustainability system. ▶ Certain improvements were seen through increased meetings with investors and the implementation of reports to the Board of Directors.
New Challenges	<ul style="list-style-type: none"> · Reflection of outside directors' opinions in discussions · Involvement of voluntary committees in determining remuneration · Support system for board members' activities 	

The Board of Directors will continue to work toward enhancing its functionality by giving thorough consideration and executing a response to the issues brought forth by this evaluation of its effectiveness.

Initiatives to Strengthen Corporate Governance

	Board of Directors and Audit & Supervisory Board	Other
Fiscal 2000		Introduced executive officer system
Fiscal 2003	Reduced number of Board members from 20 to 15 and shortened directors' terms of office from two years to one	
Fiscal 2006	Reduced number of Board members from 15 to 13	Moved to a holding company structure
Fiscal 2007	Appointed one outside director	
Fiscal 2009		Abolished hostile takeover defense measure
Fiscal 2015	Appointed one female outside director and updated governance structure to include two outside directors	Revised internal control systems
Fiscal 2017	Introduced evaluation of Board of Directors' effectiveness	
Fiscal 2018	Verified decisions to continue or discontinue cross-shareholdings at Board meeting	
Fiscal 2019		Established Nominating Committee
Fiscal 2020	Conducted an evaluation of Board effectiveness utilizing an external organization	Established Internal Audit Department
Fiscal 2021	Appointed one outside director and updated governance structure to include three outside directors	
Fiscal 2022	Expansion of reports to the Board of Directors on the status of dialogue with shareholders	Introduction of restricted stock remuneration Established Sustainability Committee

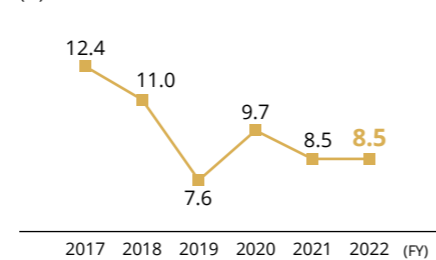
Reduction of Cross-Shareholdings

The Company positions its cross-shareholdings as those that will enhance the Company's corporate value to maintain and strengthen relationships with business partners and other parties and form a strong relationship of trust with the issuing company. For each stock, the Board of Directors makes a comprehensive judgment as to whether or not to continue to hold the stock based on whether or not it meets the original purpose of holding the stock and whether or not the benefits and risks associated with holding the stock are commensurate with the cost of capital. The Board of Directors periodically reviews the details of such judgments. If it is determined that continuing to hold stock will not enhance corporate value, we will sell the shares in order, considering the impact on the market.

In fiscal 2022, the Board of Directors examined the pros and cons of continuing to hold all listed shares held by the Group at a meeting held on December 9, 2022. As a result, we have decided to sell all of the shares of one stock held by the Company and all of the shares of one stock held by DOWA Metals & Mining Co., Ltd.

	Consolidated Overall Sales of Listed Shares
Fiscal 2018	Sold all shares of seven stocks held by the Company
Fiscal 2019	Sold all shares of one stock held by the Company
Fiscal 2020	Sold a portion of shares of one stock held by the Company
Fiscal 2021	Sold all shares of one stock and a portion of shares of one stock held by the Company
Fiscal 2022	Sold all shares of two stocks held by the Company (among which was the rest of the stocks of the stock the Company sold a portion of in fiscal 2020)

Percentage of Shares in Cross-Shareholdings in Consolidated Equity (%)



2 Nominating Committee and Remuneration Committee

The Company has established a Nominating Committee and a Remuneration Committee, both of which are voluntary committees. The executive remuneration system is designed with the advice of the Remuneration Committee. It incorporates objective perspectives such as the Group's consolidated performance, the Company's stock price, and external compensation levels. In addition, the Nominating Committee has been established to obtain objective advice on particularly important matters, such as the selection and dismissal of senior management.

In principle, both committees are composed of at least five members. Most of them are outside directors, and the Board of Directors appoints the chairpersons of the committees. The committees meet several times a year.

The following shows the meetings of both committees and the attendance of each member in fiscal 2022.

	Position	Name	Nominating Committee (Attendance / Number of Meetings)	Remuneration Committee (Attendance / Number of Meetings)
Committee Chairperson	Outside Director	HOSODA Eiji*	100% (3/3)	100% (2/2)
	Outside Director	KOIZUMI Yoshiko	100% (3/3)	100% (2/2)
	Outside Director	SATO Kimio	100% (3/3)	100% (2/2)
	Outside Corporate Auditor	TAKEDA Jin*	100% (3/3)	100% (2/2)
	Outside Expert	OZAWA Tetsuo	100% (3/3)	100% (2/2)

* HOSODA Eiji and TAKEDA Jin retired at the conclusion of the 120th General Meeting of Shareholders held on June 27, 2023.

Items for Consideration (Nominating Committee)

- Changes in directors and new management structure effective June 24, 2022
- Changes in directors and new Board of Directors effective April 1, 2023
- Regarding the skill matrix

Items for Consideration (Remuneration Committee)

- Appropriateness of remuneration for directors and corporate auditors for fiscal 2022
- Introduction of a restricted stock remuneration plan

Remuneration for Directors and Audit & Supervisory Board Members

The remuneration system for directors comprises basic remuneration, which is a fixed amount; performance-based remuneration, which considers the Group's consolidated performance; and restricted stock remuneration. This system has been designed with input from the Remuneration Committee. It is based on objective factors such as the Group's consolidated performance, the stock price of the Company, and remuneration levels outside the Company. However, this system does not apply to outside directors as they take on a supervisory role from an independent and objective perspective. Therefore, they are ineligible for any remuneration based on individual performance. As each auditor is independent from the execution of business operations, only fixed remuneration is paid to each auditor. The amount of remuneration is determined through discussions among the auditors within the total remuneration approved by the General Meeting of Shareholders.

Composition of Remuneration for Directors

Basic Remuneration	+	Performance-Based Remuneration	+	Restricted Stock Remuneration
Basic remuneration for directors is fixed remuneration paid monthly according to each director's position and results. It is determined after a comprehensive examination that accounts for Company performance, remuneration levels at other companies, and employee salary levels.		Performance-based remuneration is paid at a certain time every year. The amount paid as performance-based remuneration is determined using ordinary income as a baseline, adjusted to reflect individual performance.		Restricted stock remuneration shall be provided by granting monetary remuneration claims to eligible directors based on a Board of Directors' resolution. The directors will then pay these claims to the Company as a contribution in kind to issue or dispose of the Company's common stock with restrictions on the transfer of these shares until retirement or resignation.

Remuneration Proportions

The ratio of basic remuneration, performance-based remuneration, and restricted stock remuneration that each director receives is determined by the President and Representative Director concerning a report by the Remuneration Committee, which is based on a benchmark of companies in the same business size and related industries and business categories as those of the Company.

The President and Representative Director determines the remuneration details for each director per the calculation process established by the Remuneration Committee, which conducts a multifaceted review, including consistency with the decision-making policy established by the Board of Directors.

This authority was delegated to the President and Representative Director since the Representative Director oversees the Company's business operations, leading them to make the appropriate decisions. The Board of Directors also believes that the above involvement of the Remuneration Committee has allowed it to follow its policy of determining the remuneration details for each individual.

Total Remuneration for Directors and Audit & Supervisory Board Members with Subtotals for Each Type of Remuneration and Numbers of Recipients

Classification	Total Remuneration Paid (Millions of Yen)	Remuneration Paid by Type (Millions of Yen)			Recipients (People)
		Basic Remuneration	Performance-Based Remuneration	Restricted Stock Remuneration	
Directors*1	397	219	147	29	8
Audit & Supervisory Board members*2	26	26	—	—	1
Outside directors and outside Audit & Supervisory Board members	84	84	—	—	6

*1 Excluding outside directors

*2 Excluding outside Audit & Supervisory Board members

Total Amount of Remuneration, etc. of Persons Whose Total Amount of Remuneration, etc. is ¥100 Million or Higher

Name	Total Remuneration Paid (Millions of Yen)	Classification	Remuneration Paid by Type (Millions of Yen)		
			Basic Remuneration	Performance-Based Remuneration	Restricted Stock Remuneration
YAMADA Masao	116	Directors	67	41	7
SEKIGUCHI Akira	116	Directors	67	41	7

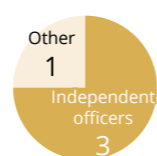
3 The Audit & Supervisory Board

The Audit & Supervisory Board of the Company comprises four members, also regarded as corporate auditors, one of whom has accounting and financial knowledge from working in the banking industry. In accordance with the audit policies and audit plans for the term stipulated by the Audit & Supervisory Board, members attend Board of Directors' meetings and other important meetings and audit the execution of directors' duties, such as reviewing status reports on such tasks from directors. They also monitor the independence of the independent accounting auditors and work with them to explain the audit plans of the independent accounting auditor and report audit findings.

Full-time corporate auditors take the lead in conducting audits by visiting domestic and overseas subsidiaries in accordance with the audit plan formulated by the Audit & Supervisory Board. After reporting to and discussing with the Audit & Supervisory Board on matters discovered during on-site inspections of subsidiaries and the status of internal reporting, the final results are circulated to said subsidiaries and related officers. In fiscal 2022, the Audit & Supervisory Board conducted on-site inspections at a total of 46 locations, and the status of meetings of the Audit & Supervisory Board and attendance by each auditor during fiscal 2022 are as follows.

Position	Name	Attendance at Audit & Supervisory Board Meetings (Attendance/Number of Meetings)	Attendance at Board of Directors meetings (Attendance/Number of Meetings)
Committee Chairperson	KINOSHITA Hiroshi	100% (15/15)	100% (15/15)
Full-time Audit & Supervisory Board member	FUKUZAWA Hajime	100% (15/15)	100% (15/15)
Part-time Audit & Supervisory Board member (Outside Corporate Auditor)	TAKEDA Jin*	100% (15/15)	100% (15/15)
Part-time Audit & Supervisory Board member (Outside Corporate Auditor)	EGAWA Shigeru*	100% (15/15)	100% (15/15)

Ratio of Independent Auditors



* TAKEDA Jin and EGAWA Shigeru retired from their positions at the conclusion of the 120th General Meeting of Shareholders held on June 27, 2023.

Main Agenda

[Resolutions]

Annual audit plan, reappointment of the accounting auditor, consent for the accounting auditor's audit fees, audit report of the Audit & Supervisory Board, consent to the proposal to appoint auditors, and consent to the comprehensive pre-agreement regarding the accounting auditor's non-guaranteed services.

[Reported Items]

Reporting of audit implementation overview, communication, and reporting to non-executive auditors (Board of Directors meeting proposals, etc.)

[Discussion and Deliberation Points]

Exchange of opinions on annual audit plans, Board of Directors meeting proposals (including annual securities reports, internal control reports, corporate governance reports, etc.), confirmation of the contents of the accounting auditor's audit report, etc.

