# **MEIDENSHA REPORT 2022**

REPORT



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enterprise category.

Meidensha's CO2 reduction targets received SBT certification.

ホワイト500 Meidensha was recognized as 2022 Health and Productivity Management Organization (White 500) in the large

2022



Meidensha was selected as a Health and Productivity Management Brand

健康経営銘柄

2022



Meidensha was granted Platinum Kurumin certification by the Minister of Health Labour and Welfare







AA54-3665 As of Dec., 2022





## Source of the Meiden Group's Deep-rooted Value Creation

The society we envision for the future is "a resilient society where humans live in harmony with nature," "a society that feels safe, prosperous, and exciting," and "a society where different communities and people can coexist." This is the DNA of the Meiden Group's deep-rooted source of value creation. This DNA is the source of our motivation to embrace the challenge of creating a new society and the Meiden Group's growth.

The motivation behind our activities

### Integrity

Reflecting on our founder's wish to "enrich society through the power of electricity," leads us to think of the many people on the other end of our products and services, hone our technology, and arrive at the Meiden Group's mission and raison d'être of building a more affluent world through business. We will continue to create a better future society by sincerely facing our customers and society while valuing the spirit of *monozukuri*(the spirit of craftsmanship).





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The name "Meidensha" represents the concept of a place (*sha*) where likeminded people could come together and build a more affluent world through the power of electricity (*den*) in the Meiji era (*mei*). Today, we are driven by our sense of purpose, responsibility, and ambition to make necessary infrastructure disappear into the background in fields such as electricity, plumbing, transit, and industry.

The motivation behind our activities

### Independent Mind

We aim to stay one step ahead of solving the issues that face society and our customers and be able to make proposals for a better world. Our founder, Hosui Shigemune, contributed to the advancement of electricity in Japan by becoming involved with a wide range of electrical equipment in addition to motors, which were the Company's original products, with the idea that it was necessary to build an extensive power network in addition to building motors, in order for the age of electricity to arrive. We will embrace the challenge of actively tackling social issues presented by the age along with like-minded compatriots.



The motivation behind our activities

### **Social Contribution**

Although times have changed and the social environment is dramatically different, our wish to enrich society through electricity is carried in the hearts of every employee.

What will the world be like in 50 or 100 years? What can the Meiden Group do to create a more affluent and comfortable society in the future? We will continue to search for these answers.



The motivation behind our activities

### Responsibility



The motivation behind our activities

### **Innovative Spirit**

Since its foundation, the Meiden Group has produced many Japan-first and world-first products, such as Gapless Metal Oxide Surge Arrester (MOSA) that support the stable supply of electricity, Overhead Catenary System (OCS) inspection system for railways that can be fitted on carriages, 145 kV Ecotank type vacuum circuit breakers that do not use SF<sub>6</sub> gas, and motors and inverters for EVs that we have been developing since the 1980s, in advance of the rest of the world. Based on the foundation of technology developed by the Meiden Group over more than 120 years, we will work to solve issues to meet a range of needs and create new business value.

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#### Editorial Policy

The Meiden Group informs its stakeholders of its attitude and initiatives relating to social responsibility through the two media of the Meidensha Report (print edition and web edition) and Meiden Group Sustainability (web edition).

The content of this report is determined after reporting to and consultation with the Board of Directors. With regard to the content of the reports, we work to collect, analyze, and distribute information that meets our stakeholders' expectations and is of interest to our stakeholders through daily public relations, IR activities, and interviews with each department.

Furthermore, the Meiden Group is conducting internal communication activities as part of the process of drafting reports in order to understand changes in the external environment and share future issues and trends. In addition, we work to strategically promote future sustainability management by exchanging opinions based on the reports that have been created, and having each department reflect on its own activities, taking into account outside perspectives.

#### The Meidensha Report's Drafting and Approval Process and Responsibility for the Meidensha Report

In drafting this report, we refer to the International Integrated Reporting Framework proposed by the IFRS Foundation and the Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for

Collaborative Value Creation proposed by the Ministry of Economy, Trade and Industry, etc. The content of the report is based on opinions and questions received from stakeholders on a daily basis, and we drafted it by working with each organization to convey information in a manner that is easily understood from a long-term general perspective, in order to realize the Meiden Group's ideal state of being. I have confirmed that the drafting process and content are correct and proper. Since 2013, Meidensha has issued the Meidensha Report as an integrated report. It is a communication tool for all stakeholders. including shareholders and investors, to understand the Company, Going forward, we will use the report as a tool for dialog and sincerely face our stakeholders to work to sustainably increase corporate value. (Representative Director & President & Executive Officer: Takeshi Miida)

#### Disclaimer

In addition to past and current facts about the Meiden Group, this report contains forecasts for the future based on plans, outlooks and business policies and strategies in effect at the time of publication. These forecasts are our assumptions and judgments as based on information available at the time they were stated and may differ from actual business activity results and events in future owing to changes in conditions.







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#### Report Media

MEIDENSHA REPORT 2022

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#### Meidensha Report print edition and web edition

A comprehensive collection of financial information concerning the Meiden Group and nonfinancial information such as initiatives that contribute to improving corporate value and management strategies.

#### Meiden Group Sustainability Web Edition

A summarized introduction focusing on specific initiatives to tackle sustainability issues that we consider important.



https://meidensha.disclosure.site/en

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exceptional environmental, social, and governance (ESG) measures. The FTSE Blossom Japan Index is widely used for the creation and evaluation of sustainable investment funds and other financial instruments.

#### CDP Evaluation Results (FY2021)



- · Climate change: B
- · Water security: B

#### MSCI ESG Ratings Evaluation (2022)

The MSCI ESG Ratings are ESG ratings by the US-based MSCI. MSCI analyzes companies' ESG risk management capabilities and gives one of 7 ratings from AAA to CCC. In 2022, Meidensha received a rating of A in the MSCI ESG Ratings.

### Thinking of the people beyond our products and services, and implementing strategies for sustainable growth into the future

#### **Reflecting on the First Year of** Medium-term Management Plan 2024 and Results

FY2021 was the first year of operation of Medium-term Management Plan 2024, which was designed to operate for four years. However, as with FY2020, it was a year of considerable ongoing impact of the COVID-19 pandemic on social and financial activities, as well as heightened business uncertainty due to increased materials and energy costs, supply chain disruptions, and the materialization of geopolitical risks. Under these circumstances, we implemented measures to minimize the impact on results through efforts to reduce costs and promotion of efficient business management, etc.

In terms of business-related initiatives, we strengthened the earnings-base businesses of the Domestic Infrastructure Business and the Electronics Products Business, and promoted increased investment of resources in markets such as renewable energy, EVs, and overseas Power T&D, which are expected to expand greatly going forward. At the same time, we pushed through reduction of the break-even

point for the Mobility T&S (Testing & Solution) Business, for which the market is undergoing rapid change, by revising the business structure, as a measure to respond to an age of extreme change, and we optimized business systems and restructured sites, such as by deciding to close US sites for outsourced testing business, and focus on sites in Japan.

As a result of these initiatives, consolidated results included net sales up 10.3% year on year to 255.046 billion ven, operating income up 12.9% year on year to 9.468 billion yen, ordinary income up 20.6% year on year to 10.206 billion yen, and net income attributable to owners of parent down 7.8% year on year to 6.733 billion yen.

#### Medium-term Management Plan 2024 Update

Owing to these circumstances, in May of this year, we updated Medium-term Management Plan 2024, which was released in May 2021, and announced it externally. We firmly maintained our basic direction based on sustainability management and our all-company numerical targets for



the final fiscal year of the plan, while we reconfirmed and adjusted strategic scenarios based on current management conditions, and examined and reset numerical targets for each business. Internal initiatives for the remaining three years of the plan commenced in April 2022.

Refer to p. 57-p. 66 "Group Business Strategy."

#### **Promotion of Sustainability** Management

The purpose of the Meiden Group is to contribute to the realization of prosperous lifestyles through products and services provided, and we have inherited the ambition "enrich society through the power of electricity" since our foundation. The strong desire to contribute to society is the driving force behind Meiden Group employees, and this is signified by the "sha" character in Meidensha, which means "a place where likeminded people can come together." The advancement of electricity generation, transmission, and usage have greatly developed, as well as technology. We can proudly say that we are successors to the Company that earnestly tackled the challenges of electricity, collected electrical technologies, and contributed to society through manufacturing in the time for a change, and the effort and knowledge of the pioneers that allowed the Meidensha of today to flourish.

#### **Becoming a Sustainability Partner**

In order to achieve our ideal society under Medium-term Management Plan 2024, we pledged to "work to build a new society through integrity to the earth, society, and people, and through the power of co-creation" as our new Ideal State of Being/Vision. In April 2021, we also stated the goal of becoming a "sustainability partner" to embody the ideal form of the Meiden Group through discussion to promote sustainability management, led by management and departments comprising dedicated appointees.

We consider a "sustainability partner" to have two meanings. The first is to be a "partner to the whole of society" by thinking about what a better future for society looks like and how to achieve it, before taking actions to that end. The other is to be a partner as an "escort runner" and accompany likeminded stakeholders to achieve the ideal future society. To become a sustainability partner as so defined, we will provide society with the benefits of "carbon neutrality" and "well-being".

As the world works to achieve "carbon neutrality", we will continue to contribute to society through realization of cleaner electricity generation, lower-loss electricity distribution, stable and efficient electricity storage, smarter control of electricity, etc. In the field of power transmission and transmission equipment that does not use greenhouse gases, in which Meidensha has unmatched technological

expertise, we will refine our in-house technology to secure and maintain a position as a leader in the field, and consider improving our products and expanding our product lineup through collaboration with our partners.

With regard to "well-being," which is the second value provided, we believe that we must first ensure well-being within the company for employees and others, in order to provide it throughout the world. Furthermore, in order to cater to the various conceptions of well-being throughout the world, we are aware that it is essential to gather personnel with the ability to independently and actively promote matters, and for them to comprise members with various and diverse views and backgrounds. The value of personnel at the Company is not recorded on the balance sheet; however, we believe that personnel are the Company's most valuable asset. In order to provide "wellbeing" at the Company, we will promote the creation of an environment where individuals with diverse values can participate and the review of system designs to enable work styles that are appropriate for the times, and promote reforms to enable employees to feel a sense of achievement and growth.

We are aware that a single company acting alone will not be able to achieve "carbon neutrality" and "well-being" for the whole world. Going forward, we will broaden our connections with likeminded compatriots who share our goals for society, going beyond the bounds of the industry and the company, and with them, embrace the challenge of creating new value.

#### The Meiden Group's Materialities

The ESG Management Promotion Committee, which was established in FY2021, became the Sustainability Management Strategy Committee in FY2022. As its first topic, the Committee discussed how to become a sustainability partner and major issues (materialities) relating to medium- to long-term value creation.

When identifying materialities, we investigated risks and opportunities faced by the Meiden Group, and conducted mapping on the two axes of "importance to stakeholders" and "importance to the Meiden Group." As a result, the following six materialities were identified: "contribution to carbon neutrality," "realization of a secure, safe, and convenient society," "innovation through co-creation," "creating corporate culture that gives lively workspace and growth for divers human resources," "high-quality manufacturing and value provision," and "sincere and responsible business operation." We established specific measures to address each of these major issues and KPIs to evaluate progress. We will regularly manage progress and continuously review content.



Refer to p. 17 "Meiden Group's Major Issues (Materialities)."

#### Consideration of the Long-term Vision After Medium-term Management Plan 2024

When considering Medium-term Management Plan 2024, many employees, including young employees, participated in discussions. We envisioned our ideal society in 2030. considered the necessary processes to achieve it through a backcasting approach, and incorporated the results of this into specific business strategies, having defined focus areas in which the Meiden Group's strengths can shine. At present, the first fiscal year of the medium-term management plan has concluded, and the society-wide trend of accelerating initiatives aimed at digitalization and carbon neutrality are progressing as expected. However, we have also seen the manifestation of geopolitical risks, supply chain confusion and disruption, and heightened concerns of economic recession, which are factors that have resulted in considerable changes, meaning that we must tackle these changes head on in the short term with rapidness.

Because the world is so uncertain, I have a renewed awareness of the need to think about the future 10 or 20 years from now, and be a company that is able to constantly, actively, and positively change. With that in mind, in conjunction with business execution aimed at accomplishment of Medium-term Management Plan 2024, we have started developing a long-term vision to ascertain our vision for a future society, with an eye to constantly changing societal conditions. Many mid-level and young employees, who will support the Meiden Group going forward, are participating in discussions to this end. We will take their opinions on board, propose a tentative explanation of the Meiden Group's vision for 2040, and hold discussions at the management level, including how to restructure our business portfolio to achieve it.

In the course of discussions concerning business portfolio restructuring, it is necessary to incorporate the perspectives of obligations such as the company's social responsibility to support infrastructure, the responsibility of power supply, and degree of environmental contributions, in addition to profit and growth, when conducting business evaluation. At present, the Domestic Infrastructure Business and the Field Service Engineering Business, which are Meidensha's revenue base, are sound; however, how to secure revenue in the domestic infrastructure market, which is expected to contract in the future, is an extremely important theme. We will share the results of discussions concerning a long-term vision with everyone at an appropriate time.

#### **Initiatives to Improve Corporate Value**

#### Promoting Management for Sustainable Growth

In addition to promoting consideration of a long-term vision, including restructuring our business portfolio, which on its own would not enable us to realize sustainable

corporate growth, as a step toward achieving the goals laid out in the long-term vision, it is necessary to conduct management on a long-, medium-, and short-term basis by developing a medium-term management plan clarifying the path to growth over a three- to four-year period, and incorporating these goals into annual plans that need to be put into action immediately. Ensuring that we constantly address issues that require immediate attention clarifies our future direction and issues that arise along the way, in addition to increasing short-term corporate value, and leads to a stable business base.

In our business strategy, the EV Business is expected to be the biggest driver of growth, and we are convinced that demand for electric vehicles will increase as environmental measures become tighter in countries around the world. In FY2022, we expect production volume to rise rapidly at Nagoya and Hangzhou, China (first line), and ensuring that this production is stable is a major short-term issue. However, in the medium to long term, it is essential to extend manufacturing technologies for mass production, cultivate new customers, etc., and it is also necessary to develop organizational capabilities to cater to the automotive industry, which is undergoing rapid change. From FY2022, we have transitioned our EV Business to internally independent management, and we will ensure that we cater to the rapidly changing automotive industry through agile decision-making by the general manager of the EV Group.

With regard to the Power Infrastructure Business, we will achieve growth by expanding sales and product lineups of SF<sub>6</sub> gas-free products, expanding renewable energy-related businesses, and participating in the enhancement of a transmission and distribution network. As for overseas businesses, which have operated in harsh business conditions for the past few years, we aim to incorporate further increased demand and return to profit during the current medium-term management plan against the backdrop of the advance of population growth and urbanization in developing countries, increased global environmental awareness, etc., by quickly getting new companies in the process of starting up off the ground, restructuring sites, etc.

We also anticipate further growth of semiconductorrelated businesses as digitalization further progresses throughout the whole of society. In addition to our specialties of vacuum capacitor products and pure ozone technology, we will expand our Maintenance Services Business for semiconductor manufacturing equipment, and increase profitability of the whole group through synergy between these businesses.

However, at present, the business facing the harshest conditions is the Mobility T&S Business, which handles testing equipment used to develop automobiles, etc. In FY2021, in our U.S. businesses, in light of profitability challenges, we decided to end the outsourced testing

business that we had previously operated, and change to a business model that specializes in sales and after-sales service of products in the region. In the Japanese market, we aim to increase sales of products utilized for developing electric vehicles and of systems to assist model-based development, for which customer needs are increasing, and aim to quickly return to profit by focusing on the aftersales service (maintenance) sector, leveraging the fact that our products have been continuously operated by a range of customers.

Refer to p. 57-p. 68 "Group Business Strategy" and "Overseas Businesses."

#### • Enhancing Manufacturing Capabilities

Until now, the Meiden Group has improved its manufacturing capabilities by following and responding to customer demands as our strength. However, in recent years, through the launch of the EV Business, we have gained the new organizational capability of an integrated process from R&D to manufacturing, mass production, and standardization. By leveraging the knowledge and know-how gained from the EV Business, we fully expect to create added value in other businesses. It is necessary to aim to create this type of synergy between businesses, as well as leverage AI and digital technology to apply new materials and standardize products, enhance processes from R&D to mass production, and strengthen production management systems, in order to respond to societal changes anticipated in the future.

#### Capital Policy

The core of our capital policy is to conduct growth investment and shareholder returns in a balanced manner on the premise of enhancing financial soundness. Securing and appropriately allocating the management resources of capital and personnel are necessary elements for sustainable growth. We will develop a policy for capital investment, R&D investment, and investment in human resources, and execute with priorities by evaluating investment efficiency and growth stories for each business and theme according to long-, medium-, and short-term timelines.

Refer to p. 69 "Financial Strategy."

#### • Enhancing Corporate Governance

With regard to enhancing corporate governance, we reviewed the structure of the Board of Directors at the Annual General Meeting of Shareholders held in June 2022. As a result of this review, there are now 11 directors, including directors who are Audit and Supervisory Committee members, of whom six are independent outside directors, which has made the governance structure even more transparent. Going forward, we will further reflect the objective perspectives of outside directors and their unique knowledge and experience, etc., in the management of the Company, and make



discussions of the Board of Directors livelier.

Refer to p. 45-p. 50 "Corporate Governance."

#### **Dialogue with Stakeholders**

We believe that dialogue with stakeholders, who support the Meiden Group, is extremely important to receive a correct understanding of the Company's businesses and strategy. In FY2021, we held the first ESG briefing for the purpose of deepening understanding concerning the relationship between promotion of sustainability management and medium- to long-term increase in the Meiden Group's corporate value. In order to respond quickly to future rapid societal changes and the evolution of technology, it is necessary to incorporate new technologies and continue to develop next-generation systems by creating synergy with other companies' technologies, including the Meiden Group's resources and companies in other industries. We pledge to our shareholders that we will share information about our policies and conduct meticulous communication with our stakeholders, as well as sustainably increase corporate value through a virtuous cycle of revenue creation and investment in growth.

Please refer to "Dialogues with Shareholders and Investors" on the sustainability website. https://meidensha.disclosure.site/en/themes/140

#### Finally

Meidensha's business was founded with the founder's conviction to "enrich society through the power of electricity." Meidensha is now over 120 years old, and thinking about the realization of an affluent lifestyle for the people on the other end of our products and services, and a vibrant society, is still the source of our values and strengths. As diversification of social values progresses, it is increasingly important to shift from the approach of "What will people buy?" to thinking about "Why do people buy our products?" and "Why are our products and services needed?" Amid such changing times, we will continue to deal sincerely with the earth and people, and take on challenges alongside those with similar aspirations. We feel that this is the aspiration that has been passed down since our founding and the significance of our company's continued existence in this world.

Going forward, we will boldly embrace the challenge of creating new value by connecting with likeminded people who share our vision of society, beyond the boundaries of companies.

### **Meiden Group Corporate Philosophy**

Meiden Group Corporate Philosophy (Corporate raison d'être)

Corporate Mission It defines the raison d'être and corporate mission

### Illuminating a more affluent tomorrow

We continue to create value and technologies for the realization of a more affluent and environmentally aware society.

Value Provision It defines the unique value provision and core competence

### For customer peace of mind and satisfaction

We offer complete environmental consideration and appropriate support for our customers.

From product design to commissioning, our highly skilled staff help customers solve various issues and realize their dreams by providing high-quality, socially responsible products and services.

#### Ideal State of Being/Vision (Corporate Ideal State of Being)

Work to build a new society through integrity to the earth, society, and people, and through the power of co-creation A sustainability partner that creates personal happiness and a sustainable global environment

#### Important Values (Values Shared by Employees)

Sustainability 
 Diversity 
 Integrity and responsibility 
 Future-orientation



**Important Values** 

(VALUE)

The Meiden Group Corporate Philosophy is as follows: "We seek to delight customers by offering high quality products, services, and solutions to help solve their problems. Through these business activities, we aim to proactively solve global environmental problems and other social issues and help achieve more affluent future. We must continually tackle these challenges."

This is our legacy from Hosui Shigemune, who founded our company as a local factory to manufacture and repair electrical machinery. His will remains our common sense of values, even as these have evolved with the times, and remains at the core of all our business activities. Staying true to this Corporate Philosophy, the Meiden Group aims to grow with society and be indispensable to it. With that as our goal, we continually take the challenge of creating new technologies and value.

Corporate Slogan Expressing the corporate philosophy in a single phrase

Quality connecting the next

### Quality connecting the next People and Technology • Tradition • Sincerity • Uniqueness

• Flexibility • Reliability • Reliability

#### MEIDEN CYCLE



For us, our "quality" is not only about the quality of our products and services. There are two things that make our quality: "people" and "technology." People at Meiden strengthen ties with customers around the world by being truthful and flexible. Meiden Group technology contributes to society with truly original products and reliable services created with expertise. These two attributes make Meiden's unique quality, and create new connections with the future. Making connections with our customers, society, and people living in it. These connections will expand, and the power we have built will become the energy for the next generation.

For the peace of mind and joy of our customers, and the precious lives of people beyond them, Meiden Group quality will connect with a more prosperous tomorrow. This is our never-changing mission.

In order to realize our Group Corporate Philosophy, we must identify the direction for each individual employee to aim towards and provide signposts to help them proceed without losing their way. To enable us to do so, we have made these five actions our watchwords. The actions are mutually linked, with one action calling forth the next, creating a cycle of action and growth. Based on this image, we call this the Meiden Cycle.

By sharing and practicing the Meiden Cycle as the ethos underlying our actions, we seek to maximize the growth cycle for each of our employees.

### The Path of Value Creation

Since its founding in 1897, Meidensha has single-mindedly pursued manufacturing excellence while contributing to the sustainable advancement of society by creating a variety of technologies, products, and services, with a focus on the Japanese social infrastructure sector.

Our commitment to manufacturing excellence, inquisitiveness, and spirit of challenge originate in the determination of our founder, Hosui Shigemune, to "build more affluent tomorrow through the power of electricity." He was a firm believer in looking beyond products to envision prosperous lives for many people who use them and refining technologies to enrich society through business. This has been our very mission as a manufacturer of electrical equipment and the reason for our existence.

### Our spirit of "for society and for people" has been testament to our existence more than 120 years.



Important values carried on for over 120 years since our foundation Spirit of "for Society and for People" In the Meiji Era, the name of Meidensha represented the concept of creating a place where

ambitious friends can come together to "build a more affluent tomorrow through the power of electricity." He was a firm believer in looking beyond products to support the lifestyles of the people who use them and use the technologies therein to enrich society. 120 years have passed since the Company was founded, but we still carry that ambition and belief.

Important Values (Values Shared by Employees)

1940

Sustainability • Diversity • Integrity and responsibility • Future-orientation

Net sales ---- Operating income

\* Figures from FY1990 onwards are consolidated totals.

#### 1917

Establishment of stock company

#### 1897

Founding and Birth of "The Motor expert Meiden"

In 1897, our founder Hosui Shigemune started a factory at a time when Japan depended on imported products for much of its industrial machinery. His efforts led him to devise an induction motor design method in 1905. In the following year, he started a full-scale production of motors to his own design method.

Meidensha's motor production helped to modernize Japanese industry and became the cornerstone of our value-building that still nersists today

### 1970s

Evolving into "Meiden a Power Electronics Company"

In about 1970, society was beginning to prize quality over quantity. Likewise, we switched our management strategy from quantity based to quality based. On the technical side, our aim was to develop new products that made full use of our employees' creativity. At this time, we began to cement our status as a manufacturer of heavy electrical equipment, having developed new products that combined heavy electrical technology (power) with the latest electronics technology.

#### 1980s Evolving into "Meiden a System Engineering Company"

In the latter half of the 1980s, economic expansion led us to boost our production capacity at factories and upgrade our production system. We expanded our family of Group companies and developed a variety of businesses to make us a stronger enterprise. We grew to have three core business pillars adding mechatronics and electronics to our existing power electronics field. We integrated technologies from each of these fields to promote management, monitoring, and control systems

#### 1990s~2000s Approaching Our Centenary

1960

Japan's business environment changed drastically after the collapse of the bubble economy, and management was faced with a time of crisis. However, the legacy we had inherited from our predecessors, technologies and well-developed human resources, became the base for a new era of expansion as we hit the 100-year milestone in 1997. Upon our 110th anniversary in 2007, we christened ThinkPark Tower, a facility for our head office, surrounded by abundant greenery in Osaki,

Shinagawa City, Tokyo, where our company



### 2010s

The Meiden Group has been expanding its presence in markets outside Japan. especially in the ASEAN region. As part of this, we strengthened regional supervisory role of our overseas subsidiaries; e.g. building partnerships with enterprises outside Japan, and opening training centers for local staff. We started to focus on using the IoT and AI to increase our product competitiveness and system technology. We also enhanced our one-stop service, which ranges from equipment manufacture to maintenance inspection and operations and management



#### Supporting Society through the "POWER" of Manufacturing Since the Great East Japan Earthquake, in the

2012~2014

midst of great changes in the global business environment, due to changes to Japanese energy policies and the high value of the yen, etc., we have conducted business composition reforms such as group restructuring, expanded the transmission and distribution business which we inherited in FY2012, and established a foundation for growth businesses, such as motors and inverters for electric vehicles, in order to enhance our "monozukuri (manufacturing) capabilities" for a new leap forward



A more detailed timeline may be found on our website https://www.meidensha.com/corporate/corp\_05/index.html

Aiming to Be "Meiden a Global Company"



1980



#### 2015~2017

Creating a "New Future" through Product Strength

We have continued to benefit from the results of the previous medium-term management plan, and we aimed to jump from a performance recovery phase to a growth phase. According to this basic idea, we worked to both "strengthen the earnings base of businesses in Japan" and "expand overseas business." and worked to produce results through new partnerships such as EAML Engineering and MEIDEN T&D (INDIA)LIMITED in India. In December 2017, we celebrated our 120th anniversary

#### 2018~

Investment in Equipment and Personnel for Great Growth

We consider this era to be a "powerful step forward" phase for a future JUMP. We established new sites and production lines to increase future revenue through active capital investment for "Growth Businesses" such as the Overseas and Automobile-related Businesses and increased the earning capacity of "Earnings-Base Businesses. Creation of a foundation is proceeding, such as opening a new technology center to contribute to the development of high-level personnel, and a human resources system that is suited to the changes of the age



**Our Value** 

### **Meiden Group Value Creation Process**

The Meiden Group will reform its value creation processes to realize its ideal society and 2030 ideal state of being/vision, with the aim of achieving a sustainable society and sustainable growth of the Meiden Group.



# Creation of Social, Environmental, and Financial Valu humans live in harmony with nature conservation for society and customers The earth Society Customers communities and people can coexist • Relationships of trust with stakeholders

### Major Issue (Materialities) Identification Process

We identified materialities under Medium-term Management Plan 2024 by back casting from our vision for 2030. The Meiden Group will embrace the challenge of creating a new society and work toward the realization of a sustainable global environment and happiness for all people by solving materialities that have been identified.

