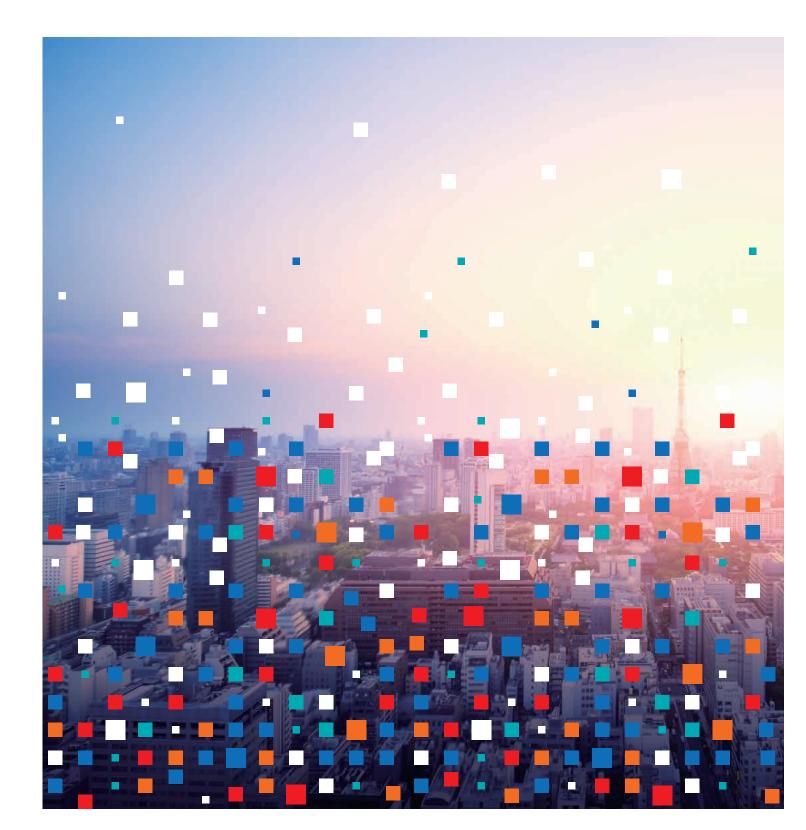


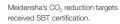
# **MEIDENSHA REPORT 2021**





ThinkPark Tower, 2-1-1, Osaki, Shinagawa-ku, Tokyo 141-6029 Japan www.meidensha.com







Meidensha was recognized as 2021 Health and Productivity Management Organization (White 500) in the large enterprise category in March 2021.



Meidensha was selected as a Health and Productivity Management Brand by METI and the TSE in March 2021.



Meidensha was granted Platinum Kurumin certification by the Minister of Health. Labour and Welfare in 2021.











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

#### **Editorial Policy**

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

The content of these reports 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 and IR activities, 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 ESG 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 International Integrated Reporting Council (IIRC) 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: Takeshi Miida)

#### Disclaime

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.

#### Report Media

#### 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's Sustainability Web Edition

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

https://meidensha.disclosure.site/en



#### Status of incorporation of the ESG Index (as of July 2021)







FTSE Blossom
Japan Index

S&P/JPX Carbon
Efficient Index

SOMPO Sustainability Index

FTSE Russell (registered trademark of FTSE International Limited and Frank Russell Companhas confirmed through third-party investigation that Meidensha meets the requirements of the FTSE Blossom Japan Index and has been listed in the Index. The FTSE Blossom Japan Index is created by the global index provider, FTSE Russell. It is designed to measure the performance of Japanese companies with exceptional environmental, social, and governanc (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 (FY2020)



- Climate change: I
- Water security: I

#### MSCI ESG Ratings Evaluation (2021)

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 2021, Meidensha received a rating of A in the MSCI ESG Ratings.

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#### 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

Corporate Philosophy

Ideal State of Being/Vision

Important Values (VALUE)

## Corporate Slogan Expressing the corporate philosophy in a single phrase

#### Quality connecting the next

# MEIDEN Quality connecting the next



- Cin and the
- Expertis
- Sincerity
- Uniqueness

"Quality"

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.

#### MEIDEN CYCLE



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 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.



## Work to build a new society through integrity to the earth, society, and people, and through the power of co-creation

#### Results of Medium-term Management Plan 2020

Under the medium-term management plan, V120 (FY2015 to FY2017), the EV and Overseas businesses were listed as growth areas. Following on this result, we have promoted both steady growth in business performance and investments for growth areas in the three years of Medium-term Management Plan 2020 (FY2018 to FY2020).

Some major results of that are that we made sure we invested in the growth businesses of EV and T&D, and we increased revenue from the earnings-base businesses of water infrastructure and maintenance and servicing. We also established MEIDEN NANOPROCESS INNOVATIONS, INC. as an internal startup, promoted partnership with the Polish Startup Elmodis as open innovation, and ensured that we promote initiatives aimed at further growth.

In the overseas area, we promoted the establishment of new companies and M&A, etc., in overseas T&D business in which market growth is anticipated, particularly

in Asian developing nations; however, there are still issues to be addressed. Specifically, we were unable to re-enter the overseas electricity market according to plan as a result of lawsuit problems regarding PRIME MEIDEN LIMITED in India, etc. Furthermore, in the electronic equipment business, demand for semiconductor products fell short of expectations and we failed to reach the targets in the plan. We are aware that overseas T&D remains an area to be developed; however, we have determined that we have done everything that we should.

Corporate growth is a cycle of investment and return. For many years, Meidensha has withstood times in which that cycle did not operate effectively; however, under Medium-term Management Plan 2020, in FY2019, we were able to achieve our highest ever net sales and operating income while both strengthening our earnings base and investing for the future. Management is a neverending relay, and while I am President, I believe it is an extremely important mission to think about what I will leave

for the next generation. Therefore, I am aware that the most significant achievement of the Medium-term Management Plan 2020 is that we have created a pathway for the next generation.

#### Formulation of Ideal State of Being/Vision

The Meiden Group has formulated its 2030 Ideal State of Being/Vision with an eye to the worldview of 2050.

Until now, our Ideal State of Being/Vision has been "a heavy electric machinery maker that supports the future of social infrastructure and industrial advancement, while realizing sustainable growth and development." This was based on the idea that with environmental problems and sustainable growth as major management issues, strategic development is extremely important from a medium to long-term perspective.

On the other hand, just as many industries are facing many technological innovations and rapid and drastic changes in the business environment, we are no exception in this respect. In order for the Meiden Group to grow sustainably, we must go beyond the framework of a manufacturer and become "a company that provides solutions and designs that embrace the challenge of building a society. In May 2021, we announced our new Ideal State of Being/Vision, which is to "work to build a new society through integrity to the earth, society, and people, and through the power of co-creation."

#### Meidensha's Ideal Society

When formulating our Ideal State of Being/Vision, first, we discussed how we thought society should be. This is because companies must take the perspective of longterm value creation, rather than merely thinking about short-term profit, in order to comprehensively steer global issues in a positive direction. In other words, our Ideal State of Being/Vision is a statement of the ideal Meiden Group and the direction we would take by depicting our ideal society and back-calculating from there. In order to achieve our Ideal State of Being/Vision, we have articulated our specific form and role as a "sustainability partner that creates personal happiness and a sustainable global environment. This label of "sustainability partner" has two meanings. The first is a partner as a member of society to achieve a sustainable global environment. The other indicates our role as a partner to support various stakeholders such as employees, shareholders, investors, and customers, to achieve sustainability. Our Ideal State of Being/Vision is the result of repeated discussions by management and young personnel, who will lead the Meiden Group in the future.

Looking at the future of human society and the global environment, it is clear that humanity is facing many social issues, and a paradigm shift is underway, which requires dramatic changes to conventions and values that permeate society. I believe that some terms to explain this include "global environmental problems," "digitalization," and "shrinking population in Japan."

## Realizing a Resilient Society Where Humans Live in Harmony with Nature

Global environmental problems require the most consideration. In particular, climate change risks have greatly impacted our daily lives, the economy, and society. This is an issue that cannot be overlooked as it greatly impacts the Meiden Group's corporate management. We believe that society can only be established if there is a healthy earth, and that companies can survive and operate business. Therefore, engaging sincerely with social demands and contributing to the solution of global environmental problems through business is naturally our responsibility if we wish to survive as a business, and we understand that we also need to change our thinking continue to be accepted by society.

In October 2020, the Japanese government made the Carbon Neutral Declaration, which aims for "effectively zero greenhouse gas emissions by 2050." Countries around the world are making declarations that they will aim for zero carbon emissions or carbon neutrality, and society is expected to shift so that it is more aware of the balance between the economy and the environment.

To create such a society, it is important to build systems and conduct technological innovation to achieve carbon neutrality. For example, on the "electricity production" side, they need to focus on renewable energy sources, and on the "electricity consumption" side, they need to reduce the amount of electricity consumed, and both of which require technology. This will be difficult without significant technological advancement; however, accompanied by mechanism creation and technological innovation, we can see a future where the world changes greatly, just like in the industrial revolution. Notwithstanding this, we will not be able to achieve such social engineering on our own. We are aware that co-creation and open innovation are essential.

The Meiden Group has contributed to the creation of a sustainable society and the evolution of various industries through its businesses, products, technologies, and services in the energy and water treatment sectors, which support social infrastructure. Going forward, we will focus on support for decarbonization based on delivery of environmentally considerate products to customers, while also conducting decarbonization in our own business activities. In addition, we aim to provide safety and security to people, and create a resilient society where people live in harmony with nature by expanding businesses that are more aware of increasing sales and maintenance and servicing of BCP products.

#### A Society that Feels Safe, Prosperous, and Exciting

Digital advancement enables anyone around the world to share a range of information at the same time, no matter where they are. The impact of this on business will be extreme. This is because we predict that the acceleration of labor-saving measures in a range of areas will greatly change the structure of industry as urban areas and offices become decentralized and knowledge and skills that had been unrecognized until now become apparent. The impact of the COVID-19 pandemic on top of these changes has accelerated this social and economic paradigm shift, and you could say that this equates to a transition from an industrial society capitalism to a digital society capitalism.

Until the 20th century, industry required large-scale investment in infrastructure and mass-production, and value was placed on quantitative economic expansion. Using transportation methods as an example, the advent of steam trains caused us to pursue ever shorter timeframes for the mass transit of people and goods. These days, the rapid advancement of digitalization has liberated workers from the constraints of time and space. With regard to time, as a result of telecommuting, workers have shorter commuting times and travel times, which results in more disposable time, and with regard to space, meetings can be held online, which means that various meetings can be held at any time, irrespective of time differences.

This is not limited to improved productivity of workers, but also affects the thoughts and actions of people in their daily lives. The standard by which people perceive happiness is shifting from physical criteria, such as safety and security of their livelihood, to psychological criteria, such as the enjoyment of diverse self-realization and the pursuit of social connection. In other words, as the world becomes more convenient, the definition of affluence is becoming more diverse, and society will value happiness more going forward.

However, we must not be a society that merely pursues affluence. We must be a society that can provide a life with peace and equality, where everyone can enjoy happiness.

I believe that Meidensha has the potential to contribute to the creation of such an ideal society. There are two reasons for this. The first is that we have developed our Meiden employees to be forward-thinking and take pride in their work. This future orientation creates better products and new business models by taking their position into customers' considerations and it is an important value that must be maintained at all costs. The other is the promotion of management ambidexterity, which has become possible through the establishment of an earnings base under Medium-term Management Plan 2020, as mentioned previously. In addition to using profit earned in existing fields to actively search for and invest in new areas and rolling out products and services that contribute to carbon neutrality, labor-saving and high-efficiency services

that utilize digitalization, and the BCP business, which contributes to a safe and secure society, we aim to provide value that excites society and contributes to the solution of future social issues.

Using the future orientation that we have developed as a foundation, we are enhancing systems to accelerate the creation of a new society. Through the application of digital technology, we aim to create a stable, affluent, and exciting society.

## A Society in Which Different Communities and People Can Coexist

Although the global population continues to grow, market downsizing due to a declining population is a major issue in Japan, and it is a common challenge faced by Japanese companies across industries and local governments, etc. Going forward, we expect major changes in the composition of the Japanese public infrastructure market, such as social changes as a result of the declining population and financial difficulties faced by local governments, advancement of digitalization, and changing needs such public private partnerships (PPP) and inter-municipal projects.

Also the COVID-19 pandemic has impacted our customers, including electricity companies, municipal governments, and rail operators, and caused them to change their way of doing business. This means that the needs of customers and the value sought by customers is changing.

As a company that supports social infrastructure, the Meiden Group has proposed many solutions to social issues in addition to ensuring that we make what our customers need. However, as the composition of the market and our customers' needs change, we feel that the time has come to reconsider the products, services, and solutions that we provide and our ideal state of being. For example, electricity companies are facing dramatic changes in business conditions, such as expanded operation of networks due to the reform of power systems, total deregulation of the electricity retail market, ensuring further neutrality of transmission and distribution business units through legal separation, and expanded introduction of renewable energy. Retail arms of electricity companies are increasing their business opportunities by selling peripheral utilities such as gas, in addition to electricity.

We will not be able to succeed by using the same business tactics as we have previously, in the face of such greatly changing business conditions. We deliver many products to transmission and distribution companies; however, we must also provide products and solutions inline with the trends of electricity companies. We also conduct a water treatment and public infrastructure business and are considering ways to combine it with the strengths of our other businesses. In fact, the Public Infrastructure

Business Planning Group, which we established in April 2020, is already acting in ways such as promoting planning, development, and implementation of area-wide business models that cater to changing businesses and diversification of social needs, and proposing value through the integration of water and energy.

Going forward, it is a key for the Meiden Group to collaborate with customers, municipal governments, and companies in different industries, to provide maximum value and contribute to the solution of issues. Of course, our core goals of providing green, safe, and reliable electricity, which is the foundation of society and the lives of the people in it, and creating smiles through electricity, remain unchanged. This is the very role of a "sustainability partner" which is what we aim to be. We aim to create a society in which diverse communities and people can coexist, by connecting people and supporting diverse lifestyles through electricity.

#### The Purpose and Values of the Meiden Group

It is essential for us to undergo a number of changes in order to achieve our Ideal State of Being/Vision. We will embrace the challenge of realizing a sustainable planet, while also creating a source of sustainable growth for Meidensha, based on technology to create and use electricity, which has been our bread and butter for more than 120 years since Meidensha was founded in 1897.

Because of the pride and achievements of the Meiden Group in contributing to the sustainable development of society by creating and providing a variety of technologies and services focused on electrical equipment that supports social infrastructure, we may be able to seek a future in which we just continue to specialize in steadily meeting the expectations and demands of society and our customers. However, once we return to the aspiration that we have held since our founding, "To build a more affluent world with the power of electricity," we find that our mission and purpose is to affluent the lives of many people beyond our products, to develop our technology, and to affluent the world through our business.

The founder, Hosui Shigemune believed that when the age of electricity arrived, it would not only mean the proliferation of motors, but that the transmission and distribution of electricity would be necessary, and that static equipment such as transformers would be required to achieve this. Since our founding, we have manufactured transformers for lamps in addition to motors, and contributed to the advancement of electricity in Japan. Our business, which began with motors, has led to development and production of a range of heavy electrical equipment, and allowed us to grow into the Meiden Group, which supports modern social infrastructure.

On the other hand, we are now facing the issue



that society is undergoing the aforementioned structural changes and we must respond to social issues as they become apparent. Particularly from the perspective of the global environment, it is extremely important to be proactive and work together with like-minded compatriots to achieve a carbon neutral planet. Therefore, I believe we should remember the DNA of social contribution and spirit of innovation that Hosui Shigemune had from the beginning as well as the integrity and responsibility to customers that has supported social infrastructure for more than 120 years since then, and take on the challenge of creating a new society by expanding and strengthening our position, in order to be an attractive company and organization.

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

#### **Basic Policy**

The Medium-term Management Plan 2024, which covers the four-year period from FY2021 to FY2024, was established by a backcasting approach from our Ideal State of Being/Vision. It is a basic policy and strategy for the "jump" phase to achieve high quality growth based on the results of the past six years of the "hop" phase (V120) and the "powerful step" phase (Medium-term Management Plan 2020).

Our three basic policies are realization of high-quality growth, promoting ESG management, and promoting management ambidexterity. In order to realize high-quality growth, we will correctly understand the needs of society and promote work reforms based on the two pillars of increasing competitiveness by providing customer experiences through provision of systems and services, and conducting a sweeping review of internal digital transformation and workflow and arranging group functions. In order to promote ESG management, we

will strengthen initiatives based on the four values of sustainability, diversity, integrity and responsibility and future orientation. In order to promote management ambidexterity, we will continue to improve existing businesses and use the profits from these businesses to explore and invest in new fields. We will promote initiatives to enhancing both human and organizational capabilities, such as the development of innovation processes, the fostering of diverse human resources who will be responsible for new development, and the exploration and co-creation of new social needs, and focus on building a foundation for sustainable growth.

#### **Conducting Organizational Reform**

In executing Medium-term Management Plan 2024, we conducted organizational reform. The purpose of this was (1) to divide our businesses into four groups and clarify responsibilities and authority for the Sales Business Unit, the Manufacturing and Engineering Business Unit, and Japanese subsidiaries to swiftly and appropriately respond to environmental changes and diverse customer needs, (2) to achieve multi-skill development and training of personnel in the Manufacturing and Engineering Business Unit and flexible response to fluctuating production load, and (3) to promote enhancement of planning functions through centralization and work reforms.

When thinking about carbon neutrality, the technological elements differ in the fields of electricity production and electricity use. Therefore, we have divided the conventional Social Infrastructure Business into two separate business groups, the Power Infrastructures Business Group, for electricity producers and transmitters, and the Public, Industrial & Commercial Sector Business Group, for electricity users side, in order to mutually enhance the technological elements.

We anticipate that our products will contribute to increased efficiency in power transmission and distribution. In terms of power generation, the growth of the wind and hydroelectric power business is key.

On the other hand, for electricity users, it is important to deliver products that are conscious of energy conservation. This also applies to the Mobility & Electrical Components Business Group. The Field Service Engineering Business Unit Group will maintain products produced by these three groups for safe and reliable use, and provide solution services for energy conservation and optimization of all electrical equipment systems.

Dialog with employees is crucial for the fulfillment of this plan. It is important for all officers, including me, to engage in direct dialog with employees at each site, for employees to understand the intent of this plan, and for them to internalize it. We will increase our responsiveness and flexibility as an organization with regard to a range of difficult circumstances by ensuring that all employees of the Meiden Group are aligned.

## Initiatives to Enhance the Foundation for Business Activities

"Production strategy," "professional development and work-style reforms," "research and development strategy," "building a robust financial base," and "improving the quality of a foundation for business operations" were priority measures under Medium-term Management Plan 2020. Under Medium-term Management Plan 2024, we have used the COVID-19 pandemic as a trigger to promote responses to sudden changes in the environment in conjunction with these.

With regard to production strategy, we are improving manufacturing efficiency such as through automation of manufacturing of mass-produced products and automation of inspection processes. With regard to research and development strategy, we will inject resources in initiatives for the development of new businesses and products under the umbrella of "ambidextrous R&D." With regard to building a robust financial base, we will increase asset turnover ratio, conduct efficient investments, and ensure return on investments. With regard to improving the quality of a foundation for business operations we will work to continuously improve the quality of products, systems, and services as a company that supports public infrastructure, and actively work to eliminate industrial accidents, conduct thorough corporate governance, and adapt to the new work-style of remote work, etc.

#### **Optimal Allocation of Capital to Focus Areas**

Under Medium-term Management Plan 2024, we defined the four areas of "renewable energy," "sustainable infrastructure," "green mobility," and "smart industry" as focus areas to be an attractive company that takes a lead role in tackling the challenge of creating a new society through business activities. These are the areas in which we are most able to leverage our strengths, and we take the lead in solving social issues and creating social value through co-creation with other companies and customers.

Furthermore, although we are working to optimally allocate resources and implement various strategies in focus areas, we are particularly aware of the following three issues.

The first is the **expansion of overseas businesses.** From the perspective of decarbonization, the North American T&D business has reached a turning point. In North America, environmental regulations restricting SF<sub>6</sub> gas, which contributes greatly to the greenhouse effect, have grown stricter; demand for environmentally friendly vacuum circuit breakers has been increasing; and there has been greater demand for electricity distribution equipment that uses vacuum interrupters, due to rearrangement of electrical power systems to accommodate decentralized power sources from renewable energy. Against this backdrop, we have positioned the North American market as a promising market for the T&D business, and we established MEIDEN

#### Focus Areas and Strategies for an Ideal Society

Renewable Energy	<ul> <li>Increasing small to medium hydroelectric system capabilities and expansion of the hydroelectric and wind power generation O&amp;M business</li> <li>Focusing on expanding solutions businesses that use renewable energy</li> </ul>
Sustainable Infrastructure	Leading the construction of sustainable next-generation infrastructure by fusing high-quality products and maintenance services, with digital technology     Focusing on expanding environmentally considerate products and incorporating smart technology, such as IoT technology, in operation and maintenance of facilities
Green Mobility	<ul> <li>Enhancing activities to secure new orders for further business expansion in the EV motor and inverter business in order to reduce greenhouse gas emissions in the transportation sector</li> <li>Increasing earning potential by building mass production lines that support low cost and high quality</li> <li>Focusing on increasing sales of EV testing equipment compatible with model-based development and services, and achieving synergistic effects, as the only manufacturer of both EV components and testing equipment</li> </ul>
Smart Industry	<ul> <li>Enhancing cutting-edge technology, and partnerships and promoting labor-saving and energy-saving measures in industry and digitalization in society</li> <li>Focusing on increasing the level and incorporating smart technology in maintenance of industrial products using digital technology, increasing sales of environmentally considerate motors, and expanding share of semiconductor products</li> </ul>

AMERICA SWITCHGEAR, INC. in 2020 to manufacture and sell the world's first commercialized 145 kV Ecotank Type Vacuum Circuit Breaker. Although we have reinforced the social infrastructure business, particularly in ASEAN, we feel that we must consider reallocation of resources, including restructuring to increase efficiency, rather than equally allocating management resources as we have in the past.