4 Internal Audit Department of DOWA Holdings

The Group's internal audits consist of general Group audits conducted by the Internal Audit Department of DOWA Holdings (four members, including one concurrently serving in another department) and specialized operational audits conducted by each DOWA Holdings audit department and Group company. The main objectives of the Group-wide audit conducted by the Internal Audit Department of DOWA Holdings are to evaluate "internal control over financial reporting" based on the Financial Instruments and Exchange Act and assess the governance and risk management status at each Group company. In fiscal 2022, in addition to the "evaluation of internal control over financial reporting," we focused on auditing the operational status of Company-wide integrated risk management. We made necessary evaluations, advice, and recommendations.

The Internal Audit Department of DOWA Holdings holds regular meetings with corporate and accounting auditors to share information such as risk information and audit status. In addition, we report on the status of internal controls to the Sustainability Subcommittee, which has jurisdiction over internal controls. Furthermore, audit results are regularly and directly reported to the Board of Directors and the Audit & Supervisory Board, mainly on the "evaluation of internal control over financial reporting."

5 Accounting Auditor

The Company has been under an audit contract with Deloitte Touche Tohmatsu LLC (then Tohmatsu & Co.) since fiscal 1968.

However, the Company has an audit contract with MISUZU Audit Corporation (then Tokyo Daiichi Certified Public Accountant Office) from fiscal 1968 to fiscal 2006. Due to the dissolution of MISUZU Audit Corporation, the Company entered into an audit contract with Deloitte Touche Tohmatsu LLC (then Tohmatsu & Co.) from fiscal 2007. In addition, the certified public accountant who had been auditing the Company transferred to Deloitte Touche Tohmatsu LLC and continued to perform auditing services for the Company after their transfer. Since this inherently means that the same audit firm is considered to have continued to perform audit services for the Company, the audit period of the audit firm before the transfer of the certified public accountant in question is combined.

In addition, the Company's accounting auditor operates per the provisions of the Certified Public Accountants Act, etc.

- The first managing partner shall not engage in auditing services for more than five consecutive accounting periods.
- Generally, a managing partner shall not engage in audit work for more than seven consecutive accounting periods.

For more information on corporate governance, please see the link below.
https://www.dowa.co.jp/en/about_dowa/governance.html



Board of Directors and Officers (As of June 28, 2023)

* Independent Officer

Chairman and Representative Director



YAMADA Masao

Apr. 1978 Joined the Company
 Jun. 2003 Executive Officer
 Apr. 2005 Executive Officer, President of Environmental Management & Recycling Company
 Oct. 2006 Executive Officer, President and Representative Director of Dowa Eco-System Co., Ltd.
 Apr. 2008 President and Representative Director of Kosaka Smelting & Refining Co., Ltd.; Director of Dowa Metals & Mining Co., Ltd.
 Jun. 2009 President and Representative Director
 Jun. 2018 Chairman and Representative Director (current position)
 Mar. 2019 Outside Director of Fujita Kanko Inc. (current position)
 Jun. 2019 Outside Director of CK SAN-ETSU Co., Ltd. (current position)

President and Representative Director



SEKIGUCHI Akira

Apr. 1983 Joined the Company
 Oct. 2006 Director of Dowa Metals & Mining Co., Ltd.
 Apr. 2011 President and Representative Director of Kosaka Smelting & Refining Co., Ltd.
 Apr. 2013 Executive Officer, President and Representative Director of Dowa Metals & Mining Co., Ltd.
 Apr. 2018 Chairman of Japan Mining Industry Association (until March 2019)
 Jun. 2018 President and Representative Director (current position)

Outside Directors



KOIZUMI Yoshiko*

Attorney
 Partner of City-Yuwa Partners

Apr. 1972 Registered as an Attorney
 May 2000 Chair of Women Business Lawyers Committee, Inter-Pacific Bar Association (until May 2002)
 Apr. 2009 Partner of City-Yuwa Partners (current position)
 Oct. 2012 Deputy Chair of Government Procurement Review Board (until October 2014)
 Apr. 2013 Director of Japan Bar Association (current position)
 Jun. 2015 Director of the Company (current position)
 Outside Director of Taiheiy Cement Corporation (current position)
 Jun. 2016 Outside Audit & Supervisory Board Member of Sumitomo Bakelite Co., Ltd. (until Jun. 2019)
 Sep. 2017 Outside Audit & Supervisory Board Member of Nippon Koei Co., Ltd. (current position)



SATO Kimio*

Honorary Senior Corporate Adviser of Nittetsu Mining Co., Ltd.

Apr. 1981 Joined Nittetsu Mining Co., Ltd.
 Jun. 2007 Kyushu Branch Office General Manager
 Jun. 2010 Limestone & Raw Materials Sales Department Manager
 Jun. 2011 Director, in charge of Non-Ferrous Metal & Ore Department and Limestone & Raw Materials Sales Department Manager
 Jun. 2012 Managing Director, in charge of General Accounting Department, Limestone & Raw Materials Sales Department, and Non-Ferrous Metal & Ore Department
 Jun. 2013 Director and Vice President
 Apr. 2015 Representative Director and President
 May 2019 Director
 Jun. 2019 Senior Corporate Adviser
 Mar. 2021 Honorary Senior Corporate Adviser (current position)
 Jun. 2021 Director of the Company (current position)

Directors



TOBITA Minoru

Apr. 1984 Joined the Company
 Apr. 2011 Senior Managing Director of Eco-System Chiba Co., Ltd.
 Apr. 2013 Director and General Manager of Waste Management Business Unit, Dowa Eco-System Co., Ltd.
 Apr. 2017 Executive Officer, President and Representative Director of Dowa Eco-System Co., Ltd.
 Apr. 2021 Executive Officer, in charge of Quality Assurance and Environment & Safety
 Jun. 2021 Director, in charge of Quality Assurance and Environment & Safety (current position)
 Director of Dowa Eco-System Co., Ltd. (current position)
 Director of Dowa Thermotech Co., Ltd. (current position)



SUGAWARA Akira

Apr. 1984 Joined the Company
 Jun. 1999 General Manager of Metallic Materials Laboratory
 Apr. 2004 General Manager of Shiojiri Factory, Metal Processing Business Unit, Electronics & Metal Processing Company
 Apr. 2006 General Manager of Metallic Materials Laboratory, Metal Processing Company
 Oct. 2006 Director and General Manager of Metallic Materials Laboratory, Dowa Metaltech Co., Ltd.
 Apr. 2013 Director and General Manager of Metal Processing Business Unit, Dowa Metaltech Co., Ltd.
 Apr. 2016 Executive Officer, President and Representative Director of Dowa Metaltech Co., Ltd.
 Apr. 2021 Executive Officer, in charge of Technologies and Business Innovation Research
 Jun. 2021 Director, in charge of Technologies and Business Innovation Research
 Director of DOWA Electronics Materials Co., Ltd. (current position)
 Director of Dowa Metaltech Co., Ltd. (current position)
 Director of Dowa Technology Co., Ltd. (current position)
 Apr. 2023 Director, in charge of Technologies and Business Innovation Research (current position)



SHIBAYAMA Atsushi*

Professor, Akita University Faculty of International Resource Sciences
 Professor, Akita University Graduate School of International Resource Sciences

Apr. 1999 Joined KUBOTA Corporation (until Mar. 2000)
 Apr. 2009 Professor, Akita University Faculty of Engineering and Resource Science
 Apr. 2010 Professor, Akita University Graduate School of Engineering and Resources Science
 Apr. 2014 Professor, Akita University Faculty of International Resource Sciences (current position)
 Apr. 2016 Professor, Akita University Graduate School of International Resource Sciences
 Feb. 2019 Director, The Resources Processing Society of Japan (current position)
 Mar. 2020 Director of Operations, Group Head of the Process and Materials Sector Committee, The Mining and Materials Processing Institute of Japan (until Mar. 2021)
 Mar. 2022 Executive Director, Director of Tohoku Branch, Education Center and Education and Human Resource Development, The Mining and Materials Processing Institute of Japan
 Jun. 2022 Vice President, Resources Processing Society of Japan (current position)
 Mar. 2023 Executive Director, Director of Tohoku Branch, Education Center and Education and Human Resource Development (current position)
 Jun. 2023 Director (current position)



KATAGIRI Atsushi

Apr. 1985 Joined the Company
 Mar. 2007 General Manager of Zinc Business Unit, Dowa Metals & Mining Co., Ltd.
 Apr. 2008 Director and General Manager of Zinc Business Unit, Dowa Metals & Mining Co., Ltd.
 Apr. 2011 Director and General Manager of Strategic Planning Dept., Dowa Metals & Mining Co., Ltd.
 Apr. 2018 General Manager of Human Resources Dept. and Personnel Training & Education Dept.
 Apr. 2021 Executive Officer and General Manager of Human Resources Dept.
 Jun. 2022 2022 Director, General Manager of Human Resources Dept. and in charge of General Affairs & Legal (current position)
 Director of Dowa Metals & Mining Co., Ltd. (current position)
 Director of Dowa Management Service Co., Ltd. (current position)



HOSONO Hiroyuki

Jul. 1991 Joined the Company
 Jun. 2008 Director of DOWA-Olin Metal Corporation
 Apr. 2012 President and Representative Director of DOWA-Olin Metal Corporation
 Apr. 2016 Director and General Manager of Management & Strategic Planning Dept., Dowa Metaltech Co., Ltd.
 Apr. 2018 General Manager of Strategic Planning Dept. and Public Relations Dept. Director of DOWA Electronics Materials Co., Ltd. (current position)
 Director of Dowa Metaltech Co., Ltd. (current position)
 Apr. 2021 Executive Officer and General Manager of Corporate Strategy Dept., Sustainability Sec. and Public Relations & Investor Relations Sec.
 Jun. 2022 Director, General Manager of Corporate Strategy Dept., Sustainability Section, and Public Relations & Investor Relations Section and responsible for Accounting and Finance
 Apr. 2023 Director, General Manager of Corporate Strategy Dept. and Public Relations & Investor Relations Section and in charge of Accounting and Finance (current position)

Expertise and Experience of Directors

Name	Position	Corporate Management and Business Strategy	Global Mindset	Sales and Marketing	Research and Development and Production	Quality Assurance and Safety and Environment	Financial Affairs, Accounting, and Finance	Human Resources and Labor	Legal Affairs, Compliance, and Sustainability
YAMADA Masao	Chairman and Representative Director	●		●		●	●	●	●
SEKIGUCHI Akira	President and Representative Director	●	●	●			●	●	●
TOBITA Minoru	Director	●		●	●	●			
SUGAWARA Akira	Director	●		●	●	●			
KATAGIRI Atsushi	Director	●		●			●	●	●
HOSONO Hiroyuki	Director	●	●	●			●	●	●
KOIZUMI Yoshiko	Outside Director		●					●	●
SATO Kimio	Outside Director	●	●	●			●	●	
SHIBAYAMA Atsushi	Outside Director		●		●	●			●

* Independent Officer

Audit & Supervisory Board Members



KINOSHITA Hiroshi
Corporate Auditor (Full-Time)

Apr. 1983 Joined the Company
Apr. 2011 Director of Kosaka Smelting & Refining Co., Ltd.
Oct. 2016 Vancouver Office Director of Resource Development & Raw Materials Dept. of Dowa Metals & Mining Co., Ltd.
Jun. 2020 Audit & Supervisory Board Member (current position)