#### 1 Management of Major Opportunities and Risks for the Meiden Group

- We arranged societal changes by 2030 and impact on business management and identified constituent factors through PEST analysis.
- We drafted a longlist (369 societal changes and issues in total), including the aforementioned constituent factors using metrics of international standard-setting organizations and items set by ESG evaluation institutions, to avoid omissions.
- We listed 369 societal changes and issues in total, and arranged them according to opportunities and risks from the perspective of the Meiden Group's ideal state of being.

Analysis of Societal	Changes and Impact from a PEST Perspective
Politics	International situation, policies, laws, and regulations, etc.
Economy	Trends relating to economics, finance, and trade, etc.
Environment	Climate change, waste, food insufficiency, and natural disasters, etc.
Society	Population dynamics, industrial development, and education systems, etc.
	Information transmission materials logistics

#### Management of Changes and Issues that are Important to Society

and new fields, etc.

SDGs	ISO 26000
GRI standards	ESG evaluation organizations
SASB standards	Ten Principles of the UN Global Compact

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### **2** Evaluation of Importance

• We conducted an overall evaluation of the importance of major risks and opportunities according to the two axes of the Meiden Group and Stakeholders.

	Evaluating department	Evaluation items
Meiden Group	Corporate Policy Planning Group, etc.	FY2030 impact on operating income, likelihood of occurrence, and level of response
Stakeholders	Business units that deal with stakeholders	To what extent do stakeholders consider the issues to be important





### **3** Identification and Determination of Materialities

- We have gathered and designated items that we have deemed are very important opportunities or risks as six materialities.
- Designated materialities are discussed and determined by the Sustainability Management Strategy Committee, the Executive Officers' Meeting, and the Board of Directors.

Very Important Opportunities	Very Important Risks
<ul> <li>Expansion of businesses that contribute to the environment</li> <li>Ensuring a secure and safe society (increased need for replacement and maintenance of domestic infrastructure)</li> <li>Rebuilding local infrastructure</li> <li>Progress of digitalization (digital transformation/increased semiconductor needs)</li> <li>Realization of a convenient and comfortable society (increased need for labor saving and automation)</li> <li>Expansion of verseas markets</li> <li>Advancement of new technologies</li> <li>Leveraging human capital (increased productivity through high engagement)</li> </ul>	<ul> <li>Environmental regulations and climate change (carbon tax and increased frequenc of storms and floods, etc.)</li> <li>Changes in the global economy, politics, society</li> <li>Insufficient awareness or responsiveness to changes in market conditions</li> <li>Reduction of quality</li> <li>Risk of industrial accidents</li> <li>Insufficient compliance</li> <li>Risks relating to procurement of materials</li> </ul>
high engagement)	
Materialities Relati	ng to Value Creation
Materialities Relati Contribution to carbon neutrality	ng to Value Creation Realization of a secure, safe, and convenient society
Contribution to carbon neutrality Innovatio	Realization of a secure, safe, and
Contribution to carbon neutrality Innovatio	Realization of a secure, safe, and convenient society on through
Contribution to carbon neutrality Innovatio co-creating corporate culture that gives lively workplace and growth for diverse human resources Since responsib	Realization of a secure, safe, and convenient society on through reation High-quality manufacturing and

Technology



• We will regularly review materialities and KPIs.



**Our Value** 

### Meiden Group's Major Issues (Materialities)

The six identified materialities are divided into the two groups of "materialities relating to value creation," to embrace the challenge of creating a new society, and "materialities relating to our business base," to support business operation.

#### Materialities Relating to Value Creation



#### Contribution to Carbon Neutrality

#### **Reasons for Identification as a Materiality**

The Meiden Group operates many decarbonization businesses, but there is also an environmental impact from manufacturing. It is essential to launch a response to the significant impact on operations.

#### **Outlook**

- Climate change is accelerating, and the movement to reach the Paris agreement target (1.5°C) is gaining momentum.
- Markets relating to decarbonization are expanding, and it is essential to respond to legal restrictions relating to carbon taxes, etc., and prepare for increasing large-scale disasters.



Related SDGs



#### Realization of a Secure, Safe and Convenient Society

**Reasons for Identification as a Materiality** 

The Meiden Group operates many relevant businesses. On another front, it is essential to respond as business continuity risks may arise.

#### Outlook

- Review of the state of local infrastructure will proceed due to the declining birthrate and aging population, difficulties with local government finances, and aging facilities in Japan.
- Digitalization is expected to proceed, leading to increased semiconductor-related demand and increased demand for reduced manpower and automation in the industrial sector.



Related SDGs

#### Innovation Through Co-creation

#### Reasons for Identification as a Materiality

It is extremely important to embrace the challenge of developing next-generation technology, and create and furnish social value along with partners that share the same conviction.

#### Outlook

- Existing social systems have reached the end of their usefulness, and global-scale social issues have arisen, including climate change issues.
- These issues cannot be solved by any individual organization, so it is necessary to enter partnerships to embrace the challenge of solving them.



Related SDGs

#### Materialities Relating to Our Business Base



#### Creating corporate culture that gives lively workplace and growth for diverse human resources

**Reasons for Identification as a Materiality** 

Human resources are the source of the Meiden Group's strength. Drawing out and combining the abilities of each individual is essential for value creation.

#### Outlook

- abilities and work with enthusiasm.

#### High-quality Manufacturing and Value Provision

#### **Reasons for Identification as a Materiality** The Meiden Group's strength of insistence on quality is essential not only to deliver products and systems, but also provide subsequent services.

#### **Outlook**

- quality products and systems without defects.

#### Sincere and Responsible Business Operation

#### **Reasons for Identification as a Materiality**

responsibility.

#### Outlook



 Values will diversify and work-styles will change. There is a demand for a corporate atmosphere that allows individuals to display their

 As a precursor to this, it is essential for the workplace environment to allow employees to be physically and psychologically healthy.

• The Meiden Group's business fields relate to infrastructure and industrial underpinnings, and it is essential that we deliver high-

 As society changes, the value of infrastructure and equipment that "will not shut down" under any circumstances will remain constant.

It is important to respond to the changing requirements of society and promote management that we can be proud of, with the core of the Meiden Group's strengths of sincerity and

• We have an obligation to society to always conduct corporate management with sincerity, as we receive capital from society, provide value to society in conjunction with our stakeholders.

Related SDGs

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Related SDGs





Related SDGs



#### Major Issues (Materialities) and Medium-term **Management Plan 2024** Major opportunities

Major KPIs and targets Ext **Major opportunities Materialities** Medium-term Management Plan 2024 and risks () are externally disclosed targets for FY2024 Expansion of markets for businesses that 1. Expansion of growth businesses • EV business net sales (47.0 billion yen) ★ • EV bu **Basic Policy 1**  Expansion of EV-related, renewable energy contribute to the environment Renewable energy business net sales (100.0 Realization of Increased costs due to carbon taxes, etc. business, and environmentally-considerate Scope Environmental contribution (10.00 million tons) \* high-quality Risks from frequent storms and floods products, and high profitability Scope 3 reduction rate (6% reduction compared to FY2019) \* (15% growth **Contribution to** Decline in competitiveness due to late • Proportion of green products • Number of super green products response carbon neutrality **Basic Policy 2**  Promotion of decarbonization within the Scope Scope 1.2 reduction rate Promotion of (30% Company (6% reduction compared to FY2019) \* sustainability Achiev management Achiev 1. Expansion of growth businesses Growing need for replacement and Motor Drive business net sales **Basic Policy 1**  Expansion of motor drive and maintenance of infrastructure Semiconductor-related businesses net sales **Realization of** Rebuilding local infrastructure semiconductor-related businesses • Maintenance business net sales (¥41.6 billion) ★ high-quality 2. Enhancement of competitiveness of Growing need for semiconductors due to Overseas net sales (¥73.0 billion) ★ growth digitalization earnings-based businesses **Realization of a** Expansion of overseas markets · Expansion of the maintenance business safe, secure, and Creation of added value through digital • Promotion of public private partnerships and convenient society transformation (DX) provision of design solutions Growing need for labor reduction and 3. Improvement of profitability of overseas automation businesses Decline in competitiveness due to late · Rebuilding and improving profitability of response overseas businesses • Growing new needs due to sustainability Creation of new business themes and New businesses net sales (¥5.0 billion) ★ Basic Policy 3 and ESG trends promotion of commercialization through Number of innovation themes **Innovation through** Promoting Advancement of new technologies co-creation Number of innovation personnel ambidexterity co-creation Decline in competitiveness due to late Development of and furnishing society with management response next-generation technology Improvement of productivity through high • Implementation of measures to improve • Improvement rate of employee engagement metrics Femal **Basic Policy 2** engagement of employees (10% improvement compared to FY2021) ★ (at leas engagement **Creating corporate** Promotion of Generation of innovation by leveraging · Expansion of diversity and inclusion • Female officer class: number of inside officers (at least 1) ★ Number sustainability culture that gives • Number of non-Japanese presidents of local subsidiaries (at leas diversity measures management lively workplace and Outflow of personnel or insufficient Expansion and fulfillment of professional (at least 3) ★ Total education and training expenses personnel due to low engagement development programs growth for diverse Worse employee health due to factors Number of industrial accidents · Enhancement of occupational health and human resources including occurrence of industrial safety accidents and pandemics · Promotion of health management Creating safe and secure infrastructure · Establishment of the Meiden Monozukuri Manufacturing process metrics **Basic Policy 2 High-quality** and industrial underpinnings (Manufacturing) Standards to improve QCDSE (product production time, production time per unit, units Promotion of manufacturing and Loss of customer trust or orders by Enhancement of quality assurance (QR map, produced per person, production/manufacturing lead time) sustainability reason of lower quality reconstruction of the Meiden Customer Number of defects and cost of dealing with defects value creation management Center, etc.) (reduced by half compared to FY2020) ★ Infringement of human rights by the Enhancement of stakeholder engagement Stakeholder engagement improvement rate Basic Policy 2 Meiden Group or suppliers Introduction of respect for human rights and Human rights training attendance rate Promotion of Sincere and Information security risks human rights due diligence Information security training attendance rate sustainability Insufficient compliance measures · Enhancement of information security and Compliance training attendance rate responsible business management internal training operation · Enhancement of compliance • Enhancement of corporate governance

ternally disclosed targets for FY2025 onwards	Related pages	
usiness net sales 0 billion yen in FY2028) ★ e 3 reduction rate reduction compared to FY2019 in FY2030) ★ e 1 and 2 reduction rate reduction compared to FY2019 in FY2030) ★ wement of RE100 (FY2040) ★ wement of carbon neutrality (FY2050) ★	P. 23~24 • Special Feature Achievement of Carbon Neutrality	
	P. 25~27 • Special Feature Achievement of Well-Being	
_	P. 39~40 • Innovation Strategy	
le officer class: number of inside officers ast 3, of which 1 is an executive officer, in FY2030) ★ per of non-Japanese presidents of local subsidiaries ast 5, of which 1 is an executive officer, in FY2030) ★	<b>P. 37~38</b> • HR Strategy	
_	P. 28  • Special Feature Co-creation with Communities P. 33~34  • Manufacturing Strategy	
_	P. 36 • Respecting Human Rights P. 45~56 • Corporate Governance • Board of Directors and Executive Officers • Risk Management and Compliance	

### **Social Value Created through Business**



The Power Infrastructures Business Group manufactures and sells power generation systems to generate the electricity that supports industry and lifestyles, substation equipment for power transmission and distribution, and products and systems for generation of renewable energy, which is expected to increase going forward, and efficient use of electricity.

Value Provision

#### Realizing green, safe, and stable electricity provision

<ul> <li>Power T&amp;D</li> <li>Sale of power T&amp;D equipment (transformers, switchgears, surge arresters, and vacuum interrupters, etc.)</li> <li>Power &amp; Energy</li> <li>Generation, transmission, and distribution systems</li> <li>Power monitoring and control systems</li> <li>Hydroelectric power generation equipment</li> <li>Photovoltaic PCSs</li> <li>Wind power 0&amp;M</li> <li>Overseas electric power companies, etc.</li> <li>Overseas electric power companies, etc.</li> <li>Electric power companies</li> <li>Local public enterprise, etc.</li> </ul>	<ul> <li>Sale of power T&amp;D equipment (transformers, switchgears, surge arresters, and vacuum interrupters, etc.)</li> <li>Overseas electric power companies, etc.</li> <li>Power &amp; Energy</li> <li>Generation, transmission, and distribution systems</li> <li>Power monitoring and control systems</li> <li>Hydroelectric power generation equipment</li> <li>Photovoltaic PCSs</li> <li>Overseas electric power companies, etc.</li> <li>Electric power companies</li> <li>Local public enterprise, etc.</li> </ul>
<ul> <li>Generation, transmission, and distribution systems</li> <li>Power monitoring and control systems</li> <li>Hydroelectric power generation equipment</li> <li>Photovoltaic PCSs</li> <li>Electric power companies</li> <li>Power generation companies</li> <li>Local public enterprise, etc.</li> </ul>	<ul> <li>distribution systems</li> <li>Power monitoring and control systems</li> <li>Hydroelectric power generation equipment</li> <li>Photovoltaic PCSs</li> <li>Power generation companies</li> <li>Local public enterprise, etc.</li> </ul>



The Public, Industrial & Commercial Sector Business Group manufactures and sells various electrical equipment and related systems which support safe and efficient use of electricity in order to realize infrastructure that support people's affluent lifestyles, facilities and competitive factories, etc.

Value Provision

#### Contributing to building sustainable infrastructure

Main Customers
<ul> <li>Government offices</li> </ul>
Broadcasters
Buildings
<ul> <li>Facilities</li> </ul>
<ul> <li>Hospitals</li> </ul>
<ul> <li>Private factories</li> </ul>
Heavy industry manufacturer, etc
<ul> <li>JR companies</li> </ul>
<ul> <li>Public railways</li> </ul>
<ul> <li>Private railways</li> </ul>
Overseas urban high-speed rail, et
<ul> <li>Local governments, including</li> </ul>
the Bureau of Sewerage Tokyo
Metropolitan Government
Overseas private business
operators, etc.

Ceramic Flatsheet Membranes



Mobility & Electrical Components Business Group

The Mobility & Electrical Components Business Group manufactures and sells precision component products and testing equipment to support cutting-edge manufacturing and R&D, electric vehicle drive units to support the rapidly progressing electrification of automobiles, and motors and inverters to contribute to various industries through high efficiency and control technology.

Value Provision

#### Contributing to the realization of cutting-edge technology and technological innovation for mobility

Products and Services	Main Customers
Motor Drive Solutions	
<ul> <li>Elevator traction machines</li> </ul>	<ul> <li>Elevator manufacturers</li> </ul>
Motors for injection molding machinery	<ul> <li>Machine tool manufacturers</li> </ul>
<ul> <li>Electric forklift motors and inverters</li> </ul>	<ul> <li>Forklift manufacturers</li> </ul>
<ul> <li>Various general industry motors and inverters</li> </ul>	<ul><li>Warehouse companies</li><li>Factories of various</li></ul>
Automatic guided vehicles, etc.	manufacturers, etc.
EVs	
<ul> <li>EV/PHEV motors and inverters</li> </ul>	Automobile manufacturers
	Automotive parts manufacturers
Electronics products	
<ul> <li>Vacuum capacitors</li> </ul>	<ul> <li>Semiconductor manufacturing</li> </ul>
Industrial PCs	equipment manufacturers
Pulse power supplies	
Mobility T&S	
(Testing and solution)	
Automobile production testing systems	Automobile manufacturers
(engine benches, drivetrains, EV	Automotive parts manufacturers
benches, dynamometers)	<ul> <li>Automotive research institutions, etc.</li> </ul>



The Field Service Engineering Business Group provides solutions such as maintenance services for customers to safely use equipment delivered by Meidensha, and other equipment, for a long time, equipment life extension, and energy conservation.

Value Provision

#### Realizing a secure and safe society through maintenance services

#### **Services**

- Maintenance consulting
- Preventative maintenance
- Corrective maintenance
- · Operation and management
- Breakdown maintenance
- Overall diagnosis
- · Life-extending treatment
- Renewal plans
- Carbon neutrality ("Support for High efficiency Installations for Facilities with etc.) Targets" (SHIFT))
- · General building management
- Customer center, etc.

#### Main Customers

- Government offices
- · Water infrastructure-related organizations (local governments, etc.)
- Railway operators
- Various industry-related organizations (iron and steel, automotive, electrical equipment, machinery,
- · Facilities, buildings, hospitals, etc.



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### **Achievement of Carbon Neutrality**



#### **Contribution to Regional Revitalization Through Highly Sustainable Hydropower Generation**

The history of Meidensha's

hydropower generation

systems dates back to 1901,

when we delivered the first

alternating current generator

to the power company of

the time. Now, Meidensha

creates the generators and

control panels that comprise

systems, while the Group

company, EAML Engineering

CO., Ltd., creates hydraulic

generation

hydropower



Toshitake Masuko Hydropower Products Planning & Engineering Division

turbines, so being able to provide all necessary components from within the Group is one of our great strengths.

In recent years, new large-scale hydroelectric power plant developments have been in decline; however, there are many sources of "potential water power" suitable for hydropower generation in Japan that remain undeveloped. Of these, there are 2,600 sites with the potential for less than 5,000 kW, which is the Meiden Group's specialty, said to be equivalent to four nuclear power stations.

With regard to development of small to midsize hydroelectric power plants, there are usually many issues, such as high costs due to on-spec design to cater to the conditions of the location and environment, construction costs piling up due to construction being concentrated in mountainous areas, and monitoring and maintenance, which are vital for steady operation. To overcome these hurdles, we are promoting value creation with a range of companies, organizations, and experts by completely standardizing equipment, reducing costs by promoting simplification and miniaturizing construction, and making proposals to optimize maintenance and make it smarter by leveraging ICT, IoT, etc.

We are aware that Japan, which has many mountainous areas, the revitalization of communities built around hydropower generation is a unique and significant approach that increases the attractiveness of the area, and helps to solve societal issues by increasing clean power sources. In order to achieve carbon neutrality by 2050, we aim to become a "comprehensive provider" of hydropower generation

including operation, maintenance, etc., of hydroelectric power plants, as well as providing future products and services, to utilize the energy produced by these water resources as much as possible.



Assembling a hydraulic turbine at the Ota Works

#### Aiming to Secure New Sewerage Treatment Technology to Achieve Carbon Neutrality

The demonstration project for technology to "recover energy from sewerage using a high-efficiency primary sedimentation tank," which was a joint proposal with Osaka City, was selected for the Ministry of Land, Infrastructure, Transport and Tourism's FY2022 Demonstration Study of Breakthrough by Dynamic Approach in Sewage High Technology (B-DASH) Project. This project promotes energy production through recovery of energy from sewerage, and demonstrates energy conservation, CO₂ reduction, low maintenance, and cost-saving effects, by transforming primary sedimentation tanks into high-efficiency primary sedimentation tanks at existing sewerage treatment facilities, etc.

In conventional sewerage treatment processes, influent is firstly separated from sediment in a settling tank (primary sludge), then microorganisms are activated to separate matter that does not sink through aeration (a treatment process where oxygen is passed through water) in a reaction tank, before undergoing further treatment in the final settling tank and being released into rivers, etc., as treated water. This method has the issues of consuming electricity for aeration by the aerator, etc., decomposing even organic matter that will be utilized for energy, and causing sludge to accumulate.

In the high-efficiency primary sedimentation tank treatment process proposed by Osaka City and Meidensha, dissolved organic matter that will be utilized for energy is recovered at the step prior

### Contributing to the Realization of High-Efficiency Electricity Transmission by Delivering Ultra-High Voltage 800-kV Surge Arresters

MEIDEN ZHENGZHOU ELECTRIC CO., LTD. in Henan, China, has developed and manufactured 800-kV surge arresters for gas-insulated switchgears, and delivered them to an Indian thermal power station in fall of 2021.

Surge arresters are a type of equipment that makes up the power transmission and distribution network. They protect other equipment from power surges caused by lightning strikes, etc. In 1975, Meidensha was the first in the world to develop gapless metal oxide surge arresters for electric power systems that incorporated zinc oxide element capable of withstanding multiple consecutive lightning strikes. In 2014, this was added to the IEEE Milestone List for great contribution to the advancement of surge arresters, by IEEE, the world's largest electrical and electronics-related academic society. At present, the Meiden Group produces surge arresters at sites in Numazu; Zhengzhou, China; and Hermsdorf, Germany, and has recorded sales and deliveries in more than 70

#### Aiming for Further Contribution to Lowering Environmental Impact Through Miniaturization and High Performance

MEIDEN ZHENGZHOU ELECTRIC CO., LTD. was established in 2004, and is now one of the Meiden Group's three major manufacturing sites for surge arresters, in Japan, China, and Germany. On this occasion, by using high-resistance element for our 800-kV surge arresters for gas-insulated switchgears (GIS surge arresters), we achieved miniaturization of the entire tank. Going forward, we will continue development of high-resistance element, promote development of GIS surge arresters that use SF<sub>6</sub> substitute gases, achieve miniaturization and high performance of surge arresters, and aim to contribute to the minimization of environmental impact.

to sending influent to the reaction tank, and used for digestion gas power generation. In addition, the reaction tank can be made smaller by reducing the amount of sludge due to decreasing the amount of organic matter that is dissolved in the reaction tank, and power consumption and maintenance can be reduced.

Through the establishment of technologies such as this, we will realize an energy self-sufficient sewerage treatment system that contributes to the miniaturization that will cater to a decreasing population and decarbonization of sewerage treatment equipment.

#### Outline of proposed technology



countries around the world.

The 800-kV surge arresters shipped on this occasion are large products to be embedded in gas-insulated switchgears (GIS) with the following dimensions: diameter, 1.3 m; height, 3.2 m; mass, 1.45 t. This is the highestvoltage-class product handled by the Meiden Group to

this point. Ultra-highvoltage transmission allows maximal energy efficiency through minimization of transmission loss, meaning the development and manufacture of this product contributes to the environment.



MESSAGE



Ma Aiqian Development Division MEIDEN ZHENGZHOU ELECTRIC CO., LTD.

### **Achievement of Well-Being**



Akita Rinkai Treatment Center

#### Supporting Water Infrastructure that is Essential to Life Through Accumulated Technology and Knowledge

water



infrastructure business began in 1922, when we delivered the first motors to sewerage treatment facilities in Japan. Since then, we have delivered many products for water treatment facilities around Japan, such as powerreceiving and distribution equipment, generators, various control units, water quality measurement equipment, and supervisory

Meidensha's

and maintaining safe and stable water infrastructure include local government revenue issues caused by the declining population, maintaining functionality of aging equipment, inheriting skills and techniques from experienced staff to younger staff, and the increasing severity and frequency of natural disasters against the backdrop of climate change, as exemplified by sudden downpours, etc. At the same time, society has become strongly aware of societal demands to cut greenhouse gas emissions from water treatment processes, with an eve to achieving carbon neutrality by 2050.

As a comprehensive manufacturer of water treatment equipment, we are constantly aware of solving issues for our customers and society, and we work to provide all aspects of support in the water supply and wastewater sector ; we not only propose systems to improve the operation of facilities, but making proposals concerning promotion of energy conservation, introduction of renewable energy, reduction of greenhouse gas emissions, and effective use of thus-far unutilized energy, proposals including improved operation through the use of AI and IoT, downsizing and regional expansion of facilities, and proposals concerning optimization of maintenance and management tasks by promoting public– private partnerships and offering one-stop services, etc.

We will continue to strengthen partnerships with public agencies, local governments, and businesses, consider issues faced by our customers, and work so that people say, "I feel safe leaving this up to Meidensha."

### Supporting Local Disaster Prevention and Mitigation Through Real-Time Notification of Flood Levels Using Smart Leveling Rods

Saga City began using a system to provide flood information using smart flood level rods, delivered by Meidensha to provide a disaster prevention information service concerning flood levels to residents and others, in April 2022. This flood information provision system uses smart flood level rods comprising a pole fitted with a transmitter, an antenna, and a battery to gather and forward water level information to a cloud server and create a flood map, etc. This allows residents to check real-time flood danger information on a website.

Meidensha has also provided local governments around Japan with manhole antennas that create real-time visualizations of sewer pipe information using IoT, and an

#### **Customers' Comments**

The plains area of Saga City is a low-lying area, so it is prone to flooding in the event of heavy rainfall. Flooding occurs frequently due to localized downpours, etc. By installing smart leveling rods, we are able to monitor flooding in real time, road closure, etc., and conduct prompt flood prevention activities as one of intangible response measures. We have now commenced construction and operation of a flood information provision system, in order to disseminate flood information that had previously only been used within administrative agencies to residents, with the aim of further utilizing disaster prevention information. This flood information will provide a resource for residents to decide whether to evacuate, etc., and is expected to lead to faster evacuations.

#### Development of an EV Multi-PCS System that Contributes to Both Decarbonization and BCP Measures



Kazuho Hasegawa

Policy Planning Section, Renewable

Energy Sector Business Promotion

Administration Group

Division, Sales Planning &

Against the backdrop of increased awareness of promoting decarbonization and strengthening BCP measures as an issue that must be dealt with by local governments and corporations, we developed an "EV multi-PCS system" to meet the needs of "effective utilization of renewable energy," "increasing resilience," and "increasing utilization of EVs," leveraging technology and knowledge of power

conditioners (PCS) for photovoltaic power generation and battery storage developed by the Meiden Group.

This system includes the functions of a newly developed EV rapid charger, as well as a conventional photovoltaic PCS and PCS for stationary-type battery storage. It efficiently converts power from photovoltaic, supports batteries, and achieves "zero-carbon driving" by providing EVs with photovoltaic power through EV

#### Water Infrastructure Systems (WIS) Sales & Engineering Group, Engineering Section 2, WIS Engineering Division

Shinya Hiyama

control systems. In recent years, we have promoted new initiatives such as contracted maintenance and management of facilities, services using cloud computing systems, etc., water treatment and industrial wastewater treatment and recycling using Ceramic flatsheet membrane, and flood monitoring services that leverage IoT.

Japan has some of the world's best water related infrastructure, and in addition to providing high-quality and stable water supply, Japan has achieved prosperous lifestyles and conservation of the natural environment by ensuring that appropriate water management is conducted in order to maintain the water quality of rivers and the ocean. However, in recent years, the environment surrounding water has become increasingly harsh. Issues with operating IoT disaster prevention monitoring system that uses LPWA (low power wide area) networks to support flood prevention activities, etc.

Going forward, we will continue to contribute to safe and secure urban development that is resilient against disasters by building sustainable infrastructure that is in harmony with society and nature.



Smart leveling rods

MESSAGE



Takaki Kominami River and Sediment Control Division, Construction Department, Saga City

chargers. Using EVs as "mobile batteries" in addition to stationary-type batteries leads to an increased rate of renewable energy usage by household consumers and effective use of emergency power sources in the event of a disaster, and contributes to energy-resilient regional development.