The second is the enhancement of the Field Service Engineering Business Group, which is rolling out maintenance and servicing of electrical equipment. The majority of its resources are people, and it is ideal to incorporate technical service staff throughout the long lifecycle of products that can span tens of years. However, the COVID-19 pandemic has limited the movement of people, so if we were to increase personnel at each site, it would increase fixed costs and decrease earnings. Therefore, we are focusing on professional development aimed at multi-skill development, and development of a base for remote monitoring technology, such as technology for automatic data collection using the Cloud and analysis of operating status.

The third is reform of the business model of the Power Infrastructures Business Group and the Public, Industrial & Commercial Sector Business Group. The need to inject an extremely large number of resources during the period prior to receiving an order has been an issue in these business areas for many years. Even so, we are engaging in initiatives of the Public Infrastructure Business Planning Group described above, as well as PPP such as the comprehensive water supply project in the eastern Gunma region, and we are working to create new business models that utilize these partnerships.

In this way, we will work toward optimal allocation of resources for business expansion in focus areas, based on changes in business conditions and features of management resources.

#### **Commitment to ESG Management**

In order to realize our ideal society, we must have many partners that share our determination, including our customers and other companies. In addition to "working to build a new society through integrity to the earth, society, and people, and through the power of co-creation," we must first ensure that our business is gentle to the environment and our employees are happy.

From an environmental perspective, we developed the Second Meiden Environmental Vision in 2021, with the aim of reducing our environmental impact throughout the value chain. Specifically, compared to FY2019 levels, we aim to reduce scope 1 and scope 2 greenhouse gas emissions by 30% and scope 3 emissions by 15% by 2030. In order to achieve this, each employee must change their thinking. In order to truly aim to be an environmentally considerate company, we will work for the entire Meiden Group to understand the impact their activities have on the environment, eliminate waste, and increase production efficiency.

We will contribute to the solution of our customers' issues, support the realization of a sustainable society, and fulfil our responsibility as a company that is a member of a sustainable society. This is what we define as the role of a "sustainability partner."

## Aiming to Be a Company that is Chosen by Customers and Relied on by Society

In 2027, Meidensha will mark its 130th anniversary. By then, we hope to be a company that contributes to the realization of a carbon neutral society. To this end, it is important to thoroughly implement Medium-term Management Plan 2024, so we are committed devote ourselves to implementing management reforms in this one-year period.

I am proud that each and every Meiden Group employee sincerely tackles the issues of our customers and works with the pride that they are supporting social infrastructure and benefiting society. I sincerely hope that Meidensha continues to be a company that supports social infrastructure in 100 or 200 years from now, while continuing the social contribution and sincere attitude that is our corporate DNA.

We will continue to actively challenge ourselves to create new technologies and new value, in order to contribute to the realization of an affluent and comfortable future society.

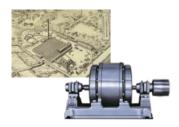


#### 1897

## 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 persists 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 pillers, 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

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 was founded.



## 2010s

## Aiming to Be "Meiden a Global Company"

The Meiden Group has been expanding its presence in markets outside Japan, especially in the ASEAN region. As part of this, we transferred to our overseas subsidiaries a stronger regional supervisory role; 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.

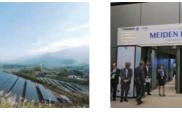


# To both

#### 2012~2014

#### Supporting Society through the "POWER" of Manufacturing

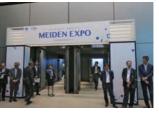
Since the Great East Japan Earthquake, in the midst of great changes in the global business environment, due to changes to Japanese energy policies and the high value of the yen, etc., we have conducted business composition reforms such as group restructuring, expanded the transmission and distribution 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 manufacturing capabilities for a new leap forward.



#### 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 PRIME MEIDEN LIMITED in India. In December 2017, we celebrated our 120th anniversary.



#### 2018~2020

## Investment in Equipment and Personnel for Great Growth

We consider this 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 chances of the age.



A more detailed timeline may be found on our website. https://www.meidensha.com/corporate/corp 05/index.html

Our Value

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

In order to realize our ideal society and our 2030 Ideal State of Being/Vision, the Meiden Group will conduct reforms with the aim of realizing a sustainable society and sustainable growth of the Meiden Group.

**Important Values (3** (5) Sustainability **Diversity B S Future-orientation** tegrity and responsibilit

nfrastructure **Focus Areas** toward the Energy **Ideal Society Smart** Industry

2030 Ideal State of Being/Vision

Work to build a new society through integrity to the earth, society, and people, and through the power of co-creation

**Society and Customers** 

**Partners** 

Government and Administrative Offices

**Customers** 

Local Communities

> NPOs/ NGOs

> > **Suppliers**

environment

A sustainability partner that

creates personal happiness and a sustainable global

Together with our partners,

we will contribute to the

solution of social issues

through our business strategy

**Needs-based** initiatives

**A Resilient Society Where Humans Live** in Harmony with **Nature** 

A Society that Feels Safe, Prosperous, and Exciting

Ideal **Society** 

**A Society Where Different Communities and People Can** Coexist

#### **Carbon Neutrality**

Realizing environmentally friendly lifestyles and industries

- Supporting decarbonization based on environmentally considerate products
- Shifting toward decarbonization in the Meiden Group

#### Wellbeing

Building a society based on personal happiness

- Realizing a safe, secure, and convenient
- Building a society that allows for connection and diverse lifestyles
- Providing excitement by being a leader in depicting a new world

## **Environmental Changes**

**Digitalization and Digital Transformation**  **Global Environmental Problems** 

**Pandemic** 

**Declining Population** in Japan

**Diverse Values** 

#### Our Value

## 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

Products and Services	Main Customers
Power Generation and T&D Equipment	
Sale of generators and T&D products	<ul> <li>Heavy industrial manufacturers</li> </ul>
(transformers, switchgears, surge	<ul> <li>Overseas electric power companies,</li> </ul>
arresters, and vacuum interrupters, etc.)	etc.
Power & Energy	
Generation, transmission, and	Electric power companies
distribution systems	<ul> <li>Power generation companies</li> </ul>
Power monitoring and control systems	<ul> <li>Local governments, etc.</li> </ul>
Hydroelectric power generation	
equipment	
Photovoltaic PCSs	A.
Wind power O&M	NO.



MEIDENSHA REPORT 2021



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

Products and Services	Main Customers
Social Infrastructure Systems	
Generation, transmission, and	Government offices
distribution systems	Buildings
<ul> <li>Supervisory control system</li> </ul>	<ul> <li>Hospitals</li> <li>Private factories,</li> </ul>
• UPS	etc.
Railways	
Power supply systems	JR companies     Public railways
Supervisory control system	Private railways
Overhead contact line inspection system	Overseas urban high speed rail, etc.
Nater Infrastructure	
Monitoring and control systems for	Local governments, including the
facilities for drinking water and sewage	Bureau of Sewerage Tokyo Metropolitan
treatment plants	Government
Power generation, transmission, and	Overseas private businesses, etc.
distribution systems	
Industrial wastewater treatment systems	
Operation and Maintenance	
Ceramic Flat Membranes	

Contributing to building sustainable infrastructure

Achieving Personal Happiness and



The Mobility & Electrical Component Business Group manufactures and sells precision component products and testing equipment to support cutting-edge manufacturing and R&D, electric vehicle drive systems to support the rapidly progressing electrification of automobiles, and motors and inverters to contribute to various





The Field Service Engineering Business Group provides proposals such as life-extending and energy-saving measures, services such as remote monitoring of equipment, focusing on maintenance of products delivered by Meidensha.

#### Services **Main Customers** · Maintenance consulting Corrective maintenance · Operation and management Breakdown maintenance Overall diagnosis

- machinery, etc.) • Facilities, buildings, hospitals, etc.

### · Government offices

- Water infrastructure-related organizations (local governments, etc.)
- · Railway operators
- Various industry-related organizations (iron and steel, automotive, electrical equipment,

#### Technological Training Center: Manabi-ya

- · Education system with full-time instructors
- On-site education using actual equipment

· Life-extending treatment

· Carbon neutrality ("Support for High-

General building management, etc.

efficiency Installations for Facilities with

Renewal plans

Targets" (SHIFT))

• Experiential education using ICT

Realizing a secure and safe society through maintenance services



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

a Sustainable Global Environment

## ESG Vision

# Aiming to be a "sustainability partner" by achieving personal happiness and a sustainable global environment



#### **Background to Development of the Vision**

Back in the Meiji era, one young man had the strong conviction to "enrich society through the power of electricity," and this became the foundation of the electricity business called Meidensha. Since its foundation in 1897, Meidensha has developed a range of businesses that support society and industry according to the ambition of the founder, Hosui Shigemune, of "illuminating a more affluent tomorrow." As we mark 124 years since the foundation, times have changed and the social environment is dramatically different; however, our purpose to "enrich people's living through electricity" is incorporated in our corporate philosophy and carried in the hearts of every employee.

When formulating Medium-term Management Plan 2024 launched in April 2021, we established an internal working group a year before releasing the plan to discuss

the main topic: "how can we become a company that is needed by society over a long period?"

Currently, the social environment, in which we operate, continues to undergo drastic changes, such as the impact of accelerating climate change since the industrial revolution, digitalization through technological innovation, and diversification of values and lifestyles of people. This has been exacerbated by the sudden spread of the COVID-19 pandemic in 2020, leading to a year of upheaval.

The whole of society has come to deeply reconsider the questions of "what is society?" and "what is community?" At an individual level, the frequency of remote working increased, which has made us deeply grateful for an environment and society in which we can live normal lives, and have been powerfully aware of the importance of society and community.

In the midst of such social upheaval, we have re-depicted our ideal society of 2030 by combining Meidensha's DNA of "integrity," "responsibility," and "social contribution," which are our strengths, with the DNA that we must not lose of "innovative spirit" and "independence." This ideal society 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." With such a mindset, the Meiden Group has set its vision of an ideal state of being, which is to "work to build a new society through integrity to the earth, society, and people, and through the power of cocreation."

How can we contribute to the creation of such a new society? We can realize this new society through business activities by focusing on the four areas of "renewable energy," "sustainable infrastructure," "green mobility," and "smart industry," based on the infrastructure-related technology and knowhow that we have developed over many years, and the trust and results of our customers.

In order to achieve this society, the values that must be held by everyone who works in the Meiden Group are "sustainability," "diversity," "integrity and responsibility," and "future-orientation." We will apply these four values to our day-to-day activities, and under Medium-term Management Plan 2024, the Meiden Group aim to take a great jump and achieve sustainable corporate growth, by promoting management focused on ESG and sustainability.

#### The Meiden Group's ESG Management

Imagining the society aimed for in 2030, and establish an Ideal State of Being/Vision.

Back-calculate what should be done this year, and deepen management and business strategy by focusing on ESG management.

Hypothetical Social Changes

Climate Change

Digitalization

Diversification

The Meiden Group's Ideal Society

• A resilient society where humans live in harmony with nature
• A society that feels safe, prosperous and exciting
• A society where different communities and people can coexist

The Meiden Group's DNA (Strengths)

Integrity, responsibility, social contribution

DNA that must not be lost

Innovative spirit, independence

Ideal State of Being/Vision

Work to build a new society through integrity to the earth, society,



#### What is a Sustainability Partner?

Based on the initiatives mentioned above, under Medium-term Management Plan 2024, which launched in April 2021, we established the ESG Management Promotion Committee, led by the President, and the ESG Management Promotion Office, which is mainly responsible for implementation, as a promotion framework that focuses on ESG management. Currently we are performing identification and analysis of issues, specific actionplans, and KPIs, etc., and we plan to finalize and announce this in 2021. In addition, we defined the term "Sustainability Partner" to specifically articulate the Meiden Group's ideal form. A "Sustainability Partner" fulfils dual

# Work to build a new society ough 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

## Realizing environmentally friendly lifestyles and industries • Supporting decarbonization based on environmentally considerate products • Shifting toward decarbonization in the Meiden Group

**Carbon Neutrality** 

#### Wellbeing

Building a society based on personal happiness

•Realizing a safe, secure, and convenient lifestyle •Building a society that allows for connection and diverse lifestyles

•Providing excitement by being a leader in depicting a new world

#### Our Approach

#### **ESG Vision**

roles to realize the Meiden Group's goals of achieving personal happiness and a sustainable global environment. The first is a partner as a member of society to achieve a sustainable global environment. The other indicates our

role as a partner to accompany various stakeholders such as employees, shareholders, investors, and customers, to achieve sustainability.

#### Value Provided as a Sustainability Partner

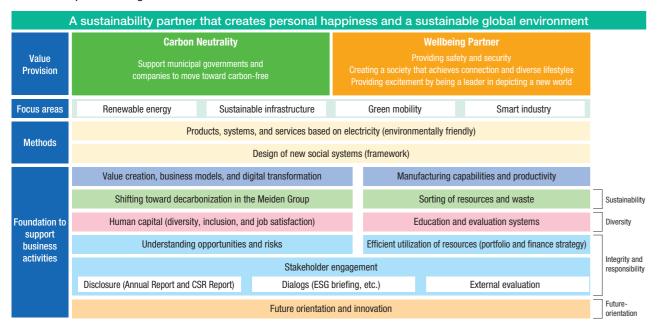
Our main contributions include contributing to carbon neutrality, which enables environmentally considerate lifestyles of people and industry and another is wellbeing, the idea that focuses on building a society based on personal happiness. Firstly, contributing to "carbon neutrality" requires supporting a carbon-free society based on environmentally considerate products, as well as, making the Meiden Group shift toward becoming carbon-free. Secondly, wellbeing requires the provision of

infrastructure and services for safe and secure lifestyles, the creation of a society with a feeling of connection and diversity, and the provision of excitement to society by the Meiden Group taking the lead in depicting a new world. The role of a "Sustainability Partner" combines these two aspects, and we have a firm conviction that fulfilling this role through our business activities will lead to the realization of our ideal society.

#### **ESG Promotion Structure**



#### Meiden Group ESG Management Chart



#### **Changes from ESG Management**

FY2021 is the first year for the Meiden Group as a Sustainability Partner. In 2021, we will firstly ensure thorough penetration and internalization of "the Meiden Group's ideal form and ideal society" and "the important values for us to hold to achieve this, in order to conduct initiatives" throughout the company.

There are four main changes to promote ESG management.

The first is value provision. We will focus management resources on value provision to "carbon neutrality" and "wellbeing." With regard to medium-to-long-term greenhouse gas emissions reduction targets, which have been upwardly revised from this fiscal year, we are changing our business portfolio such as by increasing the proportion of low-carbon businesses with low emissions to sales ratios, such as EV, maintenance services, and small and medium-sized hydropower generation businesses as a way to reduce greenhouse gas emissions at the product use stage.

The second is "method of provision." We will shift from our previous business model of selling products and services to a new business model as a solution designer that analyzes existing problems and proposes solutions to those problems. In the end, this will help us lead improvement and innovations in new society.

The third is our "action guidelines." We will transition from a passive, short-sighted, self-completion stance to more future-oriented proposals and cooperative action by seeing as the opportunities rather than the risks of the many environmental changes we are experiencing.

Finally, the fourth change of "evaluation criteria" forms the basis for the above three changes. In addition to the existing evaluation that is based on a financial perspective, we will also introduce evaluation criteria for performance that measures positive impact on people, society, and the environment.

In this manner, we hope to create a source of sustainable growth through management design that back calculates from these goals.

#### Conclusion

The social responsibility of companies has come into question as society is undergoing dramatic changes. Corporate activities over the next few decades will determine the fate of the global environment and the future of global society. We believe that social contribution, which has been treated as a peripheral concern until now will become a central concern, and ESG management is a part of that. That is not to say that we can forget the original purpose of companies, which is to "generate profit," but

we need to prepare for future risks while remaining so. Sustainability management lies at the intersection of these two concerns, and we aim to continue to generate profit while altering our business model to meet the needs of society, and contributing to society. We embrace the challenge of creating a new society through dialog with communities and collaboration transcend company borders. The Meiden Group will state its "organizational ambitions" and act accordingly.

The Meiden Group will continue to fulfil its role as a partner and a key player to realize sustainability.

## **Climate Change Responses**

#### **Environmental Vision**

The Meiden Group will "contribute to the creation of a sustainable society" through its businesses in the energy which support social infrastructure and water treatment, as well as its products, technologies, and services, which it has developed up to this point, while minimizing the environmental impact of its business activities.

The Environmental Vision identifies realizing "a carbonfree society," "a circulating society," and "a society in harmony with nature" as the missions of a 21st-century company, and lists them as goals. We are working to conduct ESG management with "human resources and communication" at its core.



\* Details concerning the Environmental Vision are available on the website https://meidensha.disclosure.site/en/themes/78

#### **Awareness of Climate Change**

The Meiden Group aims to engage in environmental management and achieve corporate growth by adapting to and mitigating climate change, recycling resources, and conserving biodiversity which are defined as issues, in order to achieve a sustainable society.

#### Disclosure Based on TCFD\*1 Recommendations

Meidensha has endorsed the TCFD recommendations, and conducted disclosure in accordance with the information disclosure framework recommended by TCFD (governance, strategy, risk management, and metrics and targets, relating to risks and opportunities associated with climate change). Going forward we will consider further widening the scope of disclosure, and we will further enhance governance

and business strategies relating to climate change, according to the results of scenario analysis.



#### Governance/Risk Management

Under the direction of the President, who is the head of the top management, the Executive Officer in charge of environmental issues (Director & Senior Managing Executive Officer, Norio Takekawa) oversees the environmental management of the entire Meiden Group, while the GM of Environmental Management Program Administration Division promotes maintenance and improvement of the environmental management system. As the highest decisionmaking body with regard to environmental activities, the Meiden Group Environmental Committee, which is chaired by the Executive Officer in charge of environmental issues, identifies issues, including risks posed by climate change and deliberates concerning environmental targets, action plans, and emergency response, etc., as well as determining environmental management direction.

In FY2021, we established the ESG Management Promotion Committee to debate management issues relating to all aspects of environment (E), society (S), and governance (G). We plan for it to monitor risks and opportunities, including climate change, in conjunction with the existing Environmental Committee and Risk Management Committee.

#### **Metrics and Targets**

In consideration of stepping toward accelerating becoming a carbon-neutral society by 2050, the Meiden Group has upwardly revised its FY2030 greenhouse gas emission reduction targets, which is an intermediate stage of it. As the Second Meiden Environmental Vision, we aim for a 30% reduction of emissions from business activities (scope 1+2), and a 15% reduction of emissions from product use (scope 3, category 11) by FY2030 compared to FY2019 levels. These targets received SBT certification as they were recognized by the Science Based Targets (SBT) initiative\*2 as being consistent with the Paris Agreement\*3.

To attain these targets, we joined the Ministry of the Environment's "FY2020 project to support model businesses in compiling a plan to reduce CO<sub>2</sub> emissions toward realizing SBTs." With that support, Meiden has compiled the FY2021 version of the Meiden Group's plan to reduce greenhouse gas emissions toward attaining SBTs. This plan outlines initial ideas for an implementation plan and specific reduction measures to implement long-term reduction measures

by the target year stated in the Second Meiden Environmental Vision. We will revise and optimize it as appropriate.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

#### FY2030 Greenhouse Gas Emissions Reduction Targets (Second Meiden Environmental Vision)

FY2030 greenhouse gas emissions reduction targets	First Meiden Environmental Vision (Released in May 2018)	Second Meiden Environmental Vision (From April 2021)
Emissions from business activities (scope 1+2)	30% reduction (compared to FY2017)	30% reduction (compared to FY2019)
Emissions from product use (scope 3, category 11)	NA	15% reduction (compared to FY2019)

Refer to p.68 - "Performance Highlights" for the Meiden Group's performance of greenhouse gas reduction volume

#### Main Measures to Cut Greenhouse Gas Emissions

FY2030 greenhouse gas emissions reduction targets	Reduction measures (extract)		
Emissions from business activities (scope 1+2) 30% reduction (compared to FY2019)	Replacing SFs gas (replacement with dry air, etc.) Capital investment (replacing aging equipment, introducing high-efficiency equipment, replacing gas with electricity, etc.) Renewable energy procurement (non-fossil fuel certificate, power menu, etc.) Switching company-owned cars to electric vehicles		
Emissions from product use (scope 3, category 11) 15% reduction (compared to FY2019)	Eco-friendly product design (eliminating use of SF <sub>6</sub> gas, and downsizing products and making them more efficient)     Revising business portfolio (increasing ratio of businesses with low carbon emissions per unit of sales such as EV, maintenance services and small and medium-sized hydropower generation)		
Overall	Generating innovation Introducing internal carbon pricing		

#### **Introducing Internal Carbon Pricing**

Internal carbon pricing is a mechanism that creates an economic incentive to reduce emissions and promotes investment by setting a carbon price in the company and using it to calculate the cost of greenhouse gas emissions.