FUKUZAWA Hajime*
Corporate Auditor (Full-Time)

Apr. 1983 Joined the Industrial Bank of Japan, Limited (currently Mizuho Bank, Ltd.)
Apr. 2008 General Manager of Americas Division
Apr. 2011 Executive Officer, General Manager of Administration Division (until March 2012)
Apr. 2012 Managing Director of DIAM Co., Ltd. (until September 2016)
Oct. 2016 Managing Executive Officer of Asset Management One Co., Ltd. (until March 2018)
Apr. 2018 Managing Executive Officer of Hodogaya Chemical Co., Ltd. (until March 2021)
Jun. 2021 Outside Audit & Supervisory Board Member (current position)



OBA Koichiro*
Outside Corporate Auditor (Part-Time)
Attorney
Partner of Marunouchi Sogo Law Office

Apr. 1992 Registered as an Attorney
Apr. 1992 Joined Marunouchi Sogo Law Office
Jan. 2005 Partner of Marunouchi Sogo Law Office (current position)
Oct. 2014 National Bar Examination Commission (Labor Law) (Until Oct. 2017)
Mar. 2015 RACING SECURITY SERVICE Co., Ltd. Board Member (current position)
May 2018 SNOW BRAND SEED Co., Ltd. Board Member (current position)
Jun. 2023 Audit and Supervisory Board Member (current position)



KOMURO Shingo*
Outside Corporate Auditor (Part-Time)
FUJITA KANKO INC. Auditor

Apr. 1985 Joined FUJITA KANKO INC.
Mar. 2004 Chief of Center of Real Estate Management of Corporate Center of FUJITA KANKO INC.
Nov. 2006 Chief of Center of Customer Affairs of FUJITA KANKO INC.
Jan. 2008 Chief of Corporate Planning Office of Washington Hotel Company of FUJITA KANKO INC.
Dec. 2008 Director of Fujita Green Service Inc.
Mar. 2012 Representative Director and President of Fujita Green Service Inc.
Mar. 2015 Representative Director and Vice President of Fairton Corporation
Apr. 2017 Property and Administration Business Officer of Administrative Group of FUJITA KANKO INC.
Mar. 2019 Representative Director and President of Fairton Corporation
Mar. 2023 FUJITA KANKO INC. Auditor (current position)
Jun. 2023 Audit & Supervisory Board Member (current position)

Officers



YANAI Yasuharu
Executive Officer
President and Representative Director, Dowa Eco-System Co., Ltd.



SUYAMA Toshiaki
Executive Officer
President and Representative Director, Dowa Metals & Mining Co., Ltd.



SUZUKI Takehiko
Executive Officer
President and Representative Director, Dowa Electronics Materials Co., Ltd.



ONIOH Takashi
Executive Officer
President and Representative Director, Dowa Metaltech Co., Ltd.



YAMADA Kiyoshi
Executive Officer
President and Representative Director, Dowa Thermotech Co., Ltd.



INOMATA Hirotohi
Executive Officer
President and Representative Director, Dowa Technology Co., Ltd.



WAKABAYASHI Eiichi
Executive Officer
President and Representative Director, Dowa Management Service Co., Ltd.

Interview with Newly Appointed Outside Director



SHIBAYAMA Atsushi
Outside Director
Professor, Faculty of International Resource Sciences, Akita University
Professor, Graduate School of International Resources Sciences

I Will Support the DOWA Group's Sustainable Enhancement of Corporate Value Through Resource Recycling From a Professional Perspective

Please give us an overview of your career.

I majored in natural resources engineering in college and was involved in designing and developing recycling plants at the company where I worked after graduation. Later, I was approached by a professor at Akita University, and I have been involved in research on mineral processing at the university for more than 20 years. At the time of my assignment, most of the mines in Japan had already closed, while the so-called Home Appliance Recycling Act and the Soil Contamination Countermeasures Act were scheduled to come into effect. Therefore, within mineral processing, the focus has been not on traditional mineral processing research but on resource

recovery, process improvement, and recycling of by-products generated in the ore separation process.

As a student, I had the opportunity to learn about the technology used at the time by DOWA Mining, the former company name, including *Kuroko* (black ore), which was well-known in the resource engineering world. This was very helpful in deepening my knowledge of mineral processing. After moving to Akita Prefecture, I have had a long relationship with the Company, which has an office in the same prefecture, including joint research related to recycling. I also feel a deep connection regarding my appointment as an outside director.

What is your impression of DOWA Holdings as a company? Did this impression change after your appointment as an outside director?

From the beginning of my study of resources engineering, I had the impression that the Company had one-of-a-kind technology through Kosaka Smelting &

Refining Co., Ltd. I had been paying attention to the Company since that time, as it was the first in the industry to develop a variety of proprietary

technologies, based on its technological capabilities that enabled the use of *Kuroko*, which is difficult to process due to its high impurities content. Another distinctive business development is the Company's entry into the environmental and recycling field by applying technology established as a strength when the words "recycling" and "resource recycling" were not yet widespread amid the imminent closure of mines. Furthermore, I think it was a very visionary and brilliant decision to start hybrid smelting of concentrates and recycled raw materials more than 15 years ahead of other companies in the 2000s intending to change the game in the future.

After my appointment as an outside director, I recognized that the Company had built its business foundation with unique strengths and distinctive products not only in the areas it has closely been involved in, such as mining technology and recycling but also in other sectors, including the application of materials and product groups to various applications and the development of medical and healthcare fields. My impression of the Company has changed dramatically. I now see various business developments underway, including research and development to meet social needs, that I could not have noticed simply by looking at the Company from the outside.

Please tell us how you feel about our Board of Directors.

Our Board of Directors has an atmosphere that allows anyone to speak up and ask questions openly. Even if there are situations where my understanding may not be caught up at the time, the members allow me to receive an explanation later. I can also learn what questions I should ask and what kind of recommendations they are looking for based on my background and my position as an outside director.

The Company has a well-developed system for outside directors to engage in serious discussions. Of course, I myself would like to learn about the Company's business, business plans, and challenges without leaving it all to the secretariat to catch me up. Currently, I have the impression that most of the discussions are on relatively short-term themes. In the future, I would like to leverage my experience

and participate in discussions on longer-term themes and future prospects, such as the procurement and

technical aspects of recycled raw materials, which will likely see intensifying competition.

What kind of expectations do you think DOWA Holdings should meet from society in the future?

Often, as part of my research, I visit resource-rich countries. Each time I do, I realize that the future will be even more challenging than the present in procurement and production. We need to be properly aware of future risks and further pursue resource recycling to maximize our resources' potential. From this perspective, I believe the DOWA Group's role as a leader in resource recycling will increase. The Company has already established a recycling-oriented business model, but we must continue to push forward without wavering. I believe that the Company's sustainable growth will be achieved by further advancing the recycling and smelting technologies it has cultivated and using them as a foundation to develop technologies and expand its business with an eye to what society needs.

At the same time, I believe it is necessary to appeal to the outside world about how the Company contributes to society. Even in Akita Prefecture, DOWA Holdings is not well known as an innovative company. We should communicate more widely to society that DOWA is a company that leads in resource recycling and can contribute to global environmental conservation and security in the future with our unique technologies. I believe it is important to contribute broadly and deeply to society by further developing the advanced technological capabilities of each department while keeping our focus on resource recycling.

What are your aspirations for your appointment as an outside director?

In addition to providing professional and technical support, I would like to contribute to the Company's growth from a broader perspective, including risks that may be difficult to recognize from an internal perspective and whether we are fulfilling our accountability to external parties. The Company's ability to contribute to society depends on its relationships with the surrounding stakeholders. For this reason, I am committed to maintaining strong relationships with our investors, as well as with our suppliers, collaborating research institutions, and the local community. Furthermore, I should be able to make recommendations

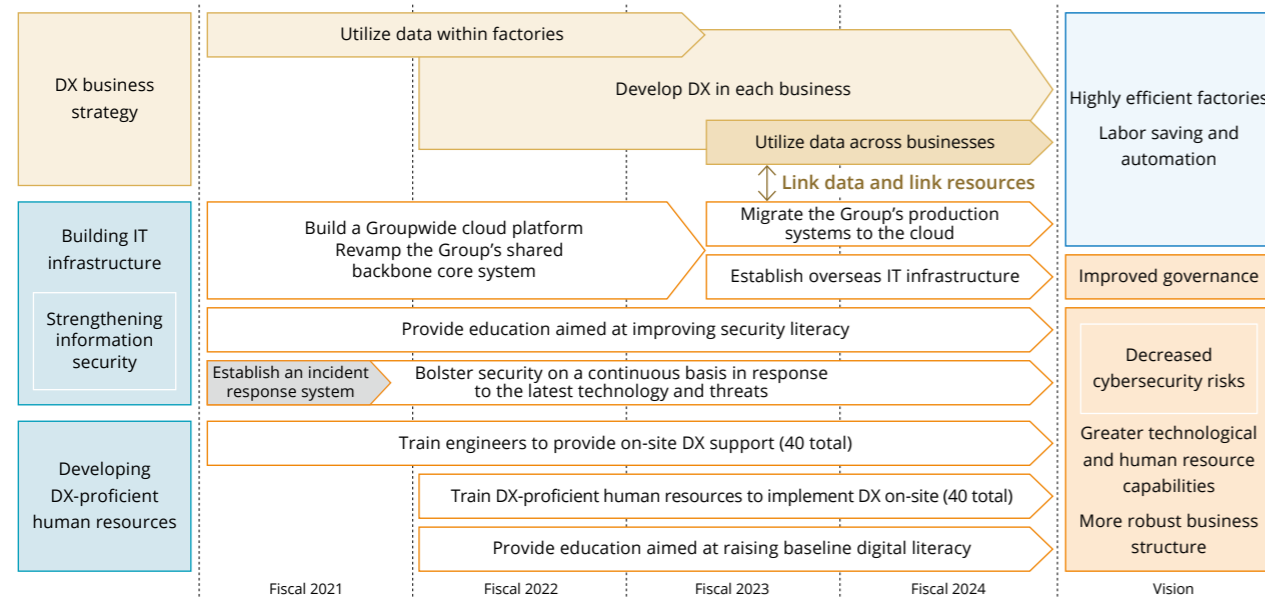
regarding human resource development by utilizing my experience in my main line of work, where I have many opportunities to work with the younger generation. I believe that it is possible to discuss internal training and effective human resource recruitment and how to nurture the human resources who will carry the future of Japanese industry in a society where the birthrate is declining. Because of the relationship I have built with the Company over the years as a researcher, I will fulfill my role as an outside director so that I can contribute to the sustainable enhancement of corporate value in a unique way.



Materiality 9 Driving Digital Transformation (Data Utilization)

The DOWA Group recognizes that it is essential to promote data utilization through the use of digital technologies, including artificial intelligence (AI) and the Internet of Things (IoT), to transform manufacturing, the foundation of the DOWA Group's business, and to evolve its operations and business activities. Based on this recognition, we have established a DX Basic Policy called Manufacturing Transformation (DOWA Transformation). We will promote DX by building IT infrastructure, strengthening information security, and developing DX-proficient human resources.