Going forward, it is anticipated that the introduction of renewable energy will spread throughout the whole of society in order to achieve a carbon-free society, and initiatives to increase resilience against increasingly frequent and

severe natural disasters, etc. Meidensha will promote a range of proposals to customers to help address both aspects of this social issue using this system.



Group company building with EV multi-PCS system installed (Meiko Building, Gotanda, Tokyo)

### **Achievement of Well-Being**

Contributing to Less Strain on Workers by Extensive Weight Reduction Through Review of Product Materials



Akihiko Kodama R & D Section, Mobility Testing Solutions Development Experiment Department, Mobility Testing Solutions Manufacturing Unit, Ota Factory Complex

Drive robots are devices used to drive vehicles in place of humans when vehicle exhaust gas tests and fuel consumption tests are conducted on chassis dynamometers. They achieve steady driving on chassis dynamometers unlike the human drivers changing driving conditions due to the physical condition and their skills.

Previous drive robots weighed 70 kg, so setting

them on a vehicle required physical exertion on the part of the workers, and was difficult. By using carbon fiber and aluminum, and reviewing form, construction, and fixture method, we achieved a weight of 23.5 kg for this drive robot, which is an extensive weight reduction. The control panel to operate and control this drive robot is Meidensha's unique movable control panel. This also achieved weight reduction and miniaturization compared with previous products, reducing the weight from 165 kg to 98 kg. This product is much easier to use than previous products, as it has improved the visibility and ease of use of the control screen, achieved design synergy with the drive robot, and improved software, such as control functionality. Going forward, we aim to design products that can be used by anyone, regardless of age and gender.



Vehicle testing drive robot and control panel

### Aiming to Create New Markets with World-First Batch-Type normal-temperature PO-ALD Film Deposition Technology that Uses Pure Ozone

MEIDEN NANOPROCESS INNOVATIONS, INC. developed a world-first batch-type normal temperature PO-ALD film deposition system that produces high-quality oxide films, essential for the manufacture of semiconductors and optical products.

This apparatus deposits membranes using "highconcentration/high-purity 100% ozone gas (pure ozone) "provided by a Pure Ozone Generator as oxygen source, which is one of MEIDEN NANOPROCESS INNOVATIONS, INC.'s key devices. By using pure ozone gas, we are able to create membranes from room temperature up to 150°C, which allows for better gas wraparound and fewer defects due to no impurities compared with ozone with low concentration. This also makes it possible to batch process to produce multiple membranes at once and create various types, such as textured and double-sided membranes. By adding the PO-ALD developed on this occasion to our product lineup, along with ALD/OER film deposition system, which went on the market in 2020, we aim to expand applications into a range of fields in addition to semiconductor manufacturing.



Batch-type normal-temperature PO-ALD film deposition system (left) and Pure Ozone Generator

### **Co- Creation with Communities**

#### **Developing Personnel to Support Future Natural Energy Through Visiting Lectures at High Schools**



M WINDS CO., Ltd., which conducts operation and maintenance services for wind farms, conducted visiting lectures about maintenance of wind power generation system and the job of a chief electrical engineer at three high schools in Akita Prefecture in December 2021. These lectures were conducted for high school students as

Akita Sales Office

part of the Akita Prefecture Wind Generator Maintenance Personnel Education Project, with the aim of training engineers and retaining young people in the prefecture.

As part of the presentation, the attractiveness of a career as a chief electrical engineer was presented by saying, "This position is responsible for the safety of both the engineers on site and the electrical equipment" and "Although it is difficult, it is highly rewarding," and students were encouraged by our saying, "We would like you to begin studying at high school with the aim of acquiring certification as a chief electrical engineer." As the movement to introduce

### Cultivating a Manufacturing Perspective by Creating Safety Experience Education VR Content in Collaboration with Universities



Shigeki Yokoyama

Digital Transformation Strategy Office

MEIDEN SYSTEM SOLUTIONS

CORPORATION

As part of our social contribution activities through academic-industrial partnerships, MEIDEN SYSTEM SOLUTIONS CORPORATION held a curriculum to develop VR (virtual reality) content to be used in safety experience education along with students majoring in game programming at Shizuoka Professional Training

College of Industrial Technology.

We proposed this project to the college with the idea that we hope to teach students about the mindset of manufacturing at corporations and about VR development is not limited to the game field, but that there is a wide range of needs in the world, such as this safety experience. renewable energy progresses in order to work toward the realization of a carbon-free society, there are even higher expectations for the wind power sector, and going forward, it will be important to secure and train maintenance personnel.

The M WINDS Akita Sales Office is involved with the maintenance of 18 wind turbines at Hachiryu Wind Farm, which is owned by the Company, and eight wind turbines owned by other companies in the area. We are enhancing hiring from within Akita Prefecture, and focusing on training engineers. Going forward, we will continue to contribute to the spread and stable supply of renewable energy rooted in local areas by focusing on coexistence and co-creation with local communities for business expansion.



The project was realized and on the last day of the presentation, we received content developed by four students that included examples of the dangers of walking while looking at a smartphone. The Meiden Group has conducted safety experience education since 2008 to increase employees' sensitivity to danger, and since then, we have also conducted education on commission by visiting factories, worksites, etc., in response to external demand. We plan to add the content by these students to our VR safety experience education menu during FY2022.



### **Climate Change Responses**

#### **Disclosure Based on TCFD\* Recommendations**

For many years, the Meiden Group has been aware of the major problem of climate change, and has worked to solve this problem through business. With regard to TCFD, we endorsed the TCFD recommendations in June 2019, we began considering risks and opportunities according to the TCFD framework in 2020, and we are promoting the incorporation of this in our strategies.

As society places more emphasis on the issue of climate change, in Medium-term Management Plan 2024, which was released in FY2021, we pledged to "promote sustainability management," and we aim to accelerate promotion of management and development of businesses to realize a carbon-free society.

\* TCFD: Task Force on Climate-related Financial Disclosure established by the Financial Stability Board (FSB)

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#### **Governance/Risk Management**

In FY2021, with regard to all aspects of sustainability, including response to climate change, we established the ESG Management Promotion Committee led by the President, considered strategies and measures for decarbonization, and managed progress. We regularly report the content of discussions to the Officers Meeting and Board of Directors.

At the same time, as the decision-making body with regard to internal environmental activities, the Meiden Group Environmental Committee, chaired by the Executive Officer in charge of production, identifies internal issues, and deliberates concerning environmental targets, action plans, emergency response, etc., as well as promoting and monitoring the implementation of specific environmental management measures.

From FY2022, we have reviewed our structure by splitting the ESG Management Promotion Committee into the Sustainability Management Strategy Committee and the Sustainability Management Promotion Committee with the aim of separating management decisions and monitoring progress. Each committee deliberates concerning climate change-related issues and so on.

#### Strategy

#### Analysis of Climate Change Scenarios

The Sustainability Promotion Bureau conducts analysis of climate change scenarios in conjunction with relevant departments. The scenario analysis process is split into four parts and conducted annually. At the same time, major factors that could impact business are identified, and identified risks, opportunities, and evaluations are reflected in our business strategy.



#### STEP 1

#### Identification and Materialization of Types of Scenario

As recommended by TCFD, we identified scenarios at multiple levels of warming, including a scenario of less than 2°C, and conducted analysis accordingly. In FY2021, we considered two scenarios, namely a scenario of 2°C (RCP2.6) and a scenario of less than 4°C (RCP6.0). This fiscal year, we added the increasingly likely scenario of 1.5°C (RCP1.9) according to the recent status of discussions, etc., at COP26 held in November 2021.

We have also arranged outlooks and scenarios for 2030 based on these scenarios according to management frameworks such as five forces analysis, using international published data from the IEA, IPCC, etc., as well as numerical data published by Japanese government institutions, etc.

	Reference Scenarios		
1.5°C Scenario	Net zero by 2050 (NZE2050)	IEA (2020)	
1.5 C Scenario	RCP1.9	IPCC (2021)	
2°C Scenario	Sustainable development scenario (SDS)	IEA (2020)	
2 C Scenario	RCP2.6	IPCC (2014)	
Less than 4°C Scenario	Stated policy scenario (STEPS)	IEA (2020)	
	RCP6.0	IPCC (2014)	

#### Analysis of Climate Change Scenarios

Of the three selected scenarios, the following is the outlook under the 1.5°C Scenario.



### STEP 2

https://meidensha.disclosure.site/en/themes/139

Evaluation of Importance of Climate Change-related Risks We have set out factors for climate change risks and opportunities according to the outlook of each scenario, giving reference to the risks and opportunities in the TCFD recommendations. This clarifies the opportunities and risks for Meidensha.

Factors for Risks and Opportunities	Societal Scenario	Opportunities and risks for Meidensha	Relevant Businesses	
Opportunities to reduce GHG emissions     Increased government subsidies	The transport industry becomes carbon-free	Expanded EV business	EV business/ Power Conditioning -related products	
<ul> <li>Increased government subsidies</li> <li>Accelerated technological development</li> <li>Transition to a decentralized society</li> </ul>	Increased proportion of renewable energy	Expanded renewable energy business	Wind/ hydroelectric/ photovoltaic/ hydrogen-related power transmission & distribution products	
Tightening of legal restrictions to reduce GHG emissions     Electricity companies becoming carbon-free	Restrictions on chemical substances such as $\ensuremath{SF_6}$	Expanded Power T&D business	Zero SF <sub>6</sub> products/ environment-friendly-type products	
Changing mindset of stakeholders	Increased customer demand for being carbon-free	Increased demand for green products	Green products	
Opportunities to reduce GHG emissions	Shift to low-carbon transportation	Increased demand for rail business	Rail-related products and services	
<ul><li>Opportunities to reduce GHG emissions</li><li>Tightening of legal restrictions</li></ul>	Introduction of a carbon tax	Increased manufacturing costs Increased procurement costs	All companies	
Increased frequency of extreme weather events	Increased flooding	Suspension of operation/supply chain collapse Increased costs to respond to flooding	Production sites	
Opportunities to reduce GHG emissions     Changing mindset of stakeholders	Increased pressure on carbon-positive businesses	Reduced sales of relevant businesses	Diesel/gas engine generators	
Rising average temperature	Worse labor environment	Increased personnel expenses at the site	Manufacturing/maintenance/construction service business units	
Increased proportion of renewable energy	Increased cost of electricity for industry	Increased power procurement costs	All companies	

\* Examples of main scenarios

#### **Climate Change Responses**

#### STEP 3

#### **Business Impact Evaluation**

We are evaluating business impact through discussions with relevant parties within the Company, such as the Management Planning Headquarters, the Accounting and Finance Headquarters, the Governance Headquarters, and business units, based on the scenarios and outlooks set out in Step 1 and the opportunities and risks set out in Step 2.

In the course of this, we screened matters that have a particularly large impact on businesses by focusing on the two axes of "impact on operating income" and "likelihood of occurrence in a business" in FY2030, and conducted detailed analysis of these matters.

We monitored outcomes for matters with a large impact, based on market growth for each scenario. We made quantitative calculations with some assumptions, and used qualitative methods for matters where calculation was not possible. \* The values are mostly calculated based on market growth rate, and they are not a promise of the Company's targets.

Impact or	operating income (estim	erating income (estimate)		Likelihood of occurrence in a business in 2030			
Very large: ±10 billion Medium: ±0.1 – 1 b	, .					nfidence	
	Opportunities and				Impact on 2	2030 opera	ting income
	risks for Meidensha	Relevant businesses		Calculation formula	1.5°C	2°C	Less than 4°C
The transport industry becomes carbon-free	Expansion of the EV business	EV business		Most recent average net sales ZEV stock growth rate	Very large	Very large	Large

The transport industry becomes carbon-free	Expansion of the EV business	EV business	Most recent average net sales ZEV stock growth rate	Very large	Very large	Large
Increased proportion of renewable energy	Expanded renewable energy business	Wind/hydroelectric/photovoltaic storage/hydrogen-related	Most recent net sales × Japanese renewable power volume	Medium	Medium	Small
Regulation of chemical substances such as $SF_{\rm 6}$	Expanded Power T&D business	Zero SF <sub>6</sub> products/environment- friendly-type products	Most recent net sales of relevant products × VCB market growth rate	Medium	Medium	Small
Increased customer demand for being carbon-free	Increased demand for green products	Green products	* Unable to calculate at present due to revision of the green product standards	_	_	—
Introduction of a carbon tax	Increased manufacturing costs Increased procurement costs	All companies	2030 Scope 1, 2, and 3 emissions $\times$ carbon tax	Very large	Large	N/A
Increased flooding	Suspension of operation/ supply chain collapse Increased costs to respond to flooding	Production sites	2030 damage per instance using tools provided by the cabinet office     Anticipated sum × rate of occurrence for each scenario, etc.	Very large	Large	Very large
Increased pressure on carbon-positive businesses	Reduced sales of relevant businesses	Diesel/gas engine generators	2030 net sales of relevant businesses $\times$ situation for each scenario	Medium	Medium	N/A
Worse labor environment	Increased personnel expenses at the site	Manufacturing/maintenance/ construction service business units	2030 on-site personnel × medical treatment/insurance expenses	Small	Small	Medium
Increased cost of electricity for industry	Increased power procurement costs	All companies	2030 power consumption $\times$ rate of cost increase of industrial electricity	Medium	Small	Small

#### STEP 4

#### Consideration of Response Measures

We considered development of strategies to grasp opportunities and measures to mitigate risks according to the situation of the Company, based on the outcomes calculated in Step 3.



#### **Metrics and Targets**

We see changes due to climate change as business opportunities, and are implementing strategies to mitigate risks. From a business perspective, we will particularly contribute to the creation of a carbon-free society through further expansion of the EV and Renewable Energy businesses. We also released the Second Meiden Environmental Vision as our

environmental goals in FY2021, and we have disclosed 2030 GHG reduction targets for scopes 1, 2, and 3 in order to reduce internal risks. These goals SCIENCE have received SBT Initiative\* recognition. We will work with our suppliers to achieve our targets.

In addition, we pledged to reach RE100 by 2040 and carbon neutrality by 2050, in November 2021, as our medium- to long-term targets.

\* SBT Initiative: An international initiative by the United Nations Global Compact (UNGC), the Worldwide Fund for Nature (WWF), the CDP, and the World Resources Institute (WRI).

#### Environmental metrics and targets

	FY2021 net sales	F	Y2028 net sales	targets	
EV Business	24.7 billion yen		100 billion ye	n	-
Second Meiden	FY2021	1	FY2024	FY2030	
Environmental Vision	Target	Record	Target	Target	FY2040 RE10
Emissions from business activities (Scope 1, 2)	Japan: Emissions Total reduction: -3% (compared to FY2019) Overseas*1: Emissions Total reduction: -1% (compared to FY2019)	Japan: -13% (compared to FY2019) Overseas: +12%* <sup>2</sup> (compared to FY2019)	6% reduction (compared to FY2019)	30% reduction (compared to FY2019)	FY2050 Achiever of carb neutral
Emissions from product use (Scope 3)	Build a foundation for category 11 reductions (investigate and calculate for main businesses)	Conduct LCA for three business units	6% reduction (compared to FY2019)	15% reduction (compared to FY2019)	-

\*2 Emissions volume increased as MEIDEN T&D (INDIA) LIMITED was added to the Meiden Group through business expansion in FY2021.

#### Main Measures to Cut Greenhouse Gas

FY2030 greenhouse gas emissions reduction targets	
Emissions from business activities (Scope 1 +2) 30% reduction (compared to FY2019)	<ul> <li>Replacing SF<sub>6</sub> ga</li> <li>Capital investment replacing gas witting</li> <li>Renewable energies</li> <li>Switching comparison</li> </ul>
Emissions from product use (Scope 3, category 11) 15% reduction (compared to FY2019)	<ul> <li>Environment-frier products and ma</li> <li>Revising busines of sales such as</li> </ul>
Overall	<ul> <li>Generating innov</li> <li>Introducing interr</li> </ul>

#### **Progress and Future Path**

Although we have identified the growth opportunities and risks facing the Meiden Group through analysis of scenarios based on the TCFD recommendations, in most instances, calculation of impact is merely a rough estimate, and further precision is needed. Furthermore, we are promoting response to climate-related metric categories across multiple industries in the TCFD recommendations, which require new disclosure. promotion. Along with this, we are considering establishing ESG (environment, social, governance) metrics, incorporating them in our standards for calculating officers' remuneration, and further strengthening governance, in order to increase the effectiveness of sustainability management promotion.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

#### **Reduction measures (extract)**

gas (replacement with dry air, etc.)

ent (replacing aging equipment, introducing high-efficiency equipment, ith electricity, etc.)

rgy procurement (non-fossil fuel certificate, power menu, etc.)

anv-owned cars to electric vehicles

endly type product design (eliminating use of SF<sub>6</sub> gas, and downsizing aking them more efficient)

ss portfolio (increasing ratio of businesses with low carbon emissions per unit EV, maintenance services and small and medium hydroelectric systems)

vation

nal carbon pricing

### Manufacturing Strategy

#### **Enhancing Manufacturing Capabilities**

We gave divided products manufactured by the Meiden Group into "mass production," "equipment," and "systems," and established manufacturing strategies suited to the features of each group, and we will enhance product competitiveness by improving quality, cost, delivery, safety, and environment. In this way, we will not only improve the quality of products, but by reforming the awareness of employees involved with manufacturing, we will foster worksites with a sense of achievement and growth, and remain a company that is attractive to the earth, society, and people.

#### **Progress of FY2021 Initiatives**

Priority policies under Medium-term Management Plan 2024 are "reduce costs and enhance product competitiveness," "enhance quality control," "improve occupational health and safety," "establish manufacturing activities to achieve the Environmental Vision," and "improve production sites."

In FY2021, we introduced a factory complex system, wherein we take our 11 current factories and convert them to units before amalgamating them into five factories. This will accelerate the integration of people, technology, and property owned by each unit, and promote more competitive production activities.

We are promoting reforms by using improvements to the flow of production sites and a system to visualize production using IoT. We have promoted rectification of panels and rotating machinery assembly lines, as well as reducing work in progress (WIP) and shortening lead times. In EV production lines, we greatly improved quality and productivity by securing new construction methods from existing production lines such as Kofu, and improving the rate of automation. Furthermore, we improved the profit structure by reducing fixed costs through promotion of sharing of personnel between all companies according to increases or decreases in production load.

#### **Policy for Initiatives from FY2022**

We will continue activities to build Meiden "monozukuri" standards with the aim of growing while feeling fulfilled and being a workplace where enthusiastic work can continue. Specifically, we will promote activities to develop production metrics, standardize work, and shorten lead times, as well as enhance the connection between estimation, production plans, and production record.

Our production strategy is divided into the three groups of "mass production," "equipment," and "systems." In "mass production," we will promote review of product construction giving consideration to ease of manufacture, and application of robotics, image-based inspection, etc. In "equipment," we will promote accelerated automatic design and development and introduction of work assistance tools.

In "systems," we will promote initiatives to eliminate waste through visualization of production processes using IoT.

#### **Supply Chain Management**

Recently, we have faced harsh external conditions when procuring materials, including insufficient supply of semiconductors, electronic components, etc., extended delivery date, and extensive price increases of materials and components. Some suppliers were also forced to suspend operations for a time, as several countries have implemented measures such as lockdowns in response to COVID-19. Furthermore, an impact that delayed deliveries caused by forced air and sea route detours, and increased transportation costs and material procurement costs because of the sharp rise in crude oil prices, due to heightened geopolitical risks has been actualized.

In order to avoid these procurement risks, we are enhancing activities such as searching for new suppliers, and promoting ordering from multiple suppliers. We are also doing our best to implement measures including placing orders in advance, securing appropriate inventory, and selecting optimal transportation routes and packaging in conjunction with the Production Management Business Division of each unit, in order to minimize the impact of materials cost increases and delays.

#### Topics

#### **Promoting Sustainable Procurement**

The Meiden Group conducts fair and just trade, and promotes sustainable procurement in conjunction with business partners, in order to contribute to the realization of a sustainable society.

In July 2022, we updated the Meiden Group Sustainable Procurement Guidelines. We request that all of our business partners comply with them as well as propose adopting green procurement. We are also working to build a sustainable supply chain by strengthening partnerships such as building positive relationships with business partners through

communication including "partners meetings," ongoing support to acquire environmental management systems, and support to implement information security and health



#### **Quality Control**

For the Meiden Group, which is involved with social infrastructure, it is an important responsibility to steadily

continue to create high-quality products. We value our spirit of "craftsmanship" and work to conduct quality control activities in order to be trusted and depended on by customers and society. We will work to provide safe and high-quality products and services to satisfy our customers and improve profits by eliminating unnecessary costs through that each employee is not only aware of social responsibility in relation to Meiden Group's products and services, as well as the scale of the impact that defects could have on society, but engage in quality control activities from the perspective of "no defective unit accepted," "no defective unit made in our factory," and "no defective unit shall leave our factory."

We are broadening the application of Quality Control Process Chart (QC Process Chart) that is mainly employed by the Manufacturing Business Unit to the Sales Business Unit and the Technology Business unit under the name of the QR map. By applying the QR map, we are able to prevent tasks from being overlooked and ensure that everyone completes tasks at the same level, which enables us to reduce the risk of defects arising due to variation between people in charge. The QR map is linked to standards and procedures in order to promote tasks in each process. We confirm effectiveness by conducting an overall examination and revision of these standards and procedures to ensure that their content relates to prevention of recurrence of defects or occurrence of similar defects. Furthermore, we are promoting checks of whether QC process charts are being filled in without omission, in order to confirm that each process is being thoroughly conducted.

#### Topics

#### **Enhancement of the Functionality of the Meiden Customer Center**

In June 2022, we enhanced the functionality of the Meiden Customer Center to change it from an organization that mainly responds to inquiries, as it had been previously, to an organization that serves as an information hub for business expansion. In addition to expanding the scope of products that support remote monitoring and operation, we also link gathered equipment monitoring information, customer information (inquiries, obstacles, requirements), and maintenance information (regular inspections, simple inspections, etc.) and share it, analyze it, and use within the Meiden Group. Through this, we will create new added value, such as support for business activities,

optimal maintenance and management, and proposals for replacement of equipment, and aim to increase customer satisfaction by further enhancing connection with customers.



24-Hour Customer Cent (Numazu, Shizuoka)

#### **Occupational Health and Safety**

The Meiden Group views the safety and health of employees as being central to management value, and we aim to implement "realizing a workplace environment that allows employees to maximize their abilities," as included in our Corporate Code of Conduct, and be a leading health and safety company, through revitalization of health and safety activities at all national and local businesses.

So far, we have conducted a range of initiatives to prevent industrial accidents such as conducting KYK (risk anticipation activities), risk assessment, introducing safety patrols, and safety and health management systems (ISO 45001), Since FY2021, due to limitations on travel between regions as a result of the impact of COVID-19, we have conducted remote safety patrols using remote tools for sites subject to patrols across multiple locations and affiliates. We were able to gain many hints to improve site health and safety based on new realizations and plenty of advice from the view of many participants.

The Meiden Group has also conducted safety experience education since 2008 to increase Group employees' sensitivity to danger, and since 2016, we have expanded the scope of eligible participants to outside the Company by conducting education on commission at clients' factories, worksites, etc. To this point, more than 27,000 people have received this education, and it has been well reviewed. In addition to lectures, we also continue to devote ourselves to the development of safety education that is expected to be highly effective, featuring virtual experiences of industrial accidents using VR.

#### Topics

#### **Development of Metaverse Hands-on Safety** Educational Program

In May 2022, we developed Metaverse hands-on safety educational program, which allows people to access safety experience education through the Metaverse. This development has achieved the Meiden Group's first attempt at non-contact safety experience education in the Metaverse, in conjunction with Infiniteloop Co., Ltd., which is a developer of web applications, etc., combining Infiniteloop's Metaverse technology with our education knowhow.



Education in the Metay

### **Promotion of Digital Transformation**

#### **Promotion of Agile Thinking**

Meidensha introduced agile thinking in FY2020, in order to respond to exceedingly changing business conditions. Agile thinking is not merely an IT development technique; rather, it is a technique and mindset to possess agility to deal with an uncertain and changeful society. Therefore, we not only introduced agile development processes; we aim to provide new customer value in an agile manner, including a design thinking and lean startups. In contrast with conventional methods that have ensured we respond to customer demands that rarely change and value certainty and stability, this approach places more emphasis on responsiveness to changes, speed and value.

In FY2022, we constructed a site to promote activities within the Numazu Works, while implementing agile in actual projects, we are promoting a reform of mindset and development processes that supports this, in order to accelerate activities. Furthermore, in the current mediumterm management plan, we aim to use the site as a cocreation site as well as a facility driving the creation of new value.

Topics

#### Introduction of the IoT for Extra High Voltage **Substations to Achieve Smart Maintenance**

In August 2021, we introduced IoT for power receiving and transforming equipment used in substations at the extra high voltage substations at the Numazu Works rebuild, and commenced a remote monitoring PoC (proof of concept) as an initiative to achieve smart maintenance. We will create added value such as drafting forms, sending emails when faults occur, and analyzing trends through graphs, by constantly collecting data necessary for maintenance and management of major equipment. Furthermore, it is possible to reduce visual inspection items by more than 85% by connecting to IoT for inspection tasks using data collected by multiple cameras and sensors.

Going forward, we will leverage the results of this PoC to provide safety and security through smart

maintenance and make the realization of work efficiency more certain.



Camera for measuring oil temperature of installed extra high voltage transformers

#### **Development of Digital Professionals**

Irrespective of digital transformation(DX), it is essential to have digital professionals to succeed in business. Meidensha considers ICT to be a basic skill of digital professionals. ICT is a valuable tool that is applied to all lines of work, and has the potential to change society. Therefore, four years ago, we introduced an education program for all new employees to learn ICT literacy, which is necessary to our employees.

In fiscal 2022, we restructured this education to divide into "ICT Primer." which is to understand a concept of ICT. and "ICT Basic Education," which allows participants to experience the benefits of ICT through practical exercises while learning basic ICT knowledge. In this way, we are laying a foundation to develop digital professionals. Furthermore, in order to discover unsolved customer needs and create new value, it is necessary to have different skills and mindsets from before, such as a design thinking. At present, all business units are working to develop digital professionals, while we are conducting digital education activities for all companies in order to create new value, under the leadership of the Corporate DX Promotion Group.

#### **Enhancement of Operationl Reform and** Improvement through Digitalization

Previously, we implemented digitalization of work and reviewed work styles by expanding the introduction of RPA (robotic process automation), which is a work process automation solution, increasing efficiency of handling enquiries through the introduction of an AI chatbot for the internal portal, and promoting reforms of work processes, etc., by paperless offices and workflows.

Going forward, in order to realize our vision for 10 years in the future, we will reform our internal systems, which are currently optimized for each business unit and factory from the perspective of overall optimization, and promote development of infrastructure to realize digital transformation (DX). We will also expand our education website and content to enhance employees' IT skills.