Meidensha introduced an internal carbon pricing system in April 2021. We will convert carbon emissions from capital investment plans to expenses using an internal carbon price through the system. It will be a tool

to make investment decisions. For now, we will make ad-hoc reforms starting from the following conditions.

- Internal carbon price: 3,000 yen/t- CO<sub>2</sub> (be amended at any time in the future)
- Subject to application: Capital proposals for FY2021 onwards (for the time being, the system will be used for visualization, and will not incur any actual cost)

#### **Simulation of Business Portfolio** Revision

During the formulation of the Meiden Group's FY2030 greenhouse gas emissions reduction targets, we conducted a simulation of net sales and emissions from a business portfolio revision regarding the product use stage (scope 3, category 11).

We found that by increasing the ratio of low carbon businesses with low emissions per unit of sales such as EV, maintenance services, and small and medium-sized hydropower generation, and we had a potential to comfortably achieve both increased sales and reduced emissions.

#### Meiden Group Scope 3, Category 11 Reduction Simulation



Note: The above graph is an estimate from a simulation and does not amount to a commitment

<sup>\*1</sup> TCFD: Task Force on Climate-related Financial Disclosure established by the Financial \*2 SBT Initiative: An international initiative by the United Nations Global Compact (UNGC),

<sup>\*3</sup> Paris Agreement: An international framework "to limit average global temperature rise to below 2°C compared to pre-industrial levels and to strive to limit it to 1.5°C," which was adopted at COP21 in 2015.

#### Our Approach

#### **Climate Change Responses**

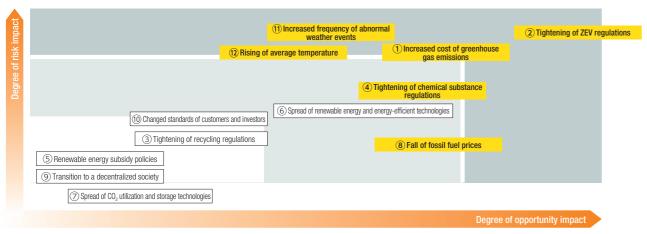
#### **Scenario Analysis**

When understanding the effects of climate change on the Meiden Group and working out responses, first, we listed risks and opportunities from perspectives such as policy and legal restrictions and technology, and summarized management risks and opportunities. The risks and opportunities facing the Meiden Group are as follows.

			Opportunities	Risks
	Policy and legal	①Increased cost of greenhouse gas emissions	Expansion of the renewable energy, energy conservation, and electrification businesses     Expansion of railway-related businesses	Increased manufacturing and development costs due to carbon taxes
		②Tightening of ZEV regulations	Expansion of EV-related businesses due to ZEV market expansion	Losing orders due to not meeting customers' demands     Intensified competition     Increased costs due to review of production equipment and suppliers
	restrictions	③Tightening of recycling regulations	_	Increased development and production cost for recyclable products
		4 Tightening of chemical substance regulations	• Expansion of the SF <sub>6</sub> gasless business	• Increased development and production cost     • Decline in businesses that use SF <sub>6</sub> gas
Transition risks		(5)Renewable energy subsidy policies	Expansion of the renewable energy business	•Intensified competition
	Technology	6 Spread of renewable energy and energy-efficient technologies	Expansion of the renewable energy, energy conservation, and electrification businesses     Acceleration of energy management technology	Decreased competitiveness due to late application of technology     Increased development and production cost
			Wide-scale reduction in greenhouse gas emissions	Slowdown of the renewable energy, energy conservation, and electrification business
	Market	®Fall of fossil fuel prices	Expansion of the renewable energy, energy conservation, and electrification businesses     Fuel cost reduction	_
		Transition to a decentralized society	Expansion of decentralized power source and VPP businesses	Loss of business expansion opportunities due to late VPP participation
	Evaluation (1) Changed standards of customers and investors		Increased corporate value through expansion of the environmental contribution business     Securing various capital procurement opportunities	Shrinking of environmentally negative businesses     Increased costs due to responding to traceability requirements
Physical risks	Urgent	①Increased frequency of abnormal weather events	Increased demand for BCP products and services	Suspension of production lines and sites, reduced sales, and delayed delivery     Supply chain review and increased procurement costs
Physica	Chronic @Rising of average temperature		Expansion of the automation and remote control businesses	Worse labor environment  Increased energy consumption     Reduced sales due to voluntarily refraining from working in summer season

#### Importance of Risks and Opportunities

Next, we analyzed the matters that could have a serious impact on the Meiden Group for each value chain, and prepared the following matrix. Risks and opportunities that would greatly impact management are analyzed in detail and response measures are considered in the following paragraphs.



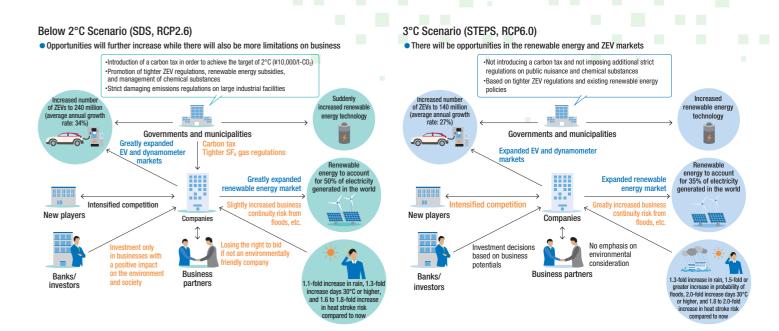
Notes 1. The top-right section indicates items that would have a great impact for the Meiden Group

2. Items that would have a particularly great impact and require detailed analysis are highlighted in dark yellow

#### Scenario Selection and Outlooks

The Meiden Group analyzed the IEA and IPCC's scenarios of below 2°C and 3°C.

Due to increased environmental awareness, countries have come up with various policies, so we determined that the 4°C scenario was not possible and we used the current scenario of 3°C.



#### Major Climate-related Risks, Opportunities, and Responses

We identified items that would particularly impact the Meiden Group's achievements and calculated the impact on FY2030 (net sales: 340.0 billion yen) operating income in each scenario. Based on the results of this analysis, we are reflecting the results in our business strategy to further expand our environmental contribution businesses such as EV and renewable energy businesses.

		ltem	Evaluated financial impact	Impact at 2°C	Impact at 3°C	Meidensha's response
	ions	①Increased cost of greenhouse gas	Expansion of the renewable energy business through accelerated introduction of renewable energy	++	++	Development and promotion of expansion strategies for hydroelectric, wind power, and photovoltaic-related businesses
	restrict	emissions	Introduction of a carbon tax		_	Formulation of scope 1 and 2 reduction targets and greenhouse gas reduction
Fransitional	and legal restrictions	②Tightening of ZEV regulations	Expansion of EV business	+++++	+++++	Development and promotion of expansion strategies for EV motors and inverters-related businesses
Trans	Policy an		Expansion of mobility T&S (test & solution) business	++	+	Development and promotion of expansion strategies for expansion of EV-related mobility T&S (test & solution) businesses
	۵	4 Tightening of chemical substance regulations	Expansion of SF <sub>6</sub> gasless products because of prohibition of SF <sub>6</sub> gas use	++	+	Development and promotion of expansion strategies for $SF_6$ less products in the Power transmission and distribution business
	Market	®Fall of fossil fuel prices	Reduction of fuel costs	++	+	Electrification and increased efficiency of equipment and reducing the use of gasses that are the source of greenhouse gas emissions
al	Urgent	①Increased frequency of abnormal weather events	Production stoppages, equipment damage, and collapse of supply chains due to floods			Formulation of BCPs, decentralization of EV factory production sites, and diversification of suppliers, etc.
Physical hronic	Chronic	®Rising of average temperature	Deterioration in production efficiency due to worsening of the labor environment	_		Promotion of labor-saving measures and automation for factories, maintenance, and worksites, and enhancement of health management
	3	•	Increased cost of energy consumption, etc.			Promotion of labor-saving and space-saving measures at factories

\*"Impact" refers to the impact on operating income

#### **Future Path**

We have identified the growth opportunities and risks facing the Meiden Group by analyzing TCFD; however, in most instances, calculation of the impact is merely a rough estimate, and further precision is needed. Furthermore, we have only analyzed some items with a large impact, and we will continue to promote analysis, including for items that were not analyzed on this occasion.

## **Manufacturing Strategy**

Aiming for manufacturing that "benefits everyone" through improvements in QCDSE.

Director & Senior Managing Executive Officer Monozukuri & Productivity Improvement

Norio Takekawa



#### Becoming an Attractive Company to the Earth, Society, and People through Meidensha's Unique Manufacturing

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.

Policies under Medium-term Management Plan 2024 are "reduce costs and increase product competitiveness," "enhance quality control," "enhance occupational health and safety," "establish manufacturing activities to achieve the Environmental Vision," and "improve production sites." With regard to reducing costs and increasing product competitiveness, for example in the mass-produced EV components production process, we are working to realize overall cost reduction in mixed production by using cooperative robots and image recognition technology in combination with manual labor and incorporate design feedback from eye tracking tools of skilled and experienced workers in equipment manufacturing.

With regard to enhancing quality control, we aim to increase added value by expanding customer service operations, which have mainly managed information about faults such as urgent issues and product inquiries, to remote monitoring service,

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

Key Items	Action Items		
Reducing Costs and Increasing Product Competitiveness	Reduce variable costs by linking procurement and factories Reduce processing costs by linking production staff and factories Reduce fixed costs Establish Meiden "Monozukuri" standards		
Enhancing Quality Control	Revise the QR map, standards, and procedures		
Enhancing Occupational Health and Safety	Establish a culture of safety experience education     Keep everyone informed about near-miss incidents		
Reducing Greenhouse Gas Emissions from Production Activities	Implement SF <sub>6</sub> gas controls in products and processes     Consider electrification of all production equipment that uses fossil fuels		
Improving Production Sites	Enhance BCP measures at production sites, etc.		

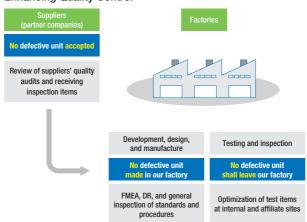
feeding back customer requests, maintenance and operational data to product development and design, and also the creation of new services, etc., by using data from sources such as remaining life assessment and preventative maintenance.

From an occupational health and safety perspective, we are focusing on further establishing a culture of safety experience education and promoting health management. With regard to establishing manufacturing activities to achieve the Environmental Vision, we will tighten management of SF6 gas at factories and direct investment to enhancing environmental equipment. As for improving production sites, from a BCP perspective, we will work to establish internal standards to ensure that production continues.

#### **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."

#### **Enhancing Quality Control**



## Implementing and Complying with Standards and Procedures

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" that promote tasks in each process. We prevent defects by conducting an overall examination and revision of these standards and procedures to ensuring 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.

#### Activities to Prevent Defects in Mass-Produced Products

As activities for a carbon-free society are accelerating and technology for electrification, computerization, and artificial intelligence of vehicles is evolving rapidly, we will focus on "electrification," and contribute to society through automation of automobiles with a focus on the EV Business.

As thorough quality control measures for mass

produced products such as EV components, we are working to eliminate human error by increasing automation, and in order to discover missing parts, detect the position of screw holes and cables, and control tightening position, we adopt image analysis. We are also working to management of shrink-fitting conditions and adhesive curing conditions, through temperature control, and link with a traceability database created through centralized management of process data, etc. We aim to provide products of consistent quality by promoting these various defect prevention activities.



Image analysis of liquid gasket application

#### **Quality Improvement Initiatives Using the IoT**

We conduct data feedback, etc., for development to improve quality and consistency, through production process reforms using the IoT. In FY2020, it became difficult to conduct preshipping product inspections by customers visiting our factories as before, due to the impact of the COVID-19 pandemic. As a result, we developed and commenced operation of the Meiden Standard System, which is capable of remote examination and approval for remote product inspection before shipping.

We also developed surface coating image inspection equipment to quantitively evaluate the quality of surface coating, and introduced initiatives to check quality and prevent variation by quantifying color irregularities and roughness of sheet metal that had been visually inspected until now through image analysis. Going forward, we aim to use accumulated evaluation data to optimize coating processes such as amount of coating and polishing time.

We also introduced line of sight analysis tools called "eye tracking" and began an initiative to visualize the hand and eye movements of experienced personnel with intuition and skill for the purpose of transferring the skills and knowhow of experienced personnel to the next generation. By getting workers to wear glasses fitted with a miniature camera, we are able to record the workers' field of vision, and visualize the fine hand and eye movements that had been inarticulable until now, and reflect these in our procedures.



Surface coating image inspection equipmen



Eye tracking (line of sight analysis tool)

5 MEIDENSHA REPORT 2021

SOTABLE

#### **Manufacturing Strategy**

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

As the Meiden Group, we consider employees' health and safety to be central to management value and has the overarching policies of "prioritizing safety above all else" and "nothing is more valuable than good health." We have explicitly stated that ensuring the safety and health of each employee is at the core of corporate management, and we are working to eliminate workplace accidents and maintain and improve health. We will implement our Corporate Code of Conduct of "working to ensure a safe environment that is conducive to work and achieve comfort and affluence for employees," and aim to be a leading health and safety company, through revitalization of health and safety activities for all national and local businesses.

#### Promoting the Occupational Safety and Health **Management System**

The Meiden Group obtained OHSAS18001 certification for four production sites in Japan and five sites overseas. In FY2018, we promoted transition to the international standard ISO 45001 and started to expand application. With regard to ISO 45001, in FY2019, we jointly acquired certification for four Japanese production sites (Numazu Works, Ota Works, Nagoya Works, and KOFU MEIDENSHA ELECTRIC MFG. CO., LTD. \*including on-site affiliates), and in FY2020, we acquired the certification for Japanese workplaces other than production sites (Tokyo Area Administration Office, branches) and construction services business units (Plant Construction & Engineering Business (PCEB) Group).

At present, 70% of the entire group has outside certification (ISO45001 and OHSAS18001) on a peremployee basis. In FY2021, we plan to acquire certification for four Japanese affiliates, and going forward, we will continue to build and promote the Occupational Safety and Health Management System.

#### **Promoting Safety Experience Education**

In 2014, we created the first hands-on safety experience truck, and conducted safety education for workers such as group employees and contractors that work on site, by taking the truck directly to worksites, in order to promote safety education. As at Meidensha, many companies are concerned about safety education at worksites, and we are also marketing our safety education to them.

In November 2019, we created hands-on safety experience truck no. 2 to conduct safety education for employees, and conducted safety experience education for production sites (Numazu Works, Ota Works, Nagoya Works, and KOFU MEIDENSHA ELECTRIC MFG. CO., LTD.).

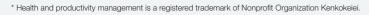
Safety experience trucks are fitted with equipment that allows users to realistically experience industrial accidents on site in a virtual environment.



#### **Promoting Health Management**

In 2019, the Meiden Group announced the President's Health and Wellness Management Policy Statement, shared our belief that "nothing is more valuable than good health" with all employees, supported employees own health activities such as by rolling out Smart Challenge Meiden 5, which includes five health activities to combat passive smoking, help people to guit smoking, and combat lifestyle diseases, etc., and promoted efforts to support each person's health through organizational mechanisms.

Through these initiatives, we were selected as a Health and Productivity Management Brand by METI and the TSE in recognition of being an exceptional health and productivity management\* listed company. We also received Health and Productivity Management Organization (White 500) certification, which is granted by METI that conduct exceptional health management. Going forward, the Meiden Group will work to remain a leader in health management.





President Miida holding the Health and Productivity Management Brand plague

## **Digital Transformation** Strategy

Value added to manufacturing and enhanced corporate reforms through the promotion of digital transformation.

Managing Executive Officer Workstyle Reform & Corporate DX **Promotion Project Leader** 

Hideki Miyazawa



#### The Goal of Digital Transformation is **Rebuild Corporate Competitiveness Through Digitalization**

Until now, the Meiden Group has leveraged its superior technological capabilities and engineering to contribute to the solution of issues faced by our customers. In order to achieve sustainable growth going forward, it is important for us to discover customers' issues by ourselves and propose new value to customers. The Meiden Group's aim for digital transformation is "to rebuild our competitiveness through digitalization," by acquiring new capabilities from digital technology in addition to our existing competitiveness of technological capabilities and engineering.

#### Key Action Items for Digital Transformation

We are promoting the Meiden Group's digital transformation under the following three headings.

- Creating new products and services through digital technology Improving the O&M business focusing on smart maintenance
- Contributing to smart cities, etc. Thoroughly standardizing and creating efficiency in value chains
- Building and strengthening our digital platform

#### **Internal Digital Transformation Reforms: Launching the Workstyle Reform & Corporate DX Promotion Project**

In April 2021, we launched the Workstyle Reform & Corporate DX Promotion Project and conduct activities accordingly. Officers with a high awareness of reform were selected as members of the project. The project's catchphrase is "the new age requires a new work." This means that we must increase our competitiveness internally by flexibly adapting our work to the new age. Until now, we have promoted the introduction of RPA, which is a work automation solution since FY2018, and we reduced work by approximately 70,000 hours in the three years to FY2020. We will roll out this project with the aim of further promoting this initiative, and reforming organizations so that they are faster and more responsive to changes in the external environment through work process standardization and increased efficiency.

#### **Developing Digital Professionals to Accelerate Digital Transformation**

When promoting digital transformation, it is essential to have digital human resources, so we are promoting professional development through various programs. For example, three years ago, we created the Basic ICT Course to teach all new employees the minimum level of ICT knowledge that we expect them to know, as part of the Meiden Youth Academy, which is an education program for new employees. Furthermore, it is essential to have different capabilities from those we had previously, such as design and agile thinking in order to discover the issues our customers are facing and create new value for customers through repeated hypothesis testing. To date, we have taught these ways of thinking to young engineers, with a focus on the Development Division, in conjunction with outside vendors, and we are working to conduct digital professional development to accelerate digital transformation reforms.

#### Conducting PoC for Introduction of the IoT for Extra-High-Voltage Substations at the Numazu Works

In FY2021, core equipment in extra-high-voltage substations inside the Numazu Works reached the age of replacement, so we are rebuilding them to outdoor extra-high-voltage substations. In conjunction with this, we are connecting transmission & distribution equipment that comprises the substations to the IoT and conducting PoC (proof of concept testing) to remotely monitor the entirety of extra-high-voltage substations.

Data such as temperature, humidity, vibration, current, and images through sensors affixed with monitored equipment is uploaded to the Cloud, which enables remote monitoring of the status of transmission & distribution equipment comprising substations. This data is stored for a long period, and it is used as a test bed for research and development, including for algorithm verification, such as for inspection efficiency testing that gives consideration to smart security promoted by METI, equipment diagnostics, and remaining service life diagnostics. Going forward, this will lead to formal proposals through field verification at customer locations, based on the results of this PoC.



Image of substation abnormality alert screen

## **Diversity & Inclusion**

Working to attract human resources with diverse attributes, sensibilities, abilities, values, and experiences, etc., and create workplaces where individuals can demonstrate their strengths.

Director & Senior Managing Executive Officer HR Development & Diversity Promotion

Masayuki Iwao



#### The Growth of Each Individual Will Be the **Source for Continuing to Provide New Value.**

There is rapid social changes which cause social issues and complexified needs. In this situation, for the Meiden Group to remain needed by society, it is essential to create working environment, as well as to secure and train personnel, which accept and leverage diversity. The Meiden Group considers people to be the most important foundation to support companies, and that the growth of each individual is a great source of the provision of new value to all stakeholders. We believe that new value is created by combining the knowledge and knowhow that we have developed to this point with new concepts and ideas will lead to the realization of the ideal society that Meiden Group envisions. We are promoting Group initiatives to achieve diversity and inclusion.

In April 2021, we launched the HR Development & Diversity Promotion Project, and we are promoting the consideration and implementation of various measures with the following three aims: "1) realization of a company where diverse personnel can play a role and conducting work style reforms to this end"; "2 ensuring diversity and optimally

placing personnel to promote innovation"; and "3 urban development to support diverse work styles and lifestyles."

With regard to (1), we will root out unconscious bias, promote participation by female employees, work with people with disabilities, cater to the needs of the LGBTQ community. introduce diverse working patterns and an in-house recruitment system with by which employees can direct their own career, and promote environmental improvement and building systems for such, with the aim of being an organization that allows participation by diverse personnel.

With regard to ②, we are promoting innovation by:

- actively seeking outside personnel with different knowledge and knowhow through mid-career hiring.
- increasing the number of cross-border personnel through outside secondment.
- deploying those personnel to the Planning Business Unit. With regard to 3, we leverage the Meiden Group's technology and proposal capabilities and contribute to the development of a society that supports diverse work styles and lifestyles such as by contributing to the creation of infrastructure that is fit for the peculiarities and needs of countries and regions.

#### Implementing Measures to Listen to the Opinions of a **Range of Employees**

In FY2020, we provided various opportunities for employees to exchange opinions with each other about on-site issues. We had the Meeting to Exchange Ideas on Diversity, which had participants of all genders and ages from new recruits through to experienced employees, and also exchanged opinions about activities to improve working conditions such as the introduction of female uniforms for female employees who work at manufacturing sites and factories.