DX Promotion under Midterm Plan 2024



Building IT Infrastructure

In fiscal 2021, we began the development of a new Groupwide cloud platform to enable the use of data across the Group. This project has now been completed, and operations began in August 2023. The Group's shared backbone core system will be implemented on this platform before the utilization phase. In the future, we will promote a wide range of utilization as a foundation for information management that facilitates the coordination of data and resources across the Group and the migration of production-related systems owned independently by each business to the cloud.

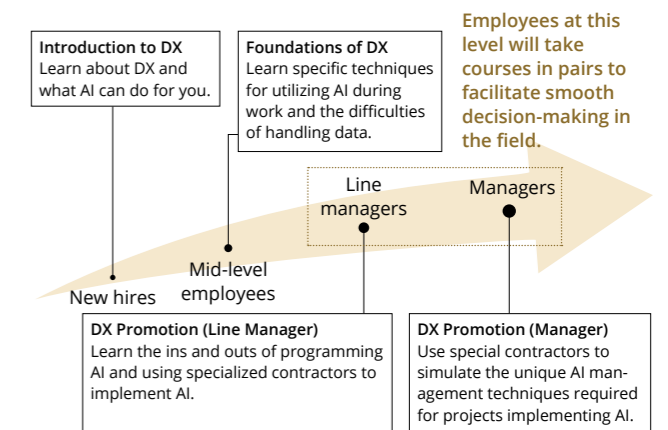
Strengthening Information Security

To protect IT infrastructure from ever-changing cyber-attacks, we incorporate the latest technologies to (1) never bring threats in, (2) prevent invasions, and (3) prevent the spread of threats. We sequentially deploy these technologies in the Company-wide network and plant networks. In addition, in anticipation of the growing business risks posed by cyber-attacks, we began cyber incident response training at our major sites in 2023.

On the other hand, it is also essential for the Group's employees to deepen their understanding of security, including the dangers of cyber-attacks and emails ridden with viruses, before going about their daily work to strengthen security. To this end, materials and videos explaining the fundamentals of information security that everyone should know, such as ransomware and business email fraud, in an easy-to-understand manner are available on the company intranet. They are also disseminated to overseas offices to improve information literacy among employees.

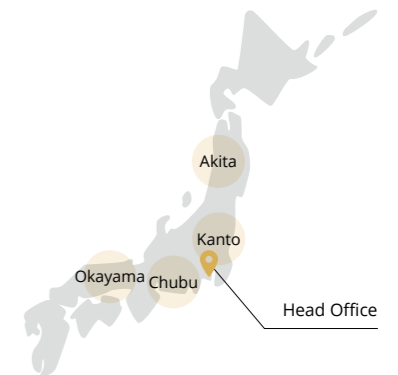
Developing DX-Proficient Human Resources

DX promotion requires human resources who can utilize digital technology at each business location. To this end, the Group is working to develop human resources capable of promoting DX within the Company. In particular, we have prepared a course that allows employees to learn more about AI, which can easily lead to on-site improvements in stages according to their development stage. We began training in the second half of fiscal 2022.



Establishment of Support Bases

To promote DX at each of the Group's bases, major domestic bases have established support centers for production technology and information systems (Akita, Kanto, Chubu, Okayama). Each support center supports various AI-related improvements (image analysis, acoustic analysis, data science, natural language processing), conducts surveys of each company's situation regarding cloud utilization and information security, and makes proposals to meet their needs.



Achievements and Targets

Major Initiatives	Indicators	Fiscal 2022 Results	Targets
Build IT infrastructure	Operation of the Groupwide cloud platform	Began conducting operational testing and user training	Start operation in the second half of fiscal 2023
Develop DX-proficient human resources	Number of personnel trained	67	80 total (fiscal 2022 to fiscal 2024)

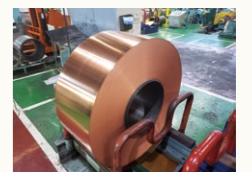
TOPICS

DX Application Example: AI-based Detection of Surface Defects in Copper Rolled Products

DOWA METANIX CO., LTD. manufactured copper rolled products. Since copper rolled products must be free of surface defects, automatic image-based inspection is used to detect defects. However, conventional image inspection cannot distinguish defective images that lead to serious quality anomalies from others, so human operators ultimately reconfirm many images.

Aiming to improve productivity, we have now built a system that reads existing defect images and outputs the classified results using AI technology. As a result, the number of images requiring reconfirmation by human operators was reduced by approximately 97%. In addition, the Company has achieved a 100% reproducibility rate of defect classification using AI technology while achieving zero missed critical defects as we have in the past.

These efforts were made possible with internal resources, including using an internal cloud. In addition, by enhancing the user interface and other aspects of the system, we were able to build a system free of mystery that is easy for operators to use.



Copper rolled product

Stakeholder Communication

To achieve sustainable growth and enhance corporate value, the DOWA Group is committed to transparent information disclosure and promoting dialogue with our stakeholders, including shareholders, investors, customers, suppliers, employees, government agencies, and local communities.

Shareholders and Investors

The President and Representative Director, directors, and various DOWA Holdings departments work together to implement various measures to promote constructive dialogue with shareholders and investors. To the extent possible, directors and relevant departments will respond to requests from shareholders and investors for interviews for constructive dialogue that will contribute to sustainable growth and medium- to long-term corporate value improvement. In addition, the Company has established an appointed investor relations department to promote dialogue with shareholders and investors.

Dialogue in Fiscal 2022

Main correspondents	Management: President and Representative Director, directors (in charge of accounting, finance, sustainability, and human resources) DOWA Holdings: Corporate Planning Department (including Public Relations & Investor Relations Sec. and Sustainability Sec.), Accounting Department, Finance Department, General Affairs & Legal Department, and Human Resources Department
Number of dialogues	Individual interviews: 140 Earnings calls: Held 4 times with a total of 157 participants Corporate strategy briefings: Held 2 times with a total of 72 participants
Summary of shareholders and investors with whom we have had dialogue	Japanese and overseas investors (fund managers, analysts, ESG officers, voting officers) primarily with growth, GARP, and value investment styles
Main themes and concerns of dialogue	Future business strategy (growth drivers, response to cost increases, etc.), progress on key measures in the midterm plan, capital policy (dividend levels, etc.), response to climate change, expansion of human capital, board composition, etc.

Status of Feedback of Shareholder Opinions and Concerns to Management and the Board of Directors

Opinions and concerns identified through shareholder dialogue are promptly feed back to the President and Representative Director and other relevant internal departments. They are reported twice a year at meetings of the Board of Directors. In fiscal 2022, the following information was reported at the September 2022 and February 2023 Board of Directors meetings, and discussions were held regarding responses and other matters.

Main contents of the reports: Investor concerns (business performance, shareholder returns, ESG, etc.), analyst evaluation of the earnings announcement, and trends in the Company's stock price, etc.

Corporate Strategy Briefing for Institutional Investors and Analysts

Twice a year, we hold Corporate strategy meeting for institutional investors and analysts to explain the progress of major measures in our Midterm Plan 2024. The meetings were held in a hybrid format, using on-site and online sessions so that participants could attend from anywhere in the world. President and Representative Director Sekiguchi gave the explanations during the briefings.

For more information on IR and stock information, please see the link below.
<https://ir.dowa.co.jp/en/ir.html>



Employees

Akita Zinc Co., Ltd. was awarded the Excellence Award of Akita City Vibrant Children's Community Development Company in 2022. Akita Zinc Co., Ltd. promotes health management, and in addition to women taking maternity leave, the number of men taking paternity leave is increasing.



The certification and commendation were in recognition of the company's efforts to meet the certification criteria, which include the actual results of paternity leave taken when their partners took maternity leave, measures to improve the paid leave utilization rate, and management's declaration of being more family-friendly.

Governments

BANGPOO ENVIRONMENTAL COMPLEX COMPANY LIMITED (Thailand) utilizes waste incineration and thermal energy recovery facilities to destroy CFCs, a greenhouse gas. In fiscal 2022, the company began a project to issue carbon credits for fluorocarbons it destroys and processes.



To commemorate this event, we held a ceremony in November 2022, inviting all relevant ministries and agencies in Thailand and Japan and our customers. In January 2023, the then Minister of the Environment NISHIMURA Akihiro visited the company during his visit to Thailand.

Local Communities

Installation of Small Home Appliance Collection Boxes at B.LEAGUE Game Venues

In cooperation with the Akita Northern Happinets, a team in the B.LEAGUE, a men's professional basketball league, the DOWA Group placed boxes for collecting small home appliances at game venues in Akita prefecture at home games hosted by the team to promote recycling activities from September 2022 to May 2023.



Small home appliances collected during this campaign were recycled into metal resources such as gold, silver, and copper at DOWA Group plants and used as raw materials for new products. As a result of these efforts, more than 70 kg of used small home appliances such as cell phones were collected.

Environmental Activities for Rivers in Indonesia

PT PRASADHA PAMUNAH LIMBAH INDUSTRI (PPLi, Indonesia) worked with many stakeholders, including the Jakarta provincial government and non-profit organizations, to implement environmental improvement activities in and around the Ciliwung River in Jakarta province in June 2022.

This initiative was organized on the occasion of World Environment Day. In addition to a river cleanup by about 200 people over three days, the event included planting fruit trees, releasing fish, and donating large trash cans from PPLi to environmental managers.



For more information on other activities, please see the link below.
<https://ir.dowa.co.jp/ja/ir/activity.html>
(Japanese language only)



Financial Review

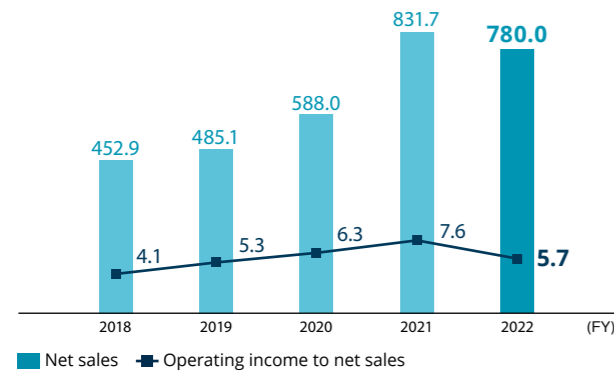
Financial Performance

In fiscal 2022, demand for certain automotive products and services continued to be in an adjustment phase as the global shortage of semiconductors continued to affect the industry, and automobile production remained weak. Sales of telecommunications-related products declined due to the stagnant Chinese economy. In addition, sales of new energy-related products were weak due to changes in the competitive environment caused by the increasing use of general-purpose products. Orders for environmental and recycling-related services were solid for waste disposal. Regarding the market environment, the average exchange rate for the yen depreciated significantly against the U.S. dollar compared to the previous period. In contrast, the average prices of copper, silver, and PGMs (platinum group metals) declined. On the other hand, costs for electricity, fuel, and sub-materials increased significantly due to the global rise in energy and material prices.