Internal chatbot, Fukuro Meider

### **Respect for Human Rights**

#### The Meiden Group Human Rights Policy

Since it was founded, the Meiden Group has created and supplied a variety of technologies, products, and services, with a focus on electrical equipment that supports social infrastructure, and contributed to the sustainable development of society.

Respect for human rights is the foundation of our business activities to realize our corporate philosophies of "illuminating a more affluent tomorrow" and "for customer peace of mind and satisfaction." Through its business activities, the Meiden Group will create a joyful and sustainable society for everyone, and comply with international human rights norms as indicated by the Meiden Group Corporate Code of Conduct.

We will also identify, prevent, and mitigate risks and impacts relating to human rights throughout our activities, including in the supply chain, and endeavor to disclose our responses on an ongoing basis.

The Meiden Group Human Rights Policy https://meidensha.disclosure.site/en/themes/96

#### Major Initiatives to Respect Human Rights

#### Previous Major Initiatives Compliance with international human rights norms Conducting human rights discussions at each workplace during Human Rights Week · Promoting diversity management Bollout of Smart Work 2024 Bollout of occupational health and safety activities. Establishment and operation of the compliance hotline, the Harassment Consultation Hotline and the Public Whistleblower Hotline • Conducting evaluations of suppliers, including human rights and labor, etc. New Initiatives from FY2021 to the First Half of FY2022 • Development of the Meiden Group Human Rights Policy Conducting human rights education for officers. • Revision of the Meiden Group Corporate Code of Conduct Revision of the Meiden Group Guidelines for Sustainable Procurement

#### Future Issues

• Conducting ongoing human rights due diligence

Dialog and discussion with stakeholders

• Fostering awareness of respect for human rights and continuation of activities to ensure penetration

#### Content of Human Rights Training (FY2021)

Training Type	Participants	Human Rights Themes Addressed
Workplace discussions relating to human rights	All Group employees	Link between business and human rights
Harassment education	All Group employees	Prevention of various types of harassment
Compliance manager training	Compliance managers	Responses to consultations regarding harassment, etc.
Anger management training	All Group employees	Understanding and controlling anger, which can lead to harassment
Mental health training	Conducted in each region	Correct understanding and prevention of mental illness, and prohibition of discrimination

#### **Relief and Remedy**

#### • Establishment of a Compliance Hotline

If a human rights violation occurs due to Meidensha's businesses, employees are able to report to the Compliance Hotline, the Harassment Consultation Hotline, and the external Public Whistleblower System. All stakeholders (including individuals, local residents, etc.) can make inquiries from outside the company using our external helpline. The Compliance Committee investigates information that is brought to the above points of contact, and, having confirmed the content, consults lawyers before resolving issues if necessary. Furthermore, our system effectively manages information concerning whistleblowers' names, etc., protects whistleblowers, and enables anonymous consultation, in accordance with national guidelines. We work to ensure that whistleblowers experience no disadvantage and improve the dependability of our whistleblower system.

#### **Respecting Human Rights Through Business Activities**

#### • Human rights education for officers and employees

We are working to understand international norms (Universal Declaration of Human Rights and International Bill of Human rights) and to conduct education activities focused on human rights in order to ensure "respect for human rights," which is listed in the Corporate Code of Conduct, throughout the entire Meiden Group. We also comply with all relevant laws concerning the prohibition of forced labor and abolition of child labor. We are conducting various types of training as educational activities to achieve respect for fundamental human rights.

We conduct periodic group training and video educational activities relating to compliance and harassment for all Group employees, and improve understanding and awareness by providing opportunities for individuals to reexamine their workplace and views. We have also expanded the anger management training for managers to include all employees. Through the training, we raise awareness of the need to respect the personalities and ideas of others.

Refer to "human rights" on the website with regard to respect for human rights. https://meidensha.disclosure.site/en/themes/96

### **HR Strategy**

#### Human resources are the most important foundation and asset for supporting business

Recently, the complexity of issues faced by society has been increasing, and we have entered a time when it is difficult to predict the future. In these conditions, it is important to have human resources who can actively create value through flexible thinking and bold actions in order to produce solutions to address the issues facing the world.

Meidensha considers human resources to be its most important asset. In order for independent human resources who work positively and proactively, also those with diverse beliefs and backgrounds, to maximize their individual abilities and produce the best results as a team, it is important to promote "diversity and inclusion" further. As well as it is to create a workplace that ensures psychological safety, where everyone can participate in a healthy state both physically and mentally. These initiatives will enhance human capital to increase corporate value.

#### **Promotion of Diversity & Inclusion**

By promoting diversity and inclusion, we aim to create an organization that respects the diverse backgrounds and values of each employee, while enhancing co-creation and innovation.

In FY2022, we established the Diversity Policy Planning & Promotion Office as an evolution of the HR Development & Diversity Promotion Project launched in the previous fiscal year. As specific measures, we are promoting plans

FY2021 Initiatives and Results

#### • Opinion Exchange Meeting Between Female Employees and a Female Outside Director

We held an opinion exchange meeting between Outside Director Keiko Hayashi and female employees in order to provide an opportunity for female employees to discuss their career development. They shared opinions freely such as "unconscious bias and barriers concerning career development existing in the workplace" and also on "individual strategies or requests to the Company and others to overcome them." Expectations and aims of the Company were confirmed, and employees expanded their networks. All participants indicated that

their mindset had changed through the project and this had led to awareness reform.



Female employees' opinion exchange meeting

for female employees such as opinion exchange meetings with an outside director and support systems from officers. Apart from that, we focus on selective training by purpose, training for overseas local staff, etc. With regard to workstyle reforms, we are also promoting the reduction of total actual annual working hours by rolling out Smart Work 2024, and the renewal of satellite offices aimed at expanding flexible work styles. We will continue to promote "diversity and inclusion," in order to increase employee productivity and creativity, as well as fostering a more fulfilling workplace culture.

#### Initiatives for FY2022 and Beyond

As initiatives from FY2022 onwards, we will promote correct understanding of diversity and inclusion for each employee, and accelerate the rollout of our diversity strategy. Specifically, in order to integrate with the management, we will incorporate diversity metrics in each department's targets, internationalize Meidensha, expand dialogue and gather opinions with overseas subsidiaries, promote correct understanding of LGBTQ among employees and encourage uptake of parental leave among male employees.

Main KPIs (as of 2022). Brackets indicate FY2030 targets

#### Number of Female officer class:

At least **1** inside officer in FY2024 (at least 3, of which at least 1 is an executive officer)

• Number of non-Japanese presidents of local subsidiaries: At least **3** presidents of local subsidiaries in FY2024 (at least 5, of which at least 1 is an executive officer)

#### Manager Development Coaching for Overseas Local Staff

It is important to promote localization of subsidiary management in order for the Meiden Group to further accelerate overseas business expansion. In the past, it has been most common to have personnel sent from Japan to manage local subsidiaries; however, in order to ensure business development that deeply understands the needs of the relevant country's society, and management continuity, it is necessary to increase the appointment of local staff.

In addition to our previous training program for overseas management candidates and technology and skills training, we are conducting new training programs to actively contribute to management. In FY2021, four local staff of THAI MEIDENSHA CO., LTD. took coaching-style training aimed at both personal growth of the participants and organizational reform.

#### Development of Personnel That Are Able to Implement Our Business Strategy

#### • Extensive Technical Education

We established the Meiden Youth Academy aimed at increasing the technological capabilities of both technical and administrative young workers. We are promoting professional development concerning digital transformation, by focusing on education of ICT fundamentals and design thinking, which are essential for electricity knowledge and the promotion of digital transformation. At the technical training center, Manabi-ya, the aims of which are early development of skills and passing on technology and skills to employees, we systematically develop and increase the level of technical personnel, using experiential education that employs VR,

AR, and MR. In FY2022, we will focus

on digital skills education such as exercises for controlling actual equipment through programming, and data analysis exercises.



Blackout procedure training using MR (mixed reality)

#### Systematic Development of Management Personnel

Meidensha implements the Career Development Management Program for the purpose of systematically and strategically developing the next generation of personnel. We aim to develop personnel with a broad perspective and outlook exceeding the bounds of their own areas of specialization and roles by accepting applications from young and mid-level personnel to dispatch to adult postgraduate schools and engage in professional exchange with people from other business units and Group companies, engage in cultural exchange through placement outside of the Group and at government institutions, etc. In addition, we aim to increase creativity and foster innovative thinking by introducing the Innovation Professional Development Program for the next generation of management.

#### Initiatives to Improve Employee Engagement

Meidensha introduced NPS®\* in order to face all stakeholders with sincerity and build relationships of trust without hubris. In FY2021, we introduced it to employees in advance and analyzed metrics that indicate desire and attachment to independently make contribution with their sympathy with direction and ideal state of being of the company. In FY2022, we set these metrics as one of our non-financial management goals. Going forward, we will promote identification of issues and consideration of measures based on this analysis, and

Main KPI (as of 2022) NPS<sup>®</sup> for employees **10** % improvement by FY2024 (compared to FY2021)

\* NPS®: Net Promoter Score NPS® is a registered trademark of Bain & Company, Fred Reichheld, and Satmetrix Systems. consider increasing the scope of application to stakeholders other than employees.

### Creating a Comfortable Workplace Environment

As part of Smart Work 2024, as included in the current medium-term management plan, we have implemented strategies to increase productivity and realize a comfortable workplace environment.

In FY2021, we renovated the satellite office at Nagoya Works and created a new community space. In addition to use for internal and external meetings and as a satellite office for employees on business trips, it is useful for taking a break or refreshing a mind.

In addition to expanding systems for balancing childcare/nursing care and work, we have established a dispatch staffing agency to promote flexible work styles for seniors following the mandatory retirement age of 65, established the "Elder System" to allow work up to the age of 70, and utilized a special subsidiary (MEIDEN UNIVERSAL SERVICE LTD.) to create workplaces for people with intellectual disabilities, as part of efforts to create a comfortable workplace environment for everyone.



Eruboshi



Platinum Kurumin

#### Promoting Health and Productivity Management

In order to realize the Meiden Group's corporate philosophy of "illuminating a more affluent tomorrow," it is important for employees to maintain their physical and mental health, and work in a lively and rewarding environment. We are promoting initiatives as an organization to support the health of each individual such as sharing the belief that "nothing is more valuable than good health" with all employees and supporting employees' own health activities. Through these actions, the Meiden Group is working to remain a leader in health management.

With these being evaluated, Meidensha was selected for the "Health and Productivity Management Outstanding Organization (White 500)" and the "Health and Productivity Management Brand" for the second consecutive year.





### **Innovation Strategy**

### Aiming to Improve Awareness to Create a New Society

Recently, the external environment surrounding the society and the economy has been undergoing major changes, and we are deeply aware of the importance of corporate innovation, not only as mere technological innovation, but also as a business survival strategy and for the provision of new value to the world. Under these circumstances, Meidensha established the Strategic Innovations Acceleration Committee in FY2021, and in the year since then, we have promoted activities such as organization of the innovation process, securing and training innovative personnel, and exploration and co-creation of new social needs, in order to take on the challenge of creating a new society for the future in 2030 and 2050.

#### Medium-term Management Plan 2024 Key Action Items

#### 1. Organization of the innovation process

- Introduction of a stage-gate system for new business development process
- Agile resource allocation + swift decision-making

#### 2. Securing and training innovative personnel

- Promotion of human resource development program and seminars by experts
- In-company recruitment of innovative personnelPromotion of systems that lead to fostering
- positive mindsets and culture reform

#### 3. Exploration and co-creation of new social needs

- Transmission of information concerning innovation activities
- Utilization of venture capital funds

#### Providing New Value Through Innovation

As part of "promoting ambidexterity management" as included in Medium-term Management Plan 2024, we aim to accelerate the creation of a new society through innovation in Meidensha's business activities.

In order for Meidensha to contribute to solving social issues, including environmental issues, we need to expand the business into new areas outside the framework of our existing business domain, and it is essential to engage in innovation and launch new businesses. To this end, we aim to use revenue gained from existing businesses to actively search for and invest in new areas, and develop and commercialize organizational and individual ideas.

Leveraging the technology, know-how, and knowledge developed by Meidensha to this point, we will achieve carbon neutrality, create new businesses in view of building a resilient society and provide products and services that contribute to labor saving and greater efficiency through cutting-edge digital technology. Furthermore, we aim to provide new value that invigorates society, by searching for new markets and technologies.

Co-creation with other companies is also an extremely powerful approach toward the creation of a new society. Therefore, we will quickly respond to social issues and needs, while achieving co-creation to devise and implement solutions, by increasing opportunities for dialogue with customers and partner companies. By taking the lead in the creation of a new society, we aim to be a company that achieves perpetual growth and social contribution.

### Shift earnings obtained in existing Fields to investment in new Fields, and accelerate the creation of a new society. Promoting ambidexterity management Create new value that supports a new society (Target: Net sales of ¥5 billion in FY2024)

Promoting ambidexterity management by shifting earnings obtained in existing businesses to active exploration of and investment in new fields

Establish a budget for investment in new fields, and develop and commercialize organizational and individual ideas

### Three-pronged structure supporting innovation to strengthen both individuals and the organization

1) Organization of the innovation process

2) Training of diverse personnel to handle new development

3) Exploration and co-creation of new social needs



### Examples of Initiatives to Generate Innovation

#### Establishment of the MAST Project

In FY2022, we established the MAST Project led by an officer responsible for innovation to accelerate innovation activities built on initiatives for human resource development, cocreation, investigation, and theme promotion. The MAST Project was named by combining the Japanese first letters of "Meidensha," "ashita" (tomorrow), "sozo" (creation), and "thinking," while also carrying the meaning of the word "mast," with the idea that we can be propelled by the winds of the world through our activities, on the theme of "Meidensha's tomorrow, thinking about and creating for 10 years in the future." Under the project, we continuously follow up according to the content of each theme. With the key words of "action modification," "co-creation," and "site awareness," we will further establish and expand innovation activities by properly understanding social issues while demonstrating the knowledge and know-how possessed by individuals in external fields.

#### Organization of the innovation process

The process up to employees engaging in new business themes is divided into the stages of "idea generation," "planning," "development," "consideration of commercialization," and "business creation," from the initial idea through to commercialization, and we have introduced a stage-gate system, wherein quantitative evaluation standards must be cleared for each stage prior to moving on to the next one. At each gate, the hypothesis of the business plan is tested, and the budget and resources are allocated after undergoing scrutiny under the MAST Project. Under the project, we continuously follow up according to the content of each theme.

#### • Training innovative personnel

We arrange innovative personnel according to a pyramid structure. From the top, they are innovators that are able to start their own businesses, core personnel that engage with actual themes, people who propose themes that they would like to specifically engage with in some manner, and base personnel (interested personnel) that are interested in innovation.

At the end, through various strategies, the aim is to produce many innovators with the skills to take the lead and develop strategies for new businesses. Therefore, at present, we are working to increase the number of base personnel, who have an interest in or affinity for creating new businesses, and promote participation in innovation activities through expansion of "10% culture," wherein time is allocated for new ventures outside of a person's main role.



#### • Holding the MEIAN Challenge Idea Contest

We held the first MEIAN Challenge idea contest with the aim of generating new business themes by developing ideas of individuals at an organizational level, starting from creating an innovative atmosphere within the Company and dealing with societal issues.

The Meiden Group's employees are provided with an opportunity to freely come up with ideas together with their colleagues about their ideal future, to propose ideas to change the Company's tomorrow, and to shape to these ideas in the form of businesses. The name MEIAN Challenge includes the meanings of three Japanese words pronounced "meian" (Meidensha ideas, tentative ideas, good ideas). We hope that this will provide an opportunity for teams from the Meiden Group to produce good ideas that will change the future of the world through trial and error (tentative ideas).

The first contest collected business ideas on the themes of carbon neutrality and well-being. At the final session, more than 300 employees, including online participants, listened to the presentations of seven selected teams. Exceptional ideas will be commended and added as new business themes to be promoted.



MEIAN Challenge idea contest

Special contents- Round table talk

# Talking about the Meiden Group's future with young employees



Takeshi Miida President & Executive Officer Representative Director Shohei Arakawa (Joined the Company in 2014) mazu Procurement Section 2 Direct Procurement Division Procurement Group Risa Takahashi Joined the Company in 2017) Design Section 1 tchgear Design Department Power Equipment Factory Complex

**Jun Hori** Journalist

The project to consider the long-term vision titled MEIDEN MIRAI VISION 2040 (hereinafter "MMV2040"), which gives consideration to the future of the Meiden Group in 2040, commenced in June 2022.

On this occasion, journalist, Jun Hori, was invited to discuss MMV2040 with two young employees who are involved with it. Jun Hori was the journalist who held a discussion with President Miida on a TV program that aired in autumn 2021. Opinions were exchanged freely with regard to the form the Meiden Group should take for a more affluent future, including outside perspectives.

Hori Today, I am deeply interested in hearing the thoughts of young employees, who are on the front line of the modern age, and are valuable personnel for the Meiden Group, which provides value in the form of sustainability and well-being. Could the two of you please introduce yourselves?

Arakawa I joined Meidensha in 2014, and after experience in overseas sales, I transferred to the Procurement Group. I am currently mainly responsible for procurement activities relating to product manufacturing, developing strategies for such, and enhancing functionality. My original motivation for joining Meidensha was based on realizing how fantastic Japanese manufacturing is and the importance of infrastructure while I was on exchange in the United States. Electricity and water are essential for people's lifestyles. I hope to spread Japanese manufacturing in order to provide great infrastructure to the world.

Takahashi I joined Meidensha in 2017. I am mainly responsible for structural design of switchgear for the overseas market, and we are releasing products in the

ASEAN region, focusing on Singapore. When I was a child, I lived in the Philippines for a while, where there were frequent blackouts and voltage was unstable, which caused lightbulbs to break. This was the impetus for becoming interested in the mystery of electricity, and majored in electricity and electronics at university. I wanted to be involved with infrastructure after entering the workforce, so I aspired to work at Meidensha.

#### What values do you bring to your work?

**Hori** I like the words "change" and "reform," and I am the type of person who tends to favor new things over existing things. Can you tell me what values and thoughts you have in mind when you work?

Arakawa Awareness of protecting the foundation that supports infrastructure is definitely necessary. However, merely sticking to conventional methods does not allow for growth, so I also hope to find "added value" of change, reform, and uniqueness, for the Company and for myself.

Takahashi I hope to incorporate novelty, while valuing what has been built up to now. I would like to develop technology into a range of sectors by having a can-do attitude saying "Yes, we can handle that" to our customers.

Miida Medium-term management plans devised by corporations are set a period of about three years, and time flies. MMV2040 aims to discuss ideas and exchange views between young people and managers in order to determine our focus for a longer span. I also feel that it is required of Meidensha, which is already good at sincerely responding to the requirements of customers, to go one step further, and develop personnel who are able to present unique added value by themselves.

Hori I see. So, what does "added value" mean in this context?

Arakawa Over the course of history, the form of social infrastructure has advanced significantly. In recent years, "aging facilities" has been an issue, so I think an added value would be making proposals for a better, more advanced society with taking a step forward, rather than proceeding as nothing had changed.

Miida In order to achieve this, I think we must rethink what the Meiden Group ethos is. Through MMV2040, I hope for the answer to this to become clear and for us to embrace the challenge of being excited about the future.

### How will values and happiness change by 2040?

**Hori** By the way, how do you think our lifestyles, values, and happiness will change by 2040?





Arakawa The world has become very convenient, but during the COVID-19 pandemic, I was reminded of the importance of interpersonal connection. Whether that connection is in the real world or through some other means, if it is severed, it detracts from well-being and happiness.

**Hori** While I am reporting in conflict zones, I have also been keenly realized that people's happiness can sometimes come into conflict. These days, we often hear words like "diversity" and "inclusion," but I often wonder whether we really understand their value and whether we will be able to achieve them.

**Takahashi** I think that working with people from other countries and the fact that female engineers like me are becoming more common are aspects of diversity. But I feel like assembling diverse people for the sake of diversity is something different. I think it would be great if diversity was created by assembling various likeminded people who agree with the Meiden Group's goals.

**Arakawa** This is another reason why we should spread Meidensha's reputation. The more we let people know about our activities, the more we can collect people, goods, money, and information. If we increase the number of Meiden fans, it will naturally produce diversity.

**Hori** It seems like understanding diversifying forms of happiness is the secret to understanding the Meiden Group ethos. I also feel that infrastructure such as electricity and water supply, for which everyone is grateful, has the power to bridge divides. What sort of world do you think we would be able to achieve if we spread the Meiden Group ethos even further?

**Takahashi** Meidensha's technology not only includes products and services that are widely used in the infrastructure sector, which supports people's lifestyles. We also have a share of peripheral and niche sectors, so I visualize developing more and more of these niche sectors in order to support the world. Miida Going forward, we expect the concentration of population in urban areas to continue for reasons such as the declining birth rate and aging population, and fewer employment opportunities in regional areas. Until now, we have transmitted electricity to far-flung locations, but if compact smart cities are realized, we may see a time when electricity supply can be completed within limited areas. Takahashi The topic of smart cities also arose in MMV2040 team discussions. The Meiden Group is involved with all processes relating to "generation, transmission & distribution, and efficient usage of electricity." There are many things that Meidensha can contribute to develop regional smart cities in addition to major cities. I believe that we can also use Meidensha's technology in completely different sectors, such as agriculture and forestry.

**Arakawa** As there are some things that we can do and some things that we can't do on our own to contribute to creating smart cities, so I am hoping we will cope with that through co-creation and collaboration with others. I expect that involvement with professionals in various sectors will produce positive results.



#### Initiatives to achieve ideal state of being

**Hori** That's interesting. Is there anything that you would like to do now or actions that you are currently implementing to achieve your vision?

**Arakawa** Well, that is what MMV2040 is. For example, with regard to transportation, my team is currently engaged in serious discussions about the feasibility of flight mobility and a Manga gadget "Dokodemo door(Anywhere Door)" which is the functional equivalent of teleportation devices. This is an opportunity for participants to talk about perspectives that we do not usually consider, and dreams and visions that go beyond the scope of their usual work. **Takahashi** This enables participants to talk to people in various divisions and roles, in addition to people who are normally encountered during usual work, so it is a great

opportunity for learning and leads to new discoveries. **Hori** That's great! Is there anything that you consider to be particularly important for the creation of such an exciting future?

**Takahashi** I place particular emphasis on quality. I am an engineer, who works on power transmission & distribution products, so I have a strong desire to contribute to stable electricity provision. I want to engender trust and assurance in customers with the knowledge that they can leave everything up to Meidensha.

Miida Naturally, the trust of our direct customers is important to us, but we must also think about lives of people beyond them. Meidensha's employees are constantly aware of supporting the lives of these people.

**Hori** That's very true. The philosophy of the Meiden Group is summed up by the words "lives of people beyond our customers." Up to this point, you have told us about your own thoughts in your own words. I would now like you to tell us about the vision for the next era.

**Arakawa** When I talk to people inside and outside the company, I feel that they think Meidensha as a conservative company. However, looking at history, Meidensha was a pioneer when it came to manufacturing motors and industrial equipment, which was its original business. In the past, Meidensha manufactured things like electric fans and rice cookers, but these days we are developing services using VR and the Metaverse in advance of the times, so in some senses, we are deceptively innovative. I think that if we further extend the can-do attitude at the core of Meidensha since it was first founded, while conserving the things worth conserving, we will create a more attractive company.

**Takahashi** I, as an engineer, will look for opportunities to apply my skills and where I will have chances. There are many types of infrastructure that Meidensha deals with. I would like to start by learning about a range of different things inside and outside the Company, even if it is only at a surface level. I strongly feel that this would have an effect on my products and work.

Miida The field in which Ms. Takahashi is involved is only a fraction of the technology handled by the Meiden Group. One way to enhance technological proficiency is to expand these on all directions and broaden your perspective. Another way is to become professionals by honing your current technological skills and improving your own area of specialization. Which option will you choose, Ms. Takahashi?

Takahashi I want to broaden my horizons. I want to come into contact with a range of technologies, find what best

suits me, and further investigate that area. To that end, I would like to have connections and dialogue with other divisions, such as sales, in addition to other engineers.

Arakawa The procurement group have links with each factory, so it allows for such lateral connections. I believe that we have a mission to use our position to improve product competitiveness by connecting professionals, including those inside the company, as well as our suppliers/business partners.

**Hori** That's great! Meidensha has core technology, and it's able to use that to respond to a range of needs. As part of this, what synergies are displayed by various professionals working together?

Miida Meidensha has professionals all over the place. As these two have said, I think it is extremely important to come into contact and engage in dialog with them from a range of sectors.

#### Impressions gained from today's talk

Hori Could each of you say a few words about the impressions that you gained from today's talk? Mr. Arakawa, why don't you go first?

**Arakawa** It is difficult to put my thoughts into words, but they actually came out of my mouth and helped me to be aware of the way I thought. At present, there are 18 mid level and young people participating in MMV2040. Today's talk was a cue to feel my strong desire to spread MMV2040 beyond that group of 18, to help make Meidensha an even better company along with other likeminded people. Thank you very much.

Hori Ms. Takahashi, how about you?

**Takahashi** This opportunity helped me to maintain strong motivation and gave me a feeling that I could try even harder at my regular job, as a member of an infrastructure company. Taking the opportunity provided by MMV2040, I would like to communicate with various different people and absorb a range of knowledge.







#### A message from President Miida

**Hori** Finally, President Miida, would you like to say a few words?

Miida I really think that these two young people are becoming independent and autonomous. I can see that they don't just design products and procure materials as instructed, but rather, they tailor their own jobs with the hope of improving society and the Company. It's really reassuring.

Hori It really is fantastic.

Miida In July of this year, Meidensha held the "MEIAN Challenge" idea contest. Seven themes were announced and four passed screening. I was intrigued by the three that were left out. It turns out that while they were good ideas, their messages were simply not strong enough to convince the audience.

**Hori** I see. Being capable to well communicate and talk is a key, indeed.

Miida MMV2040, in which these two are currently participating, is an opportunity for young employees and management to discuss and explore what kind of society they want to build, what the Meiden Group should engage in, and what they would like to achieve as employees of the Company. In order for Meidensha to remain a company that is needed, relied on, and loved, by many people, it is important to communicate ideas that we think are good, and strengthen our bonds with society.

Takahashi I strongly felt that necessity at today's talk.

Miida That's right. I also felt that it was important for engineers to develop lateral connections. It is also the job of managers to lay tracks for the next generation to participate going forward. By continuously honing technology, we will cater to the needs of society. That is my hope, and I feel that it is the purpose of the Meiden Group. Let's build the future together.

### **Corporate Governance**

#### **Basic Approach**

Under our corporate mission of "illuminating a more affluent tomorrow" and our corporate philosophy of providing the value "for customer peace of mind and satisfaction", our group of companies takes the basic stance that we maintain fair and steady business activities with respect for people and the global environment, operate businesses focusing on profit while constantly pursuing new technology and high quality, and endeavor to contribute to prosperity of society.