Going forward, we will continue to listen to the opinions of employees and conduct initiatives to leverage the Meidensha spirit and individuality.





HR Development & Diversity Promotion Project Ayako Sasamoto

#### **Voices of Workers at Overseas Subsidiaries**

National staff of overseas Group companies and the promotion team in Japan held discussions relating to cultural differences, diversity and inclusion, in order to exchange opinions with people with different backgrounds and values, etc., and learn new ideas and ways of thinking. Going forward, we will continue to promote creation of an atmosphere and professional

development to leverage diversity by providing opportunities for discussion within the Meiden Group.



MEIDEN AMERICA, INC. Human Resources Olivia Thompson

## **Innovation Strategy**

Promoting "ambidextrous management" in order to accelerate creation of a new society through innovation.

Director & Senior Managing Executive Chairman of the Strategic Innovations Acceleration Committee

Nobuaki Tamak

#### **Developing and Commercializing Ideas From** the aim of being a company that can grow through creation of self-directed businesses and innovation.

Meidensha established the Strategic Innovations Acceleration Committee in FY2021, and we are working to "organize innovation processes," "secure and train innovative personnel," and "exploration and co-creation of new social needs," in order to enhance the mindset of accepting the challenge of creating a new society for the future in 2030 and 2050.

**Organization and Individual** 

The external environment in which companies operate is undergoing great changes, and corporate innovation must include new ways of thinking and new initiatives on business, and a broad range of socially aware activities in addition to technological innovation. In these conditions, to this point, we have conducted activities to quickly catch up to the latest market and technological trends by having established a location in Silicon Valley, and investment in the Polish startup Elmodis Sp. z o.o. (Elmodis).

Medium-term Management Plan 2024 includes "promoting management ambidexterity" in order to accelerate creation of a new society through innovation. We aim to use revenue gained from existing businesses to actively search for and invest in new areas, and develop and commercialize ideas from organization and individual.

We are not only working to reform existing businesses and growth businesses, but we are working to create new businesses to build a carbon-free and resilient society, and implement labor-saving and high-efficiency measures using new digital technology, etc. We also established points of contact with outside the Company and created systems to quickly grasp social issues and needs, in order to achieve innovation through co-creation with other companies, with M E S S A G E

#### **Aiming to Uncover New Markets Through Shared Wisdom**

Elmodis was founded to achieve a solution related to the use of electrical motor signals and electric signatures for complete machinery diagnostics, which after several years of deep analysis and verification has been successfully completed. Elmodis helps to optimize energy



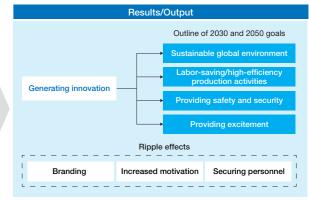
Elmodis Sp. z o.o. CEO **Artur Hanc** 

and operational efficiency using advanced IoT. ML and Al technologies. Quick and simple installation of electrical equipment combined with our Cloud Al system can provide customers with diagnostic information, remote monitoring and energy efficiency in

As Elmodis Team, we are very excited to be part of the Meidensha family with an investment in 2020. Based on close partnership we can share solutions and knowledge between the parties. Elmodis can learn more about machines parameters from Meidensha implementations. Meidensha can develop its own product with technology from Elmodis, and new business models in line with current global customer expectations. It gives great opportunities to develop new implementations and conquer new markets through synergy of cooperation between companies.

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





#### Our Approach

**Special Feature** 

## **Challenge to Achieve Carbon Neutrality by 2050:**

Developing Businesses that Contribute to Becoming Carbon-free



### Renewable Energy to Realize a Carbon-neutral World

Aiming to expand business by taking advantage of decentralized society and carbon neutrality.

#### Increasing Sales of Power Conditioners for Proliferation of Community Symbiosis **Photovoltaic Power Generation**

There have recently been many initiatives to expand the introduction of photovoltaic generation at manufacturing bases, offices, and public facilities, etc., and switch to electricity from natural energy sources for the operation of facilities, in order to cater to the trend of carbon neutrality. To this point, Meidensha has developed and manufactured power conditioning systems (PCSs) for photovoltaic power generation with additional functionality such as high conversion efficiency and guaranteed power supply during blackouts, and we have delivered a total of approximately 1,000MW to more than 1,500 sites in Japan and overseas.

In recent years there has been increased demand for installing photovoltaic power generation systems and storage batteries in same places in order to use renewable power as a power source in an emergency due to heightened awareness of BCP, in addition to the perspective of environmental protection. We developed a PCS that is capable of charging storage batteries directly from photovoltaic generation using

direct current, without the need for electricity conversion to alternating current, in order to limit loss and maximize effective energy use in such a system. We will deliver products that are fit for the age and such as including a function of connection to EV batteries, and cater to the requirements of society, including increasing carbon reduction and resilience.



Komekurayama Solar Power Plant in Yamanashi

#### Contributing to Becoming Carbon-free and Regional Development Through the Spread of Small to Medium Hydroelectric Power Systems

EAML Engineering CO., LTD. was established in 1947 after the war, by Shiro Oda, who was determined to work for the improvement and betterment of society by building small hydroelectric power stations in order to revitalize rural villages to alleviate electricity shortages and increase food production. He contributed to the economic recovery of many rural villages, particularly in the Chugoku region. Now, we have inherited that determination and developed an extensive record and knowledge relating to the construction of small hydroelectric power stations.

As we aim for renewable energy to be our main power source, hydroelectric power, which has supported Japan since the 1950s, is a valuable power source that is only minimally affected by weather and time of day, etc. Also, it is a synchronous power source that can maintain network stability, and comprises entirely Japanese-made equipment with a long expected product life of over 60 years.

In Japan, which is blessed with rivers with ample water and mountainous regions, it is possible to build even more small hydroelectric power stations. We believe that hydroelectric power is a form of renewable energy that is in harmony with the environment and can make long-term contributions to communities by expanding utilization as geographically distributed power sources that can maintain a stable power output and is key for regional development.

"We will continue to work for the improvement and betterment of society"

The Meiden Group will contribute to carbon neutrality with the aim of creating a more affluent and livable society and effecting dynamic regional development through our unified hydroelectric power initiatives.



Katsumasa Yamaguchi

#### **Expansion of Wind Power O&M Business**

The Meiden Group's wind power business began with the commencement of power sales generated from onshore wind power generation system in Choshi. Chiba, by the Meiden subsidiary, M WINDS CO., LTD., in 2003. After that, we commenced operations in Mitane (formerly Hachiryu) Town, Akita, and Wajima City, Ishikawa. We have a total of 30 wind turbines in these three locations, and also we conduct O&M for approximately 50 other wind turbines around Japan, meaning we conduct O&M for a total of approximately 80 wind turbines. We are proud that we not only own wind turbines but we have also developed knowhow relating to business operation and O&M.

Going forward, as demand for the wind power business is expected to increase in order to achieve carbon neutrality, we are honing our O&M capabilities at our own wind power stations in order to ensure we cater to expanding demand of the O&M business in addition to the existing power sales business.

At the Hachiryu Wind Farm, which is currently owned by the Company (operation commenced in FY2006), we have begun to consider replacement of wind turbines with larger units in line with the times. We plan to commence power sales of 20 years of FITs from FY2025.

Going forward, we will work with the aim of increasing the scale and number of locations of the O&M business, and we are investigating opportunities for the O&M business to enter the offshore wind power market, for which demand is expected to increase in the future, based on the technology and knowhow developed through onshore wind power.

Hachiryu Wind Farm

(equivalent to electricity consumption of approximately 15,300 average households)

#### Wajima Community Wind Farm

(equivalent to electricity consumption of approximately 8,700 average households

#### Choshi Shiosai Wind Farm

(equivalent to electricity consumption of approximately 1,200 average households)

\*Annual electricity consumption per household

(from the Ministry of the Environment's 2017 Statistical Survey of Household CO2 Emissions



Total output of the three power stations is

#### M E S S A G E

#### **Working to Achieve Safety and Conduct Activities Rooted in Local Communities**

M WINDS CO., LTD. is a company that conducts wind power generation and wind power station O&M operations. In our O&M operations, we are constantly striving for safety. Wind turbine maintenance requires work in high places and narrow spaces, and we often use heavy objects. In order to finish our work without accident or incident, we devise work plans with thorough advance consideration, and conduct risk assessment activities before and after work.

At present, we are aware that we must conduct activities rooted in local communities on a daily basis through local response to environmental assessment for turbine replacement.

When Japan declared its intent to become carbon neutral, we truly felt the winds of change, and we hope to ride these winds by expanding O&M, including for the offshore wind power station that is scheduled to be built nearby.



Akita Sales Office Hiroaki Tanaka

Sustainable

frastructur

Special Feature

#### Challenge to Achieve Carbon Neutrality by 2050:

Developing Businesses that Contribute to Becoming Carbon-free



Actively working to create a new society by producing products and technologies that cater to the needs of the environment and consumers.

#### Increasing Sales of Eco Friendly Type Vacuum Circuit Breaker in the North American Market

Meidensha started producing circuit breakers using oil and air in 1907. Subsequently, in 2004, we released a 72kV dead tank type vacuum circuit breaker (VCB) that uses dry air for insulation, far ahead of our competitors through the accumulation of technology over approximately 100 years. This product does not use any SF $_6$  gas, which has 23,500 times the effect on global warming of CO $_2$ . This solves the demand for replacement of aging power equipment and the need for VCB's that comply with tightening restrictions that continue to increase, particularly in North America.

With that in mind, in April 2020, we established MEIDEN AMERICA SWITCHGEAR, INC. as Meiden Group's first U.S. manufacturing site for manufacturing VCBs and sales of vacuum interrupters (VIs), which are a core component of VCBs, and released a 145 kV EcoFriendly Type VCB in the North American Market. Meidensha already had a

record of selling VCBs in North America, so the establishment of a new site has been receiving interest and attention from the market. We will contribute to the construction of sustainable infrastructure in the future, by providing products that meet the demands of society, such as tightening restrictions on greenhouse gas emissions, with an eye to achieving carbon neutrality in North America.



MEIDEN AMERICA SWITCHGEAR, INC.
Managing Director

Minoru Kaneda



72.5 kV Eco Friendly dead tank type vacuum circuit breaker being assembled by MEIDEN AMERICA SWITCHGEAR, INC.

#### Joint Development of SF<sub>6</sub> Gas-free Gas insulated Switchgear

Against a backdrop of increasing market demand for environmentally considerate products, Meidensha has promoted joint development of 72 kV and 84 kV gas insulated switchgear (GIS) that uses natural origin gas and does not use any SF $_6$  gas with Toshiba Energy Systems & Solutions Corporation since 2020. Meidensha is responsible for the VCB units, which are core components of the products. Both companies aim to complete type approval testing to confirm compliance with certain regulations by March 2022 and establish mass production systems and commercialize the products during FY2022. Through this development and supply of GIS using natural origin gas, we will contribute to the achievement of carbon neutrality, which is being promoted by countries around the world.



Power Utility & Energy Sector Business Unit Engineering Division Power Engineering Section 2

Yuhi Kasai

#### Smart Operation of Water Treatment Equipment Using ICT and Al

Technology proposed in conjunction with the cities of Hiroshima and Funabashi, along with NJS Co., Ltd. was selected for the Ministry of Land, Infrastructure, Transport and Tourism's FY2021 Demonstration Study of Breakthrough by Dynamic Approach in Sewage High Technology (B-DASH) Project. We implement demonstration projects of cutting-edge supporting technology for operation of sewerage treatment facilities using Al. Al determines the treatment status through Al from data such as operation history, water quality analysis, and images of treatment, and providing real-time guidance relating to estimated operating volume, treatment method, and estimated quality of treated water, aiming to achieve optimal operation.

A demonstration project of a wide-area supervisory control system for sewage treatment facilities that uses ICT, which was jointly proposed with the Japan Sewage Works Agency, Toshiba Infrastructure Systems & Solutions Corporation, Hitachi, Ltd., Mitsubishi Electric Corporation, METAWATER. CO., LTD., and Kurashiki City, was also selected for the FY2021 B-DASH project. We aim to create a wide-area supervisory control system using elemental technology to integrate multiple

supervisory control systems installed at sewage treatment facilities without the need for large-scale modifications.

Optimization and efficiency of operation and management using this ICT and AI technology lead to reduced maintenance and management expenses and energy-saving measures, and we expect further contribution to reducing carbon emissions.

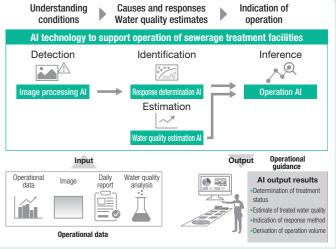


Image of sewerage treatment facility operation using Al

M E S S A G E

#### Providing New Added Value by Promoting Utilization of Operational Data Through Digital Technology

Social infrastructure, including water supply and sewage systems, is facing many issues, including declining population in Japan, financial difficulties of municipal governments, aging equipment, intensification of natural disasters caused by climate change, and succession of technology, and solutions will inevitably involve the use of digital technology. We will solve customers' issues by promoting use of operational data and images of facilities in systems that use digital technology, etc., and providing new added value.

The Meiden Group is involved with many facility management businesses, including maintenance, and we have been working to create efficiency and save labor by incorporating on-site viewpoints. Going forward, we will continue to contribute to the reduction of lifecycle costs and the realization of a carbon-free society, by providing systems for the inheritance of technology for optimal operation and management.



Managing Executive Officer General Manager of the Water Infrastructure Systems Business Unit

Satoshi Momenya

#### T O P I C S

#### **Numazu Smart City Project (X-Tech NUMAZU)**

The Numazu Works (Numazu City, Shizuoka), which is Meidensha's largest production site commenced operation in 1961. We are also participating in the new community planning initiative in Numazu, called X-Tech NUMAZU, which uses cutting-edge technology such as ICT.

We hope to fully display our knowhow and knowledge relating to all aspects of social infrastructure, focusing on those related to the energy and environment, where we have developed our business for around 120 years, assist municipal governments and regions to solve the issues they are facing, show our gratitude to the community by contributing to improvement of convenience and quality of life for all residents, which is the goal of the initiative, and realize a new sustainable society where communities and companies prosper together.



Executive Officers Executive Officer

General Manager of the Public Infrastructure

Business Planning Group

Takeo Suzuki

**Special Feature** 

#### Challenge to Achieve Carbon Neutrality by 2050:

Developing Businesses that Contribute to Becoming Carbon-free



We delivered products to the world's first mass-produced EV. As the only company in the world with both EV drive components and testing equipment business, we will contribute to the proliferation of electric vehicles for a carbon-free society.

#### Realizing a New Mobility Society by Increasing Production Capacity and Developing Products

We released our EV motors and inverters on the market in 2009 as a distillation of our knowhow relating to motor development and design technology, which was our origin of business, and motor speed control, which we have refined over many years. They have already been fitted to approximately 530,000 vehicles around the world.

During the period of the previous medium-term management plan, we promoted increased production capacity with the aim of increasing the number of vehicle models fitted with our products and expanding our business in the future. Following on from the operation of new lines in Kofu and Nagoya in FY2020, we will commence mass-production in Hangzhou, China in FY2021. Against a backdrop of a trend toward increased environmental protection, countries around the world, including Japan, are accelerating the electrification of automobiles. We will promote the development of motors and inverters to realize the high-output, small-size, light-weight, and lownoise that are essential for high-quality EVs, while fully utilizing our fundamental technological capabilities, production technology, and customization capabilities. Going forward, we will continue to contribute to the realization of a carbon-free society by releasing better products in the market.



KOFU MEIDENSHA ELECTRIC MFG. Representative Director & President

Kuniake Yasukawa









Nagova EV Factory, which commenced operation in December 2020

#### Contributing to Further Proliferation of New Mobility Through the Commencement of Contracting Business of EV Motor Certification Testing in Japan

Since we delivered Japan's first electric dynamometer in 1920, Meidensha has delivered numerous testing systems that have contributed to global automobile environmental strategies (fuel economy, gas emissions, and noise reduction strategies, etc.) focusing on research institutions, and automobile and parts manufacturers.

At the research and development laboratory in the Ota Works, we conduct research and development of next-generation products for various testing system and contracted testing business using our own testing equipment.

Tests can be widely conducted on individual components and units (engines, EV motors, e-Axles) through to complete automobiles. In FY2020, we commenced contracted EV motor certification test for domestic.

Meidensha is the only company with both an EV Business and a Testing Equipment System Business, making us a pioneer in the field. Going forward, we will create new technology and new value, and contribute to the realization of a new mobility society by leveraging the needs and issues identified through testing to development of relevant products.



## Contributing to the Realization of a Sustainable Society Through Life Cycle Engineering

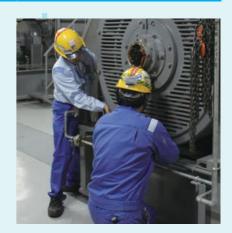
We will contribute to energy conservation and reduction of greenhouse gas emissions by prolonging the service life of existing equipment through maintenance and servicing, and making optimal equipment replacement proposals.

#### Contributing to Optimization of Customers' Equipment Through Smart Solution Proposals

The Meiden Group has been conducting walk-throughs, where we accompany customers to discover latent issues in the operation of equipment, since 2017. However, walk-throughs focus on electrical equipment, which is our specialty, so our ability to solve issues relating to other equipment through this activity was limited.

Smart solutions include support for the solution of issues in all equipment, including HVAC and heating equipment other than electrical equipment in conjunction with partners. Furthermore, with regard to natural disasters, which are occurring more frequently due to climate change, we will make optimal proposals for the use of mobile power supply vehicles and emergency generators for BCPs (business continuity plans) and disaster response measures.

Through smart solutions, we will contribute to our customers' environmental management through providing services such as optimizing operation of each piece of equipment and replacement with high-efficiency equipment in order to reduce carbon emissions, and analysis of installation environment of customers' equipment.



#### Total Support from Planning Through to Equipment Replacement by Promoting the SHIFT Business

The Meiden Group was selected as an organization to support the development of plans to promote reduction of carbon emissions from factories and worksites, as part of the subsidized project to promote support for high-efficiency installations for facilities with targets (SHIFT Project), which was supported by the Ministry of the Environment in FY2021.

This project comprises development of a project to support the development of plans to reduce carbon emissions based thereon the assessment of potential for CO<sub>2</sub> emission reductions for small to medium-sized enterprises with factories producing annual CO<sub>2</sub> emissions of at least 50 t but less than 3,000 t, and an equipment replacement support project that introduces high-efficiency equipment and changes fuel

sources at factories and worksites with CO<sub>2</sub> emissions of 50 t or more. This project is the successor to the ASSET Project and the Project to Promote Assessment of CO2 Reduction Potential, which were subsidized until FY2020 and combined.

MEIDEN ENGINIEERING CORPORATION has been registered as an assessment organization for the Project to Promote Assessment of CO<sub>2</sub> Reduction Potential since FY2017, and promotes carbon reduction initiatives through CO<sub>2</sub> reduction proposals for customers' factories and offices. In this way, we will provide total support from development of CO<sub>2</sub> reduction plans through to replacement of equipment to meet targets, and work with our customers' initiatives to become carbon-free.

M E S S A G E

#### **Working to Provide Maintenance and Servicing with a Mission to Protect the Global Environment for the Future**

I am responsible for modification designs relating to maintenance and servicing of water treatment equipment. I make proposals for extension of equipment service life by replacement of equipment inside panels and instrumentation equipment, etc., in accordance with customer demands, based on findings from inspections and walkthroughs. These proposals not only include preventative maintenance, etc., but I feel that they also provide support for customers' efforts to become carbon-free by reducing waste through extension of equipment service life, and thus, reducing CO2 through reduced energy usage and increased efficiency. Going forward, I will remain acutely aware that acquiring my own knowledge relating to the handling of a range of equipment has a great impact on the lifecycle of products, and I hope to continue to support the realization of a carbon-free society through maintenance and servicing of customers' equipment, based on my great sense of purpose to protect the future global environment as a single engineer.



MEIDEN ENGINIFERING CORPORATION Kanto Branch Office, Sales and Engineering Division. Engineering Section 2

Yoshimi Ohama

# **OUR STRATEGY**

## Medium-term Management Plan 2024



# Take a great jump towards building a new society by promoting ESG management

Managing Executive Officers
(responsible for corporate policy planning and finance)

**Akio Inoue** 

#### Reflecting on Medium-term Management Plan 2020

In a harsh business environment, the results of initiatives could be seen in performance.

The Meiden Group considered Medium-term Management Plan 2020 to be a "powerful step forward" phase in order to jump in the future. We have conducted active investment in growth businesses such as Overseas Transmission and Distribution Business and EV, enhanced Earnings-based Businesses through business model reforms and increased productivity, and worked to create a new growth businesses in semiconductor related businesses etc.

