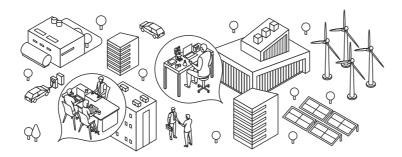
Process2 Developing strengths

# Accumulated capital

The Sansha Electric Manufacturing Group has more than 90 years of history. During this time, it has accumulated six types of capital: financial capital, manufacturing capital, intellectual capital, human capital, social and relationship capital, and natural capital. We have accumulated these types of capital as we have grown. They are a solid foundation for the enhancement of our corporate value. Enhancing each type of capital is essential for our future

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### development

To enhance financial capital, we aim to create stable cash flows, maintain our sound financial standing and maximize our corporate value. We will continue to efficiently allocate funds to capital investments and R&D. At the same time, we will appropriately return profits to our shareholders. Regarding manufacturing capital, we will move forward with the standardization

Capital	Financial capital Financial capital Financial capital Financial standing Safe, sound financial standing Creation of stable cash flows	Manufacturing capital           Image: Constraint of the second s	Intellectual capital         Image: Comparison of the second sec	
Strengths		<ul> <li>Unique packaging technologies for semiconductor modules</li> <li>Expertise in quality control and manufacturing that has been accumulated over many years</li> </ul>	<ul> <li>Technological synergy created by two businesses: the semiconductor and power supply businesses</li> <li>Solutions provided by responding immediately to market needs</li> </ul>	
Initiatives to enhance capital	<ul> <li>Improve total asset turnover by increasing the efficiency of investments, including capital and R&amp;D investments. At the same time, control inventories and other current assets to keep them at appropriate levels.</li> <li>Implement well-planned investments in human capital and intellectual capital and deliver returns to shareholders in a well-balanced manner</li> <li>P.29 Message from the Director in charge of financial affairs</li> </ul>	<ul> <li>Ongoing capital investments for automation</li> <li>Standardize designs and materials</li> <li>Streamline production process to enhance yield and minimize energy consumption</li> </ul>	<ul> <li>Proactively acquire, protect, and control intellectual property rights to enhance business competitiveness</li> <li>Promote the use of Al in R&amp;D processes and the DX and automation of processes, with the goal of shortening development lead times</li> <li>Move forward with research on next-generation semiconductors based on the power conversion and control technologies which are our core technologies</li> <li>Expand and enhance R&amp;D investments</li> </ul>	
KPI	Return on equity (ROE) Return on assets (ROA) Total asset turnover Ratio of operating profit Dividend payout ratio	Capital investment Yield rate Production lead time	Research and development expenses Number of intellectual property rights applications submitted P.20 Intellectual property	E F F E

of automation technologies, designs, and materials to streamline production processes and provide high-quality products. We will also invest in cutting-edge equipment to maintain our competitiveness. To enhance our intellectual capital, we will promote our utilization of AI and our digital transformation (DX) to streamline research and development processes and strengthen measures to protect our intellectual property. With these initiatives, we will develop products promptly and improve our market competitiveness. Regarding human capital, we will focus our efforts on developing diverse human resources and strengthening global leadership to promote the development of an environment which enables employees to fully demonstrate their capabilities. Concerning social and relationship capital, we will reinforce our relationship of trust with customers and local communities and move



 An organization that has empathy for the purpose and has a sense of unity Ongoing training and career

- Relationships of trust built through co-creation with customers leveraging the flexibility of our development and manufacturing
- Solutions to social issues and customer issues provided through our businesses

supply chain

Promoting diversity

development programs

- · Reform the personnel system in line with the organizational transformation
- Improve employees' skills and enhance their engagement by providing ongoing human resource development programs and career development support

P.42 Human resource

- Corporate social responsibility (CSR) score
- Employee retention rate

Employee engagement

positions

- Ratio of females in leading and managerial
- Number of distributors Number of service bases

forward with the development of new markets and the expansion of our network of distributors and services. We will also work to solve social issues through co-creation. Regarding natural capital, we will proactively reduce CO<sub>2</sub> emissions and implement other environmental protection activities for the establishment of a sustainable society.

At the Sansha Electric Manufacturing Group, we will continue to enhance these six types of capital in a well-balanced manner and remain fully committed to sustainable growth and the creation of social value.





- Contribution to a decarbonized society through our businesses
- Maintenance and continuous improvement of our environmental management system

## \_\_\_\_\_

- Leverage new technologies to improve our ability to propose solutions
- Build networks of distributors and services in new areas
- Sustainable procurement throughout the
- Enhance CSR activities by strengthening partnerships with local communities
- Capital investment to accelerate CO<sub>2</sub> reduction
- Reduce CO<sub>2</sub> emissions by improving manufacturing processes and operations
- Environmentally friendly product designs
- P.39 Environment

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CO<sub>2</sub> emissions Waste recycling ratio

SanRex REPORT 2024

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(Process2) Developing strengths

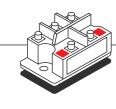
## **Accumulated strengths**

Leading the market with sophisticated technological capabilities and an integrated production system, the Sansha Electric Manufacturing Group started with a power supply for a movie projector and has been contributing to the film industry and to Japanese industry with products created by fully leveraging its semiconductor technologies. At present, we provide environmentally friendly, high-efficiency power supply technologies. We boast a world-leading market share for power supplies featuring both a wide range of applications and high reliability. We have also established a system for promptly providing high-quality products leveraging our integrated production and one-stop services. We provide optimal solutions to meet customers' needs, aiming to establish sustainable businesses.