In order to implement this basic stance, we formulated the "Basic Policy regarding Establishment of a System to Ensure the Appropriateness of Business Activities" at the regular Board of Directors' Meeting held in May 2006. In addition, we revised said basic policy at the regular Board of Directors' Meeting held in July 2022, as a result of a review of the officer system to further clarify the division of roles between executive functions (executive officers) and so-called supervisory functions (directors and the Board of Directors).

The Company will work to further improve the fairness, efficiency, and transparency of management by promoting initiatives to enhance corporate governance in accordance with the Corporate Governance Code.

#### Outline of Corporate Governance Structure (As of July 2022)

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Form of Organization	Company having an Audit & Supervisory Committee
Directors	Number of directors (outside directors): 7 (3)
Directors (Audit & Supervisory Committee Members)	Number of directors (outside directors): 4 (3)
Number of Independent Officers	6 (3 outside directors and 3 outside directors (Audit & Supervisory Committee members))

#### **Corporate Governance Structure and** Initiatives

We are a company with an Audit & Supervisory Committee, and we aim to further strengthen corporate governance in the following areas.

(a) In order to further enhance the supervisory functions of the Board of Directors through use of legal authority, such as directors that are Audit & Supervisory Committee Members holding voting rights at the Board of Directors' Meeting and having the right to present a position statement relating to nomination and compensation of directors at General Meeting of Shareholders.

#### Message from the Chairman of the Board of Directors

The Corporate Governance Code established in 2015 has played a major role as a guide for Japanese companies to conduct governance reform. Meidensha established a voluntary Nomination & Compensation Committee in 2019, and we decided to transition from a company with board of company auditors to a company with an audit and supervisory committee in 2020. In the 2 years since then, we have tackled issues such as (1) improving the effectiveness of the Board of Directors, (2) valuing diversity, and (3) consideration for the global environment, under this new governance structure. At present, we are working to improve operation of the Board of Directors in order to further increase its effectiveness, while remaining aware of PDCA.

At the General Meeting of Shareholders held in June 2022, Meidensha made resolutions to partially amend the Articles of Incorporation with regard to review of the officer system, and the resulting new system of directors. Through this, we will further clarify executive and supervisory roles, and deal with issues one at a time to achieve"Medium-term Management Plan 2024" (final fiscal year is 2024), by further enhancing both roles. Through these activities, we also hope to evolve to become a "sustainability partner that works to build a new society through integrity to the earth, society, and people, and through the power of co-creation" which is our ideal state of being.

It has been 125 years since Meidensha was founded. In that time, we have engaged in a range of businesses, from our start as a business to repair motors manufactured overseas, to working to bring that manufacture to Japan, and producing heavy electrical products and systems, the water treatment sector, control equipment, power systems, and testing equipment in fields of automobiles, as well as producing drive products for the electric vehicles, etc. By enhancing the above activities (1) through (3) while remembering our ambitious spirit, we will promote management that caters to the expectations of investors, and work to further improve our corporate value.

In addition, human resources are the source of Meidensha's sustainable growth, We will promote discussion at the Board of Directors from a supervisory perspective, in order to become a company that is accepting of diverse personnel, and create an environment and system in which every individual can participate.



Yuji Hamasaki Director & Chairman & Senior Officer

(b) In order to further enhance discussions on management strategies, etc. by transferring the Board of Directors to a monitoring type, since a portion of the Board of Directors' authority to make decision on business execution has been transferred to the Director & President and Executive Officer (Executive Officers' Meeting).

#### Transition to a Stronger Corporate Governance System

	Commencement of stronger corporate governance to increase the effectiveness of the Board of Directors	Promotion of corporate governance reforms based on the Corporate Governance Code	Deeper corporate governance system based on suddenly changing economic conditions
Purpose/results	From FY2003	From FY2015	From FY2020
Enhancement of Decision-making and Supervisory Functions of the Board of Directors Separation of Supervision and Execution of Management	<ul> <li>2003</li> <li>Introduction of executive officer system 2012</li> <li>Revision of the rules of internal approval</li> </ul>	<ul> <li>2015</li> <li>Revision of Board of Directors agenda standards</li> <li>2018</li> <li>Separation of the roles of chairman of the Board of Directors and chairman of the Executive Officers' Meeting</li> <li>2019</li> <li>Elimination of quotas for number of directors</li> </ul>	<ul> <li>2020</li> <li>Revision of the Board of Director's Meeting agenda, standards and rules of internal approval</li> <li>Transition to a company with an Audit &amp; Supervisory Committee</li> <li>Proportion of outside directors at least 1/3</li> <li>Election of female outside director (1 person)</li> <li>2022</li> <li>Review of the officer system (Clarification of execution and supervision)</li> <li>Increase of outside directors' ratio to majority</li> </ul>
Enhancement of transparency and soundness of management	<ul> <li>2006</li> <li>Revision of the Basic Policy regarding Establishment of a System to Ensure the Appropriateness of Business Activities (the Basic Policy on Internal Control Systems)</li> <li>2012</li> <li>Commencement of reporting to the Board of Director's Meeting on internal control adjustment status</li> </ul>	<ul> <li>2015</li> <li>Revision of the Basic Policy on Internal Control Systems</li> <li>2016</li> <li>Commencement of verification of effectiveness of the Board of Directors</li> <li>Commencement of evaluation of cross-shareholdings</li> <li>2017</li> <li>Establishment of the voluntary Compensation Committee</li> <li>2018</li> <li>Establishment of the voluntary Nomination &amp; Compensation Committee</li> <li>2019</li> <li>Change of directors' term of office to 1 year</li> <li>Abolition of Senior Advisor system</li> </ul>	<ul> <li>2020 <ul> <li>Revision of basic internal control policy</li> <li>Establishment of the Group for Promotion of Internal Control</li> </ul> </li> <li>2022 <ul> <li>Increase of outside directors ratio on the voluntary Nomination &amp; Compensation Committee to majority</li> <li>Establishment of the Corporate Governance Management Group</li> <li>Revision of basic internal control policy</li> </ul> </li> </ul>
Revitalizing and enhancing debate by the Board of Directors	<ul> <li>2013</li> <li>Enhancement of information sharing with outside officers</li> <li>2014</li> <li>Commencement of meetings to exchange opinions with outside officers</li> </ul>	<ul> <li>2015</li> <li>Commencement of training for newly appointed outside directors</li> <li>2018</li> <li>Commencement of advance explanation of Board of Directors agenda items to outside officers</li> </ul>	<ul> <li>2021</li> <li>Establishment of Board of Directors' discussion</li> </ul>

#### Corporate Governance Structure



(c) We aim to further promote separation of supervisory and executive functions by making changes to increase legitimacy in June 2022, and combining it with the transfer of authority mentioned in (b) through the introduction of an executive officer system in June 2003, and a system for election of executive officers who are responsible for a flexible and agile business execution system by the Board of Directors, based on the Articles of Incorporation.

#### **Corporate Governance**

#### **1** The Company's Board of Directors

In principle, the Board of Director's Meeting convenes on a regular monthly basis and holds ad-hoc meetings as necessary, to discuss major executive matters, business issues, and management issues related to the Company's business execution. In FY2021, the Board of Director's Meeting held 13 meetings, and the attendance rate was 100% for all directors.

#### 1 Composition of Board of Directors

The Company's Board of Directors consists of 11 Directors, including 4 directors who are Audit & Supervisory Committee members, and 6 Outside Directors, including 3 Audit & Supervisory Committee members. We have introduced a system to ensure that independent outside directors account for the majority of the Board of Directors since they meet the standards of the Company's Criteria for Determining the Independence of Outside Directors, ensure the effectiveness of the supervisory functions of the Board of Directors, and fully incorporate objective and independent opinions into the Company's management.

Meidensha's outside directors satisfy the requirements of independent directors as stipulated in the rules of the Tokyo Stock Exchange.

#### ② Policy for Appointment of Candidates for Director and Appointment/Dismissal Process

The basic policy for the appointment of directors of the Company is to ensure the diversity of the Board of Directors as a whole and to balance the expertise required of the Company's Board of Directors with the awareness, experience, and abilities of individual Directors.

The basic policy for the appointment of directors who are Audit & Supervisory Committee members is to ensure overall diversity of directors who are Audit & Supervisory Committee members and a balanced composition, according to knowledge and experience, etc., relating to accounting, finance, and law, etc.

The number of the Company's directors is stipulated as a number that is sufficient to fully deliberate on management issues, with an upper limit of 15 members.

Based on the above, we create a directors' skill matrix, nominate candidates for director that will contribute to the enhancement of the Board of Directors decision-making function and oversight function, by resolution of the Board of Director's Meeting, with advice from the Nomination & Compensation Committee\* (voluntary committee), which is chaired by an independent outside director. The candidates are then presented at the General Meeting of Shareholders.

Furthermore, with regard to the dismissal of directors, if it is discovered that a director has breached the law or the Articles of Incorporation, or committed acts that flagrantly breach the director's nomination policy, the Board of Directors will take the necessary steps to dismiss said director with the advice of the Nomination & Compensation Committee. \* Meidensha established a voluntary Compensation Committee in December 2017. In December 2018, the Committee took on the functions of a voluntary nomination committee to become the Nomination & Compensation Committee. The Nomination & Compensation Committee is chaired by an independent outside director and is comprised of 3 outside directors, the Director & Chairman & Senior Officer, and the Director & President & Executive Officer. Independent outside directors account for the majority of the committee.

Refer to p. 51 "Skill Matrix"

#### 3 Executive Officer System and Executive Structure

Meidensha introduced an executive officer system in June 2003 in order to streamline the Board of Directors, as well as to accelerate management decision-making and to enhance supervisory functions. At the same time, we sought to reinforce the functions of the Board of Directors by promoting the separation of the decision-making authority and supervisory function from the business performance function held by the Board of Directors.

Based on the Articles of Incorporation, executive officers selected by the Board of Director's Meeting assume responsibility for the execution of specified tasks within the scope of authority transferred by the Executive Officers' Meeting and the President and Executive Officer, and nimbly perform executive functions under the supervision of the Board of Directors, in accordance with the Meiden Group's management policies determined by the Board of Directors.

The Executive Officers' Meeting, which comprises Executive Officers with Titles, is created for executive decision-making, and decides matters based on the rules of internal approval, as well as matters for which consultation from a full-company perspective is required.

Furthermore, apart from the meeting body to make decisions, we established advisory and internal bodies such as review and strategy meetings, and with regard to important management matters, we created a system wherein thorough discussion and deliberation are conducted prior to decision-making, and follow-up strategy and planning and improvement initiatives are conducted following decision-making.

The outline and main points of the proceedings at the Executive Officers' Meeting and other internal meetings are reported as the status of business execution at the Regular Board of Directors' Meetings to ensure and improve the effectiveness and supervisory functions of the Board of Directors.

As to execute business, executive directors and executive officers with the authority are taking attempt initiatives agilely by making resolutions and settlements. In this way, we are working to conduct executive functions autonomously and nimbly.

With the transfer of a portion of authority for business execution from the Board of Directors to the executive directors and executive officers, executive officers must submit a business execution status report to the Board of Directors at least once every 3 months in order to ensure the effectiveness of functional supervision by the Board of Directors.

#### 2 Effectiveness Evaluation of the Board of Directors

Meidensha has a mechanism in place to conduct an analysis and evaluation of the effectiveness of the Board of Directors in order to strengthen the supervisory function of the Board of Directors.

With regard to the activities of the Board of Directors in FY2021, all members of the Board of Directors, including outside directors, conducted self-evaluations of the effectiveness of the Board of Directors, and the following discussions took place at the meeting of the Board of Directors in May 2022, in order to revitalize deliberations by the Board of Directors.

#### i Items Evaluated

Composition (scale and diversity, etc.) and operation (means of resolution, reporting, and discussion, etc.) of the Board of Directors, self-evaluations concerning effectiveness of the Board of Directors, and other issues and opinions, etc., relating to the future effectiveness of the Board of Directors

#### ii Outline of Analysis and Evaluation Results

The results of the evaluation of each director were collected, and after deliberation by the Board of Directors, it was determined that the quality of operation and deliberation is sufficient, sufficient opinions and advice have been received from outside directors, and the effectiveness of the Board of Directors is currently secure.

In addition, in the course of evaluation, we promoted the transition of the Board of Directors to a monitoring type and reaffirmed the policy to further enhance the supervisory function of the Board of Directors through the delegation of major executive functions and establishment of internal decision-making and supervision rules.

Going forward, we will promote initiatives to further improve the effectiveness of the Board of Directors.

#### 3 Initiatives to Utilize Outside Directors

Meidensha seeks active participation in management by outside directors, in order to enhance the supervisory function of the Board of Directors. As such, we are conducting the following initiatives to ensure free and active debates.

### i Advance Explanation of Agenda Items of the Board of Directors

We hold explanatory meetings for outside directors, presented by Executive Officers with Titles, in advance, so that outside directors are able to confirm the content of agenda items prior to participating in meetings of the Board of Director's Meeting. Our system allows us to accept questions, etc., relating to the content of agendas in advance and prepare an explanation to be given at the Board of Director's Meeting, and this revitalizes and enriches deliberations.

#### ii Matters for Discussion by the Board of Directors

In addition to agenda items and reporting matters of the Board of Director's Meeting, we take up matters concerning our basic management plans, such as the Mediumterm Management Plan and major themes required of a company having an Audit & Supervisory Committee, and discuss tracing, etc., as matters for consultation.

We will leverage the knowledge of outside directors to facilitate active exchange of opinions concerning the Company's management issues and strategies, as well as corporate governance, and use this as an opportunity to build consensus at the planning stage, prior to resolutions by the Board of Director's Meeting.

### iii Timely and Appropriate Sharing of Information Beyond the Board of Directors' Agenda

Besides the agenda for the meeting, the Company provides briefings on current topics relating to the Company at the Board of Director's Meeting, with the aim of timely and appropriate sharing of information with outside directors, so that they can share the status of the Company in a timely fashion.

#### iv Training for New Directors

We create opportunities to explain the Company's business and structures, primarily to aid the understanding of newly appointed outside directors.

The responsible officers or managers in charge of the business group, etc., explain their business, corporatewide themes, and the Company's governance system to the outside directors, answer their questions, and exchange opinions with them, in addition to actually monitoring each factory.

#### 4 Participation of Outside Directors in Board of Directors' Meetings

#### i Participation in the agenda

Our outside directors have diverse management experience and areas of specialization, understand the content of the proposals put before the Board of Director's Meeting from a variety of perspectives when said matters are explained in advance, and attend Board of Directors' Meetings having checked any unclear points in advance.

At Board of Directors' Meetings, multifaceted discussion occurs, based on the broad perspective of managers, the knowledge of technicians, and the high-level specialization of experts, etc. The outside directors participate in deliberations by actively making statements, etc., in particular concerning policies and measures to deal with risks, and cautions when monitoring, etc.

The outside directors also contribute to strengthening of the supervisory function of the Board of Directors, such as by participating in matters concerning medium-term management plans from the consideration stage, making resolutions as part of the Board of Directors having shared the Company's goal and issues, and making statements concerning said plans at Board of Directors' Meetings at any time.

#### **Corporate Governance**

#### ii Participation in management

In the course of evaluating deliberations at the Board of Director's Meeting and effectiveness evaluation of the Board of Directors, the outside directors' opinions are heard with regard to matters that require priority monitoring by the Board of Directors and matters that require strengthening of systems, etc., which improves the agenda-setting and operation of the Board of Director's Meeting.

As we change our institutional design to that of a company having an Audit & Supervisory Committee, and transition to a monitoring-type Board of Directors, the outside directors determine matters that should be discussed and resolved by the Board of Director's Meeting, as well as authority that should be transferred to the Executive Officers' Meeting and executive officers, and promote separation of supervisory and executive functions. The outside directors express opinions concerning matters that require priority monitoring in the course of business execution based on their diverse experience and knowledge.

Based on these opinions, the Board of Directors create a yearly schedule for the Board of Director's Meeting, create a cycle to systematically monitor the entire Company, and contribute to the drafting of the Board of Directors Rules and improvement of operations.

#### **5** Auditing System

The Company transitioned from the prior institutional structure of a company having an Audit & Supervisory Board to a company having an Audit & Supervisory Committee at the General Meeting of Shareholders held on June 26, 2020.

The Audit and Supervisory Committee consists of 4 directors, including 3 outside directors, who are Audit & Supervisory Committee members, and there is also a Support and Advisory Division for Audit and Supervisory Committee has been established as a staff organization to support the Audit and Supervisory Committee. The committee communicates with the directors, the Internal Auditing Division, and other related divisions, while adhering to the auditing policies, allotted duties, and auditing rules, etc., for Audit & Supervisory Committee members stipulated by the Audit & Supervisory Committee. Committee members attend meetings of the Board of Directors and other important meetings, and audit the execution of directors' duties through investigations of business and financial conditions.

Directors who are Audit & Supervisory Committee members are granted authority, such as voting rights at a Board of Director's Meeting and the right to present a position statement relating to nomination and compensation of directors at a General Meeting of Shareholders We are therefore promoting the establishment of an auditing framework and the enhancement of various initiatives to further strengthen the supervisory function of the Board of Directors, which is the aim of altering our institutional design, through new activities such as monitoring and auditing, etc. of the transfer of authority to executive directors and the status of the governance that guarantees it, in addition to auditing activities, and by further strengthening cooperation with the outside directors, etc.

#### **6** Internal Auditing System

#### i Organization

We have established the Internal Auditing Division (14 members as of March 31, 2022). The Internal Auditing Division is independent from other executive lines, and conducts internal audits to check the effectiveness and efficiency of business operations, the reliability of financial reporting, the status of compliance with laws and regulations, and the maintenance of assets, covering the Company and all of the Meiden Group companies at home and abroad as an organization under the direct control of the Director & President and Executive Officer.

With regard to internal control, the Internal Control Promotion Division is the specialized division that establishes risk management systems that integrate the entire Meiden Group, promotes enhancement of internal control systems, and ensures complete internal control functions through joint monitoring of internal control systems by the Audit & Supervisory Committee and the Internal Auditing Division.

#### ii Method of audits

In FY2021, the internal audits were mainly conducted by two methods.

The Company is transitioning from our previous rotating audits to a risk-based approach. We conducted risk-based audits at 17 business units, which comprehensively covered risks based on major risks facing all companies confirmed by the Risk Management Committee, and prioritized highrisk areas. In FY2022, in addition to major risks facing all companies in the Meiden Group, the Internal Auditing Division will evaluate risks from multiple perspectives, select and audit auditing targets in consideration of this.

At the subsidiaries, we conducted new standardized audits using audit standardization tools at 1 Japanese subsidiary and 14 overseas subsidiaries to improve the comprehensiveness of risks in audits.

#### **7** Strengthening Group Governance

The Meiden Group is working to continuously strengthen group governance by developing basic policies based on the "Basic Policy regarding Establishment of a System to Ensure the Appropriateness of Business Activities" at each Meiden Group company, establishing a regulatory framework, and implementing the PDCA cycle.

#### 1. Establishing a Framework

 Our Board of Directors has established the Corporate Policy Planning Group, the Integrated Sales Group, and the Internal Control Promotion Division as group-wide management organizations, and created a system for each Meiden Group company to report to the Company.

- There is a system to dispatch general officers or nonstanding officers from the Company to Meiden Group companies to oversee the operations of said Meiden Group companies.
- The Company dispatches non-standing auditors to major overseas and domestic Meiden Group companies to strengthen audits.
- The Company's Internal Auditing Division conducts audits to ensure appropriate business practices at each Meiden Group company.

#### 2. Main Initiatives in FY2021

The Group Company Internal Control Committee meets twice yearly. It shared the top risks facing the Meiden Group and the progress of each company's risk management, and started conducting risk management education and instruction for each business unit of overseas subsidiaries. At the settlement and business plan reporting sessions in Japan and the overseas strategy meetings overseas, we worked to continue to establish the discussion and reporting system for subsidiaries, which requires reporting of business issues, etc., and based on this, provides an opportunity to share the main risks faced by each subsidiary, and consider and thoroughly implement measures. In addition, at the Internal Auditing Department we incorporated standardized audits that comprehensively evaluate standard tasks, and conducted internal audits at one Japanese subsidiary and 14 overseas subsidiaries.

#### **Officers' Compensation**

#### Directors compensation policy i Level and System of Compensation

The level of compensation of the Company's directors is determined based on external objective compensation market data, economic conditions, industry trends, and Company's business circumstances, etc. The content of the officers' compensation system is determined by the internal officers' compensation regulations having received consultation and confirmation by the aforementioned Nomination and Compensation Committee, giving consideration to this level.

#### ii Composition of Compensation

(a) Directors (Excluding Audit & Supervisory Committee Members and Outside Directors)

Compensation of directors (excluding Audit & Supervisory Committee members and outside directors) is based on annual salary system with performance-linked compensation, and comprises basic compensation and incentive compensation according to each role. Of these types of compensation, incentive compensation comprises compensation that is linked to business performance as a short-term incentive and stock compensation as a medium to long-term incentive.

#### Target Proportion of Each Type of Compensation (if 100% of targets were achieved)



 (b) Directors and Outside Directors Who Are Audit & Supervisory Committee Members
 Directors and outside directors who are Audit & Supervisory Committee members only receive basic compensation on annual salary system basis.

#### iii Incentive Compensation System

Performance-linked compensation, which is a short-term incentive, varies from 0 to 140 depending on the degree of achievement of targets, with perfect achievement of targets counting as 100. We use operating income, which is also used for our financial targets in the Medium-term Management Plan, as a performance evaluation indicator, and give consideration to revisions according to operating conditions and changes to the roles of each officer, etc.

#### **Calculation formula**

Basic Remuneration for Each Position Coefficient Accounting to Achievement of Target Operating Income (0.0 to 1.4)

Compensation for Stock Acquisition, which is a medium to long-term incentive, grants shares to the Officers' Shareholders Association for the purpose of further promoting sharing of profit and loss with shareholders.

#### iv Compensation Determination Procedures

The Nomination & Compensation Committee confirms and considers the content of the compensation system and the amount of compensation from an objective perspective prior to determination by the Board of Director's Meeting.

#### FY2021 results

Classification	Total Amount of Compensation,	of Compen	of Each Type sation, etc. s of yen)	Number of
Glassification	etc. (millions of yen)	Basic compensation	Incentive compensation	People
Directors (Excluding Audit & Supervisory Committee Members and Outside Directors)	285	195	89	9
Outside directors (excluding Audit & Supervisory Committee members)	19	19	_	2
Directors Who Are Audit & Supervisory Committee Members (excluding Outside Directors)	53	53	_	3
Outside directors who are Audit & Supervisory Committee members	25	25	_	3
Total	383	293	89	17

Note 1. The above number of people entitled to compensation includes 2 directors who retired at the conclusion of the 157th General Meeting of Shareholders held on June 24, 2021 (excluding Audit & Supervisory Committee members), and 1 director who is an Audit & Supervisory Committee member.

### Board of Directors & Executive Officers as of July, 2022

#### Composition of Meidensha's Board of Directors (Skill Matrix)

When appointing the Company's Board of Directors, it is our basic policy to appoint appropriate personnel, who will ensure diversity and balance of the Board of Directors as a whole and contribute to increasing the Company's corporate value based on individual directors' abilities, knowledge, and experience, etc. Based on this policy we make appointments that will contribute to the decision-making and oversight functions of the Board of Directors, and the composition of the Board of Directors reflects this.

			Sectors in	which spe	cialization c	an be part	icularly de	monstrated	
	Name/Position	Management and business strategy/M&A	Sales/ Marketing	R&D/ Technology	Manufacturing/ Construction/ Maintenance	Overseas/ International businesses	Accounting/ Finance	Legal affairs/Risk management	CSR/ESG
Carlo	Yuji Hamasaki Director & Chairman & Senior Officer Director, Chairman Member of Nomination & Compensation Committee	•		•		٠			
	Takeshi Miida Representative Director & President & Executive Officer Member of Nomination & Compensation Committee	•	•						•
Ø	Norio Takekawa Representative Director & Executive Vice President & Executive Officer			•	•			•	
-	Masayuki Iwao Director & Senior Managing Executive Officer						•	•	•
-	Hiroyuki Takenaka Director (Outside Director) Head of the Nomination & Compensation Committee	•	•					•	
30	<b>Yoshiaki Shin</b> Director (Outside Director) Member of Nomination & Compensation Committee	•				•	•		
	Hiroji Adachi Director (Outside Director)	•		•	•				
0	Michihiko Kato Director & Audit & Supervisory Committee Member (Standing Audit & Supervisory Committee Member) Chairman of the Audit & Supervisory Committee		•		•			•	
9	Keiko Hayashi Director & Audit & Supervisory Committee Member (Outside Director) Member of Nomination & Compensation Committee						•		•
Ø	Takashi Kuroda Director & Audit & Supervisory Committee Member (Outside Director)	•	•					•	
	Hideki Hiraki Director & Audit & Supervisory Committee Member (Outside Director)		•					•	•

#### **Executive Officers**

#### **Chairman & Senior Officer**

Yuji Hamasaki

**President & Executive Officer** 

Takeshi Miida

**Executive Vice President & Executive Officer** 

Norio Takekawa

#### Senior Managing Executive Officers

Masayuki Iwao Masahiko Suzuki Akio Inoue Nobuaki Tamaki Tatsuki Mochizuki

#### Managing Executive Officers

Hiroshi Toke Akio Ikemori Satoshi Momenya Katsuyuki Watanabe Koji Niikura Hideki Mivazawa

#### **Executive Officers**

Noritaka Matsushita	Kazuhiro Yamada
Hisahiro Murashima	Nobuya Ono
Norio Mizutani	Hiroshi Takahata
Takeo Suzuki	Katsumi Shimamura
Katsunori Suzuki	Takehisa Koganezawa
Munekazu Shiratori	Ko Yamamoto
Kuniteru Yamaoka	Yasuhiro Yoshino
Seiji Kato	Masami Ogawa

### Message from Newly Appointed Outside Directors

#### Hiroji Adachi Outside Director

I have extensive experience at energy companies, where the whole industry is expected to undergo major transformation. I have been involved with support for operation at manufacturing sites, energy-conservation and safety measures, development of management plans, and promotion of M&A, both in Japan and overseas, and recently, I have been involved with the development of digital transformation, which is gradually becoming a significant movement throughout society, and internal reform initiatives such as reducing greenhouse gas emissions and promoting a circular economy. At Meidensha, increasing competitiveness of existing businesses, promoting digitalization of our business, formulating the long-term vision, and rearranging our business portfolio are major issues that must be confronted by management. I will use my knowledge and experience gained to this point, and seek many opinions from inside and outside the Company, to work hard to indicate a direction for management.