In fiscal 2022, the first year of our Midterm Plan 2024, we have steadily implemented a variety of measures to strengthen our five core businesses further and enhance our management foundation based on our basic strategies of evolving our recycling-oriented business model and strengthening our sustainability management, to enhance our corporate value and contribute to the realization of a sustainable society. As a result of these measures, consolidated net sales increased 6.2% to ¥780,060 million, consolidated operating income decreased 30.1% to ¥44,610 million, and consolidated ordinary income decreased 27.0% to ¥55,501 million. Net income attributable to owners of parent decreased 50.9% to ¥25,041 million, mainly due to the posting of ¥5,826 million in extraordinary losses targeting business sites with deteriorating profitability.

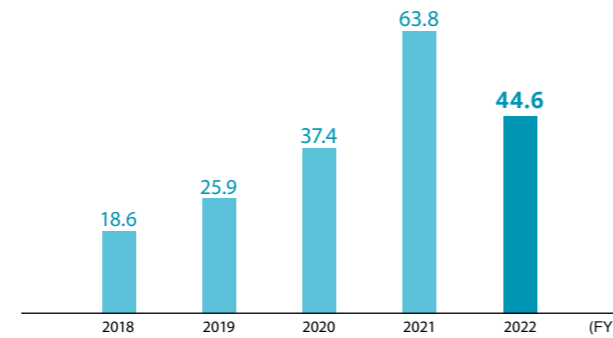
Net Sales / Operating Income to Net Sales

(Billions of yen / %)



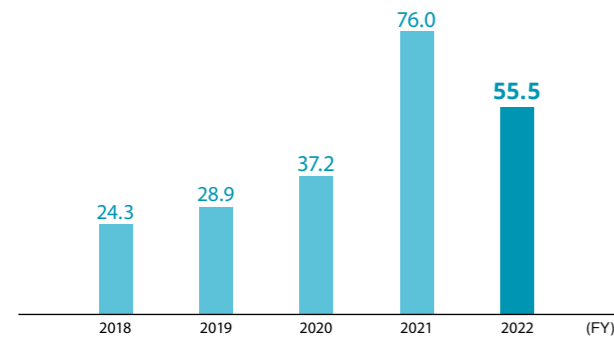
Operating Income

(Billions of yen)



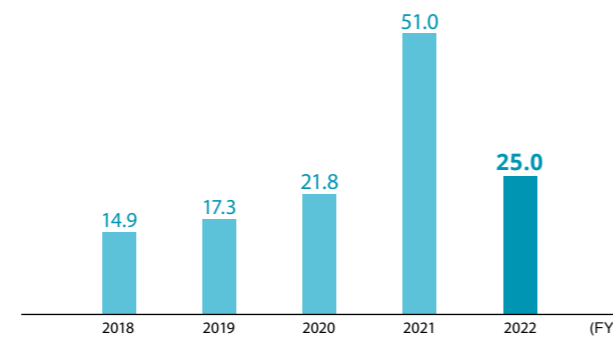
Ordinary Income

(Billions of yen)



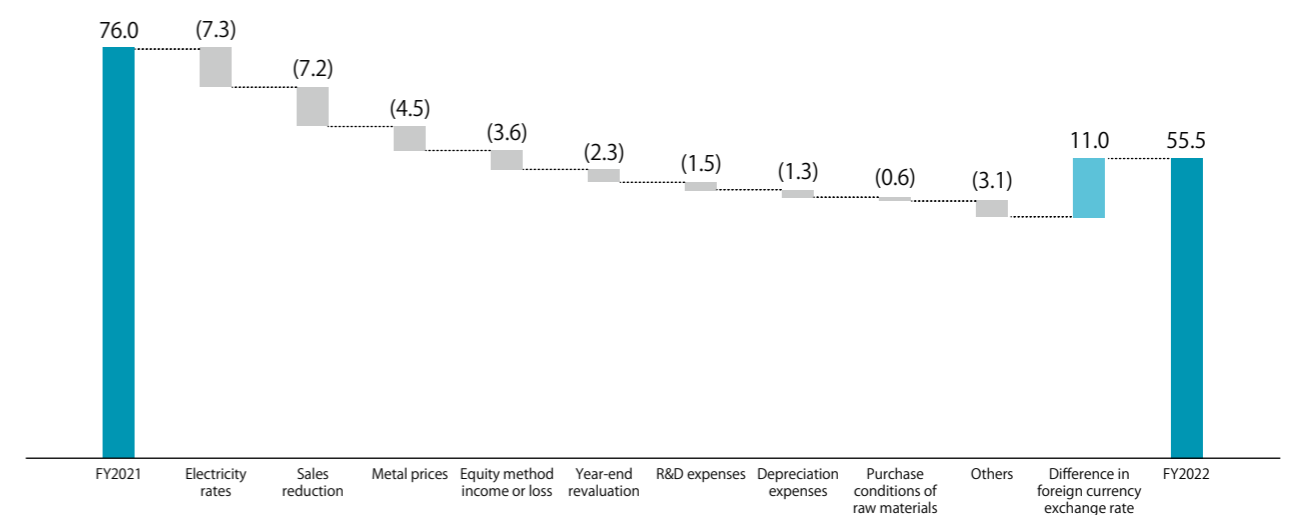
Net Income Attributable to Owners of Parent

(Billions of yen)



Factor Analysis of Ordinary Income

(Billions of yen)



Results by Segment

(Billions of yen)

	FY2021			FY2022			YoY Changes		
	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income	Net Sales	Operating Income	Ordinary Income
Environmental Management & Recycling	135.0	12.6	13.6	148.0	11.1	11.9	12.9	(1.5)	(1.6)
Nonferrous Metals	455.6	36.1	42.7	433.6	22.7	33.1	(21.9)	(13.3)	(9.6)
Electronic Materials	175.3	5.2	6.5	138.2	2.9	4.5	(37.1)	(2.2)	(2.0)
Metal Processing	111.9	6.3	6.8	116.1	5.3	5.5	4.2	(1.0)	(1.3)
Heat Treatment	28.9	2.6	3.0	30.1	1.4	1.8	1.1	(1.1)	(1.1)
Others / Elimination	(75.1)	0.7	3.2	(86.1)	0.9	(1.5)	(11.0)	0.2	(4.8)
Total	831.7	63.8	76.0	780.0	44.6	55.5	(51.7)	(19.2)	(20.5)

Foreign-Exchange Rate and Metal Prices

	FY2021*	FY2022*
Exchange rate: (¥/\$)	112.4	135.5
Copper: (\$/t)	9,691	8,551
Zinc: (\$/t)	3,254	3,332
Indium: (\$/kg)	229	221

* Figures are the average for the full year.

Analysis of Financial Position

Assets

Total assets at the end of fiscal 2022 decreased by ¥2,001 million from the end of the previous fiscal year to ¥655,282 million. Current assets decreased by ¥4,007 million, and non-current assets increased by ¥2,006 million.

The decrease in current assets was mainly due to a ¥9,486 million decrease in notes and accounts receivable-trade, and contract assets, a ¥9,363 million decrease in inventories, a ¥12,880 million increase in other current assets, and a ¥1,970 million increase in cash and deposits.

The increase in non-current assets was mainly due to a ¥4,878 million increase in property, plant, and equipment and a ¥2,947 million decrease in deferred tax assets.

Liabilities

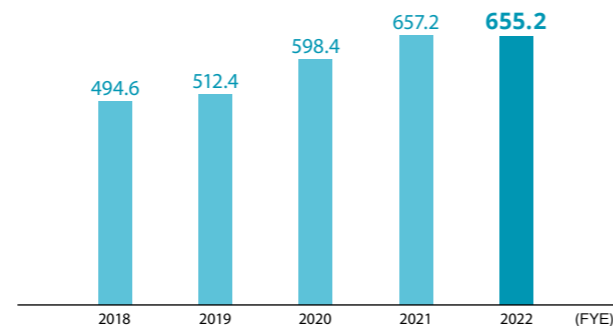
Total liabilities decreased by ¥34,030 million compared with the previous fiscal year-end. This was mainly due to a decrease in current liabilities from a decrease of ¥11,222 million in notes and accounts payable-trade, a decrease of ¥8,320 million in borrowing precious metals, a decrease of ¥7,891 million in long-term borrowings, and a decrease of ¥7,310 million in income taxes payable.

Equity

As for total equity, net income attributable to owners of parent came to ¥25,041 million, but payment of cash dividends results in an increase in shareholders' equity of ¥16,480 million. In addition, total accumulated other comprehensive income increased by ¥14,957 million due in part to foreign currency translation adjustment and an increase in deferred gains or losses on hedges, leading to an increase in total equity of ¥32,028 million from the end of the previous fiscal year. As a result, the equity ratio was 52.6%.

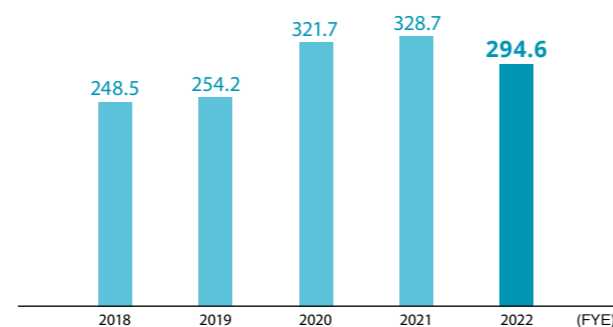
Total Assets

(Billions of yen)



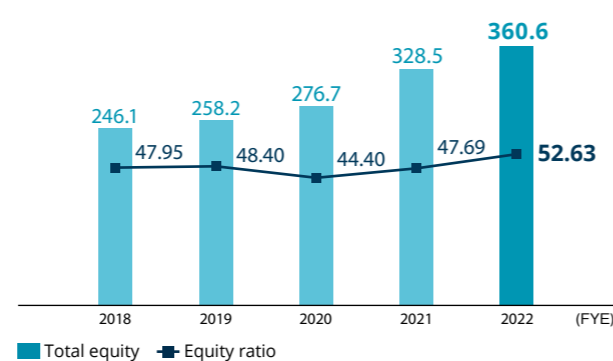
Liabilities

(Billions of yen)



Total Equity / Equity Ratio

(Billions of yen / %)



Analysis of Cash Flows

Consolidated cash and cash equivalents (hereinafter, "net cash") at the end of the consolidated fiscal year under review amounted to ¥37,760 million, up ¥2,020 million compared with the previous fiscal year-end.

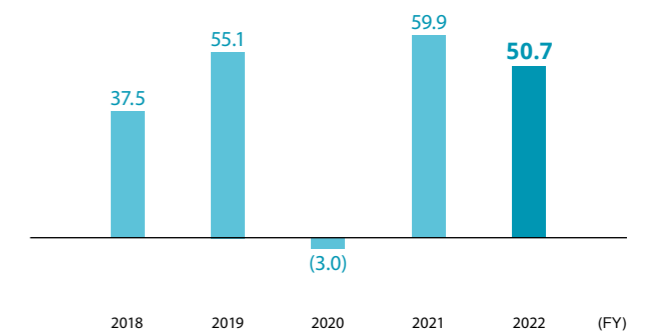
Net cash provided by operating activities came to ¥50,725 million, down ¥9,185 million compared with the previous fiscal year. This was primarily attributable to such factors as profit before income taxes of ¥45,930 million, income taxes paid of ¥31,378 million, depreciation of ¥23,955 million, and a decrease in trade receivables of ¥10,440 million.