## A large market share enabled by our advanced technologies

At the Sansha Electric Manufacturing Group, we have been providing stable light sources by fully leveraging our semiconductor technologies. We have been contributing to industry in Japan by applying our technologies for the in-house production of semiconductors to plating rectifiers and welding machines. Currently, we continue to provide highly reliable power supplies with a broad range of applications as a leader in environmentally friendly



**Thyristor Diode Modules** Markets

Fourth largest share of the global market

Source: OMDIA Annual Power Semiconductor Reports-2022

power supply technologies. We excel at high-efficiency conversion technologies which enable users to convert between direct and alternating current at will and control conversion loss, and flexibly respond to environmental issues and changes in society. Having had our founder's spirit of catering to the needs of society passed down to us, we are contributing to the development of society through our products.



Source: Estimated by Sansha Electric Manufacturing Co., Ltd. on the basis of the Japan Plating Suppliers Association: 2021 Dynamic Statistics of Power Supply

## Integrated production and one-stop services

At the Sansha Electric Manufacturing Group, we manufacture power semiconductors supporting high voltages and currents in an integrated production system including wafer processing and package assembly. We also manufacture power supplies in an integrated production system that includes the development. design and manufacturing of circuit boards and other components. Integrated production provides many benefits, including the improvement of quality and

technological capabilities and the reduction of costs, enabling us to provide competitive products. Further, in 1974 we established a subsidiary providing maintenance services guided by our policy of providing services which support the stable operation of power supply equipment. This company caters to customer needs with onestop services including the installation of power supply equipment as well as the operation, maintenance and replacement of equipment.

## Intellectual property

#### Concept behind the intellectual property strategy

We believe that the unique qualities of the Sansha Electric Manufacturing Group lie in the support for the natural environment and social environment that we provided leveraging our technological strengths, with our intellectual property strategy built on our sales strategies reflecting our understanding of technology strategy, management strategy and partners' strategies, based on the Global Power Solution Partner concept. Therefore, in our intellectual property strategy, we position intellectual property as management resources for protecting customers' markets and achieving goals together with them, and our activities are focused mainly on creating and maintaining competitiveness. In addition, we will strive to maintain and improve our corporate value and brand through these high-quality initiatives.

#### Intellectual property activities

The Group implements initiatives to increase its competitiveness, starting from increasing intellectual property awareness and proactively obtaining intellectual property rights to achievements made through various R&D efforts and analyses and protecting and controlling intellectual property rights.

- Actively obtain intellectual property rights for inventions such as innovative new technologies and original designs.
- File applications to secure international intellectual 2 property rights and maintain, manage and control them in accordance with the global strategy.
- To expand business in emerging countries, continuously 3 collect information on counterfeit products to take appropriate measures to address them.

#### Providing solutions that cater to customer needs

The Group has established an integrated production system including development, design, and manufacturing. This allows us to provide customers with optimal proposals from the perspective of high efficiency, safety and other features. We always have a correct understanding of customers' needs and place importance on providing optimal solutions catering to these needs. With our ability to propose solutions leveraging the flexibility of our development and manufacturing as our strengths, we will build relationships of trust with customers and realize sustainable businesses.



Large-capacity power conditioner evaluation system

Example delivered products https://www.sansha.co.jp/eng/cas

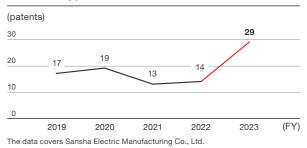


#### Employee invention incentive program

We have an employee invention incentive program aimed at encouraging engineers to develop inventions and at supporting corporate development and the improvement of individuals' skills by protecting and utilizing their inventions.

## Applications for and ownership of intellectual property rights

#### Number of applications



Number of patents owned

#### (natents) 400 343 347 336 319 288 300 53 44 - Others 200 48 South Korea China 100 - United States Japan 2020 2021 2022 2023 (FY) 2019

The data covers Sansha Electric Manufacturing Co., Ltd.

Example delivered products of patents owned

## National Institute of Advanced Industrial Science and Technology's Fukushima Renewable Energy Institute

## Large-capacity power conditioner evaluation system

Enabling the simulation of power supply-related systems, this product is used for testing and evaluating large power conditioners for using renewable energy.

#### Iki City, Nagasaki

### System combining storage batteries, fuel cells and a water electrolysis system

This combined system converts hydrogen generated from sunlight into a fuel and effectively uses oxygen and heat. It is used at an onshore puffer fish farm.

## Japan Aerospace Exploration Agency (JAXA) Tanegashima Space Center (TNSC)

### Uninterruptible power supply (UPS)

This system supplies power for a certain length of time in the event of a blackout. It is mounted on the rocket launch pad.

## National Institute of Technology and Evaluation (NITE) National LABoratory for advanced energy storage technologies (NLAB)

### Power supply system for storage battery evaluation

A power supply system for evaluating storage batteries from the respective manufacturers in accordance with characteristics of each