#### Takashi Kuroda Director & Audit & Supervisory Committee Member (Outside Director)

For 43 years, I have provided risk management to various clients including companies, government agencies, and individuals, in the property insurance industry. Risks change with the times, and new unforeseen risks appear. If you spell the "risk" in Japanese backwards (in Japanese "RISUKU"), you end up with "medicine" (in Japanese "KUSURI"), and I often say that advance preparation for risks is necessary as a form of preventative medicine. Until now, it has been common practice for companies to take "household medicine," such as governance, internal control, and compliance, from the perspectives of customers and sustainability, but it is necessary to envision the future and effort to develop new medicine. I am fortunate to be involved with new sectors, and I will leverage my broad viewpoint and experience developed while valuing interpersonal connections, and perform my duties in a manner that earns the trust of each stakeholder.

#### Hideki Hiraki Director & Audit & Supervisory Committee Member (Outside Director)

In my 40 years of experience at banks, asset management companies, etc., I have been globally involved with operations such as management strategy, financial planning, group risk management, and compliance. I have also been involved with pension and asset management businesses, corporate governance, and ESG operations in Japan and overseas. The business conditions surrounding Meidensha are undergoing historically major changes and upheavals; however, I feel honored to be one of the people to promote reform and growth by maximizing the Company's balanced business portfolio and strong trading and technological foundation. I will perform my duties such as providing oversight and advice with regard to the state of business execution and maximizing auditing functions, and contribute to sustainable growth, increased corporate value, and fulfillment of social responsibility of the Company, which has over 120 years of history.







### **Risk Management / Compliance**

#### **Basic Approach**

The Meiden Group is building a system to understand major business risks faced by the whole group, and control risks for all companies in an integrated manner, through discussion by management (ERM = Enterprise Risk Management). In addition to regular risk management, we also have an integrated system for managing and responding to business continuity risks due to accidents or disasters, etc., (BCM = Business Continuity Management) and aim for a system that is able to respond to constantly changing risks during regular operation and emergencies.

We fully understand domestic and overseas laws, including laws relating to corporate activities, customs, and all other social norms and spirit. We comply with and respect these, and have developed the Meiden Group Code of Conduct to constantly maintain a high standard of corporate ethics and social decency.

### Risk Management/Compliance Structure

In FY2022, we established the Corporate Governance Management Group, and aggregated the Internal Control Promotion Division, which conducts integrated risk management during normal operation and crisis management during emergencies and the General and Legal Affairs Division, which governs compliance as a major part of risk management.

#### **Operation of Each Committee**

The Risk Management Committee is chaired by the Director, Senior Managing Executive Officer. Key members of the Headquarters Staff Business Unit scrutinize the Meiden Group's major business risks that have been identified by the Internal Control Promotion Division and debate response policies each half. Managers further

#### **Chart of Risk Management-related Organizations**



debate business risks debated by the Risk Management Committee at the Executive Officers' Meeting and the Board of Directors, stipulate key business risks facing the Meiden Group, and determine response policies.

The General and Legal Affairs Division is the executive office for the Compliance Committee, which is chaired by the officer responsible for compliance, and convenes regular committee meetings twice each year to determine compliance action plans. Feedback on activities based on this action plan is provided to the meetings, and the content is also reported to management.

#### **Compliance Initiatives**

Group Corporate Code of Conduct toward Globalization The Meiden Group revised the Meiden Group Corporate Code of Conduct in 2022 in consideration of sustainability management, and is increasing awareness of employees with regard to compliance with laws and other social norms and contributing to the realization of a sustainable society.

We are educating Meiden Group employees around the world by compiling this code of conduct in addition to the corporate philosophy system and guidance into a booklet in three languages (Japanese, English and Chinese). Furthermore, we are broadly expanding our compliance education activities such as by releasing the Meiden Group Bribery Prevention Policy and the Guidelines for the Meiden Group Bribery Prevention Policy in the same three languages.

#### Whistleblower System on Compliance

The Meiden Group has a whistleblower system for compliance. This is to prevent illegal actions and misconduct and to solve problems as early as possible.

The internal whistleblower system includes the internal reporting system (Compliance Hotline) dealing with a broad range of compliance issues including breaches of laws such as the Antimonopoly Act, breaches of general anti-corruption regulations such as those dealing with bribery, other breaches of internal or external rules, and labor problems and the Harassment Consultation Hotline, which is specifically designed to deal with harassment. The External Hotline is a hotline operated by outside lawyers for early detection and rectification of unlawful acts, etc. Furthermore, we have also established a supplier-specific whistleblower hotline in FY2018.

In FY2021, we proceeded with revision and reform of regulations and systems, such as making our whistleblower systems clearer and further strengthening protection of whistleblowers, in line with the enforcement of the amended Whistleblower Protection Act.

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#### All-Company Integrated Risk Management (ERM) System During Normal Operation

The Meiden Group is building a risk management system using the following three-line model.

The Internal Control Promotion Division is a mechanism to contribute to deliberation and decision-making concerning major all-company risks by management by collecting risk information for which Line 1 and Line 2 is responsible, collating major all-company risks to be discussed by



#### Major Risks Facing the Group

The Meiden Group stipulates major business risks to the entire Meiden Group, including in relation to ESG, through regular discussion among managers according to systems such as those listed above. As a result of the above discussion among managers, risks that could have a serious impact on the decisions of investors are as follows. (As of March 31, 2022)

				Risk ass	essment		Comparison
Ranking	Risk	Impact	Likelihood	Speed of materialization	Effectiveness of response	Likelihood of harm to brand	with previous year's assessment
1	Environmental regulations and climate change	Large	High	Normal	Effective	High	•
2	Inadequate procurement management	Large	High	Somewhat fast	Somewhat effective	Somewhat high	
3	Inadequate labor management	Large	Medium	Normal	Somewhat effective	High	
4	Occurrence of industrial accident	Large	Medium	Extremely fast	Somewhat effective	Somewhat high	
5	Reduction of quality	Large	High	Fast	Somewhat effective	Normal	*
6	Insufficient internal information management	Large	Medium	Extremely fast	Effective	Somewhat high	*
7	Outbreak of a pandemic	Large	High	Somewhat fast	Effective	Normal	*
8	Insufficient awareness or responsiveness to changes in market conditions	Large	High	Normal	Effective	Normal	*
9	Occurrence of natural disasters	Large	Medium	Extremely fast	Somewhat effective	Normal	
10	Insufficient personnel	Large	High	Somewhat slow	Somewhat effective	Normal	
11	Disguising quality or iniquitous incorrect inspection	Large	Low	Fast	Somewhat effective	High	*
12	Inadequate cyber measures	Large	Medium	Extremely fast	Effective	Normal	*
13	Breach of Antimonopoly Act or bribery	Large	Low	Extremely fast	Effective	High	•
14	Falsified financial reports	Large	Low	Somewhat fast	Somewhat effective	High	•
15	Breach of Construction Business Act	Large	Low	Somewhat fast	Somewhat effective	High	•
16	Changes in the global economy, politics, society	Large	Low	Extremely fast	Normal	Somewhat high	*
17	Incomplete control of overseas subsidiaries	Large	Low	Extremely fast	Somewhat effective	Somewhat high	•
18	Reduced ability to cater to customers	Large	Low	Extremely fast	Normal	Normal	
19	Incomplete control of Japanese subsidiaries	Large	Low	Somewhat slow	Somewhat effective	Somewhat high	
20	Loss of investment	Large	Low	Somewhat fast	Normal	Normal	

Note: Risk assessment is an independent analysis of the various risks faced by the Group rather than a general risk assessment.

management, and presenting such to management after deliberation by the Risk Management Committee.

The Group Company Internal Control Committee convenes twice each year to improve Group governance. It receives reports of the CSA status of each company and shares information concerning major risks faced by the entire Group.

#### **Risk Management / Compliance**

#### Crisis Management System During Emergencies

Under the BCM Committee, which determines the Meiden Group's BCP policy and measures, the Meiden Group established the Corporate BCP Promotion Committee, BCP promotion committees for each business, the Domestic affiliates BCP Sub committee, and the Working Group to Consider All-Company Measures, and promotes BCP throughout the Group.



#### **Basic BCP Policy**

The Meiden Group Basic BCP Policy stipulates the Meiden Group's basic policy on business continuity, business continuity targets, and response in the event of a disaster, etc., and is applied at each business unit and subsidiary.

- In the event of a disaster, it is our utmost priority to ensure the safety of all employees, their family members, and customers.
- (2) We contribute to swift reconstruction and recovery from disasters, considering our corporate social responsibility as a company that supports social infrastructure.
- (3) Limit impact on customers and Meidensha's businesses as much as possible.

#### Medium-term Management Plan 2024 Initiatives

We will promote the Medium-term Management Plan 2024, paying particular attention to the following items relating to disaster-prevention and BCP.

#### Ongoing BCP initiatives

- Moving from an earthquake-based BCP to an "all-hazard" BCP that applies to a range of risks
- Establishing a BCP and creating systems to maintain, evaluate, and confirm its effectiveness
- $\cdot$  Continuing education and training, and ensuring that each employee is involved with BCP initiatives
- Extending the BCP to overseas subsidiaries, and creating a BCP with a global perspective

#### Improving corporate and organizational resilience

 Encouraging independent promotion of BCPs by business units, and work to improve Disaster responsiveness by company organization

 Considering alternative production sites for important operations

#### Contributing to society and communities

 Contributing to disaster-resilient community development by supplying Meidensha's BCP products and corporate BCP initiatives to communities and society

#### **BCM Promotion System**

#### Second Natural Disaster Response Headquarters Training

On February 2022, we conducted natural disaster response headquarters training in order to verify the effectiveness of BCPs that have been created. The training checked cooperation between members of business units, responding business units, and remote sites, focusing on the initial response after an earthquake directly under Tokyo. We conducted hybrid in-person and remote training in consideration of people who work from home, in light of measures to combat COVID-19 and furter work-style reforms. In September of the same year, we conducted drills for dealing with damage caused by a major earthquake at a production site at night, on a holiday.

We will revise BCPs in light of the various issues identified during the training.



Training in progress (headquarters)

**Employee Education on Disaster Prevention and BCP** We conduct ongoing employee education in disaster prevention and BCP for each level of employment. In FY2021, we conducted education for new employees and mid-career hires. We also conducted video education concerning disaster response tools and conducted wideranging education such as education for BCP managers of Group companies. Every year, we conduct disaster prevention drills at each works. We conducted BCP education for all employees working in the Numazu area at the disaster prevention drills held at Numazu Works in December 2021.

#### Response to the Novel Coronavirus Disease (COVID-19)

The global spread of the novel coronavirus disease (COVID-19) impacted the Meiden Group in ways such as suspension of production at overseas sites, delay of parts procurement, and postponement of sales.

The Meiden Group established the Company-Wide Response Headquarters, created the Novel Coronavirus (COVID-19) Response Action Guidelines and the Novel Coronavirus (COVID-19) Response Manual, and is encouraging awareness of preventing infection (avoiding the three Cs and reducing commuting outside of the region of factories by 70%, etc.) with the health and safety of employees as our utmost priority, and has reduced the impact on business activities by continuing operation of all factories in Japan in accordance with the guidelines.

Furthermore, we ensured both the health and safety of employees and business continuity at overseas sites, by creating behavior standards to prevent infections, in accordance with relevant national government policies. As COVID-19 remains a difficult issue, we will promote new work styles through greater use of Internet communication tools.

#### Enhancement of Information Security Risk Management

The Meiden Group understands that ensuring the security of the information we handle is a most critical issue. We therefore protect information assets from disasters, accidents, criminal acts, errors, and other threats. We also maintain and enhance information management to prevent leaks, tampering, theft, or loss.

#### Meidensha's Information Security Management

The Meiden Group conducts information security audits of Meidensha and subsidiaries, mainly through the Information Security Committee, and verifies and evaluates whether security measures are actually being implemented and function. At present, some of Meidensha and its domestic subsidiaries have received Information Security Management System (ISMS) certification.

The Meiden Group is working to implement sustainable security measures in the areas of "prediction," "defense," "detection," and "response." We analyze and implement both hardware and software measures to protect data from unauthorized logins, etc., and virus infections from suspicious emails, as well as measures mainly aim at combatting human factors such as theft, loss, or mishandling of information devices.

We introduced the Security Operation Center (SOC) in FY2017, established a detection system that operates 24 hours per day, 365 days per year, and in FY2019,

we installed next-generation antivirus software on all computers, in order to enhance detection. We established the Meiden Computer Security Incident Response Team (CSIRT) and joined the Nippon CSIRT Association in order to enhance response.

#### Information Security Education and Training

All of the Meiden Group's officers, employees, dispatch workers, and contract workers, etc., engage in information security education. In FY2021, we conducted e-learning concerning "informationsecuritythreatsbasedonexamples." We continue to conduct suspicious email drills as education about cyber attacks such as targeted email attacks.

Going forward, we will continue to strengthen hardware and software measures and continue to conduct personnel measures, such as information security education and suspicious email drills. We will continue to roll out measures for information security on a group-wide basis.

#### Enhancement of Supply Chain Information Security

Since FY2017, we have continuously conducted activities to enhance information security together with our suppliers. We ensure that suppliers are aware of information security measures as management issues, and we hold training and information sessions as required. Since FY2021, we have utilized IPA's Security Action, encouraged business partners(suppliers)to obtain stars (logo) to indicate levels of information security measures, and commenced activities to visualize evaluations. In this way, we are continuing to conduct activities to enhance information security throughout the entire supply chain.

#### Establishment of Resilience Lab Co., Ltd.

In August 2021, we established Resilience Lab Co., Ltd. as a new startup company, with the aim of using our disaster prevention and BCP initiatives to give back to society and local communities and strengthen all of society's resilience to disasters. We propose optimal disaster prevention and BCP measures to customers, and going forward, we aim to create new businesses that share stockpiles of power, fuel, etc., required in a large-scale disaster. In 2021, we were selected by the Ministry of Economy, Trade and Industry for the Temporary-Secondment Start-Ups Businesses, etc., and in April 2022, we received the "Award for Excellence" of Japan Resilience Award 2022 (granted by the Association for Resilience Japan).



Japan Resilience Award 2022 Award Ceremony

### **Power Infrastructures Business Group**



#### **Reflecting on FY2021**

In FY2021, the Power Infrastructure Business Group's net sales increased by approximately 14% YoY; however, we recorded an operating loss, causing us to go further into deficit.

In the Power T&D Business, which mainly operates overseas, we have seen recovery in demand for power equipment in Singapore, which is a major market for Meidensha, and our new company in the U.S. is now fully operational. On the other hand, Indian projects in the Transformer Business have been delayed due to the impact of COVID-19, and the German Surge Arrester Business has seen a fall in demand due to sluggish markets in Europe and Asia, which is a major export destination, leading to an extremely difficult year in terms of earnings.

In the Power & Energy Business, which is mainly based in Japan, projects for power companies remained steady, while we have secured sales equivalent to the previous fiscal year due to an increase of projects relating to renewable energy for the realization of a carbon-neutral society. However, profit was pulled down by recording expenses relating to bringing forward write-off of remaining book value of existing wind turbines, etc., as a result of the decision to replace wind farms for selling electricity.

Orders in major overseas regions showed solid recovery from the COVID-19 pandemic, and there has been vigorous demand for environmental products, such as vacuum circuit breakers that do not use  $SF_6$  gas, which contributes greatly to the greenhouse effect, particularly in North America. In Japan, we also have catered to demand for electricity storage resulting from expanded use of renewable energy.

#### **Business Environment (Risks and Opportunities)**

The Meiden Group considers recent social changes for the realization of a carbon-free society to be a major medium- to long-term boost. In particular, demand is expected to increase for products and services about which Meidensha has accumulated knowledge, such as hydroelectric generators, power conversion systems (PCS) for photovoltaic generation or power storage, and O&M for wind generators, and initiatives in these areas will contribute to the advancement of renewable energy in society, and play a role in implementing and leading Meidensha's sustainability management. With regard to digital transformation and globalization of infrastructure that is accelerated, opportunities for Meidensha to play a role are expected to expand going forward.

However, in addition to increased cost of materials and components, transportation costs, and energy costs, there are concerns that supply chain disruptions and delays, etc., will lead to delays in product delivery dates and project progress. Furthermore, there are latent risks such as decline in projects due to market stagnation, against a backdrop of economic downturns and geopolitical risks, etc.

#### Updating Medium-term Management Plan 2024

In the domestic market, we will continue to expand our revenue base by focusing on areas in which markets are expected to grow, such as renewable energy-related businesses, smart grids, and distributed energy sources, which will lead to the achievement of our sustainability management. In overseas markets, we will improve profitability and strengthen our foundations by quickly getting business bases on the rails in India, Vietnam, and the U.S., and considering restructures in ASEAN and Chinese locations.

#### Initiatives and Policy for FY2022 and Beyond

In the domestic market, for the electrical power and private markets, we aim to increase application of global production transformers us Indian manufacturing sites. We will expand sales of environmental products (SF<sub>6</sub> gas-free vacuum circuit breakers, etc.), and proceed with the launch of power storage PCSs with additional features, such as inertial force functions. For the semiconductor market, we will also shore up our businesses including by focusing on launching products to meet customer needs, such as voltage dip compensators, and in the renewable energy sector, increasing ICT services utilizing the renewable energy cloud and expanding maintenance efforts relating to wind power generation for other companies' equipment. In the Hydroelectric Power Plant Business, we will also expand business opportunities by enhancing product profitability through increased productivity, shorter lead times, and building a solid relationship with our partners such as general contractors and subcontractors, as well as work to join the O&M market through further cooperation with Group company EAML Engineering Co., Ltd. and using ICT.

In overseas markets, establishing and strengthening profit structures for overseas local subsidiaries by ensuring that we implement measures to increase revenue for each country, region, and product is a major goal for us. For example, in India, we aim to maintain and increase our share of transformers for renewable energy-related projects, and increase profitability, while giving priority to maintaining superiority from quality and cost perspectives,

### Participation in the Circular Local Economy Renewable Energy Aggregation Demonstration Project with the Chubu Electric Power Group

In the midst of expanding introduction of renewable energy, as expectations increase of baseload power using energy resources such as batteries and electric vehicles contributing to stable power supply, since 2020, Meidensha has been participating in an aggregation demonstration project using distributed energy sources such as renewable energy and storage batteries. Chubu Electric Power Miraiz Co., Inc., coordinates the whole demonstration project, unifying renewable power sources installed in the Chubu,



and securing orders for rail projects in India. In Vietnam, we will promote earning capabilities by steadily engaging in private projects, including those for Japanese companies, through improved cost and production management. In Germany, we aim to further focus on marketing activities for major customers, while in the U.S., we aim to improve organizational capabilities by strengthening our HR strategy and enhancing our production systems, while improving our profit margins by reducing procurement costs.

With regard to increasing our environmental product lineup and launching products early, we will focus on development of a medium-voltage eco-friendly C-GIS for the ASEAN market, and Singapore in particular, and acceleration of our measures to respond to global environmental regulations, by expanding our extra-highvoltage circuit breaker lineup, with the North American market as the main target.



Voltage dip compensator

#### Topics

Kansai and Kyushu areas as resources, and Meidensha plays the role of a water pump aggregator. Through the demonstration, the project aims to develop systems and control methods necessary to control diverse resources that serve as coordinating power, to promote local production for local consumption of renewable energy sources and optimal operation of coordinating power, and to realize a regional economic circulation type decarbonization model.

### Public, Industrial & Commercial Sector Business Group



#### **Reflecting on FY2021**

In FY2021, the Public, Industrial & Commercial Sector Business Group's net sales rose approximately 7% YoY, leading to a significant increase in operating income. In the railway business, conditions were harsh due to Japanese customers (rail operators) cutting down on capital investment and pushing back tender periods, and overseas customers having projects delayed due to the impact of the COVID-19 pandemic. However, in the social infrastructure systems sector, large-scale projects are progressing apace in Japan, Thailand, and Indonesia, and the water infrastructure sector has led the whole Group in terms of results, due to posting record net sales, against a backdrop of strong demand for replacement of infrastructure due to the national resilience plan promoted by the Japanese government.

#### **Updating Medium-term Management Plan 2024**

As orders in the water infrastructure sector were strong, we have upwardly revised net sales and profit targets in Medium-term Management Plan 2024. In addition to existing businesses, we will promote solution proposal activities to provide general responses to the social issues of decarbonization, increasing severity of natural disasters, and BCP (business continuity planning) being confronted by local governments in response to the declining population, and promote increased competitiveness by further promoting collaboration with the Field Service Engineering Business Group and companies in other industries, and partnerships, etc.

#### **Business Environment (Risks and Opportunities)**

The Japanese social infrastructure market, a certain amount of public investment is expected to continue for a while, due to replacement of aging infrastructure and increased BCP needs to respond to increasing severity of natural disasters, etc. However, in the medium to long term, it is anticipated that the scale of investment will decline and ordering patterns will change, etc., due to population decline and financial difficulties of local governments. It is anticipated that new business opportunities will arise and new competition will emerge due to rationalization of maintenance services and labor-saving measures for operation, maintenance, and management, etc., as a result of accelerated digitalization through the use of the IoT, AI, and cloud computing. In addition, it is expected that the need for environmental products and services will grow rapidly going forward, particularly those relating to greenhouse gas reduction.

Overseas, demand for infrastructure, such as electricity and rail networks, is expected to continue as a result of the progression of increasing population and urbanization, particularly in developing countries. However, there are risks such as lower profit from large-scale projects, etc., due to the impact of the COVID-19 pandemic, political trends, and exchange rates, etc., and increased and intensified competition from local and overseas companies (Europe, China, Korea, etc.)

Risks we are particularly concerned about in FY2022 include increased cost of parts and materials, and delayed deliveries. We will strive to minimize the impact by reducing procurement costs and sharing information closely with sales and engineering departments, factory, construction departments and procurement departments so that production and on-site construction can proceed as scheduled.

#### Initiatives and Policy for FY2022 and Beyond

In the social infrastructure sector, in Japan, we will aim to designate the public infrastructure of rivers, roads, and harbors, as well as broadcasting, etc., as important areas, and overseas, improve our ability to made detailed proposals to markets and customers by focusing our business resources on the areas of Thailand, Malaysia, and Indonesia, expand business, and increase profitability.

In the railway business, we will expand our share of the domestic market with specialty products such as overhead catenary system (OCS) inspection systems as key products. With regard to large-scale projects undertaken by overseas local subsidiaries, we will aim to shore up our progress, profitability, and risk management systems, and increase profit while delivering security and reliability to our customers.

In the water infrastructure sector, we will work to enhance our HR and organizational systems to cater to ongoing demand for replacement, maintain our business advantages, such as technology and knowhow built up over many years, secure digital technology necessary to maintain competitiveness, build partnerships to expand PPP (public-private partnerships) and business areas,

### Contributing to Safe, Secure, and Prosperous Lifestyles by Delivering Equipment to Broadcasters that Cannot Allow Downtime

In 2021, Meidensha delivered all electrical equipment, including power supplies for broadcasting equipment, to the new headquarters of Hokkaido Broadcasting Co., Ltd. (Sapporo). Hokkaido Broadcasting Co., Ltd. was established in 1951, and is the oldest private TV and radio broadcaster in Hokkaido. It creates and broadcasts programs in a range of genres for the wide broadcast area that is Hokkaido. As it is the responsibility of broadcasters to continuously transmit information to viewers and listeners, this electrical equipment is used in a unique environment that does not allow for any downtime.

High/medium/low-voltage distribution panels, uninterruptable power supplies, DC power supplies, etc., have been installed to supply electricity to the whole building, electricity supervisory control equipment



Hokkaido Broadcast: Broadcasting station equipment

reduce reworking and shorten lead times by sharing information between sales, technology and factory business units, etc.

As an initiative to improve organizational capabilities, we will systematically secure and train human resources, with a focus on engineers, achieve standardization of workloads through promotion of digital transformation, respond to customer needs by implementing for carbon neutrality and BCP measures, as well as lightening maintenance loads due to labor shortages, and establish and strengthen our business foundation so that we can make optimal technological proposals according to the lifecycle of equipment.



Water treatment plant supervisory control system through PPP

has been installed to provide 24-hour monitoring of the status of electrical equipment, and emergency gas turbine generators have been installed as a backup power supply. The generators also have a instantaneous grid interconnection function so that it is possible to instantaneously switch without occurrence of power cut between the secondary line and the main line if there is an issue with supply from the power company or if power is restored and supply switches back from the emergency generator to regular supply. Meidensha will continue to provide products and services that are relied on by the broadcast sector, and build prosperous lifestyles by supporting the foundation of broadcast infrastructure that ensures that necessary information is always provided.



Hokkaido Broadcast: Broadcasting station equipment

Topics

### **Mobility & Electrical Components Business Group**



\* The EV Components Business Group's performance figures are included in the results of the Mobility & Electrical Components Business Group.

#### **Reflecting on FY2021**

In FY2021, the Mobility & Electrical Components Business Group's net sales rose approximately 22% YoY; however operating income declined slightly. Profit increased for the Electronics Products Business, which was the beneficiary of a favorable semiconductor market, and business income also increased for the EV business due to contributions from the increased number of models sold, etc., in spite of increased amortization expenses. However, the Motor Drive Business, which was impacted by rising prices of materials and components, and the Mobility T&S Business, which continued to face extremely harsh business conditions recorded lower income.

In the Motor Drive Business, demand for electric forklifts improved, and in the automated guided vehicle (AGV) sector, inquiries increased in order to save labor. On the other hand, demand for motors for injection molding machinery due to "stay home" caused by the COVID-19 pandemic reached to completion and sales of elevator motors decreased due to the impact of the slowdown in the Chinese market, etc. In this way, demand was mixed, depending on the field of delivery.

In the Electronic Products Business, we recorded our highest-ever orders received and net sales, due to ongoing strong demand in the semiconductor manufacturing equipment market throughout the year, and secured a high level of profit. However, there was downward pressure on profit in some sectors due to increased prices of parts and materials in the latter half of the fiscal year.

With regard to the Mobility T&S Business there was a trend toward more limited investment in the automotive industry that continued from last year, and there was great change in customers' R&D investment targets. As a result, we put our energy into expanding our lineup of testing systems used for development of electric vehicles, and promoted initiatives to lower our break-even point by reviewing our business structure.

Refer to EV Components Business Group on p. 63-p. 64 regarding the EV business strategy.

#### **Business Environment (Risks and Opportunities)**

Automated guided vehicles (AGV) and drive components for electric forklifts provide an opportunity for market expansion in response to factors such as increased need for labor reduction against the backdrop of both the COVID-19 pandemic and declining working-age population in Japan, and the shift to electric industrial vehicles due to the need for decarbonization.

In the Electronics Products Business, we expect demand for our products to remain at a high level, and aim to market Meidensha's vacuum capacitors in the North American market in particular, as demand for semiconductors is growing throughout the world.

In the Mobility T&S Business, as customer investment continues to accelerate in sectors such as CASE implementation and model-based development, we should treat this as an opportunity, and we will focus on increasing sales of equipment to support digital analysis and evaluation, EV motor stand-alone evaluation benches, etc.

Group-wide risks that must be monitored and dealt with include delayed sales due to slow delivery of components and materials, impact on orders received due to extended lead times, and decreased revenue due to inflationary costs of parts and materials.