Net cash used in investing activities amounted to ¥30,343 million, up ¥19,003 million compared with the previous fiscal year. This was mainly due to the purchase of property, plant, and equipment of ¥29,694 million, proceeds from sales of investment securities of ¥3,537 million, and purchase of intangible assets of ¥3,382 million.

Net cash used in financing activities amounted to ¥19,758 million, down ¥11,431 million compared with the previous fiscal year. This was mainly due to cash dividends paid of ¥12,659 million and a decrease in interest-bearing debt of ¥6,934 million.

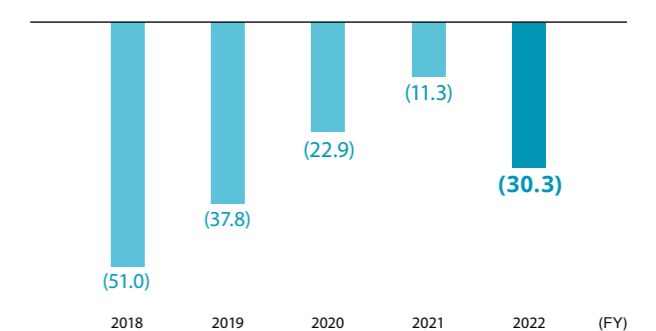
Cash Flows from Operating Activities

(Billions of yen)



Cash Flows from Investing Activities

(Billions of yen)



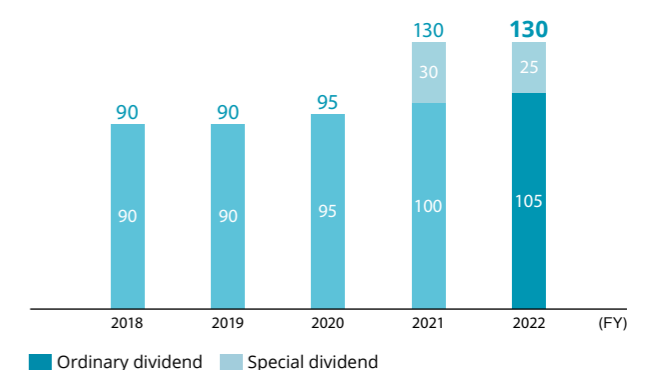
Basic Dividend Policy and Dividends Paid for the Fiscal Year under Review

DOWA regards the payment of dividends to shareholders as one of its top management priorities. The Company sets out a policy of increasing dividends as performance allows while ensuring sufficient internal reserves for bolstering the corporate structure and expanding business in the future in line with the basic principle of maintaining stable dividends. Our basic policy for dividends during the period of the Midterm Plan 2024 (fiscal 2022 to fiscal 2024) is to not decrease the amount of ordinary dividends from the previous year's amount and to increase the amount of ordinary dividends in stages over the course of each fiscal year.

Based on this policy, we have decided to pay an ordinary dividend of ¥105 per share (an increase of ¥5 from the previous year) as well as a special dividend of ¥25 per share for fiscal 2022 since our performance for the year was the second highest on record, taking into consideration our plans for future growth investments and our financial position at the end of the fiscal year in review. As a result, the annual dividend per share for fiscal 2022 is ¥130 in total (ordinary dividend of ¥105 and a special dividend of ¥25), the same amount as the previous fiscal year.

Cash Dividends

(Yen)



Consolidated Performance Trends

(Millions of yen)

For the years ended March 31							Midterm Plan 2020		Midterm Plan 2024		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Financial Performance											
Net Sales	¥419,390	¥443,985	¥464,219	¥406,598	¥410,503	¥ 454,754	¥ 452,928	¥ 485,130	¥ 588,003	¥ 831,794	¥ 780,060
Cost of Sales	365,963	382,079	391,509	337,314	341,177	387,831	396,495	421,630	512,155	725,368	689,241
Selling, General and Administrative Expenses	28,863	30,111	33,616	34,216	35,335	35,975	37,761	37,544	38,393	42,601	46,208
Operating Income	24,564	31,794	39,094	35,067	33,990	30,948	18,671	25,955	37,454	63,824	44,610
Operating Income by Segment											
Environmental Management & Recycling (%)	26.37	29.86	18.80	18.01	19.50	16.06	30.46	27.76	22.58	19.85	24.95
Nonferrous Metals (%)	19.09	22.20	34.69	38.00	29.58	29.74	3.17	38.54	54.31	56.67	51.06
Electronic Materials (%)	23.58	21.12	22.55	22.89	19.36	18.17	11.66	4.09	6.60	8.23	6.66
Metal Processing (%)	19.89	16.96	14.85	14.01	20.49	23.54	33.74	19.71	11.72	9.97	11.90
Heat Treatment (%)	6.33	7.12	6.02	3.86	7.00	8.47	13.05	4.63	1.97	4.13	3.31
Others and Elimination (%)	4.74	2.74	3.09	3.24	4.06	4.01	7.92	5.27	2.82	1.15	2.12
Ordinary Income	¥ 27,277	¥ 35,055	¥ 42,037	¥ 35,056	¥ 36,504	¥ 36,355	¥ 24,309	¥ 28,996	¥ 37,200	¥ 76,073	¥ 55,501
EBITDA*1	41,551	48,000	54,667	50,212	49,786	48,160	37,300	45,244	57,505	86,407	68,566
Net Income Attributable to Owners of Parent	15,213	23,310	26,543	21,826	26,169	24,693	14,986	17,395	21,824	51,012	25,041
Capital Expenditures	18,422	16,549	17,247	22,936	26,526	24,608	24,087	37,723	37,338	32,546	34,153
Depreciation	16,987	16,205	15,572	15,145	15,796	17,212	18,628	19,288	20,050	22,582	23,955
R&D Expenses	4,604	4,651	5,320	5,594	5,670	5,380	5,888	6,076	6,177	7,035	8,569
Exchange Rate and Metal Prices											
Copper (Price Quoted, Average)	¥696,375	¥757,633	¥765,775	¥675,483	¥603,917	¥ 756,683	¥ 746,608	¥ 681,592	¥ 769,500	¥1,136,175	¥1,209,150
Zinc (Price Quoted, Average)	208,675	240,325	285,983	269,383	305,633	386,733	353,725	313,308	309,400	419,725	503,817
U.S. Dollar (Average)	83.10	100.24	109.93	120.14	108.38	110.85	110.91	108.74	106.06	112.38	135.47
Financial Position											
Equity	¥142,400	¥166,987	¥195,649	¥203,370	¥227,821	¥ 247,762	¥ 246,158	¥ 258,241	¥ 276,715	¥ 328,574	¥ 360,603
Non-Controlling Interests	8,807	8,733	8,528	8,449	8,518	8,946	8,944	10,194	11,010	15,119	15,710
Total Assets*2	349,787	358,717	379,193	364,420	404,604	456,530	494,683	512,495	598,471	657,283	655,282
Interest-Bearing Debt	107,138	99,663	86,668	81,135	79,883	109,827	135,241	134,086	153,951	131,625	124,768
Per Share*3 (Yen)											
Basic Net Income	¥ 51.41	¥ 78.77	¥ 89.69	¥ 73.75	¥ 88.43	¥ 417.21	¥ 253.22	¥ 293.92	¥ 368.45	¥ 857.32	¥ 420.76
Fully Diluted Equity	451.41	534.75	632.30	658.66	741.06	4,035.06	4,008.03	4,191.09	4,465.44	5,267.94	5,794.63
Cash Dividends	12.00	15.00	18.00	18.00	18.00	90.00	90.00	90.00	95.00	130.00	130.00
Cash Flows											
Cash Flows from Operating Activities	¥ 34,970	¥ 30,189	¥ 38,345	¥ 45,751	¥ 29,389	¥ 11,125	¥ 37,555	¥ 55,113	¥ (3,088)	¥ 59,911	¥ 50,725
Cash Flows from Investing Activities	(19,354)	(18,689)	(20,321)	(23,486)	(25,954)	(34,010)	(51,025)	(37,812)	(22,943)	(11,339)	(30,343)
Cash Flows from Financing Activities	(14,982)	(12,341)	(16,905)	(11,159)	(7,155)	24,087	15,944	(6,569)	11,585	(31,190)	(19,758)
Free Cash Flow	15,615	11,499	18,024	22,265	3,434	(22,884)	(13,470)	17,301	(26,032)	48,571	20,382
Cash and Cash Equivalents at End of Year	6,129	5,823	8,044	18,902	15,126	16,472	19,002	30,232	17,320	35,740	37,760
Ratios											
Return on Assets (ROA)*4 (%)	8.15	9.90	11.39	9.43	9.49	8.44	5.11	5.76	6.70	12.12	8.46
Return on Equity (ROE)*5 (%)	12.30	15.97	15.37	11.43	12.64	10.78	6.30	7.17	8.50	17.62	7.61
Operating Income to Net Sales (%)	5.86	7.16	8.42	8.62	8.28	6.81	4.12	5.35	6.37	7.67	5.72
Equity Ratio*6 (%)	38.19	44.12	49.35	53.49	54.20	52.31	47.95	48.40	44.40	47.69	52.63
Operating Income Growth (%)	11.60	29.43	22.96	(10.30)	(3.07)	(8.95)	(39.67)	39.01	44.31	70.40	(30.10)
Interest Coverage (Times)	14.82	21.41	34.23	39.04	43.12	55.47	20.71	21.69	43.03	97.83	88.46
Debt / Equity Ratio*6 (Times)	0.80	0.63	0.46	0.42	0.36	0.46	0.57	0.54	0.58	0.42	0.36
Debt / Capacity Ratio (Times)	1.37	1.28	1.06	1.00	0.83	1.05	1.29	1.26	1.50	0.97	0.97
Return on Invested Capital*6 (%)	6.69	8.76	9.12	8.68	8.19	6.41	3.22	4.41	5.79	10.57	6.10

*1 EBITDA is calculated by adding operating income and depreciation.

*2 Changes put forth in the Partial Amendments to Accounting Standard for Tax Effect Accounting (ASBJ Statement No. 28, issued February 16, 2018) have been applied to the consolidated financial results for the fiscal year under review. These amendments have been retroactively applied to the consolidated financial results for fiscal 2017, and the amount of total assets has been adjusted accordingly.

*3 On October 1, 2017, the Company conducted a 5-for-1 reverse stock split.

*4 Ordinary income divided by the average of total assets at the beginning and end of the fiscal year.