With regard to Growth Businesses, in the Overseas Transmission and Distribution Business, we conducted capital participation in overseas local companies and established overseas sites, while in the EV Business, we established overseas sites and conducted capital investment in Japan and overseas, in addition to promoting the creation of a foundation for growth. As for Earnings-based Businesses, we established a business unit to plan solutions for the Japanese infrastructure market, reinforced information sharing between business units, increased efficiency of internal tasks, conducted quality control based on data, and increased the quality of maintenance and service using digital tools. In New Growth Businesses, the business intended for semiconductor is gradually growing and becoming an area supporting the results of the Meiden Group, even though it did not greatly increase in scale. We have also been focused on unearthing new markets and developed new businesses, such as launching new companies using pure ozone technology and investing in a Polish startup that specializes in motor analysis.

In conjunction with our initiatives for business activities, we have also been worked to increase the "quality" of our foundation for activities. From an environmental perspective, we promoted initiatives to reduce the energy consumption of production processes and eliminate  $SF_6$  gas, etc., based on the First Meiden Environmental Vision. Furthermore, we were

recognized by the Ministry of Health, Labour and Welfare and the Ministry of Economy, Trade and Industry for working to establish a positive workplace environment for employees. With regard to corporate governance, we transitioned from a company with an Audit & Supervisory Board to a company with an Audit & Supervisory Board to a company with an Audit & Supervisory Committee in order to enhance the oversight function of the Board of Directors and speed up decision making. We also implemented various measures to realize a spirit which is the inside of our slogan, "quality connecting the next", in every aspect of corporate activities, including conducting training with regard to improper conduct and harassment and building systems for prompt discovery.

Through the results of such initiatives, we ensured that we have improved our results, and achieved our highest ever net sales and operating income in FY2019. In FY2020, amid a severe business environment, we achieved operating income of ¥8.3 billion, which we believe shows the results of initiatives up to this point, even though we did not achieve the targets in the medium-term management plan due to the COVID-19 pandemic.

#### Main Results of Medium-term Management Plan 2020

- Active investment in the EV business (Japan and China)
- Results led by the Public Infrastructure Business and the Maintenance and Servicing Business
- Promotion of partnerships (FEV Group Holding GmbH in Germany and Elmodis Sp. z o.o in Poland, etc.)
- Establishment of new companies (MEIDEN AMERICA SWITCHGEAR, INC. in the U.S.A. and MEIDEN NANOPRESS INNOVATIONS. INC.)
- Investment in a Vietnamese switchgear manufacturer (VIETSTAR INDUSTRY CORPORATION in Vietnam)

#### **Outline of Medium-term Management Plan 2024**

Global environmental problems are worsening due to climate change and the impact of the COVID-19 pandemic is increasing in the business environment in which the Meiden Group operates. Furthermore, as digitalization accelerates people's values and lifestyles are changing. In Japan, the birthrate is declining and both the population and social infrastructure are aging, necessitating a shift away from conventional social systems.

#### 1. Term of the Plan

With regard to the COVID-19 pandemic, vaccination efforts have been progressing worldwide and we are gradually seeing a brighter outlook, but in some regions, we must remain vigilant. In these conditions, we have set the term of the plan as four years. In FY2021, which is the first year of the plan, we will thoroughly deliberate specific strategies for FY2022 to FY2024 while undergoing gradual recovery from the COVID-19 pandemic.

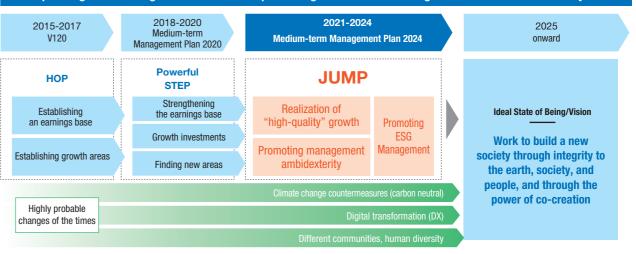
#### 2. Medium-term Management Plan 2024 Basic Policy

Under V120, which was the medium-term management plan before last, the Meiden Group clarified its policy towards

businesses in which it will promote growth, while under Medium-Term Management Plan 2020, we conducted investment to ensure both improved performance and growth. We consider Medium-term Management Plan 2024 to be our "jump" phase, where we will produce results from our investments under the previous medium-term management plan, further strengthen our revenue base, and achieve "high-quality" growth.

In recent years, awareness of SDGs has increased, and we will develop our management and business strategies around ESG, while creating a foundation for sustainable growth in 2024 and beyond by promoting ambidextrous management.

Generating results from initiatives to increase growth and earning power, and realizing "high-quality" growth. Corresponding to the changes of the times and promoting ESG-focused management to build a new society.



#### 3. Group Strategies

In order to ensure optimization and efficiency of businesses, we have divided businesses into four groups to correspond swiftly and appropriately to the changing environment and diversifying customer needs. We will promote strategies for each group in order to realize our ideal new society, in accordance with social changes.

#### 1. Power Infrastructures Business Group

In addition to our previous businesses aimed at power companies, we will focus on expanding Small and Mediumsized HydroPower Generation Business or O&M Business of Hydro and Wind Power, and developing our solutions business, which uses renewable energy. In the Overseas Transmission and Distribution Business, we will work to expand our businesses and increase earnings in India,

Vietnam, and North America, in which we conducted capital investment in addition to the Singapore market, which is our base.

#### 2. Public, Industrial & Commercial Sector Business Group

We will promote solution proposals to municipal governments, etc., to respond to the new issues of widespread infrastructure services, becoming carbon-free, and BCPs. We will also focus on creating business synergy through collaboration with the Field Service Engineering Business Group. With regard to the Overseas Rail Business, in addition to completion and increasing profitability of existing projects, we will sustainably improve an importance of existence of the Meiden Group through new projects and contribute to the creation of railway infrastructure.

#### Our Strategy

#### Medium-term Management Plan 2024

#### 3. Mobility & Electrical Components Business Group

In the motor and inverter business intended for EV, we are developing our business with a focus on automotive manufacturers in order to realize a clean mobility society. In the EV business, we will promote product development and capital investment in order to achieve our FY2028 target of net sales of ¥100.0 billion, achieve business expansion. and return on investment as a result.

With regard to the logistics business and semiconductor-related businesses, etc., we will enhance cuttingedge technology and partnerships, and promote labor-saving and energy-saving measures in industry and digitalization in society. We will focus on smartification of technology in maintenance of industrial products using digital technology, increasing sales of environmentally considerate motors, and expanding share of products for semiconductors.

#### 4. Field Service Engineering Business Group

Against a backdrop of rising demand for BCPs, energy conservation, and prolonging of equipment life, we will work for further expand and increase revenue through of our one-stop solution for service for electrical equipment repair,

inspection, maintenance, and operation management in a single package, in addition, we aim to incorporate smart technology in maintenance services and provide new solutions through the use of ICT.

#### 4. Promoting Ambidextrous Management

In order to solve social issues including environmental issues, we must expand business into new areas beyond its framework, in addition to conventional business areas, and it is essential to conduct innovation and launch new businesses. Under the current medium-term management plan, we will work to conduct "ambidextrous management" where we improve existing businesses while also searching for and investing in new business areas. As exploring and investing in new business areas, we will challenge ourselves to contribute to carbon neutrality through environmentally friendly products and services, reduce labor and increase efficiency through digitalization, build a resilient society through BCP products and services, etc., allocate resources to enable these, create new value, and create a new society. We will also actively engage in partnerships in order to achieve innovation through co-creation with other companies.

Create new value that supports a new society (Target: Net sales of ¥5 billion in FY2024)

Services that save

human resources

and increase efficien through the use of

digital solutions

Products and

services that

contribute to

Cultivate the existing peripheral area

is to use this as resources to conduct capital investment and shareholder returns, and to reinforce our financial base.

Our financial strategy is to have net worth of ¥120.0 billion and increase a net D/E ratio by 0.25~0.30 times by the end of FY2024. Our investment strategy is to conduct capital investments of ¥60.0 billion in as well as general and growth investments. 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.

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.

We have set targets of ROE of 10%, ROIC of 8%, and operating profit margin of 6%, and we aim to achieve high-quality growth and be a company that grows in a sustainable manner through ESG management.



Financial Targets (consolidated)

Net worth

120.0

Financial largets (consolidated)			(In billion yen)
	FY2020 results	FY2021 forecast	FY2024 targets
Orders	221.3	240.0	300.0
Net sales	231.2	245.0	300.0
Operating income	8.3	10.0	18.0
Ordinary income	8.4	10.0	17.5
Net income attributable to owners of parent	7.3	7.0	12.0
ROE	8.0%	7.1%	10.0%
ROIC	4 2%	4.8%	8.0%

ROIC	4.2%	4.8%	8.0%
Operating profit margin	3.6%	4.1%	6.0%
Capital investment (general investment)	10.8	4-Year cumulative ¥40.0 billion	
Growth investment budget	6.4	4-Year cumulative ¥20.0 billion	
Research and development expenditure	9.4	4-Year cumulat	ive ¥40.0 billion

96.5

100.0

Consolidated dividend payout ratio		29.8%	Stable at 30%	
D 16 1 1 D :	Orders	47.8	51.5	58.0
Power Infrastructures Business	Net sales	45.9	47.5	55.5
Group	Operating income	(0.3)	(1.0)	2.0
D.I	Orders	81.0	79.5	95.8
Public, Industrial & Commercial Sector Business Group	Net sales	88.6	91.3	92.8
Sector Business Group	Operating income	3.3	3.8	5.6
M 1 1111 0 51 1 1 1 0	Orders	48.0	65.3	100.0
Mobility & Electrical Components	Net sales	52.4	65.9	100.0
Business Group	Operating income	(0.1)	1.5	8.1
	Orders	39.3	39.5	42.0
Field Service Engineering Business	Net sales	38.7	39.4	41.0
Group	Operating income	5.7	5.8	6.0
	Orders	3.4	3.2	3.2
Real Estate	Net sales	3.4	3.2	3.2
	Operating income	1.3	1.1	1.1
	Orders	1.8	1.0	1.0
Others (including elimination)	Net sales	2.2	(2.3)	7.5
	Operating income	(1.5)	(1.2)	(4.8)
	Orders	221.3	240.0	300.0
Total	Net sales	231.2	245.0	300.0
	Operating income	8.3	10.0	18.0

Note: FY2020 results have been adjusted to reflect the new segments and revision of headquarters expense allocations from FY2021 onward

#### Shift earnings obtained in existing fields to investment in new fields, and accelerate the creation of a new society.

#### **Promoting management ambidexterity**

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

## 5. Promotion of ESG Management

We aim to realize a "jump" by promoting management focused on ESG, and be a company that grows in a sustainable manner.

Under the current medium-term management plan, we have defined "our ideal society to be achieved by 2030" and expressed our "ideal state of being," "vision," and "important values," according to social changes. In order to achieve each of these, we have used a back-calculating approach to identify the following focus areas in which we can leverage the strengths of the Meiden Group, and we take the lead in solving social issues and creating social value through cocreation with other companies and customers.

Led by the ESG Business Unit, which we established

in April, we promote activities at company-level for specific initiatives and setting targets in order to conduct ESG management. We also develop the Second Meiden Environmental Vision, which raised greenhouse gas

reduction targets to SBT certification standards, and we

contribute to further reductions in environmental impact.

Related pages ▶ p.17-20: ESG Vision

BCP business that contributes to a safe and secure society

value that

#### 6. Financial Strategy

The Meiden Group will conduct investments for longterm growth and shareholder returns as long as financial soundness is also increased. Under the current medium-term management plan, we anticipate 4-year cumulative operating cash flow between ¥70.0 billion and ¥75.0 billion. Our policy

**Our Strategy** M E S S A G E

## Research and Development and Intellectual Property Strategy

#### Results of Research and Development under Medium-term Management Plan 2020

Focusing on response to increasing environmental needs and creation of new products and systems using digital technology such as the IoT and AI

Through the three years of Medium-term Management Plan 2020, we conducted research and development with the aim of solving recent social issues. To respond to environmental problems, we enhanced vacuum technology and products with the aim of eliminating the use of SF<sub>6</sub> gas, which is a highly potent greenhouse gas. With regard to environmentally considerate electric vehicles, we are promoting development of drive systems with the aim of reducing size and weight. We have focused on creation of new products and systems using digital technology such as the IoT and AI to deal with social issues of declining population, aging society, and natural disasters, etc.



Meiden Group's ideal society, it is important to enhance

product competitiveness through ongoing QCD

improvement at existing businesses, while for the Meiden

Group to grow, it is necessary to create new products

to approach our ideal state of being for research and

development of always continuing to produce new

value through innovation and foresight, it is essential

for us to conduct ambidextrous R&D that includes

"enhancing competitiveness of existing businesses"

and "considering matters from a system perspective

and developing new products and new businesses" by

increasing development capabilities. This is supported

by continuous evolution of foundational technologies

that support our products and technologies, and

expansion and enhancement of strategic intellectual

**Future Vision** 

《Ideal state of being》

R&D that continues to create new value

with innovation and foresight

Through the Power of Electricity

· Society that is resilient against natural disasters

Foresight

property activities that support businesses and R&D.

Swift responsiveness

Zero CO<sub>2</sub> society

Safe and secure society

Amidst changing business conditions, in order

145 kV tank type vacuum circuit breake

and new businesses.

#### Medium-term Management Plan 2024 Research and Development Corporate Strategy

Recently, the social environment has become harsher and more complicated due to factors such as global warming and resulting intensification of natural disasters, and declining productive population due to aging in Japan. We are seeing great changes in social life and work-styles with factors such as popularization of normalization of protective societies by enhancing dissemination of information and advocacy for environmentally-friendly lifestyles through zero emissions.

In this environment, the Meiden Group will promote the integration of energy and information systems, and aims to create products and services that contribute to the solution of social issues through technology, in order to realize a society where everyone can live safely and securely.

Focusing on technology required to realize the

Medium-term Management Plan 2024 Research and **Development Corporate Strategy** 

#### Social Issues Global warming

- Pandemic
- · Energy mix and instability
- Aging population and labor shortages



R&D that contributes to the maintenance and expansion of existing

Environmentally-considerate

Flectrification of automobiles

Promotion of renewable energy

products (elimination of SEs gas)



- Clean energy (hydrogen)
- DC network (power-saving) • BCP, CASE, digital transformation, Digital transformation and Al (0&M)

#### **R&D Kev Measures**

Aiming to create links inside and outside the Meiden Group and produce products and services that contribute to the solution of social issues



#### **Enhancing Competitiveness of Existing Businesses** by Increasing Development Capabilities

We will enhance our core products and services, which is where our strengths lie, by leveraging our technology and knowhow relating to heavy electric products developed since Meidensha was founded.

In the power sector, we are working to expand our lineup of vacuum circuit breakers (VCBs) with the aim of reducing environmental impact. Under Medium-term Management Plan 2020, we released the 145 kV Eco tank Type Vacuum Circuit Breaker as the world's first commercial SF<sub>6</sub> gas-free tank type vacuum circuit breaker over 100 kV, in response to tighter environmental regulations in the North American market. As environmental regulations grow tighter, we are

working to develop foundational technology for vacuum interrupters (VIs) with the goal of producing SF<sub>6</sub> gas-free 245 kV VCBs, in order to cater to the needs of the market. We also aim to commercialize inertial inverters that prevent large-scale blackouts by maintaining the proper frequency in order to safely and stably connect renewable energy, which will become even more common going forward, to power transmission networks.

With regard to environmentally-considerate electric vehicles, we commercialized integrated EV drive system (motors and inverters). And for automobile testing field, we also developed EV dynamometers suited to high-speed, high-torque for EV motors demands in the Mobility T&S Business. Going forward, we will continue to conduct advance development to promote the uptake of EVs through the new EV Components Advance Development Section.

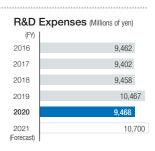
With regard to R&D processes we value our relationships with customers and we will develop products that are truly sought by our customers through the establishment of the Product Design Phase Project Management Department.



Vacuum arc observation experiment for VCB development

#### Considering Matters from a System Perspective and Developing New **Products and New Businesses**

We will conduct research and development to realize "a zero CO2 society," "a society that is resilient against natural disasters," and "a safe and secure society" with the aim of realizing a society where people live in harmony with the earth. To this end, we have established Advanced Technology Research Laboratories, and we are embracing the challenge of discovering exciting R&D themes by developing innovative personnel and building a theme implementation framework. Related page ▶ p.30: Innovation Strategy



#### **Intellectual Property Strategy**

Creation and acquisition of intellectual property rights to enhance existing businesses competitiveness, and promotion of intellectual property activities that contribute to developing new products and businesses

Under Medium-term Management Plan 2020, we rolled out strategic intellectual property activities focusing on the overseas power sector, the automobile-related sector, the digital technology sectors including IoT and AI, and we worked to protect R&D results and enhance product competitiveness. Under Medium-term Management Plan 2024, we will further enhance intellectual property activities in order to enhance the competitiveness of existing businesses and develop new products and new businesses.

#### **Expanding Strategic Intellectual Property Activities**

To enhance the competitiveness of existing businesses, we will expand strategic intellectual property activities such as promoting identification and acquiring rights to core technologies with market dominance, in conjunction

with the newly established Product Design Phase Project Management Department, and aim to create and acquire intellectual property rights from a business perspective. Intellectual Property Activities for ESG Management Leveraging of intellectual property rights over environmental technology in promoting co-creation with global, private enterprises and public institutions are our aim, and the discovery of businesses that contribute to the development of new products and businesses, and the creation of innovation are also aspects of this concept. By promoting intellectual property activities such as these, we will accelerate the spread of environmental technology, and contribute to solution of social issues such as those related to SDGs and realization of ESG management.

#### **Our Strategy**

# Public, Industrial & Commercial Sector Business Group and Field Service Engineering Business Group



## Public, Industrial & Commercial Sector Business Group

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

Since it was founded, the Meiden Group has been involved with business that supports social infrastructure, and contributed to the creation of a more affluent society. In recent years, people have strongly demanded that social infrastructure be "safe and secure" due to increasing severity of natural disasters due to climate change and the impact of the pandemic, etc. The business environment in which Meidensha operates and customer needs are significantly changing, including the need to replace aging equipment, increasing awareness of Business Continuity Plan (BCP), and global environmental problems. We are aware that the business opportunities to contribute are increasing for us, who have products related to safe and secure social infrastructure, and environmental and BCP products.

However, due to acceleration of digitalization, we are cautious of risks that new competitors may emerge, or that we may be left out of the market due to slow adoption of digital technology. As an example of recent changes, from the perspective of sustainability, a trend is growing to adopt environmentally friendly products as corporate responsibility to realize a sustainable society in terms of conducting capital investment. We aim to be a company that continues to build new social infrastructure and support an affluent tomorrow through provision of products and maintenance and servicing that anticipates customer needs and social trends so that customers believe "It was the right choice that I installed that Meidensha product or system" when looking back in 20 or 30 years' time.

#### Reflecting on Medium-term Management Plan 2020

We have worked to provide solutions to issues directly facing municipal governments, etc., by focusing our infrastructure business knowledge, under the leadership of the Public Infrastructure Business Planning Group that was established in April 2020. With regard to public infrastructure such as the Water Infrastructure Business, we have experienced work stoppages and delays in some projects due to the COVID-19 pandemic; however, overall business performance remained firm. In the Railways Business, we made sure we worked on projects to replace existing equipment in Japan and promoted market development through Meidensha's specialty products such as overhead contact line inspection system; however, postponement of new projects in Japan and delay or cancellation of overseas railway projects due to limitations on financial activities as a result of the COVID-19 pandemic prevented us from building a stable revenue base. With regard to the Social Infrastructure Systems, we are gradually promoting expanded sales for specialty products that contribute to enhanced resilience for the public sector and reduced environmental impact; however, increasing earning capacity of businesses based in the ASEAN region that are aimed at Japanese companies is an issue.

#### Medium-term Management Plan 2024 Corporate Strategy

For local and municipal governments, etc., we will promote activities to propose solutions to respond to new issues such as widespread infrastructure services, becoming decarbonization, and BCP, and focus on creating business synergy in conjunction with the Field Service Engineering Business Group. With regard to the overseas railway business, in addition to completion and increasing earning capacity of existing projects, we will sustainably improve an importance of existence of the Meiden Group through new projects and contribute to the creation of railway infrastructure.

#### Medium-term Management Plan 2024 Key Measures

#### **Public Infrastructure Business**

## Supporting safe and secure water supply through technology, products, services, and solutions that leverage digital transformation (DX)

The importance of water infrastructure lies in a continuation of providing safe and secure social infrastructure to customers. Going forward, we aim to be a business that is continuously needed by society by using DX to evolve our technology, product, service, and solution strategies. With regard to products, it is important to develop environmentally-considerate products for water treatment facilities. Specifically, we are promoting expanded sales of energy-efficient products such as high-efficiency transformers and renewable energy products, etc. In addition, we will make proposals for the optimal operation of water supply and sewerage facilities through supervisory control that actively utilize the IoT, saving energy through Al diagnostic functions, etc., and operational support for appropriate control of water quality and flow, etc.

With regard to facility operation, we will ensure dominance by proposing reduced labor in maintenance and management through DX in the midst of a shift from on-premises work to the Cloud. Recently, there

has also been an increase in operation of facilities through public-private partnerships. We will leverage our knowhow accumulated over many years through on-site maintenance and management facilities, and going forward, in order to optimize the operation of whole facilities, we will expand our business areas through partnership strategies to collaborate with companies, including those in other fields and local companies.