#### **Updating Medium-term Management Plan 2024**

In the Mobility T&S Business, we will create new products, such as battery charge-discharge system and EV chassis dynamometers specialized for development of electric vehicles, and actively propose new services that meet customer needs, such as full turnkey maintenance for products that have already been delivered. With regard to the Motor Drive Business, we aim to expand sales of products that promote labor-saving, energysaving, and electrification measures in industry by incorporating cutting-edge technology and strengthening partnerships. With regard to the Electronics Products Business, we will focus on expanding our business scale and share, such as by developing new customers in the U.S.

#### **Initiatives and Policy for FY2022 and Beyond**

We will promote the foundational measures of growing in respond to the market, and increasing profitability as major Group-wide themes.

In the Motor Drive Business, we will clarify the roles of each Group company that deals with motors, organize models, and optimize production sites. With regard to individual products, for elevator, we aim to expand share of new models in the area of repairing existing elevator traction machines, and for the high-speed motor segment, we aim to shift our targets to Japan and the U.S. and deliver demonstration models in order to expand applications. For industrial vehicles, going forward we will apply technology of EV drive units we have already acquired through years of experience to develop the electrical construction machinery market, adding to our existing electric forklift products. In the automated guided vehicle (AGV) sector, we will focus on expanding sales of AGVs fitted with robots through collaboration with SI and robot manufacturers, and cultivate demand for maintenance and replacement by commencing cloud services.

In the Electronics Products Business, we will prioritize stability of production and quality systems in order to respond to current strong demand, and particularly with regard to vacuum capacitors, one of our mainstay products, we aim to use quality improvement activities and enhancement of productivity as a stepping stone to increase sales of products to North American semiconductor

#### Total of 1 Million Vacuum Capacitors Shipped as Semiconductor Market is Favorable

In October 2021, the cumulative number of Meidensha vacuum capacitors shipped reached 1 million units in total. Vacuum capacitors are incorporated into power sources for semiconductor manufacturing equipment. There are capacitors in which the electrode section that stores electric charge is placed in a ceramic vacuum container. They are mainly incorporated into high-frequency power sources used to generate plasma for thin-film manufacturing equipment, such as etching, sputtering, and vacuum deposition (CVD, PVD) in processes of semiconductor manufacturing, and their features include compactness, ability to withstand high voltage, and minimal loss, etc., in high-frequency applications.

Meidensha started researching vacuum technology in 1965, and have accumulated technology and know-how regarding vacuum products through the development and manufacture of vacuum circuit breakers for more than half a century. We commenced development of vacuum capacitors in 1990, and we started manufacture and sales in 1995, solving issues and growing alongside our customers. Since then, as the recent growth of semiconductor market, we have manufacturers, and increase our market share. We will also implement necessary measures to respond to difficulties procuring materials and rising prices, including placing orders in advance, adopting alternative components, and reviewing sale prices.

In the Mobility T&S Business, the automotive industry, which provides our main customers, is in the midst of a recovery from the drop in business results due to the impact of the COVID-19 pandemic. Similarly, in the testing equipment market, we are seeing a rebound from two years of investment restraint, so investment is gradually on an increasing trend, centered around CASE. Going forward, we will join the battery testing market using battery charge-

discharge system as one of weapons in our arsenal. Leveraging our knowledge and knowhow developed through many years of experience in automotive testing equipment, we will incorporate full turnkey maintenance business, including automotive testing consultations for customer who encounter difficulties, and testing building maintenance and management support for products that have already been delivered.



New model RocoMo-V automated guided vehicle fitted with cooperative robot

#### Topics

proceeded to ship 500,000 units in the five years since 2016, and we currently have a monthly production volume in excess of 10,000 units.

With regard to semiconductor manufacturing equipment, it is important to have components performance that achieve cutting-edge manufacturing processes, a reliable which minimizes process downtime and long-term, stable power supply with limited fluctuation. Going forward, we will continue to aim to improve technological capabilities and create high-performance products, while striving for manufacturing that takes into account low cost, BCP, and environmental performance.



### **EV** Components Business Group



The EV Components Business Group's performance figures are included in the results of the Mobility & Electrical Components Business Group.

#### **Reflecting on FY2021**

The EV Components Business Group's FY2021 net sales and operating income exceeded those of FY2020 mainly due to full-scale production of products for new vehicle models, for which shipments began from the second half of the fiscal year.

With regard to external conditions, this was a year that clearly signified that the electric vehicle market would expand over the future due to factors such as Japanese automotive manufacturers pledging to mostly shift to electric vehicles going forward, and even more distinct signs that EVs would expand in Europe and China in the medium to long term. However, the COVID-19 pandemic and supply chain disruptions, such as vehicle-mounted semiconductor shortages, have had a significant impact on automotive manufacturers' production plans, and forecast fluctuations have had a major impact on Meidensha's production activities.

In October 2021, MEIDEN HANGZHOU DRIVE TECHNOLOGY CO., LTD. commenced mass production and shipping from Line 1, and net sales are expected to increase even more in FY2022. Construction of Line 2, which will commence operation in FY2023, is progressing smoothly. In Japan, the operating rate of integrated motor and inverter unit production lines, etc., at the Nagoya Works is slowly increasing, due to the commencement of production of units for new vehicle models.

As initiatives aimed at further business expansion, we thoroughly promoted marketing activities to secure new models and new customers and development of products aimed at entering the e-Axle market.

#### **Business Environment (Risks and Opportunities)**

The electrification of mobility is becoming irreversible with the movement to achieve carbon neutrality growing in strength throughout the world, and countries successively announcing policies aimed at gasoline-free vehicles, etc. However, automotive manufacturers' results and production activities are impacted by risks of extension of concerns relating to vehicle-mounted semiconductor supply and supply chain disruption increasing, extensive increase in the cost of materials, components, and energy, prolonging of the COVID-19 pandemic, etc. In the electric powertrain segment, market competition is intensifying, and products are rapidly becoming commoditized in the marketplace.

In these business conditions, we must increase the scale of sales to enhance our component procurement and development capabilities in order to continue our presence in the market. We will strengthen relationships and further deepen trust with existing customers, and promote enhanced proposals to automotive manufacturers and tier-1 manufacturers, both in Japan and abroad, using our track record and technological superiority to differentiate ourselves from the competition.

#### Updating Medium-term Management Plan 2024

In the EV Components Business, important themes are to improve the operating rate of lines at factories in Nagoya and China, and reduce the cost of products through procurement activities. We will continue to focus on proposal activities and aim to secure more orders received, in order to promote acceptance of load from FY2025 onwards. We will also firmly promote research and development to foster businesses that can contribute to medium- to long-term earnings, and we will achieve business expansion and increase profitability, with a view to capital investment to expand production capabilities as necessary, etc.

#### Initiatives and Policy for FY2022 and Beyond

Throughout the whole automotive industry, the impact of supply chain disruptions and the ongoing COVID-19 pandemic is expected to continue, while there is also a possibility of production of automobiles picking up rapidly as current external conditions improve, due to sales of electric vehicles steadily increasing in each country, and new vehicle models that are attractive to consumers successively entering the market. Meidensha must build a flexible production system that is capable of handling load variations in such a short time frame.

At factories in Japan, we aim to secure agility and efficiency at production sites by reviewing and rethinking shift patterns. In China, we will ensure smooth production from FY2023 through vertical startup of equipment and promoting education of local staff, in order to achieve fullscale operation of Line 2.

From the perspective of increasing competitiveness, we

### Commencement of Production and Launch of Line 2 at Meidensha's First Overseas EV Business Site

MEIDEN HANGZHOU DRIVE TECHNOLOGY CO., LTD. was established in Hangzhou, Zhejiang Province, China. It is Meidensha's first overseas EV Components Business site, and Line 1 commenced mass production and shipping of products to customers within China in FY2021. This production line manufactures EV motors and generators with the production site in Kofu, Yamanashi, Japan, as a mother factory. At present, we aim to manufacture 100,000 units per year, but as electrification of vehicles is rapidly progressing, we expect the scale of business activities to increase in the future.

When operation commenced after the company was established, we dispatched personnel such as production engineers from Japan, and engaged in building and adjusting the line. Also, in terms of procurement, we have promoted the establishment of



EV factory Line 2 under construction

will accelerate activities to cut variable expenses through the dedicated EV procurement department that was established this fiscal year, and building stronger supply chains. We will also promote development and design of motors and inverters without being bound by previous ideas, with an eye to next-generation EV drive units, and focus on sales activities in Japan and abroad.



The MEIDEN e-Axle, which achieves a slim form and high power density

### Topics

a supplier network, with the cooperation of MEIDEN HANGZHOU DRIVE SYSTEMS CO., LTD. which has engaged in the production of motors, inverters, etc., for elevators and textile machinery at the same location since 2006. To that end, we are focusing on securing and developing exceptional local personnel, we are making daily improvements to achieve stable production through a combination of local staff and engineers from Japan, and we are working to increase competitiveness, such as by improving first-run rate and operation rate. Line 2 is scheduled to newly commence operation in FY2023.

Going forward, the Meiden Group will contribute to the realization of further penetration of electric vehicles and a carbon-free society by providing high-quality and high-efficiency EV drive units.



Employees of MEIDEN HANGZHOU DRIVE TECHNOLOGY CO., LTD.

### **Field Service Engineering Business Group**



#### **Reflecting on FY2021**

Although the Field Service Engineering Business Group was impacted by the COVID-19 pandemic in FY2021, net sales and operating income rose YoY, as the need for maintenance of products and equipment remained strong, leading us to record our highest-ever profit for the fourth consecutive year.

Orders received increased significantly due to our onestop solution for services, which combines all equipment maintenance services for customers, including mechanical and HVAC equipment, as well as electrical equipment, and we have received praise for our solution proposals that respond to changing societal needs by emphasizing conservation of energy and reduction of greenhouse gas emissions for customers. In addition, our walk-throughs, in which we accompany our customers on their equipment inspections and make various proposals concerning equipment, from an on-the-ground perspective, have also shown results.

With regard to initiatives for smart maintenance, there is a growing need for maintenance services that utilize cutting-edge technology against the backdrop of labor shortages due to the declining birthrate, aging population, and declining population. In addition to operating condition monitoring solutions that constantly monitor on-site facilities and equipment using various sensors and measuring devices, we have been engaged in a wide range of solutions proposal activities, including remote maintenance & assistance services using your smart glasses equipped with cameras at the site.

With regard to the maintenance and servicing business for manufacturers of semiconductor manufacturing equipment, we have also actively promoted initiatives to expand our maintenance stock in the future from sales of equipment by agents, leveraging our product knowledge developed up to this point.

#### **Business Environment (Risks and Opportunities)**

Having been through an economic slump due to the COVID-19 pandemic, the impact caused by reconsideration or postponement of replacement investment for equipment has been apparent in a range of industries. However, the requirements to the maintenance services provided by the Meiden Group have been growing, as there has been increased demand for life extension to allow continued use through maintenance and repair of existing equipment. On the other hand, at present, risks of delays in sales from orders received are anticipated, due to delivery of various types of components and materials being delayed, and we are implementing measures on procurement, etc., to minimize these.

Due to recent social trends, the need to enhance resilience has been increasing, and we will firmly capture a resulting increased demand for maintenance services, and we believe that we will be able to solve issues of our customers and society, and grow as a business that can provide new added value, by promoting mixed proposals that include mobile power supply vehicles with options for BCP measures, etc.

#### **Updating Medium-term Management Plan 2024**

We will continue to focus on one-stop solution for services initiatives, in order to ensure that we capture strong demand for maintenance services and further expand business opportunities. We will also conduct maintenance innovation by promoting the use of smart technology for maintenance services by utilizing ICT and IoT, and aim for our business operations to broadly contribute to the solution of customers' issues such as by evolving from time-based maintenance (TBM) to conditionbased maintenance (CBM), enhancing development of maintenance service personnel, and providing services rooted in local communities.

#### **Initiatives and Policy for FY2022 and Beyond**

Group company MEIDEN ENGINEERING CORPORATION received accreditation as a supporting organization for the pilot project to promote support for high-efficiency installations for facilities with targets (SHIFT Project), which was supported by the Ministry of the Environment, in order to capitalize on society's generally heightened awareness of achieving decarbonization for business expansion. We will diagnose and understand customers' equipment introduction and operation status, energy usage, etc., support development of decarbonization promotion plans to achieve  $CO_2$  emissions reductions, and provide support for grant application procedures, etc.

In development of technology using ICT and IoT, we will endeavor to visualize CO<sub>2</sub> emissions from equipment, and promote development of "small smart maintenance" emergency generator continuous monitoring system.

With regard to supporting customers' BCP measures, we will popularize and expand the BCP options of cashback through rental to other companies while not in operation, one-stop outsourcing of vehicle inspection and generator maintenance, transportation of mobile power supply vehicles to other sites, and priority supply of fuel in an emergency for customers of Meidensha's mobile power

#### Supporting the Vigorous Semiconductor Market Through Expanded Maintenance Services for Semiconductor Manufacturing Equipment

MEIDEN ENGINEERING CORPORATION is rolling out and providing installation and startup services for semiconductor manufacturing equipment and ancillary facilities, and renovation and maintenance services for used equipment, contributing to the growth of the semiconductor market by supporting the stable operation of customers' production lines.

At present, we promote the service (including business units for renovation of used equipment, and assembly of equipment) anchored by a group in Chiba, as well as service base in Kanagawa, Aichi, and Yamanashi, where semiconductor device manufacturers have production sites, to provide maintenance services to customers at approximately 70 locations in Japan. We are rolling out services for the entire life cycle of equipment, from introduction of semiconductor manufacturing equipment to operation, life extension, and replacement.

In response to recent positive semiconductor market conditions, orders for maintenance from vehicle-mounted device manufacturers and power device manufacturers for social infrastructure have been trending upwards since around 2021. We have seen changes from customers that have previously requested spot maintenance, such as ordering maintenance work wherein Meidensha's maintenance service personnel are stationed at the customer's premises for a certain period of time. At present, we are increasing personnel and enhancing collaboration with partner companies in supply vehicles that became available in April 2021, and contribute to preparation for emergencies.

In terms of professional development, we will focus on promoting development of multi-skilled service personnel and rapid competitiveness, and transmission of technology and skills using IT tools, by maximizing the use of the technology education center, Manabi-ya.

Going forward, we will achieve maintenance innovation and provide new solutions and experiential value to customers, in order to further improve added business value. Through these initiatives, we will contribute to the maintenance and improvement of safe and stable social infrastructure.



Mobile power supply vehicle with new BCP options

order to respond to vigorous demand.

Since 2018, we have been concluding agency agreements with exposure equipment manufacturers, and we have been planting seeds to increase maintenance stock in the future as MEIDEN ENGINEERING CORPORATION receives commissions from sales through to maintenance services. Going forward, we aim for the growth and progress of semiconductor manufacturing equipment-related businesses while remaining open to collaboration with vacuum equipment manufacturers, to leverage vacuum technology, concerning which we have extensive technology and knowledge.



Topics

**Our Strategy** 

### **Overseas Businesses**

#### **Initiatives to Enhance Profitability**

Working Toward Increased Profitability and New Global Infrastructure Demand Through Localization of Business Management and Site Restructuring

Globally heightened environmental awareness and progress of digitalization has created demand for new infrastructure, particularly in developed countries, and we consider this to be a significant business opportunity for the Meiden Group. However, conditions for overseas businesses are increasing in severity, due to factors such as the impact of the COVID-19 pandemic and the manifestation of various geopolitical risks.

In this environment, the Meiden Group will quickly get businesses off the ground in India and North American sites, which is still in the setup phase, , and we will promote business expansion for local power companies and railway operators, and Japanese companies in Southeast Asia, which is key for our overseas businesses.

From a medium- to long-term perspective, we are promoting localization of business management by developing and appointing local personnel, which are key for each country, enhancing supply chain management, and considering site restructuring for more efficient business management, and we will further increase profitability of overseas businesses and create a strong business foundation.



Contributing to the Advancement of Sustainable Societies in ASEAN Nations Through the Meiden Group's Only Biomass Power Generation EPC Business



Biomass power station delivered to the Ajinomoto Kamphaeng Phet factory in Thailand

THAI MEIDENSHA CO., LTD. is the oldest overseas subsidiary in the Meiden Group, reaching its 56th anniversary this year. Thailand is a place where Japanese companies conduct their business activities and have many manufacturing sites. We have provided support for customers to launch new sites through turnkey commissions for electrical and mechanical construction, etc., and contributed to the development of Thai industrial and social infrastructure, for over half a century.

As environmental awareness further strengthens internationally, in Thailand, introduction of biomass energy as a power source to replace fossil fuels is gaining pace. Meidensha has actively participated in the construction of biomass power stations, and, to this point, has been involved with the construction of 13 biomass power stations, including four EPC projects (one under construction) and boiler-only construction projects, and has accumulated knowledge and know-how concerning power station construction. In FY2020, we contributed to reducing our customers' environmental impact from business activities, reducing our customers' energy costs, and improving our customers' stable supply of electricity, such as by working to construct a biomass power plant that uses grain husks for fuel at the Ajinomoto Kamphaeng Phet factory in Thailand.

Going forward, we will continue to contribute to the realization of sustainability management for the entire Meiden Group, with the aim of being a general engineering company that contributes to the development of sustainable societies in Thailand and ASEAN countries.



Atsushi Nakano Managing Director THAI MEIDENSHA CO., LTD.

#### INDIA

Aiming to Stabilize Production in India and Maintain and Improve Market Competitiveness for Our Transformers



Meiden Global Transformer that was tested in India before shipping

In India, which has a population of approximately 1.4 billion, demand for electricity continues to increase, and strong growth is expected for electrical infrastructure-related businesses, against a backdrop of progressing economic development and urbanization.

In 2014, the Meiden Group invested in a local company involved with transformer manufacturer and sales. In September 2021, we completed 100% acquisition as a subsidiary, changed the name to MEIDEN T&D (INDIA) LIMITED, and we are accelerating business development as a site to expand the Power T&D business in Asia.

MEIDEN T&D (INDIA) LIMITED has an annual 10-GVA production capacity equivalent to Meidensha's Numazu Works transformer line. It sells transformers to the Indian, Asian, and African markets, and we are working on fragmentation of production processes between Numazu and India, in order to provide products to the Japanese Market, including for power companies. Under this initiative for Meiden Global Transformer with the fragmentation, we will work to introduce working conditions, quality management, and process management, equivalent to those at the production line of the Numazu mother factory, and manufacture competitive products while maintaining Japanese quality. In order to achieve this, we will conduct initiatives such as dispatching instructors from Japan, improving education and equipment for local staff, and providing quality guidance for local suppliers.

Through initiatives such as these, we will continue to stabilize the operation of production lines in India and maintain and improve market competitiveness for our transformers.



Ko Yamamoto

Managing Director MEIDEN T&D (INDIA) LIMITED

### **NORTH AMERICA**

Aiming to Expand Sales of SF6 Gas-Free Products at North American Sites Increasingly Trending Toward Environmental Conservation



145-kV tank-type vacuum circuit breaker delivered to the Golden Valley Electric Association ("GVEA") located in Alaska, USA.

MEIDEN AMERICA SWITCHGEAR, INC. delivered a 145-kV Ecotank-type vacuum circuit breaker to the Golden Valley Electric Association ("GVEA") located in Alaska, USA. This delivery of a 145-kV Ecotank-type vacuum circuit breaker that does not use SF<sub>6</sub> gas is a world first.

In the North American region, the trend to actively employ products with excellent environmental features is continuing, against a backdrop of increased demand for replacement of aging electrical equipment and environmental awareness. Meidensha developed Ecotank-type vacuum circuit breakers that do not use any SF<sub>6</sub> gas, which has 23,500 times the greenhouse impact of CO<sub>2</sub>, in the early 2000s, and so far, we have delivered over 2,500 units in Japan and overseas, which has led to frequent inquiries and orders in North America.

SF<sub>6</sub> gas-free Ecotank-type vacuum circuit breakers manufactured by Meidensha have environmental merits, as well as providing value by reducing life-cycle costs by eliminating the need for a heater to prevent liquification when installed in a cold location, eliminating the need for work to recover SF<sub>6</sub> gas upon disposal, and achieving low maintenance.

I want to make MEIDEN AMERICA SWITCHGEAR, INC. the best company in the industry, with providing highquality products and attracting the best engineers.

Going forward, we aim to continue to hone our manufacturing capabilities, establish a local presence, and increase our share.



#### Stephanie Hayden

General Manager, VCB Sales MEIDEN AMERICA SWITCHGEAR INC.

### **Financial Strategy**

The Meiden Group will conduct thorough financial management of the entire Group, and conduct investments with acquired capital and shareholder returns. Under the current medium-term management plan, we anticipate a total cash flow over four years of between ¥70.0 billion and ¥75.0 billion. Our policy is to use this to conduct capital investment and shareholder returns, and to promote stabilization of our financial base. With regard to financial metrics, we hope to have a net worth of ¥120.0 billion and a net D/E ratio of 0.25 to 0.30 by the end of FY2024. With regard to our investment strategy, we will conduct total investment over four years of ¥60.0 billion, including general and growth investments. With regard to capital efficiency, we have set targets of ROE of 10% and ROIC of 8%, and we aim to achieve high-quality growth and be a company that grows in a sustainable manner through sustainability management. With regard to shareholder returns, we will determine the value of dividends with a target payout ratio of 30% on the assumption of

stable dividends. With regard to capital procurement, our basic policy is to work toward optimal capital procurement while striking a balance between the proportion of long- to short-term financing, as well as direct and indirect financing. Starting with the issue of green bonds in FY2019, we have actively promoted sustainability in capital procurements, such as through sustainability-linked loans and positive impact finance. We consider this to be a procurement method that has a high affinity with Meidensha's business, achieving both business development and environmental and social contribution, and we will continue to actively consider this type of sustainability financing going forward.

Through a series of measures, we aim to achieve orders of ¥300.0 billion, net sales of ¥300.0 billion, operating income of ¥18.0 billion, ordinary income of ¥17.5 billion, and net income attributable to owners of parent of ¥12.0 billion by end of FY2024, which is the final fiscal year of Medium-term Management Plan 2024.

(In billion yen)

#### Financial Targets (consolidated)

		FY2021 results	FY2022 initial forecast	FY2024 targets
Orders		259.6	270.0	300.0
Net sales		255.0	270.0	300.0
Operating income		9.4	12.0	18.0
Ordinary income		10.2	12.0	17.5
Net income attributable to owners of	f parent	6.7	8.4	12.0
ROE		6.8%	8.0%	10.0%
ROIC		4.5%	5.5%	8.0%
Operating profit margin		3.7%	4.4%	6.0%
Capital investment (general investme	ent)		ears (of which ¥20.0 billion is § (10.7 billion, FY2022 forecast:	- · ·
Research and development expendi	ture		40.0 billion over four years ¥9.8 billion, FY2022 forecast: `	¥11.0 billion)
Net worth		101.9	¥120.0 billion a	s of March 31, 2025
Consolidated dividend payout ratio		33.7%	Stable	level of 30%
				50.5
Power Infrastructures Business	Orders	55.8	55.0	59.5
Group	Net sales	52.3	55.5	57.5
	Operating income Orders	(1.8)	(0.8)	
Public, Industrial & Commercial	Net sales	95.5	83.5	95.0
Sector Business Group	Operating income	6.1	4.0	6.1
	Orders	65.3	88.0	97.0
Mobility & Electrical Components	Net sales	63.8	86.1	96.0
Business Group	Operating income	(0.2)	3.6	7.1
	Orders	41.8	41.0	42.0
Field Service Engineering Business	Net sales	39.5	41.6	41.6
Group	Operating income	5.9	6.0	6.0
	Orders	3.2	3.2	3.2
Real Estate	Net sales	3.2	3.2	3.2
	Operating income	1.1	1.1	1.1
	Orders	(2.2)	(0.7)	3.3
Others (including elimination)	Net sales	1.4	(3.8)	7.1
	Operating income	(1.5)	(1.9)	(3.6)
	Orders	259.6	270.0	300.0
Total	Net sales	255.0	270.0	300.0
	Operating income	9.4	12.0	18.0

### **Research and Development / Intellectual Property Strategy**

#### **Results of Research and Development in FY2021**

Under the current "Medium-term Management Plan 2024", we have been promoting research and development to support ambidexterity management supported by the two pillars of "ongoing enhancement of product competitiveness for existing businesses" and "new technology and new product creation for corporate growth."

FY2021 was the first fiscal year of operation, and we focused on expanding power transmission and distribution products that do not use  $SF_6$  gas, for which business opportunities are increasing due to heightened global environmental awareness, advancing drive units that support electrification of vehicles, and creation of new products and systems that utilize digital technologies such as IoT and AI.

At the same time, in the development of motors for electric vehicles, we shortened development periods by incorporating model-based development, in order to keep up with the changes and demands of the constantly accelerating market. Additionally, the newly established Advanced Technology Research Laboratories, have achieved results such as establishing new control technology that achieves increased efficiency, high frequency, low noise, and low vibration for high-capacity motor drive systems.

#### **Research and Development Expenditure**



#### **Future Initiatives and Priority Sectors**

For initiatives from FY2022 onwards, we will aim to produce results that will further improve our position in technological fields and product categories where we have a competitive edge, while acquiring innovation and foresight capabilities regarding the changing business environment, and promote development activities swiftly.

In existing fields, we will conduct development that further extends Meidensha's strengths, in areas such as expanding our lineup of environmental power transmission and distribution products, engaging in advanced development products of EV drive units, and miniaturization and efficiency of components for semiconductor manufacturing equipment.

With regard to the creation of new technologies and new products, we will accelerate promotion of innovation themes, and we will aim to acquire new future core technologies by strengthening collaboration with partners such as universities and research institutions.

### Contribution to Sustainability Through Intellectual Property Activities

In intellectual property activities, we are expanding strategic initiatives to promote identification and rights acquisition regarding technologies for which we have market dominance, as well as focusing on approaches that identify the direction of development in which we should engage, through analysis and internal sharing of intellectual property information.

As for intellectual property activities that contribute to sustainability management, we promote co-creation with private companies and public institutions around the world by utilizing intellectual property rights related to environmental technologies, thereby promoting business exploration and innovation creation that contribute to the development of new products and new businesses. By promoting such intellectual property activities, we will accelerate the spread of environmental technologies, and contribute to solving social issues such as the SDGs, and realizing our sustainability management.





#### Participation in the WIPO GREEN Environmental Technology Platform

In March 2022, we participated as a partner company in WIPO GREEN, an environmental technology platform operated by the World Intellectual Property Organization of the United Nations.

WIPO GREEN is an online platform to connect intellectual property owners with prospective users to promote transfer of environmental technology, and we registered our SF6 gas-free eco-tank-type vacuum circuit breaker as an environmental technology.

We will continue to contribute to the creation of a sustainable society, such as achieving a carbonfree society and adaptation to climate change, by spreading information about environmental technologies worldwide through WIPO GREEN, and promoting the use of our environmental technologies.