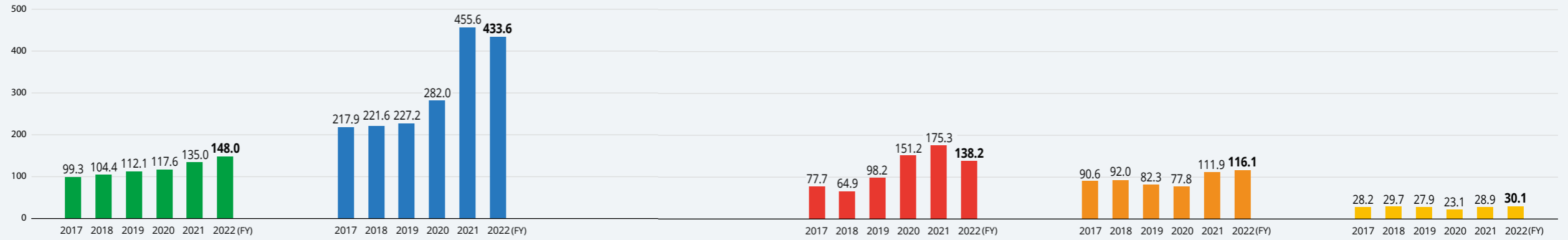
*5 Net income attributable to owners of parent divided by the average of shareholders' equity (the amounts after deducting non-controlling interest amounts from equity amounts) at the beginning and end of the fiscal year.

*6 The ratios have been calculated using shareholders' equity (the amounts after deducting non-controlling interest amounts from equity amounts).

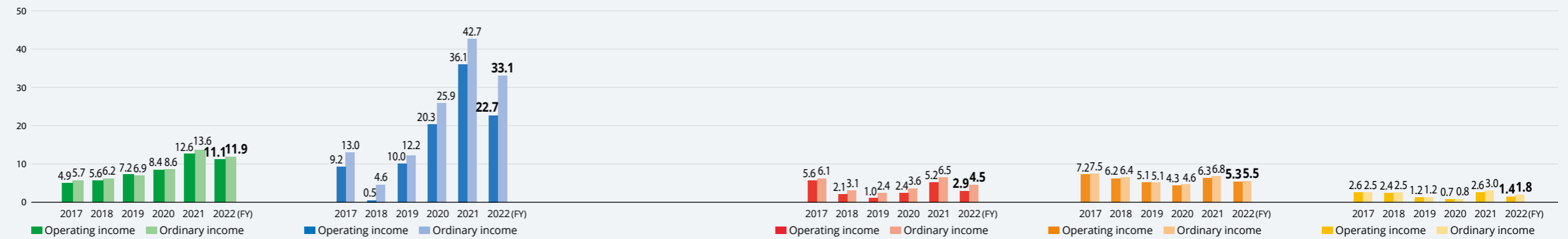
Results by Segment



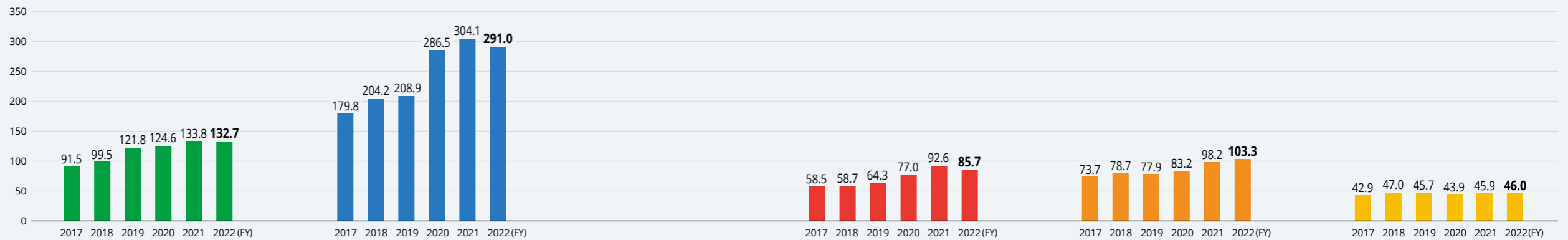
Net Sales
(Billions of yen)



Operating Income / Ordinary Income
(Billions of yen)

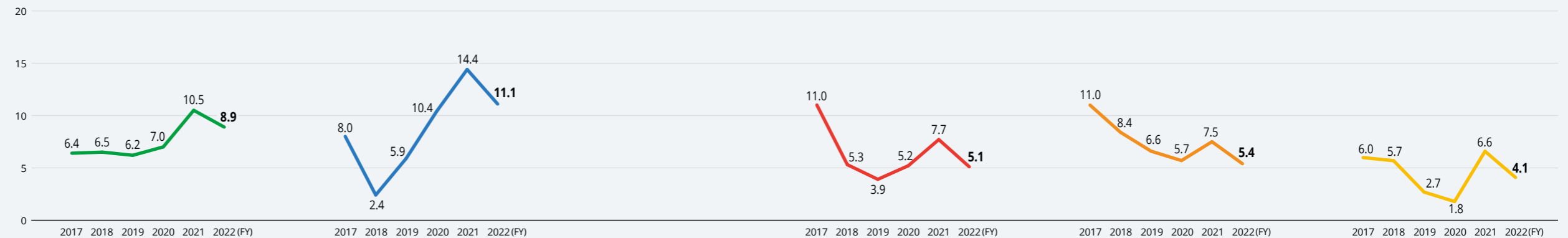


Total Assets
(Billions of yen)



ROA*
(%)

* Ordinary income divided by the average of total assets at the beginning and end of the fiscal year



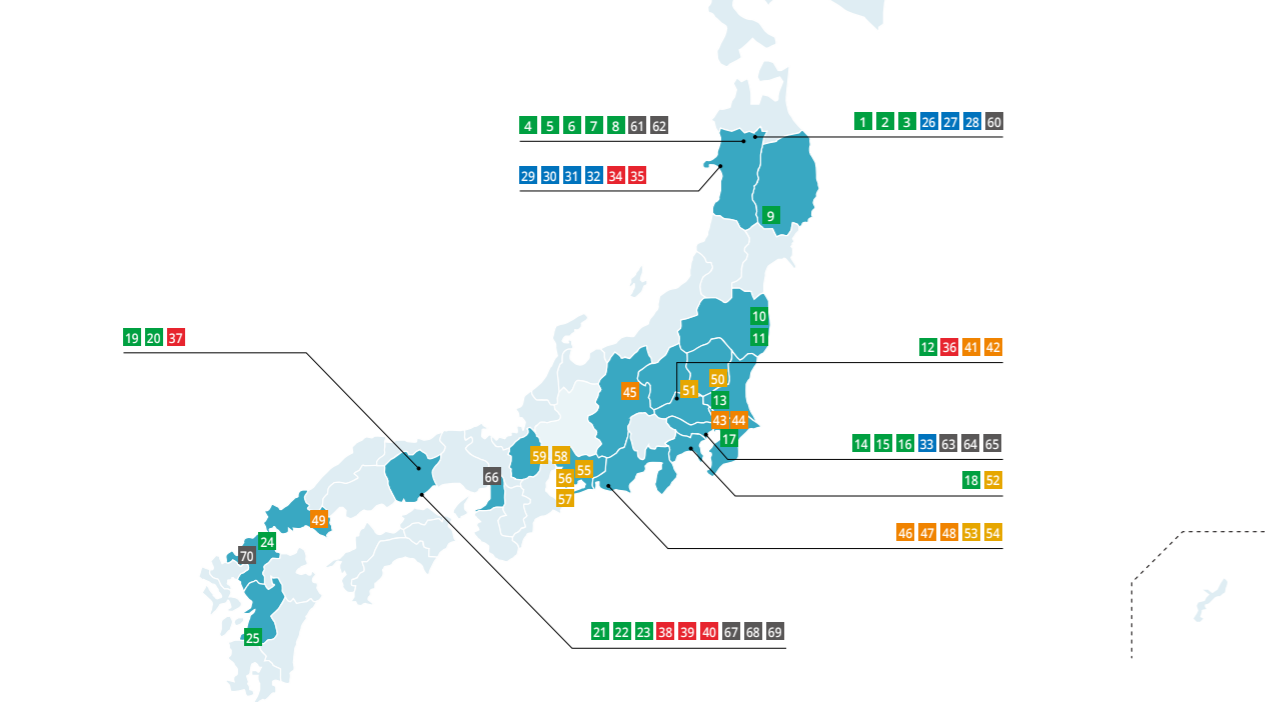
Subsidiaries and Affiliates

The DOWA Group operates businesses in 14 countries and regions, including Japan.

The Group comprises 115 companies (DOWA HOLDINGS CO., LTD., 95 subsidiaries, and 19 affiliates).

■ ES ■ MM ■ EL ■ MT ■ TH
■ DOWA Holdings and Business Supporting Companies

Major Japan Locations



- | | | |
|---|---|--|
| 1 GREEN FILL KOSAKA CO., LTD. | 26 Metallurgical Laboratory | 51 DOWA THERMOENGINEERING CO., LTD. Ota Plant |
| 2 ECO-SYSTEM RECYCLING CO., LTD. Northern Japan Plant | 27 KOSAKA SMELTING & REFINING CO., LTD. | 52 DOWA THERMOENGINEERING CO., LTD. Kanto PE Department |
| 3 ECO-SYSTEM KOSAKA CO., LTD. | 28 NIPPON PGM CO., LTD. | 53 DOWA THERMOENGINEERING CO., LTD. Hamamatsu Plant |
| 4 Research and Development Center | 29 AKITA ZINC CO., LTD. | 54 DOWA THERMOENGINEERING CO., LTD. Hamamatsu-kita Plant |
| 5 ECO-SYSTEM AKITA CO., LTD. | 30 AKITA ZINC SOLUTIONS CO., LTD. | 55 DOWA THERMOENGINEERING CO., LTD. Chuseibu PE Department |
| 6 HOKUSHU KANKYOU SERVICES CO., LTD. | 31 AKITA RARE METALS CO., LTD. | 56 DOWA THERMOENGINEERING CO., LTD. Chukyo-Handa Plant |
| 7 ECO-SYSTEM HANAOKA CO., LTD. | 32 AKITA ZINC RECYCLING CO., LTD. | 57 TONETSU KOHSAN CO., LTD. |
| 8 ECO-RECYCLE CO., LTD. | 33 Acids Co., Ltd. | 58 CEMM CO., LTD. |
| 9 DOWA-TSUJUN CO., LTD. | 34 Semiconductor Materials Laboratory | 59 DOWA THERMOENGINEERING CO., LTD. Shiga Plant |
| 10 Soso Smart Eco-Company Co., Ltd. | 35 DOWA SEMICONDUCTOR AKITA CO., LTD. | 60 DOWA TECHNO RESEARCH CO., LTD. |
| 11 MELTEC IWAKI Co., Ltd. | 36 Electronic Materials Laboratory | 61 UNEKURA MINING CO., LTD. |
| 12 ECO-SYSTEM RECYCLING CO., LTD. East Japan Plant | 37 DOWA F-TEC CO., LTD. | 62 AKITA ENGINEERING CO., LTD. |
| 13 MELTEC Ltd. | 38 Advanced Fine Materials Laboratory | 63 DOWA HOLDINGS CO., LTD. |
| 14 ECO-SYSTEM JAPAN CO., LTD. | 39 DOWA ELECTRONICS MATERIALS OKAYAMA CO., LTD. | 64 DOWA TECHNOLOGY CO., LTD. |
| 15 GEOTECHNOS CO., LTD. | 40 DOWA IP CREATION CO., LTD. | 65 DOWA MANAGEMENT SERVICE CO., LTD. |
| 16 E&E Solutions Inc. | 41 Technology Center (Electroplating) | 66 DOWA Group Osaka Branch |
| 17 ECO-SYSTEM CHIBA CO., LTD. | 42 DOWA HIGHTECH CO., LTD. | 67 DOWA KOHSAN CO., LTD. |
| 18 MELTEC Ltd. Yokosuka Plant | 43 HOEI SHOJI CO., LTD. | 68 DOWA TECHNO ENGINEERING CO., LTD. |
| 19 ECO-SYSTEM SANYO CO., LTD. | 44 NEW NIPPON BRASS CO., LTD. | 69 YOWA ENGINEERING CO., LTD. |
| 20 OKAYAMA KOYU CO., LTD. | 45 DOWA POWER DEVICE CO., LTD. | 70 DOWA Group Kyushu Branch |
| 21 ECO-SYSTEM RECYCLING CO., LTD. West Japan Plant | 46 Technology Center (Metal Processing) | |
| 22 ECO-SYSTEM OKAYAMA CO., LTD. | 47 DOWA METAL CO., LTD. | |
| 23 BIODIESEL OKAYAMA CO., LTD. | 48 DOWA METANIX CO., LTD. | |
| 24 KOWA SEIKO CO., LTD. | 49 TOKUYAMA-DOWA POWER MATERIALS CO., LTD. | |
| 25 Act-B Recycling Co., Ltd. | 50 DOWA THERMOENGINEERING CO., LTD. Moka Plant | |