Water purification plant maintenance

#### **Railways Business**

#### Supporting railroad infrastructure and contributing to carbon neutrality

In addition to continuing to deliver equipment that supports safe and steady transport by rail systems, it is important to respond to needs such as assisting railway operators to become decarbonization, conducting energy-efficient and remote maintenance, and prolonging the service life of equipment.

In Japan, we will increase our capacity to cater to replacement of existing equipment, which is our business revenue base, by contributing to energy-efficient maintenance through proposals of the overhead contact line inspection system, Catenary Eye, which relies on image recognition, and expanding sales of specialty products such as electrical equipment mold products and impedance bonds.

Overseas, where there is strong demand for new construction, we will not only increase profit of improving risk management capabilities and earning capacity by enhancing project management, but also winning new projects, particularly in the ASEAN region, by working

with local subsidiaries and business partners. From a medium to long-term perspective, we anticipate that there will be a movement towards utilization of renewable energy and hydrogen, etc., with a view to achieving net zero GHG emissions by 2050. We will remain sensitively aware of our customers' business trends and changes, and rapidly and flexibly make proposals.



Rail vehicle fitted with the overhead contact line inspection system, Catenary Eye

#### **Our Strategy**

#### Public, Industrial & Commercial Sector Business Group and Field Service **Engineering Business Group**

#### **Social Infrastructure Systems Business**

#### Contributing to building a decarbonization, resilient society by linking products and maintenance

Recently, customer needs have included resilient products that contribute to BCP policies and environmentally considerate products that contribute to becoming decarbonization. In addition, maintenance of equipment has been insufficient for both government and private customers due to labor shortages, so we are enhancing our optimal technological proposals that last for the each life cycle of equipment in conjunction with the Field Service Engineering Business Unit.

For customers in Japan, we are working to enhance proposals for BCP products such as mobile power supply vehicle, emergency generators, and power storage systems, and improve value provision through

the use of ICT. In overseas markets, we will enhance activities to receive orders for stable EPC projects, mainly targeting Japanese companies, and delivering customers security and reliability while increasing profit by enhancing project risk management.

Recently, there have been more and more companies engaged with environmental management with awareness of SDGs, carbon neutrality, and RE100. We will work to break into markets for products that cater to social changes and needs, by further focusing on development of specialty products, including expanding our line of environmentally considerate products, etc.

#### Field Service Engineering Business Group

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

With regard to market conditions for the Japanese maintenance and servicing business, against a backdrop of heightened awareness of BCP and disaster prevention due to the recent frequently occurring natural disasters, increased need to prolong facilities life, and customers' shortage of maintenance technicians, we expect the need and demand for these things to further increase going forward. Although it is unclear how long the impact of shrinking budgets for customers due to the worsening business environment as a result of the COVID-19 pandemic will last, we will roll out "Life Cycle Engineering" that integrates products with maintenance that cater to becoming decarbonization, ESG, and SDGs.



#### Reflecting on Medium-term Management Plan 2020

Demand for maintenance services-related that cater to BCP and energy conservation, and prolong the service life of facilities has been strong, even during the COVID-19 pandemic, and in FY2020, we marked a new record, exceeding the previous fiscal year's record high results. Over the last three years, we have ensured that we walked the path of growth by rolling out our "One-Stop Service", etc.

In October 2020, we established the new technology center, "Manabi-ya," at the Numazu Works, which has enabled hands-on training using actual equipment on assumption of an actual worksite environment. By increasing understanding of product life cycles (manufacturing, quality assurance, inspection, maintenance, prolonging life, refurbishment, and responding to malfunctions), we educate and hand down technology and skills to young workers at an early stage, allowing them to increase awareness of quality and safety by experiencing incidents and accidents that they would not be able to experience in reality through experiential education in a virtual or augmented reality environment using ICT.

#### Medium-term Management Plan 2024 Corporate Strategy

We will aim to jump into "customer solution services through enhanced linkage between products sales and maintenance service, based on life cycle engineering" and fulfil our role as the revenue base of the Meiden Group.

We will work to further expand through of our onestop solution for services for electrical equipment repair, inspection, maintenance, and operation management in a single package. In addition, we aim to provide new solutions through smartification of maintenance services using ICT and collaborating with manual services areas.

#### Medium-term Management Plan 2024 Key Measures

#### Contribute to the solution of customers' issues in our role as building bridges between products and services

MEIDEN ENGINEERING CORPORATION, which is the Meiden Group's core maintenance and servicing company, has received daily praise from customers for its fast and precise response and advanced technological capabilities. It has a full complement of replete personnel at maintenance and servicing sites in 35 locations around Japan. Under Medium-term Management Plan 2024, we will incorporate environmental conservation proposals such as conserving energy and reducing greenhouse gas emission in our "One-Stop Solution" services, promote "Smart Security," which is represented by remote maintenance and condition monitoring, etc., and roll out a mobile power supply vehicle rental service with partner companies, in order to strengthen links between products and maintenance and servicing in BCP measures. We will not only educate young technicians by using the new technology center, Manabi-ya, but also work to create workplaces in which experienced technicians exhibit their abilities, and promote the provision of smart solution services to optimally solve the issues of our customers equipment as a whole based on life cycle engineering.

Provision of smart solution services is possible due to linking delivery of products with maintenance and servicing, and being able to provide products from

within the Group is a major point of differentiation from other companies. In particular, for private customers that do not have their own equipment technicians, Meiden Engineering's technology service staff frequently visit worksites, so they are able to regularly communicate with customers and understand their needs. Going forward, through these activities, we will continue to make original proposals to increase customer satisfaction, by taking on customers' issues and requirements.

Over the Meiden Group's history of more than 120 years, Meidensha products have operated at many sites in various regions, and we serve customers at more than 7,000 locations in Japan through the maintenance and servicing business. We will use the trust of our customers as fuel to work to solve customers' issues

and contribute to the realization of a sustainable society in our role as a building bridges between products and services.



Maintenance education using AR

#### Message from the President of MEIDEN ENGINEERING CORPORATION

#### MEIDEN ENGINEERING CORPORATION (MEC) has been loved for over half a century

MEC's employees have worked closely with communities at 35 sites throughout Japan, without forgetting to focus on customers, leading to receiving praise for technological capabilities by continuing to sincerely attend to our customers' needs as required and build trust over many years. The "MEC spirit," which embodies this corporate culture, continues to be passed from generation to generation. By expanding innovation, sharing information and laterally connecting organizations, we form "trinity" with customers, sales, and technology to provide "MEC Quality" services through swift judgment. We have promoted development of specialty maintenance and servicing

technology, including our advanced diagnostic technology, retrofit technology, and replacement technology, and we have worked to conduct professional development and support our technological service staff in obtaining qualifications. It took time for our One-Stop Solution for services to take hold since we started rolling it out in FY2014, but now, we have shown results from our site-oriented proposals by enhancing "Walk-Throughs" to inspect equipment alongside customers. It will not be easy, but going forward, we will continue to promote the life cycle engineering that linked products and maintenance and the Facility Management Business in order to lead to the solution of issues such as maintenance of customers' facilities in remaining optimal condition and measures to become decarbonization and the MEC team as one aims to make a jump to solution services.



MEIDEN ENGINEERING CORPORATION

Katsumi Kurihara

## **Power Infrastructures Business Group**



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

Japanese electricity transmission charges are under pressure to become lower, and a certain amount of generation capacity has already been secured, so not many new projects are expected for generators, transmission and distribution equipment. The business environment for this field is not easy to navigate. In overseas markets, demand for generation, power transmission and distribution infrastructure continues to grow; however, competition is intensifying, including for major global companies. Local manufacturers are also developing. Meidensha must develop competitiveness to remain standing in the face of both these threats, and ensuring profitability is a maior issue.

From a medium-term perspective, the recent trend of carbon neutrality is expected to be a great boon to the Meiden Group. In addition to the product areas of hydroelectric power generation and photovoltaic PCSs, we own wind farms for the electricity sales business, as well as O&M knowhow that we are building up through the operation of these. These results and this knowledge, which we have accumulated over many years, is a valuable resource for Meidensha, and we expect great growth from leveraging it going forward.

#### Reflecting on Medium-term Management Plan 2020

In the business mainly intended for Japanese power companies we have been able to secure a certain share and a certain level of sales, against a backdrop of cost reduction efforts, etc., by dividing labor with overseas production sites. In addition, we have contributed to the environment through the power sale business by wind power generation and by receiving orders and undertaking construction in large-scale hydroelectric power generation projects.

In the Power Generation and T&D Business, which is focused on overseas markets, in addition to intensifying the competitive environment, restrictions on activities and economic disruption in FY2020, etc., due to the COVID-19 pandemic, have had a great impact, leading to results that fell greatly short of our targets in the medium-term management plan. However, we have promoted the establishment of sites for future business growth. For example, in the U.S., which is trending towards tougher environmental protection, we have established a new company to manufacture and sell environmental products for electrical power companies, and we also invested in a Vietnamese switchgear manufacturer to develop as a core location in the Mekong region.

#### Medium-term Management Plan 2024 Corporate Strategy

In the business intended for power companies, along with promoting proposals for new systems using digital transformation and increased sales of products for reducing carbon emissions, we will focus on development of O&M businesses of small and medium-sized hydroelectric power generation and wind power generation, which are able to link social trends, with our specialty technology, and our solutions business, which uses renewable energy, etc. In the Overseas T&D Business, we will work to increase revenue in the Singapore market, which is our base, while expanding the business and achieving contribution to quick earnings in our sites in India, Vietnam, and North America.

#### Medium-term Management Plan 2024 Key Measures

#### **Power Generation and T&D Business**

#### Business development focused on ESG and rebuilding production systems

In the power generation sector, we will increase competitiveness, including maximizing value and services, in the renewable energy-related business, by enhancing earning capabilities of the hydropower business. In the T&D sector, we will promote increased utilization of our Indian locations, increase revenue by making steady growth of businesses in the U.S. and Vietnam, where we conducted investments under the previous medium-term management plan. Furthermore, we will work to review our business base, etc., by reconstructing our sites.

As the trend towards self-sufficiency or domesticoriented proceeds in countries around the world, going forward, we believe the movement to procure from nearby countries and regions will grow stronger. Since 2015, we have built a base network, which covered region by a wide area, not just spots, that includes TRIDELTA MEIDENSHA GmbH in Germany, PRIME MEIDEN LIMITED in India, MEIDEN AMERICA SWITCHGEAR, INC., in the U.S., and VIETSTAR MEIDEN CORPORATION in Vietnam, which was brought into the

Group through investment, and we will quickly build a revenue system based on this global framework.

We will also expand our lineup of products that contribute to the environment, including power transmission products that do not include SF<sub>6</sub> gas, and aim to develop our businesses to make our presence felt in each region by honing our ability to cater to local specifications, features, and market demands.



MEIDEN AMERICA SWITCHGEAR INC

#### **Power & Energy Business**

#### Taking advantage of diversified society and carbon neutrality as an opportunity to expand business

Along with the existing business for power companies, we will focus on the renewable energy business with the aim of contributing to a carbon-free society.

In addition to aiming to expand our specialty Hydroelectric Power Generation Business, we are accelerating the rollout of PCSs for photovoltaic generation and power storage system. We have listened to recent customer needs, and we have promoted research and development into multifunction PCSs that contribute to local production and consumption of energy and local BCP by combining storage batteries with functions to use power from renewable sources, such as solar power, to charge electric vehicles. Regarding wind power, we aim to leverage the knowledge and skills developed over years of operating wind farms to expand the O&M business and promote increased sales of interconnection facilities, etc.

At the same time, we will further focus on proposals for systems that utilize local renewable energy based on knowledge from verification tests which is progressing in various districts. We will also enhance proposals to power companies and businesses in the supply and

demand adjustment market to incorporate growth of the T&D products market due to servicing T&D networks as a result of increased investment in renewable energy.

Going forward, research, development, and innovation become important to contribute to the creation of a sustainable society. We will contribute to the creation of clean energy and livable cities by promoting systems to effectively utilize younger human resources and collaborate beyond the company.



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



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

In the EV market, we expect the market to grow significantly towards 2030, buoyed by government's support and the rising global tide of carbon neutrality. In particular, in the Chinese market, where the Meiden Group has established a new production site, although significant growth is expected, we are aware that an increased number of players poses a risk. Going forward, we expect to see the commodification of mobility, and differentiation of in-house technology and products positioning in the industry will be important. In the automotive industry, capital investment and R&D investment have been significantly flown into CASE related demand in order to realize a new mobility society that caters to stricter environmental regulations and the increased safety needs of an aging society, etc., and we must also propose our mobility T&S products in accordance with these needs.

On the other hand, in the elevator and industrial vehicle sector, we are currently seeing a gradual recovery from last year's tendency to limit capital investment. Electrification is playing a major role in this, and we see opportunities such as a movement of motorizing not only smaller models, but mediumsized forklifts in the field of electric forklifts and expected electrification of construction machinery as well. Furthermore, introduction of Automatic Guided Vehicle (AGV) systems is expected to increase due to a trend towards unmanned and fully automated production lines, including from the perspective of infection control measures.

In the semiconductor market, we expect the market to continue to expand with increasing demand for semiconductors due to lifestyle changes such as 5G and the popularity of remote work, which will be a boon for the Electronics Products Business.

#### Reflecting on Medium-term Management Plan 2020

Although demand for semiconductors has moved on from the temporary leveling off to be at a high level in the Electronics Products Business, the EV Business, Motor Drive Solutions Business, and Mobility T&S Business were greatly impacted by the headwind of the pandemic in FY2020. In the EV Business, investment in production lines is steadily progressing in Numazu, Kofu, and Nagoya in Japan and also in China, and these lines are gradually starting in sequence. We have also decided to invest in a second line in China. In the Mobility T&S Business, we have worked to accelerate development and increase orders received for CASE related products, and in the Motor Drive Solutions Business, we have launched new products such as gearless high-speed drive systems for machinery and an AGV fitted with a cooperative robot manufactured by FANUC. In the Electronics Products Business, we were able to establish production systems that match with the expansion of the semiconductor manufacturing equipment market, while we did not achieve our target of increasing sales of new products.

## Medium-term Management Plan 2024 Corporate Strategy

With regard to developing the EV Business with an eye to realizing a clean mobility society, we will further promote product development and the creation of competitive production lines, as well as business expansion and quick return on investment, to achieve our FY2028 target of net sales of ¥100 billion. With regard to the Logistics and Electronics Products Businesses, etc., we aim to promote business development that contributes to labor-saving and energy-saving measures in industry and digitalization in society, etc., by pursuing cutting-edge technology and strengthening partnerships. We will also incorporate smartification of maintenance of industrial products using digital technology, increase sales of environmentally considerate motors, and expand our share of semiconductor products.

#### Medium-term Management Plan 2024 Key Measures

#### **EV** and Mobility T&S Businesses

## Contributing to the proliferation of electric vehicles for a carbon-free society and the promotion of next-generation mobility development

In the EV business, we will produce results from previous capital investment. With regard to creating production capacity, in FY2020, we decided to conduct additional capital investment in China worth approximately ¥4.8 billion, in order to cater to strong local demand. We plan to commence this new operation in 2023. With regard to technological development, we will focus on further miniaturization and increased output of the three in one product, MEIDEN e-Axle, and work to evolve the foundational technologies of cooling, high-speed, and noiseless technologies. By establishing a unique mixed flow production lines that produce multiple products on a single production line as our weapon, we will enhance our production capabilities, constantly improve our products, and focus on developing new customers.

In the Mobility T&S Business, in addition to selling dynamometers, by utilizing our technology, we aim to develop the peripheral businesses such as testing, certification/evaluation support, and the support for compliant with new regulations, in order to cater to the trend of electrification and automation of vehicles. Specifically, we will work toward package sales of HILS\*, and high-speed EV motor testing equipment, expanding vehicle development engineering in conjunction with FEV Japan Co., Ltd., with which we have already had business tie-ups, and contracting EV motor certification test, etc.

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HILS (Hardware-In-the-Loop-Simulation): A development simulator of simulated actual vehicles that digitize engine functionality and vehicle behavior, etc.

#### **Motor Drive Solutions Business**

## Contributing to energy-saving, labor-saving, and power saving measures, through electrification and digitalization

In the Motor Drive Solutions Business, we aim to combine the motor analysis and remote monitoring technology of the Polish company, Elmodis Sp. z o.o., in which we invested in 2020, with our knowledge of hardware, in order to further improve the quality of our motor products and maximize added value, such as by providing maintenance and servicing solutions utilizing the IoT.

In the industrial vehicle sector, with regard to forklift drive and motors, we will focus on increasing our market share by providing products for manufacturers' new models, and developing products for the electric construction machinery field, which is expected to grow going forward. In the logistics sector, we will increase collaboration with system integrators and robot manufacturers, and increase sales of AGVs fitted with cooperative robots, etc., to cater to the trend towards automation and labor reduction.

From a medium to long-term perspective, we will increase our range of products that contribute to the environment, such as high-efficiency and gearless products, and create a business to contribute to customers' efforts to reduce resource usage and environmental impact, by establishing maintenance technology through the IoT.



RocoMo-V

#### **Electronics Products Business**

#### Contributing to future enrichment through the digitalization of society

We have provided many products to the semiconductor industry, and in particular, our specialty is vacuum capacitors, for which we have secured a high global market share. As investment in the semiconductor sector is active around the world, we aim to further expand our vacuum capacitor market share, particularly in North America, through speedy development of custom products and enhanced proposal capabilities.

In addition, we will aim to bring "Cold-cathode X-ray Tubes" which developed as a new business area, to the market promptly while increasing the current and voltage.

Our component products are a way for people to realize their dreams. Going forward, we will continue to aim to realize an exciting society and remain a business that provides both social and financial value.

## Overseas Businesses: Business Expansion in ASEAN





## SINGAPORE

#### Business continuity with the infectious diseases countermeasures on site

At present, MEIDEN SINGAPORE PTE. LTD. has been pursuing replacement and enhancements of equipment on the North-South and East-West MRT\* lines and also a power equipment construction project with the aim of opening whole line of the Thomson-East Coast Line in Singapore. However, in FY2020, the circumstances continued to prevent us from proceeding as we would have liked, such as the projects being temporarily suspended, due to the implementation of measures such as a socalled circuit breaker lockdown in Singapore as a response to the COVID-19 pandemic. Even after resuming projects, there have been strict limitations on the number of workers and the extent of work area as the work is conducted underground; however, we are continuing with projects giving the utmost priority to infection diseases control measures and safety. Although the completion had been delayed, Stage 2 of the Thomson-East Coast line opened in August 2021. The opening of this railway will make the lives of the people of Singapore more convenient and comfortable, and we will continue to ensure we proceed with construction to complete the projects.

\* MRT (Mass Rapid Transit): The most complete urban rail system in Southeast Asia, whose construction has been proceeded as one of the major projects in Singapore's modernization plan since the country was founded.



Managing Executive Officer
MEIDEN SINGAPORE PTE. LTD.
Managing Director

#### Hiroshi Toke



Singapore MRT Thomson-East Coast line construction



#### VIETNAM

## Business expansion in the Mekong region through additional investment in our Vietnamese subsidiary

In January 2020, the Singaporean company, MEIDEN ASIA PTE.LTD. entered an investment agreement to acquire 44.8% of the shares of the local Vietnamese switchgear manufacturer, Vietstar Industry Corporation and commenced capital participation, in order to enter the Vietnamese power infrastructure market and expand the business in the Mekong region. In April 2021, MEIDEN ASIA PTE.LTD. conducted additional investment in Vietstar Industry Corporation, increasing its investment ratio to 69.7%. The company changed the name to VIETSTAR MEIDEN CORPORATION, due to joining the Meiden Group as a subsidiary.

Vietnam, where strong economic growth continues, even compared to other Asian developing nations, has maintained positive GDP growth, even in the midst of the COVID-19 pandemic, which began in 2020. Going forward, the entry of foreign companies and vigorous infrastructure investment is expected to continue. Investment in electrical infrastructure to support stable provision of electricity is expected to increase, as a result of ongoing increases in demand for electricity due to rapid economic development.

VIETSTAR MEIDEN CORPORATION was established in 2002 with headquarters in Ho Chi Minh City, Vietnam. It mainly manufactures and sells low-voltage and medium-voltage switchgear. It is a major supplier to power companies and the private sector in Vietnam and is

considered to be a top-class manufacturer in Vietnam. Until now, the Meiden Group has not had a base of operations in Vietnam, and the main business involvement in Vietnam has been through exports from Japan, Singapore, etc. By using the commercial and manufacturing capabilities of VIETSTAR MEIDEN CORPORATION, which recently joined the Meiden Group, as much as possible, we will support supply of electricity for the country's stable economic activities and comfortable lifestyles in Vietnam. We will also aim to enter the Vietnamese power infrastructure market as the Meiden Group, and increase our presence in the Mekong region in the future.



VIETSTAR MEIDEN CORPORATION

## INDONESIA

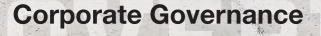
#### Aiming to have the largest share of 150 kV substation projects in Indonesia

Indonesia is anticipated to develop distribution network and change industrial area due to infrastructure construction and further investment by Chinese and Korean companies, and it's said that will grow into huge market with population about 300 million in 2030. Furthermore, domestic market and economy are expected to expand as a result of increased domestic consumption, and business opportunities are expected to increase as a result of increased investment. This year, PT. MEIDEN ENGINEERING INDONESIA celebrates 30th anniversary since its establishment in 1991. Since then, we have been developing business rooted in the local area, as company that deliver and install power generation equipment, power transmission and distribution equipment, testing equipment for automotive industry, as well as engineering work. In particular, as for conducting 150 kV substation work is regulated by license restrictions and only P.T. MEIDEN ENGINEERING INDONESIA is permitted among Japanese companies.