#### **Corporate Information**

#### Overview by Business Segment Overview by Business Segment in FY2021

\* FY2019 results are for reference if the segment classifications for FY2020 onward are applied.



to the impact of the COVID-19 pandemic, and businesses that remained

impacted by downward pressure on earnings were unable to improve

results, in spite of signs of improvement for some areas in the current

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2019 2020 2021 (FY) 2019 2020 2021 (FY)

#### **Financial / Non-Financial Highlights**

Financial indicators	FY2017	FY2018	B FY	2019	FY2020	FY2021
Net sales (millions of yen)	241,832	245,03	33 25	55,748	231,254	255,046
Operating income (millions of yen)	11,381	10,33	36 .	12,725	8,384	9,468
Ordinary income (millions of yen)	9,992	10,12	28	11,481	8,465	10,206
Net income attributable to owners of parent (millions of yen)	7,056	7,65	53	8,208	7,303	6,733
Overseas net sales (millions of yen)	74,154	71,72	25	70,410	48,420	65,650
Overseas sales ratio (%)	30.7	29	0.3	27.5	20.9	25.7
Net assets (millions of yen)	264,457	265,58	86 2	70,410	279,059	290,899
Total assets (millions of yen)	81,229	84,49		90,117	99,736	105,421
Net assets per share (yen)	1,768.27	1,845.2	21 1,9	920.01	2,127.74	2,247.49
Net income per share (yen)	155.52	168.0	68	180.91	160.98	148.43
Equity ratio (%)	30.3	31	.5	32.2	34.6	35.1
Cash flows from operating activities (millions of yen)	17,975	14,36	65	10,416	14,601	11,389
Cash flows from investing activities (millions of yen)	(7,582)	(8,07		3,700)	(13,117)	(7,503)
Cash flows from financing activities (millions of yen)	(11,230)	(3,10	01)	3,735	(1,402)	(4,266)
ROE (%)	9.2	g	0.3	9.6	8.0	6.8
ROIC (Operating-income-based) (%)	6.6		5.9	6.9	4.2	4.5
Dividend payout ratio (%)	28.9	26	7	27.6	29.8	33.7
Total shareholder return (%)	105.1	81		89.2	131.4	140.7
		01	.4			140.7
(Comparative indicator: TOPIX dividend included)	conducted at the	start of FY2015.	of common stock	99.6 Thus, we calcu	141.5 ulated net assets per s	
(Comparative indicator: TOPIX dividend included) lotes 1. On October 1, 2018, we conducted a reverse stock split at a ra- per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison.	atio of one share for conducted at the s	every five shares of start of FY2015.	of common stock	99.6 Thus, we calcu	141.5 Ilated net assets per s	hare and net inco
(Comparative indicator: TOPIX dividend included) Notes 1. On October 1, 2018, we conducted a reverse stock split at a ra- per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison.	atio of one share for conducted at the s	every five shares o start of FY2015. for the comparation	of common stock	99.6 Thus, we calcutal shareholder	141.5 ulated net assets per s return, for the purpos	hare and net inco e of facilitating e FY2021
(Comparative indicator: TOPIX dividend included) Notes 1. On October 1, 2018, we conducted a reverse stock split at a ra- per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison. Non-financial indicators R&D expenses (millions of yen)	atio of one share for conducted at the s	every five shares of start of FY2015. for the comparativ	of common stock ve indicator for to FY2018	99.6 Thus, we calcutate the shareholder	141.5           Jated net assets per streturn, for the purport           FY2020           67         9,468	hare and net inco se of facilitating e FY2021 9,86
(Comparative indicator: TOPIX dividend included) lotes 1. On October 1, 2018, we conducted a reverse stock split at a ra- per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison. Non-financial indicators R&D expenses (millions of yen) Capital expenditure (millions of yen)	atio of one share for conducted at the s	every five shares of start of FY2015. for the comparativ FY2017 9,402	of common stock ve indicator for to FY2018 9,458	99.6 Thus, we calcutal shareholder FY2019 10,4	141.5           ulated net assets per s           return, for the purpos           FY2020           67         9,468           42         15,575	hare and net inco se of facilitating e FY2021 9,86 10,74
(Comparative indicator: TOPIX dividend included) lotes 1. On October 1, 2018, we conducted a reverse stock split at a ra- per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison. Non-financial indicators R&D expenses (millions of yen) Capital expenditure (millions of yen) Number of employees	atio of one share for conducted at the s	every five shares of start of FY2015. for the comparativ FY2017 9,402 7,584	of common stock ve indicator for to FY2018 9,458 7,895	99.6 Thus, we calcut tal shareholder FY2019 10,4 16,0	141.5           Jlated net assets per s           return, for the purpos           FY2020           67         9,468           42         15,575           99         9,647	hare and net inco se of facilitating e FY2021 9,86 10,74 9,92
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(Comparative indicator: TOPIX dividend included) lotes 1. On October 1, 2018, we conducted a reverse stock split at a ra- per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison. Non-financial indicators R&D expenses (millions of yen) Capital expenditure (millions of yen) Number of employees Total actual annual working hours (hours/year/employee) Percentage of female employees in executive positions (%)	tio of one share for conducted at the more companies,	every five shares of every five shares of FY2015.           for the comparative           FY2017           9,402           7,584           8,995           2,002	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019	99.6 Thus, we calcut tal shareholder FY2019 10,4 16,0 9,5 1,9 3.	141.5           Jlated net assets per streturn, for the purposition           FY2020           67         9,468           42         15,575           99         9,647           78         1,980	hare and net incc se of facilitating e FY2021 9,869 10,744 9,923 1,970 4,3
(Comparative indicator: TOPIX dividend included) lotes 1. On October 1, 2018, we conducted a reverse stock split at a ra per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison.  Non-financial indicators R&D expenses (millions of yen)  Capital expenditure (millions of yen)  Number of employees Total actual annual working hours (hours/year/employee) Percentage of female employees in executive positions (%) Lost time accidents rate	tio of one share for conducted at the more companies,	FY2017           9,402           7,584           8,995           2,002           3.92	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88	99.6 Thus, we calcut tal shareholder FY2019 10,4 16,0 9,5 1,9 3.	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3.95           60         0.76	hare and net inco se of facilitating e <b>FY2021</b> 9,86 10,74 9,92 1,97 4,3 6 0,4
(Comparative indicator: TOPIX dividend included)         Iotes 1. On October 1, 2018, we conducted a reverse stock split at a raper share on the premise that said reverse stock split had been         2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%)         Lost time accidents rate         CO <sub>2</sub> emissions from energy sources (Japan) (t-CO <sub>2</sub> )	tio of one share for conducted at the more companies,	every five shares of start of FY2015.           for the comparative           FY2017           9,402           7,584           8,995           2,002           3.92           0.29	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0,99	99.6 Thus, we calcut tal shareholder FY2019 10,4 16,0 9,5 1,9 3,2 0,0 1,9 1,9 1,9 1,9 1,9 1,9 1,9 1,9	141.5           Jlated net assets per streturn, for the purposition           FY2020           67         9,468           42         15,575           99         9,647           78         1,980           60         0.76           23         33,678	hare and net inco se of facilitating e 9,86 10,74 9,92 1,97 4.3 6 0.4 32,03
(Comparative indicator: TOPIX dividend included)         Iotes 1. On October 1, 2018, we conducted a reverse stock split at a raper share on the premise that said reverse stock split had been         2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%, Lost time accidents rate         CO <sub>2</sub> emissions from energy sources (Japan) (t-CO <sub>2</sub> )         CO <sub>2</sub> emissions from energy sources (Overseas) (t-CO <sub>2</sub> )	tio of one share for conducted at the more companies,	FY2017           9,402           7,584           8,995           2,002           3.92           0.29	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175	99.6 Thus, we calcutal shareholder FY2019 10,4 16,0 9,5 1,9 3,0 0,0 35,0	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3.95           60         0.76           23         33,678           56         11,340	hare and net inco se of facilitating e 9,86 10,74 9,992 1,970 4,33 6 0,4 32,03 12,26
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(Comparative indicator: TOPIX dividend included)         Iotes 1. On October 1, 2018, we conducted a reverse stock split at a raper share on the premise that said reverse stock split had been         2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%)         Lost time accidents rate         CO2 emissions from energy sources (Japan) (t-CO2)         CO2 emissions from energy sources (Overseas) (t-CO2)         Greenhouse gas emissions from the value chain (Scope 3)/Consolidated)	tio of one share for conducted at the more companies,	FY2017           9,402           7,584           8,995           2,002           3.92           0.29           34,274           9,123	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175 9,007	99.6 Thus, we calcutal shareholder FY2019 10,4 16,0 9,5 1,9 3,5 0,5 3,5,0 8,6 5,3,4	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3.95           60         0.76           23         33,678           56         11,340           73         53,254           22         6,852,531	hare and net inco se of facilitating e 9,86 10,74 9,92 1,97 4,3 6 0,4 32,03 12,26 48,98 6,849,24
(Comparative indicator: TOPIX dividend included)         Iotes 1. On October 1, 2018, we conducted a reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%)         Lost time accidents rate         CO2 emissions from energy sources (Japan) (t-CO2)         CO2 emissions from energy sources (Overseas) (t-CO2)         Greenhouse gas emissions from the value chain (Scope 3)(Consolidated)         Greenhouse gas emissions from product use (Scope 3, category 11) (Cortex)	tio of one share for conducted at the more companies,	FY2017           9,402           7,584           8,995           2,002           3.92           0.29           34,274           9,123	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175 9,007 56,076 —	99.6 Thus, we calcutal shareholder FY2019 10,4 16,0 9,5 1,9 3,0 0,0 35,0 8,6 53,4 7,279,7 6,370,0	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3.95           60         0.76           23         33,678           56         11,340           73         53,254           22         6,852,531	hare and net inco se of facilitating e 9,86 10,74 9,92 1,97 4,3 0,4 32,03 12,26 48,98 6,849,24 5,922,57
(Comparative indicator: TOPIX dividend included)         Iotes 1. On October 1, 2018, we conducted a reverse stock split at a raper share on the premise that said reverse stock split had been         2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%)         Lost time accidents rate         CO2 emissions from energy sources (Japan) (t-CO2)         CO2 emissions from energy sources (Overseas) (t-CO2)         Greenhouse gas emissions from the value chain (Scope 3)(Consolidated)         Greenhouse gas emissions from product use (Scope 3, category 11) (Corr         Reduction of CO2 emissions caused by products (kt- CO2)	tio of one share for conducted at the more companies,	every five shares of start of FY2015. for the comparative p,402 7,584 8,995 2,002 3.92 0.29 34,274 9,123 65,965 — —	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175 9,007 56,076 —	99.6 Thus, we calcu tal shareholder FY2019 10,4 16,0 9,5 1,9 3,3 0,0 35,0 8,6 53,4 7,279,7 6,370,0 8	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3.96           60         0.76           23         33,678           56         11,340           73         53,254           22         6,852,531           00         6,050,000	hare and net inco se of facilitating e 9,86 10,74 9,92 1,97 4,3 7 4,3 7 4,3 7 4,3 7 4,3 7 4,3 7 4,3 7 4,3 7 4,3 7 4,3 7 4,3 7 7 3 7 7 3
(Comparative indicator: TOPIX dividend included)         Notes 1. On October 1, 2018, we conducted a reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%)         Lost time accidents rate         CO <sub>2</sub> emissions from energy sources (Japan) (t-CO <sub>2</sub> )         CO <sub>2</sub> emissions from energy sources (Overseas) (t-CO <sub>2</sub> )         Greenhouse gas emissions from the value chain (Scope 3)(Consolidated)         Greenhouse gas emissions from product use (Scope 3, category 11) (Cor         Reduction of CO <sub>2</sub> emissions caused by products (kt- CO <sub>2</sub> )         Amount of waste generated (Japan) (kt)	tio of one share for conducted at the more companies,	every five shares of every five shares of for the comparative for the comparative 9,402 7,584 8,995 2,002 3.92 0.29 34,274 9,123 65,965 — — 733	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175 9,007 56,076 — — 841	99.6 Thus, we calcutal shareholder FY2019 10,4 16,0 9,5 1,9 3. 0. 35,0 8,6 53,4 7,279,7 6,370,0 8 6 9 10,4 1	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3,95           60         0,76           23         33,678           56         11,340           73         53,254           22         6,852,531           00         6,050,000           48         990	hare and net inco se of facilitating e 9,86 10,74 9,92 1,97 4,33 1,0,74 9,92 1,97 4,33 1,0,74
(Comparative indicator: TOPIX dividend included)         Notes 1. On October 1, 2018, we conducted a reverse stock split had been per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%)         Lost time accidents rate         CO2 emissions from energy sources (Japan) (t-CO2)         CO2 emissions from energy sources (Overseas) (t-CO2)         Greenhouse gas emissions from business activities (Scope 1 and 2)(Cons         Greenhouse gas emissions from product use (Scope 3, category 11) (Cor         Reduction of CO2 emissions caused by products (kt- CO2)         Amount of waste generated (Japan) (kt)         Recycling rate (Japan) (%)	tio of one share for conducted at the more companies,	every five shares of start of FY2015. for the comparative p,402 7,584 8,995 2,002 3.92 0.29 34,274 9,123 65,965 — 7 733 7.1	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175 9,007 56,076 — — 841 7.8	99.6 Thus, we calcutal shareholder FY2019 10,4 16,0 9,5 1,9 3. 0. 35,0 8,6 53,4 7,279,7 6,370,0 8 6 9 10,4 1	141.5           Jated net assets per streturn, for the purposition           FY2020           67         9,468           42         15,575           99         9,647           78         1,980           70         3,95           60         0,76           23         33,676           56         11,340           73         53,254           22         6,852,531           00         6,050,000           48         990           5.4         10,00           5.5         94,65	hare and net inco se of facilitating e 9,86 10,74 9,92 1,970 4,3 0,4 3,0,4 12,26 48,98 6,849,24 5,922,57 12,3 12,4 12,5 12,5 12,5 12,5 12,5 12,5 12,5 12,5
(Comparative indicator: TOPIX dividend included) Notes 1. On October 1, 2018, we conducted a reverse stock split at a ra- per share on the premise that said reverse stock split had been 2. We have used TOPIX dividend included, which is adopted by comparison. Non-financial indicators R&D expenses (millions of yen) Capital expenditure (millions of yen) Number of employees Total actual annual working hours (hours/year/employee) Percentage of female employees in executive positions (%, Lost time accidents rate CO <sub>2</sub> emissions from energy sources (Japan) (t-CO <sub>2</sub> ) CO <sub>2</sub> emissions from energy sources (Overseas) (t-CO <sub>2</sub> )	tio of one share for conducted at the more companies,	FY2017           9,402           7,584           8,995           2,002           3.92           0.29           34,274           9,123           65,965           -           733           7.1           99.1	of common stock // indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175 9,007 56,076 — 841 7.8 99.3	99.6 Thus, we calcu tal shareholder FY2019 10,4 16,0 9,5 1,9 3. 0. 35,0 8,6 53,4 7,279,7 6,370,0 8 6,370,0 9,5 1,9 1,9 1,9 1,9 1,9 1,9 1,9 1,9	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3.95           60         0.76           23         33,678           56         11,340           73         53,254           22         6,852,531           00         6,050,000           48         990           3.4         10,00           6.5         94,6           6.8         1,490	hare and net inco se of facilitating e 9,869 10,744 9,9923 1,970 4,34 1,970 4,34 1,970 4,34 1,970 4,34 1,970 4,9
(Comparative indicator: TOPIX dividend included)         Notes 1. On October 1, 2018, we conducted a reverse stock split had beer         2. We have used TOPIX dividend included, which is adopted by comparison.         Non-financial indicators         R&D expenses (millions of yen)         Capital expenditure (millions of yen)         Number of employees         Total actual annual working hours (hours/year/employee)         Percentage of female employees in executive positions (%, Lost time accidents rate         CO <sub>2</sub> emissions from energy sources (Japan) (t-CO <sub>2</sub> )         CO <sub>2</sub> emissions from energy sources (Overseas) (t-CO <sub>2</sub> )         Greenhouse gas emissions from the value chain (Scope 3)(Consolidated)         Greenhouse gas emissions from product use (Scope 1 and 2)(Cons         Greenhouse gas emissions from product use (Scope 3, category 11) (Cor         Reduction of CO <sub>2</sub> emissions caused by products (kt- CO <sub>2</sub> )         Amount of waste generated (Japan) (kt)         Recycling rate (Japan) (%)         Water consumption (Japan) (thousand m <sup>3</sup> )	tio of one share for conducted at the more companies,	FY2017           9,402           7,584           8,995           2,002           3.92           0.29           34,274           9,123           65,965           -           733           7.1           99.1           1,203	of common stock ve indicator for to FY2018 9,458 7,895 9,297 2,019 3.88 0.99 35,175 9,007 56,076 — 841 7.8 99.3 1,085	99.6 Thus, we calcutal shareholder FY2019 10,4 16,0 9,5 1,9 3.0 3.5,0 3.5,0 8,6 53,4 7,279,7 6,370,0 8 6,370,0 8 6,370,0 8 1,7 2,2 1,7 2,2	141.5           Jated net assets per s           return, for the purpos           67         9,468           42         15,575           99         9,647           78         1,980           70         3.95           60         0.76           23         33,678           56         11,340           73         53,254           22         6,852,531           00         6,050,000           48         990           3.4         10,00           6.5         94,6           6.8         1,490	hare and net inco se of facilitating e 9,86 10,74 9,92 1,97 4,3 7 112,26 48,98 6,849,24 5,922,57 7 12,5 9 48,98 6,849,24 12,26 12,25

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Notes 1. Figures for employee numbers exclude those employees on temporary contracts. 2. Total actual annual working hours are the actual working hours calculated by subtracting leave hours from the sum of official working hours and overtime hours (averaged per employee). 3. The percentage of female employees in executive positions refers to the percentage calculated by dividing the number of female employees in executive positions by the total number of executive positions. 4. Japanese emissions: Fuel oil and fuel gas use the Table of Calculation Methods and Emission Factors for the Calculation, Reporting, and Publication System published by the Ministry of the Environment. Electricity uses the Table of Emission Factors for Individual Power Companies published by the Ministry of the Environment. 5. Overseas emissions: Fuel oil and fuel gas use the emission factors for each country published by the GHG Protocol. Electricity uses average factors per country from 2010 to 2012 published by the International Energy Agency (IEA). 6. Reduction of CO<sub>2</sub> emissions caused by products is the expected reduction of such emissions caused by products sold. 7. Measurement points for water consumption were changed in FY2019 in order to increase precision, so there is no continuity with FY2018 and before. 8. Social contribution spending includes donations and sponsorship funding.

fiscal vear.

Net sales

composition ratio

#### **Outline of the Meiden Group**

#### Corporate Data as of March 31, 2022

Corporate Name MEIDENSHA CORPORATION	Capital ¥17,070 million	
·	Consolidated Sales ¥255,046 million	
Established June 1, 1917 (Since December 22, 1897)	Consolidated Number of Employees 9.923	
Representative Director & President & Executive Officer Takeshi Miida		
Head Office ThinkPark Tower, 2-1-1, Osaki, Shinagawa-ku, Tokyo,	Consolidated Subsidiaries 42 (22 in Japan, 20 overseas)	
141-6029 Japan		

#### Main Subsidiary Companies (as of April 1, 2022)

Country/ Region	Company Name	Business Entity		
	M WINDS CO., LTD.	Development, design, manufacture, testing, and consulting for wind power generation systems		
	M WINDS HACHIRYU CO., LTD.	Wind power generation business		
	NOTO COMMUNITY WIND POWER CO., LTD.	Wind power generation business		
	EAML Engineering CO.,LTD.	Design, manufacture, sale, and repair of hydroelectric generators and peripherals, hydroelectric generation business		
	MEIDEN TECHNO SYSTEMS CO., LTD.	Maintenance, inspection, renovation and refurbishment of transformers and switchgear, manufacture of products and parts for transformers and switchgear, installation of transformers and switchgear, and worker dispatch business		
	MEIDEN FACILITY SERVICE CORPORATION	Upkeep, operation, maintenance, etc., of facilities etc.		
	SADO MEIDEN SERVICE CORPORATION	Upkeep, operation, maintenance, etc., of facilities etc. in Sado region		
	MEIDEN AQUA BUSINESS COMPANY	Maintenance and operation management for water, sewerage and industrial water treatment facilities, industrial wastewater treatment facilities, and general and industrial waste treatment facilities		
	MEIDEN SYSTEM MANUFACTURING CORPORATION	Manufacture and sale of switchboards, control panels, and their components		
Japan	MEIDEN PLANT SYSTEMS CORPORATION	Design and contracting for electricity and building construction, and manufacture, repair, refurbishment of electrical equipment, etc.		
	MEIDEN KIDEN KOGYO CO., LTD.	Repair and overhaul of eddy current dynamometers, mechatronic equipment, motors, generators, and dynamometers, and high-precision machining		
	KOFU MEIDENSHA ELECTRIC MFG. CO., LTD.	Manufacture and sale of PM motors, elevator motors, industrial vehicle motors, brushless motors, and induction motors		
	MEIDEN ENGINEERING CORPORATION	Manufacture, sale, installation, and wiring of electrical equipment, machinery, tools, and devices, maintenance and inspection services, refurbishment, and repair		
	CHUO ENTERPRICE CORPORATION	All tasks relating to management and operation of facilities, maintenance and safety inspections, sanitation, cleaning, security, construction, energy-conservation measures, and other building management		
	MEIDEN CHEMICAL CO., LTD.	Manufacture of electrical equipment mold products, and insulating varnish, resin, etc.		
	HOKUTO DENKO CORPORATION	Manufacture and sale of electrochemical measurement devices, and manufacture of water quality measurement devices		
	MEIDEN NANOPROCESS INNOVATIONS, INC.	Development, design, manufacture, and sale of pure ozone generators and thin film deposition equipment		
	MEIDEN KOHSAN CO., LTD.	Sale of goods and materials, insurance agency, and real estate business		
	MEIDEN MASTER PARTNERS CORPORATION	Worker dispatch business		
	MEIDEN UNIVERSAL SERVICE LTD.*1	Cleaning, security for buildings, structures, and incidental facilities, and greening and maintenance of land		
	MEIDEN SYSTEM SOLUTION CORPORATION	Software development, design, production, sale, and rental, and maintenance and management of computer systems and networks		
	MEIDEN SHOJI CO., LTD.	Sale of electrical and electronic equipment products		
China	MEIDEN ZHENGZHOU ELECTRIC CO., LTD.	Manufacture and sale of lightning arresters for electric power and electrical railways, zinc oxide blocks for lightning arresters, and accessories for lightning arresters		
	MEIDENSHA (SHANGHAI) CORPORATE MANAGEMENT CO., LTD.	Chinese regional presiding company (Management consulting services for affiliates), sale of electrical equipment, import and export operations, procurement, maintenance, and after-sale service		
	MEIDEN HANGZHOU DRIVE SYSTEMS CO., LTD.	Manufacture and sale of elevator motors and traction machines, inverters for synthetic fiber machine, and automated guided vehicles (AGV)		
	SHANGHAI MEIDENSHA CHANGCHENG SWITCHGEAR CO., LTD	Manufacture and sale of medium-voltage cubicle-type gas insulated switchgear and vacuum circuit breakers Manufacture and sale of high and low voltage panels		
	MEIDEN (HANGZHOU) DRIVE TECHNOLOGY CO., LTD.	Manufacture and sale of motors and inverters for EVs		

Country/ Region	Company Name	
Hong Kong	MEIDEN PACIFIC (CHINA) LIMITED	Sale of switchboards an
	MEIDEN INDIA PVT. LTD.*2	Import and sale of Meid
India	MEIDEN T&D (INDIA) LIMITED	Manufacture and sale of
Indonesia	PT. MEIDEN ENGINEERING INDONESIA	Sale and design of elect
Korea	MEIDEN KOREA CO., LTD.*2	Sale, installation, testing
Malaysia	MEIDEN MALAYSIA SDN. BHD.	Electrical construction, e maintenance
	MEIDEN METAL ENGINEERING SDN. BHD.	Manufacture and sale of
	MEIDEN ASIA PTE. LTD.	ASEAN regional presidir
Singapore	MEIDEN SINGAPORE PTE. LTD.	Manufacture and sale of membrane unit, and eng
	THAI MEIDENSHA CO., LTD.	Electrical construction, r
Thailand	MEIDEN ELECTRIC (THAILAND) LTD.	Manufacture and sale of
Vietnam	VIETSTAR MEIDEN CORPORATION	Manufacture and sale of
Germany	MEIDEN EUROPE GmbH	Sale of electrical equipn
	TRIDELTA MEIDENSHA GmbH	Manufacture and sale of
North	MEIDEN AMERICA, INC.	System engineering and
America	MEIDEN AMERICA SWITCHGEAR, INC.	Manufacture and sale of

\*1 Special subsidiaries \*2 Non-consolidated subsidiaries

#### Share data as of March 31, 2022

Stock Listing Tokyo Stock Exchange, Nagoya Stock Exchange

Total number of authorized shares 115,200,000

Total number of issued shares 45,527,540

(Including treasury shares of 158,652)

Number of shareholders 14,655

#### **Major Shareholders**

Names of Shareholders	Number of Shares Held (shares)	Shareholding Ratio (%)
The Master Trust Bank of Japan, Ltd. (account in trust)	7,831,600	17.26
Custody Bank of Japan, Ltd. (account in trust)	3,659,000	8.06
Sumitomo Electric Industries, Ltd.	2,631,385	5.80
Sumitomo Mitsui Banking Corporation	2,241,835	4.94
NEC Corporation	1,746,150	3.85
Sumitomo Mitsui Trust Bank, Limited	1,500,000	3.31
Sumitomo Life Insurance Company	1,061,400	2.34
Meidensha Employees Stock Ownership Group	1,041,371	2.30
Mei-ei Ownership Group	645,744	1.42
Mei-yu Ownership Group	635,206	1.40

\* Note: The shareholding ratio excludes treasury shares.

#### **Business Entity**

and engineering tasks

den Group products, engineering tasks, construction, after-sale service

of transformers and peripheral businesses

ctrical equipment, installation, construction, and engineering tasks

ng of dynamometer products, servicing and maintenance, and import and export operations

, engineering tasks, EPC business, sale of Meiden Group products and systems, and servicing &

of transformer housing and radiators, etc.

ling company

of transformers, switchboards, and circuit breakers, assembly and sale of ceramic flatsheet ngineering tasks

mechanical construction, engineering, EPC business, and maintenance

of switchboards and automatic guided vehicles (AGVs)

of low and medium-voltage switchgear

ment

of lightning arresters for electrical and railway, and peripherals for lightning arresters

ad after-sale service for dynamometer products, and sale of component products

of vacuum circuit breakers, and sale of vacuum interrupters



Financial institutions	44.43%
Securities companies	1.26%
Business companies	20.32%
Overseas investors	15.99%
Individuals	17.65%
Other	0.35%