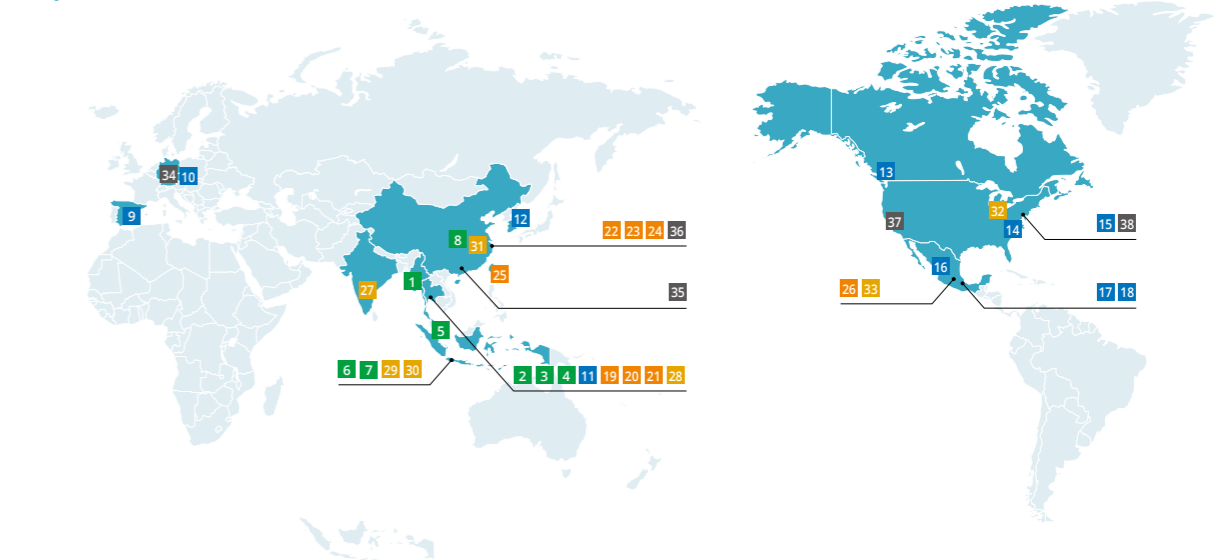
Number of Bases by Segment

	Consolidated Subsidiaries		Affiliates Accounted for by the Equity Method	Subtotal (Consolidated subsidiaries and equity-method affiliates)	Non-consolidated subsidiaries and non-equity method affiliates	Total
	Japan	Overseas				
DOWA HOLDINGS CO., LTD.	—	—	—	—	—	1
Environmental Management & Recycling	21	10	2	33	6	39
Nonferrous Metals	9	7	6	22	1	23
Electronic Materials	5	0	1	6	2	8
Metal Processing	7	6	2	15	3	18
Heat Treatment	4	7	0	11	1	12
Others	7	4	2	13	1	14
Total	53	34	13	100	14	115

Please refer to "Subsidiaries and Affiliates" for companies included in the scope of coverage of this report.
<https://ir.dowa.co.jp/en/ir/library/annual.html>



Major Overseas Locations



- | | |
|--|---|
| 1 GOLDEN DOWA ECO-SYSTEM MYANMAR COMPANY LIMITED | 20 DOWA METALTECH (THAILAND) CO., LTD. |
| 2 WASTE MANAGEMENT SIAM LTD. | 21 Dowa Precision (Thailand) Co., Ltd. |
| 3 BANGPOO ENVIRONMENTAL COMPLEX COMPANY LIMITED | 22 DOWA ADVANCED MATERIALS (SHANGHAI) CO., LTD. |
| 4 EASTERN SEABOARD ENVIRONMENTAL COMPLEX CO., LTD. | 23 DOWA NEW MATERIALS (SHANGHAI) CO., LTD. |
| 5 Modern Asia Environmental Holdings Pte. Ltd. | 24 DOWA METALTECH (NANTONG) CO., LTD. |
| 6 PT. PRASADHA PAMUNAH LIMBAH INDUSTRI | 25 DOWALI PRECISION CO., LTD. |
| 7 PT. DOWA ECO SYSTEM INDONESIA | 26 DOWA METALTECH MEXICO, S.A. de C.V. |
| 8 DOWA ENVIRONMENTAL MANAGEMENT CO., LTD. | 27 HIGHTEMP FURNACES LTD. |
| 9 DOWA METALS & MINING CO., LTD. Spain office | 28 DOWA Thermotech (Thailand) Co., Ltd. |
| 10 Nippon PGM Europe s.r.o. | 29 PT. DOWA THERMOTECH FURNACES |
| 11 DOWA METALS & MINING (THAILAND) CO., LTD. | 30 PT. DOWA THERMOTECH INDONESIA |
| 12 NPGM KOREA Co., Ltd. | 31 KUNSHAN DOWA THERMO FURNACE CO., LTD. |
| 13 DOWA METALS & MINING CO., LTD. Vancouver office | 32 DOWA THT AMERICA, INC. |
| 14 NIPPON PGM AMERICA, INC. | 33 DOWA THERMOTECH MEXICO S.A. DE C.V. |
| 15 DOWA METALS & MINING AMERICA INC. | 34 DOWA HD Europe GmbH |
| 16 Minera Plata Real, S. de R.L. de C.V. | 35 DOWA HOLDINGS (SHANGHAI) CO., LTD. Shenzhen Branch |
| 17 DOWA METALS & MINING CO., LTD. Mexico office | 36 DOWA HOLDINGS (SHANGHAI) CO., LTD. |
| 18 MINERA TIZAPA, S.A. DE C.V. | 37 DOWA INTERNATIONAL CORPORATION San Jose branch |
| 19 DOWA METALTECH CHONBURI CO., LTD. | 38 DOWA INTERNATIONAL CORPORATION |

Company Data and Stock Information (As of March 31, 2023)

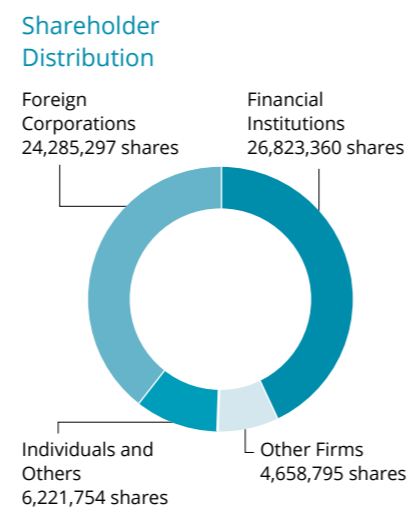
Company Data	Company Name	DOWA HOLDINGS CO., LTD.
	Founded	September 18, 1884
	Incorporated	March 11, 1937
	Number of Employees	11,188 (figure for the entire Group, including part-time employees)

Stock Information	Authorized Shares	200,000,000 shares
	Shares Issued	61,989,206 shares
	Number of Shareholders	10,160
	Stock Listing	Tokyo Stock Exchange, Inc.
	Fiscal Year-End	March 31
	Annual General Meeting of Shareholders	June
	Stock Transfer Agent	Sumitomo Mitsui Trust Bank, Limited
	Accounting Auditor	Deloitte Touche Tohmatsu LLC

Principal Shareholders	Name	Percentage of Outstanding Shares (%)
	The Master Trust Bank of Japan, Ltd. (Trust Account)	17.03
	Custody Bank of Japan, Ltd. (Trust Account)	10.52
	NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	8.71
	NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	4.24
	Fujita Kanko Inc.	3.12
	NORTHERN TRUST CO. (AVFC) RE NON TREATY CLIENTS ACCOUNT	2.96
	National Mutual Insurance Federation of Agricultural Cooperatives	2.89
	NORTHERN TRUST CO. (AVFC) RE IEDU UCITS CLIENTS NON LENDING 15 PCT TREATY ACCOUNT	2.08
	STATE STREET BANK AND TRUST COMPANY 505001	1.91
	Mizuho Bank, Ltd.	1.60

Note: The Company holds 1,871 thousand shares of treasury stock.

Rating Information	Institution	Long-term	Short-term
	Japan Credit Rating Agency, Ltd. (JCR)	A+/Stable	J-1
	Rating and Investment Information, Inc. (R&I)	A/Stable	—



External Evaluation (As of July 2023)

ESG Indexes



FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that DOWA HOLDINGS CO., LTD. has been independently assessed according to the criteria of the FTSE4Good and FTSE Blossom Japan Index Series and has satisfied the requirements to become a constituent of those index series. Created by the global index provider FTSE Russell, those index series are designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices and used by a wide variety of market participants to create and assess responsible investment funds and other products.

2023 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX



Morningstar Japan ex-REIT Gender Diversity Tilt Index

THE INCLUSION OF DOWA HOLDINGS CO., LTD. IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF DOWA HOLDINGS CO., LTD. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

Other Certifications



[Certified Companies]
DOWA HOLDINGS CO., LTD.

[Certified Companies]
DOWA HOLDINGS CO., LTD. (2023)
DOWA ECO-SYSTEM CO., LTD. (2023)
DOWA METALS & MINING CO., LTD. (2023)
DOWA ELECTRONICS MATERIALS CO., LTD. (2023)
DOWA METALTECH CO., LTD. (2023)
DOWA THERMOTECH CO., LTD. (2023)
ECO-SYSTEM CHIBA CO., LTD. (2023)
ECO-SYSTEM SANYO CO., LTD. (2023)
KOWA SEIKO CO., LTD. (2022, 2023)
DOWA METAL CO., LTD. (2023)

Initiatives



UN Global Compact

Financial Section of DOWA Report 2023

Please refer to the "Financial Section" of DOWA Report 2023 for detailed fiscal information on the fiscal year ended March 31, 2023.
<https://ir.dowa.co.jp/en/ir/library/annual.html>

Inquiries

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