P.T. MEIDEN ENGINEERING INDONESIA will utilize our experience and know-how to expand our market share while considering collaboration with other companies in the industry in order to further increase sales in the future.



150 kV gas-insulated switchgear on-site testing



#### **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 to Improve the Governance to Secure Fair Business Practices" at the regular Board of Directors' meeting held in May 2006, and revised it at the Board of Directors' meeting held in June 2020, in accordance with the transition to a company with an Audit & Supervisory Committee, and further enhancement of the internal control promotion system.

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.

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

I believe that the Board of Directors has two purposes. One is to improve corporate performance, and the other is not to allow improper conduct. Since I assumed the position of President in 2013, I have been interested in the role of the Board of Directors and the activities of the Executive Officers' Meeting that are concerned with the Board of Directors. This is based on the belief that debate in the Executive Officers' Meeting should be more aware of the Board of Directors and thereby improve all of management. Our management systems have undergone great changes as a result of the institution of a voluntary Nomination & Compensation Committee three years ago, and the transition to a company with an audit and supervisory committee last year, spurred by the enactment of the Corporate Governance Code in 2015. The process of learning and consolidating rules such as the purpose, responsibilities, and authority of the various meetings was practical study for those of us in management, including outside directors.

Naturally, we will not be satisfied if this is a mere formality. It is the duty of the Board of Directors and the Executive Officers' Meeting to initiate debate by the Board of Directors, produce substantially great results through the PDCA cycle, and institute sustainable management systems. We will work to conduct PDCA in order to be such an organization that continues to learn.

Last year, we worked to develop Medium-term Management Plan 2024. The Board of Directors debated the plan from an early stage. I hope we devote our efforts to organizational and personnel development, in order to achieve our ideal state of being of "work to build a new society through integrity to the earth, society, and people, and through the power of co-creation" and continue to be a company that contributes to society. Human resources are the source of sustainable growth for the Company, and the Nomination and Compensation Committee also discusses matters such as early training of the next crop of managers and the next generation of employees. We will enable the Meiden Group to embrace the challenge of creating a new society.



Director and Chairman Yuji Hamasaki

#### **Transition to a Stronger Corporate Governance System**

Commencement of stronger corporate governance to increase the effectiveness

Promotion of corporate governance reforms based on the Corporate

Deeper corporate governance system based on suddenly

'				
Purpose/results	From FY2003	From FY2015	From FY2018	
Enhancement of decision-making and oversight functions of the Board of Directors  Separation of oversight and execution of management	2003     Introduction of executive officer system     2012     Revision of the rules of internal approval	Revision of Board of Directors agenda standards	2018  Separation of the roles of chairman of the Board of Directors and chairman of the Executive Officers' Meeting 2019 Elimination of quotas for number of directors 2020 Revision of the Board of Directors agenda standards and decision-making regulations Transition to a company with an Audit & Supervisory Committee Proportion of outside directors at least 1/3 Election of female outside director (1 person)	
Enhancement of transparency and soundness of management	2006  Establishment of basic internal control policy 2012  Commencement of reporting to the Board of Directors on internal control adjustment status	2015 Revision of basic internal control system policy 2016 Commencement of evaluation of effectiveness of the Board of Directors Commencement of evaluation of cross-shareholdings 2017 Establishment of the voluntary Compensation Committee	2018  Establishment of the voluntary Nomination & Compensation Committee 2019  Change of directors' term of office to one year  Abolition of Senior Advisor system 2020  Revision of basic internal control policy  Establishment of the Group for Promotion of Internal Control	
Revitalizing and enhancing debate by the Board of Directors	2013  • Enhancement of information sharing with outside officers 2014  • Commencement of meetings to exchange opinions with outside officers	<ul> <li>2015</li> <li>Commencement of explanatory program for new outside officers</li> </ul>	Commencement of advance explanation of Board of Directors agenda items to outside officers	

#### **Corporate Governance**

## **Corporate Governance Structure and Initiatives**

The Company transitioned to a company with an Audit & Supervisory Committee in June 2020 for the following purposes, in order to further strengthen corporate governance. The main purposes of transitioning to a company with an Audit & Supervisory Committee are as follows.

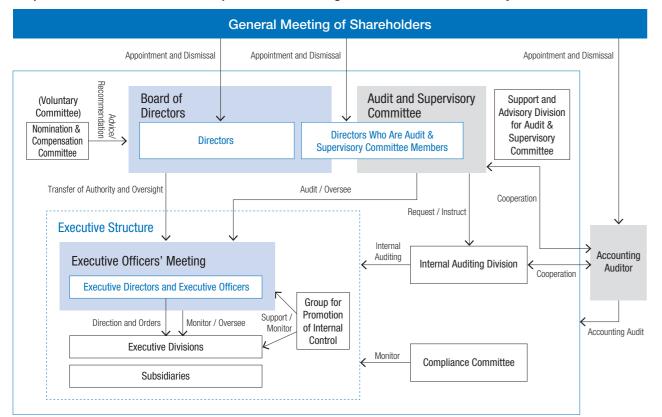
- (a) In order for the Directors who are members of Audit & Supervisory Committee having right to vote in the Board of Directors as well as having the right to express position statement on nomination and compensation at meetings of shareholders to further enhance the supervisory function by utilizing the legal authority.
- (b) In order to further enhance discussions on management strategies, etc. by transferring the Board of Directors' meeting to a monitoring type, since a portion of the Board of Directors' authority to make decision on business execution has been transferred to the executive directors (Executive Officers' Meeting).

(c) In order to enhance supervisory functions to ensure appropriate corporate governance and fundamental management policy decisions while enhancing flexible and agile business execution along with the executive officer system introduced in June 2003, in combination with transition of authority mentioned in the previous section.

#### **Outline of Corporate Governance Structure**

Form of Organization	Company with an Audit & Supervisory Committee
Directors	Number of directors (outside directors): 9 (2)
Directors (Audit & Supervisory Committee Members)	Number of directors (outside directors): 5 (3)
Number of Independent Officers	5 (2 outside directors and 3 outside directors (Audit & Supervisory Committee members))

#### Corporate Governance Structure: Supervision and Management and Internal Control System



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

In principle, the Board of Directors 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 FY2020, the Board of Directors held 13 meetings, and the attendance rate of each director, apart from one, was 100% (the attendance rate for one director was 92,3%).

#### ① Composition of Board of Directors

The Company's Board of Directors consists of 14 Directors, including five directors who are Audit & Supervisory Committee members, and five Outside Directors, including three Audit & Supervisory Committee members. In order to ensure the effectiveness of the supervisory functions of outside directors, the Company attempt to ensure that at least one-third of the Board of Directors meets the Company's Criteria for Determining the Independence of outside directors.

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 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 conduct a nomination of 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 Directors, with advice from the Nomination and 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 and 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 and Compensation Committee. The Nomination and Compensation Committee is chaired by an independent outside director and is comprised of two outside directors, the chairman of the Board of Directors, and the president of the Board of Directors.

#### 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.

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

The Executive Officers' Meeting, which comprises executive directors and executive officers with specific roles, 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, officers and executive officers must submit a business execution status report to the Board of Directors at least once every three 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 FY2020, 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 2021.

#### i Items Evaluated

Composition and operation (resolution and deliberation methods, etc.) of the Board of Directors, self-evaluations concerning effectiveness of the Board of Directors, evaluation of revision to the standards for matters to be resolved by the Board of Directors after transition to a company with an Audit & Supervisory Committee, other opinions

#### ii Outline of Analysis and Evaluation Results

The results of the evaluation of each director were collected, and after deliberation by the members of 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 continue to promote initiatives to further increase the effectiveness of the Board of Directors, such as deepening understanding of the Company's business environment and strategy, through measures including the advance explanation and consultation regarding agenda items of the Board of Directors discussed below, training for newly appointed outside directors, and providing ongoing opportunities for discussion, in order to determine issues identified through analysis and evaluation.



Officer training

#### **Training for Officers**

Legal training is conducted for officers on an annual basis, for the purpose of improving the effectiveness of the Board of Directors and internal control. In FY2020, we conducted training for our officers by outside instructors, relating to compliance in relation to overseas bribery and harassment, as part of internal control activities conducted at all companies. The Meiden Group conducted trainings on the Companies Act for new officers of Meidensha and affiliated companies.

#### 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 give explanations in advance so that directors are able to confirm the content of agenda items prior to participating in meetings of the board of directors. 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 meeting of the Board of Directors, 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 Directors, we take up matters concerning our basic management plans, such as the Mediumterm Management Plan and major themes required of a company with 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 Directors.

#### iii Timely and Appropriate Sharing of Information

Besides the agenda for the meeting, Meidensha provides briefings on current topics relating to the company at meetings of the Board of Directors, 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 Introductory Sessions 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 officers or general managers in charge of each business explain their business, group-wide themes, and Meidensha's governance system to the outside directors, answer their questions, and exchange opinions with them.

#### 4 Auditing System

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

The Audit and Supervisory Committee consists of five directors, including three 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 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 meetings of the Board of Directors and the right to present a position statement at meetings of the Board of Directors relating to nomination and compensation of officers. 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 the auditing activities, and by further strengthening cooperation with outside directors, etc.

#### 5 Internal Auditing System

The Internal Auditing Division 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 Group companies at home and abroad.

Since FY2018, we have conducted risk management using control self assessment (CSA) at each Meidensha factory and each Japanese subsidiary in order to enhance internal control and increase the efficiency of risk audits at each business unit.

In April 2020, we improved the framework for promoting internal control by establishing the Group for Promotion of Internal Control. The Enterprise Risk Management Division establishes risk management systems integrating the entire group, and promotes enhancement of internal control functions through joint monitoring of internal control systems by the Audit & Supervisory Committee and the Internal Auditing Division.

In FY2020, we conducted new standardized audits using audit standardization tools as new initiatives to improve the comprehensiveness of audits. Going forward, we aim to expand standardized audits to domestic and overseas subsidiaries and ensure that enhanced.

In FY2021, we are transitioning from rotating audits to a risk approach. We are developing a risk-based annual auditing plan, which will comprehensively cover all companies and prioritize high-risk areas.

#### **6 Strengthening Group Governance**

The Meiden Group is working to continuously strengthen group governance by developing basic policies based on the "Basic Policy to Improve Governance Structure to Secure Fair Business Practices" at each Meiden Group company, establishing a regulatory framework, and implementing the PDCA cycle.

#### 1. Establishing a Framework

- (1) Meidensha's Board of Directors has established the Corporate Policy Planning Group, the Overseas Business Strategic Management Group, and the Enterprise Risk Management Division of the Group for Promotion of Internal Control as group-wide management organizations, and created a system for Group companies to report to Meidensha.
- (2) There is a system to dispatch general officers or nonstanding officers from Meidensha to Group companies to oversee the operations of said Group companies.
- (3) Meidensha dispatches non-standing auditors to major domestic Group companies to strengthen audits.
- (4) Meidensha's Internal Auditing Division conducts audits to ensure appropriate business practices at each Group company.

#### 2. Main Initiatives in FY2020

- (1) The Compliance Committee met once in each half of the fiscal year, and in the second half, we looked back on previous compliance promotion activities, including group-wide compliance training, reaffirmed the significance and effectiveness of each activity, and confirmed that we will continue and develop each activity.
- (2) We established the Enterprise Risk Management Division of the Group for Promotion of Internal Control as a department to promote group governance and drafted the Basic Risk Management Regulations.

We established a new Internal Control Committee at each Group company, and shared information concerning the main risks faced by the Meiden Group in order to ensure the fullness of the risk management system.

(3) At the Overseas Strategy Meeting held once each year, we worked to establish a reporting system for subsidiaries as an opportunity to share the main risks faced by overseas subsidiaries, and consider and thoroughly implement measures.

#### **Corporate Governance**

(4) The Internal Auditing Division conducted internal audits of three domestic subsidiaries and 16 overseas subsidiaries, commenced new standardized audits using audit standardization tools, and worked to increase the comprehensiveness of audits, particularly for some overseas subsidiaries.

#### **Officers' Compensation**

#### Directors compensation policy

#### i Level and System of Compensation

The level of compensation of Meidensha's directors is determined based on external objective compensation market data, economic conditions, industry trends, and Meidensha'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 according to each role and incentive compensation. 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-based 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 Compensation for Each
Position
Position
Position
Operating income (0.0 to 1.4)

Stock compensation, 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 and 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 Directors.

#### FY2020 Results

Classification	Total Amount of Compensation,	Total Amount of Compen (millions	Number of	
Glassification	etc. (millions of yen)	Basic compensation	Incentive compensation	People
Directors (excluding Audit & Supervisory Committee members and Outside Directors)	310	223	87	7
Outside directors (excluding Audit & Supervisory Committee members)	16	16	-	2
Directors who are Audit and Supervisory Committee members (excluding Outside Directors)	40	40	-	2
Outside directors who are Audit & Supervisory Committee members	18	18	-	3
Outside directors who are Audit & Supervisory Committee members	10	10	-	2
Outside auditors	3	3	-	2
Total	397	310	87	18

Notes 1. The amount paid to directors includes performance-linked compensation for FY2020.

2. The total of the above people who receive compensation is an aggregate number. Three auditors (of whom two were outside auditors) retired at the end of their terms, thereafter assuming roles as directors who are Audit & Supervisory Committee members, so the actual number of people who received compensation was 15.

#### **Dialogues with Shareholders and Investors**

#### Basic Approach and IR System

When any shareholders wish to have a dialogue with the Company that will contribute to medium to longterm improvement of the Company's corporate value, it is Meidensha's policy that the Company's management conducts the dialogue to the extent possible.

A system is in place where a Director is placed in charge of IR matters and an IR-specialist department conducts activities to enhance constructive dialogue

with shareholders, including institutional investors and strengthens external communication. These activities are regularly reported to and discussed by the Board of Directors.

#### **Results Briefings**

We hold results briefings twice a year in May and October. In FY2020, we distributed a video of the President's results briefing to analysts and institutional investors on the day of the presentation and conducted teleconferences for question-and-answer sessions the next day, instead of holding in-person briefings, in order to prevent the spread of Novel Coronavirus disease (COVID-19).

#### IR Briefing for Overseas Investors

As there was no FY2020 international road show due to the pandemic, we actively contacted major international investors and conducted individual interviews by telephone. Meidensha was commenced its first foreign securities company coverage amid increased attention from overseas investors.

#### Individual Business Briefings (Small Meetings)

Since FY2018, we have held small meetings once a year. We set a different business theme each year, and create an opportunity to better understand the Company's business by conducting briefings and Q&A by responsible officers.

At the small meeting held in December 2020, we conducted a briefing by a general officer of the T&D business (Director and Senior Managing Executive Officer Nobuaki Tamaki) with the theme of "business strategy for vacuum products and expansion into North America." The meeting was attended by 10 analysts.

#### Main IR Activities in FY2020

Individual Sessions	Number				
Domestic Investors	124				
Overseas Investors	32				
Total	156				

The materials for the results briefings are available for viewing. Please visit "Fact Sheet for Account Settlement Briefing Session" under "Investors" on the Corporate website.

https://www.meidensha.com/ir/ir 04/index.html

## Opinions of Analysts and Institutional Investors

We publish a quarterly IR report, which includes the opinions and requests given at results briefings and individual interviews, and this is reported to executive officers and directors. The main opinions provided by analysts and institutional investors in FY2020 are as follows.

- Management that is more aware of capital efficiency
- Management and disclosure of each business group's management targets
- A stance for enhancing shareholder returns
- A business area for future investment
- Measures for improved profitability of overseas businesses and a timeline for achievement
- A timeline and sense of scale of business benefits from carbon neutrality
- Active information disclosure relating to ESG management
- Policies relating to cross-shareholdings and antitakeover measures

Going forward, we will ensure even fuller disclosure of information through results briefings, individual IR, conferences, the website, and this report, etc., and continue to engage in dialog with shareholders and investors.

M E S S A G E

#### Message from an Analyst

## Expectations of a Stronger Revenue Base as a Result of Institutional Reform

The dominance of Meidensha in the industrial electronics sector is due to its well-balanced business portfolio, that is, the majority of revenue is coming from stable stock businesses led by the Field Service Engineering Business, and also having multiple drivers of growth from which structural expansion is expected going forward. On the other hand, I can see the fact that some businesses are stuck with low revenue, and seasonality with profit being disproportionately weighted to the fourth quarter, which are important areas for reform. With regard to the EV Business, which is the most significant driver of performance, high growth can be expected due to the support of government policies, etc. However, there is an impression that it is still difficult to foresee the scenario of winning price competition with competitors in increasing scale of the standard equipment market, due to the difficulty for the company to demonstrate its strength in "Customizability."

The focus of the new medium-term management plan is the clarification of responsibilities and authority of each business group by conducting institutional reforms, and I expect advancements such as swift decision-making and optimization of outside manufacturing expenses to lead to enhanced earning potential. Meidensha has a positive attitude towards dialog such as bringing up timely themes at financial results briefings and small meetings, and this helps us understand changes in the industry and Meidensha's business opportunities. The scale of businesses such as the EV Businesses, in which

market fluctuations are great, is expanding, so I hope the quarterly disclosure will be further enhanced going forward.

SMBC Nikko Securities Inc. Equity Research Senior Analyst (in charge of industrial electronics)

Kazutaka Yoshizumi



## Board of Directors & Executive Officers as of July, 2021

Note: Attendance of meetings is recorded as "attended/held" (for the period from April 1, 2020 to March 31, 2021)

		Audit & Supervisory	Outside	F	Y2020 attendan	ice	Sectors in which specialization car							
Name 		Committee Member	(Independent Officer)	Board of Directors	Nomination & Compensation Committee	Audit & Supervisory Committee	Management and business strategy/M&A	Sales/Marketing	R&D/Technology	Manufacturing/ Construction/ Maintenance	Overseas/ International businesses	Accounting/Finance	Legal affairs/Risk management	CSR/E
Yuji Hamasaki	Director and Chairman Director, Chairman			13/13	4/4		<b>M</b>		- <u>`</u> Ç´-					
Takeshi Miida	Representative Director and President			13/13	4/4		<b>M</b>							
Shosuke Mori	Representative Director and Executive Vice President			13/13			<b>M</b>				<b>②</b>	S		
Norio Takekawa	Director and Senior Managing Executive Officer			13/13						*			53	
Nobuaki Tamaki	Director and Senior Managing Executive Officer			13/13					- <u>`</u>	*				
Masayuki lwao	Director and Senior Managing Executive Officer			Assumed role in June 2021								S	53	(
Tatsuki Mochizuki	Director and Senior Managing Executive Officer			Assumed role in June 2021				**			<b>②</b>			
Hiroyuki Takenaka	Director  Head of the Nomination & Compensation Committee		0	12/13	4/4		<b>M</b>						53	
Junji Yasui	Director		0	13/13	4/4		<b>M</b>	<b>(5)</b>	-`Q´-	*				
Tadayoshi Machimura	Director  Chairman of the Audit & Supervisory Committee	Full-time Audit & Supervisory Committee Member		10/10		11/11			- <u>`</u> Ç´-	*				
Michihiko Kato	Director	Full-time Audit & Supervisory Committee Member		Assumed role in June 2021		Assumed role in June 2021		<b>15</b>		*				
Yoshiaki Shin	Director	Audit & Supervisory Committee Member	0	13/13		11/11	<b>M</b>				<b>(3)</b>	5		
Mitsuru Nawata	Director	Audit & Supervisory Committee Member	0	13/13		11/11	<b>M</b>					S	53	
Keiko Hayashi	Director	Audit & Supervisory Committee Member	0	10/10		11/11						S		

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

When appointing Meidensha'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 Meidensha's corporate value based on individual directors' abilities, knowledge, and experience, etc. Based on this policy we make appointments that will contribute to the decisionmaking and oversight functions of the Board of Directors, and the composition of the Board of Directors reflects this.

#### Managing Executive Officers

Kuniake Yasukawa Satoshi Momenya Masahiko Suzuki Hideki Miyazawa Akio Inoue Akio Ikemori Hiroshi Toke

#### **Executive Officers**

Noritaka Matsushita	Katsuyuki Watanabe
Hisahiro Murashima	Seiji Kato
Norio Mizutani	Kazuhiro Yamada
Takeo Suzuki	Nobuya Ono
Katsunori Suzuki	Hiroshi Takahata
Munekazu Shiratori	Katsumi Shimamura
Kuniteru Yamaoka	Takehisa Koganezawa





The Meiden Group adopted a company with an Audit & Supervisory Committee in June 2020, and is working to enhance corporate governance such as by enhancing oversight functions through changes to institutional design. For the release of the Meidensha Report 2021, we asked three outside directors who are Audit & Supervisory Committee members to talk about topics, including changes to the Meiden Group's corporate governance as a result of the transition to a company with an Audit & Supervisory Committee, expectations of Medium-term Management Plan 2024, which came into force this fiscal year, and their plans for the future as outside directors.

#### Changes to the Company after Transition to a Company with an Audit & Supervisory Committee

**Shin** In June last year, the Group transitioned to a company with an Audit & Supervisory Committee, and the number of outside directors in the entire Board of Directors increased from two to five, leading to more spirited debate. We not only provide advice and a supervisory function, but we are now more likely to actively debate management policies according to individual expertise. The responsibilities of outside directors have increased and I feel that our presence is also increasing.

**Hayashi** When I became an outside director in June last year, the management outlined that they were aiming to enhance governance furthermore. As they said, we have received thorough explanations of company's initiatives. This leads to lively debate by the Board of Directors, and I can see that their attitude of sincerely utilizing governance in the management.





Nawata I feel that the content of debate at the executive side prior to the Board of Directors meetings became very deep. It is extremely valuable that we receive sufficient prior explanation of agenda items from responsible officers so that we are able to have sufficient discussion, and understand and summarize the proposals in advance. In addition, it is necessary to have an opportunity to express and discuss our thought at the Board of Directors meetings, and in order to do achieve this, I hope that we continue to be provided a place where sufficient debates are enabled, without overfilling the agenda of the meetings.

**Shin** We have spent a year trying to establish systems after the establishment of the Audit & Supervisory Committee. With regard to the Audit & Supervisory Committee Audit & Supervisory Standards, we have established them as the basis for our future activities, giving consideration to the wording of each provision. Through this discussion, we had an informative opportunity to coordinate our understanding among Audit & Supervisory Committee members, and become fully aware of our own roles.

## **Expectations for Medium-term Management Plan 2024**

Nawata Medium-term Management Plan 2024 has been debated over time. Outside directors also attended the focus meeting, which is attended by executive officers, where we observed internal debate and were given the opportunity to express our own opinions. This plan is set to be a four year term with consideration of the circumstances of the COVID-19 pandemic, with spending this whole year, it will pursue more specific strategies, while clarifying its form after four years. With willingness, we will follow up on these regularly to ensure that the plan will be accomplished. Shin I am expecting each employee to reflect this management plan in their conduct while having a clear vision of Meidensha in four years, and they must build the plan as a "medium-term management plan for each individual." Plans made by management only can be an armchair theories; it is extremely important for it to be understood and implemented on site.

**Hayashi** I think that's absolutely correct. It is employees who add spirit to management plans. When formulating this plan, we established working groups for young personnel, etc., and gave consideration to their findings. I think it is necessary for everyone, including experienced employees, to be aware of their involvement in management. I believe that this will result in "leveraging diversity." With the view of diverse perspectives, I hope that individuals consider how to make their company better, and link it to better management.

#### **Future Internal Control Issues**

Nawata The Audit & Supervisory Committee has created opportunities to make reports concerning risk management. Risk management is how we prevent companies from making errors. It is a form of internal control, where it is important to learn from past errors and implement recurrence prevention measures. The improvement activities conducted at each business unit on a daily basis are also connected to risk management, and I hope we can incorporate them in management in the future.

**Shin** I would like Meidensha's BCP (business continuity plan) to be formulated and disseminated from the perspective that it will not merely restore site functionality of own, but also rapidly contribute to society. In particular, the company has been reminded of the role, which is able to how quickly provide its own products to society as natural disasters have become more frequent since the Great East Japan Earthquake. I hope that Meiden Group thoroughly embodies vision for its BCP goals and implement it.

Hayashi In terms of social trends, I believe that investment in systems such as the introduction of smart technology to maintenance through digital transformation using IT technology is also a form of risk management. This is true from the perspective of corporate competitiveness, but also, in businesses relating to infrastructure, if one of servers were to be attacked, it would have a tremendous impact on society. With that in mind and from the perspective of risk management, it is necessary to attract personnel who are well versed in digital transformation, to accumulate knowledge about digital transformation and to respond quickly. I would also like the Company to continue to clearly explain the issues it is currently facing, as this is also shareholders' concerns.



## **Risk Management**

#### **Basic Approach**

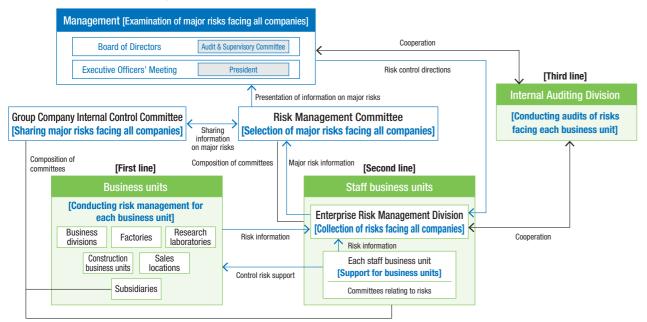
With regard to business activities in the near future, we must precisely understand various business risks that may manifest in the future and ensure that we provide for them in order to guide our business strategy to success and increase corporate value in unstable global circumstances with increasing complexity and lack of clarity. With this awareness, we consider that it is necessary for each business unit of the Meiden Group to increase its sensitivity when considering business risks, establish its own PDCA risk management systems, and establish a system to understand and control major business risks throughout the entire Group, while enhancing risk management during times of normal operation through the establishment of a specialized risk management department. Furthermore, we aim to create a system that is capable of responding to constant change and all risks by creating a risk management system for all companies that incorporates Business Continuity Management (BCM) in order to respond to risks to the business continuity of the entire Group.

#### **Risk Management Structure**

#### Operation of the Risk management Committee

Risk management through CSA of business units is conducted with the support of the Group for Promotion of Internal Control and the staff business unit. The Internal Auditing Division conducts risk evaluation and control verification through CSA for each business unit at the time of business audits, and reports the results to the Executive Officers' Meeting, the Board of Directors, and prominent managers from time to time.

#### The Meiden Group's Risk Management Structure



The Enterprise Risk Management Division gathers CSA risk information from each business unit, collects a range of risk information in conjunction with the Headquarters staff business units and the various committees, and identifies key business risks to be dealt with by the entire Meiden Group. The Risk Management Committee is chaired by the head of the Group for Promotion of Internal Control. Key members of the Headquarters staff business units scrutinize the Meiden Group's major business risks that have been identified by the Enterprise Risk Management Division and debate response policies each half.

Managers further 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.

#### **Business Continuity Plan (BCP)**

#### 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.

#### [Basic Business Continuity Policy]

- (1) 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.

#### Promotion of creating Business Continuity Plans (BCP)

We hold workshops regularly at each business unit for business managers and BCP promotion managers to understand and formulate effective BCPs.

In FY2020, we held workshops in dispersed locations as well as hybrid workshops that take place both online and in person, in order to ensure the effectiveness of

workshops and avoid the three Cs (Closed spaces, Crowded places and Close-contact settings) that contribute to COVID-19 transmission.



Norkshops

#### **External Communication of Information**

We widely disseminated information about the Meiden Group's disaster-prevention and BCP initiatives through online seminars and presentations, etc.

At presentations, we mainly introduce examples of

our actual initiatives, and try to make presentations useful for participating companies to their implement activities.



Presentation in Numazu

#### **BCAO Awards 2019: Superior Practice Award**

Meidensha received the Superior Practice Award in the Business Continuity Division and was praised for its business continuity planning (BCP) for all business units in 2018, as well as its system of business continuity management (BCM).

The BCAO Awards are administered by the Business Continuity Advancement Organization (BCAO) to recognize individuals or groups that have contributed to the spread and implementation of business continuity, in order to promote the proliferation of business continuity in Japan.



## Compliance

#### **Compliance Policy**

The Meiden Group fully understands domestic and overseas laws, including those relating to corporate activities, customs, and all other social norms and spirit. The Meiden Group complies with and respects these, and has developed the Meiden Group Code of Conduct to constantly maintain a high standard of corporate ethics and social decency.

In accordance with this code of conduct, the Meiden Group aims to sincerely engage in activities to live up to the trust of customers and society. Directors, executive officers, and general managers of Meidensha and each Group company play a central role in promoting compliance in each of their workplaces, in accordance with the Meiden Group Compliance Promotion Rules.

#### **Anti-corruption Measures**

Meidensha stipulated "absolute prohibitions" through a resolution of the Board of Directors' Meeting on December 26, 2012. These "absolute prohibitions" prohibit profitsharing with national public servants, correspondence with competitors, etc., such as bid-rigging or cartel behavior, collection of confidential information such as target prices and job prices from customers, etc. "Absolute prohibitions" are thoroughly enforced within the Group.

In 2016, we developed the Meiden Group Bribery Prevention Policy in order to prevent corruption. The principles were revised in 2020 in order to make them easier to understand. They have been disseminated throughout the Group once more in two volumes – the Meiden Group Bribery Prevention Policy and the Guidelines for the Meiden Group Bribery Prevention Policy.

#### Officer Training

In FY2020, we conducted training for officers relating to prevention of bribery of foreign public servants administered by external instructors. The training was attended by the presidents of overseas Group companies in addition to officers of Meidensha. In 2021, providing entertainment to public servants was an issue throughout society, so in March 2021, we, including our officers, reaffirmed our commitment to appropriate treatment of public servants, etc.

#### **Overview by Business Segment**

Overview by Business Segment in FY2020

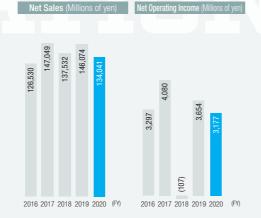
\* Overview by business segment according to previous business segment classifications.



Net sales in the segment decreased 8.2% year on year to \$134,041\$ million, and operating income fell by <math>\$4477\$ million to \$3,177\$ million.

In domestic businesses, we worked steadily and rolled out initiatives to ensure that the COVID-19 pandemic does not impact on-site construction, and steadily proceeded with large-scale projects in the power & energy and water infrastructure sectors, etc.

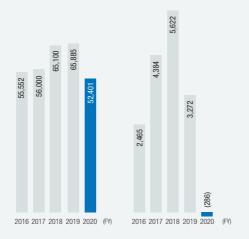
With regard to overseas businesses, focusing on power generation, T&D, and railways sectors, results fell short of the previous fiscal year due to restrictions on activities and declining demand, etc., in each country.





Net sales in the segment decreased 20.5% year on year to  $\pm$ 52,401 million, and operating income deteriorated by  $\pm$ 3,558 million to negative  $\pm$ 286 million.

The electronics products sector, which benefited from positive developments in the semiconductor industry was a high level of demand throughout the year. However, results in the EV business, the motor drive business and the dynamometer system business, which is easily affected by capital investment trends in the automotive industry, fell greatly short of the previous fiscal year.





Net sales in the segment increased 1.2% year on year to ¥38,766 million, and operating income rose by ¥90 million to ¥5,778 million.

Demand for maintenance services that cater to BCP and energy conservation, and prolong the service life of equipment has been strong, even during the COVID-19 pandemic, and we recorded our best ever results, exceeding the previous fiscal year.





We are engaged in the real estate leasing business, centering on the office and commercial building ThinkPark Tower (Osaki, Shinagawa-ku, Tokyo). Net sales in the segment totaled ¥3,443 million, on par with the level achieved in the previous fiscal year, and operating income deteriorated by ¥3 million to ¥1,349 million.





This segment includes categories not included in any of the above segments, such as manufacturing and marketing of electrochemical measuring equipment and electric insulation materials, welfare services for employees, and goods merchandising. Net sales in the segment decreased 16.5% year on year to ¥16,567 million and operating income fell ¥722 million to ¥135 million due to factors such as deterioration in business conditions as a result of the impact of the COVID-19 pandemic.



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

#### Consolidated basis

Financial indicators	FY2016	FY2017	FY2018	FY2019	FY2020
Net sales (millions of yen)	220,141	241,832	245,033	255,748	231,254
Operating income (millions of yen)	8,849	11,381	10,336	12,725	8,384
Ordinary income (millions of yen)	8,209	9,992	10,128	11,481	8,465
Net income attributable to owners of parent (millions of yen)	5,743	7,056	7,653	8,208	7,303
Overseas net sales (millions of yen)	58,730	74,154	71,725	70,410	48,420
Overseas sales ratio (%)	26.7	30.7	29.3	27.5	20.9
Net assets (millions of yen)	247,646	264,457	265,586	270,410	279,059
Total assets (millions of yen)	74,312	81,229	84,497	90,117	99,730
Net assets per share (yen)	1,614.00	1,768.27	1,845.21	1,920.01	2,127.74
Net income per share (yen)	126.56	155.52	168.68	180.91	160.98
Equity ratio (%)	29.6	30.3	31.5	32.2	34.6
Cash flows from operating activities (millions of yen)	11,840	17,975	14,365	10,416	14,60
Cash flows from investing activities (millions of yen)	(12,031)	(7,582)	(8,074)	(13,700)	(13,117
Cash flows from financing activities (millions of yen)	3,767	(11,230)	(3,101)	3,735	(1,402
ROE (%)	8.2	9.2	9.3	9.6	8.0
ROIC (Operating-income-based) (%)	_	6.6	5.9	6.9	4.2
Dividend payout ratio (%)	31.6	28.9	26.7	27.6	29.8
Total shareholder return (%)	78.6	82.5	64.2	70.3	102.
(Comparative indicator: TOPIX dividend included)	114.7	132.9	126.2	114.2	162.3

Notes 1. On October 1, 2018, we conducted a reverse stock split at a ratio of one share for every five shares of common stock. Thus, we calculated net assets per share and net income per share on the premise that said reverse stock split had been conducted at the start of FY2015.

2. ROIC has been calculated since FY2017.

3. We have used TOPIX dividend included, which is adopted by more companies, for the comparative indicator for total shareholder return, for the purpose of facilitating easy comparison.

Non-financial indicators	FY2016	FY2017	FY2018	FY2019	FY2020
R&D expenses (millions of yen)	9,462	9,402	9,458	10,467	9,468
Capital expenditure (millions of yen)	7,355	7,584	7,895	16,042	15,575
Number of employees	8,474	8,995	9,297	9,599	9,468
Total actual annual working hours (hours/year/employee)	2,016	2,002	2,019	1,978	1,980
Percentage of female employees in executive positions (%)	_	3.92	3.88	3.70	3.95
Lost time accidents rate	0.96	0.29	0.99	0.60	0.76
CO <sub>2</sub> emissions from energy sources (Japan) (t-CO <sub>2</sub> )		34,274	35,175	35,023	33,678
CO <sub>2</sub> emissions from energy sources (Overseas) (t-CO <sub>2</sub> )	_	9,123	9,007	8,656	11,340
Greenhouse gas emissions from business activities (Scope 1 and 2) (Consolidated) [t-CO <sub>2</sub> ]	_	65,965	56,076	53,473	54,205
Greenhouse gas emissions from the value chain (Scope 3) (Consolidated) [t-CO <sub>2</sub> ]	_	_	_	7,600,980	7,314,136
Greenhouse gas emissions from product use (Scope 3, category 11) (Consolidated) [t-CO <sub>2</sub> ]	_	_	_	6,370,000	6,050,000
Reduction of CO <sub>2</sub> emissions caused by products (kt-CO <sub>2</sub> )	800	733	841	848	990
Amount of waste generated (Japan) (kt)	6.6	7.1	7.8	6.4	10.0
Recycling rate (Japan) (%)	99.6	99.1	99.3	99.6	94.6
Water consumption (Japan) (thousand m³)	1,238	1,203	1,085	1,768	1,490
Wastewater (Japan) (thousand m³)	1,664	1,914	2,113	2,206	2,288
CSR spending (millions of yen)	32	28	38	60	35

Notes 1. Figures for employee numbers exclude those employees on temporary contracts.

- 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).
- $\textbf{6. Reduction of } \textbf{CO}_2 \textbf{ emissions caused by products is the expected reduction of such emissions caused by products sold. \\$
- 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. CSR spending includes donations and sponsorship funding.

#### **Corporate Information**

## **Outline of the Meiden Group**

Corporate Data as of March 31, 2021

Corporate Name MEIDENSHA CORPORATION

Established June 1, 1917 (Since December 22, 1897)

Representative Director, President Takeshi Miida

Head Office ThinkPark Tower, 2-1-1, Osaki, Shinagawa-ku, Tokyo,

141-6029 Japan

Capital ¥17,070 million

Consolidated Sales ¥231,254 million

Consolidated Number of Employees 9,647

Consolidated Subsidiaries 42 (22 in Japan, 20 overseas)

#### Main Subsidiary Companies (as of April, 2021)

Country/ Region	Company Name	Business Entity
	MEIDEN PLANT SYSTEMS CORPORATION	Design and contracting for electricity and building construction, and manufacture, repair, refurbishment of electrical equipment, etc.
	MEIDEN SYSTEM MANUFACTURING CORPORATION	Manufacture and sale of switchboards, control panels, and their components
	MEIDEN SYSTEM SOLUTION CORPORATION	Software development, design, production, sale, and rental, and maintenance and management of computer systems and networks
	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
	EAML Engineering CO.,LTD.	Design, manufacture, sale, and repair of hydroelectric generators and peripherals
	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
	MEIDEN AQUA BUSINESS COMPANY	Maintenance and operation management for water, sewerage and industrial water treatment facilities, industrial waste treatment facilities, and general and industrial waste treatment facilities
	KOFU MEIDENSHA ELECTRIC MFG. CO.,LTD.	Manufacture and sale of PM motors, elevator motors, industrial vehicle motors, brushless motors, and induction motors
	MEIDEN KIDEN KOGYO CO., LTD.	Repair and overhaul of eddy current dynamometers, mechatronic equipment, motors, generators, and dynamometers, and high-precision machining
Japan	MEIDEN O&M CORPORATION	Drafting strategies for maintenance business activities, supervision, and education planning
	MEIDEN ENGINEERING CORPORATION	Manufacture, sale, installation, and wiring of electrical equipment, machinery, tools, and devices, maintenance and inspection services, refurbishment, and repair
	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
	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 SHOJI CO., LTD.	Sale of electrical and electronic equipment products
	MEIDEN KOHSAN CO., LTD.	Sale of goods and materials, and insurance agency
	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 UNIVERSAL SERVICE LTD.*	Cleaning, security for buildings, structures, and incidental facilities, and greening and maintenance of land
	MEIDEN MASTER PARTNERS CORPORATION	Worker dispatch business
	MEIDEN ZHENGZHOU ELECTRIC CO., LTD.	Manufacture and sale of GIS lightning arresters, and zinc oxide blocks for lighting arresters, etc.
	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
China	MEIDEN HANGZHOU DRIVE SYSTEMS CO., LTD.	Manufacture and sale of dedicated elevator motors, inverters, 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, and import and export operations
	MEIDEN (HANGZHOU) DRIVE TECHNOLOGY CO., LTD.	Manufacture and sale of EV components

Country/ Region	Company Name	Business Entity
Hong Kong	MEIDEN PACIFIC (CHINA) LIMITED	Sale of switchgear and technical consulting
India	MEIDEN INDIA PRIVATE LIMITED*	Import and sale of Meiden Group products, engineering tasks, construction, after-sale service, procurement of Indian products, and export operations
	PRIME MEIDEN LIMITED	Manufacture and sale of transformers, and engineering
Indonesia	P.T. MEIDEN ENGINEERING INDONESIA	Sale and design of electrical equipment, installation, construction, and technical consulting such as after-sale service
Korea	MEIDEN KOREA CO., LTD.*	Sale, installation, testing of dynamometer products, servicing and maintenance, and import and export operations
	MEIDEN MALAYSIA SDN. BHD.	Electrical engineering, technical consulting, and after-sale service
Malaysia	MEIDEN METAL ENGINEERING SDN. BHD.	Manufacture and sale of transformer housing and radiators, etc.
Singapore	MEIDEN ASIA PTE. LTD.	ASEAN regional presiding company Business strategy creation, legal affairs, HR, IT, maintenance, technical engineering, servicing, materials, R&D, etc., for the ASEAN region
	MEIDEN SINGAPORE PTE. LTD.	Manufacture and sale of transformers, switchgear, and circuit breakers
Thailand	THAI MEIDENSHA CO., LTD.	Electrical construction and technical consulting
Inaliand	MEIDEN ELECTRIC (THAILAND) LTD.	Sale of switchboards and technical consulting
Vietnam	VIETSTAR MEIDEN CORPORATION	Manufacture and sale of low and medium-voltage switchgear
	MEIDEN EUROPE GmbH	Sale of electrical equipment and import and export operations
Germany	TRIDELTA MEIDENSHA GmbH	Manufacture and sale of lightning arresters for electrical and railway, and peripherals for lightning arresters
U.S.A.	MEIDEN AMERICA, INC.	System engineering and after-sale service for dynamometer products, and sale of component products
	MEIDEN AMERICA SWITCHGEAR, INC.	Manufacture and sale of vacuum circuit breakers, and sale of vacuum interrupters

<sup>\*</sup> Non-consolidated subsidiarie

#### Share data as of March 31, 2021

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 157,831)

Number of shareholders 16,163





#### Major Shareholders

Names of Shareholders	Number of Shares Held (1,000 shares)	Shareholding Ratio (%)
The Master Trust Bank of Japan, Ltd. (account in trust)	4,325,200	9.53
Custody Bank of Japan, Ltd. (account in trust)	3,355,300	7.40
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	1,016,371	2.24
Mei-ei Ownership Group	621,344	1.37
Mei-yu Ownership Group	615,306	1.36

Note: The shareholding ratio excludes treasury shares.

Note: The list of affiliates includes VIETSTAR MEIDEN CORPORATION, which was established in April 2021.